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2725 Judge Fran Jamieson Way, Building C  
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Chairman, Board of County Commissioners  
400 South Street  
Titusville, Florida 32780

# DEP MEDIA HOT SHEET

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**EMAIL TO:**

**TO: KRISTINE ROSELIUS, OFFICE OF COMMUNICATIONS  
HOWARD L. RHODES, DIRECTOR, DARM  
THE APPROPRIATE BUREAU CHIEF OR OPAPM/OAPCO ADMINISTRATOR IN DARM**

**FAX: 850/921-6227 OR SC 291-6227 (COMMUNICATION OFFICE)**

---

**TOPIC:** Oleander Power Plant PSD Application

**DATE:** 8/11/99 **REPORTERS NAME:** Aaron Davis

**FROM:** Florida Today (Newspaper) **TELEPHONE:**  
(Newspaper, TV Station, Radio, etc.)

**PERSON INTERVIEWED:** Michael P. Halpin **TELEPHONE:** 850/921-9530

**DIVISION/BUREAU/OFFICE:** Air Res. Management/BAR/New Source Review

**DATE OF INTERVIEW:** 8/10/99 **ACTION TIME NEEDED:** N/A

**QUESTIONS ASKED:** Several questions were asked, which were emissions-related. Note – An Administrative Hearing is planned for this project on 8/30/99.

**FOLLOW-UP NEEDED?** I don't believe so.

**DEADLINE:**

**SUMMARY OF CONVERSATION (Use additional pages if necessary)**

Mr. Davis reached me twice – at approximately 3 PM and 8 PM (at my house). I indicated that I would be happy to call him back in the morning (from the office) so that I could be better prepared to answer his questions, but he stated that he had to get a story out tomorrow and requested that I assist him. He wanted me to review the emissions from the proposed Oleander facility with him, specifically NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub> and CO, however we didn't make it to CO. I reminded Mr. Davis that I did not have any documents with me to refer to, was going from memory and requested that he keep that in mind when preparing his story.

He asked a general question attempting to obtain a comparison of this facility to similar facilities. I explained that "similar facilities" would likely be peaking electrical power plants and that therein, Oleander compared very favorably. He asked me why I said that, and I explained that one of the key pollutants that we look at from this type of facility is Nitrogen Oxides. This facility was planned to be permitted at 9 ppm of NO<sub>x</sub> (while firing natural gas), which is excellent for a peaking facility. He asked me what was typical, and I offered something in the 12-25 ppm range. We had a lengthy discussion about BACT and I attempted to explain to Mr. Davis that my review of this facility was to determine what was Best Available Control Technology and to compare the facility to similar ones around the state and country. I explained the difference between a simple cycle configuration and a combined cycle configuration, noting that the pollution control technologies for a simple cycle plant were not as abundant as those for a combined cycle plant due to the rigorous duty which hotter flue gases entering the smoke stack place on the equipment. I stated that to my knowledge, the 9 ppm NO<sub>x</sub> emission rate (firing Natural gas) proposed for this peaking facility was likely the best in Florida and one of the best in the

country. I also noted that we had recently issued permits for combined cycle facilities with equal and higher NO<sub>x</sub> emission rates, even though they can typically do better than peaking units. He asked me about NO<sub>x</sub> emissions while firing oil and I stated that they were proposed to be 42 ppm, which was typical. He asked what "the best" emission rates were and I indicated that with equipment known as a hot SCR, emission rates could be achieved less than 20 ppm. He asked why the facility did not use that technology, and I stated that our information concerning a plant in Puerto Rico (which was using the technology) was that the facility was having difficulties with the fuel oil combustion gases fouling the catalyst. Due to this and other factors, I did not believe that the technology was an appropriate requirement to place on this facility.

We discussed SO<sub>2</sub> and I related that the sulfur dioxide emissions are largely a function of the fuel going into the units. These units were planned to fire 3000 hours of natural gas with up to 1000 hours of that on fuel oil. I explained that the sulfur content of natural gas is nearly zero. Concerning the fuel oil proposed for this facility, the sulfur content is to be 0.05% or less. I noted that this was very low. He asked if other facilities were using lower sulfur-laden fuel oil and I indicated that 0.05% was about the best that can be done for power plant facilities. I explained that many facilities in the state were firing higher sulfur oils, as high as 2.5%, which is 50 times higher than what is being proposed for Oleander. He seemed surprised by this, but did not ask any questions about those facilities.

We then discussed particulate matter and I summarized it as being a very similar issue to SO<sub>2</sub> emissions. Notably, that natural gas is nearly free of PM<sub>10</sub> and that particulate matter in fuel oils roughly follows the sulfur content. With this project's clean fuel plans, it is reasonable to conclude that particulate emissions will be relatively low.

I was asked about any outside reviews of our work, and I stated that the EPA and National Park Service (NPS) had the opportunity to review the project. He asked me if they had any comments and I indicated that the only comment recommending anything "tighter" was from the NPS, who suggested that two similar facilities were permitted to fire fuel oil at 25 ppm. He asked why we didn't apply that technology to this project and I stated that my review of those two facilities revealed that the NPS had made an error. I found that both of those facilities were permitted at the same 42 ppm NO<sub>x</sub> while firing fuel oil, which was being proposed for Oleander.

Mr. Davis began asking questions about the ambient air impacts. I stated that Mr. Cleveland Holladay (our meteorologist) had reviewed those issues and was better suited to answer those questions. Although I did not have Mr. Holladay's phone number with me, Mr. Davis could contact the switchboard and be connected.

Mr. Davis concluded the interview by asking me if I believed that this type of project was what was envisioned when the Clean Air Act was enacted. I commented that I'm probably not qualified to answer that question having not been involved in enacting the legislation. However, as a state regulator I can say that we are able to ensure that facilities being proposed today are much better (cleaner) than many existing facilities, which are operating in the state.

His return call was at 8 PM and he only asked about SO<sub>2</sub> and NO<sub>x</sub>, wanting to know about the effects of those pollutants on the environment. I briefly discussed the relationship between NO<sub>x</sub> and "smog" and SO<sub>2</sub> and acid rain.



Florida  
Department of  
Environmental Protection

To Oleander  
File

Jeb Bush  
Governor

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

David Struhs  
Secretary

F A X T R A N S M I T T A L S H E E T

DATE: 10/15/99

TO: Marlene Waters

PHONE: ~~850~~

FAX: 407/268-3119

FROM: A. Linero

PHONE: 850/921-9523

Division of Air Resources Management

FAX: 850.922.6979

RE: Oleander

CC:

Total number of pages including cover sheet: 4

Message

It turned out that we don't have transcript yet,  
so I drove across town to get the pages from someone  
who has them. Here are the three pages  
from Zwolak that contain references to  
water. I didn't see "evaporation," but did  
see where excess is returned to City.

A. Linero

If there are any problems with this fax transmittal, please call the above phone number.

1           It is located in an area that is zoned for  
2 industrial development, that is designated for both light and  
3 heavy industrial use in the comprehensive plan, and it  
4 provides a significant buffer not only because of the site  
5 arrangement but the immediately adjacent off-site uses, it  
6 provides a significant buffer to the closest residential  
7 areas.

8           Q.   Does this site have good characteristics for its  
9 proposed use?

10          A.   Yes, it's good -- excellent characteristics for  
11 this proposed use.

12          Q.   How will Oleander obtain water for the project's  
13 needs?

14          A.   The plan to supply water to the project comes from  
15 a thorough evaluation of all the alternatives that were  
16 investigated in the early part of 1998. What is proposed is  
17 to utilize reclaimed water to the greatest extent practical.

18                And there would be an agreement between the City of  
19 Cocoa and the Applicant, Oleander Power, to supply that  
20 reclaimed water.

21                Oleander intends to develop infrastructure in  
22 concert with the City of Cocoa to supplement that reclaimed  
23 water with a storm water supply. That would supplement  
24 reclaimed water when it was not available.

25                Potable water would be used only as a last resort

1 if reclaimed water and storm water were not available.

2 Q. What would Oleander do with the waste water that's  
3 generated on site?

4 A. The minimal amounts of storm water -- excuse me,  
5 of waste water that would be generated on site would be  
6 discharged back to the City of Cocoa.

7 Q. So there will be no discharges of industrial waste  
8 water into the environment on this site?

9 A. That's correct.

10 Q. All right. Will there be a well installed on site  
11 to obtain groundwater on site?

12 A. No, groundwater is not a source of makeup water for  
13 the project.

14 Q. Do you know whether Oleander has offered to comply  
15 with any conditions or limitations on the development of this  
16 project?

17 A. Yes. There are a number of conditions and  
18 limitations.

19 Q. You had mentioned a Stipulated Settlement Agreement  
20 a few moments ago.

21 A. Yes.

22 Q. Does that document contain the conditions and  
23 limitations you're referring to?

24 A. It does.

25 Q. And what kinds of conditions and limitations were

1 offered by Oleander?

2 A. The conditions that are identified in that  
3 Stipulated Settlement Agreement include hours of operation,  
4 hours of operation on fuel oil, limitations with respect to  
5 truck traffic, limitations with respect to odor and vibration  
6 and noise.

7 It also includes a requirement to assist the City  
8 in developing the infrastructure that I just mentioned  
9 regarding storm water as a supplement to the reclaimed water  
10 supply.

11 Q. Why did Oleander offer to accept these restrictions  
12 on its Plan of Development?

13 A. Well, they weren't required under the current Land  
14 Development Code for Brevard County to limit their facility  
15 in the manners that I just described. There have been a  
16 number of studies that Golder has conducted since the  
17 project's inception that showed that we could demonstrate  
18 compliance with those types of conditions.

19 And because those conditions were a source of  
20 concern to, to the local residents in the community, most of  
21 those conditions were offered by Oleander as an incentive to  
22 develop the project in a manner that is reasonable and  
23 minimizes environmental impact.

24 Q. All right, sir.

25 A. As part of your work on this project, did you

If any person decides to appeal any decision made by the Building Code Administrators and Inspectors Board with respect to any matter considered at this meeting, he/she may need to ensure that a verbatim record of the proceedings is made, which will include the testimony and evidence upon which the appeal is to be based.

For further information, contact: Florida Building Code Administrators and Inspectors Board, 1940 North Monroe Street, Tallahassee, Florida 32399-2211.

Any persons requiring special accommodations at this meeting because of a disability or physical impairment should contact Stacey Merchant at the Building Code Administrators and Inspectors Board at least five calendar days prior to the meeting. If you are hearing or speech impaired, please call Stacey Merchant using the Florida dual party relay system which can be reached at 1(800)955-8770 (Voice) and 1(800)955-8771 (TDD).

#### DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Florida Department of Environmental Protection, Division of Recreation and Parks announces a public workshop to which all persons are invited.

DATE AND TIME: Wednesday, March 3, 1999, 7:00 p.m. (EST)

PLACE: Dunedin Public Library, 223 Douglas Avenue, Dunedin, Florida 34598

PURPOSE: To receive comments regarding management and land uses for Honeymoon Island State Recreation Area prior to the development of a management plan for the park.

Special accommodations for persons with disabling conditions should be requested in writing at least 48 hours in advance of this meeting. Any request for special accommodations can be made by writing: Department of Environmental Protection, Division of Recreation and Parks, District 4, Administration, 1843 South Tamiami Trail, Osprey, Florida 34229.

The Department of Environmental Protection announces a public workshop to which all person are invited:

DATE AND TIME: March 3, 1999, 7:00 p.m.

PLACE: Brevard County Agricultural Center, 3695 Lake Drive, Cocoa, FL 32926

PURPOSE: To accept public comments and provide status of Department review regarding Oleander Power's Air Permit Application to construct five gas and oil-fired combustion turbines in Brevard County.

A copy of the agenda may be obtained by writing: Mr. Michael P. Halpin, Department of Environmental Protection, 2600 Blair Stone Rd., MS #5505, Tallahassee, Florida 32399 or by calling Ms. Kim Tober, (850)921-9533.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop is asked to advise the agency at

least 48 hours before the workshop by contacting the Personnel Service Specialist in the Bureau of Personnel, (850)488-2996. If you are hearing or speech impaired, please contact the agency by calling 1(800)955-8771 (TDD).

The Department of Environmental Protection announces a public hearing of the Governor and Cabinet, sitting as the Power Plant Siting Board, to consider the Administrative Law Judge's Order of Adoption of the [Proposed] Finding of Fact, Conclusions of Law and Recommended Order in the case of the Kissimmee Utility Authority and Florida Municipal Power Agency Cane Island Power Park, Power Plant Siting Application PA98-38, DOAH Case No. 98-3619EPP.

DATE AND TIME: March 9, 1999, 9:30 a.m.

PLACE: Cabinet Hearing Room, Lower Level, State Capitol, Tallahassee, Florida

PURPOSE: The Governor and Cabinet, sitting as the Power Plant Siting Board, will consider, pursuant to the Florida Electrical Power Plant Siting Act, Section 403.501, et seq., Florida Statutes, the Order of Adoption dated December 8, 1998, from the Administrative Law Judge, finding that the Kissimmee Utility Authority's and Florida Municipal Power Agency's Cane Island Power Park is in compliance with existing land use plans and zoning ordinances.

For a copy of the agenda please contact: Judy Brooks, Department of Environmental Protection, Marjory Stoneman Douglas Building, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, (850)922-3766.

CABINET AIDES BRIEFING: The Cabinet Aides will meet and discuss the item on March 3, 1999, 9:00 a.m., in the same location.

The purpose of the briefing is to review and gather information regarding this item for consideration by the Siting Board.

The Department of Environmental Protection announces a (public meeting, hearing or workshop) to which all person are invited:

DATE AND TIME: March 9, 1999, 6:00 p.m.

PLACE: Rm. 502, 160 Governmental Center, Pensacola, Florida 32501

PURPOSE: The Northwest Citizens Advisory Panel meeting will include a presentation by our Northwest District Submerged Lands and Environmental Resources Permit staff about wetlands mitigation.

A copy of the agenda may be obtained by writing: Department of Environmental Protection, 160 Governmental Center, Pensacola, Florida 32501 or by calling Dick Fancher, (850)595-8300.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/hearing/meeting is asked to advise the agency at least 48 hours before the workshop/hearing/



NOTICE

The Department of Environmental Protection, Division of Air Resources Management, announces a public workshop (40 CFR 51.102 hearing) to which all persons are invited.

DATE AND TIME: March 3, 1999 at 7:00pm

PLACE: Brevard County Agricultural Center, 3695 Lake Drive,  
Cocoa, FL 32926

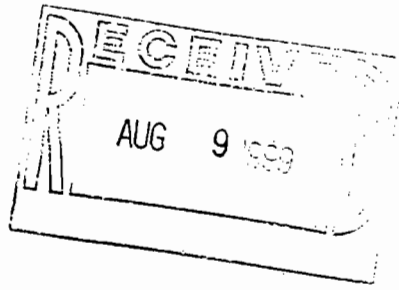
PURPOSE: Oleander Power Project Air Permit Application

A copy of the workshop agenda and proposed amendments may be obtained by writing to Mr. Michael P. Halpin, Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, Mail Station 5505, Tallahassee, Florida 32399-2400 or by calling Ms. Kim Tober at (850)921-9533. These materials will also be available for public inspection during normal business hours at the following offices:

Department Of Environmental Protection  
Central Florida District  
Air Resources  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Orange County Environmental Protection Department  
Air Program Section  
2002 East Michigan Street  
Orlando, Florida 32806

All persons desiring to be heard on the proposed agency action will be given the opportunity to do so. Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting is asked to advise the agency at least 48 hours before the meeting by contacting the Personnel Services Specialist at (850)488-2996. If you are hearing or speech impaired, please contact the agency by calling (800)955-8771 (TDD).



DSU

August 6, 1999

Mr. Daniel Manry  
Administrative Law Judge  
Division of Administrative Hearings  
The DeSoto Building  
1230 Apalachee Parkway  
Tallahassee, FL 32399-3060

FAX to  
Rick W.  
Armin E.  
Frank S.  
Richard Z.  
Doug Borden  
- Leonard Spielvogel  
cc Al Lewis  
F.Y.I.  
David Dee

Dear Judge Manry:

This is in regard to Case No. 99-2581, Clarence Rowe, Petitioner.

First, I have two questions regarding the hearing:

1. Is the hearing open to the public?
2. Can a person from the general public introduce testimony before the judge? If yes, how do they go about arranging this?

Second, I request a VHS tape playback system be available in the hearing room. I will be presenting video-taped evidence.

Third, I request that Mr. Richard L. Wolfinger, Vice President, Oleander Power Project be subpoenaed as a witness. I plan on questioning Mr. Wolfinger in support of my case.

Yours truly,

Clarence Rowe

Copy to:

David Dee, Esquire  
Landers & Parsons, P.A.  
Post Office Box 271  
Tallahassee, FL 32302-0271

RECEIVED

AUG 13 1999

BUREAU OF AIR REGULATION



# Department of Environmental Protection

Jeb Bush  
Governor

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

David B. Struhs  
Secretary

February 27, 1999

Mr. Clarence Rowe  
418 Pennsylvania Avenue  
Rockledge, Florida 32955

Dear Mr. Rowe:

Thank you for your letter dated February 1 regarding the Oleander Power permit application and your calls following it up. Your letter asked that we consider your concerns and deny the permit. We are still considering the application and comments received to-date. We will determine shortly whether we intend to issue the permit and will publicly notice that decision. Thereafter, we will consider additional comments in making a final decision on the matter in several months.

We will provide the Public with our most up-to-date information at the meeting scheduled on March 3. Attached is the agenda. The meeting was noticed in the Orlando Sentinel (Brevard Edition) and the Florida Administrative Weekly. We also informed those individuals and County officials who asked to be advised of developments regarding the application.

Attached is the information you requested regarding emissions from existing and planned power plants in Brevard County. Interestingly, the proposed plant has about the same capacity as each of the existing plants. However the maximum annual emissions possible from the proposed Oleander facility are much lower than the actual emissions from the existing three plants. We expect the actual emissions from the Oleander Plant (if permitted) to be substantially less than the maximum values given for that proposed plant just as the existing plants actually emit much less total pollution than allowed.

As we discussed, this project will not undergo a "Need Determination" by the Public Service Commission or "Site Certification" by the Governor and Cabinet in accordance with Sections 403.501-518 of the Florida Statutes. These are required for projects that produce electrical energy from steam. The power generated from the Oleander Project derives from direct conversion of mechanical energy from the gas turbines to electrical power without undergoing a steam cycle.

Our review will be largely based on the ambient air quality effects of the project and our rule requirement to make a determination of the "Best Available Control Technology" for it. I understand Brevard County passed a moratorium on construction of power plants until the local Code of Ordinances is amended. They will take public input on the matter. We do not have an "Environmental Fairness" criterion (such as you mentioned in your letter) in the governing statutes and rules that allows us to deny air permits on that basis. However we are appreciative of the issue and forwarded your letter to our Office of General Counsel to research the matter in more detail and provide us a more precise opinion.

If you have any further questions regarding this project, please contact Mike Halpin at 850/921-9530. Feel free to submit additional questions and comments at the meeting on March 3.

Sincerely,

A. A. Linero, P.E. Administrator  
New Source Review Section

AAL/aal

Enclosures

*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

## MEETING AGENDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
7:00 pm - 9:00pm MARCH 3, 1999  
BREVARD COUNTY AGRICULTURAL CENTER  
THIS MEETING IS OPEN TO THE PUBLIC

1. Introduction Vivian Garfein, Director, FDEP Central District
2. Public Participation Process Douglas Beason, OGC.
3. Application Details Michael P. Halpin
4. Ambient Air Impact/Modeling Cleveland G. Holladay
5. Public Comments
6. Adjourn

# Regional comparison of power plant annual emissions (1997)

<u>Poll.</u>	<u>OUC-IR</u>	<u>FPL-CC</u>	<u>OUC-ST</u>	<u>OLNDR</u>
	(959 MW)	(804 MW)	(925 MW)	(950 MW)
NO <sub>x</sub>	7925	7984	9257	1597
PM	173	943	253	208
SO <sub>2</sub>	23058	17632	8994	415
CO	1170	587	595	704
VOC	178	49	72	94

Notes: 1) Emissions shown are “reported actuals” for the OUC and FPL sites. These are being related to Oleander’s “requested maximum” emission levels for comparison purposes only.

2) Above power plants represent dissimilar technologies and fuel types.

AIRS ID: 0090006 # of Emissions Unit: 2  
 Owner: FLORIDA POWER & LIGHT/CP. CAN.  
 Name: CAPE CANAVERAL POWER PLANT  
 City: COCOA Office: CD County: BREVARD  
 Status: A Compliance Tracking Code: A DFC: 14-APR-98  
 Type: STEAM ELECTRIC PLANT  
 SIC: 4911 PSD: N PPS: N NSPS: NESHAP:  
 Title V Source: Y Syn Non-Title V Source: Small Business Stationary:  
 Major of HAPS: Major of Non-HAP Pollutants: Y  
 Syn Minor of HAPS: Syn Minor of Non-HAP Pollutants:

Pollutant	Poten(TPY)	Cap(TPY)	1997 Actual(TPY)	1996 Actual(TPY)
CO	1127.6000		586.6000	595.6200
NOX	15346.0000		7983.5000	8085.7600
PB	0.6000		0.0000	
PM	3383.0000		943.4300	1171.8400
PM10	2572.0000		943.4300	1171.8400
SO2	93043.0000		17631.5400	18947.8500
VOC	162.5000		48.9200	55.8700

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR RESOURCES MANAGEMENT SYSTEM

AIRS ID: 0090008 # of Emissions Unit: 8  
 Owner: ORLANDO UTILITY COMMISSION  
 Name: INDIAN RIVER PLANT  
 City: TITUSVILLE Office: CD County: BREVARD  
 Status: A Compliance Tracking Code: A DFC: 25-FEB-98  
 Type: STEAM ELECTRIC PLANT  
 SIC: 4911 PSD: Y PPS: N NSPS: Y NESHAP:  
 Title V Source: Y Syn Non-Title V Source: Small Business Stationary:  
 Major of HAPS: Major of Non-HAP Pollutants: Y  
 Syn Minor of HAPS: Syn Minor of Non-HAP Pollutants:

Pollutant	Poten(TPY)	Cap(TPY)	1997 Actual(TPY)	1996 Actual(TPY)
CO	1231.5000		1170.5100	402.4400
H021	0.0020		7.5000	1.4500
NOX	9141.7000		7923.8200	1896.7600
PB	0.1405		145.9800	64.7800
PM	3086.0020		251.8800	175.8800
PM10	1118.4000		173.8500	122.4500
SAM	176.0000		0.3700	0.0200
SO2	73188.0000		23059.0000	1468.2600
VOC	386.4200		177.8500	30.2400

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR RESOURCES MANAGEMENT SYSTEM

AIRS ID: 0950137 # of Emissions Unit: 2  
 Owner: ORLANDO UTILITIES COMMISSION  
 Name: STANTON ENERGY CENTER  
 City: ORLANDO Office: CD County: ORANGE  
 Status: A Compliance Tracking Code: A DFC: 15-JAN-97  
 Type: STEAM ELECTRIC PLANT  
 SIC: 4911 PSD: Y PPS: Y NSPS: Y NESHAP:  
 Title V Source: Y Syn Non-Title V Source: Small Business Stationary:  
 Major of HAPS: Major of Non-HAP Pollutants: Y  
 Syn Minor of HAPS: Syn Minor of Non-HAP Pollutants:

Pollutant	Poten(TPY)	Cap(TPY)	1997 Actual(TPY)	1996 Actual(TPY)
CO	3233.9000		595.4900	464.1600
NOX	14060.3500		9256.1000	7248.1000
PB	1.0800		222.3100	0.2400
PM	918.4500		403.6000	337.7700
PM10	576.4500		252.4800	211.2900
SO2	26432.1700		8994.6000	6274.0000
VOC	351.2600		71.5900	55.8100

418 Pennsylvania Avenue  
Rockledge, Florida 32955  
1 February 1999

RECEIVED

FEB 05 1999

BUREAU OF  
AIR REGULATION

C. H. Fancy, Chief  
Bureau of Air Regulations  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Oleander Power Project:  
Brevard County, Florida

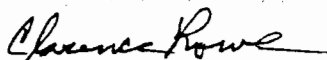
Dear Mr. C. H. Fancy:

The Oleander Power project proposed by Mr. R. L. Wolfinger of Baltimore, Maryland is of great concern to residents of Brevard County. We understand your department is in the permit review process for this project and we would appreciate you taking into consideration some of our concerns.

Brevard County already has two power plants within approximately eight miles of this proposed site. Under the concept of environmental fairness Brevard already has adequate pollution without adding the Oleander plant. Fortunately NASA launch fallout is mostly offshore, however, FPL and Orlando Utilities lay down considerable visible plume on shore. Oleander's site location will deposit most of the fallout across residential neighborhoods then into the St. Johns or Indian river. During NE/SW flow the Oleander and FPL plant will have overlapping plume patterns increasing concentrations of fallout.

Were there a compelling need in Brevard County for this plant we could better understand the location; however, lacking a compelling need this appears to be a crass commercial venture foisted upon a low-income community because they are without political muscle to prevent the act. Again, under the concept of environmental fairness you are requested to deny any permit for the Oleander Power Plant.

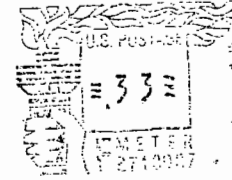
Sincerely,



Clarence Rowe

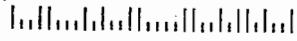
CR:r

STATE OF CALIFORNIA  
CA ENERGY COMMISSION  
1516 9TH STREET  
SACRAMENTO, CA 95814-5504



A

135667  
AL LINERO  
FLORIDA DEPT OF ENV PROTECTION  
2600 BLAIRSTONE RD - MS 5505  
TALLAHASSEE FL 32312



32233/2400





## CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET  
SACRAMENTO, CA 95814-5512DOCKET  
97-AFC-1 DATE MAR 29 1999  
RECD. MAR 29 1999NOTICE OF CANCELLATION OF A STAFF WORKSHOP  
FOR THE HIGH DESERT POWER PROJECT  
APPLICATION FOR CERTIFICATION  
(97-AFC-1)

The High Desert Power Project, Limited Liability Company (HDPP) is proposing to construct and operate a 680 to 720 MW natural gas fueled electricity generation power plant. The proposed project is to be located in the northeast corner of the Southern California International Airport (formerly George Air Force Base), in the city of Victorville, in San Bernardino County, California. The power plant and related facilities, such as the electric transmission line, natural gas pipeline and water lines, are under the California Energy Commission's (Energy Commission) siting authority.

On January 21, 1999, the Energy Commission staff published its Staff Assessment. This document contains staff's findings and recommendations on the High Desert Power Project Application for Certification (AFC) based on the information received to date. A workshop to discuss air quality issues raised in the staff assessment was held on February 4, 1999 and on March 2, 1999. As a result of these discussions, staff will hold another public workshop on air quality to discuss the applicant's interpollutant offset proposal, and other air quality issues as follows:

**WORKSHOP CANCELED****CANCELED**

Thursday, April 1, 1999

10:00 AM to 4:30 PM

Nevada Conference Room\*

U.S. Environmental Protection Agency

75 Hawthorne Street, San Francisco, California

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APR 05 1999

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AIR REGULATION

(\*Please sign in at front desk, conference room may change)

(See Map On Reverse)

The meeting location is wheelchair accessible. If you require special accommodations, contact Robert Sifuentes, at (916) 654-5004, at least five days prior to the workshop. Persons requiring information on how to participate in the Energy Commission's review of the project should contact Roberta Mendonca, the Energy Commission's Public Adviser, at (916) 654-4489, (800) 822-6228, or email pao@energy.state.ca.us. Technical or scheduling questions should be directed to Richard K. Buell, Siting Project Manager, at (916) 653-1614, or email at rbuell@energy.state.ca.us. The status of the project, a copy of the Staff Assessment, and other relevant documents are available on the Energy Commission's Internet page at [www.energy.ca.gov/sitingcases/highdesert](http://www.energy.ca.gov/sitingcases/highdesert). News media inquiries should be directed to Assistant Executive Director, Claudia Chandler, at (916) 654-4989.

PROOF OF SERVICE (REVISED \_\_\_\_\_) FILED WITH  
ORIGINAL MAILED FROM SACRAMENTO ON 3/29/99  
*SMC*

Mailed to List: 707

Nt040199.doc

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AIR REGULATION

Eugene Murphy  
500 HAMMOCK Rd  
Melbourne Vg, Fl, 32904

F.D.E.P. Air Resources Dept.

Michael P. Halpin  
2600 BLAIR Stone Rd.

MS. No. 5505

Tallahassee, FL, 32309-2400

3.30.99

Mr Halpin,

This is to register my opposition to  
The proposed Cleander power project to  
be located west of Cocoa.

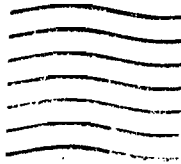
We don't want or need the pollution  
This Maryland Corporation's plant would  
generate along with electricity.

It's a crime in my opinion, to  
let a project of this type be placed  
at this location.

