

YOUNG, VAN ASSENDERP & VARNADOE, P. A.

ATTORNEYS AT LAW

REPLY TO:

R. BRUCE ANDERSON  
TASHA O. BUFORD  
DAVID B. ERWIN  
DAVID P. HOPSTETTER\*  
C. LAURENCE KEESEY  
ANDREW I. SOLIS  
KENZA VAN ASSENDERP  
GEORGE L. VARNADOE  
ROY C. YOUNG

\*BOARD CERTIFIED REAL ESTATE LAWYER

WILLIAM J. ROBERTS  
OF COUNSEL

Naples DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

DEC 22 1997

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December 19, 1997

Douglas H. Maclaughlin, Esquire  
Department of Environmental Protection  
2600 Blairstone Road  
Tallahassee, Florida 32399-6564

Re: DEP Orlando District Office Permit No. 281212 for the  
Orange County Eastern Subregional Wastewater Treatment  
Plant

Dear Mr. Maclaughlin:

On behalf of our client, the Orlando Utilities Commission, I want to thank you for taking the time to meet with me, Buck Oven and Scott Goorland in Scott's office on Tuesday, December 16, 1997, to discuss OUC's objections to the above-referenced permit application filed by Orange County. Enclosed for your information is a copy of OUC General Counsel Thomas Tart's letter to District Director Vivian Garfein, dated October 20, 1997, which summarizes OUC's objections to the permit.

As we discussed during our meeting, Orlando Utilities Commission is concerned by the apparent attempt by Orange County, as indicated in its permit application, to provide the Stanton Energy Center with only 7 MGD of the cooling tower make-up water necessary for the operation of Units 1 and 2 at the Stanton Energy Center. As OUC stated in its letter to Ms. Garfein, Condition V/IX of the Conditions of Certification attached to the Siting Board's Supplemental Certification for Stanton Unit 2 grants "an allocated amount of 10.19 MGD of reclaimed wastewater" from Orange County's Easterly Wastewater Treatment Facility to be utilized as cooling tower make-up water for Units 1 and 2. Under the Conditions of Certification, Orange County's Eastern Subregional Wastewater Treatment Plant is the only source of allocable cooling tower make-

Douglas H. Maclaughlin, Esquire  
December 19, 1997  
Page 2

up water, which must be utilized for Units 1 and 2 at the Stanton Energy Center.

As you know, the Legislative intent in adopting the Electrical Power Plant Siting Act, Chapter 403.501, et seq., was to provide a "one-stop" permitting process which would resolve all permitting questions and determine the rights of the applicant vis-a-vis all statutory parties, which included the Department of Environmental Protection and Orange County during the certifications of Stanton Units 1 and 2. It is OUC's opinion that the Department should not issue a permit that authorizes or facilitates any Orange County action to restrict the amount of treated wastewater it provides to the Stanton Energy Center below the amount necessary for operation of Stanton Units 1 and 2, as allocated in the Conditions of Certification.

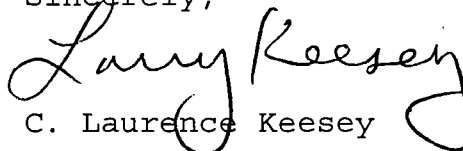
As we discussed during Tuesday's meeting, Orlando Utilities Commission does not object to the District Office's issuance of a permit for Orange County's wastewater treatment plant that designates up to 10.19 MGD of treated wastewater to be provided to the Stanton Energy Center for the operation of Units 1 and 2. However, it is not acceptable to OUC for the Department to designate in the permit a minimum amount that must be provided, such as 7 MGD, for the reason that there are times during the year (e.g., unit outages and periods of heavy rain fall) when the Stanton Energy Center is unable to accept high quantities of water and still meet requirements that it operate as a zero discharge facility.

The Department's Siting Coordination Office is aware that OUC's Units at the Stanton Energy Center provide electrical power to 13 municipalities within the State of Florida. Therefore, the continued safe and efficient productions of electrical power for these citizens has great public benefit and is a necessary component in maintaining the public's health, safety and welfare. We understand from Orange County that there is a question about the capacity and ability of the subject wastewater treatment plant to provide the quantity of treated wastewater needed by OUC. Yet the County's permit application indicates the County's intent or commitment to provide treated wastewater for golf course use. Therefore, OUC is of the opinion that the DEP permit should indicate a prioritization of users of treated wastewater from this plant, based upon maximizing public benefit, safety and welfare. OUC requests that the DEP permit specify that Stanton Energy Center Units 1 and 2 have first priority and may receive up to 10.19 MGD, on an average annual basis, of the treated wastewater from Orange County's Eastern Subregional Wastewater Treatment Plant.

Douglas H. Maclaughlin, Esquire  
December 19, 1997  
Page 3

Again, thank you for taking the time to meet with me on Tuesday and for your consideration of OUC's position in this matter. I would also appreciate hearing from you when the Department has made a decision as to the advice it will give to the DEP Orlando District Office in regard to this permit application.

Sincerely,

  
C. Laurence Keesey

1\*ouc\maclaugh.ltr

cc: Vivian Garfein, District Director  
Buck Oven, Siting Coordination Office  
Tom Tart, OUC General Counsel



RECEIVED

OCT 23 1997

NAPLES

October 20, 1997

**VIA HAND DELIVERY**

Vivian F. Garfein, District Director  
Department of Environmental Protection  
3319 Maguire Boulevard, Suite 232  
Orlando, FL 32803-3767

Re: Orange County Permit Application Number 281212

Dear Ms. Garfein:

This is to confirm our telephone call to you this morning. I am writing on behalf of the Orlando Utilities Commission ("OUC") to express our concerns regarding the above-referenced Orange County ("County") permit application, specifically the quantity of treated effluent that the permit application indicates will be provided to OUC from the County's Eastern Subregional Wastewater Treatment Plant.

OUC, a statutory commission of the State of Florida and part of the government of the City of Orlando, owns and operates the Curtis H. Stanton Energy Center ("SEC") for the purpose of generating and distributing electric power and water to persons within our service area. Two 465 megawatt coal-fired electrical generating plants (Stanton Units 1 and 2) are currently in operation at SEC, pursuant to certifications issued by the Governor and Cabinet, sitting as the Siting Board, in accordance with Florida's Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes.

Stanton Unit 1 was approved by Final Order of the Siting Board issued on December 14, 1982. That order also certified the Stanton Energy Center for the eventual generation of up to 2,000 megawatts of electrical powers. Stanton Unit 2 was approved for construction and operation in the Siting Board's Final Order Approving Supplemental Certification issued on December 17, 1991.

As you know, Florida's Power Plant Siting Act establishes a "one-stop" permitting process leading to the approval, with attached conditions of certification, of electrical generating facilities in the State of Florida. The Department of Environmental Protection is the lead agency in this process. Both Orange County, as the local government with the jurisdiction, and the St. Johns Water Management District, were statutory parties in the certification proceedings conducted for Stanton Units 1 and 2 under the Power Plant Siting Act.

Significant amounts of water are required for the generation of electricity at the Stanton Energy Center, particularly the amount of cooling tower make-up water. During site certification proceedings for Stanton Units 1 and 2, OUC proposed the use of reclaimed wastewater for cooling tower make-up water, instead of withdrawing water directly from the Floridan Aquifer. Supplemental Conditions of Certification V/IX which is approved and incorporated in the Siting Board's Final Order approving Supplemental Certification dated December 17, 1991, provided an allocation of 10.19 million gallons per day on an annual average basis for this purpose to be provided by the Orange County Easterly Wastewater Treatment Facility. The following Condition V/IX, found on pages 31-32 of the Conditions of Certification, states in its entirety:

#### V/IX. LIMITATION ON USE OF WATER

Withdrawals from the Floridan aquifer wells must not be used directly for cooling tower make-up water. Reclaimed wastewater in an allocated amount of 10.19 million gallons/day on an annual average basis from the Orange County Easterly Wastewater Treatment Facility, stormwater run-off, on-site reuse water and direct precipitation shall be the source of cooling tower make-up water.

After the Siting Board's Certification of Stanton Unit 1, Orange County and OUC entered into a Cooling Water Supply Agreement (Contract No. S-87-5), (the "Agreement"), on March 2, 1987 in which Orange County agreed to provide the treated sewage effluent needed by OUC for utilization as cooling water at the Stanton Energy Center. The Agreement was amended on May 4, 1994, following the Siting Board's Supplemental Certification of Stanton Unit 2 in December 1991, but prior to Unit 2 becoming operative in 1996. The Agreement, as amended, is intended by the parties to effectuate the allocation of wastewater from the County's plant specified in Supplemental Condition V/IX.

OUC's Agreement with Orange County acknowledges that "the County shall be the exclusive source of off-site Cooling Water" used at the Stanton Energy Center. The Agreement also states that Orange County has designed and constructed the County's Eastern Subregional Wastewater Treatment Plant "so that it can provide a source of cooling water for use in the cooling towers of the Curtis H. Stanton Energy Center."

Section 3.7 of the Agreement states in pertinent part the following:

Except as expressly provided in this Agreement, the County shall make available Cooling Water to the Curtis H. Stanton Energy Center at no cost to OUC from its Eastern Subregional Plant or other sources provided by the County consistent with the Conditions of Certification to the CHSEC.

Vivian F. Garfein  
October 20, 1997  
Page 3

As noted earlier, Supplemental Condition of Certification V/IX approved in the Siting Board's Final Order dated December 17, 1991, provides OUC with an allocated amount of 10.19 million gallons per day of reclaimed wastewater, on an average annual basis, from the Orange County Easterly Wastewater Treatment Facility. The May 4, 1994 Amendment to the Agreement states the following:

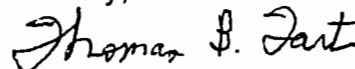
Further, it is the understanding of the parties that the first priority for receiving reclaimed wastewater from the Eastern Wastewater Facility will be the Curtis Stanton Energy Center.