Eugene Murphy

Alfred Hernandez  
3717 Bayfield St  
Cocoa Fh 32926

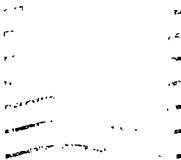
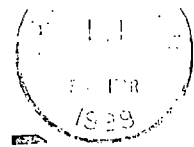
Best Available Copy



FDEP Air Resources Department  
Michael P Halpin  
2600 Blair Stone ~~Street~~ Road  
M.S. No. 5505  
Tallahassee, FL



Eugene Murphy  
500 HAMMOCK Rd  
Melbourne Vlg, FL 32904



F.D.E.P. - Air Resources Dept  
Michael P. Halpin  
2600 BLAIR STONE RD MS # 5505  
TALLAHASSEE, FL, 32399-2400



Department of Environmental Protection  
In regards to the Olander power project, I definitely suggest that it be put further away from residential areas, then 520 and I 95.

I live within blocks of that area. I have been here for 20 years. At age 81 there is no way I am going to change residence. I am very active but do have emphysema, and am very worried about this project.

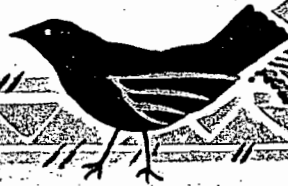
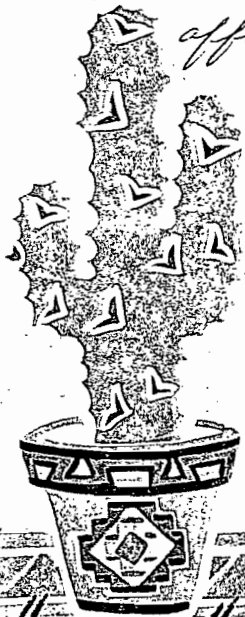
I'm sure that there are areas where it could be that would not affect so many people.

Please reconsider  
Suzette Nevitt

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APR 05 1999

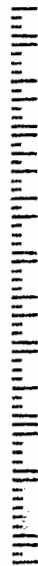
BUREAU OF  
AIR REGULATION



1999  
Ms. G. Nevitt  
4020 Cottonwood Ct.  
Cocoa, FL 32920-3920



F D E P Air Resources Dept.  
Michael P. Hejran  
2600 Blair Stone Road  
Tallahassee, FL  
Ms S No 5505



RECEIVED

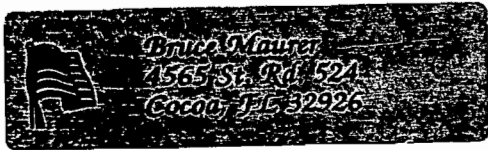
APR 05 1999

BUREAU OF  
AIR REGULATION

Dear People,

If the Oleanclar Plant is built I will be downwind of it a good part of the time and am not happy about. I urge you please reconsider the issuance of the permit. I have read the entire manifesto they sent the Brevard County Commissioners. Even if their statements are true, I would rather live with the attendant pollution of a 200 room hotel rather than breathe the smog from stacks providing power to people outside our county. I already have to look at the dirty stacks at FPL's Canaveral Plant and would rather not look at four more so close to my house.

Sincerely,  
Al Henang



FPEP Air Resources Dept.  
 Attn: Michael P. Halpin  
 2600 Blair Stone Road  
 M.S. No 5505  
 Tallahassee, FL 32399-2400

950300/6564



Jonnie Eide  
 595 Coc Rd  
 Cocoa FL 32926



J.D.E.P. Air Resources Dept.  
 Michael P. Halpin  
 2600 Blair Stone Road  
 M.S. No. 5505  
 Tallahassee FL  
 32399-2400

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APR 05 1999

BUREAU OF  
AIR REGULATION

April 2, 1999  
Janice Eide  
595 Cox Rd  
Cocoa FL 32926  
407-632-6971

Michael P. Halpin  
FDEP Air Resources Dept.

Dear Mr. Halpin,

I am writing to protest the building of a third power plant in central Brevard County. We have two plants about ten miles from the proposed site of the Oleander Power Project. We do not need more pollution no matter how minor added to what we have now. I'm sure you've heard the saying? Every Litter Bit Hurts!

We were told there would be an air quality test in the area before it is approved.

We have an Auto Auction and a truck terminal in the immediate area. The refiners run all night ~~emitting~~ diesel fumes. The auto auction is on Monday night. The cars idle waiting to go through the auction. You can see the pollution hanging in the air.

The Cocoa Auto Auction is at  
500 Cox Rd.. The truck terminal  
is at 480 Cox Rd.. We also have  
I-95 and S.R. 50 exhaust.

Please consider the people in  
the Cocoa area when this comes up.

Thank You Sincerely

Janice Eide



4565 State Road 524  
Cocoa, FL 32926

April 2, 1999

FDEP Air Resources Department  
Att'n: Michael P. Halpin  
2600 Blair Stone Road  
M.S. No. 5505  
Tallahassee, FL 32399-2400

Dear Mr. Halpin:

We are writing to protest the possible placement of a power plant planned for Interstate 95 and State Road 520, which would be positioned in the same wooded area that backs our 2.2-acre home on State Road 524.

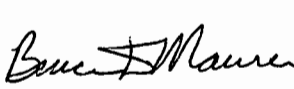
The pollution emitted from the burning of gas and oil that would come from the plant would be hazardous, we believe, to the welfare of ourselves and our children, along with our outdoor animals, including our horse.

We strongly believe that the Oleander power project should be prohibited from our area. The burning of oil (when gas is not available) is dirty and polluting, and it is our home that will be most greatly affected. I am certain that if it were in your backyard, you would feel the same way.

Even if the rates are lower than any other similar projects in the state, when the plant is burning oil in your backyard, it's a moot point whether or not the pollution rate is higher or lower than other plants further away from you.

We respectfully protest this proposed power plant and request that you reconsider its positioning in a residential area cherished for its wooded beauty, clean air and tranquility.

Respectfully yours,

  
Bruce Maurer

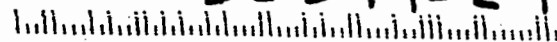
  
Susan Maurer

1999 Peggy Lane  
3135 Ipswich Dr.  
Cocoa, FL 32926-4430

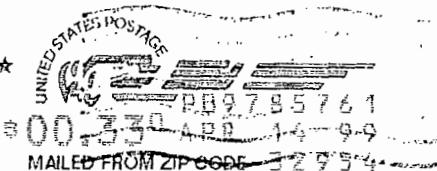
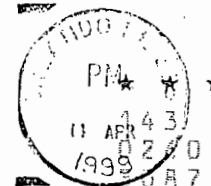


FDEP Air Resources Dept  
Michael P. Halpin  
2600 Blair Stone Road  
M.S. No. 5505  
Tallahassee, FL  
32399-2400

32399/6564



Clarence Rowe  
419 Pennsylvania Avenue  
Rockledge, Florida 32955



llllllllllllllllllllllllllllllllllllll  
C. H. Fancy, P.E. Chief  
Bureau of Air Regulations  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

FDEP Air Resources Dept.  
Michael P. Halpin  
2600 Blair Stone Road  
M.S. No. 5505

Tallahassee, FL 32399-2400

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APR 06 1999

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AIR REGULATION

Mr Halpin:

RE: Oleander power project, Broward  
County, FLORIDA

Sir: This project is proposed to be located  
in a <sup>Primarily</sup> residentially zoned area. The  
Primary sources of all pollution in the  
State of Florida are now & have been  
presented to citizens by developers  
as "pollution-free" and "safe". Once the  
project is under construction citizens  
resign themselves to the lies they were  
told and learn to live - or die - with  
it. You are in a position to protect  
people who value their environment  
from outsiders who come into our state  
to build, pollute, and leave.  
Peggy W. Lane

# INTEROFFICE MEMORANDUM

(Draft)

**Date:** 19-Apr-1999 04:04pm  
**From:** Mike Halpin TAL  
**Dept:**  
**Tel No:**

**To:** Aspbb

( Aspbb@AOL.COM@PMDf@EPIC66 )

**Subject:** Re: Oleander Power Project

Dear Ms. Adams -

I have left your response below for reference.

As a matter of routine, we forward applications to the National Park Service for comments. The U.S. Fish and Wildlife Service's Air Quality Branch is closely associated with the National Park Service's Air Resources Division. Their "permit review" comments regarding sources near Chassahowitzka, Okefenokee, or St. Marks wildernesses are written on U.S. Fish and Wildlife Service (FWS) letterhead, for instance. The NPS, on the other hand, deals with sources near Everglades NP. The review we received on this project was from the Air Quality Branch of the Fish and Wildlife Service and they did not identify the issue you have raised.

I hope that this is helpful to you.

Sincerely,  
Michael P. Halpin

---

Dear Mr. Linero and Mr. Halpin:

Have the potential impacts of the Oleander Power Project on protected migratory birds been carefully scrutinized during the application and review process? I am referring to the very hot (1,114 degree F.), very fast (212 feet per second) invisible gases coming out of (5) 22' wide stacks situated in a row and going east and west. Peninsular Florida is well known as a major migratory corridor for many species of small songbirds, all of which are Federally protected by the Migratory Bird Treaty Act.

If so, what conclusions has the Florida Department of the Environment come to as regards this issue?

Or what mitigation to minimize deaths of migratory birds has the department been able to obtain?

Thank-you for your time,  
M. Adams

## INTEROFFICE MEMORANDUM

**Date:** 19-Apr-1999 02:51pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Rebecca.Scott3@gte.net@in

**Subject:** Oleander Power Project - Proposed

Ms. Scott -

I have received your e-mail (which was addressed to Governor Bush) and your corresponding comments on the above subject.

Thank you for your interest in this project.

Sincerely,  
Michael P. Halpin

PL

MIKE HALPIN

CLARK -  
PL. HANDLE  
Howard  
4/8 AIR



Rebecca "Becky" Scott <Rebecca.Scott3@gte.net> on 03/08/99 06:35:50 AM

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APR 08 1999

To: Florida Governor/EOG  
cc:  
Subject: Oleander Power Project - Proposed

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AIR REGULATION

DEP

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APR 08 1999  
DIVISION OF AIR  
RESOURCES MANAGEMENT

I attended a public meeting hosted by the Florida Dept. of Environmental Protection, Division of Air Resources Management, held last week in Cocoa, Florida.

I'm at a loss why the State is even considering allowing a TITLE V power plant to be built here:

1. This power plant is not for the people of Florida - try Baltimore, Maryland.
2. The State doesn't need the tax revenue.
3. No significant number of jobs offered - if any.

I was very disappointed at the presentation given by the Florida Air Resources Mangement Group. The charts given on air quality were for Cocoa Beach and Winter Park - not the area surrounding the proposed power plant. They didn't talk about total pollution for our area ( there is a power plant in the neighboring town of Port St. John). How can they state that this is a Title V power plant, but it won't hurt the environment?

The Florida Department of Environmental Protection has made a decision to approve this request, regardless of the damage to our air quality, it's impact on a lot of our local senior citizens with respiratory problems, and our local real estate values. All to benefit the people of Baltimore. Can you help stop this plant from being built in the State of Florida and send them back to Maryland?

Sincerely,

Rebecca I. Scott  
181 Woodsmill Blvd.  
Cocoa, FL 32926  
407-637-4637

P. S. We're known as the Space Coast - shall we change it to the Power Plant Coast - on all the tourist brochures we can have a power plant pumping out toxic waste logo instead of the Space Shuttle.

# INTEROFFICE MEMORANDUM

**Date:** 05-Mar-1999 05:22pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Oleander Hours on Oil

Mike Halpin,

If Oleander Power Project receives an air permit based on 3390 hours of operation, 1,000 of which is currently proposed to be on oil, can this company come back, sometime in the future (after they are built), and submit an application to have the hours of operation on oil increased? And how long a period would they have to wait before they could do so?

Thank-you.

Marlene Adams

# INTEROFFICE MEMORANDUM

**Date:** 08-Mar-1999 12:21pm

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**To:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** FWD: Oleander Hours on Oil

Al -

Can you answer this one? It deals with an issue related to rules. I would appreciate being copied, as I'm not sure of the answer.

Thanks

Mike



# INTEROFFICE MEMORANDUM

**Date:** 08-Mar-1999 12:27pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Kim Tober TAL ( TOBER\_K )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Power Project

Ms. Adams -

Thank you for your note.

I currently am awaiting this information from the applicant. I will be happy to forward you a summary of the data as soon as I receive it.

Sincerely,  
Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 09-Mar-1999 08:19am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Hours on Oil

Al -  
Thanks!  
Mike

Ms. Adams. This is in response to your question to Mike Halpin regarding future permit modifications to increase the hours of oil firing. Mike asked me to handle it for him.

Oleander can come back in the future to request an increase in hours of operation on oil. I know of no time requirements prior to making such a request. A request would trigger a similar review, including the same public notice process presently underway and the need to determine Best Available Control Technology.

Feel free to call me at 850/921-9523 or E-Mail me with your number and I'll call you back if you want to discuss the matter in greater detail. Mike continues to handle most other matters related to this application. Thank you.  
Al Linero

YOUR MESSAGE READS

Mike Halpin,  
If Oleander Power Project receives an air permit based on 3390 hours of operation, 1,000 of which is currently proposed to be on oil, can this company come back, sometime in the future (after they are built), and submit an application to have the hours of operation on oil increased? And how long a period would they have to wait before they could do so?

Thank-you.

Marlene Adams

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 10-Mar-1999 09:25am

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:**

**Tel No:**

**To:** Aspbb

( Aspbb@aol.com@PMDf@EPIC66 )

**CC:** Mike Halpin TAL

( HALPIN\_M )

**CC:** Steven Palmer TAL

( PALMER\_S )

**Subject:** Re: Oleander vs. Duke

Ms. Marlene Adams.

Following are answers to your questions comparing Oleander to Duke - to the extent that I can answer them.

How many hours are they (Duke) requesting to operate?

8760 hours - nonstop.

Are they going to use oil as back-up and for how many hours?

No oil.

How many units and stacks will they have?

Two units, two stacks plus cooling towers.

How tall are the stacks going to be?

150 foot stacks.

What is the breakdown of pollutants in TPY?

NOx 679, CO 339, PM 102, VOC 25, SO2 85, sulfuric acid mist 10.

How many acres is the site?

30.5 acres 0.5 miles NW of SR 44 and I-95

How close is the site to the nearest resident?

I have not checked this out myself. However the Volusia County Comprehensive Plan identifies Samsula as a rural unincorporated community, located approximately 3.5 miles (roughly 5 km) West of the site and characterized by large lot rural, rural residential and agricultural development. There appears to be a parcel that is zoned as low density residential approximately 1 km to the East. It is not possible to say whether there are actually dwellings on it. There seems to be some actual high and low density residential development approximately 2.5 km to the Southeast.

Approximately how many residents are there within a 3.2 km radius?

I don't know the answer to this question.

Is there any public playgrounds within 1/2 mile?

I don't believe so but do not know.

Are there any public schools within a 3.2 km radius?

I do not know.

Is there a freshwater river within 1 mile?

I do not know, but the Indian River is not too far away.

How many employees are needed to operate? 19 employees.

Is the plant classified as a Title V Source of Air Pollution?

Yes.

Are they going to need up to 1.9 million gallons of water to operate?

They will need 3.75 million gallons per day. Initially 2.0 million will be treated effluent from an adjacent wastewater treatment plant.

Will they need potable water to operate?

They will something like 1.75 million gallons per day of untreated wellwater and untreated water from New Smyrna Beach Utilities. I don't see that they will obtain potable water in any meaningful amounts. However both reuse water and groundwater will be filtered and treated on-site. Some of it will be treated to "demineralized water."

What is the difference between combined cycle and simple cycle?

The projects use identical combustion turbines and both make direct power through electrical generators connected directly to the turbines. The simple cycle units exhaust gases to the atmosphere at 1100 degrees Fahrenheit. The combined cycle units have waste heat boilers that transfer that heat to steam. The steam is expanded in a conventional steam turbine that turns another electrical generator to produce 50 percent more electricity than the simple cycle configuration. The exhaust gases from combined cycle units are only 200 degrees.

To what extent does the PSC regulate them?

Duke must (at least) demonstrate the Need for the Power to the PSC. A number of hearings have already been held. I cannot say to what extent Duke or any other utility is regulated.

Did they have to follow the Power Plant Siting Act?

Yes.

You have indeed requested a lot of information. We only handle the air portion. Attached (as E-Mail) is a copy of the Technical Air Report we prepared for the Duke project. There is a five volume set of documents that was submitted by Duke to the Department's Site Certification Office (contact is Steve Palmer at 850/487-0472). That office is also preparing a staff report

on  
the project. Perhaps some of what you want is in the documents submitted by Duke or the staff report. I will fax you the executive summary and Table of Contents of Duke's submittal.

The documents consist of hundreds of pages and the Department might need to charge you to obtain more than a few pages. You can surely get a look at them by going to New Smyrna Beach or possibly Orlando where there should be copies of it at City or DEP offices. Check with Steve for other ideas about this. You might ask him when the administrative hearing will be held on the Site Certification application.

You can obtain more by checking out Volusia County, School District, and City of New Smyrna websites regarding schools, parks, residences, etc.

Thank you for your interest in these projects. Mike Halpin will continue to follow up on matters directly related to the Oleander project. Al Linero.

TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION

Duke Energy New Smyrna Beach Power Company LLP

New Smyrna Beach Power Plant  
500 Megawatt Combined Cycle Power Plant  
New Smyrna Beach, Volusia County

DEP File No. PA 98-39 (PSD-FL-257)  
Facility ID No.: 1270152

Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation

January 8, 1999

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 1. APPLICATION INFORMATION

### 1.1 Applicant Name and Address

Duke Energy New Smyrna Beach Power Company, Ltd., LLP  
422 South Church Street, Legal PB05E  
Charlotte, North Carolina 28202-1904

Authorized Representative: William L. Sigmon, Jr, Vice-President

### 1.2 Reviewing and Process Schedule

10-05 98: Date of Receipt of Application  
10-14-98: Application found Complete per 403.5066, F.S.  
12-01-98: DEP Insufficiency Letter Including BAR Comments  
12-28-98: Received Applicant Responses to Insufficiency Questions  
01-08-99: Intent Issued

## 2. FACILITY INFORMATION

### 2.1 Facility Location

Refer to Figure 1. The proposed New Smyrna Beach Power Project site is approximately 5 miles west of downtown New Smyrna Beach and 0.5 miles northwest of the intersection of State Road 44 and I-95, Volusia County. This site is approximately 155 kilometers (96 miles) from the Chassahowitzka National Wildlife Refuge Class I PSD Area. The UTM coordinates of this facility are Zone 17; 500.30 km E; 3,209.80 km N.

### 2.2 Standard Industrial Classification Codes (SIC)

Industry Group No.	49	Electric, Gas, and Sanitary Services
Industry No.	4911	Electric Services

### 2.3 Facility Category

The New Smyrna Beach Power Project is a new major facility. The facility identification number (FID No.) in the Department database (ARMS system) is 1270152.

The new facility will be classified as a Major or Title V Source of air pollution because emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and particulate matter (PM/PM<sub>10</sub>) exceed 100 TPY. The new facility is within an industry included in the list of the 28 Major Facility Categories per Table 212.400-1, F.A.C. Because emissions will be greater than 100 TPY for NO<sub>x</sub>, CO and PM/PM<sub>10</sub>, the facility is also a Major Facility with respect to Rule 62-212.400, F.A.C., Prevention of Significant

---

New Smyrna Beach Power Project  
-FL-257  
500 MW Combined Cycle Facility  
1270152

Permit No. PSD  
Facility ID. No.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Deterioration (PSD) and a determination of Best Available Control Technology (BACT) is required for at least these three pollutants.

As a Major Facility, pollutants emitted in excess of the significant emission rates given in Table 212.400-2 of 40 TPY of sulfur dioxide (SO<sub>2</sub>) or volatile organic compounds (VOC), 25/15 TPY of particulate matter (PM/PM<sub>10</sub>), or 7 TPY of sulfuric acid mist (SAM), also require review per the PSD rules and a BACT determination. This facility is also subject to the Title IV Acid Rain Program, 40 CFR 72 and must apply for an Acid Rain Permit at least 24 months prior to start up.

### 3. PROJECT DESCRIPTION

This permit addresses the following emissions units:

<b>Emission Unit No.</b>	<b>System</b>	<b>Emission Unit Description</b>
001	Power and Steam Generation	One 165 Megawatt (nominal) Gas Combustion Turbine-Electrical generator with Unfired Heat Recovery Steam Generator (HRSG)
002	Power and Steam Generation	One 165 Megawatt (nominal) Gas Combustion Turbine-Electrical generator with Unfired Heat Recovery Steam Generator (HRSG)
003	Water Cooling	Cooling Tower Consisting of 12 Modules and Fans

Duke Energy New Smyrna Beach Power Company Ltd., LLP (Duke) proposes to construct a nominal 500 megawatt (MW) natural gas-fired combined cycle electrical power generation facility. The project includes: two nominal 165 MW gas combustion turbine-electrical generators; two unfired heat recovery steam generators (HRSG) capable of raising sufficient steam to generate an additional 170 MW in a single steam electrical turbine-generator; two 150-foot stacks; a 12 module cooling tower; a diesel-fired 0.5 MW emergency generator; a 287 HP diesel-fuel fired fire water pump; and ancillary equipment.

**Figure 2 - View of Duke New Smyrna 500 MW Combined Cycle Project**



## **TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

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This facility will be located adjacent to a new wastewater treatment plant owned and operated by the City of New Smyrna Beach. The wastewater plant will provide treated wastewater for reuse in the facility cooling tower and will accept blowdown from the HRSGs. The City will be entitled to purchase 20-30 MW of electricity but otherwise will not participate in the operation of the new facility which will be fully owned by Duke.

The prime movers and sources of air pollution will be General Electric PG7241FA (7FA) combustion turbine-generators. These will be equipped with Dry Low NO<sub>x</sub> (DLN-2.6) combustors for the control of NO<sub>x</sub> emissions. Only natural gas will be used in these units and there are no provisions for emergency or backup use of fuel oil. An exterior view of a GE MS7001FA (a predecessor of the PG7241FA) is shown in Figure 3. An internal view is shown in Figure 4.

**Figure 3 - Photograph of General Electric MS 7001FA Combustion Turbine**

**Figure 4 - Internal View of General Electric MS 7001FA Combustion Turbine**

According to the application, the facility will emit approximately 679 tons per year

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(TPY) of NO<sub>x</sub>, 339 TPY of CO, 102 TPY of PM/PM<sub>10</sub>, 85 TPY of SO<sub>2</sub>, 25 TPY of VOC, and 10 TPY of SAM. Emission increases of all these pollutants (except VOC) will be greater than their respective significant emission rates per Table 212.400-2, F.A.C. and require review for the Prevention of Significant Deterioration (PSD) and a Best Available Control Technology (BACT) determination.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 4. PROCESS DESCRIPTION

Much of the following discussion is from a 1993 EPA document on Alternative Control Techniques for NO<sub>x</sub> Emissions from Stationary Gas turbines. Project specific information is interspersed where appropriate.

A gas turbine is an internal combustion engine that operates with rotary rather than reciprocating motion. Ambient air is drawn into the 18-stage compressor of the GE 7FA where it is compressed by a pressure ratio of about 15 times atmospheric pressure. The compressed air is then directed to the combustor section, where fuel is introduced, ignited, and burned. The combustion section consists of 14 separate can-annular combustors.

Flame temperatures in a typical combustor section can reach 3600 degrees Fahrenheit (°F). Units such as the 7FA operate at lower flame temperatures which minimize NO<sub>x</sub> formation. The hot combustion gases are then diluted with additional cool air and directed to the turbine section at temperatures of approximately 2400 °F. Energy is recovered in the turbine section in the form of shaft horsepower, of which typically more than 50 percent is required to drive the internal compressor section. The balance of recovered shaft energy is available to drive the external load unit such as an electrical generator.

Figure 5 is a simplified process diagram showing the key plant components. In the Duke project, the unit will always operate in the combined cycle mode, meaning that the hot combustion turbine gases are further utilized rather than exhausted through a bypass stack. In this mode, each gas turbine directly drives an electric generator while the exhausted gases are used to raise steam in each HRSG. Together, the two HRSGs drive a single steam turbine-electrical generator.

Steam exiting the steam turbine is either returned for reheating in the high pressure section of the HRSG or sent to the condenser. Cooling water to the condenser is provided from a mechanical draft cooling tower. Demineralized makeup (well) water is added to the condensed water which is returned to the steam cycle. Cooling tower makeup water is provided from the adjacent wastewater treatment plant and the wellwater supply. Blowdown from the steam cycle is sent to the treatment plant.

In simple cycle mode, the thermal efficiency of the GE 7FA line of combustion turbines is about 35 percent. In combined cycle mode, with all steam used to generate electrical power, efficiencies of 56 percent are possible.

At high ambient temperature, the units cannot generate as much power because of lower compressor inlet density. To compensate for the loss of output (which can be on the order of 20 MW compared to referenced temperatures), an evaporative chiller

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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may be installed ahead of the combustion turbine inlet. At an ambient temperature of 102 °F (and low relative humidity), roughly 10 MW of power can be regained by using the chillers.

The project includes highly automated controls, described as the GE Mark V Control System. The SPEEDTRONIC Mark V Gas Turbine Control System is designed to fulfill all of the gas turbine control requirements.

Additional process information related to the combustor design, and control measures to minimize NO<sub>x</sub> formation are given in the draft BACT determination distributed with this evaluation.

## 5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of 40 CFR 52.21, Chapter 403, Florida Statutes, and Chapters 62-4, 62-17, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Volusia County, an area designated as attainment for all other criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to review under Rule 62-212.400., F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for NO<sub>x</sub>, CO, PM/PM<sub>10</sub>, SO<sub>2</sub>, and SAM, exceed the significant emission rates given in Chapter 62-212, Table 62-212.400-2, F.A.C.

This PSD review includes a determination of Best Available Control Technology (BACT) for NO<sub>x</sub>, CO, PM/PM<sub>10</sub>, SO<sub>2</sub>, and SAM. An analysis of the air quality impact from proposed project upon soils, vegetation and visibility is required along with air quality impacts resulting from associated commercial, residential, and industrial growth.

The emission units affected by this PSD permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

### 5.1 State Regulations

Chapter 62-17	Electrical Power Siting
Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments

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Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-214	Requirements For Sources Subject To The Federal Acid Rain Program
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.520	EPA Continuous Monitor Performance Specifications

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### 5.2 Federal Rules

40 CFR 52.21	Prevention of Significant Deterioration (PSD)
40 CFR 60	NSPS Subparts GG
40 CFR 60	Applicable sections of Subpart A, General Requirements
40 CFR 72	Acid Rain Permits (applicable sections)
40 CFR 73	Allowances (applicable sections)
40 CFR 75	Monitoring (applicable sections including applicable appendices)
40 CFR 77	Acid Rain Program-Excess Emissions (future applicable requirements)

## 6. SOURCE IMPACT ANALYSIS

### 6.1 Emission Limitations

The proposed Units will emit the following PSD pollutants (Table 212.400-2): particulate matter, sulfur dioxide, sulfuric acid mist, nitrogen oxides, volatile organic compounds, carbon monoxide, and negligible quantities of fluorides, beryllium, mercury and lead. The applicant's proposed annual emissions are summarized in the table below and form the basis of the source impact review. The Department's proposed permitted allowable emissions for these Units are summarized in the Draft BACT document and Specific Conditions Nos. 18 through 23 of Draft Permit PSD-FL-257.

### 6.2 Emission Summary

The emissions for all PSD pollutants as a result of the construction of this facility are presented below:

#### FACILITY EMISSIONS (TPY) AND PSD APPLICABILITY

Pollutants	Annual Emissions <sup>1</sup>	PSD Significance	PSD REVIEW?
PM/PM <sub>10</sub> <sup>2</sup>	102	25	Yes
SO <sub>2</sub>	85	40	Yes
NO <sub>x</sub>	679	40	Yes
CO	339	100	Yes
Ozone(VOC)	25	40	No
Sulfuric Acid Mist	10	7	Yes
Mercury	<<0.1	0.1	No
Lead	<<0.6	0.6	No

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2. Based on 8760 hours of operation. Reference ambient temperature is 59 °F.
3. Includes 23 TPY from cooling tower.

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## 6.3 Control Technology

Emissions control will be primarily accomplished by good combustion of clean natural gas. The gas turbine combustors will operate in lean pre-mixed mode to minimize the flame temperature and nitrogen oxides formation potential. The DLN-2.6 combustors will control combustion turbine emissions of NO<sub>x</sub> and CO to 9 and 12 ppm respectively @15% O<sub>2</sub> between 50 and 100% of full load under normal operating conditions. Selective catalytic reduction (SCR) is available if the NO<sub>x</sub> rates cannot be achieved by DLN technologies, or the guarantee is too expensive, or unforeseen operational problems occur (e.g. frequent tuning). A full discussion is given in the Draft Best Available Control Technology (BACT) Determination (see Permit Appendix BD). The Draft BACT is incorporated into this evaluation by reference.

## 6.4 Air Quality Analysis

### 6.4.1 Introduction

The proposed project will increase emissions of five pollutants at levels in excess of PSD significant amounts: PM<sub>10</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub> and sulfuric acid mist. PM<sub>10</sub>, NO<sub>x</sub> and SO<sub>2</sub> are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, and significant impact levels defined for them. CO is a criteria pollutant and has only AAQS and significant impact levels defined for it. SAM is a non-criteria pollutant and has no AAQS or PSD increments defined for it; therefore, no air quality impact analysis was required for SAM

The applicant's initial SO<sub>2</sub>, CO and NO<sub>x</sub> air quality impact analyses for this project predicted no significant impacts; therefore, further applicable AAQS and PSD increment impact analyses for these pollutants were not required. The nearest PSD Class I area is the Chassahowitzka National Wilderness Area located 155 km west of the project site. Based on the preceding discussion the air quality analyses required by the PSD regulations for this project are the following:

- A significant impact analysis for PM<sub>10</sub>, CO, NO<sub>x</sub> and SO<sub>2</sub>;
- An analysis of existing air quality for PM<sub>10</sub>, CO, NO<sub>x</sub> and SO<sub>2</sub>;
- A PSD increment analysis for PM<sub>10</sub>;
- An Ambient Air Quality Standards (AAQS) analysis for PM<sub>10</sub>;
- An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts.

Based on these required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application



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complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A more detailed discussion of the required analyses follows.

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### 6.4.2 Analysis of Existing Air Quality and Determination of Background Concentrations

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. The monitoring requirement may be satisfied by using existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration. In addition, if EPA has not established an acceptable monitoring method for the specific pollutant, monitoring may not be required.

If preconstruction ambient monitoring is exempted, determination of background concentrations for PSD significant pollutants with established AAQS may still be necessary for use in any required AAQS analysis. These concentrations may be established from the required preconstruction ambient air quality monitoring analysis or from existing representative monitoring data. These background ambient air quality concentrations are added to pollutant impacts predicted by modeling and represent the air quality impacts of sources not included in the modeling.

The table below shows that predicted SO<sub>2</sub>, CO and NO<sub>x</sub> impacts from the project are predicted to be below the appropriate de minimus levels; therefore, preconstruction ambient air quality monitoring is not required for these pollutants. The table below shows that predicted PM<sub>10</sub> impacts from the project are predicted to be above the de minimus level; therefore, preconstruction ambient air quality monitoring is required for this pollutant. However, previously existing air quality data can be used to satisfy this monitoring requirement and to establish PM<sub>10</sub> background concentrations of 71 ug/m<sup>3</sup> and 21 ug/m<sup>3</sup>, for the 24-hour and annual averaging times, respectively. These background concentration values were used in the AAQS analysis required for PM<sub>10</sub>.

**Maximum Project Air Quality Impacts for Comparison to De Minimus Ambient Levels**

Pollutant	Averaging Time	Max Predicted Impact (ug/m <sup>3</sup> )	De Minimus Ambient Impact Level (ug/m <sup>3</sup> )	Impact Above/Below De Minimus
SO <sub>2</sub>	24-hour	1	13	BELOW
PM <sub>10</sub>	24-hour	26	10	ABOVE
CO	8-hour	14	500	BELOW

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NO <sub>2</sub>	Annual	0.3	14	BELOW
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### 6.4.3 Models and Meteorological Data Used in the Significant Impact Analysis

The EPA-approved SCREEN3 (screening model) and Industrial Source Complex Short-Term (ISCST3) dispersion models were used to evaluate the pollutant emissions from the proposed project. These models determine ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. They incorporate elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfy the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Daytona Beach Regional Airport, Florida (surface data) and West Palm Beach, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

For determining the project's significant impact area, the highest predicted short-term concentrations and highest predicted annual averages were compared to their respective significant impact levels.

### 6.4.4 Significant Impact Analysis

Initially, the applicant conducts modeling using only the proposed project's emissions at worst load conditions. In order to determine worst-case load conditions the SCREEN3 model was used to evaluate dispersion of emissions from the combined cycle facility for three loads (50%, 75% and 100%) and four ambient temperature conditions (15, 59, 71 and 105 °F). If this modeling at worst-case load conditions shows significant impacts, additional multi-source modeling is required to determine the project's impacts on the existing air quality and any applicable AAQS and PSD increments. Receptors were placed within 10 km of the facility, which is located in a

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PSD Class II area. The receptor grid for predicting maximum concentrations in the vicinity of the project was composed mostly of a polar receptor grid centered on the combined cycle facility stacks. Receptors were placed on the site fence line spaced 25 m apart. There were near-field cartesian receptors starting 100 m from the site fence lines and extending out 1,000 m at 100 m spacings. A 500 m spacing for polar coordinate rings was used from 1,000 m to 5,000 m (with 36 receptors per ring at 10° intervals) from the stacks, and a 1,000 m spacing was used from 6,000 m out to 10,000 m from the stacks. For each pollutant subject to PSD and also subject to PSD increment and/or AAQS analyses, this modeling compares maximum predicted impacts due to the project with PSD significant impact levels to determine whether significant impacts due to the project are predicted in the vicinity of the facility. The tables below show the results of this modeling.

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### Maximum Project Air Quality Impacts for Comparison to the PSD Class II Significant Impact Levels in the Vicinity of the Facility

Pollutant	Averaging Time	Max Predicted Impact (ug/m <sup>3</sup> )	Significant Impact Level (ug/m <sup>3</sup> )	Significant Impact?
SO <sub>2</sub>	Annual	0.04	1	NO
	24-hour	1	5	NO
	3-hour	6	25	NO
PM <sub>10</sub>	Annual	2	1	YES
	24-hour	26	5	YES
CO	8-hour	14	500	NO
	1-hour	36	2000	NO
NO <sub>x</sub>	Annual	0.3	1	NO

The results of the significant impact modeling show that there are no significant impacts predicted for emissions of SO<sub>2</sub>, CO, and NO<sub>x</sub> from this project. Therefore, no further modeling was required for these pollutants. Modeling results for PM/PM<sub>10</sub> are addressed in the next section.

#### 6.4.5 PSD Class II Increment Analysis

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant. The results of the PSD Class II increment analysis for PM<sub>10</sub> are presented in the table below. They show that the maximum predicted impacts are less than the allowable increments.

#### PSD Class II Increment Analysis

Pollutant	Averaging Time	Max. Predicted Impact (ug/m <sup>3</sup> )	Impact Greater than Allowable Increment?	Allowable Increment ug/m <sup>3</sup>
PM <sub>10</sub>	Annual	3.7	NO	17
	24-hour	23.4	NO	30

#### 6.4.6 AAQS Analysis

For pollutants subject to an AAQS review, the total impact on ambient air quality is obtained by adding a "background" concentration to the maximum modeled

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concentration. This "background" concentration takes into account all sources of a particular pollutant that are not explicitly modeled. The results of the AAQS analysis are summarized in the table below. As shown in this table, emissions from the proposed facility are not expected to cause or contribute to a violation of an AAQS.

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## AMBIENT AIR QUALITY IMPACTS

Pollutant	Averaging Time	Major Sources Impact (ug/m <sup>3</sup> )	Background Conc. (ug/m <sup>3</sup> )	Total Impact (ug/m <sup>3</sup> )	Total Impact Greater Than AAQS?	Florida AAQS (ug/m <sup>3</sup> )
PM <sub>10</sub>	Annual	3.7	21	24.7	NO	50
	24-hour	23	71	94	NO	150

### 6.4.7 Impacts Analysis

#### *Impact Analysis Impacts On Soils, Vegetation, And Wildlife*

Very low emissions are expected from this natural gas-fired combustion turbine in comparison with conventional power plant generating equal power. Emissions of acid rain and ozone precursors will be very low. The maximum ground-level concentrations predicted to occur for PM<sub>10</sub>, CO, NO<sub>x</sub>, and VOC as a result of the proposed project, including background concentrations and all other nearby sources, will be less than the respective ambient air quality standards (AAQS). Except for PM/PM<sub>10</sub>, the project impacts are less than the significant impact levels which in-turn are less than the applicable allowable increments for each pollutant. PM/PM<sub>10</sub> impacts from the project and all other development since the PSD program was implemented, are less than the applicable increment. Because the AAQS are designed to protect both the public health and welfare and the project impacts are less than significant or less than the allowable increment, it is reasonable to assume the impacts on soils, vegetation, and wildlife will be minimal or insignificant.

#### *Impact On Visibility*

Natural gas is a clean fuel and will be very efficiently combusted in the gas turbine. This will minimize smoke formation. The low NO<sub>x</sub> and SO<sub>2</sub> emissions will also minimize plume opacity. Because no add-on control equipment and no reagents are required, there will be no steam plume or tendency to form ammoniated particulate species. A regional haze analysis was performed which shows that the proposed project will not result in adverse impacts on visibility in the PSD Class I area. There may be a very localized steam plume effect from the cooling tower.

#### *Growth-Related Air Quality Impacts*

The applicant projects that there will be only short-term increases in the labor force to construct the project and that it will not result in permanent, significant commercial and residential growth in the vicinity of the project. Operation of the additional unit

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will require nineteen permanent employees which will cause no significant impact on the local area.

The project is under review by the Public Service Commission, who have recently approved several power projects to help meet the low electrical reserves throughout the State of Florida. The PSC has not made a specific determination regarding the present project. On a large scale, the project will respond to state-wide and regional growth, accommodate more growth, and probably stimulate some additional growth. There are no adequate procedures under the PSD rules to fully assess these impacts. However, the type of project proposed has the smallest overall physical "footprint," the least water requirements, the lowest capital costs, fewest labor requirements, and the lowest air emissions per unit of electric power generating capacity.

### *Hazardous Air Pollutants*

The project is not a major source of hazardous air pollutants (HAPs) and is not subject to any specific industry or HAP control requirements pursuant to Sections 112 of the Clean Air Act.

## 7. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations, provided the Department's BACT determination is implemented.

*A. A. Linero, P.E.*  
*Teresa Heron, Engineer*  
*Cleve Holladay, Meteorologist*



# INTEROFFICE MEMORANDUM

**Date:** 10-Mar-1999 01:05pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Oleander vs Duke and TPY Breakdown

Mr. Linero,

Thank-you for responding so promptly. The Project Description and Impacts of Project Operations, I guess would be of the most interest. (Sections ES.3 and ES.5) So that it can be properly compared with Oleander. How many pages are those sections and can it be faxed? or E-mailed? or mailed?

I had asked about a week ago for the new breakdown of pollutants in TPY for Oleander and have still not received that info from Mike Halpin. Can you check into this for me? So that I can compare that as well. It looks as if the Duke Project is much more efficient. Is that true?

Do you know just where exactly the electricity in Florida has shown a shortage and/or brownouts? I have heard that the PSC states that Florida will need 8,000 more MW sometime in the near future.

Also, I would appreciate notice of when the Dept. plans to issue their intent to issue the permit for OPP.

Thanks again,

M. Adams

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 10-Mar-1999 02:25pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Aspbb

( Aspbb@aol.com@PMDf@EPIC66 )

**CC:** Mike Halpin TAL

( HALPIN\_M )

**Subject:** Re: Oleander vs Duke and TPY Breakdown

Ms. Adams:

The sections you want are very short and will be faxed to you today. The details of course, would be in the large documents I mentioned previously.

Regarding you questions:

Mike will handle the question on the emissions from Oleander.

"Are Duke units more efficient than Oleander?"

Based on the amount of energy out compared to the energy in, the Duke units will be roughly 56 percent efficient while the Oleander units will be about 36 percent efficient. They will use the same combustion turbines but will operate differently as described in my previous E-Mail. Among peaking units, the Oleander units (based on the GE PG7241FA turbine) will be the most efficient. It is possible that an even larger Westinghouse unit(501G) is more efficient (maybe 38 percent simple cycle and 58 percent combined cycle), but not by much. It is available in very limited production and will emit much more pollutants. The first prototype will be built in Lakeland.

Do you know just where exactly the electricity in Florida has shown a shortage and/or brownouts? No. But the way electricity is moved around, I think it would be safe to say that shortage is state-wide. Your best bet would be to check out the Public Service Commission website and interact with them on it. I don't recall brown-outs. I think the PSC wants there to be enough reserve margin to prevent brown-outs. That requires permitting and construction of facilities well before the shortages manifest themselves as brown-outs.

I have heard that the PSC states that Florida will need 8,000 more MW sometime in the near future.(?)

I've heard numbers in the thousands of megawatts too. We recently permitted, are reviewing or expect applications on: FPL Fort Myers: 1500 MW, FPL Sanford: 1500 MW, SkyGen (Santa Rosa County): 240 MW, Lakeland: 250 MW, Tallahassee: 250 MW, Kissimmee: 250 MW, Duke New Smyrna: 500 MW, Gulf Power (Escambia County): 500 MW, TECO Polk County: 340 MW, FPC Polk County: 500 MW, Gainesville: 120 MW,

Jacksonville Kennedy: 170 MW, Jacksonville Northside: 600 MW, Jacksonville Brandy Branch: 500 MW, FPC Intercession City (Osceola County): 300 MW, Oleander

Power: 850-950 MW. There are more that I have not even heard of yet. The PSC would have a good idea on them.

Also, I would appreciate notice of when the Dept. plans to issue their intent to issue the permit for OPP.(?)

Will do!

Thank you  
Al Linero

# INTEROFFICE MEMORANDUM

**Date:** 10-Mar-1999 01:23pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: FWD: Oleander vs Duke and TPY Breakdown

Re: Your message below

I responded to Ms. Adams, telling her that I would provide her the data as soon as I have it. I am awaiting the revised submittal from Golder which reflects the 1000 hours on oil rather than the 1500.

If you think it is appropriate, I could estimate those emissions and send it out before I receive Golder's submittal. Ken Kosky told me that he expected to get it out by the end of this week.

Let me know.

Mike

Hey Mike. Here is another E-Mail from Marlene Adams. I handled the stuff on Duke and will try to answer the efficiency question and get her a copy of the relevant pieces of the Duke Certification application, etc. Please send her whatever it is she asked for on Oleander when you have it. Thanks.

# INTEROFFICE MEMORANDUM

**Date:** 10-Mar-1999 04:18pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Power Project

Ms. Adams -

Since it may be a few more days before I receive the calculations from the applicant's registered engineer, I have taken the liberty of doing the calculations myself in order to provide you with an expeditious answer. In the event that there are any significant discrepancies between what I am providing to you and what is provided by the applicant's engineer, I will pass those along.

Here are the maximum potential pollutants in Tons Per Year reflecting an assumed 1000 hours per year of oil operation (out of the 3390 hours of operation requested). I am providing the oil data separate from the gas data for your use.

1000 hours of Oil operation: NOx 861, CO 253, SO2 258, VOC 38.5, PM 110  
2390 hours of Gas operation: NOx 374, CO 409, SO2 33, VOC 46.6, PM 54  
3390 hours of combined operation: NOx 1235, CO 662, SO2 291, VOC 85, PM 164

Sincerely,  
Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 11-Mar-1999 00:29am  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** HALPIN\_M ( HALPIN\_M@A1@DER )  
**To:** LINERO\_A ( LINERO\_A@A1@DER )

**Subject:** Re: Oleander Power Project

In a message dated 99-03-10 17:38:54 EST, you write:

<< 3390 hours of combined operation: NOx 1235, CO 662, SO2 291, VOC 85, PM 164  
>>

Mike Halpin,

Thank you for the response. I had the opportunity to attend an information workshop Oleander put on this evening, and they had the breakdown as follows on a slide show they were showing the public.

NOx 1235, CO 412, SO2 291, VOC 64, PM 96

It appears you were quite accurate with the NOx and SO2. However, the CO is quite a bit off (you were 250 higher) and the VOC (you were 21 higher), and the PM (you were 68 higher).

I would appreciate it greatly if you would recalculate to see if you were really that far off or if they were.

Thank-you for your time,  
M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 11-Mar-1999 08:32am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDFF@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Power Project

Ms. Adams -

Thank you for your reply. I was hesitant to provide you with my estimates (pending their submittal to me) for these kinds of reasons (it can cause confusion). I will need to see their calculations to understand the differences. When I receive that, I will forward the data to you.

Sincerely,  
Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 18-Mar-1999 04:42pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Re: Oleander Power Project

Ms. Adams -

I had committed that I would get back with you on your request to specifically review the differences between what I had estimated on CO, VOC and PM emissions as compared to what you heard at an Oleander workshop you attended. I've left your note (below) for reference.

The applicant had originally requested limits which allowed them the ability to select either GE or Westinghouse as vendors and (as you might imagine) since vendor guarantees are rarely identical, they felt compelled to request the higher of the two guarantees for each individual pollutant to maintain that flexibility. Now, however the applicant has selected the vendor (GE) which provides them lower emission guarantees than originally requested for CO, VOC and PM (on oil) and have correspondingly reduced the requested emission rates; thus the differences. I am including my revised estimates of the facility-wide emissions which incorporate the applicant's newly requested emission rates and they are nearly identical to what you heard at the workshop you referenced. So, to directly respond to your request:

"I would appreciate it greatly if you would recalculate to see if you were really that far off or if they were.",  
I would have to say that both calculations are correct but are based upon different requested emission rates. They would be permitted for annual tonnages very close to what is shown here (and what you had referenced from the workshop you attended).

I hope that this helps.

1000 hours of Oil operation: NOx 861, CO 168, SO2 258, VOC 28.9, PM 42.5  
2390 hours of Gas operation: NOx 374, CO 245, SO2 33, VOC 35, PM 54  
3390 hours of combined operation: NOx 1235, CO 413, SO2 291, VOC 64, PM 96.5

Sincerely,  
Mike Halpin

---

YOUR MESSAGE:

In a message dated 99-03-10 17:38:54 EST, you write:



<< 3390 hours of combined operation: NOx 1235, CO 662, SO2 291, VOC 85, PM 164  
>>

Mike Halpin,

Thank you for the response. I had the opportunity to attend an information workshop Oleander put on this evening, and they had the breakdown as follows on a slide show they were showing the public.

NOx 1235, CO 412, SO2 291, VOC 64, PM 96

It appears you were quite accurate with the NOx and SO2. However, the CO is quite a bit off (you were 250 higher) and the VOC (you were 21 higher), and the PM (you were 68 higher).

I would appreciate it greatly if you would recalculate to see if you were really that far off or if they were.

Thank-you for your time,

M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 18-Mar-1999 07:25pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** HALPIN\_M ( HALPIN\_M@A1@DER )  
**To:** LINERO\_A ( LINERO\_A@A1@DER )

**Subject:** Re: Oleander Power Project

Dear Mr. Halpin,

Thank-you for your response. However, I am a little confused.

Is Oleander Power Project required by DEP to actually use the (GE) turbines, after you issue an air permit, because they have, in fact, chosen that route? Or, because they originally requested a choice of turbines (GE or Westinghouse), is it ok for them to promote the lower TPY emissions, whether or not they use the more efficient (GE) turbines? In other words, after DEP has issued their permit, can they, in turn, use Westinghouse or other more inefficient turbines?

Sincerely,  
M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 19-Mar-1999 08:48am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Re: Oleander Power Project

Ms. Adams -

I have again left your note below my response for reference. The permit would be issued based upon the lower emission limit guarantees which they have obtained from GE. From my perspective, Oleander will simply be required to comply with the permitted emission limits. That does not necessarily preclude them from being able to procure a Westinghouse turbine should they be able to acquire the same guarantees.

Should the applicant decide (after receiving a permit based upon these lower emission limits) to go with a vendor which cannot meet the limits issued in their permits, they would be taking a huge risk since they would not be allowed to exceed their permitted limits. Only by permit revision (which requires another application, additional public notice and meetings and several months of time) may conditions be changed.

I hope that this answers your question.

Sincerely,  
Michael Halpin

---

Thank-you for your response. However, I am a little confused.

Is Oleander Power Project required by DEP to actually use the (GE) turbines, after you issue an air permit, because they have, in fact, chosen that route? Or, because they originally requested a choice of turbines (GE or Westinghouse), is it ok for them to promote the lower TPY emissions, whether or not they use the more efficient (GE) turbines? In other words, after DEP has issued their permit, can they, in turn, use Westinghouse or other more inefficient turbines?

Sincerely,  
M. Adams

In the Matter of an  
Application for Permit by:

Mr. Richard L. Wolfinger, Vice President  
Oleander Power Project, L.P.  
250 West Pratt Street, 23rd Floor  
Baltimore, MD 21201

DEP File No. 0090180-001AC (PSD-258)  
Oleander Power Project, Units 1 -5  
Brevard County

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**INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Oleander Power Project, L.P., applied on November 24, 1998 to the Department for an air construction permit to construct five 190-MW dual-fuel "F" class combustion turbines and two 2.8 million gallon fuel oil storage tanks for the Oleander Power Project, located at 527 Townsend Road, Cocoa, Brevard County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit under the provisions for the Prevention of Significant Deterioration (PSD) of Air Quality is required for the proposed work.

The Department intends to issue this Air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue AIR CONSTRUCTION PERMIT". The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 904/488-0114; Fax 904/ 922-6979) within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150 (6), F.A.C.

The Department will issue the FINAL Permit, in accordance with the conditions of the enclosed DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT." Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice. Written and oral comments will also be received at a public meeting, scheduled for May 13<sup>th</sup>, 1999 at 7:00pm in the Brevard County Agricultural Center, 3695 Lake Drive, Cocoa, Florida 32926.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., or a party requests mediation as an alternative remedy under Section 120.573 F.S. before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available for the proposed action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 904/488-9730, fax: 904/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available for this proposed action.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements.

Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000.

The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

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

#### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT Determination, and the DRAFT permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on \_\_\_\_\_ to the person(s) listed:

Richard L. Wolfinger, Oleander Power Project, L.P. \*

Gregg Worley, EPA

John Bunyak, NPS

Len Koslov, CD

Ken Kosky, P.E., Golder Associates

DEP File No. 0090180-001-AC  
Page of 3

Chair, Brevard County Commission  
Administrator, Brevard County  
List of Requestors

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**  
on this date, pursuant to §120.52, Florida Statutes,  
with the designated Department Clerk, receipt of  
which is hereby acknowledged.

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Date)

**TECHNICAL EVALUATION AND PRELIMINARY  
DETERMINATION**

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**TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION**

**Oleander Power Project, L.P.**

**Oleander Power Project Units 1-5  
Five 190 Megawatt Combustion Turbines  
Cocoa, Brevard County**

**DEP File No. 0090180-001-AC  
PSD-FL-258**

**Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation**

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Oleander Power Project, L.P.  
FL-258  
Oleander Power Project, Units 1-5  
001-AC

Air Permit No. PSD -  
DEP File No.0090180-



**TECHNICAL EVALUATION AND PRELIMINARY  
DETERMINATION**

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March 26, 1999

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Oleander Power Project, L.P.  
FL-258  
Oleander Power Project, Units 1-5  
001-AC

Air Permit No. PSD -  
DEP File No.0090180-

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# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 1. APPLICATION INFORMATION

### 1.1 Applicant Name and Address

Oleander Power Project  
250 West Pratt Street, 23rd Floor  
Baltimore, MD 21201

Authorized Representative: Mr. Richard L. Wolfinger, Vice President

### 1.2 Reviewing and Process Schedule

11-24-98:	Date of Receipt of Application
12-17-98:	DEP Incompleteness Letter
12-22-98:	DEP Incompleteness Letter
02-02-99:	Received Oleander Response to Incompleteness Letters
03-19-99:	Received Oleander Revision to Application
03-26-99:	Intent Issued

## 2. FACILITY INFORMATION

### 2.1 Facility Location

The Oleander Power Project is located at 527 Townsend Road in Cocoa, Brevard County (See Figure 1). This site is approximately 180 kilometers from the Chassahowitzka National Wilderness Area, a Class I PSD Area. The UTM coordinates for this facility are Zone 17; 520.1 km E; 3137.6 km N.

[FIGURE 1]

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 2.2 Standard Industrial Classification Codes (SIC)

Industry Group No.	49	Electric, Gas, and Sanitary Services
Industry No.	4911	Electric Services

## 2.3 Facility Category

This facility generates electric power from five 190-MW dual-fuel “F” class combustion turbines. The combustion turbines are serviced by General Electric.

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 TPY.

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than the following require review per the PSD rules as well as a determination for Best Available Control Technology (BACT) per Rule 62-212.410, F.A.C.: 40 TPY of NO<sub>x</sub>, 40 TPY of SO<sub>2</sub>, 25/15 TPY of PM/PM<sub>10</sub>, 7 TPY of Sulfuric Acid Mist, 100 TPY of CO or 40 TPY of VOC.

## 3. PROJECT DESCRIPTION

This permit addresses the following emissions units:

Emission Unit No.	System	Emission Unit Description
001	Power Generation	190 Megawatt Combustion Turbine
002	Power Generation	190 Megawatt Combustion Turbine
003	Power Generation	190 Megawatt Combustion Turbine
004	Power Generation	190 Megawatt Combustion Turbine
005	Power Generation	190 Megawatt Combustion Turbine
006	Fuel Storage	2.8 Million Gallon Fuel Oil Storage Tank
007	Fuel Storage	2.8 Million Gallon Fuel Oil Storage Tank

Oleander Power Project, L.P. proposes to install a nominal 950-megawatt (MW) independent power production facility (5 new simple cycle combustion turbines, Units 1-5) for the Oleander Power Project located at 527 Townsend Road in Cocoa, Brevard County.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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The project includes five advanced Frame “7” class (or GE Frame 7FA) combustion turbines operating primarily on natural gas and a two fuel oil storage tanks. See Figure 2.

[FIGURE 2]

The main fuel will be natural gas and the unit will operate up to 3390 hours per year, of which no more than 1000 hours represent fuel oil operation and approximately 730 represent “low load” operation (2 hours per day). The project will result in emissions of carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>), particulate matter (PM/PM<sub>10</sub>), volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>). PSD review is required for each of these pollutants, since emissions (per the application) will increase by more than their respective PSD significant emissions levels.

#### 4. PROCESS DESCRIPTION

Much of the following discussion is from a 1993 EPA document on Alternative Control Techniques for NO<sub>x</sub> Emissions from Stationary Gas turbines. Project specific information is interspersed where appropriate.

A gas turbine is an internal combustion engine that operates with rotary rather than reciprocating motion. Ambient air is drawn into the 18-stage compressor of the GE 7FA where it is compressed by a pressure ratio of about 15 times atmospheric pressure. The compressed air is then directed to the combustor section, where fuel is introduced, ignited, and burned. The combustion section consists of 14 separate can-annular combustors.

An exterior view of the GE MS 7001FA (a predecessor of the MS 7241FA) is shown in Figure 3. An internal view is shown in Figure 4.

[FIGURE 3]

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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[FIGURE 4]

Flame temperatures in a typical combustor section can reach 3600 degrees Fahrenheit (°F). Units such as the 7FA operate at lower flame temperatures, which minimize NO<sub>x</sub> formation. The hot combustion gases are then diluted with additional cool air and directed to the turbine section at temperatures of approximately 2400 °F. Energy is recovered in the turbine section in the form of shaft horsepower, of which typically more than 50 percent is required to drive the internal compressor section. The balance of recovered shaft energy is

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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available to drive the external load unit such as an electrical generator.

In the Oleander project, the units will operate as peaking units in the simple cycle mode. Cycle efficiency, defined as a percentage of useful shaft energy output to fuel energy input, is approximately 35 percent for F-Class combustion turbines in the simple cycle mode. In addition to shaft energy output, 1 to 2 percent of fuel input energy can be attributed to mechanical losses. The balance is exhausted from the turbine in the form of heat. In combined cycle operation, the gas turbine drives an electric generator while the exhausted gases are used to raise steam in a heat recovery steam generator (HRSG). In combined cycle mode, the thermal efficiency of the 7FA can exceed 56 percent.

Additional process information related to the combustor design, and control measures to minimize NO<sub>x</sub> formation are given in the draft BACT determination.

## 5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Brevard County, an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to review under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for PM/PM<sub>10</sub>, CO, SAM, SO<sub>2</sub>, VOC and NO<sub>x</sub> exceed the significant emission rates given in Chapter 62-212, Table 62-212.400-2, F.A.C.

This PSD review consists of a determination of Best Available Control Technology (BACT) for PM/PM<sub>10</sub>, VOC, CO, SAM and NO<sub>x</sub>. An analysis of the air quality impact from proposed project upon soils, vegetation and visibility is required along with air quality impacts resulting from associated commercial, residential, and industrial growth

The emission units affected by this PSD permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

### 5.1 State Regulations

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-214	Requirements For Sources Subject To The Federal Acid Rain Program
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.520	EPA Continuous Monitor Performance Specifications

## 5.2 Federal Rules

40 CFR 60	Applicable sections of Subpart A, General Requirements, NSPS Subparts GG and Kb
40 CFR 72	Acid Rain Permits (applicable sections)
40 CFR 73	Allowances (applicable sections)
40 CFR 75	Monitoring (applicable sections including applicable appendices)
40 CFR 77	Acid Rain Program-Excess Emissions (future applicable requirements)
40 CFR 52	Prevention of Significant Deterioration of Air Quality (applicable requirements)

## 6. SOURCE IMPACT ANALYSIS

### 6.1 Emission Limitations

The proposed Units 1-5 will emit the following PSD pollutants (Table 212.400-2): particulate matter, sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, sulfuric acid mist, and negligible quantities of fluorides, mercury and lead. The applicant's proposed annual emissions are summarized in the Table below and form the basis of the source impact review. The Department's proposed permitted allowable emissions for these Units 1-5 are summarized in the Draft BACT document and Specific Condition Nos.20-25 of Draft Permit PSD-FL-258.