OUC has recently become aware that your office is processing a permit application from Orange County (DEP Permit Application File No.281212) in which Orange County proposes a wastewater allocation of only 7 million gallons per day to be provided to the Stanton Energy Center from its Eastern Subregional Plant. OUC believes that this permit application, if approved by the Department of Environmental Protection's Orlando District office, would result in a direct conflict, and violation of the Siting Board's wastewater allocation in Supplemental Condition of Certification V/IX for the Stanton Energy Center. Such a permit would also constitute agency acquiescence in and abetting of the apparent intention of Orange County to breach its contractual Agreement with OUC to provide all needed cooling water for the Stanton Energy Center from Orange County's Eastern Subregional Plant.

Under these circumstances, OUC respectfully requests the Department of Environmental Protection to deny and to discontinue further processing of the subject Orange County permit application until the permit includes a proper allocation of treated wastewater, as required by the Siting Board and the Agreement for the Stanton Energy Center.

If I can provide you with any additional information or if you have any questions concerning this request, please contact me immediately.

Sincerely,



Thomas B. Tart  
General Counsel

TBT/reb

cc: Robert Haven  
Greg DeMuth



Via Airborne Express  
Airbill No. 3730791971

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
DEC 22 1997  
SITING COORDINATION

December 18, 1997

Mr. Alvaro Linero, P. E.  
Administrator Resource Review Section  
Division of Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road - MS 5505  
Tallahassee, FL 32399-2400

**RE: Stanton Energy Center, Unit No. 2 (PA 81-14/SA1)**

Dear Mr. Linero:

The Orlando Utilities Commission is requesting approval from the Department to conduct a "Test Burn Program" using a blend of petroleum coke and our normal coal at the Stanton Energy Center, Unit No. 2 (SEC-2). SEC-2 is a 474 MW, wall fired, dry bottom boiler that began commercial operation in June, 1996, and is equipped with the following pollution control equipment:

- \* Selective Catalytic Reduction for NOx control,
- \* Electrostatic Precipitator for PM control, and
- \* Wet Limestone Scrubber for SO<sub>2</sub> control.

For the trial burn, we will combust blends of 5%, 10%, 15%, and 20% petroleum coke having a sulfur content of 7% maximum. If 7% petroleum coke is not available for the trial burn, we intend to blend sufficient petroleum coke to obtain the equivalent 7% sulfur blends at 5, 10, 15, & 20 percent. We would like to conduct this trial burn beginning February 1, 1998 and continue for approximately 30 days. The Spring '98 outage for SEC-2 is scheduled during March which will allow us to examine the inside of the boiler immediately after the test to evaluate any effects from firing the blended fuel.

The testing will be conducted to evaluate the performance of the unit and emissions control equipment while firing the blend of pet coke and coal. We will initially test with lower percentage of pet coke/coal to assure emissions remain within permitted limits. We project the test will require the combustion of approximately 15,000 tons of pet coke during the testing period.

Mr. Alvaro Linero  
December 18, 1997  
Page 2

The data from the CEM system will be correlated to the percentage pet coke combusted to evaluate removal efficiencies.

Thank you for your consideration and please call me at 407/423-9141 if any further information is required.

Very truly yours,



Gregory A. DeMuth, Director  
Environmental Division

GAD:rc

xc: A. C. Frazier  
F. F. Haddad  
T. B. Tart  
D. M. Scarlett  
J. C. Aspuru  
H. S. Oven, FDEP, Tallahassee  
L. T. Kozlov, FDEP Central District Office

I:\air\testburn



Florida Department of  
Environmental Protection

Memorandum

TO: Buck Oven, P.E. Administrator  
THRU: Al Linero, P.E. Administrator *Al Linero 12/9*  
FROM: Syed Arif, Review Engineer *Syed Arif*  
DATE: December 9, 1997  
SUBJECT: Orlando Utilities Commission, Stanton Energy Center  
PA 81-14 & Pa 81-14SA, Module 8024 Modification

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
DEC 11 1997  
SITING COORDINATION

The Bureau of Air Regulation has reviewed the additional information submitted by the above referenced facility in response to our insufficiency letter of October 10, 1997. The Bureau finds the submittal sufficient and concurs with the Final Order Modifying Conditions of Certification as prepared by you. If there are any questions, please call me at 488-1344.

Date: 11/20/97 4:27:16 PM  
From: Douglas MacLaughlin TAL  
Subject: OUC - Stanton Energy Center  
To: Hamilton Buck Oven TAL  
CC: Vivian Garfein ORL  
CC: Chris Ferraro ORL  
CC: Al Castro ORL

Buck, we need your valuable advice on a project you were involved in - OUC's Stanton Energy Center.

The Orlando District Office is reviewing a permit application for Orange County's Eastern Subregional Wastewater Treatment Plant. We had included a condition that the County provide the OUC Stanton Power Plant 7.0 mgd of treated wastewater for cooling water.

OUC is objecting, saying that the power plant certification issued to OUC for the Stanton Plant requires that OUC use 10.19 mgd from the Orange County wastewater plant, i.e. that Orange County must provide this amount of cooling water. Condition V/IX of the certification requires as follows:

"Withdrawals from the Floridan Aquifer wells must not be used directly for cooling tower make-up water. Reclaimed wastewater in an allocated amount of 10.19 mgd on an annual average basis from the Orange County Easterly Wastewater Treatment Facility, stormwater runoff, on-site reuse water and direct precipitation shall be the source of cooling tower make-up water."

Buck, could you answer the following:

1. Was Orange County aware of this condition at the time of the certification? I noticed the certification order said that Orange County was a statutory party to the certification, but that they did not participate in the hearing or the stipulations.
2. If Orange County was not aware of this condition, was it expected that DEP could hold Orange County to this requirement pursuant to the certification? i.e. Can we include a condition in the Orange County wastewater permit requiring them to supply Stanton 10.19 mgd of treated wastewater?
3. Does the reference to 10.19 mgd in the certification condition reference only the wastewater from the treatment plant, or does it also reference stormwater runoff, on-site reuse water and direct precipitation as well as the wastewater from the treatment plant?

I will be giving you a call on this, but please feel free to respond by e-mail.

Thanks.

Doug M.

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

YOUNG, VAN ASSENDERP & VARNADOE, P. A.  
ATTORNEYS AT LAW

NOV 20 1997

REPLY TO:  
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PREVIOUSLY  
FILED

November 17, 1997

Via Facsimile (850) 921-7250

\*BOARD CERTIFIED REAL ESTATE LAWYER

WILLIAM J. ROBERTS  
OF COUNSEL

Hamilton S. Oven, P.E.  
Siting Coordination Office  
Division of Air Resources Management  
Department of Environmental Protection  
2600 Blair Stone Road, MS-48  
Tallahassee, Florida 32399-2400

Re: Orlando Utilities Commission Request for Modification of  
Conditions of Certification


Dear Buck:

To follow up on our phone conversation this afternoon, I am enclosing a copy of Tom Cloud's October 9, 1997, letter in which he essentially requests that you disregard his earlier letter which had suggested, on behalf of ICP, the need for a modification of a condition regarding the Alafaya Trail. I assume that the original letter is in your files. Please let me know if this issue is not resolved.

As per our phone conversation, I have advised Greg DeMuth and Tom Tart that you will begin preparing an Order approving the burning of landfill gas at the Stanton Energy Center, but will be somewhat delayed by the necessity of appearing at an administrative hearing that begins this week.

We do appreciate your efforts to expedite this Order in the midst of your busy schedule.

Very truly yours,

  
C. Laurence Keeseey

1\*ouc\ovncld.ltr

cc: Tom Tart  
Greg DeMuth

OCT-09-1997 11:24

GRAY HARRIS ROBINSON PA

# GRAY, HARRIS & ROBINSON

PROFESSIONAL ASSOCIATION # 81

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E-MAIL ADDRESS

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PAMELA D. PRICE  
JAMES F. RASE, JR.  
WILLIAM A. BOYLES  
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BYRD F. MARSHALL, JR.  
J. NASON WILLIAMS, III  
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KENNETH L. PLANTE  
MICHAEL E. WRIGHT  
WILLIAM A. BROWN

KENT L. HIPP  
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OF COUNSEL  
MELINDA R. KRISCHENBAUM  
SYDNEY L. JACKOWITZ  
THEODORE L. SHINKLE  
LILA INGATE McMERRY

October 9, 1997

Our File No.: 34151-1

Via FAX Transmittal 859/921-7250

Mr. Hamilton S. Oven, Jr.  
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
2600 Blair Stone Road, MS 48  
Tallahassee, FL 32399-2400

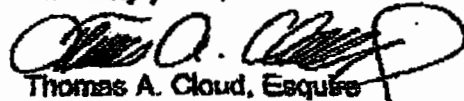
Re: Request for Inclusion of Modification in Upcoming Notice

Dear Buck:

Since sending you the letter yesterday, I've had an opportunity to talk with Paul Chipok, Tom Tart and Greg DeMuth regarding my concerns over the 2-year period. According to Paul, the County is willing to accept the utility easement, access-way, and Alafaya Trail Road right-of-way dedications from OUC and ICP without ICP having to initiate the post-certification proceeding at this time. It is my understanding from Paul that the County will be drawing up the necessary documents with legal descriptions for submission to OUC and ICP. Since this is the case, we will not need to modify the condition. Therefore, there is no need for you to modify the upcoming notice.

I sincerely appreciate everyone's assistance in resolving this matter in such an expeditious fashion. Call me if you have any questions or suggestions.

Sincerely yours,



Thomas A. Cloud, Esquire

GRAY, HARRIS & ROBINSON, P.A.