### 6.2 Emission Summary

Table 1 PSD Applicability Summary			
POLLUTANTS	POTENTIAL EMISSIONS (TPY)	PSD SIGNIFICANT EMISSION RATE (TPY)	PSD REVIEW REQUIRED
PM	96	25	Yes
PM <sub>10</sub>	96	15	Yes
SO <sub>2</sub>	291	40	Yes
NO <sub>x</sub>	1235	40	Yes

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

CO	412	100	Yes
Ozone (VOC)	64	40	Yes
Sulfuric Acid Mist	44.4	7	Yes
Total Reduced Sulfur	NEG <sup>b</sup>	10	No
Hydrogen Sulfide	NEG <sup>b</sup>	10	No
Reduced Sulfur Compounds	NEG <sup>b</sup>	10	No
Total Fluorides	NEG <sup>b</sup>	3	No
Mercury	NEG <sup>b</sup>	0.1	No
Beryllium	NEG <sup>b</sup>	0.0004	No
Lead	NEG <sup>b</sup>	0.6	No
MWC Organics	< 8.8 x 10 <sup>-8</sup>	3.5 x 10 <sup>-6</sup>	No
MWC Metals	NEG <sup>b</sup>	15	No
MWC Acid Gases	11.3	40	No

a Based on emissions from operating at baseload conditions at 59 °F; firing natural gas and distillate fuel oil for 2,390 and 1,000 hours per year, respectively;

b NEG = negligible emissions

### 6.3 Control Technology

The PSD regulations require new major stationary sources to undergo a control technology review for each pollutant that may be potentially emitted above significant amounts. The control technology review requirements of the PSD regulations are applicable to emissions of NO<sub>x</sub>, SO<sub>2</sub>, CO, SAM, VOC and PM/PM<sub>10</sub>. Emissions control will be accomplished primarily by good combustion of clean natural gas and the limited use of low sulfur (0.05 percent) distillate fuel oil. The combustors will operate in lean pre-mixed mode to minimize the flame temperature and nitrogen oxides formation potential. A full discussion is given in the Draft Best Available Control Technology (BACT) Determination (see Permit Appendix BD). The Draft BACT is incorporated into this evaluation by reference.

### 6.4 Air Quality Analysis

#### 6.4.1 Introduction

The proposed project will increase emissions of six pollutants at levels in excess of PSD significant amounts: PM<sub>10</sub>, CO, SO<sub>2</sub>, NO<sub>x</sub>, SAM and VOC. PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub> are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, and significant impact levels defined for them. CO and VOC are criteria pollutants and have only AAQS and significant impact levels defined for them. Since the project's VOC emissions increase is less than 100 tons per year no air quality analysis is required for VOC. SAM is a non-criteria pollutant and has no AAQS or PSD increments defined for it; therefore, no air quality impact analysis was required for SAM. PM is a criteria pollutant, but has no AAQS or PSD increments defined for it; therefore, no air quality impact analysis was required for it either. Instead, the BACT requirement will establish the PM and SAM emission limits for this project.



## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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A review of the applicant's initial PM<sub>10</sub>, CO, SO<sub>2</sub> and NO<sub>x</sub> air quality impact analyses for this project revealed no predicted significant impacts; therefore, further applicable AAQS and PSD increment impact analyses for these pollutants were not required. Based on the preceding discussion the air quality analyses required by the PSD regulations for this project are the following:

- A significant impact analysis for PM<sub>10</sub>, CO, SO<sub>2</sub> and NO<sub>x</sub>;
  - An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts.

Based on these required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A more detailed discussion of the required analyses follows.

### 6.4.2 Analysis of Existing Air Quality and Determination of Background Concentrations

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. The monitoring requirement may be satisfied by using existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration. In addition, if EPA has not established an acceptable monitoring method for the specific pollutant, monitoring may not be required.

If preconstruction ambient monitoring is exempted, determination of background concentrations for PSD significant pollutants with established AAQS may still be necessary for use in any required AAQS analysis. These concentrations may be established from the required preconstruction ambient air quality monitoring analysis or from existing representative monitoring data. These background ambient air quality concentrations are added to pollutant impacts predicted by modeling and represent the air quality impacts of sources not included in the modeling.

The table below shows that predicted SO<sub>2</sub>, CO, PM<sub>10</sub> and NO<sub>x</sub> impacts from the project are predicted to be below the appropriate de minimus levels; therefore, preconstruction ambient air quality monitoring is not required for these pollutants.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Maximum Project Air Quality Impacts for Comparison  
to De Minimus Ambient Levels

Pollutant	Averaging Time	Max Predicted Impact (ug/m <sup>3</sup> )	De Minimus Ambient Impact Level (ug/m <sup>3</sup> )	Impact Above/Below De Minimus
SO <sub>2</sub>	24-hour	1.1	13	BELOW
PM <sub>10</sub>	24-hour	0.3	10	BELOW
CO	8-hour	2.4	575	BELOW
NO <sub>2</sub>	Annual	0.3	14	BELOW

### 6.4.3 Models and Meteorological Data Used in the Significant Impact Analysis

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfy the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Orlando International Airport, Florida (surface data) and Ruskin, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

For determining the project's significant impact area in the vicinity of the facility, the

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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highest predicted short-term concentrations and highest predicted annual averages were compared to their respective significant impact levels.

### 6.4.4 Significant Impact Analysis

Initially, the applicant conducts modeling using only the proposed project's emissions. If this modeling shows significant impacts, further modeling is required to determine the project's impacts on the existing air quality and any applicable AAQS and PSD increments. The receptor grid for predicting maximum concentrations in the vicinity of the project was a polar receptor grid comprised of 578 receptors. This grid included receptors located on 18 radials. Along each radial, 36 receptors were located at 10 intervals and distances of 0.1, 0.2, 0.3, 0.5, 0.7, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 7.0, 10.0, 12.0 and 15.0 km from the proposed CT stack locations. The tables below show the results of this modeling.

<b>Maximum Project Air Quality Impacts for Comparison to the PSD Class II Significant Impact Levels in the Vicinity of the Facility</b>				
Pollutant	Averaging Time	Max Predicted Impact (ug/m)	Significant Impact Level (ug/m)	Significant Impact?
PM <sub>10</sub>	Annual	0.02	1	NO
	24-hour	0.32	5	NO
CO	8-hour	2	500	NO
	1-hour	19	2000	NO
NO <sub>2</sub>	Annual	0.31	1	NO
SO <sub>2</sub>	Annual	0.08	1	NO
	24-hour	1.1	5	NO
	3-hour	7.9	25	NO

The results of the significant impact modeling show that there are no significant impacts predicted from emissions from this project; therefore, no further modeling was required.

### 6.4.5 Impacts Analysis

#### *Impact Analysis Impacts On Soils, Vegetation, Visibility, And Wildlife*

The maximum ground-level concentrations predicted to occur for PM<sub>10</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, and VOC as a result of the proposed project, including background concentrations and all other nearby sources, will be below the associated AAQS. The AAQS are designed to protect both the public health and welfare. As such, this project is not expected to have a harmful impact on soils and vegetation in the PSD Class II area.

#### *Impact On Visibility*

Natural gas and No. 2 fuel oil are clean fuels and produce little ash. This will minimize smoke formation. The low NO<sub>x</sub> and SO<sub>2</sub> emissions will also minimize plume opacity.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Because no add-on control equipment (with associated reagents) are required, there will be no tendency to form ammoniated particulate species.

## *Growth-Related Air Quality Impacts*

The proposed project is being constructed to meet an electric demand opportunity. Additional growth as a direct result of the additional electric power provided by the project is not expected. The project will be constructed and operated with minimum labor and associated facilities and is not expected to significantly affect growth in the area. Although this project was not reviewed by the Public Service Commission, recent determinations indicate a growing demand for generation to meet shrinking electrical reserves. Although there are no adequate procedures under PSD to fully assess these impacts, the type of project proposed has a very small footprint for a 950 megawatt plant.

## 7. PUBLIC INPUT

Opportunities to request a public meeting are usually provided in the Notice of the Department's Intent published in a local newspaper. At the request of various members of the community, a public meeting was held on March 3, 1999 at the Brevard County Agricultural Center in Cocoa, Florida. Since receipt of the application, staff reviewing the application public have addressed a number of inquiries from the public and local officials regarding the project, its impacts, emissions from nearby facilities, the review process, etc.

There has been particular interest in the reasons why the project is not subject to review by the Public Service Commission and the Siting Board. It was explained (as understood by the Department) that one reason is that the power is not generated from steam and those needing further requesting information were directed to follow up with the Public Service Commission and provided statutory references, locations, website addresses, and phone numbers.

At the request of the attendees at the first meeting, the Department will conduct another meeting on May 13, 1999 from 7:00 to 9:00 p.m., at the same location as the first meeting. The Department will prepare a more detailed response to the questions raised during both meetings when it issues its final action on the application. At this time, there are at least two issues that were taken into consideration and addressed in this action.

The issue of fuel oil usage was raised very early in the interaction with the public. Several members considered the planned fuel oil use as excessive for gas-fired unit with fuel oil back up. In response to the concerns raised by the Department and the public, Oleander revised its requested fuel oil use limit from 2,000 to 1,000 hours per year. At the public meeting, a specific request was made that Oleander further limit the fuel oil usage from a range of 1/3 of the operating time to 100 hours per year. The Department has reviewed this as follows:

- in the state. For example, the GRU Deerhaven (FL) unit CT3 which is a 74MW Simple

Olea

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Cycle unit with permitted NO<sub>x</sub> emissions of 15ppm (gas) and 42ppm (oil) has been permitted to operate on oil for 2000 hrs/year out of 3900 hours total operating time. Technically, this unit is permitted to operate for 2000 hours per year on oil, whether or not it burns any gas. A newly proposed plant (TECO Polk County, FL) is a 330 MW (2x165) Simple Cycle unit with proposed emissions of 10.5 ppm (gas) and 42 ppm (oil). The CT's are requested to operate for 876 hours oil/CT out of 4380 hours total. Again, no limitation exists that precludes the plant from only burning oil.

- purposes, a specific permit condition is being proposed to limit the fuel oil usage to be less than the gas usage (on a BTU basis). This is more stringent than other similar permitting actions.

The issue of ozone monitoring was raised, with a specific request to include ozone monitoring for a year in the area of the proposed plant. Following is the Department's review:

- concentration" are generally exempt from preconstruction monitoring data (via the "de Minimus" concept). For ozone, the "de Minimus" threshold for monitoring has been established at 100 tons/year of VOC. The maximum potential to emit VOC from this facility has been determined to be 64 tons per year. Hence, preconstruction ozone monitoring (to determine, for example, if the project can be constructed) is not required.
- certainly not be near the location of the plant. The ozone-monitoring network in Florida is designed based on the federal requirements for ambient monitoring networks. The network size is based largely on the number of urban areas, which have a population of greater than 200,000 people. Cocoa Beach-Palm Bay is one such area and is one of only fourteen counties in the state which has two ozone monitors.
- is expected in that area. Due to the meteorology experienced and peninsular design of Florida, the sea breeze impact creates conditions for the highest expected ozone levels; the areas where ozone has been found to be worst is on or near the coast. To form, ozone generally requires volatile organic compounds and nitrogen oxides to mix in the presence of sunlight. Even so, ozone is a very reactive molecule.
- before and after construction, to the operation of the plant. The local ozone impacts of the plant would be masked by changes in emissions at the other electrical power plants, cyclical meteorological phenomena, growth in vehicular traffic, etc.

Nevertheless, the Department requests that Oleander consider, as a good corporate citizen, the installation and operation of a station in the neighborhood to provide the citizens with requested information about air quality in the area.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 8. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations, provided the Department's BACT determination is implemented.

Michael P. Halpin, P.E. Review Engineer  
Cleveland Holladay, Meteorologist  
A. A. Linero, P.E., Administrator

- AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

**SECTION I. FACILITY INFORMATION**

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**Permittee:**

Oleander Power Project, L.P.  
 Oleander Power Project  
 250 West Pratt Street, 23rd Floor  
 Baltimore, MD 21201

File No.	0090180-001-AC
FID No.	0090180-001
SIC No.	4911
Permit No.	PSD-FL-258
Expires:	March 26, 2003

*Authorized Representative:*

Richard L. Wolfinger  
 Vice President

**Project and Location:**

Permit for the construction of five 190-MW dual-fuel “F” class combustion turbines and two 2.8 million-gallon fuel oil storage tanks for back-up distillate fuel oil. The turbines are designated as Unit Nos. 1-5 and will be located at the Oleander Power Project, 527 Townsend Road, Cocoa, Brevard County. UTM coordinates are: Zone 17; 520.1 km E; 3137.6 km N.

**Statement of Basis:**

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices and Tables made a part of this permit:

Appendix BD	BACT Determination
Appendix GC	Construction Permit General Conditions

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Oleander Power Project, L.P.  
 001-AC  
 Oleander Power Plant, Units 1-5  
 PSD-FL-258

DEP File No. 0090180-  
 Permit No.

- AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

**SECTION I. FACILITY INFORMATION**

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Howard L. Rhodes, Director  
Division of Air Resources  
Management



- AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

## SECTION I. FACILITY INFORMATION

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### Facility Description

This permit is for the installation of five 190 MW simple cycle “F” class, gas and oil-fired, stationary combustion turbines, each with its own 60-foot stack and two 2.8 million gallon storage tank for back-up (0.05 percent sulfur) distillate fuel oil.

Emissions from the Oleander units will be controlled by Dry Low NO<sub>x</sub> combustors while firing natural gas, wet injection when firing fuel oil, use of inherently clean fuels, and good combustion practices.

### emission units

This permit addresses the following emission units:

ARMS Emission Unit No.	System	Emission Unit Description
001	Power Generation	190 Megawatt Combustion Turbine
002	Power Generation	190 Megawatt Combustion Turbine
003	Power Generation	190 Megawatt Combustion Turbine
004	Power Generation	190 Megawatt Combustion Turbine
005	Power Generation	190 Megawatt Combustion Turbine
006	Fuel Storage	2.8 Million Gallon Fuel Oil Storage Tank
007	Fuel Storage	2.8 Million Gallon Fuel Oil Storage Tank

### Regulatory Classification

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than the following require review per the PSD rules as well as a determination for Best Available Control Technology (BACT) per Rule 62-212.410, F.A.C.: 40 TPY of NO<sub>x</sub>, 40 TPY of SO<sub>2</sub>, 25/15 TPY of PM/PM<sub>10</sub>, 7 TPY of SAM, 100

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Oleander Power Project, L.P.  
001-AC  
Oleander Power Plant, Units 1-5  
PSD-FL-258

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## SECTION I. FACILITY INFORMATION

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TPY of CO or 40 TPY of VOC.

### PERMIT SCHEDULE

- 04/xx/99 Notice of Intent published in The XXXXX
- 03/26/99 Distributed Intent to Issue Permit
- 02/02/99 Application deemed complete
- 11/24/98 Received Application

### Relevant Documents:

The documents listed below are the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

- Application received on November 24, 1998
- Department letters dated November 25, December 17 and December 22, 1998
- Comments from the National Park Service dated December 18, 1998
- Letter from Oleander (via Golder Associates) dated February 1, 1999 including revisions to original application.
- Letter from Oleander (via Golder Associates) dated March 17, 1999 including further revisions to application.
- Department's Intent to Issue and Public Notice Package dated March 26, 1999
- Department's Final Determination and Best Available Control Technology Determination issued concurrently with this permit.

# AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

## SECTION II. ADMINISTRATIVE REQUIREMENTS

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1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number (850) 488-1344. All documents related to reports, tests, and notifications should be submitted to the DEP Central District office, 3319 Maguire Boulevard, Orlando, Florida 32803 and phone number 407/894-7555.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
5. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212]
6. Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40 CFR 52.21(r)(2)].
7. BACT Determination: In accordance with paragraph (4) of 40 CFR 52.21(j) the Best Available Control Technology (BACT) determination shall be reviewed and modified as appropriate in the event of a plant conversion. This paragraph states: "For phased construction project, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source

AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

**SECTION II. ADMINISTRATIVE REQUIREMENTS**

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may be required to demonstrate the adequacy of any previous determination of best available control technology for the source.”

## AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

### SECTION II. ADMINISTRATIVE REQUIREMENTS

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7. This reassessment will also be conducted for this project if there are any increases in heat input limits, hours of operation, oil firing, low or baseload operation, short-term or annual emission limits, annual fuel heat input limits or similar changes. [40 CFR 52.21(j)(4), Rule 62-4.070 F.A.C.]
8. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the DEP's Bureau of Air Regulation, and a copy to the Department Central District office [Chapter 62-213, F.A.C.]
9. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
10. Annual Reports: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the DEP's Central District office by March 1st of each year. [Rule 62-210.370(2), F.A.C.]
11. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.
12. Permit Extension: The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit [Rule 62-4.080, F.A.C.]
13. Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1997 version), shall be submitted to the DEP's Central District office. Each excess emission report shall include the information required in 40 CFR 60.7(c) and 60.334.

## AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

### SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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#### APPLICABLE STANDARDS AND REGULATIONS:

1. Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-103, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Parts 60, 72, 73, and 75.
2. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]
3. These emission units shall comply with all applicable requirements of 40CFR60, Subpart A, General Provisions including:
  - 40CFR60.7, Notification and Recordkeeping
  - 40CFR60.8, Performance Tests
  - 40CFR60.11, Compliance with Standards and Maintenance Requirements
  - 40CFR60.12, Circumvention
  - 40CFR60.13, Monitoring Requirements
  - 40CFR60.19, General Notification and Reporting requirements
4. ARMS Emission Units 001-005, Power Generation, consisting of five 190 megawatt combustion turbines shall comply with all applicable provisions of 40CFR60, Subpart GG, Standards of performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s). [Rule 62-204.800(7)(b), F.A.C.]
5. ARMS Emission Units 006-007, Fuel Storage, consisting of two 2.8 million gallon distillate fuel oil storage tanks shall comply with all applicable provisions of 40CFR60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels, adopted by reference in Rule 62-204.800, F.A.C. [Rule 62-204.800(7)(b), F.A.C.]
6. All notifications and reports required by the above specific conditions shall be submitted to the DEP's Central District office.

#### GENERAL OPERATION REQUIREMENTS

7. Fuels: Only pipeline natural gas or maximum 0.05 percent sulfur fuel oil No. 2 or superior grade of distillate fuel oil shall be fired in this unit. [Applicant Request, Rule 62-

AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

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210.200, F.A.C. (Definitions - Potential Emissions)] {Note: The limitation of this specific condition is more stringent than the NSPS sulfur dioxide limitation and thus assures compliance with 40 CFR 60.333 and 60.334}

## AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

### SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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14. Capacity: The maximum heat input rates, based on the lower heating value (LHV) of each fuel to each Unit (1-5) at ambient conditions of 59°F temperature, 60% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,722 million Btu per hour (MMBtu/hr) when firing natural gas, nor 1,919 MMBtu/hr when firing No. 2 or superior grade of distillate fuel oil. These maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. [Design, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]
10. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the DEP Central District office as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]
11. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]
12. Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]
13. Maximum allowable hours: The stationary gas turbines shall only operate up to 3390 hours during any calendar year. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
14. Fuel usage as heat input, while burning natural gas at the site, shall not exceed 29.188 x



# AIR CONSTRUCTION PERMIT PSD-FL-258 (0090180-001-AC)

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

10<sup>12</sup> BTU (LHV) per year during any consecutive 12 month period.

[Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

15. Fuel usage as heat input, while burning fuel oil at the site, shall not exceed 9.595 x 10<sup>12</sup> BTU (LHV) per year during any consecutive 12 month period. Additionally, the amount of fuel oil burned at the site (in BTU's) shall not exceed natural gas burned at the site (in BTU's) during any consecutive 12-month period.

[Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

### **Control Technology**

16. Dry Low NO<sub>x</sub> (DLN) combustors shall be installed on the stationary combustion turbine to control nitrogen oxides (NO<sub>x</sub>) emissions while firing natural gas. [Design, Rule 62-4.070, F.A.C.]
17. The permittee shall design each stationary combustion turbine, ducting, and stack(s) so as to not preclude installation of SCR equipment and/or oxidation catalyst in the event of a failure to achieve the NO<sub>x</sub> limits given in Specific Condition No. 20 and 21 or the carbon monoxide (CO) limits given in Specific Condition 22. [Rule 62-4.070, F.A.C.]
18. A water injection (WI) system shall be installed for use when firing No. 2 or superior grade distillate fuel oil for control of NO<sub>x</sub> emissions. [Design, Rules 62-4.070 and 62-212.400, F.A.C.]
19. The DLN systems shall each be tuned upon initial operation to optimize emissions reductions and shall be maintained to minimize NO<sub>x</sub> emissions and CO emissions. Operation of the DLN systems in the diffusion-firing mode shall be minimized when firing natural gas. [Rule 62-4.070, and 62-210.650 F.A.C.]

### **EMISSION LIMITS AND STANDARDS**

20. The following table is a summary of the BACT determination and is followed by the applicable specific conditions. Values for NO<sub>x</sub> are corrected to 15% O<sub>2</sub> on a dry basis. [Rule 62-212.400, F.A.C.]

Operational Mode (Fuel)	NO <sub>x</sub> (15%O <sub>2</sub> )	CO	VOC	PM/Visibility (% Opacity)	SO <sub>2</sub> /SAM	Technology and Comments
Natural Gas	9 ppm	12 ppm	3 ppm	10	1 grain S per 100 CF	Dry Low NO <sub>x</sub> Burners. Clean fuels, good combustion

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## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

Fuel Oil	42 ppm	20 ppm	6 ppm	10	0.05% sulfur oil	Water Injection. Units limited to 1000 hrs equivalent full load oil operation (per CT) annually. Clean fuels, good combustion
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**21. Nitrogen Oxides (NO<sub>x</sub>) Emissions:**

- When NO<sub>x</sub> monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time.
- While firing Natural Gas: The emission rate of NO<sub>x</sub> in the exhaust gas shall not exceed 62.6 lb/hr (at ISO conditions) on a 24 hr block average as measured by the continuous emission monitoring system (CEMS). In addition, NO<sub>x</sub> emissions calculated as NO<sub>2</sub> (at ISO conditions) shall not exceed 9 ppm @15% O<sub>2</sub> to be demonstrated by stack test. Note: Basis for lb/hr limit is 9 ppm @ 15% O<sub>2</sub>, full load. [Rule 62-212.400, F.A.C.]
- While firing Fuel oil: The concentration of NO<sub>x</sub> in the exhaust gas shall not exceed 42 ppmvd at 15% O<sub>2</sub> on the basis of a 3 hr average as measured by the continuous emission monitoring system (CEMS). In addition, NO<sub>x</sub> emissions calculated as NO<sub>2</sub> (at ISO conditions) shall not exceed 42 ppm @15% O<sub>2</sub> to be demonstrated by stack test. [Rule 62-212.400, F.A.C.]
- Within 18 months after the initial compliance test, the permittee shall prepare and submit for the Department's review and acceptance an engineering report regarding the lowest NO<sub>x</sub> emission rate that can consistently be achieved when firing distillate oil. This lowest recommended rate shall include a reasonable operating margin, taking into account long-term performance expectations and good operating and maintenance practices. The Department may revise the NO<sub>x</sub> emission rate based upon this report. [BACT determination; Applicant request]

2. Carbon Monoxide (CO) emissions: The concentration of CO in the exhaust gas when firing natural gas shall not exceed 12 ppmvd when firing natural gas and 20 ppmvd when firing fuel oil as measured by EPA Method 10. CO emissions (at ISO conditions) shall not exceed 41.0 lb/hr (when firing natural gas) and 66.9 lb/hr (when firing fuel oil). [Rule 62-212.400, F.A.C.]

3. Sulfur Dioxide (SO<sub>2</sub>) emissions: SO<sub>2</sub> emissions (at ISO conditions) shall not exceed 5.5 pounds per hour when firing pipeline natural gas and 103.4 pounds per hour when firing maximum 0.05 percent sulfur No. 2 or superior grade distillate fuel oil as measured by applicable compliance methods described below. [Rule 62-212.400,

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F.A.C.]

25. Visible emissions (VE): VE emissions shall not exceed 10 percent opacity when firing natural gas or No. 2 or superior grade of fuel oil, except for during startup and shutdown at which time emissions shall not exceed 20 percent opacity. [Rule 62-296.320(4)(b), F.A.C.]
26. Volatile Organic Compounds (VOC) Emissions: The concentration of VOC in the exhaust gas when firing natural gas shall not exceed 3 ppmvd when firing natural gas and 6 ppmvd when firing fuel oil as assured by EPA Methods 18, and/or 25 A. VOC emissions (at ISO conditions) shall not exceed 5.9 lb/hr (when firing natural gas) and 11.5 lb/hr (when firing fuel oil). [Rule 62-212.400, F.A.C.]

#### EXCESS EMISSIONS

26. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period for other reasons unless specifically authorized by DEP for longer duration. Operation below 50% output shall be limited to 2 hours per unit cycle (breaker closed to breaker open). Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C.
2. Excess Emissions Report: If excess emissions occur due to malfunction, start-up or shutdown the owner or operator shall notify DEP's Central District office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rules 62-4.130 and 62-210.700(6), F.A.C.]

#### COMPLIANCE DETERMINATION

3. Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate, for each fuel, at which this unit will be operated, but not later than 180 days of initial operation of the unit for that fuel, and annually thereafter as indicated in this permit, by using the following reference methods as described in 40 CFR 60, Appendix A (1997 version), and adopted by reference in Chapter 62-204.800, F.A.C.

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32. Initial (I) performance tests shall be performed on each unit while firing natural gas as well as while firing fuel oil. Initial tests shall also be conducted after any modifications (and shake down period not to exceed 100 days after starting the CT) to air pollution control equipment, including low NO<sub>x</sub> burners or Hot SCR. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on each unit as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.
- EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources" (I, A).
  - EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" (I, A).
  - EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines." Initial test only for compliance with 40CFR60 Subpart GG and (I, A) short-term NO<sub>x</sub> BACT limits (EPA reference Method 7E, "Determination of Nitrogen Oxides Emissions from Stationary Sources" or RATA test data may be used to demonstrate compliance for annual test requirement).
  - EPA Reference Method 18, and/or 25A, "Determination of Volatile Organic Concentrations." Initial test only.
5. Continuous compliance with the NO<sub>x</sub> emission limits: Continuous compliance with the NO<sub>x</sub> emission limits shall be demonstrated with the CEM system based on the applicable averaging time of 24-hr block average (DLN technology) or a 3-hr average (if SCR is used). For the 24-hr block average (lb/hr) emissions may be determined via EPA Method 19 or equivalent EPA approved methods. Based on CEMS data, a separate compliance determination is conducted at the end of each operating day (or 3-hr period when applicable) and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day (or 3-hr period when applicable). Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction as defined in Rule 62-210.200 F.A.C., where emissions exceed the applicable NO<sub>x</sub> standard. These excess emissions periods shall be reported as required in Conditions 26 and 27. A valid hourly emission rate shall be calculated for each hour in which at least two NO<sub>x</sub> concentrations are obtained at least 15 minutes apart. [Rules 62-4.070 F.A.C., 62-210.700, F.A.C., and 40 CFR 75]
6. Compliance with the SO<sub>2</sub> and PM/PM<sub>10</sub> emission limits: Notwithstanding the requirements

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of Rule 62-297.310(7), F.A.C., the use of pipeline natural gas and maximum 0.05 percent sulfur (by weight) No. 2 or superior grade distillate fuel oil, is the method for determining compliance for SO<sub>2</sub> and PM<sub>10</sub>. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO<sub>2</sub> standard and the 0.05% S limit, fuel oil analysis using ASTM D2880-941 or D4294-90 (or equivalent latest version) for the sulfur content of liquid fuels and D1072-80, D3031-81, D4084-82 or D3246-81 (or equivalent latest version) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule. The applicant is responsible for ensuring that the procedures above are used for determination of fuel sulfur content. Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1997 version).

7. Compliance with CO emission limit: An initial test for CO shall be conducted concurrently with the initial NO<sub>x</sub> test, as required. The initial NO<sub>x</sub> and CO test results shall be the average of three valid one-hour runs. Annual compliance testing for CO may be conducted concurrent with the annual RATA testing for NO<sub>x</sub> required pursuant to 40 CFR 75 (required for gas only).
8. Compliance with the VOC emission limit: An initial test is required to demonstrate compliance with the BACT VOC emission limit. Thereafter, CO emission limit will be employed as surrogate and no annual testing is required.
9. Testing procedures: Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 105 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapter 62-204.800 F.A.C.
10. Test Notification: The DEP's Central District office shall be notified, in writing, at least 30 days prior to the initial performance tests and at least 15 days before annual compliance

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test(s). [40 CFR 60.11]

11. Special Compliance Tests: The DEP may request a special compliance test pursuant to Rule 62-297.310(7), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated.
12. Test Results: Compliance test results shall be submitted to the DEP's Central District office no later than 45 days after completion of the last test run. [Rule 62-297.310(8), F.A.C.]

### NOTIFICATION, REPORTING, AND RECORDKEEPING

13. Records: All measurements, records, and other data required to be maintained by Oleander shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP representatives upon request.
52. Emission Compliance Stack Test Reports: A test report indicating the results of the required compliance tests shall be filed as per Condition 37. above. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.
53. Special Record Keeping Requirements: The owner or operator shall obtain, make, and keep the following records related to fuel usage:
  - (1) Monthly Fuel usage as heat input, for natural gas and fuel oil at the site.
  - (2) Fuel usage as heat input, for natural gas and fuel oil at the site for each consecutive 12-month period.
  - (3) Fuel usage as heat input, for natural gas and fuel oil at the site during each calendar year shall be submitted with the Annual Operation Report (AOR).
  - (4) Hours of operation for each combustion turbine shall be reported during each calendar year with the Annual Operation Report (AOR).