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(407) 243-6880

TALLAHASSEE  
(904) 233-7777

OCT-09-1997 11:25

GRAY HARRIS ROBINSON PA

407 244 5690 P.02/02

**GRAY, HARRIS & ROBINSON**  
PROFESSIONAL ASSOCIATION

Hamilton S. Oven, Jr.  
Page 2  
October 9, 1997

cc: Thomas B. Tart, Esquire, via FAX Transmittal - 423-9198  
Paul Chipok, Assistant County Attorney, via FAX Transmittal - 836-5888  
Mr. Greg DeMuth, via FAX Transmittal - 236-9616

TOTAL P.02

YOUNG, VAN ASSENDERP & VARNADOE, P. A.

ATTORNEYS AT LAW

REPLY TO:

Naples

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\*BOARD CERTIFIED REAL ESTATE LAWYER

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DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
OCT 17 1997  
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November 14, 1997

Hamilton S. Oven, P.E.  
Siting Coordination Office  
Division of Air Resources Management  
Department of Environmental Protection  
2600 Blair Stone Road, MS-48  
Tallahassee, Florida 32399-2400

Re: Orlando Utilities Commission Request for Modification of  
Conditions of Certification for the Stanton Energy Center

Dear Buck:

Upon your return to the office, on or about Monday, November 17, 1997, I believe the statutory public notice period will have expired for both public entities and all parties in the certification proceedings to have filed objections to OUC's Request for Modification of Conditions of Certification. To my knowledge there are no unresolved objections or comments to the proposed modifications, except for a request for additional information submitted to you by Syed Arif, Review Engineer of the Department's Bureau of Air Regulation, in his memorandum dated October 10, 1997.

I am not aware of the filing with DEP of any questions or objections directed to the proposed burning of landfill gas at the Stanton Energy Center, as requested in Subparagraph 4.A. of the Request for Modification. Orlando Utilities Commission needs to enter contracts, to install burners, and to begin construction of the pipelines between the landfill and the Stanton Energy Center units in order to begin burning landfill gas in Units 1 and 2 as soon as possible.

In order legally to commence work on this project, OUC is requesting that the Department issue a Modification Order approving the landfill gas request, as well as the other modifications that have not been objected to, as soon as possible. If the questions

Hamilton S. Oven, P.E.  
November 14, 1997  
Page 2

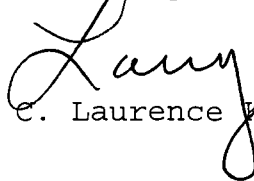
raised by the Bureau of Air Regulation regarding burning of used fuel oil will delay the approval of that portion of the Requested Modification for any significant period of time, OUC requests that the Department reserve judgment on that proposal, while issuing a Modification Order allowing OUC to proceed with those requested modifications that are not objected to by any party, agency or person.

On your return to the office, I would appreciate your consideration of this request and, if I do not hear from you in the meantime, I will plan on calling you on Tuesday to obtain your reaction to this request.

Orlando Utilities Commission has responded to the Bureau of Air Regulation's questions under cover of its letter to you dated November 13, 1997. Hopefully this will resolve all pending issues.

Thank you for your consideration of this request. I look forward to talking to you again early in the week.

Sincerely,

  
C. Laurence Keesey

1\*ouc\oven

cc: Tom Tart  
Greg DeMuth

YOUNG, VAN ASSENDERP & VARNADOE, P. A.

ATTORNEYS AT LAW

REPLY TO:

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R. BRUCE ANDERSON  
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\*BOARD CERTIFIED REAL ESTATE LAWYER

WILLIAM J. ROBERTS  
OF COUNSEL

November 6, 1997

Via Facsimile (850) 921-7250

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Hamilton S. Oven, P.E.  
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Division of Air Resources Management  
Department of Environmental Protection  
2600 Blair Stone Road, MS-48  
Tallahassee, Florida 32399-2400

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

NOV 12 1997

SITING COORDINATION

Re: Orlando Utilities Commission Modification of Conditions  
of Certification for the Stanton Energy Center

Dear Buck:

As you are aware, the Orlando Utilities Commission's proposed Modification of Conditions of Certification for units at the Stanton Energy Center (SEC) includes authorization for the construction of pipelines across a portion of SEC, which are necessary to begin the burning of landfill gas in Units 1 and 2. The St. Johns River Water Management District has raised questions about the proposed pipeline crossing of a ditch and whether there will be an interruption of flow in the ditch during construction of the pipeline.

OUC representatives are in the process of negotiating a resolution of this particular issue with representatives of the St. Johns River Water Management District. We anticipate that an agreement will be entered into soon regarding wording to be placed in the Department's Final Modification Order that will address this issue to the satisfaction of the St. Johns River Water Management District.

To allow time to resolve the pipeline ditch-crossing issue, Orlando Utilities Commission hereby agrees to an extension of the deadline for the St. Johns River Water Management District to file objections to OUC's proposed Modification, regarding that issue, until, and including, Wednesday, November 12, 1997. This extension



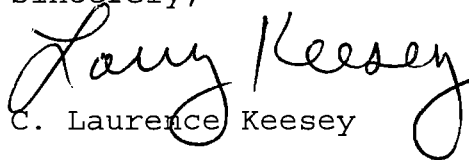
Hamilton S. Oven, P.E.  
November 6, 1997  
Page 2

of time will allow us to enter into a written stipulation and agreement resolving the ditch-crossing issue so that no formal objection will need to be filed by the St. Johns River Water Management District.

If you have any questions concerning Orlando Utilities Commission's agreement to extend the St. Johns River Water Management District's objection deadline, please call me at your earliest convenience.

Thank you very much for your assistance in this matter.

Sincerely,



C. Laurence Keesey

1\*ouc\ovendlin.ltr

cc: Tony Cotter,  
St. Johns River Water Management District

Thomas Tart, Esquire



Certified Mail No. Z-372-114-527  
Return Receipt Requested

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
NOV 17 1997  
SITING COORDINATION

November 13, 1997

Mr. Hamilton S. Oven, P.E.  
Administrator, Siting Coordination Office  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Orlando Utilities Commission, Stanton Energy Center  
PA 81-14, Module 8024 Modification

Dear Mr. Oven,

I am in receipt of the Department's October 10, 1997 letter regarding OUC's request for a modification to the Conditions of Certification for Stanton Energy Center Unit 1.

The numbering sequence in the responses below, matches that of the questions posed in the Department's letter to OUC.

1. The emissions associated with the burning of on-site generated used fuel oil are shown in Attachment I. The names and quantities of the criteria and non-criteria pollutants as well as the references used in estimating the emissions, are included in Attachment I. Please be advised that OUC is requesting that the Stanton Energy Center be permitted to burn 1,500,000 gal/yr of on-site generated on-spec used oil.
2. HAPs will be emitted due to the burning of on-site generated used fuel oil. AP-42, Table 1.11-5 provides emission factors for speciated organic compounds from waste oil combustion. The factors presented were for space heaters only, and no factors were provided for small boilers, as was the case with other pollutants. Consequently, the conservative assumption was made that all the TOC emissions were HAP emissions, and were at a used oil consumption rate of 1,500,000 gal/yr, 0.75 tpy.
3. A typical analysis of the on-site generated used fuel oil that will be burned in OUC Stanton Unit #1, is contained in Attachment II.
4. Lead emissions will not be at a level of PSD significance for the facility, taking into account that Unit #2 is allowed to burn on-site generated used fuel oil. The calculated Unit 1 lead emission rate is 825 lb/yr.

Mr. Hamilton S. Owen  
November 13, 1997  
Page 2

It is OUC's interpretation that the Conditions of Certification for the Stanton Energy Center currently permits the burning of "on specification used fuel oil" in the Unit #2 boiler without regard to its origin. Because of the environmental controls on both units at the Stanton plant, we believe the combustion of "on specification used fuel oil", without regard to origin, should also be permitted for Unit #1 .

Please contact me if I can provide any additional information to assist the Department in their evaluation of this modification request.

Sincerely,



Gregory A. DeMuth  
Director  
Environmental Division

GAD:lmb  
Attachments

xc: A.A. Linero, P.E., Administrator, FDEP  
Syed Arif, Review Engineer, FDEP  
Robert F. Hicks, Senior Environmental Engineer, OUC  
Larry Keesey, Esq.

i:unlmod

**ATTACHMENT I**

**EMISSIONS CALCULATIONS  
SEC PA 81-14 MODULE 8024 MODIFICATION**

Requested used oil consumption rate, based on industry average research, is 1500000 gal/yr  
Annual emission rate, AER, is given by (ER)(1500000)/(1000)(2000) tons per year

Pollutant	Emission Factor	Emission Rate lb/1000 gal	Annual Emission Rate **
PM	64 A	64	48.00 tpy
PM-10	51 A	51	38.25 tpy
Pb	55 L	0.55	825.00 lb/yr
NO <sub>x</sub>		19	14.25 tpy
SO <sub>x</sub>	147 S	147	110.25 tpy
CO		5	3.75 tpy
TOC		1	0.75 tpy
HCl	66 Cl	6.6	4.95 tpy
CO <sub>2</sub>		22000	16500 tpy
<sup>1</sup> Antimony		N/A	BDL
<sup>1</sup> Arsenic		0.11	165.00 lb/yr
<sup>1</sup> Beryllium		N/A	BDL
<sup>1</sup> Cadmium		0.0093	13.95 lb/yr
<sup>1</sup> Chromium		0.02	30.00 lb/yr
<sup>1</sup> Cobalt		0.00021	0.32 lb/yr
<sup>1</sup> Manganese		0.068	102.00 lb/yr
<sup>1</sup> Nickel		0.011	16.50 lb/yr
<sup>1</sup> Selenium		N/A	BDL
<sup>1</sup> Phosphorus		N/A	BDL

A = weight % ash in fuel = 1; Reference: AP-42, Table 1.11-1

S = weight % sulfur in fuel = 1; Reference: AP-42, Table 1.11-2

L = weight % lead in fuel = 100.0 ppm; Reference: AP-42, Table 1.11-1, Draft Title V Permit

Cl = weight % chlorine in fuel = 1000ppm; Reference: AP-42, Table 1.11-3, Draft Title V Permit