### MONITORING REQUIREMENTS

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54. Continuous Monitoring System: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from each (CT) unit. Periods when NO<sub>x</sub> emissions are above the standards as listed in Specific Condition No 21, shall be reported to the DEP Central District Office pursuant to Rule 62-4.160(8), F.A.C. Following the format of 40 CFR 60.7, periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the standards listed in Specific Condition No. 21 except as noted in Specific Condition No. 30. [Rule 62-204.800 and 40 CFR 60.7 (1997 version)]
56. CEMS in lieu of Water to Fuel Ratio: The NO<sub>x</sub> CEMS shall be used in lieu of the water/fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1997 version). The calibration of the water/fuel-monitoring device required in 40 CFR 60.335 (c)(2) (1997 version) will be replaced by the 40 CFR 75 certification tests of the NO<sub>x</sub> CEMS. Upon request from DEP, the CEMS emission rates for NO<sub>x</sub> shall be corrected to ISO conditions to demonstrate compliance with the NO<sub>x</sub> standard established in 40 CFR 60.332.
18. Continuous Monitoring System Reports: The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40CFR75. Data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the Department's Central District Office for review at least 90 days prior to installation.
19. Fuel Oil Monitoring Schedule: The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 or superior grade fuel oil received at the Oleander Power Plant, an analysis which reports the sulfur content and nitrogen content of the fuel shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d).
20. Natural Gas Monitoring Schedule: The following custom monitoring schedule for natural gas is approved (pending EPA concurrence) in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2):
- The permittee shall apply for an Acid Rain permit when the deadlines specified in

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40 CFR 72.30.

- The permittee shall submit a monitoring plan, certified by signature of the Designated Representative that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant of 40 CFR 75.11(d)(2)).
- Each unit shall be monitored for SO<sub>2</sub> emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USAEPA.
- Oleander shall notify DEP of any change in natural gas supply for reexamination of this monitoring schedule. A substantial change in natural gas quality (i.e., sulfur content variation of greater than 1 grain per 100 cubic foot of natural gas) shall be considered as a change in the natural gas supply. Sulfur content of the natural gas will be monitored weekly by the natural gas supplier during the interim period when this monitoring schedule is being reexamined.

#### 21. Determination of Process Variables:

- The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value [Rule 62-297.310(5), F.A.C]



**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

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**Oleander Power Project**  
**Oleander Power Project, L.P.**  
**PSD-FL-258 and 0090180-001-AC**  
**Brevard County, Florida**

**BACKGROUND**

The applicant, Oleander Power Project, L.P., proposes to install a nominal 950 megawatt (MW) independent power production facility (5 new simple cycle combustion turbines) at 527 Townsend Road, Cocoa, Brevard County. The proposed project will result in "significant increases" with respect to Table 62-212.400-2, Florida Administrative Code (F.A.C.) of emissions of particulate matter (PM and PM<sub>10</sub>), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>). The project is therefore subject to review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) in accordance with Rules 62-212.400, F.A.C.

The five units to be installed are 190-MW dual-fuel "F" class combustion turbines. Descriptions of the process, project, air quality effects, and rule applicability are given in the Technical Evaluation and Preliminary Determination dated March 26, 1999, accompanying the Department's Intent to Issue.

**Date of Receipt of a BACT Application:**

The application was received on November 24, 1998 and included a proposed BACT prepared by the applicant's consultant, Golder Associates Inc. The application was revised on February 1, 1999 incorporating responses to completeness questions by FDEP and revised again on March 17, 1999 proposing lower emissions levels based upon vendor data and guarantees.

**Review Group Members:**

Michael P. Halpin, P.E. and A. A. Linero, P.E.

**BACT DETERMINATION REQUESTED BY THE APPLICANT:**

POLLUTANT	CONTROL TECHNOLOGY	PROPOSED BACT LIMIT
Particulate Matter	Pipeline Natural Gas No. 2 Distillate Oil Use (1000 hr/yr.) Combustion Controls	9 lb/hr (Gas) 17 lb/hr, 0.05% sulfur (Oil)
Volatile Organic Compounds	As Above	3 ppm (Gas) 6 ppm (Oil)
Visibility	As Above	10 percent
Carbon Monoxide	As Above	12 ppm (Gas, baseload) 20 ppm (Oil, baseload)

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Sulfuric Acid Mist	As Above	1 gr. S/100 scf of natural gas 0.05% sulfur oil
Nitrogen Oxides	Dry Low NO <sub>x</sub> Burners (Gas) Water Injection (Oil)	9 ppm @ 15% O <sub>2</sub> (Gas, baseload) 42 ppm @ 15% O <sub>2</sub> (Oil, baseload)

According to the application, the maximum emissions from the facility will be approximately 1235 tons per year (TPY) of NO<sub>x</sub>, 412 TPY of CO, 96 TPY of PM/PM<sub>10</sub>, 291 TPY of SO<sub>2</sub> and 64 TPY of VOC.

**BACT Determination Procedure:**

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

**Standards of Performance for New Stationary Sources:**

The minimum basis for a BACT determination is 40 CFR 60, Subpart GG, and Standards of Performance for Stationary Gas Turbines (NSPS). The Department adopted subpart GG by reference in Rule 62-204.800, F.A.C. The key emission limits required by Subpart GG are 75 ppm NO<sub>x</sub> @ 15% O<sub>2</sub>. (assuming 25 percent efficiency) and 150 ppm SO<sub>2</sub> @ 15%

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O<sub>2</sub>.(or <0.8% sulfur in fuel). The BACT proposed by the applicant is more stringent than the NSPS. No National Emission Standard for Hazardous Air Pollutants exists for stationary gas turbines.

**Determinations by EPA and States:**

Most recent stationary gas turbine BACT determinations made to-date by EPA and the states, including the State of Florida, have been much more stringent than the requirements of the NSPS. The following table is a sample of information on recent BACT and a few Lowest Achievable Emission Rate (LAER) determinations made by EPA and the States for stationary gas turbine projects as large or larger than the one under review. LAER is required in areas where the ambient air (unlike that Florida) does not attain the National Ambient Air Quality Standards (NAAQS).

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Project Location	Power Output and Duty	NO <sub>x</sub> Limit Ppm @ 15% O <sub>2</sub> and Fuel	Technology	Comments	F.O. LIMIT	Year Perm Issue
FPC DeBary FL	311 MW SC	N/A	None	6x51.9MW GE MS7000 CT	N/A	1974
	372 MW SC	25 – NG 42 – FO	WI	4x92.9MW GE PG7111EA CT	Total hrs/CT 3390 hrs/yr. gas or oil	1991
FPC Intercession City FL	385 MW SC	25 – NG 42 – FO	DLN WI	4x96.3MW GE PG7111EA CT	Total hrs/CT 3390 hrs/yr. gas or oil	1991
	171 MW SC	25 – NG 42 – FO	DLN WI	171 MW Siemens V84.3 CT	Total hrs/CT 3390 hrs/yr. gas or oil	1995
Kamine/Besicorp NY	79 MW CC	9 – NG 55 – FO	DLN	79 MW Siemens V64.2	2000 hrs/yr.	1992
Hart County, GA PKR	318 MW SC	25 – NG 42 – FO	DLN & WI	2x159 MW GE7FA CT's	Total hrs/CT 2500 hrs/yr. gas or oil	1992
FPC Tiger Bay, FL	270 MW CC	15/10-NG 42 – FO	DLN &/or SCR WI	184 MW GE MS7001FA CT	3.7M gal/yr.	1993
Auburndale Power FL	156 MW CC	25/15 - NG 42 – FO	DLN & WI	DLN/15 or SCR/10 ppm 1x156 MW WH 501D5 CT	400 hrs/yr.	1993
FPC Hines Polk, FL	485 MW CC	12 – NG * 42 – FO	DLN & SCR WI	2x165 MW WH 501FC CTs	1000 hrs/yr. out of 8760	1994
GRU Deerhaven FL	74 MW SC	15 – NG 42 – FO	DLN WI	CT #3; 74 MW	2000 hrs/yr. out of 3900	1995
PREPA, PR CON	248 MW SC	10 - FO	WI & Hot SCR	3x83 MW ABB GT11N CTs	2000 hrs/yr. < 60% output	1996
City Tallahassee, FL	260 MW CC	12 – NG 42 – FO	DLN WI	160 MW GE MS 7231FA CT DLN Guarantee is 9 ppm	NO <sub>x</sub> site cap of 467 TPY	1997
Berkshire, MA	272 MW CC	3.5 – NG (LAER) 9.0 – FO	DLN & SCR WI & SCR	178 MW ABB GT24 CT	No oil from 5/1 thru 9/30; 3 hr <50% su/sd	1997
Lordsburg, L.P. NM	100 MW SC	15/25 – NG 42/60 - FO	DLN WI	100 MW WH 501D5A or equiv. (NO <sub>x</sub> values are >/< 75% output)	1440 hrs/yr.	1997
City of Lakeland, FL	250 MW SC	9 – NG 42 – FO	ULN on gas, WI on oil 4/30/2002.	230 MW WH 501G CT	250 hrs/CT per year	1998
		9 – NG 15 – FO	Hot SCR if 9ppm not achievable by ULN 4/30/2002		250 hrs/CT per year	
TECO Polk, FL	330 MW SC	10.5 - NG 42 - FO	DLN WI	2x160 MW GE MS 7241FA CT's	876 hr/CT out of 4380	1999 propos d
RockGen, Wis.	525 MW SC	15 – NG 42 – FO	DLN WI	3x175 MW CT's	800 hr/CT out of 3800; not operated <50% continuously	1999

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SC = Simple Cycle Electric      ULN = UltraDry Low NO<sub>x</sub>      DLN = Dry Low NO<sub>x</sub> Combustion      GE = General  
 CC = Combined Cycle Westinghouse      MW = Megawatt      SCR = Selective Catalytic Reduction      WH =  
 NG = Natural Gas      FO = Fuel Oil      WI = Water or Steam Injection      ABB = Asea Brown  
 Bovari  
 CT = Combustion Turbine      ISO = 59°F      \* = Equivalent Basis      ppm = parts per million

All determinations are BACT unless denoted as LAER. - Factors in common with project are denoted with **bold** type. Data derived from appropriate BACT determination or permit conditions.

Project Location	CO – ppm (or lb/MMBtu)	VOC - ppm (or lb/MMBtu)	PM - lb/MMBtu (or gr./dscf or lb/hr)	Technology and Comments
FPC DeBary FL	None	None	None	Clean Fuels Good Combustion
	54 lb/hr	5 lb/hr	15 lb/hr	Clean Fuels Good Combustion
Intercession City FL	21.3 lb/hr - NG 25 - FO (25 ppm)	3 lb/hr - NG 5 lb/hr - FO	7.5 lb/hr - NG 15 lb/hr - FO	Clean Fuels Good Combustion
	30.9 lb/hr - NG 79 - FO (25 ppm)	5.3 lb/hr - NG 9 lb/hr - FO	7.5 lb/hr - NG 17 lb/hr - FO	Clean Fuels Good Combustion
Kamine/Besicorp NY	9.5 – NG 9.5 – FO	0.007 lb/MMBtu	0.008 - NG 0.03 - FO	Clean Fuels Good Combustion
Hart County, GA	25 – NG 25 – FO	None	0.0064 - NG 0.0156 - FO	Clean Fuels Good Combustion
Tiger Bay, FL	15 – NG 30 – FO	2.8 lb/hr - NG 7.5 lb/hr - FO	0.053 - NG 0.009 - FO	Clean Fuels Good Combustion
Auburndale Power FL	21/15 – NG 25 – FO	6 lb/hr – NG 10 lb/hr - FO	0.0134 – NG 0.0472 - FO	Clean Fuels Good Combustion
Hines Polk, FL	25 – NG 30 – FO	7 - NG 7 - FO	0.006 - NG 0.01 - FO	Clean Fuels Good Combustion
GRU Deerhaven FL	None	None	None	Clean Fuels Good Combustion
PREPA, PR	9 – FO	11 - FO	0.0171 gr./dscf	Clean Fuels Good Combustion
Tallahassee, FL	25 – NG 90 – FO	None	9 lb/hr - NG 17 lb/hr - FO	Clean Fuels Good Combustion
Berkshire, MA	4 - NG (LAER) 5 - FO (LAER)	4 - NG 16 - FO	0.0105 - NG 0.0468 - FO	Clean Fuels CO Catalyst
Lordsburg, L.P. NM	10/200 - NG (>/< 75%) 90/150 - FO (>/< 75%)	6/11 - NG 8/11 - FO	5.3 lb/hr - NG 40.6 lb/hr - FO	Clean Fuels CO Catalyst
Lakeland, FL	25 - NG or 10 by Ox Cat 90 – FO	4 - NG 10 - FO	0.01 gr./dscf	Clean Fuels Good Combustion
TECO Polk, FL	15 – NG 33 – FO	7 - NG 7 - FO	10 lb/hr - NG 27 lb/hr – FO	Clean Fuels Good Combustion
RockGen, Wis.	12 - NG 15 - FO	2 - NG 5 - FO	18 lb/hr – NG 44 lb/hr - FO	Clean Fuels Good Combustion

**OTHER INFORMATION AVAILABLE TO THE DEPARTMENT:**

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Besides the information submitted by the applicant and that mentioned above, other information available to the Department consists of:

- Comments from the U.S. Fish and Wildlife Service, Air Quality Branch dated December 18, 1998 and February 10, 1999.
- DOE website information on Advanced Turbine Systems Project
- Mitsubishi website
- Oleander Power Website: <http://www.oleanderpower.com/>
- Alternative Control Techniques Document - NO<sub>x</sub> Emissions from Stationary Gas Turbines
- Goal Line Environmental Technologies' Website: <http://www.glet.com>
- Catalytica Combustion System's Website: <http://www.catalytica-inc.com/cs/>

**REVIEW OF NITROGEN OXIDES CONTROL TECHNOLOGIES:**

Some of the discussion in this section is based on a 1993 EPA document on Alternative Control Techniques for NO<sub>x</sub> Emissions from Stationary Gas Turbines. Project-specific information is included where applicable.

**Nitrogen Oxides Formation**

Nitrogen oxides form in the gas turbine combustion process as a result of the dissociation of molecular nitrogen and oxygen to their atomic forms and subsequent recombination into seven different oxides of nitrogen. Thermal NO<sub>x</sub> forms in the high temperature area of the gas turbine combustor. Thermal NO<sub>x</sub> increases exponentially with increases in flame temperature and linearly with increases in residence time. Flame temperature is dependent upon the ratio of fuel burned in a flame to the amount of fuel that consumes all of the available oxygen.

By maintaining a low fuel ratio (lean combustion), the flame temperature will be lower, thus reducing the potential for NO<sub>x</sub> formation. Prompt NO<sub>x</sub> is formed in the proximity of the flame front as intermediate combustion products. The contribution of Prompt to overall NO<sub>x</sub> is relatively small in near-stoichiometric combustors and increases for leaner fuel mixtures. This provides a practical limit for NO<sub>x</sub> control by lean combustion.

Fuel NO<sub>x</sub> is formed when fuels containing bound nitrogen are burned. This phenomenon is not important when combusting natural gas. It is not a significant issue for the Oleander project because these units will not be continuously operated, but rather will be "peakers". Also, low sulfur fuel oil (which has more fuel-bound nitrogen than natural gas) is proposed to be used for no more than 1000 equivalent hours per year (per CT).

Uncontrolled emissions range from about 100 to over 600 parts per million by volume, dry,

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corrected to 15 percent oxygen (ppm @15% O<sub>2</sub>). The Department estimates uncontrolled emissions at approximately 200 ppm @15% O<sub>2</sub> for each turbine of the Oleander Project. The proposed NO<sub>x</sub> controls will reduce these emissions significantly.

**NO<sub>x</sub> Control Techniques**

Wet Injection

Injection of either water or steam directly into the combustor lowers the flame temperature and thereby reduces thermal NO<sub>x</sub> formation. Typical emissions achieved by wet injection are about 42 ppm when firing fuel oil in large combustion turbines. These values may form the basis for further reduction to BACT limits by other techniques. Carbon monoxide (CO) and hydrocarbon (HC) emissions are relatively low for most gas turbines. However steam and (more so) water injection increase emissions of both of these pollutants.

Combustion Controls

The excess air in lean combustion cools the flame and reduces the rate of thermal NO<sub>x</sub> formation. Lean premixing of fuel and air prior to combustion can further reduce NO<sub>x</sub> emissions. This is accomplished by minimizing localized fuel-rich pockets (and high temperatures) that can occur when trying to achieve lean mixing within the combustion zones. The above principle is depicted in Figure 1 for a General Electric can-annular combustor operating on gas. For ignition, warm-up, and acceleration to approximately 20 percent load, the first stage serves as the complete combustor. Flame is present only in the first stage, which is operated as lean stable combustion will permit. With increasing load, fuel is introduced into the secondary stage, and combustion takes place in both stages. When the load reaches approximately 40 percent, fuel is cut off to the first stage and the flame in this stage is extinguished. The venturi ensures the flame in the second stage cannot propagate upstream to the first stage. When the fuel in the first-stage flame is extinguished (as verified by internal flame detectors), fuel is again introduced into the first stage, which becomes a premixing zone to deliver a lean, unburned, uniform mixture to the second stage. The second stage acts as the complete combustor in this configuration.

To further reduce NO<sub>x</sub> emissions, GE developed the DLN-2 combustor (cross section shown in Figure 1) wherein air usage (other than for premixing) was minimized. The venturi and the centerbody assembly were eliminated and the combustor has a single burning zone. So-called "quaternary fuel" is introduced through pegs located on the circumference of the outward combustion casing.

Further improvements in the DLN design were made by GE. The most recent version is the DLN-2.6 (proposed for Oleander). The combustor is similar to the DLN-2 with the addition of a sixth (center) fuel nozzle. The emission characteristics of the DLN-2.6 combustor while firing natural gas are given in Figure 2 for a unit tuned to meet a 15 ppm

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NO<sub>x</sub> limit (by volume, dry corrected to at 15 percent oxygen) at Jacksonville Electric Authority's Kennedy Station.

NO<sub>x</sub> concentrations are higher in the exhaust at lower loads because the combustor does not operate in the lean pre-mix mode. Therefore such a combustor emits NO<sub>x</sub> at concentrations of 15 parts per million (ppm) at loads between 50 and 100 percent of capacity, but concentrations as high as 100 ppm at less than 50 percent of capacity. Note that VOC comprises a very small amount of the "unburned hydrocarbons" which in turn is mostly non-VOC methane.

The combustor can be tuned differently to achieve emissions as low as 9 ppm of NO<sub>x</sub> and 9 ppm of CO. Emissions characteristics while firing oil are expected to be similar for the DLN-2.6 as they are for those of the DLN-2.0 shown in Figure 3. Simplified cross sectional views of the totally premixed DLN-2.6 combustor to be installed at the Oleander project are shown in Figure 4.

In all but the most recent gas turbine combustor designs, the high temperature combustion gases are cooled to an acceptable temperature with dilution air prior to entering the turbine (expansion) section. The sooner this cooling occurs, the lower the thermal NO<sub>x</sub> formation. Cooling is also required to protect the first stage nozzle. When this is accomplished by air cooling, the air is injected into the component and is ejected into the combustion gas stream, causing a further drop in combustion gas temperature. This, in turn, results in a lower achievable thermal efficiency.

Larger units, such as the Westinghouse 501 G or the planned General Electric 7H, use steam in a closed loop system to provide much of the cooling. The fluid is circulated through the internal portion of the nozzle component or around the transition piece between the combustor and the nozzle and does not enter the exhaust stream. Instead it is normally sent back to a steam generator. The difference between flame temperature and firing temperature into the first stage is minimized and higher efficiency is attained.

Another important result of steam cooling is that a higher firing temperature can be attained with no increase in flame temperature. Flame temperatures and NO<sub>x</sub> emissions can therefore be maintained at comparatively low levels even at high firing temperatures. At the same time, thermal efficiency should be greater when employing steam cooling. A similar analysis applies to steam cooling around the transition piece between the combustor and first stage nozzle.

The relationship between flame temperature, firing temperature, unit efficiency, and NO<sub>x</sub> formation can be appreciated from Figure 5 which is from a General Electric discussion on these principles. In addition to employing pre-mixing and steam cooling, further reductions are accomplished through design optimization of the burners, testing, further evaluation, etc.



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At the present time, emissions achieved by combustion controls are low as 9 ppm (and even lower) from gas turbines smaller than about 200 MW (simple cycle), such as the F class.

Selective Catalytic Combustion

Selective catalytic reduction (SCR) is an add-on NO<sub>x</sub> control technology that is employed in the exhaust stream following the gas turbine. SCR reduces NO<sub>x</sub> emissions by injecting ammonia into the flue gas in the presence of a catalyst. Ammonia reacts with NO<sub>x</sub> and excess oxygen yielding molecular nitrogen and water. The catalyst used in combined cycle, low temperature applications (conventional SCR), is usually vanadium or titanium oxide and accounts for almost all installations. For high temperature applications (Hot SCR up to 1100 °F), such as simple cycle turbines, zeolite catalysts are available but used in few applications to-date. SCR units are typically used in combination with wet injection or DLN combustion controls.

In the past, sulfur was found to poison the catalyst material. Sulfur-resistant catalyst materials are now becoming more available. Catalyst formulation improvements have proven effective in resisting sulfur-induced performance degradation with fuel oil in Europe and Japan, where conventional SCR catalyst life in excess of 4 to 6 years has been achieved, while 8 to 10 years catalyst life has been reported with natural gas.

Excessive ammonia use tends to increase emissions of CO, ammonia (slip) and particulate matter (when sulfur-bearing fuels are used).

As of early 1992, over 100 gas turbine installations already used SCR in the United States. Per the above table, only one combustion turbine project in Florida (FPC Hines Power Block 1) employs SCR (it is currently being started up). The equipment was installed on a temporary basis because Westinghouse had not yet demonstrated emissions as low as 12 ppm by DLN technology at the time the units were to start up in 1998. SCR is also proposed on a permanent basis for the expansion of the FPC Hines Facility (Power Block II). The Department was recently advised by Seminole Electric that SCR will be installed on the 501F unit at the Hardee Unit 3 project. Permit BACT limits as low as 3.5 ppm NO<sub>x</sub> have been specified using SCR for several combined cycle F Class projects in Alabama and Mississippi. By comparison, a 6 ppm value at baseload facility proposed by FPC (Hines Energy Complex Power Block 2) is typical and is the lowest limit proposed to-date in Florida. According to that application, the 6 ppm value will be maintained at 80 percent load. FPC has estimated concentrations of 10 ppm at 50 percent load while firing gas.

Selective Non-Catalytic Combustion

Selective non-catalytic reduction (SNCR) reduction works on the same principle as SCR. The differences are that ammonia injection occurs closer to the turbine in hotter streams

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than conventional or hot SCR, no catalyst is required, and urea can be used as a source of ammonia. No applications have been identified wherein SNCR was applied to a simple cycle gas turbine because the exhaust temperature of 1100 °F is too low to support the NO<sub>x</sub> removal mechanism. The Department did, however, specify SNCR as one of the available options for the Santa Rosa Energy Center, which incorporates a large 600 MMBtu/hr duct burner in the HRSG and can provide the acceptable temperatures (between 1400 and 2000 °F) and residence times to support the reactions.

Emerging Technologies

SCONOx - USEPA has identified an "achieved in practice" BACT value of 2.0 ppmv over a three-hour rolling average based upon the recent performance of a Vernon, California natural gas-fired 32 MW combined cycle turbine (without duct burners) equipped with the patented SCONOx system. Additional advantages of the SCONOx process include the elimination of ammonia and the control of some CO emissions. In a letter dated March 23, 1998 to Goal Line Environmental Technologies, the SCONOx process was deemed as technically feasible for maintaining NO<sub>x</sub> emissions at 2 ppmvd on a combined cycle unit. ABB Environmental was announced on September 10, 1998 as the exclusive licensee for SCONOx for United States turbine applications > 100 MW, and ABB Power Generation has stated that scale up and engineering work will be required before SCONOx can be offered with commercial guarantees for large turbines (based upon letter from Kreminski/Broemmelsiek of ABB Power Generation to the Massachusetts Department of Environmental Protection dated November 4, 1998). SCONOx requires a much lower temperature regime that is not available in simple cycle units and is therefore not feasible for this project.

XONON<sup>tm</sup> - Catalytica Combustion Systems, Inc. develops manufactures and markets the XONON<sup>tm</sup> Combustion System. In a press release on October 8, 1998 Catalytica announced the first installation of a gas turbine equipped with the XONON<sup>tm</sup> Combustion System in a municipally owned utility for the production of electricity. The turbine was started up on that day at the Gianera Generating Station of Silicon Valley Power, a municipally owned utility serving the City of Santa Clara, Calif. The XONON<sup>tm</sup> Combustion System, deployed for the first time in a commercial setting, is designed to enable turbines to produce environmentally sound power without the need for expensive cleanup solutions. Previously, this XONON<sup>tm</sup> system had successfully completed over 1,200 hours of extensive full-scale tests which documented its ability to limit emissions of nitrogen oxides (NO<sub>x</sub>), a primary air pollutant, to less than 3 parts per million.

Catalytica's XONON<sup>tm</sup> system is purported to be a powerful technology that essentially eliminates the formation of NO<sub>x</sub> in gas turbines without impacting the turbine's operating performance. On November 19, 1998, GE Power Systems and Catalytica agreed to cooperate in the design, application, and commercialization of XONON<sup>tm</sup> systems for both

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new and installed GE E-class and F-class turbines used in power generation and mechanical drive applications. This appears to be an up-and-coming technology, the development of which will be watched closely by the Department for future applications. It is not yet available for fuel oil and cycling operation.

**REVIEW OF Particulate Matter (PM/PM<sub>10</sub>) CONTROL TECHNOLOGIES:**

Particulate matter is generated by various physical and chemical processes during combustion and will be affected by the design and operation of the NO<sub>x</sub> controls. The particulate matter emitted from this unit will mainly be less than 10 microns in diameter (PM<sub>10</sub>). Natural gas and 0.05 percent sulfur No. 2 (or superior grade) distillate fuel oil will be the only fuels fired and are efficiently combusted in gas turbines. Such fuels are necessary to avoid damaging turbine blades and other components already exposed to very high temperature and pressure. Natural gas is an inherently clean fuel and contains no ash. The fuel oil to be combusted contains a minimal amount of ash and will be used for no more than 1000 hours per year making any conceivable add-on control technique for PM/PM<sub>10</sub> either unnecessary or impractical.

A technology review indicated that the top control option for PM<sub>10</sub> is a combination of good combustion practices, fuel quality, and filtration of inlet air. The applicant indicated that the PM<sub>10</sub> emissions will not exceed 0.01 gr./scf when firing natural gas and pointed out that such a value is equal to a typical specification for baghouse design. Annual emissions of PM<sub>10</sub> are expected to be approximately 20 tons per C.T. for the maximum case of 1000 hours of fuel oil and 2390 hours of natural gas firing.

**REVIEW OF Carbon Monoxide (CO) CONTROL TECHNOLOGIES**

CO is emitted from combustion turbines due to incomplete fuel combustion. Combustion design and catalytic oxidation are the control alternatives that are viable for the project. The most stringent control technology for CO emissions is the use of an oxidation catalyst.

Most installations using catalytic oxidation are located in the Northeast. Among them are the 272 MW Berkshire, Massachusetts facility, 240 MW Brooklyn Navyyard Facility, the 240 MW Masspower facility, the 165 MW Pittsfield Generating Plant in Massachusetts, and the 345 MW Selkirk Generating Plant in New York. Catalytic oxidation was recently installed at a cogeneration plant at Reedy Creek (Walt Disney World), Florida to avoid PSD review which would have been required due to increased operation at low load. Seminole Electric recently proposed catalytic oxidation in order to meet the permitted CO limit at its planned 244 MW Westinghouse 501FD combined cycle unit in Hardee County, Florida.

Most combustion turbines incorporate good combustion to minimize emissions of CO. These installations typically achieve emissions between 10 and 30 at full load, even as they

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achieve relatively low NO<sub>x</sub> emissions by SCR or dry low NO<sub>x</sub> means. By comparison, the projected actual values of 12 and 20 ppm for gas and oil respectively (at baseload) as proposed in Oleander's application appear typical or low. These values are given in the application as representative down to and including 50 percent load on each fuel respectively

**REVIEW OF VOLATILE ORGANIC COMPOUND (VOC) CONTROL TECHNOLOGIES**

Volatile organic compound (VOC) emissions, like CO emissions, are formed due to incomplete combustion of fuel. There are no viable add-on control techniques as the combustion turbine itself is very efficient at destroying VOC. The limits proposed for this project are 3 and 6 ppm for gas and oil firing respectively.

**REVIEW OF SULFUR DIOXIDE (SO<sub>2</sub>) AND SULFURIC ACID MIST (SAM)**

SO<sub>2</sub> control processes can be classified into five categories: fuel/material sulfur content limitation, absorption by a solution, adsorption on a solid bed, direct conversion to sulfur, or direct conversion to sulfuric acid. A review of the BACT determinations for combustion turbines contained in the BACT Clearinghouse shows that the exclusive use of low sulfur fuels constitutes the top control option for SO<sub>2</sub>. For this project, the applicant has proposed as BACT the use of such fuels with 0.05% sulfur oil and natural gas containing no more than 1 grain of sulfur per standard cubic foot (gr. S/f<sup>3</sup>). This value is well below the "default" maximum value of 20 gr. S/f<sup>3</sup>, but high enough to require a BACT determination. Emissions were estimated by the applicant to be 291 TPY of SO<sub>2</sub> and 45 TPY of SAM. However the Department expects the emissions to be lower because oil consumption will be further reduced and typical natural gas in Florida contains less than 1 gr. S/f<sup>3</sup>.

**BACKGROUND ON PROPOSED GAS TURBINE**

In the original application, the applicant had not yet selected the supplier for the proposed five "F" class CT's and (via GolderAssociates) conducted its own BACT review assuming either a General Electric 7FA or a Westinghouse 501F. In a February 1, 1999 response to FDEP's completeness questions, the applicant stated that "Oleander Power Project, L.P. has selected General Electric Company (GE) as its primary vendor to supply the turbines for the project due to the ability of GE combustion turbines to meet a NO<sub>x</sub> emission level of 9 ppmvd (corrected to 15 percent O<sub>2</sub>). The applicant requests the ability to purchase a different manufacturer's machines, if they can meet the same emission characteristics as the GE machine and the emission limits approved by FDEP in the final permit. As indicated in the application, the machines will be the advanced Frame "7" class (or GE Frame 7 FA), which would be capable of achieving an NO<sub>x</sub> emission rate of 9ppmvd @

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15% O<sub>2</sub> when firing natural gas.”

In the submittal dated March 17, 1999 the applicant further affirmed its intentions to procure GE combustion turbines stating “... the updated forms and information reflect data representative of the General Electric (GE) Frame 7FA combustion turbine as the primary vendor...” as well as “Over the last several months, the applicant has recognized the concern by the Department and the general public over the higher emission rates when firing distillate fuel oil relative to natural gas. Both the reduction in hours of firing oil and the lower emission rates with the GE machine substantially reduce emissions, a desired goal.”

Westinghouse and General Electric are counting on further advancement and refinement of DLN technology to provide sufficient NO<sub>x</sub> control for their turbines. In the case of the WH501 G, steam cooling of the transition piece allows the unit to maintain the same NO<sub>x</sub> formation potential as the WH501 F while achieving a higher turbine inlet (firing) temperature. Examples of Westinghouse combustors are shown in Figure 6. These include their second generation of Dry Low NO<sub>x</sub> combustors including their fully pre-mixed Piloted Ring Combustor. Where required by BACT or LAER determinations of certain states, both companies incorporate SCR in combined cycle projects.

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The approach of progressively refining such technology is a proven one, even on some relatively large units. Basically this was the strategy adopted in Florida throughout the 1990's. Recently GE Frame 7 FA units (160 MW gas turbines with firing temperatures of 2400 °F) reportedly met performance guarantees of 9 ppm with "DLN-2.6" burners at Fort St. Vrain, CO and Clark County, WA.

Westinghouse and General Electric are partners with the Department of Energy (DOE) in the Advanced Turbine Systems (ATS) Program. The Mission/Vision Statement of ATS is to "develop base-load advanced turbine systems for commercial offering in the year 2000." Among the goals of the Program is 60 percent combined cycle efficiency while achieving NO<sub>x</sub> emissions of 8 ppm or less. The cost of producing the prototypes is estimated at \$435,000,000 and \$300,000,000 for the GE and Westinghouse projects respectively.

**DEPARTMENT BACT DETERMINATION**

Following are the BACT limits determined for the Oleander project assuming full load. Values for NO<sub>x</sub> are corrected to 15% O<sub>2</sub>. These limits or their equivalents in terms of pounds per hour, as well as the applicable averaging times are given in the permit Specific Conditions. The rationale for the averaging times is discussed in the Final Determination addressing comments by the applicant and EPA and which is being issued concurrently with this determination.

Operational Mode (Fuel)	NO <sub>x</sub> (15%O <sub>2</sub> )	CO	VOC	PM/Visibility (% Opacity)	SO <sub>2</sub> /SAM	Technology and Comments
Natural Gas	9 ppm	12 ppm	3 ppm	10	1 grain S per 100 CF	Dry Low NO <sub>x</sub> Burners. Clean fuels, good combustion
Fuel Oil	42 ppm	20 ppm	6 ppm	10	0.05% sulfur oil	Water Injection. Units limited to 1000 hrs equivalent full load oil operation (per CT) annually. Clean fuels, good combustion

**RATIONALE FOR DEPARTMENT'S DETERMINATION**

- The initial 9 and 42 ppm NO<sub>x</sub> limits proposed by Oleander are guaranteed by General Electric.
- The units will be operated in simple cycle mode and therefore certain control options, which are feasible for combined cycle units, are not applicable. This rules out low temperature technologies such as SCONO<sub>x</sub> and conventional SCR, which can achieve lower limits.
- The 9 ppm limit while firing natural gas is the lowest known BACT value for an "F" frame combustion turbine operating in simple cycle mode and peaking duty. The initial 42 ppm limit while firing fuel oil is typical.

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- There is a cost to Oleander for the 9 ppm guarantee compared to the 15 ppm guarantee provided by GE for an identical unit to be installed at Jacksonville Electric Authority's Kennedy Plant. There may be additional costs for the more frequent tuning needed to maintain the units at less than 9 ppm.
- Typical permit limits nation-wide for these units while operating in simple cycle mode and intermittent duty are 12-15 ppm. The lower limit will offset emissions while firing fuel oil.
- The simple cycle turbine has very high exhaust temperatures of up to 1200 °F, which is at the higher operating limit of Hot SCR zeolite catalyst (around 1050 °F). The PREPA continuous duty simple cycle turbines (referenced above) have exhaust temperatures ranging from 824 to 1024 °F and the Hot SCR catalyst (which must achieve 10 ppm NO<sub>x</sub>) is located between the turbine and a "Once Through Steam Generator".
- The levelized costs of NO<sub>x</sub> removal by Hot SCR were estimated by Golder Associates as \$11,000 per ton of NO<sub>x</sub> removed at 2000 hrs/yr. of oil operation, \$14,000 per ton of NO<sub>x</sub> removed at 1500 hrs/yr. of oil operation and \$17,568 per ton removed at 1000 hrs/yr. of oil operation. Although the estimates appear to be high for this project (e.g.: 3 days of lost energy costs for peaking units operating at no more than 39% capacity factor; no indication of a continuation of the actual downward trend in catalyst prices, progressively improving performance, and typically longer-than-expected life), the actual per ton cost reasonably exceeds \$10,000 at 1000 hrs/yr. of oil operation.
- Using much of the basic capital cost information developed by the City of Lakeland, The National Park Service estimated the cost of NO<sub>x</sub> removal by Hot SCR at \$3,802 per ton (excluding the energy penalty) for a *continuous duty* 501 G. A further refinement of the Park Service estimate by including the energy penalty, using the revised catalyst cost data obtained by the Department, and assuming a five year estimated life for the catalyst (per Engelhard) would yield a cost-effectiveness closer to \$3,500 per ton of NO<sub>x</sub> removed for that application. Hence, should the Oleander Project contemplate operation on a more continuous duty, the use of a Hot SCR may be appropriate.
- Comments from the National Park Service on the Oleander project suggested a reduction in the proposed NO<sub>x</sub> emissions on oil from 42ppm to 25ppm (at the applicant's proposed 2000 hours of oil operation rate). Restricting the operation of these units to 1000 hours per year on oil at 42ppm will result in lower annual NO<sub>x</sub> emissions than 2000 hours per year on oil at 25ppm.
- It is possible that the NO<sub>x</sub> emissions while firing oil from may be reduced from 42ppm by increasing the water injection rate. In order to address this possibility, a specific condition will be added to conduct appropriate testing and prepare an engineering report. The report will be submitted for the Department's review to ensure that the

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lowest reliable NO<sub>x</sub> emission rates while firing oil have been achieved.

- Hot SCR has environmental and energy impacts including increased particulate emissions, undesirable (though unregulated) ammonia emissions, and energy penalties. Given the vendor guarantee of 9 ppm on natural gas, the limitation of total operating hours to 3390 per CT and the requirement that a majority of the operation be on natural gas, Hot SCR is not considered BACT for these simple cycle peaking units.
- It is possible and even likely, that Hot SCR catalysts will be improved and can be used to replace the initial catalyst as it degrades. Should the Oleander Project contemplate operation on a more continuous duty, or should actual emissions not achieve permitted levels such that energy, environmental and economic impacts (or other costs) may be reduced, the use of a Hot SCR may be BACT. The Department has concluded that Hot SCR is both technically and economically feasible for certain applications (e.g. Lakeland, FL which is shown above).
- BACT for PM<sub>10</sub> was determined to be good combustion practices consisting of: inlet air filtering; use of clean, low ash, low sulfur fuels; and operation of the unit in accordance with the manufacturer-provided manuals.
- PM<sub>10</sub> emissions will be very low and difficult to measure at the high temperature exiting the stack in simple cycle operation. Additionally, the higher emission mode will involve fuel oil firing, which will occur no more than 1000 hours per year. It is not practical to require running the turbine on oil, simply to conduct tests. Therefore, the Department will set a Visible Emission standard of 10 percent opacity as BACT for both natural gas and fuel oil firing, consistent with the definition of BACT. Examples of installations with similar VE limits include FPL Fort Myers (Florida), Santa Rosa (Florida) and the City of Tallahassee (Florida) as well as the Berkshire (Massachusetts) projects in the above table.
- Annual CO emission estimates from the Oleander project are higher than for other pollutants except NO<sub>x</sub>. However the impact on ambient air quality is lower compared to other pollutants because the allowable concentrations of CO are much greater than for NO<sub>x</sub>, SO<sub>2</sub>, or PM<sub>10</sub>.
- Golder Associates evaluated the use of an oxidation catalyst designed for 75 percent reduction and having a three-year catalyst life. The oxidation catalyst control system was estimated to increase the capital cost of each unit by \$1,829,777 with an annualized cost of \$707,655 per year. Levelized costs for CO catalyst control were calculated at \$11,437 per ton to control CO emission to 75% removal. Catalytic CO control is not cost-effective for the Oleander project.
- The applicant's proposed CO levels of 12 ppmvd while firing natural gas and 20 ppmvd while firing oil are on the lower end of other permitted units neglecting those units



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which employ oxidation catalysts. These values are assumed to be guaranteed down to 50% of unit output.

- CO limits achievable by good combustion will be set equal to or lower than those set for other recent projects. For example, the City of Tallahassee project (25 ppm on gas and 90 ppm on oil), the FPC Hines project (25 ppm on natural gas and 30 ppm on oil) and the Tiger Bay project (limited to 15 ppm on natural gas and 30 ppm on oil). The two latter projects are both permitted at 8760 hours per year on natural gas and up to 1000 hours per year on oil (Hines).
- VOC emission limits proposed by the applicant are at the lower end of values previously determined as BACT. Good Combustion is sufficient to achieve these low levels.
- The (BACT) levels above are guaranteed down to 50% output. It is presumed that emission levels for pollutants such as NO<sub>x</sub> and CO will increase above these guaranteed ppm levels at lower outputs. Therefore, startup and shutdown hours are defined to be hours of operation below 50% output and these hours will be limited by specific condition.
- A review of the BACT determinations for combustion turbines contained in the BACT Clearinghouse shows that the exclusive use of low sulfur fuels constitutes the top control option for SO<sub>2</sub> and Sulfuric Acid Mist. Pipeline natural gas and very low (0.05%) sulfur oil are considered to be BACT for this project.

**Compliance Procedures**

<b>Pollutant</b>	<b>Compliance Procedure</b>
Visible Emissions	Method 9
Volatile Organic Compounds	Method 18, 25, or 25A (initial tests only)
Carbon Monoxide	Annual Method 10 (can use RATA if at capacity)
NO <sub>x</sub> (24/3-hr average)	NO <sub>x</sub> CEMS, O <sub>2</sub> or CO <sub>2</sub> diluent monitor, and flow device as needed
NO <sub>x</sub> (performance)	Annual Method 20 (can use RATA if at capacity)
Sulfur Dioxide	Custom Fuel Monitoring Schedule

**Details of the Analysis May be Obtained by Contacting:**

Michael P. Halpin, P.E., Review Engineer, New Source Review Section  
A. A. Linero, P.E. Administrator, New Source Review Section  
Department of Environmental Protection  
Bureau of Air Regulation

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2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Recommended By:

Approved By:

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

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Howard L. Rhodes, Director  
Division of Air Resources Management

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Date:

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Date:

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Oleander Power Project, L.P.  
FL-258  
Oleander Power Project, Units 1-5  
001-AC

Air Permit No. PSD -  
DEP File No.0090180-

BD-

## PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0090180-001-AC (PSD-FL-258)

Oleander Power Project, L.P.  
Oleander Power Project - Unit Nos. 1-5  
Brevard County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit under the requirements for the Prevention of Significant Deterioration (PSD) of Air Quality to Oleander Power Project, L.P. The permit is to construct five 190 megawatt (MW) dual-fuel "F" class combustion turbines with 60-foot stacks and two 2.8 million gallon fuel oil storage tanks for Oleander Power Project located at 3527 Townsend Road, Cocoa, Brevard County. A Best Available Control Technology (BACT) determination was required for sulfur dioxide (SO<sub>2</sub>), particulate matter (PM/PM<sub>10</sub>), nitrogen oxides (NO<sub>x</sub>), sulfuric acid mist (SAM), volatile organic compounds (VOC) and carbon monoxide (CO) pursuant to Rule 62-212.400. The applicant's name and address are Oleander Power Project, L.P., 250 West Pratt Street, 23rd Floor, Baltimore, MD 21201.

The new units are General Electric "F" class 190 MW combustion turbine electrical generators, which will operate in simple cycle mode as peaking units. The units will operate primarily on natural gas and will be permitted to operate 3390 hours (each) per year of which no more than 1000 equivalent hours will be on maximum 0.05 percent sulfur distillate fuel oil.

NO<sub>x</sub> emissions will be controlled by Dry Low NO<sub>x</sub> technology combustors capable of achieving emissions of 9 ppm @15% O<sub>2</sub>. Emissions of NO<sub>x</sub> will be controlled to 42 ppm under the back-up (fuel oil) operation by water injection. SO<sub>2</sub> and PM/PM<sub>10</sub> will be limited by use of clean fuels. Emissions of VOC and CO will be controlled by good combustion practices.

The maximum potential annual emissions in tons per year based on the revised application are summarized below:

<u>Pollutants</u>	<u>Maximum Potential Emissions</u>	<u>PSD Significant Emission Rate</u>
PM/PM <sub>10</sub>	96	25/15
SO <sub>2</sub>	291	40
NO <sub>x</sub>	1235	40
VOC	64	40
CO	412	100

An air quality impact analysis was conducted. Maximum predicted impacts due to proposed emissions from the project are less than the applicable PSD Class I and Class II significant impact levels.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection.

If comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice. Written and oral comments will also be received at a public meeting, scheduled for May 13<sup>th</sup>, 1999 at 7:00pm in the Brevard County Agricultural Center, 3695 Lake Drive, Cocoa, Florida 32926.

The Department will issue FINAL Permit with the conditions of the DRAFT Permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. The procedures for petitioning for a hearing are set forth below. Mediation is not available for the proposed action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 904/488-9370, fax: 904/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

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

Florida Department of Environmental Protection  
Bureau of Air Regulation  
111 S. Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Telephone: (850)488-0114  
Fax: (850)922-6979

Florida Department of Environmental Protection  
Central District Office  
3319 Maguire Blvd.  
Orlando, Florida 32803  
Telephone: (407)894-7555  
Fax: (407)897-2966

The complete project file includes the application, technical evaluations, Draft Permit, and the

information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-0114, for additional information.

March 26, 1999

Certified Mail - Return Receipt Requested

Mr. Richard L. Wolfinger  
Vice President  
Oleander Power Project, L.P.  
250 West Pratt Street, 23rd Floor  
Baltimore, MD 21201

Re: DEP File No. 0090180-001-AC (PSD-FL-258)  
Five 190-MW Dual-Fuel "F" Class Combustion Turbines

Dear Mr. Wolfinger:

Enclosed is one copy of the Draft Air Construction Permit, Technical Evaluation and Preliminary Determination, and Draft BACT Determination, for the Oleander Power Project located at 527 Townsend Road, Cocoa, Brevard County. The Department's Intent to Issue Air Construction Permit and the "Public Notice of Intent to Issue AIR CONSTRUCTION Permit" are also included.

The "Public Notice of Intent to Issue Permit" must be published as soon as possible in a newspaper of general circulation in the area affected. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please call Michael P. Halpin, P.E. at 850/921-9530.

Sincerely,

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

CHF/mph  
Enclosures

**Appendix GC**  
General Permit Conditions [F.A.C. 62-4.160]

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- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- a) Have access to and copy and records that must be kept under the conditions of the permit;
  - b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

**Appendix GC**  
General Permit Conditions [F.A.C. 62-4.160]

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- a) A description of and cause of non-compliance; and
- b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
  - a) Determination of Best Available Control Technology (X)
  - b) Determination of Prevention of Significant Deterioration (X); and
  - c) Compliance with New Source Performance Standards (X).
- G.14 The permittee shall comply with the following:
  - a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c) Records of monitoring information shall include:
    - 1. The date, exact place, and time of sampling or measurements;
    - 2. The person responsible for performing the sampling or measurements;
    - 3. The dates analyses were performed;



**Appendix GC**  
General Permit Conditions [F.A.C. 62-4.160]

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4. The person responsible for performing the analyses;
  5. The analytical techniques or methods used; and
  6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

# INTEROFFICE MEMORANDUM

**Date:** 29-Mar-1999 03:33pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:**  
**Tel No:**

**To:** See Below  
**Subject:** Oleander Power Plant

You are being sent this e-mail as you have been identified as an interested party in the subject application to construct a power plant.

Attached are several "Word" documents as follows:

- 1) Oleain.doc - "Intent to Issue Air Construction Permit". It describes your rights as an interested party.
- 2) emalTEPD.doc - "Technical Evaluation and Preliminary Determination". It is an e-mail version which is identical to the original except that the picture files (which consume large amounts of memory) have been excluded.
- 3) Oleapermit.doc - "Air Construction (PSD) Permit". It is a DRAFT of the permit conditions which are intended to apply to this specific project.
- 4) OleaBACT1.doc - "Best Available Control Technology Determination". It is also a DRAFT.
- 5) OLEAPN1.doc - "Public Notice of Intent to Issue".
- 6) Oleacv.doc - "Cover letter". It directs the applicant to publish the intent in a local newspaper.
- 7) APPDXGC.doc - "General Conditions". Permit Conditions of a general nature.

As noted in the "Technical Evaluation and Preliminary Determination", the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Please be advised that (as requested) a public meeting is planned for May 13th at 7:00pm at the same location as the March 3rd meeting (Brevard County Agricultural Center) and is so stated in the intent document noted above. If you incur difficulty in pulling up any particular document and need one sent via US Mail, we will accommodate that.

Thank you for your patience.

Sincerely,  
Mike Halpin

**Distribution:**

**To:** mikestallings@yahoo.com@in  
**To:** Rknodel@aol.com@in  
**To:** Aspbb@aol.com@in  
**To:** dlundgre@manatee.brev.lib.fl.us@in  
**To:** gritchie@manatee.brev.lib.fl.us@in  
**To:** carlsond4@manatee.brev.lib.fl.us@in  
**To:** craigbock@yahoo.com@in

# INTEROFFICE MEMORANDUM

**Date:**

**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66

**Dept:**

**Tel No:**

**Subject:** Oleander & Public Input

Mr. Linero,

\*\*\*\*

Mike Halpin recently wrote the following:

As noted in the "Technical Evaluation and Preliminary Determination", the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Please be advised that (as requested) a public meeting is planned for May 13th at 7:00pm at the same location as the March 3rd meeting (Brevard County Agricultural Center) and is so stated in the intent document noted above.

\*\*\*\*

I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?

I have asked this question before and have never really received an answer to it. You have held a public meeting on March 3, 1999 and have received multiple letters, almost 2,000 signatures on petitions against this plant and many comments from the public over here in Brevard County. Plus an article in our local paper stated that DEP would take public comments for another 30 days. And now you are having another hearing in May, because it was requested.

Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit?? What is the purpose for getting public input if DEP does not take it into consideration when making its decision?

At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)?

This county already has three power plants situated triangularly around it. Only one of which (FPL) services the residents here. The only time this area

gets a break from emissions, is when the wind comes out of the South. I have seen a smog line in our sunsets many times west of Brevard County along the St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's? Can you explain why Volusia County's and West Palm Beach County's readings are lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia. Are there more vehicle emissions in Brevard County than there are in the Miami area???

A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?

Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project.

In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

What is the magic number of homes in a 3.2 km. radius that FDEP considers significant? I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it.

Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them.

Thank-you for your time and thoughtful consideration.

M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 01-Apr-1999 11:17am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**To:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** FWD: Re: Application for Air Construction Permit - Oleander Po

Al -

Thanks for forwarding me Ms. Adams' note. I have placed it below and attached my previous e-mail to her dated 2/26, attempting to answer her question on the purpose of the public meeting. Apparently, my 2/26 response was inadequate and she seems to be specifically asking whether or not the public sentiment is a factor in determining whether to approve or deny this project.

I would like to try again and have written a response below in that effort. I would appreciate your feedback.

To Ms. Adams -

Thank you for your input regarding the Oleander project. You have asked several questions and I am itemizing them below with my response:

1) I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process? . . . . . Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit?? What is the purpose for getting public input if DEP does not take it into consideration when making its decision?

ANSWER - Public input is used in order to increase the Department's familiarity with the local issues and to ensure that we have considered all applicable rules and regulations. The Department does not have the authority to approve or deny a project based upon public sentiment, presuming that the project complies with all state and federal rules and regulations. However, public input does have a purpose and can lead to specific issues being addressed. One example (in this project) is that a permit condition has been written to require the applicant to maintain the fuel oil consumption to be less than the natural gas consumption. This resulted from many public comments directed at a concern that the plant may burn oil most (or all) of the time.

2) Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)?

ANSWER - The Department does not have jurisdiction over the placement of a power plant. The Department looks at whether the selected location, together with the proposed emissions and controls is likely to cause exceedances of ambient air quality standards. This was addressed at the March 3rd public

meeting.

3) Can you explain why Miami's ozone readings are much lower than Brevard County's? Can you explain why Volusia County's and West Palm Beach County's readings are lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia. Are there more vehicle emissions

in Brevard County than there are in the Miami area???

ANSWER - We will specifically address ozone-related issues at the public meeting on May 13th.

4) A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?

ANSWER - This question appears to be related to the placement of the plant and thus has the same answer as 2) above. Concerning the issue of shortages, we have no authority to utilize that information in our decision-making process.

5) In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is

that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods? What is the magic number of homes in a 3.2 km. radius that FDEP considers significant?

ANSWER - The issue of "significance" in the context of a PSD permit is not determined based upon the number or types of homes in an area. I have attached the definition as we are required to use it (based upon the Code of federal Regulations 40 CFR 52.21(b)23[i through iii]):

(23)i - Significant means, in reference to a net emissions increase or the potential source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates: Carbon Monoxide - 100 tons per year, Nitrogen Oxides - 40 tons per year, etc. I can provide the rest if you like

(23)ii - Significant means, in reference to a net emissions increase or the potential of a source to emit a pollutant subject to regulation under the Act that paragraph (b)(23)(i) of this section, does not list, any emissions rate.

(23)iii - Notwithstanding paragraph (b)(23)(i) of this section, significant means any emission rate or any net emissions increase associated with a major stationary source or major modification, which would construct within 10 kilometers of a Class I area, and have an impact greater than 1 ug/m<sup>3</sup>, (24-hour average).

As was stated in the public meeting, the approval of this plant will not cause any ambient air quality standards to be exceeded based upon the EPA methodologies for making that determination.

I hope that this is helpful to you.  
Sincerely,  
Mike Halpin

MS. ADAMS MEMO:

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Mr. Linero,

\*\*\*\*

Mike Halpin recently wrote the following:

As noted in the "Technical Evaluation and Preliminary Determination", the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Please be advised that (as requested) a public meeting is planned for May 13th at 7:00pm at the same location as the March 3rd meeting (Brevard County Agricultural Center) and is so stated in the intent document noted above.

\*\*\*\*

I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?

I have asked this question before and have never really received an answer to it. You have held a public meeting on March 3, 1999 and have received multiple letters, almost 2,000 signatures on petitions against this plant and many comments from the public over here in Brevard County. Plus an article in our local paper stated that DEP would take public comments for another 30 days. And now you are having another hearing in May, because it was requested.

Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit?? What is the purpose for getting public input if DEP does not take it into consideration when making its decision?

At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)?

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St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's? Can you explain why Volusia County's and West Palm Beach County's readings are lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia. Are there more vehicle emissions in Brevard County than there are in the Miami area???

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Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project.

In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

What is the magic number of homes in a 3.2 km. radius that FDEP considers significant? I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it. Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them.

Thank-you for your time and thoughtful consideration.  
M. Adams



# INTEROFFICE MEMORANDUM

**Date:** 26-Feb-1999 11:16am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**Subject:** Re: Application for Air Construction Permit - Oleander Po

Ms. Adams -

I understand that you have contacted Mr. Linero requesting Department responses to your questions below. We had forwarded you a copy of Constellation's responses to our questions and had planned to try to address remaining issues at the public meeting. However, I will attempt to do comply with your request at this time. Below is the text of your e-mail message with my responses:

Mr. Halpin,

I appreciate your informing me of the Public Workshop, as well as the fact that the project, as currently proposed, appears to be capable of meeting the rules for an air permit. I do have a few questions, however.

1. What is the specific reason that Oleander Power Project has reduced their hours of operation, on oil, to 1,500, as opposed to 2,000?

I can only speculate as to why the applicant reduced their requested hours of operation on oil from 2000 to 1500 and am unaware of any requirement to do so. However, since the result of it is a reduction in emitted air pollutants, I find it to be positive. My preliminary conclusion on this topic does include a recommendation for a further reduction (to 1000 hours) for similar reasons.

2. Did Constellation Power provide written confirmation, as you requested, from the City of Cocoa, that the amount of water usage, you specified in your December letter, can be supplied? And what, exactly, is the expected water usage of their current proposal?

The applicant provided confirmation (in their February 1 response to our questions) that the City Of Cocoa is capable of meeting their water requirements. I have confirmed this with the City of Cocoa Water Department. Please be aware that we as an Air Regulation Bureau, we do not require other permits such as water, zoning, etc. These are the responsibility of the applicant and other Agencies. The question about water was asked of the applicant only to have a reasonable assurance that the method of controlling a specific air pollutant (NOx) while combusting oil is achievable, since water injection is the proposed method. In the event that the applicant is unable to secure the water needed, the applicant can choose to burn gas only, or to resubmit an application (these are two possibilities I can think of).

With regards to the quantity of water required, the applicant answered the question in their response. Of note, a further reduction of oil operation (as I

noted in my response to question 1 above) will result in a corresponding further reduction in their water requirements.

3. What was Constellation Power's specific response, to your December letter, concerning the 20,000 tanker trucks of oil expected to meet their needs? And what is the expected tanker truck need now?

Constellation's response was forwarded to you. The same logic applies here concerning a further reduction in hours of oil operation.

4. What was Constellation Power's response to your question about the 60' stack height? And where else, in Florida or in the country, is their a similar project with just 60' stacks? Does your determination, for an air permit, depend on comparing this proposal to another project with similar characteristics?

Constellation's response was forwarded to you. Regarding stack height (in general terms) plants with higher emission rates of pollutants require higher stack heights in order to ensure proper dispersion. Conversely, plants with lower emission rates are able to employ lower stack heights. The proposed 60' stack height provides ample dispersion for this project and ensures that there will be no significant air quality impacts. The determination is not based upon

similar projects, but rather is specifically evaluated for each project. I am unable to provide you with a complete listing of where else there are 60' stacks, however I can pass along that my records indicate that a recently installed unit at the City of Gainesville's Deerhaven Generating Station (began commercial operation in 1995) which is of similar technology (simple cycle combustion turbine) has a 52' stack. Although it's permitted emission rate is higher than the Constellation proposal while firing natural gas, it is similar to it in other emission rates. Also, it is similarly permitted for 3900 hours of operation of which 2000 hours may be on oil.

5.. What exactly is the Public Workshop's purpose? Does public input have any bearing on DEP's decision of whether or not to issue an air permit or is it simply a formality?

There are multiple purposes to the meeting/workshop, one of which is that there are requirements to do so under certain conditions. As a representative of the Air Division of DEP, I plan to use the meeting to explain the application to interested parties, to provide my initial evaluation of it's impact, and use the public input to ensure that all air-pollution issues have been addressed.

Also, I would appreciate your sending me a copy of the agenda for the Public Workshop.

You can mail it, fax it, or e-mail it to [aspbb@yahoo.com](mailto:aspbb@yahoo.com).

I've attached a copy of the agenda (in Word 97 format) and hope that the information I have provided is useful to you.