<sup>1</sup> = Reference: AP-42, Table 1.11-4

**\*\* EMISSION RATES ARE CALCULATED USING AP-42 FACTORS FOR THE UNCONTROLLED COMBUSTION OF WASTE OIL IN SMALL BOILERS AND DO NOT CONSIDER THE CONTROL DEVICES AT THE STANTON PLANT. THESE EMISSIONS ALSO DO NOT CONSIDER THAT ANY "ON SPECIFICATION USED FUEL OIL" CONSUMED AT THE STANTON FACILITY WILL REPLACE NO. 6 OIL OR COAL WHICH ARE CURRENTLY USED.**

**ATTACHMENT II**

5-29-1997 7:58AM

FR



## INTERNATIONAL PETROLEUM CORPORATION

**TYPICAL  
SPECIFICATIONS FOR RE-REFINED**

**#5 FUEL OIL**

API GRAVITY 60 F	26 - 28
VISCOSITY SSU @ 100 F	225 - 300
SULPHUR	.4 - .6 %
BTU PER GALLON	143,000 - 145,000
POUR	+0 F
FLASHPOINT	150 F MIN.
WATER BY DISTILLATION	Trace
SEDIMENT BY EXTRACTION	Less than 1%
TOTAL BOTTOM SEDIMENT AND WATER NOT TO EXCEED	Less than 1%
TOTAL HALOGENS (TOX) ORGANIC AND INORGANIC	400 PPM + or - 200
LEAD	Less than 50 PPM
ARSENIC	Less than 5.0 PPM
CADIUM	Less than 2.0 PPM
CHROMIUM	Less than 10.0PPM
PCB'S	Below Detectable Limit

ALL PRODUCTS MEET STATE AND FEDERAL STANDARDS FOR ON  
SPECIFICATION FUEL.

**ATTACHMENT III**



## 1.11 Waste Oil Combustion

### 1.11.1 General<sup>1</sup>

Waste oil includes used crankcase oils from automobiles and trucks, used industrial lubricating oils (such as metal working oils), and other used industrial oils (such as heat transfer fluids). When discarded, these oils become waste oils due to a breakdown of physical properties and contamination by the materials they come in contact with. The different types of waste oils may be burned as mixtures or as single fuels where supplies allow. Waste, or used, oil can be burned in a variety of combustion systems including industrial boilers; commercial/institutional boilers; space heaters; asphalt plants; cement and lime kilns; other types of dryers and calciners; and steel production blast furnaces. Boilers and space heaters consume the bulk of the waste oil burned. Space heaters are small combustion units (generally less than 250,000 British thermal units per hour [Btu/hr] input) that are common in automobile service stations and automotive repair shops where supplies of waste crankcase oil are available.

Boilers designed to burn No. 6 (residual) fuel oils or one of the distillate fuel oils can be used to burn waste oil, with or without modifications for optimizing combustion. As an alternative to boiler modification, the properties of waste oil can be modified by blending it with fuel oil, to the extent required to achieve a clean-burning fuel mixture.

### 1.11.2 Emissions<sup>1</sup>

The emissions from burning waste oils reflect the compositional variations of the waste oils. Potential pollutants include carbon monoxide (CO), sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), particles less than 10 micrometers in size (PM-10), toxic metals, organic compounds, hydrogen chloride, and global warming gases (carbon dioxide [CO<sub>2</sub>], methane [CH<sub>4</sub>]).

#### Particulate Matter<sup>1</sup> -

Ash levels in waste oils are normally much higher than ash levels in either distillate oils or residual oils. Waste oils have substantially higher concentrations of most of the trace elements reported relative to those concentrations found in virgin fuel oils. Without air pollution controls, higher concentrations of ash and trace metals in the waste fuel translate to higher emission levels of PM and trace metals than is the case for virgin fuel oils.

#### Sulfur Oxides<sup>1</sup> -

Emissions of SO<sub>x</sub> are a function of the sulfur content of the fuel. The sulfur content varies but some data suggest that uncontrolled SO<sub>x</sub> emissions will increase when waste oil is substituted for a distillate oil but will decrease when residual oil is replaced.

#### Chlorinated Organics<sup>1</sup> -

Constituent chlorine in waste oils typically exceeds the concentration of chlorine in virgin distillate and residual oils. High levels of halogenated solvents are often found in waste oil as a result of inadvertent or deliberate addition of contaminant solvents to the waste oils. Many efficient combustors can destroy more than 99.99 percent of the chlorinated solvents present in the fuel. However, given the wide array of combustor types which burn waste oils, the presence of these compounds in the emission stream cannot be ruled out.

### Other Organics<sup>1</sup> -

The flue gases from waste oil combustion often contain organic compounds other than chlorinated solvents. At ppmw levels, several hazardous organic compounds have been found in waste oils. Benzene, toluene, polychlorinated biphenyls (PCBs), and polychlorinated dibenzo-d-dioxins are a few of the hazardous compounds that have been detected in waste oil samples. Additionally, these hazardous compounds may be formed in the combustion process as products of incomplete combustion.

### 1.11.3 Controls<sup>1</sup>

Emissions can be controlled by the pretreatment of the waste oil to remove the pollutant precursors or with emission controls to remove the air pollutants. Reduction of emission levels is not the only purpose of pretreatment of the waste oil. Improvement in combustion efficiency and reduction of erosion and corrosion of the combustor internal surfaces are important considerations. The most common pretreatment scheme uses sedimentation followed by filtration. Water and large particles (greater than 10 microns in diameter) are removed without having much effect on sulfur, nitrogen, or chlorine contents. Other methods of pretreatment involve clay contacting; demetallization by acid, solvent, or chemical contacting; and thermal processing to remove residual water and light ends. These latter processes might be attractive as waste reduction schemes or to recycle the waste oil, but the added costs probably hinder their use as part of a combustion process.

Blending of waste oil with a virgin fuel oil is practiced frequently and has the same effect as some of the other pretreatment processes. However, for the purpose of developing emission factors, blending by itself was assumed to be in the uncontrolled category.

Waste oil serves as a substitute fuel for combustors designed to burn distillate or residual oils. Therefore, the emission controls are usually those in place when waste oil is first burned. For small boilers and space heaters, all of the sources having acceptable test data for determining emission factors were uncontrolled. For an asphalt plant, PM emissions, which included the dust from drying of the aggregate, were controlled with a fabric filter.

Emission factors and emission factor ratings for waste oil combustion are shown in Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5. Emission factors have been determined for emissions from uncontrolled small boilers and space heaters combusting waste oil. These factors apply to both blended and unblended waste oil fuels when waste oil comprises the majority of the fuel combusted. If virgin oil comprises the majority of the fuel combusted, the emission factors presented in Section 1.3, Fuel Oil Combustion, should be used.

Evaporative emissions from waste oil used as a diluent in batch asphalt plants may be estimated using the procedures outlined in Section 4.5.

Tables in this section present emission factors on a volume basis ( $\text{lb}/10^3\text{gal}$ ). To convert to an energy basis ( $\text{lb}/\text{MMBtu}$ ), divide by the heating value of the oil in units of  $\text{MMBtu}/10^3\text{gal}$ , if known. If the heating value is not known, and the waste oil is blended with residual oil, divide by a heating value of  $150\text{ MMBtu}/10^3\text{gal}$ . If the waste oil is blended with distillate oil, divide by a heating value of  $140\text{ MMBtu}/10^3\text{gal}$ .

### 1.11.4 Updates Since the Fifth Edition

The Fifth Edition was released in January 1995. Revisions to this section since that date are summarized below. For further detail, consult the memoranda describing each supplement or the

background report for this section. These and other documents can be found on the CHIEF electronic bulletin board (919-541-5742), or on the new EFIG home page (<http://www.epa.gov/oar/oaqps/efig/>).

Supplement A, February 1996

- An earlier transcription error was corrected and the TOC emission factor was changed from 0.1 to 1.0 lb/1000 gal.

Supplement B, October 1996

- Math errors were corrected and factors for As, Be, Cd, Cr, Co, and speciated organics were changed.
- The CO<sub>2</sub> factors were revised based on a review of existing information.

Table 1.11-1. EMISSION FACTORS FOR PARTICULATE MATTER (PM), PARTICULATE MATTER LESS THAN 10 MICROMETERS (PM-10), AND LEAD (Pb) FROM WASTE OIL COMBUSTORS<sup>a</sup>

Source Category (SCC)	PM <sup>b</sup>		PM-10 <sup>c</sup>		Pb <sup>d</sup>	
	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING
Small boilers (1-03-013-02)	64A <sup>d</sup>	C	51A	C	55L <sup>f</sup>	D
Space heaters Vaporizing burner (1-05-001-14, 1-05-002-14)	2.8A	D	ND	NA	0.41L	D
Atomizing burner (1-05-001-13, 1-05-002-13)	66A	D	57A	E	50L	D

<sup>a</sup> Units are lb of pollutant/10<sup>3</sup> gallons of blended waste oil burned. To convert from lb/10<sup>3</sup> gallons to kg/m<sup>3</sup>, multiply by 0.12. SCC = Source Classification Code. ND = no data. NA = not applicable.

<sup>b</sup> References 2-5.

<sup>c</sup> Reference 1.

<sup>d</sup> References 4-6.

<sup>e</sup> A = weight % ash in fuel. Multiply numeric value by A to obtain emission factor. For example, if ash content is 5%, then A = 5.

<sup>f</sup> L = weight % lead in fuel. Multiply numeric value by L to obtain emission factor. For example, if lead content is 5%, then L = 5.

1.11-4

EMISSION FACTORS

10/96

Table 1.11-2. EMISSION FACTORS FOR NITROGEN OXIDES (NO<sub>x</sub>), SULFUR OXIDES (SO<sub>x</sub>), AND CARBON MONOXIDE (CO) FROM WASTE OIL COMBUSTORS<sup>a</sup>

Source Category (SCC)	NO <sub>x</sub> <sup>b</sup>		SO <sub>x</sub> <sup>b</sup>		CO <sup>c</sup>	
	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING
Small boilers (1-03-013-02)	19	C	147S <sup>d</sup>	C	5	D
Space heaters Vaporizing burner (1-05-001-14, 1-05-002-14)	11	D	100S <sup>d</sup>	D	1.7	D
Atomizing burner (1-05-001-13, 1-05-002-13)	16	D	107S <sup>d</sup>	D	2.1	D

<sup>a</sup> Units are lb of pollutant/10<sup>3</sup> gallons of blended waste oil burned. To convert from lb/10<sup>3</sup> gallons to kg/m<sup>3</sup>, multiply by 0.12. SCC = Source Classification Code.

<sup>b</sup> References 4, 7.

<sup>c</sup> References 2, 5.

<sup>d</sup> S = weight % sulfur in fuel. Multiply numeric value by S to obtain emission factor. For example, if sulfur content is 3.4%, then S = 3.4.

10/96

External Combustion Sources

1.11-5

Table 1.11-3. EMISSION FACTORS FOR TOTAL ORGANIC COMPOUNDS (TOC), HYDROGEN CHLORIDE (HCl), AND CARBON DIOXIDE (CO<sub>2</sub>) FROM WASTE OIL COMBUSTORS<sup>a</sup>

Source Category (SCC)	TOC <sup>b</sup>		HCl <sup>b</sup>		CO <sub>2</sub> <sup>c</sup>	
	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>3</sup> gal)	EMISSION FACTOR RATING
Small boilers (1-03-013-02)	1.0	D	66Cl <sup>d</sup>	C	22,000	C
Space heaters Vaporizing burner (1-05-001-14, 1-05-002-14)	1.0	D	ND	NA	22,000	D
Atomizing burner (1-05-001-13, 1-05-002-13)	1.0	D	ND	NA	22,000	D

<sup>a</sup> Units are lb of pollutant/10<sup>3</sup> gallons of blended waste oil burned. To convert from lb/10<sup>3</sup> gallons to kg/m<sup>3</sup>, multiply by 0.12. SCC = Source Classification Code. ND = no data. NA = not applicable.

<sup>b</sup> Reference 1.

<sup>c</sup> References 2-4. Ranges from 18,000 to 25,000 lb of CO<sub>2</sub>/10<sup>3</sup> gal, depending on carbon content.

<sup>d</sup> Cl = weight % chlorine in fuel. Multiply numeric value by Cl to obtain emission factor. For example, if chlorine content is 3%, Cl = 3.

Table 1.11-4. EMISSION FACTORS FOR SPECIATED METALS FROM WASTE OIL COMBUSTORS<sup>a</sup>

EMISSION FACTOR RATING: D

Pollutant	Small Boilers Emission Factor (lb/10 <sup>3</sup> gal) <sup>b</sup> (SCC 1-03-013-02)	Space Heaters: Vaporizing Burner Emission Factor (lb/10 <sup>3</sup> gal) <sup>c</sup> (SCC 1-05-001-14, 1-05-002-14)	Space Heaters: Atomizing Burner Emission Factor (lb/10 <sup>3</sup> gal) <sup>c</sup> (SCC 1-05-001-13, 1-05-002-13)
Antimony	BDL	3.4 E-04	4.5 E-03
Arsenic	1.1 E-01	2.5 E-03	6.0 E-02
Beryllium	BDL	BDL	1.8 E-03
Cadmium	9.3 E-03	1.5 E-04	1.2 E-02
Chromium	2.0 E-02	1.9 E-01	1.8 E-01
Cobalt	2.1 E-04	5.7 E-03	5.2 E-03
Manganese	6.8 E-02	2.2 E-03	5.0 E-02
Nickel	1.1 E-02	5.0 E-02	1.6 E-01
Selenium	BDL	BDL	BDL
Phosphorous	ND	3.6 E-02	ND

<sup>a</sup> Pollutants in this table represent metal species measured for waste oil combustors. Other metal species may also have been emitted but were either not measured or were present at concentrations below analytical detection limits. Units are lb of pollutant/10<sup>3</sup> gallons of waste oil burned. To convert from lb/10<sup>3</sup> gallons to kg/m<sup>3</sup>, multiply by 0.12. BDL = below detection limit. SCC = Source Classification Code. ND = no data.

<sup>b</sup> Reference 4.

<sup>c</sup> References 4-5.

Table 1.11-5. EMISSION FACTORS FOR SPECIATED ORGANIC COMPOUNDS FROM WASTE OIL COMBUSTORS<sup>a</sup>

EMISSION FACTOR RATING: D

Pollutant	Space Heaters: Vaporizing Burner (SCC 1-05-001-14, 1-05-002-14) Emission Factor (lb/10 <sup>3</sup> gal)	Space Heaters: Atomizing Burner (SCC 1-05-001-13, 1-05-002-13) Emission Factor (lb/10 <sup>3</sup> gal)
Phenol	2.4 E-03	2.8 E-05
Dichlorobenzene	8.0 E-07	ND
Naphthalene	1.3 E-02	9.2 E-05
Phenanthrene/anthracene	1.1 E-02	1.0 E-04
Dibutylphthalate	ND	3.4 E-05
Butylbenzylphthalate	5.1 E-04	ND
Bis(2-ethylhexyl)phthalate	2.2 E-03	ND
Pyrene	7.1 E-03	8.3 E-06
Benz(a)anthracene/chrysene	4.0 E-03	ND
Benzo(a)pyrene	4.0 E-03	ND
Trichloroethylene	ND	ND

<sup>a</sup> Reference 4. Pollutants in this table represent organic species measured for waste oil combustors. Other organic species may also have been emitted but were either not measured or were present at concentrations below analytical detection limits. Units are lb of pollutant/10<sup>3</sup> gallons of waste oil burned. To convert from lb/10<sup>3</sup> gallons to kg/m<sup>3</sup>, multiply by 0.12. SCC = Source Classification Code. ND = no data.



## References For Section 1.11

1. *Emission Factor Documentation For AP-42 Section 1.11, Waste Oil Combustion (Draft)*, Technical Support Division, Office of Air Quality Planning and Standards, U. S. Environmental Protection Agency, Research Triangle Park, NC, April 1993.
2. *Environmental Characterization Of Disposal Of Waste Oils In Small Combustors*, EPA-600/2-84-150, U. S. Environmental Protection Agency, Cincinnati, OH, September 1984.
3. *Used Oil Burned As A Fuel*, EPA-SW-892, U. S. Environmental Protection Agency, Washington, DC, August 1980.
4. *The Fate Of Hazardous And Nonhazardous Wastes In Used Oil Disposal And Recycling*, DOE/BC/10375-6, U. S. Department of Energy, Bartlesville, OK, October 1983.
5. "Comparisons of Air Pollutant Emissions from Vaporizing and Air Atomizing Waste Oil Heaters", *Journal Of The Air Pollution Control Association*, 33(7), July 1983.
6. "Waste Oil Combustion: An Environmental Case Study", Presented at the 75th Annual Meeting of the Air Pollution Control Association, June 1982.
7. *Chemical Analysis Of Waste Crankcase Oil Combustion Samples*, EPA600/7-83-026, U. S. Environmental Protection Agency, Research Triangle Park, NC, April 1983.

## FUEL SPECIFICATIONS

### 1. PIPELINE NATURAL GAS

Density	0.4 - 0.6 rel.
Heat Value	980 - 1060 btu/scf
% S	< 1%
% N	< 0.5%
% Ash	< 1%

### 2. LANDFILL WASTE GAS

Density	0.4 - 0.6 rel
Heat Value	500 btu/scf
% S	< 1%
% N	< 0.5%
% Ash	< 1%

### 3. ON SPEC USED OIL

Density	0.9 - 1.0 s.g
Heat Value	4.5 - 5.5 MMBtu/bbls.
% S	< 1%
% N	< 0.5%
% Ash	< 1%

YOUNG, VAN ASSENDERP & VARNADOE, P. A.  
ATTORNEYS AT LAW

OCT 22 1997

REPLY TO:

SITING COORDINATION

R. BRUCE ANDERSON  
TASHA O. BUFORD  
DAVID B. ERWIN  
DAVID P. HOPSTETTER\*  
C. LAURENCE KEESEY  
ANDREW I. SOLIS  
KENZA VAN ASSENDERP  
GEORGE L. VARNADOE  
ROY C. YOUNG

Naples

GALLIE'S HALL  
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TALLAHASSEE, FLORIDA 32302-1833  
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TELEPHONE (941) 597-2814  
TELECOPIER (941) 597-1060

\*BOARD CERTIFIED REAL ESTATE LAWYER

October 20, 1997

WILLIAM J. ROBERTS  
OF COUNSEL

Hamilton S. Oven, P.E.  
Siting Coordination Office  
Division of Air Resources Management  
Department of Environmental Protection  
2600 Blair Stone Road, MS-48  
Tallahassee, Florida 32399-2400

Re: Orlando Utilities Commission Request for Modification of  
Conditions of Certification for Units 1 and 2 at the  
Stanton Energy Center

Dear Buck:

At the same time that Greg DeMuth filed OUC's Request for Modification of Conditions of Certification for the Stanton Energy Center Units 1 and 2, we sent copies of those documents, including the proposed Agreement for Modification to all parties who participated in the certification proceedings for those units. We sent all documents to the parties by U.S. Mail, return receipt requested.

We have received return receipts, establishing that all parties shown on the attached list have in fact received their notice and the proposed agreement. As indicated on the attached list, the last party to receive notification signed their receipt on September 29, 1997. Therefore, pursuant to Section 403.516, Florida Statutes, and Rule 62-17.211, Florida Administrative Code, any of the these parties wishing to respond to the Request for Modification must do so within forty-five days from the date of their receipt of the request, as indicated on the attached list. Therefore, the last party to receive the proposed agreement and Request for Modification by mail from Orlando Utilities Commission must file its petition on or before November 13, 1997.