Michael P. Halpin

## MEETING AGENDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
7:00 pm - 9:00pm MARCH 3, 1999  
BREVARD COUNTY AGRICULTURAL CENTER  
THIS MEETING IS OPEN TO THE PUBLIC

1. Introduction Vivian Garfein, Director, FDEP Central District
2. Public Participation Process Douglas Beason, OGC.
3. Application Details Michael P. Halpin
4. Ambient Air Impact/Modeling Cleveland G. Holladay
5. Public Comments
6. Adjourn

# INTEROFFICE MEMORANDUM

**Date:** 05-Apr-1999 12:17pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Fwd: Oleander & Public Input

Dear Mr. Linero,

I wrote this letter on March 31, 1999 and have still not received a response from you or anyone else, for that matter. Is it because I did not refer to the:

DEP File No. 0090180-001-AC (PSD-FL-258)?

I am now forwarding this letter to The Honorable Governor Bush and maybe he can shed some light on the matter of public input and where it fits into DEP's decision on whether or not to issue an air permit.

Sincerely,  
M. Adams

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 05-Apr-1999 06:12pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:**

**Tel No:**

**To:** Clair Fancy TAL ( FANCY\_C )  
**To:** Doug Beason TAL ( BEASON\_D )  
**To:** Mike Halpin TAL ( HALPIN\_M )  
**To:** Tammy Eagan TAL ( EAGAN\_T )  
**To:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Fwd: Oleander & Public Input

Ms. Adams was apparently dissatisfied that we took a week to respond to her latest questions. Since we usually responded in a day or two, she got used to a quick response and was unhappy when it took longer to answer a very difficult batch of questions (which I still have not answered in all the detail she probably wants).

Anyway, she will send the request to Governor Bush. I answered her request as best I can right now. So if the request gets referred by the Governor's office or the Secretary's office to us, please refer to the initial response that I copied all of you on. It can be beefed up if a letter is warranted.

Thanks. Al.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 05-Apr-1999 06:03pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Doug Beason TAL ( BEASON\_D )  
**CC:** Mike Halpin TAL ( HALPIN\_M )  
**CC:** Clair Fancy TAL ( FANCY\_C )  
**CC:** Leonard Kozlov ORL ( KOZLOV\_L @ A1 @ ORL1 )

**Subject:** Re: Oleander & Public Input

Ms. Adams. I received your E-Mail dated April 5 prompting me to reply to your questions in your inquiry dated March 31. We hope to have more complete responses when we hold the second public meeting on the Oleander project on May 13 and when we prepare responses to all of the questions raised during the two public meetings.

Following are your questions followed by my preliminary responses:

"I wrote this letter on March 31, 1999 and have still not received a response from you or anyone else, for that matter. Is it because I did not refer to the DEP File No. 0090180-001-AC (PSD-FL-258)?"

Sorry if you feel the amount of time is long. I think you will agree that we have promptly responded to all of your other inquiries. I came in from vacation to review your request. The reason for any delay is totally unrelated to the file number.

"I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?"

Typically when we receive an application, we distribute it to the EPA, the National Park Service, and our district office and begin our review. When we have made a preliminary decision, it is published by the applicant in a newspaper of general circulation. At that point we invite public comment, requests for public meetings, and provide the opportunity for petitions related to our intended action.

In the Oleander case, we accepted public input at an early date before the application was complete. We held a public meeting before we would normally hold one and we plan to hold another one on May 13. I certainly think the early public input affected the applicant's plans regarding the amount of fuel oil he will burn.

"Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit??"

As I mentioned, the public input certainly had an effect on the amount of oil to be fired and therefore the preliminary BACT determination. We have (preliminarily) concluded that the project will not cause or contribute to a violation of any ambient air quality standards; that it will not have a significant impact; and made a preliminary determination of Best Available Control Technology. The public can further provide comments on the draft permit and BACT determination, the modeling, etc. If you believe the permit should not be issued at all, then you would need to review the materials we sent you and point out facts with which you disagree as well as the rules or statutes that support your conclusions that the permit should not be issued.

"What is the purpose for getting public input if DEP does not take it into consideration when making its decision?"

We do consider public input.

"At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)? "

The applicable rules provide for the Prevention of Significant Deterioration of Air Quality. The applicant needs to show that there will not be any modeled exceedances of the ambient air quality standards beyond his property line; that there will not be increases in ambient air pollutants beyond the allowable increases for the given area; and that the Best Available Control Technology will be employed. There are other requirements, but these are the ones that stand out. The rules and statutes under which we review air permit applications do not address the additional considerations you mentioned.

"This county already has three power plants situated triangularly around it. Only one of which (FPL) services the residents here. The only time this area gets a break from emissions, is when the wind comes out of the South. I have seen a smog line in our sunsets many times west of Brevard County along the St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's?"

I can't explain why readings in Miami are much lower (if they are) than

Brevard

County. I was going to look into this and it is one of the reasons that I was taking more time than you wished. I will refer the matter to an expert in this

field and will provide a proper response (if there is one) at or by the time of

the next public meeting. My personal experience, however, is that the Miami-Dade County and the Broward County areas were historically ozone non-attainment areas. They tended to have higher maximum ozone readings. As a

result, they were required by federal and state laws and rules to: implement a motor vehicle inspection program; install Reasonable Available Control technology for volatile organic compounds and nitrogen oxides at existing facilities (such as power plants); require special gasoline pump dispensers; supply low vapor pressure gasoline; etc. If they now have lower ozone concentrations, it could be related to these mandated measures.

"Can you explain why Volusia County's and West Palm Beach County's readings are

lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia."

Again, if this is true, I cannot explain why. I will ask our expert on these matters to look into it and have an answer by the time of the next public meeting. I can tell you that ozone is a regional phenomenon. Sometimes the pollutants that cause high ozone readings are emitted far away and the ozone is

formed during transport. The impact could be many miles away. On the other hand, a pollutant like sulfur dioxide will (generally) be measured at a higher concentration the closer one is to the source.

"Are there more vehicle emissions in Brevard County than there are in the Miami area???"

No.

"A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?"

I do not have the facts on this either (sorry). It is also not something that we can consider in an air permit application. As I understand it, there is a shortage of reserve requirements. Because it takes time to plan and build projects to meet or maintain reserve requirements, they are typically permitted before the shortages manifest themselves as brownouts. Nevertheless, last



summer I experienced occasional disruptions where I live in the Panhandle. I don't know if the reasons were insufficient capacity or transmission problems.

"Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project. In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

The residents are not considered insignificant. Their (and your) comments and contributions to-date are appreciated.

"What is the magic number of homes in a 3.2 km. radius that FDEP considers significant?"

There is no magic number. There are key National Ambient Air Quality Standards that are designed to protect public health and welfare and prevent significant deterioration of air quality.

"I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it. Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them."

This one is a comment rather than a question. We will take a closer look at the modeling to make sure that concentrations of air pollutants at the points you mentioned do not exceed the allowable standards and increases.

Ms. Adams. I am leaving on vacation and, as you know, Mr. Halpin is responsible for matters related to this project. Please feel free to E-mail us as you have. I think you should also take advantage of our offer to call you and discuss all of these matters at length. We will still be happy to respond in writing to those issues where you really want an answer in writing.

If you wish, you can call my supervisor, Mr. Fancy, or Mike Halpin at 850/488-0114. Just tell them to call you right back.

Anyway, we look forward to meeting you some day. we certainly appreciate your comments and hope you will understand our occasional delay in responding. I hope this takes care of your immediate questions, leaving some of the answers until the public meeting.

Thank you. Al Linero.

# INTEROFFICE MEMORANDUM

**Date:** 06-Apr-1999 11:23am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Clair Fancy TAL ( FANCY\_C )

**Subject:** attached

Al -

Do you think that this would be worth sending to Ms. Adams?

Ms. Adams:

Mr. Linero has asked me to provide you with more information on the reason for the upcoming public meeting as well as the DEP's role in addressing specific comments. What follows below is from the Code of Federal Regulations (40CFR). Please note that for applicability, we are a State program and this is not a NPDES or RCRA permit action. I hope that it is helpful.

§ 124.12 Public hearings.

(a) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) (1) The Director shall hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest in a draft permit(s);

(2) The Director may also hold a public hearing at his or her discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision;

(3) For RCRA permits only, (i) the Director shall hold a public hearing whenever he or she receives written notice of opposition to a draft permit and a request for a hearing within 45 days of public notice under § 124.10(b)(1); (ii) whenever possible the Director shall schedule a hearing under this section at a location convenient to the nearest population center to the proposed facility;

(4) Public notice of the hearing shall be given as specified in § 124.10.

§ 124.12(b) through § 124.16 have not been included in this file because they are not required as part of RCRA authorization.

§ 124.17 Response to comments.

(a) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) At the time that any final permit decision is issued under § 124.15, the Director shall issue a response to comments. States are only required to issue a response to comments when a final permit is issued. This response shall:

(1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(2) Briefly describe and respond to all significant comments on the draft permit or the permit application (for section 404 permits only) raised during the public comment period, or during any hearing.

§ 124.17(b) has not been included in this file because it is not required as part of RCRA authorization.

(c) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) The response to comments shall be available to the public.

§ 124.18 through § Appendix A have not been included in this file because they are not required as part of RCRA authorization.

>>>> End of 40 CFR Part 124. <<<<

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Clarence Rowe  
418 Pennsylvania Avenue  
Rockledge, Florida 32955

Re: Oleander Power Project

Dear Mr. Rowe:

Thank you for your input on the Oleander project. I have been asked by Mr. Fancy to respond to your letter addressed to him concerning comments on the Notice of Intent to Issue Air Construction Permit for the Oleander Power Project in Brevard County. Your comments appear to fall within three categories and I will attempt to address them herein.

1. Your first comment deals with the point that several presenters at the March 3<sup>rd</sup> public meeting had requested pre-construction ozone monitoring to be completed before approval of the plant. The Department was asked to consider this issue in the approval process. In response to the request, the Department provided its analysis in the “Technical Evaluation and Preliminary Determination”, a copy of which was previously forwarded to you. In summary, the existing rules authorize an exemption to this requirement, if the project emissions fall below “de Minimus” values, which this project does. Therefore, the Department does not have the authority to require the monitoring, but has asked the applicant to consider, as a good corporate citizen, the installation and operation of a station in the neighborhood to provide the citizens with requested information about air quality in the area.
2. Your second comment notes that regional water bodies such as the St. Johns River and the Indian River Lagoon will be affected by the pollution from the proposed project. Our authority to issue Air Construction permits is based upon the project’s impact on the ambient air quality standards. This project meets those criteria for issuance of a permit.
3. Your third comment deals with the concept of environmental justice and refers to Executive Order 12898. As noted, you had raised this issue in a prior letter, to which Mr. Linero had responded. Our Office of General Counsel (OGC) is of the opinion that review of this project is limited to the applicable rules and statutes and these do not address the issue of so-called “environmental fairness”. I believe that this is the extent to which I can review this issue for you. Should you need to speak with someone else, the appropriate person would be Douglas Beason in the Office of General Counsel, at 850/921-9624.

Thank you for your comments and your interest in this project.

Sincerely,

Michael P. Halpin  
New Source Review Section

/mph  
cc: Douglas Beason  
Clair Fancy

# INTEROFFICE MEMORANDUM

**Date:** 15-Apr-1999 04:59pm  
**From:** Aspbb  
Aspbb@AOL.COM@PMDF@EPIC66  
**Dept:**  
**Tel No:**

**To:** LINERO\_A ( LINERO\_A@A1@DER )  
**To:** HALPIN\_M ( HALPIN\_M@A1@DER )  
**CC:** gkamaras ( gkamaras@lewisweb.net@PMDF@EPIC66 )

**Subject:** Oleander Power Project

Dear Mr. Linero and Mr. Halpin:

Have the potential impacts of the Oleander Power Project on protected migratory birds been carefully scrutinized during the application and review process? I am referring to the very hot (1,114 degree F.), very fast (212 feet per second) invisible gases coming out of (5) 22' wide stacks situated in a row and going east and west. Peninsular Florida is well known as a major migratory corridor for many species of small songbirds, all of which are Federally protected by the Migratory Bird Treaty Act.

If so, what conclusions has the Florida Department of the Environment come to as regards this issue?  
Or what mitigation to minimize deaths of migratory birds has the department been able to obtain?

Thank-you for your time,  
M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 19-Apr-1999 04:05pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@AOL.COM@PMDF@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Power Project

Dear Ms. Adams -

I have left your response below for reference.  
As a matter of routine, we forward applications to the National Park Service for comments. The U.S. Fish and Wildlife Service's Air Quality Branch is closely associated with the National Park Service's Air Resources Division. Their "permit review" comments regarding sources near Chassahowitzka, Okefenokee, or St. Marks wildernesses are written on U.S. Fish and Wildlife Service (FWS) letterhead, for instance. The NPS, on the other hand, deals with sources near Everglades NP. The review we received on this project was from the Air Quality Branch of the Fish and Wildlife Service and they did not identify the issue you have raised.

I hope that this is helpful to you.

Sincerely,  
Michael P. Halpin

---

Dear Mr. Linero and Mr. Halpin:

Have the potential impacts of the Oleander Power Project on protected migratory birds been carefully scrutinized during the application and review process? I am referring to the very hot (1,114 degree F.), very fast (212 feet per second) invisible gases coming out of (5) 22' wide stacks situated in a row and going east and west. Peninsular Florida is well known as a major migratory corridor for many species of small songbirds, all of which are Federally protected by the Migratory Bird Treaty Act.

If so, what conclusions has the Florida Department of the Environment come to as regards this issue?

Or what mitigation to minimize deaths of migratory birds has the department been able to obtain?

Thank-you for your time,

## INTEROFFICE MEMORANDUM

**Sensitivity:** PRIVATE

**Date:** 16-Apr-1999 10:18am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/488-0114

**To:** Ellen\_Porter@nps.gov@in

**Subject:** Migratory Birds

Ellen -

I work for Al Linero in the Florida DEP, Air resources Management (New Source Review) and he suggested that I contact you for some assistance.

Recently, a question arose with respect to an application which deals with migratory birds. The specific question asks "Have the potential impacts of the project [the hot (>1000 degree F.) and fast invisible gases coming out of (5) 22' wide 60' high stacks situated in a row and going east and west] on protected migratory birds been carefully scrutinized during the application and review process?"

She is referring to Peninsular Florida being known as a migratory corridor for many species of small songbirds, which are Federally protected by the Migratory Bird Treaty Act.

I am unaware of any studies which draw conclusions (or consensus opinions) and was hoping that you could provide some insight. Any help is appreciated.

Sincerely,

Michael P. Halpin

Florida DEP

Air Resources Management/New Source Review

Tallahassee, Florida

850/921-9530



# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 16-Apr-1999 08:46am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/488-0114

**To:** John\_R\_Sauer@usgs.gov@in

**Subject:** Migratory birds

Mr. Sauer -

I am an engineer with the Florida Department of Environmental Protection and my primary job is to review applications for permits to construct power plants. Recently, a question arose with respect to an application which deals with migratory birds.

The specific question asks "Have the potential impacts of the project [the hot (>1000 degree F.) and fast invisible gases coming out of (5) 22' wide 60' high stacks situated in a row and going east and west] on protected migratory birds been carefully scrutinized during the application and review process?" She is referring to Peninsular Florida being known as a migratory corridor for many species of small songbirds, which are Federally protected by the Migratory Bird Treaty Act.

I am unaware of any studies which draw conclusions (or consensus conclusions) and was hoping that you could provide some insight. Any help is appreciated.  
Sincerely,

Michael P. Halpin

Florida DEP

Air Resources Management/New Source Review

Tallahassee, Florida

850/921-9530

# INTEROFFICE MEMORANDUM

**Date:** 16-Apr-1999 09:09am  
**From:** John\_R\_Sauer  
John\_R\_Sauer@usgs.gov@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** Mike Halpin TAL 850/488-0114 ( HALPIN\_M@A1@DER )

**Subject:** Re: Migratory birds

Hi:

I do not know of any studies that specifically address this issue. However, the issue of towers (especially lighted towers) and their impacts on migrating birds is a present topic of controversy due to the recent burst of construction of cellular phone towers.

I will pass your message along to some of my colleagues, and see if any of them have encountered any information regarding the question.

Sincerely,  
John Sauer

Reply Separator

---

Subject: Migratory birds  
Author: Mike Halpin TAL 850/488-0114 <HALPIN\_M@dep.state.fl.us> at  
NBS-Internet-Gateway  
Date: 4/16/99 8:46 AM

Mr. Sauer -

I am an engineer with the Florida Department of Environmental Protection and my primary job is to review applications for permits to construct power plants. Recently, a question arose with respect to an application which deals with migratory birds.

The specific question asks "Have the potential impacts of the project [the hot (>1000 degree F.) and fast invisible gases coming out of (5) 22' wide 60' high stacks situated in a row and going east and west] on protected migratory birds been carefully scrutinized during the application and review process?" She is referring to Peninsular Florida being known as a migratory corridor for many species of small songbirds, which are Federally protected by the Migratory Bird Treaty Act.

I am unaware of any studies which draw conclusions (or consensus conclusions) and was hoping that you could provide some insight. Any help is appreciated.

Sincerely,  
Michael P. Halpin

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 22-Apr-1999 09:43am  
**From:** Drew Leslie TAL  
LESLIE\_D@EPIC5A1@DER  
**Dept:**  
**Tel No:**

**To:** Mike Halpin TAL ( HALPIN\_M@A1@DER )

**Subject:** FWD: Re: Fwd:Migratory Birds

Hi Mike. Got your note forwarded by Linda Lyon USFWS. I forwarded to Jim Cox FL GFC. This is his reply.

Regards,  
Drew

# INTEROFFICE MEMORANDUM

**Date:** 21-Apr-1999 07:27pm  
**From:** necox  
necox@nettally.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Re: Fwd:Migratory Birds

Hi Drew:

I'm am not at all sure about this, but I will forward this to some birding list-servers that I know. My guess is the hot gasses may not be invisible to most birds since they see broader part of the spectrum than we do.

All the best,  
Jim

-----  
From: Drew Leslie TAL 850/487-2600 [SMTP:LESLIE\_D@epic5.dep.state.fl.us]  
Sent: Tuesday, April 20, 1999 9:59 AM  
To: Jim Cox  
Subject: FWD: Fwd:Migratory Birds

Can y'all help?

<<Message: Fwd:Migratory Birds>>

# INTEROFFICE MEMORANDUM

**Date:** 28-Apr-1999 03:01pm  
**From:** john\_trapp  
john\_trapp@mail.fws.gov@PMDF@EPIC66  
**Dept:**  
**Tel No:**

**To:** See Below  
**Subject:** Re: Fwd:Migratory Birds

See attached text item (9223 bytes)

John L. Trapp

Any thoughts to pass on?

This is a new one on me.

----- Forwarded by Cyndi Perry/ARW/R9/FWS/DOI  
on 04/27/99 10:20 PM -----

Linda Lyon  
04/20/99 12:36 PM

**To:** fws-ec-tech@www.fws.gov  
**cc:** Leslie\_D@epic5.dep.state.fl.us, Cyndi  
Perry/ARW/R9/FWS/DOI@FWS, mcmo@gnv.ifas.ufl.edu

**Subject:** Fwd:Migratory Birds

If any of you have relevant information, please respond to Mike Halpin, with CCs to me and Ellen. (Ellen is w/ the Division of Refuges Air Quality Branch in Denver.)

Thanks.

L Lyon, RF-WO, 703-358-2043

----- Forwarded by Linda Lyon/ARW/R9/FWS/DOI  
on 04/20/99 12:33 PM -----

**From:** <Ellen\_Porter@nps.gov (Ellen Porter)> AT ~INTERNET on  
04/19/99 09:41 AM MDT

**To:** Linda Lyon/ARW/R9/FWS/DOI  
**cc:**

Subject: Fwd:Migratory Birds

**Distribution:**

**To:** halpin\_m ( halpin\_m@A1@DER )  
**To:** ellen\_porter ( ellen\_porter@nps.gov@PMDF@EPIC66 )  
**To:** albert\_manville ( albert\_manville@mail.fws.gov@PMDF@EPIC66 )  
**To:** george\_t\_allen ( george\_t\_allen@mail.fws.gov@PMDF@EPIC66 )  
**To:** cyndi\_perry ( cyndi\_perry@mail.fws.gov@PMDF@EPIC66 )  
**To:** Ellen\_Porter ( Ellen\_Porter@nps.gov@PMDF@EPIC66 )  
**To:** linda\_lyon ( linda\_lyon@mail.fws.gov@PMDF@EPIC66 )  
**To:** chuck\_hunter ( chuck\_hunter@mail.fws.gov@PMDF@EPIC66 )

Mike:

Your request for information about the effects of hot smokestack emissions on migratory birds found there way to my computer by a circuitous route fashion, but I may be able to provide some help.

I believe that I had some e-mail correspondence earlier this month with the women who posed this question. In my response to her, I provided the following information:

"Thank you for your inquiry about the potential impacts on migratory birds of a power plant near West Cocoa, Florida."

"In general, I am not aware of any particular concerns that have been expressed about the impacts of power plant cooling towers on migratory birds. The relatively short height of the stacks should minimize bird collisions. I am more concerned with the possible risks imposed by the hot gases emitted by the stacks. I don't have specific information on the presence of endangered species in the vicinity of West Cocoa, but peninsular Florida is well known as a major migratory corridor for many species of small songbirds, all of which are Federally protected by the Migratory Bird Treaty Act."

"I have appended three annotated citations relating to the impacts of industrial structures on migratory birds; the first of these may be the most relevant to your situation."

"I suggest that you call the U.S. Fish and Wildlife Service's Ecological Services Field Office in Jacksonville (phone: 904/232-2580). There may be someone in the office who has specific knowledge about this particular project."

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"At the very least, I would recommend that the potential impacts of the power plant on migratory birds be carefully scrutinized during the application and review process."

I hope that this information is helpful. Please feel free to contact me if you need additional information.

John L. Trapp  
U.S. Fish and Wildlife Service  
Office of Migratory Bird Management  
Arlington, Virginia USA  
john\_trapp@fws.gov  
(703) 358-1965

---

Reply Separator

Subject: Fwd:Migratory Birds

Author: Cyndi Perry at FWS

Date: 04/27/99 10:17 PM

Linda, can you help out on this one or refer me to someone who might have info on this subject? The question, as you'll see, regards the effects of smokestack emissions on migratory birds. I cannot think of any studies that I'm familiar with that have dealt with this issue.

Ellen

---

Forward Header

Subject:

Migratory Birds



Author: Mike Halpin TAL 850/488-0114 <HALPIN\_M@dep.state.fl.us>  
Date: 04/16/1999 10:18 AM

Ellen -

I work for Al Linero in the Florida DEP, Air resources Management (New Source Review) and he suggested that I contact you for some assistance.

Recently, a question arose with respect to an application which deals with migratory birds. The specific question asks "Have the potential impacts of the project [the hot (>1000 degree F.) and fast invisible gases coming out of (5) 22' wide 60' high stacks situated in a row and going east and west] on

protected migratory birds been carefully scrutinized during the application and review process?"

She is referring to Peninsular Florida being known as a migratory corridor for many species of small songbirds, which are Federally protected by the Migratory Bird Treaty Act.

I am unaware of any studies which draw conclusions (or consensus opinions)

and was hoping that you could provide some insight. Any help is appreciated.

Sincerely,

Michael P. Halpin  
Florida DEP

Air Resources Management/New Source Review Tallahassee, Florida  
850/921-9530

Received: from epic66.dep.state.fl.us (199.73.128.6) by ccmil.itd.nps.gov with

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(IMA Internet Exchange 2.12 Enterprise) id 001C2552; Sat, 17 Apr 99 21:34:08

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<01JA3IRE59UO007WBU@EPIC66.DEP.STATE.FL.US> for

Ellen\_Porter@nps.gov; Fri,

16 Apr 1999 10:19:37 EDT

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MR-Received: by mta DER1; Relayed; Fri, 16 Apr 1999 10:18:58

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Alternate-recipient: prohibited

Date: Fri, 16 Apr 1999 10:18:51 -0400 (EDT)

From: Mike Halpin TAL 850/488-0114 <HALPIN\_M@dep.state.fl.us>

Subject: Migratory Birds

To: Ellen\_Porter@nps.gov

Message-id: <A1317IWM28CH2\*/R=A1/R=DER/U=HALPIN\_M/@MHS>

MIME-version: 1.0

Content-type: TEXT/PLAIN; CHARSET=US-ASCII Posting-date: Fri, 16

Apr 1999 10:18:56 -0400 (EDT) Importance: normal

Priority: urgent

Sensitivity: Private

UA-content-id: A1317IWM28CH2

X400-MTS-identifier: [;85810161409991/3472691@DER] A1-type: MAIL

Hop-count: 2

# INTEROFFICE MEMORANDUM

**Date:** 03-May-1999 08:26am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** john\_trapp ( john\_trapp@mail.fws.gov@PMDF@EPIC66 )

**Subject:** Re: Fwd:Migratory Birds

John -

Thanks for the reply. I've left it below for reference. Given that within Florida we have shorter smokestacks with similar exit temperatures, would you have reason to believe that the West Cocoa plant would be likely to impact the migratory birds in a different fashion (i.e. to a greater or lesser extent than the other existing smokestacks)?

Thanks

Mike Halpin

Mike:

Your request for information about the effects of hot smokestack emissions on migratory birds found there way to my computer by a circuitous route fashion, but I may be able to provide some help.

I believe that I had some e-mail correspondence earlier this month with the women who posed this question. In my response to her, I provided the following information:

"Thank you for your inquiry about the potential impacts on migratory birds of a power plant near West Cocoa, Florida."

"In general, I am not aware of any particular concerns that have been expressed about the impacts of power plant cooling towers on migratory birds. The relatively short height of the stacks should minimize bird collisions. I am more concerned with the possible risks imposed by the hot gases emitted by the stacks. I don't have specific information on the presence of endangered species in the vicinity of West Cocoa, but peninsular Florida is well known as a major migratory corridor for many species of small songbirds, all of which are Federally protected by the Migratory Bird Treaty Act."

"I have appended three annotated citations relating to the

impacts of industrial structures on migratory birds; the first of these may be the most relevant to your situation."

"I suggest that you call the U.S. Fish and Wildlife Service's Ecological Services Field Office in Jacksonville (phone: 904/232-2580). There may be someone in the office who has specific knowledge about this particular project."

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I believe that the paper by Bjorge is particularly relevant to the Florida power plant, and indicates at least the potential for significant bird mortality associated with the operation of the plant.

In followup correspondence, I provided the following additional information:

"In the situation you described (i.e., if hot gases from a power plant caused the death of migratory birds), that would indeed

constitute a violation of the Migratory Bird Treaty Act. But there are thousands violations of the MBTA daily (e.g., birds killed by cars, agricultural activities, oil spills, etc.) that are not prosecuted."

"There are many cases (such as birds killed due to pesticide application or birds killed in oil pits) in which companies have been fined for illegal take of migratory birds. In other instances, the Service often prefers to work with industry to minimize or mitigate such losses."

"At the very least, I would recommend that the potential impacts of the power plant on migratory birds be carefully scrutinized during the application and review process."

I hope that this information is helpful. Please feel free to contact me if you need additional information.

John L. Trapp  
U.S. Fish and Wildlife Service  
Office of Migratory Bird Management  
Arlington, Virginia USA  
john\_trapp@fws.gov  
(703) 358-1965

\_\_\_\_\_ Reply Separator

\_\_\_\_\_ Subject: Fwd:Migratory Birds

Author: Cyndi Perry at FWS

Date: 04/27/99 10:17 PM

Linda, can you help out on this one or refer me to someone who might have info on this subject? The question, as you'll see, regards the effects of smokestack emissions on migratory birds. I cannot think of any studies that I'm familiar with that have dealt with this issue.

Ellen

\_\_\_\_\_ Forward Header \_\_\_\_\_

Subject:

Migratory Birds

Author: Mike Halpin TAL 850/488-0114 <HALPIN\_M@dep.state.fl.us>

Date: 04/16/1999 10:18 AM

Ellen -

I work for Al Linero in the Florida DEP, Air resources Management (New Source Review) and he suggested that I contact

you for some assistance.

Recently, a question arose with respect to an application which deals with migratory birds. The specific question asks "Have the potential impacts of the project [the hot (>1000 degree F.) and fast invisible gases coming out of (5) 22' wide 60' high stacks situated in a row and going east and west] on protected migratory birds been carefully scrutinized during the application and review process?"

She is referring to Peninsular Florida being known as a migratory corridor for many species of small songbirds, which are Federally protected by the Migratory Bird Treaty Act. I am unaware of any studies which draw conclusions (or consensus opinions) and was hoping that you could provide some insight. Any help is appreciated.

Sincerely,

Michael P. Halpin

Florida DEP

Air Resources Management/New Source Review Tallahassee, Florida  
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From: Mike Halpin TAL 850/488-0114 <HALPIN\_M@dep.state.fl.us>

Subject: Migratory Birds

To: Ellen\_Porter@nps.gov

Message-id: <A1317IWM28CH2\*/R=A1/R=DER/U=HALPIN\_M/@MHS>

MIME-version: 1.0

Content-type: TEXT/PLAIN; CHARSET=US-ASCII Posting-date: Fri, 16  
Apr 1999 10:18:56 -0400 (EDT) Importance: normal

Priority: urgent

Sensitivity: Private

UA-content-id: A1317IWM28CH2

X400-MTS-identifier: [;85810161409991/3472691@DER] A1-type: MAIL  
Hop-count: 2

# INTEROFFICE MEMORANDUM

**Date:** 03-May-1999 10:57am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Ellen\_Porter@nps.gov@in

**Subject:** FWD: Re: Fwd:Migratory Birds

Ellen -

I have received a response from a Mr. John Trapp, although I am having trouble e-mailing him. I've enclosed what I had wanted to pass along to him and was hoping that you could assist.