Hamilton S. Oven, P.E.  
October 20, 1997  
Page 2

Any other person who is not already a party to the certification proceedings and whose substantial interest is affected by the requested modification must submit a petition to the DEP Office of the General Counsel on or before thirty days following the publication of your notice in the *Florida Administrative Weekly*. The Department's Notice of Intent to Issue Proposed Modification appeared in the October 17, 1997, edition of the *Florida Administrative Weekly*. Therefore, any person who is not already a party must file their petition on or before November 16, 1997.

In the absence of a petition filed by a party or substantially affected person, it is my understanding that the Department may issue an Order approving OUC's proposed Modifications to Conditions of Certification for Units 1 and 2 after November 16, 1997.

Please let me know if you wish to see copies or originals of the return receipts showing service on the parties on the dates shown on the enclosed list. Also, at your convenience, please advise me of the Department's schedule for issuing approval of the Proposed Modification, assuming no petitions are filed.

As always, we appreciate your efforts in reviewing OUC's Request for Modification.

Very truly yours,

  
C. Laurence Keesey

attachment  
1\*ouc\ovenrr.ltr

cc: Greg DeMuth  
Thomas Tart, Esq.  
Roy Young

Date Notification Letters were Delivered

Hamilton S. Oven, P.E.  
Siting Coordination Office  
Division of Air Resources Mgmt.  
Dept. of Environmental Protection  
2600 Blair Stone Road, MS-48  
Tallahassee, Florida 32399-2400  
Return Receipt signed 9/25/97

Tom Wilks, Esquire  
Orange County  
5th Floor  
201 South Rosalind Avenue  
Orlando, Florida 32801  
Return Receipt signed 9/25/97

Charles Lee  
Senior Vice President  
Florida Audubon Society  
460 Highway 435, Ste 200  
Casselberry, Florida 32707  
Return Receipt signed 9/29/97

John Fumero, Esquire  
South Fl. Water Management Dist.  
3301 Gun Club Road  
P.O. Box 24680  
W. Palm Beach, Florida 33416-4680  
Return Receipt signed 9/25/97

Kathryn Menella, Esquire  
St. Johns River Water Mgmt. Dist.  
P.O. Box 1429  
Palatka, Florida 32178-1429  
Return Receipt signed 9/25/97

Fred Bryant, Esquire  
306 East College Avenue  
Tallahassee, Florida 32302  
Return Receipt signed 9/26/97

Perry Odom, Esquire  
General Counsel  
Dept. of Environmental Protection  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399  
Return Receipt signed 9/26/97

Irby G. Pugh, Esq.  
218 Annie Street  
Orlando, Florida 32806  
Return Receipt signed 9/24/97

G. Stephen Pfeiffer, Esquire  
Department of Community Affairs  
2740 Centerview Drive  
Tallahassee, Florida 32399-2100  
Return Receipt signed 9/25/97

Clay McGonagill, Asst. Gen. Counsel  
Marrienne Trussell, Asst. Gen. Co.  
Department of Transportation  
605 Suwannee Street, MS-58  
Tallahassee, Florida 32399-0458  
Return Receipt signed 9/25/97

Aaron Dowling, Executive Director  
East Central Florida Regional  
Planning Council  
1011 Wymore Road, Suite 105  
Winter Park, Florida 32789  
Return Receipt signed 9/24/97

Jim Antista, General Counsel  
Florida Game & Fresh Water  
Fish Commission  
Farris Bryant Building, Room 108  
620 S. Meridian Street  
Tallahassee, Florida 32399-1600  
Return Receipt signed 9/25/97

Bob Elias, Bureau Chief  
Electric & Gas Division of Legal Services  
Florida Public Service Commission  
Gerald L. Gunter Building  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850  
Return Receipt signed 9/25/97

Florida Department of  
**Environmental Protection**

**Memorandum**

---

**TO:** Buck Oven, Siting Coordination Office

**FROM:** David Bickner **DHB**

**DATE:** 20 October 1997

**SUBJECT:** Orlando Utilities Commission, Stanton Energy Center, PA 81-14, Module 8024 Modification

This modification request is for modification of 5 conditions of certification and clarification of 2 conditions of certification.. The modification of the most concern to the ERP program is number 1, which proposes to construct 2 pipelines from the adjacent Orange County Landfill to the Stanton Energy Center. These pipelines will be buried for their length. There appears to be no information about how deeply the pipelines will be buried. From my own visit to the Stanton Energy Center in July of this year I know that the pipelines will cross highly disturbed terrain and be placed in the shoulder of a road connecting the SEC with the landfill. They will cross a small ditched waterway on the property. No information concerning this waterway or the method of crossing it are given in this request. It would be helpful if the pipeline burial depth and the waterway crossing were addressed in the modification.

Other modifications requested include using dry flyash from other power plants at the Stanton Energy Center, changing the igniter fuel allowed in unit 1, altering language concerning federally issued permits, and relocating the vehicle maintenance shop at this site. If sufficient precautions are taken to control the flyash and the stormwater runoff from the shop operations there should be no negative impacts from these modifications. Changing the igniter fuel should have no impact on local waters of the state. The remaining modification and 2 clarifications do not appear to be within the scope of the ERP program.



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

October 14, 1997

Mr. Gregory A. DeMuth, Director  
Environmental Division  
Orlando Utilities Commission  
Post Office Box 3193  
Orlando, Florida 32802-3193

Re: Stanton Energy Center, PA 81-14

Dear Mr. DeMuth:

The Bureau of Air Regulation of the Department of Environmental Protection has made a preliminary review of your request for modification of the Stanton Energy Center. Their comments are attached. You may wish to contact Mr. Arif directly at (850) 488-1344.

Sincerely,

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

Attach:

cc: Syed Arif

Flo: Department of  
**Environmental Protection**

**Memorandum**

TO: Buck Oven, Siting Coordination Office

THRU: A. A. Linero, P.E. Administrator

FROM: Syed Arif, Review Engineer SA

DATE: October 10, 1997

SUBJECT: Orlando Utilities Commission (OUC), Stanton Energy Center, PA 81-14,  
Module 8024 Modification

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

OCT 14 1997

SITING COORDINATION

The following issues are raised regarding the above modification and in particular to request in subparagraph 4C Igniter Fuel Oil Consistency:

1. Please indicate the emissions associated with the burning of on-site generated used fuel oil. In responding to this query, indicate the names and quantity of the criteria and non-criteria pollutants that will be emitted, and any references used in estimating those emissions.
2. Please indicate if any HAP's will be emitted due to the burning of on-site generated used fuel oil. If so, quantify the HAP's emissions.
3. Please indicate the typical analyses of the on-site generated used fuel oil that will be burned in OUC Stanton Unit #1.
4. Please indicate if lead emissions will be PSD significance (1200 pounds or more) for the facility considering that Unit #2 is allowed to burn on-site generated used fuel oil.

The Bureau will review the above request after receiving responses for the above mentioned questions.

SA/a





# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

September 30, 1997

Mr. Gregory A. DeMuth, Director  
Environmental Division  
Orlando Utilities Commission  
Post Office Box 3193  
Orlando, Florida 32802-3193

Re: Stanton Energy Center, PA 81-14

Dear Mr. DeMuth:

The Department of Environmental Protection has made a preliminary review of your request for modification of the Stanton Energy Center. If possible, we would like to receive a copy of Exhibit 2 on a computer disk in Wordperfect format. A copy of the exhibit will be useful in drafting the Recommended Order for modification.

Sincerely,

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

Date: 9/26/97 8:03:42 AM  
From: Raoul Clarke TAL  
Subject: Stanton Energy Center

I have received a copy of the Orlando Utilities Commission proposed modifications to the Stanton energy Center. Four of the seven proposed modifications may be of interest to you.

1. Use of landfill gas as fuel--this mod. is to authorize construction of a below grade pipeline from the Orange County Landfill to Stanton Energy Center. Currently the landfill gas is vented directly to the atmosphere or partially flared with no heat recovery. (About 2 pages of text, some letters and maps.)

2. Purchased Fly Ash Recycling--DEP approved a field testing of fluidized bed ash from Cedar Bay Cogen project at the Stanton Energy Center. This was successful. Mod. is for an expanded P2 project wherein dry ash containing residual lime will be brought from other plants to the Stanton plant site via existing rail lines This ash will be used to displace fly ash from units 1 and 2 that is currently utilized for scrubber sludge fixation. Stanton ash would then be sold to the cement industry claiming that each ton sold would eliminate the creation and emission of about one ton of CO2 that would be emitted during cement production.

3. Igniter Fuel Oil Consistency--Unit 2 is permitted to burn No.6 oil, on-site generated lubrication oil, and used fuel oil which meets the requirements of 40 CFR 266.40. Unit 1 can only burn "new oil" which results in an inconsistency in fuel for the 2 units and they share a fuel tank. Mod request that unit 1 be allowed to burn the same fuel as unit 2 under the same conditions.

4. Relocation of Fleet Maintenance Facility--request to move existing fleet maintenance facility to an existing warehouse. The floor drain in the warehouse will convey any liquid to an oil/water separator, and then to the lined coal-pile run-off pond.  
=====

In my limited knowledge of these I do not have a problem with # 3 and 4.

I am giving this package to Richard Tedder for review.

Bill Bostwick--if you want to see this package and can't find a copy in the District please call Richard and let him know you would like to see it also.

Thanks,

Your humble pass the buck/pass the paper siting coordinator.



DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

SEP 24 1997

SITING COORDINATION

---

September 23, 1997

Mr. Hamilton S. Oven, P. E., Administrator  
Siting Coordination Office  
Division of Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS48  
Tallahassee, FL 32399-2400

Re: Orlando Utilities Commission Request for Modification of  
Conditions Of Certification for Stanton Energy Center

Dear Mr. Oven:

The Orlando Utilities Commission (OUC) hereby requests that the Department modify the Conditions of Certification attached to the Siting Board's certifications of the Stanton Energy Center Units 1 and 2, as described in the attached documents. This request is being submitted by OUC pursuant to Section 403.516.(1)(b), Florida Statutes, and the Department's Rule 62-17-211, Florida Administrative Code, which authorize an Agreement for Modification of Site Certification to be submitted to, and approved by the Department if no party to the certification hearing objects to the modification in writing within 45 days of their receipt of notice by mail of this request.

Simultaneously, with the submission of this request to the Department, OUC is sending copies of this letter, the proposed agreement and the supporting documents to all parties who participated in the final hearing and proceedings leading to the Siting Board's supplemental certification of Stanton Unit 2 on December 17, 1991. By copy of this letter and enclosures, OUC is notifying all parties that if there is an objection to the proposed Agreement for Modification of Site Certification, the objecting party must file its written objection and request for a formal hearing with the Department of Environmental Protection within 45 days of the party's receipt of this notice.

Hamilton S. Oven, P. E.  
September 23, 1997  
Page 2

OUC requests that the Department, upon agreement of the parties to this modification, issue a final order approving the requested revisions. Our request consists of four minor changes to the conditions of certification and two clarifications of the wording of existing conditions, which are fully described in the enclosed documents. In support of this request, Orlando Utilities Commission is submitting the following documents:

1. A narrative description of the four proposed changes and two clarifications of the conditions of certification (Attachment 1).

2. A "Proposed Agreement for Modification of Site Certification" (Attachment 2), which includes two (2) exhibits:

A. Exhibit 1 to the Proposed Agreement for Modification of Site Certification consists of revised pages of OUC's Application for Supplemental Site Certification for Stanton Energy Center Unit 2 to replace existing pages of the application. Pursuant to Rule 62-17.211(1), Florida Administrative Code, fourteen (14) copies of these changes to the original application are enclosed.

B. Exhibit 2 to the Proposed Agreement for Modification of Site Certification consists of pages containing the new, amended conditions of certification, as proposed.

3. Also enclosed for your convenience, are second versions of pages containing both the supplemental application revisions and the new conditions of certification (showing additional wording underlined, and deletions with strike-throughs), as Attachment 3 to this request.

I have enclosed fourteen copies of this request for the Department's use. As noted above, I have provided copies by U. S. mail to all of the other parties who participated in proceedings leading to the supplemental site certification of Stanton Energy Center Unit 2, as named in the Certificate of Service attached to the Proposed Agreement.

A check in the amount of \$10,000 is enclosed as the fee for review of this request for modification pursuant to paragraph 403.518(1) (c), Florida Statutes.

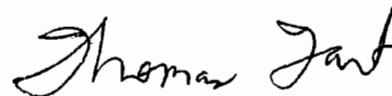
We believe the requested minor modifications to the supplemental site certification conditions are not controversial and will result in a net environmental benefit. However, if

H. S. Oven, P. E.  
September 23, 1997  
Page 3

any party to the supplemental site certification proceedings wishes to object to the proposed modifications, I have advised them to file their objections directly with the Department within 45 days of their receipt of the OUC's request for modification. If the Department receives a written objection requesting a formal hearing from any party, I request that you promptly send me a copy.

On behalf of Orlando Utilities Commission, I thank you for your consideration of this request and the Agreement enclosed. If you have any questions concerning this request, please contact me or Greg DeMuth at (407) 423-9141.

Sincerely



Thomas B. Tart  
Vice President and  
General Counsel

TBT:rc  
Enclosures

cc: All Parties

INVOICE DATE	VENDOR INVOICE NUMBER	VOUCHER NUMBER		AMOUNT
080897	MODIFICATN FEE 8/97	9708437142	REQUEST OF MODIFICATION OF CONDITION OF CERTIFICATION FOR THE STANTON ENERGY CENTER AS REQUIRED IN SECTION 403.516(1)(B), FLORIDA STATUTES AND THE DEPARTMENT'S RULE 62-17.211, FLORIDA ADMINISTRATIVE CODE.	\$10000.00
DISB# 151076	VENDOR NO. 14261	CHECK DATE 08/22/97	TOTAL	\$10000.00

**Orlando Utilities Commission**  
 ORLANDO, FLORIDA  
 "Where Electricity Powers Progress"

No. 168183

PAY TO THE ORDER OF: DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 2600 BLAIR STONE ROAD  
 TALLAHASSEE FL 32399-2405

DATE  
08/22/97

NOT VALID AFTER 180 DAYS

\$10000.00

EXACTLY TEN THOUSAND AND NO/100

SUN BANK, N.A.  
 MAIN OFFICE:  
 ORLANDO, FLORIDA 32801

14261  
 151076

AUTHORIZED SIGNATURE  




September 23, 1997

Mr. Hamilton S. Oven, P. E., Administrator  
Siting Coordination Office  
Division of Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS48  
Tallahassee, FL 32399-2400

Re: Orlando Utilities Commission Request for Modification of  
Conditions Of Certification for Stanton Energy Center

Dear Mr. Oven:

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Hamilton S. Oven, P. E.

September 23, 1997

Page 2

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3. Also enclosed for your convenience, are second versions of pages containing both the supplemental application revisions and the new conditions of certification (showing additional wording underlined, and deletions with strike-throughs), as Attachment 3 to this request.

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We believe the requested minor modifications to the supplemental site certification conditions are not controversial and will result in a net environmental benefit. However, if

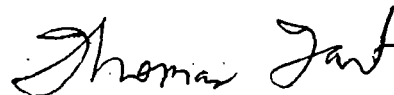


H. S. Oven, P. E.  
September 23, 1997  
Page 3

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On behalf of Orlando Utilities Commission, I thank you for your consideration of this request and the Agreement enclosed. If you have any questions concerning this request, please contact me or Greg DeMuth at (407) 423-9141.

Sincerely



Thomas B. Tart  
Vice President and  
General Counsel

TBT:rc  
Enclosures

cc: All Parties



## ORLANDO UTILITIES COMMISSION

500 SOUTH ORANGE AVENUE ▪ P. O. BOX 3193 ▪ ORLANDO, FLORIDA 32802 ▪ 407/423-9100  
Certified Mail No. P-147-432-341  
Return Receipt Requested

March 4, 1997

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

MAR 07 1997

SITING COORDINATION

Mr. Hamilton S. Oven, P. E., Administrator  
Siting Coordination Office  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS48  
Tallahassee, FL 32399-2400

Dear Mr. Oven:

Currently, combustion byproducts created from operations of Units 1 and Unit 2 at the Stanton Energy Center (SEC) are managed for Orlando Utilities Commission (OUC) by VFL Technology Corporation. As you are aware, scrubber sludge is combined with fly ash and quick lime to form a fixated low permeability material. Excess fly ash is sold as cement replacement to the ready mix concrete industry.

VFL Technology Corporation has proposed to OUC a project that will utilize fluidized bed ash from Cedar Bay and Indiantown facilities. This utilization is a pollution prevention project by OUC which offers a method to fixate this ash, reduce the required amount of quick lime, and allow for more OUC fly ash to be made available to the ready mix concrete industry.

To evaluate this proposal, I am requesting approval from the FDEP to conduct field testing of the Cedar Bay and Indiantown ash at SEC. This field test is scheduled to be performed during the spring outage beginning March 27, 1997. Testing will begin the week of April 7, 1997 and conclude on the week of April 28, 1997. Please be aware that all dry material will be handled entirely in existing enclosed systems currently in place with dust collectors operational.

Fixated test material will be placed only in locations of the storage area that have sufficient depth of low permeability cured fixated material to assure protection of the ground water. Pending positive results of this field test, OUC will apply for a modification of the Conditions of Certification, should we elect to implement this proposal for an extended time. Following completion of the testing period, OUC will refrain from importing flywash until the modification of the Conditions of Certification is approved.



Mr. Hamilton S. Oven, P. E.

March 4, 1997

Page 2

I have attached, for your review, a copy of letter and field test proposal and protocol submitted by Robert E. Jones, Manager of Operations, of VFL Technology Corporation. Also enclosed is a copy of the analysis of the Cedar Bay fly ash.

Thank you for your consideration and attention to this matter.

Very truly yours,



Gregory A. DeMuth, Director  
Environmental Division

GAD:rc

Attachments

xc: G. M. Standridge  
F. F. Haddad, Jr.  
D. M. Spencer  
L. Keeseey, Young, van Assenderp, Varnadoe, and Benton  
R. E. Jones, VFL

I:\wpfiles\depcorr\flysh.wp



February 24, 1997



Mr. Gregory A. DeMuth  
Orlando Utilities Commission  
Post Office Box 3193  
Orlando, FL 32802

Subject: Stanton Energy Center  
Fluidized Bed Ash Field Test  
VFL Project No. C-1326

Dear Greg:

I am attaching the proposed test procedure for substitution of fluidized bed ash from Cedar Bay (Jacksonville, FL) and Indiantown, FL co-generation stations for the OUC fly ash. The purpose is to evaluate stabilization data when using the fluidized bed ash to reduce or to replace the quicklime.

Please review the procedure and advise if any modifications are required.

Very truly yours,

Robert E. Jones  
Manager of Operations

Enclosure

REJ/lsp

cc: D. Scarlett, OUC  
L. Ruggiano, VFL  
C. Johnson, VFL  
J. Colussi, VFL  
FILE: C-1326

rej\gredemuth-ouc

## MEMORANDUM

TO: DISTRIBUTION

FROM: Robert Jones

DATE: February 24, 1997

SUBJECT: Fluidized Bed Ash Test  
Stanton Energy Center

VFL and OUC will be conducting field tests utilizing two (2) fluidized bed ashes in the FGD stabilization. These tests have been scheduled during the upcoming Unit #2 outage. The following procedure will be followed:

All fly ash will be removed from Silo #1 after the unit has been taken off-line.

Once all Unit #2 fly ash has been removed from Silo #1, VFL will begin receiving fluidized bed ash from one of the sources. VFL is assuming a minimum quantity of 200 tons will be required as a heel to assure suitable feeding of the silo equipment. All ash will be delivered in pneumatic trucks and will be unloaded into Silo #1. VFL will be responsible for scheduling all trucks so as not to interfere with the sale of Unit #1 fly ash.

The tests will be conducted at two (2) different fly ash replacement levels, with both fluidized bed ashes.

### Test #1 - Cedar Bay Ash

Day #1 - Process FGD at 100% Cedar Bay ash with 0% lime addition.  
Day #2 - Process FGD at 100% Cedar Bay Ash with 1% lime addition.  
Day #3 - Process FGD @ 50% Cedar Bay ash with 50% OUC fly ash with 0% lime addition.

### Test #2 - Indiantown Ash

Day #1 - Process FGD @ 100% Indiantown ash with 0% lime addition.  
Day #2 - Process FGD @ 100% Indiantown ash at 1% lime addition.  
Day #3 - Process FGD @ 50% Indiantown ash and 50% OUC fly ash with 0% lime addition.

All material produced will be made to the standard process criteria of 1:1 fly ash to sludge on a dry weigh basis. Actual process criteria will be established prior to each test.

Total fluidized bed ash requirements for the tests are as follows:

Cedar Bay Test

Heel - 200 tons  
Day #1 - 200 tons  
Day #2 - 200 tons  
Day #3 - 100 tons  
Total Cedar Bay Ash = 700 tons

Indiantown Test

Heel - 200 tons  
Day #1 - 200 tons  
Day #2 - 200 tons  
Day #3 - 100 tons  
Total Indiantown Ash = 700 tons

**ATTACHMENT A**  
**Production and Landfill Testing for Fluidized Bed Ash Test by**  
**OUC and VFL Technology Corporation**

Production testing will consist of the following tests:

1. Filtercake Solids
2. Promat Solids
3. Promat Moisture Content
4. Fly Ash to Sludge Ratio
5. Lime Content (Final Mix) if applicable
6. Lime Content (Fluidized Bed Ash)

Follow-on testing will consist of:

1. Two (2) proctors for each test segment
2. Twelve (12) 3" x 6" cylinders for each test segment for compressive strength and permeability testing.
3. Residual lime testing of materials at 24 hours, 48 hours, 72 hours, and one (1) week from production point.
4. TCLP - Promat cylinders after curing.

(NOTE: In order to insure maximum efficiency of technicians, a test procedure will be developed on the project site that distributes the testing workload.)

**ATTACHMENT B**  
**Test Mix Verification Testing**

1. The test will be performed utilizing added water. Moisture content will be verified first along with filter cake solids.
2. Adjust moisture to desired level.
3. Perform fly ash to sludge ratio and lime percent test.
4. Adjust process, if necessary and retest.
5. Once correct mix constituents are verified, swing the stacker to the production stockpile for this phase.
6. Retest the production material at the 1 ½ hour point (from production start time).
7. Collect samples of filter cake, added ash or ashes in mix and lime for follow-on testing.
8. Perform items #1 through #7 for each test phase.



**ATTACHMENT C**  
**Stockpile and Landfill Testing**

1. Perform stockpile temperature tests each hour while technicians are on site on production test day.
2. The day following production testing, perform stockpile temperature test prior to moving material to landfill.
3. Move material to the landfill to designated areas that have previously achieved compaction and density, dump, track-in with bulldozer and compact. Areas will remain accessible for future in-place testing.
4. Perform density testing after compaction.
5. Collect samples for cylinder and proctor preparation.
6. Perform residual lime and fly ash content tests on samples.
7. Recompact, if possible, and retest density.

# DALARE ASSOCIATES

INCORPORATED

BACTERIOLOGICAL  
AND CHEMICAL ANALYSIS

JOSEPH J. STRUG, JR. Director  
ROBERT M. WOLFE, B.A.  
PAUL A. WEBER, B.A.

MEMBER A.O.A.C.

MEMBER A.O.R.C.

REPLY TO  
217 SOUTH 24TH STREET, PHILADELPHIA, PA 19103  
(215) 567-1953  
FAX (215) 567-1168

December 11, 1996

VFL Technology  
Attn: Doug Gump  
16 Hagerty Blvd.  
West Chester, PA 19382

Dear Mr. Gump:

We have examined the samples submitted and would report our findings as follows:

Date Received: 11/27/96

Analytical Report # 1551

Cedar Bay

	Fly Ash <u>10/8/96</u>	Fly Ash <u>10/10/96</u>
Silica (SiO <sub>2</sub> )	32.22%	32.06%
Aluminum (Al <sub>2</sub> O <sub>3</sub> )	17.00%	17.36%
Iron (Fe <sub>2</sub> O <sub>3</sub> )	3.92%	4.23%
Calcium (CaO)	28.50%	27.52%
Magnesium (MgO)	0.66%	0.69%
Sodium (Na <sub>2</sub> O)	0.65%	0.76%
Potassium (K <sub>2</sub> O)	1.44%	1.47%
Titanium (TiO <sub>2</sub> )	1.29%	1.34%
Sulfur (SO <sub>3</sub> )	0.34%	1.03%
Loss on Drying	0.05%	0.04%
Loss on Ignition	4.62%	4.26%
Available Lime (CaO)	8.96%	8.54%

	Fly Ash <u>10/24/96</u>	Fly Ash <u>10/31/96</u>
Silica (SiO <sub>2</sub> )	32.53%	32.23%
Aluminum (Al <sub>2</sub> O <sub>3</sub> )	16.34%	16.78%
Iron (Fe <sub>2</sub> O <sub>3</sub> )	4.18%	4.32%
Calcium (CaO)	26.83%	27.14%
Magnesium (MgO)	0.68%	0.68%
Sodium (Na <sub>2</sub> O)	0.63%	0.53%
Potassium (K <sub>2</sub> O)	1.50%	1.53%
Titanium (TiO <sub>2</sub> )	1.24%	1.29%
Sulfur (SO <sub>3</sub> )	0.15%	0.74%
Loss on Drying	0.06%	0.05%
Loss on Ignition	5.23%	4.97%
Available Lime (CaO)	7.70%	7.98%

December 11, 1996

Page #2

VFL Technology

Attn: Doug Gump

Date Received: 11/27/96

Analytical Report # 1551

PPM = Parts per Million

Very truly yours,

---

DALARE ASSOCIATES, INC.

*Paul A. Weber*  
Paul A. Weber

PAW:jc



## ORLANDO UTILITIES COMMISSION

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

Certified Mail P-147-432-282  
Return Receipt Requested

January 17, 1997

NOIATION  
BUREAU OF

JAN 21 1997

RECEIVED

Mr. Leonard T. Kozlov, P. E.  
Program Administrator  
Air Resources Management  
Florida Department of  
Environmental Protection  
3319 Maguire Blvd., Suite 232  
Orlando, FL 32803

Re: OCD AP-96-329

Dear Mr. Kozlov:

When addressing a malfunction in a major piece of equipment such as electrostatic precipitator, the trouble shooting process is both time consuming and complex. As an immediate response to the excess opacity readings, the operator on duty put the precipitator into manual full power. Observing no change in the opacity readings, the shift supervisor on duty was apprised of the situation and an instrumentation technician was called out at 0100 hours.

The instrumentation technician observed the unusual condition of "A" side opacity within the normal range and the "B" side opacity high. Several hours were necessary to exchange components in the opacity system and check opacity calibrations. Electricians were called in and investigated low amp readings on several TR sets. Verification on the firing angle on the controller indicated a problem with the system.

It is approximately a three-hour process for each TR set to make the determination if there is a controller or precipitator malfunction. TR set 6-6 was addressed first and it was determined the mother board for the controller, a diode board and protective fuses all had to be replaced to get this TR set back to service; this was completed at approximately 1300 hours and opacity returned to normal low levels. The electrician continued troubleshooting the remaining TR sets until all -6TR sets were returned to service with the exception of TR-5 set which had an internal malfunction within the precipitator.



Mr. Leonard T. Kozlov, P. E.  
January 17, 1997  
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As you are aware, we met with A. Sobolevskiy on January 15, 1997 at the Stanton Energy Center (SEC) to discuss items contained in my letter dated December 10, 1996.

In addition, a technical discussion was held to confirm the events surrounding the malfunction of the precipitator on December 13, 1996 which created excess opacity as documented by the CEMs. Present at the meeting to answer any questions were, the Plant Director, Operations Manager, Maintenance Manager, Maintenance Supervisor, Chemical Engineer, Environmental Director, Senior Environmental Engineer.

In summary, operators responded immediately to correct the problem; however, as this was a malfunction, a safe and orderly process was immediately initiated to systematically troubleshoot and correct the problem.

Sincerely,



Gregory A. DeMuth  
Director  
Environmental Division

GAD:rc

xc: M. Costello, FDEP, Tallahassee  
A. Sobolevskiy, FDEP, Central District



# Department of Environmental Protection

File

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January 2, 1997

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OCD-AP-96-329

Stanton Energy Center  
Opacity Excess Emissions

Dear Mr. DeMuth:

This is in response to your December 17, 1996 letter regarding excess opacity emissions on December 13, 1996 from Stanton Energy Center Unit #1, due to an electrostatic precipitator malfunction. Your letter stated that it took several hours to identify the problem and repair the transformer rectifier, TR 6-6.

Within 15 days from receipt of this letter, please submit to the Central District office, a descriptive explanation as to why it took 12 hours to resolve the problem with the transformer rectifier, before the electrostatic precipitator was returned to normal service.

Thank you for your cooperation in this matter.

Sincerely,

L. T. Kozlov, P.E.  
Program Administrator  
Air Resources Management

✓ LTK/as  
cc: Martin Costello, DEP, Tallahassee