Thanks  
Mike Halpin

John -

Thanks for the reply. I've left it below for reference. Given that within Florida we have shorter smokestacks with similar exit temperatures, would you have reason to believe that the West Cocoa plant would be likely to impact the migratory birds in a different fashion (i.e. to a greater or lesser extent than the other existing Florida smokestacks)? Also, I cannot locate the paper you've referenced below. Can you assist with that in any way? Lastly, you wrote: "At the very least, I would recommend that the potential impacts of the power plant on migratory birds be carefully scrutinized during the application and review process." Can you advise on who might be the best resource for the recommended type of review?

Thanks  
Mike Halpin

---

Mike:

Your request for information about the effects of hot smokestack emissions on migratory birds found there way to my computer by a circuitous route fashion, but I may be able to provide some help.

I believe that I had some e-mail correspondence earlier this month with the women who posed this question. In my response to her, I provided the following information:

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migratory birds of a power plant near West Cocoa, Florida."

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John L. Trapp  
U.S. Fish and Wildlife Service  
Office of Migratory Bird Management  
Arlington, Virginia USA  
john\_trapp@fws.gov  
(703) 358-1965

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Reply Separator

Subject: Fwd:Migratory Birds

Author: Cyndi Perry at FWS

Date: 04/27/99 10:17 PM

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Ellen

Forward Header

Subject:

Migratory Birds

Author: Mike Halpin TAL 850/488-0114 <HALPIN\_M@dep.state.fl.us>

Date: 04/16/1999 10:18 AM

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Michael P. Halpin

Florida DEP

Air Resources Management/New Source Review Tallahassee, Florida  
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MR-Received: by mta DER1; Relayed; Fri, 16 Apr 1999 10:18:58

# INTEROFFICE MEMORANDUM

**Date:** 05-May-1999 10:08am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** memo to file - FWS?

I received a call yesterday (5/4) at around 11am from John Valade who (I believe) was with either the FGC or FWS in the Jacksonville office. [904-232-2580 ext. 118] He asked a number of questions about the Oleander project, most of which were related to areas outside of our authority (wetlands, animal habitats, etc.). I indicated that our authority rested with ambient air quality and that this project satisfied the requirements. He stated that he had received several calls (which seemed to be prompted by the attached e-mail) about migratory birds and was following up as a result of that.

At conclusion he indicated that he would encourage each concerned citizen to follow the process and make their concerns known to the proper authorities.

mph

# INTEROFFICE MEMORANDUM

**Date:** 06-May-1999 05:45pm  
**From:** Bob McCann  
BMcCann@GOLDER.com  
**Dept:**  
**Tel No:**

**To:** HALPIN\_M ( HALPIN\_M@A1 )

**Subject:** Oleander Power Project- Migrating Birds

Mike

attached is letter prepared by Jim Newman discussing issue. this was submitted today to Brevard County Commissioners as part of record for their review and possible discussion at upcoming Commission meeting next Tuesday 5/11.

Any questions, please call.

Bob

May 5, 1999

9839514-0300

Dean, Mead, Spielvogel, Goldman & Boyd  
101 South Courtney Parkway  
Merritt Island, FL 32952-4855

Attention: Mr. Leonard Spielvogel

RE: Oleander Power Project, Oleander Power Project, L.P.  
Potential Impacts to Birds from the Thermal Plume of the Oleander Power  
Plant

Dear Mr. Spielvogel:

I have reviewed the site location and predicted thermal conditions associated with the proposed Oleander Power plant. It is my professional opinion that there will be minimal, if any, risk from thermal emissions to birds flying near the stack. There will be no significant adverse effects to bird populations including migratory bird populations in the region from the proposed thermal emissions. These conclusions are based on more than 28 years in studying the effects of air pollution on birds (See attached resume) and the site conditions themselves.

First, the plant site is located in an industrial/commercial landscape that is not conducive for bird foraging or nesting. Second, the site itself is not in a reported migratory pathway nor does it divide recognized feeding or nesting habitats. Several miles west of the site is the St. Johns River system including Lake Poinsett. Important avian habitat is found in this area. Bird usage including migratory birds would tend to be north and south along the drainage. Significant inland bird flight routes from east to west are not likely. Similarly, to the east are the Indian River and Banana River that are used by migratory and other birds. These birds would also tend to fly north and south along these river systems. Significant east-west movement especially over the site is not likely to occur.

Finally, if individual birds were near the plant they would avoid the heated air as they approached it. Modeling analysis has shown that the thermal plume would have its highest temperatures in the center of the plume and would decrease to ambient levels approximately 300 meters from the center of the plume. Any birds flying in the vicinity of the plume would sense an increase in temperature and avoid the plume when it became uncomfortable. The plume would not block bird movement in any direction, nor would birds become trapped in the plume. In contrast to some gaseous emissions that might not be perceived by birds until acute levels are reached such as carbon monoxide, birds are thermally sensitive and adjust their behavior accordingly.

A review of the air pollution literature (See Newman, 1980. Effects of Air

Emission on Wildlife Resources. US Fish and Wildlife Service FWS/OBS-80/40.1) revealed no reported effects from thermal emissions. Gaseous emissions such as hydrogen sulfide have caused bird die off when birds have been suddenly trapped in a plume. Historically, gaseous emissions, significantly above levels allowable by US EPA and Florida Department of Environmental Protection (DEP), have resulted in lower nesting density for those species that were sensitive (See Newman et al. 1985. Influence of Air Emission on the Nesting Ecology of the House Martin, *Delichon urbica*, in Czechoslovakia. Biological Conservation 31:229-248). In another words, birds tended to avoid areas with high ambient concentrations of air pollutants such as SO<sub>2</sub>. These conditions will not occur at this facility due to stringent emission controls guaranteed by the equipment vendor and regulated by the Florida DEP.

In regards to butterflies, except for genetic studies (i.e., Industrial Melanism) reported in the 1960s and 70s in England, there are no known reports of the effects of air pollution on butterfly populations. The industrial site conditions are not conducive to attacking butterflies. No significant adverse effects to butterfly populations are anticipated from the proposed project.

Please contact me if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

James R. Newman, Ph.D.  
Principal Scientist

JRN/arz

cc: R. Wolfinger, Oleander Power Project  
R.A. Zwolak, GAI  
K.F. Kosky, GAI  
R.C. McCann, Jr., GAI

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 31-Mar-1999 07:12pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:**

**Tel No:**

**To:** Mike Halpin TAL

( HALPIN\_M )

**Subject:** FWD: Oleander & Public Input

Mike. F.Y.I. Let's discuss sometime soon, but not right away. Thanks. Al.

# INTEROFFICE MEMORANDUM

**Date:** 31-Mar-1999 06:10pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Oleander & Public Input

Mr. Linero,

\*\*\*\*

Mike Halpin recently wrote the following:

As noted in the "Technical Evaluation and Preliminary Determination", the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Please be advised that (as requested) a public meeting is planned for May 13th at 7:00pm at the same location as the March 3rd meeting (Brevard County Agricultural Center) and is so stated in the intent document noted above.

\*\*\*\*

I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?

I have asked this question before and have never really received an answer to it. You have held a public meeting on March 3, 1999 and have received multiple letters, almost 2,000 signatures on petitions against this plant and many comments from the public over here in Brevard County. Plus an article in our local paper stated that DEP would take public comments for another 30 days. And now you are having another hearing in May, because it was requested.

Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit?? What is the purpose for getting public input if DEP does not take it into consideration when making its decision?

At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)?

This county already has three power plants situated triangularly around it. Only one of which (FPL) services the residents here. The only time this area



gets a break from emissions, is when the wind comes out of the South. I have seen a smog line in our sunsets many times west of Brevard County along the St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's? Can you explain why Volusia County's and West Palm Beach County's readings are lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia. Are there more vehicle emissions in Brevard County than there are in the Miami area???

A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?

Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project.

In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

What is the magic number of homes in a 3.2 km. radius that FDEP considers significant? I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it. Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them.

Thank-you for your time and thoughtful consideration.  
M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 01-Apr-1999 11:17am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**To:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** FWD: Re: Application for Air Construction Permit - Oleander Po

Al -

Thanks for forwarding me Ms. Adams' note. I have placed it below and attached my previous e-mail to her dated 2/26, attempting to answer her question on the purpose of the public meeting. Apparently, my 2/26 response was inadequate and she seems to be specifically asking whether or not the public sentiment is a factor in determining whether to approve or deny this project.

I would like to try again and have written a response below in that effort. I would appreciate your feedback.

To Ms. Adams -

Thank you for your input regarding the Oleander project. You have asked several questions and I am itemizing them below with my response:

1) I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process? ..... Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit?? What is the purpose for getting public input if DEP does not take it into consideration when making its decision?

ANSWER - Public input is used in order to increase the Department's familiarity with the local issues and to ensure that we have considered all applicable rules and regulations. The Department does not have the authority to approve or deny a project based upon public sentiment, presuming that the project complies with all state and federal rules and regulations. However, public input does have a purpose and can lead to specific issues being addressed. One example (in this project) is that a permit condition has been written to require the applicant to maintain the fuel oil consumption to be less than the natural gas consumption. This resulted from many public comments directed at a concern that the plant may burn oil most (or all) of the time.

2) Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)?

ANSWER - The Department does not have jurisdiction over the placement of a power plant. The Department looks at whether the selected location, together with the proposed emissions and controls is likely to cause exceedances of ambient air quality standards. This was addressed at the March 3rd public

meeting.

3) Can you explain why Miami's ozone readings are much lower than Brevard County's? Can you explain why Volusia County's and West Palm Beach County's readings are lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia. Are there more vehicle emissions in Brevard County than there are in the Miami area???

ANSWER - We will specifically address ozone-related issues at the public meeting on May 13th.

4) A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?

ANSWER - This question appears to be related to the placement of the plant and thus has the same answer as 2) above. Concerning the issue of shortages, we have no authority to utilize that information in our decision-making process.

5) In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is

that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods? What is the magic number of homes in a 3.2 km. radius that FDEP considers significant?

ANSWER - The issue of "significance" in the context of a PSD permit is not determined based upon the number or types of homes in an area. I have attached the definition as we are required to use it (based upon the Code of federal Regulations 40 CFR 52.21(b)23[i through iii]:

(23)i - Significant means, in reference to a net emissions increase or the potential source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates: Carbon Monoxide - 100 tons per year, Nitrogen Oxides - 40 tons per year, etc. I can provide the rest if you like

(23)ii - Significant means, in reference to a net emissions increase or the potential of a source to emit a pollutant subject to regulation under the Act that paragraph (b) (23) (i) of this section, does not list, any emissions rate.

(23)iii - Notwithstanding paragraph (b) (23) (i) of this section, significant means any emission rate or any net emissions increase associated with a major stationary source or major modification, which would construct within 10 kilometers of a Class I area, and have an impact greater than 1 ug/m<sup>3</sup>, (24-hour average).

As was stated in the public meeting, the approval of this plant will not cause any ambient air quality standards to be exceeded based upon the EPA methodologies for making that determination.

I hope that this is helpful to you.  
Sincerely,  
Mike Halpin

MS. ADAMS MEMO:

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Mr. Linero,

\*\*\*\*

Mike Halpin recently wrote the following:

As noted in the "Technical Evaluation and Preliminary Determination", the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Please be advised that (as requested) a public meeting is planned for May 13th at 7:00pm at the same location as the March 3rd meeting (Brevard County Agricultural Center) and is so stated in the intent document noted above.

\*\*\*\*

I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?

I have asked this question before and have never really received an answer to it. You have held a public meeting on March 3, 1999 and have received multiple letters, almost 2,000 signatures on petitions against this plant and many comments from the public over here in Brevard County. Plus an article in our local paper stated that DEP would take public comments for another 30 days. And now you are having another hearing in May, because it was requested.

Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit?? What is the purpose for getting public input if DEP does not take it into consideration when making its decision?

At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)?

This county already has three power plants situated triangularly around it. Only one of which (FPL) services the residents here. The only time this area gets a break from emissions, is when the wind comes out of the South. I have seen a smog line in our sunsets many times west of Brevard County along the

St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's? Can you explain why Volusia County's and West Palm Beach County's readings are lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia. Are there more vehicle emissions in Brevard County than there are in the Miami area???

A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?

Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project.

In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

What is the magic number of homes in a 3.2 km. radius that FDEP considers significant? I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it. Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them.

Thank-you for your time and thoughtful consideration.  
M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 05-Apr-1999 12:17pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Fwd: Oleander & Public Input

Dear Mr. Linero,

I wrote this letter on March 31, 1999 and have still not received a response from you or anyone else, for that matter. Is it because I did not refer to the:

DEP File No. 0090180-001-AC (PSD-FL-258)?

I am now forwarding this letter to The Honorable Governor Bush and maybe he can shed some light on the matter of public input and where it fits into DEP's decision on whether or not to issue an air permit.

Sincerely,  
M. Adams

4/6  
M  
concur  
Clair

## INTEROFFICE MEMORANDUM

Date: 05-Apr-1999 12:17pm  
From: Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
Dept:  
Tel No:

To: LINERO\_A ( LINERO\_A@A1@DER )

Subject: Fwd: Oleander & Public Input

Dear Mr. Linero,  
I wrote this letter on March 31, 1999 and have still not received a response from you or anyone else, for that matter. Is it because I did not refer to the:  
DEP File No. 0090180-001-AC (PSD-FL-258)?

I am now forwarding this letter to The Honorable Governor Bush and maybe he can shed some light on the matter of public input and where it fits into DEP's decision on whether or not to issue an air permit.

Sincerely,  
M. Adams

Clair - I don't see any point in delaying a response until OBC reviews. It is not yet a "case." We can provide a prelim. response.  
al

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 05-Apr-1999 06:03pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Doug Beason TAL ( BEASON\_D )  
**CC:** Mike Halpin TAL ( HALPIN\_M )  
**CC:** Clair Fancy TAL ( FANCY\_C )  
**CC:** Leonard Kozlov ORL ( KOZLOV\_L @ A1 @ ORL1 )

**Subject:** Re: Oleander & Public Input

Ms. Adams. I received your E-Mail dated April 5 prompting me to reply to your questions in your inquiry dated March 31. We hope to have more complete responses when we hold the second public meeting on the Oleander project on May 13 and when we prepare responses to all of the questions raised during the two public meetings.

Following are your questions followed by my preliminary responses:

"I wrote this letter on March 31, 1999 and have still not received a response from you or anyone else, for that matter. Is it because I did not refer to the DEP File No. 0090180-001-AC (PSD-FL-258)?"

Sorry if you feel the amount of time is long. I think you will agree that we have promptly responded to all of your other inquiries. I came in from vacation to review your request. The reason for any delay is totally unrelated to the file number.

"I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?"

Typically when we receive an application, we distribute it to the EPA, the National Park Service, and our district office and begin our review. When we have made a preliminary decision, it is published by the applicant in a newspaper of general circulation. At that point we invite public comment, requests for public meetings, and provide the opportunity for petitions related to our intended action.

In the Oleander case, we accepted public input at an early date before the application was complete. We held a public meeting before we would normally hold one and we plan to hold another one on May 13. I certainly think the early public input affected the applicant's plans regarding the amount of fuel oil he will burn.



"Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit??"

As I mentioned, the public input certainly had an effect on the amount of oil to be fired and therefore the preliminary BACT determination. We have (preliminarily) concluded that the project will not cause or contribute to a violation of any ambient air quality standards; that it will not have a significant impact; and made a preliminary determination of Best Available Control Technology. The public can further provide comments on the draft permit and BACT determination, the modeling, etc. If you believe the permit should not be issued at all, then you would need to review the materials we sent you and point out facts with which you disagree as well as the rules or statutes that support your conclusions that the permit should not be issued.

"What is the purpose for getting public input if DEP does not take it into consideration when making its decision?"

We do consider public input.

"At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)? "

The applicable rules provide for the Prevention of Significant Deterioration of Air Quality. The applicant needs to show that there will not be any modeled exceedances of the ambient air quality standards beyond his property line; that there will not be increases in ambient air pollutants beyond the allowable increases for the given area; and that the Best Available Control Technology will be employed. There are other requirements, but these are the ones that stand out. The rules and statutes under which we review air permit applications do not address the additional considerations you mentioned.

"This county already has three power plants situated triangularly around it. Only one of which (FPL) services the residents here. The only time this area gets a break from emissions, is when the wind comes out of the South. I have seen a smog line in our sunsets many times west of Brevard County along the St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's?"

I can't explain why readings in Miami are much lower (if they are) than

Brevard

County. I was going to look into this and it is one of the reasons that I was taking more time than you wished. I will refer the matter to an expert in this

field and will provide a proper response (if there is one) at or by the time of

the next public meeting. My personal experience, however, is that the Miami-Dade County and the Broward County areas were historically ozone non-attainment areas. They tended to have higher maximum ozone readings. As a

result, they were required by federal and state laws and rules to: implement a motor vehicle inspection program; install Reasonable Available Control technology for volatile organic compounds and nitrogen oxides at existing facilities (such as power plants); require special gasoline pump dispensers; supply low vapor pressure gasoline; etc. If they now have lower ozone concentrations, it could be related to these mandated measures.

"Can you explain why Volusia County's and West Palm Beach County's readings are

lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia."

Again, if this is true, I cannot explain why. I will ask our expert on these matters to look into it and have an answer by the time of the next public meeting. I can tell you that ozone is a regional phenomenon. Sometimes the pollutants that cause high ozone readings are emitted far away and the ozone is

formed during transport. The impact could be many miles away. On the other hand, a pollutant like sulfur dioxide will (generally) be measured at a higher concentration the closer one is to the source.

"Are there more vehicle emissions in Brevard County than there are in the Miami area???"

No.

"A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?"

I do not have the facts on this either (sorry). It is also not something that we can consider in an air permit application. As I understand it, there is a shortage of reserve requirements. Because it takes time to plan and build projects to meet or maintain reserve requirements, they are typically permitted

before the shortages manifest themselves as brownouts. Nevertheless, last

summer I experienced occasional disruptions where I live in the Panhandle. I don't know if the reasons were insufficient capacity or transmission problems.

"Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project. In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

The residents are not considered insignificant. Their (and your) comments and contributions to-date are appreciated.

"What is the magic number of homes in a 3.2 km. radius that FDEP considers significant?"

There is no magic number. There are key National Ambient Air Quality Standards that are designed to protect public health and welfare and prevent significant deterioration of air quality.

"I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it. Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them."

This one is a comment rather than a question. We will take a closer look at the modeling to make sure that concentrations of air pollutants at the points you mentioned do not exceed the allowable standards and increases.

Ms. Adams. I am leaving on vacation and, as you know, Mr. Halpin is responsible for matters related to this project. Please feel free to E-mail us as you have. I think you should also take advantage of our offer to call you and discuss all of these matters at length. We will still be happy to respond in writing to those issues where you really want an answer in writing.

If you wish, you can call my supervisor, Mr. Fancy, or Mike Halpin at 850/488-0114. Just tell them to call you right back.

Anyway, we look forward to meeting you some day. we certainly appreciate your comments and hope you will understand our occasional delay in responding. I hope this takes care of your immediate questions, leaving some of the answers until the public meeting.

Thank you. Al Linero.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 05-Apr-1999 06:12pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:**

**Tel No:**

**To:** Clair Fancy TAL ( FANCY\_C )  
**To:** Doug Beason TAL ( BEASON\_D )  
**To:** Mike Halpin TAL ( HALPIN\_M )  
**To:** Tammy Eagan TAL ( EAGAN\_T )  
**To:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Fwd: Oleander & Public Input

Ms. Adams was apparently dissatisfied that we took a week to respond to her latest questions. Since we usually responded in a day or two, she got used to a quick response and was unhappy when it took longer to answer a very difficult batch of questions (which I still have not answered in all the detail she probably wants).

Anyway, she will send the request to Governor Bush. I answered her request as best I can right now. So if the request gets referred by the Governor's office or the Secretary's office to us, please refer to the initial response that I copied all of you on. It can be beefed up if a letter is warranted.

Thanks. Al.

# INTEROFFICE MEMORANDUM

**Date:** 06-Apr-1999 11:23am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Clair Fancy TAL ( FANCY\_C )

**Subject:** attached

Al -

Do you think that this would be worth sending to Ms. Adams?

Ms. Adams:

Mr. Linero has asked me to provide you with more information on the reason for the upcoming public meeting as well as the DEP's role in addressing specific comments. What follows below is from the Code of Federal Regulations (40CFR). Please note that for applicability, we are a State program and this is not a NPDES or RCRA permit action. I hope that it is helpful.

§ 124.12 Public hearings.

(a) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) (1) The Director shall hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest in a draft permit(s);

(2) The Director may also hold a public hearing at his or her discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision;

(3) For RCRA permits only, (i) the Director shall hold a public hearing whenever he or she receives written notice of opposition to a draft permit and a request for a hearing within 45 days of public notice under § 124.10(b)(1); (ii) whenever possible the Director shall schedule a hearing under this section at a location convenient to the nearest population center to the proposed facility;

(4) Public notice of the hearing shall be given as specified in § 124.10.

§ 124.12(b) through § 124.16 have not been included in this file because they are not required as part of RCRA authorization.

§ 124.17 Response to comments.

(a) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) At the time that any final permit decision is issued under § 124.15, the Director shall issue a response to comments. States are only required to issue a response to comments when a final permit is issued. This response shall:

(1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(2) Briefly describe and respond to all significant comments on the draft permit or the permit application (for section 404 permits only) raised during the public comment period, or during any hearing.

§ 124.17(b) has not been included in this file because it is not required as part of RCRA authorization.

(c) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) The response to comments shall be available to the public.

§ 124.18 through § Appendix A have not been included in this file because they are not required as part of RCRA authorization.

>>>> End of 40 CFR Part 124. <<<<

# INTEROFFICE MEMORANDUM

**Date:** 09-Apr-1999 10:01am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/921-9532

**To:** Patricia Comer TAL ( COMER\_P )  
**CC:** Joseph Kahn TAL ( KAHN\_J )  
**CC:** Clair Fancy TAL ( FANCY\_C )

**Subject:** FWD: Re: Oleander & Public Input

Pat -

Al Linero is on vacation for the next couple of weeks, but he suggested that I forward this to you for any help you may provide. We specifically want to provide an accurate response to her (Ms. Adams) questions dealing with how the Department takes into consideration the petition which over 1700 people signed and the fact that "no one spoke in favor" of the project. Neither Al nor I feel comfortable that we've yet addressed it to her satisfaction.

Can you assist? BTW - An Administrative hearing was filed for yesterday.

Thanks

Mike Halpin



# INTEROFFICE MEMORANDUM

**Date:** 12-Apr-1999 09:21am  
**From:** Patricia Comer TAL  
COMER\_P  
**Dept:** Office General Counsel  
**Tel No:** 850/488-9730

**To:** Mike Halpin TAL ( HALPIN\_M )  
**CC:** Joseph Kahn TAL ( KAHN\_J )  
**CC:** Clair Fancy TAL ( FANCY\_C )

**Subject:** Re: FWD: Re: Oleander & Public Input

I don't really know what you folks usually say in these situations and I haven't any clue what this project is. Is this PPSA? did it go through the PSC for need determination? The response doesn't address either issue, so i'm in the dark. Who is the permitting attorney for this project? If he was at the public meeting, he probably has a better feel for this than I would and in any case he needs to be involved with this if there's litigation.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 13-Apr-1999 08:06am

**Expires:** 16-Apr-1999 00:00am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/488-0114

**To:** Patricia Comer TAL (COMER\_P)

**CC:** Joseph Kahn TAL (KAHN\_J)

**CC:** Clair Fancy TAL (FANCY\_C)

**Subject:** Re: FWD: Re: Oleander & Public Input

Pat -

I'll try to answer your questions in an effort to get some help with mine. [We specifically want to provide an accurate response to her (Ms. Adams) questions dealing with how the Department takes into consideration the petition which over 1700 people signed and the fact that "no one spoke in favor" of the project. Neither Al nor I feel comfortable that we've yet addressed it to her satisfaction.]

1) I don't really know what you folks usually say in these situations and I haven't any clue what this project is.

- Al and I have both responded to Ms. Adams by letting her know that we listen to all citizen input and where citizen input deals with matters which we are authorized to address, we do so. This project is a new 950 megawatt (peaking) power plant consisting of 5 simple cycle combustion turbines. The plant is being permitted for 3390 hours of gas use with up to 1000 equivalent hours (out of the 3390) on oil. It is controversial to the local residents.

2) Is this PPSA?

- No.

3) Did it go through the PSC for need determination?

- No. It is a merchant plant.

4) The response doesn't address either issue, so i'm in the dark. Who is the permitting attorney for this project? If he was at the public meeting, he probably has a better feel for this than I would and in any case he needs to be involved with this if there's litigation.

- The permitting attorney is Doug Beason. He did not attend the public meeting (I was told that he had transportation problems). I would really appreciate your discretion on this next point, but to date, it has been somewhat difficult to get a direct answer. I've attached an e-mail from nearly 8 weeks ago for informational purposes only.

I would be glad to speak with you about this at your convenience. I am at

921-9530.

Thanks

Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:**

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/488-0114

**Subject:** Oleander meeting next Wednesday

Doug -

I haven't heard back from you yet, but thought that I'd send a small sample of the comments that I've received. I need to spend a few minutes discussing similar related issues as soon as possible. This was received by e-mail and I would specifically like your thoughts on item 5 below.

Thanks

Mike

Mr. Halpin,

I appreciate your informing me of the Public Workshop, as well as the fact that the project, as currently proposed, appears to be capable of meeting the rules for an air permit. I do have a few questions, however.

1. What is the specific reason that Oleander Power Project has reduced their hours of operation, on oil, to 1,500, as opposed to 2,000?
2. Did Constellation Power provide written confirmation, as you requested, from the City of Cocoa, that the amount of water usage, you specified in your December letter, can be supplied? And what, exactly, is the expected water usage of their current proposal?
3. What was Constellation Power's specific response, to your December letter, concerning the 20,000 tanker trucks of oil expected to meet their needs? And what is the expected tanker truck need now?
4. What was Constellation Power's response to your question about the 60' stack height? And where else, in Florida or in the country, is their a similar project with just 60' stacks? Does your determination, for an air permit, depend on comparing this proposal to another project with similar characteristics?
- 5.. What exactly is the Public Workshop's purpose? Does public input have any bearing on DEP's decision of whether or not to issue an air permit or is it simply a formality?

Also, I would appreciate your sending me a copy of the agenda for the Public Workshop.

You can mail it, fax it, or e-mail it to [aspbb@yahoo.com](mailto:aspbb@yahoo.com).

Marlene Adams  
4405 S. Hopkins Ave.  
Titusville, FL 32780  
(407) 268-0923  
(407) 268-3119 - Fax

Thank-you.  
M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 13-Apr-1999 10:57am  
**From:** Patricia Comer TAL  
COMER\_P  
**Dept:** Office General Counsel  
**Tel No:** 850/488-9730

**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** Re: FWD: Re: Oleander & Public Input

Ok I'll give it a try.

I would suggest something like this

We hold public meetings and solicit public comment to obtain information. We read, listen to and consider every comment that is presented to us, but we cannot use either public meetings or public comment solicitation as referenda on the proposed project. Our determinations must be done in the context of our statutory and rule authority, which is limited. For instance, we cannot re-evaluate a local government zoning determination or a Public Service Commission need determination. Our specific authority to determine whether a construction permit should issue, and under what terms and conditions is stated in Chapter 403 of the Florida Statutes and Chapters 62-4, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code. We must act in conformity with them. When we receive a comment that deals with matters outside of our authority, we try to refer the commentor to the agency or entity that has authority in that area. We also try to explain when matters are outside of our authority. We have a statutorily limited time to obtain data and to process permits and we greatly appreciate all information provided to us by public commentors and public meeting attendees. We evaluate permits based on all data which we can consider under our governing statutes and rules.

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APR 13 1999



Aspbb@aol.com on 04/05/99 01:21:08 PM

DEP

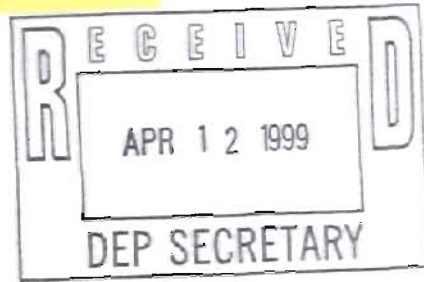
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AIR

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APR 13 1999

DIVISION OF AIR  
RESOURCES MANAGEMENT



Please respond to Aspbb@aol.com

To: Florida Governor/EOG  
cc: gkamaras@lewisweb.net  
Subject: Oleander Power Project - DEP & Public Input

The Honorable Governor Bush,

I recently sent the following letter to Mr. Alvaro Linero of the Florida Department of the Environment on March 31, 1999 concerning the Oleander Power Project (DEP File No. 0090180-001-AC (PSD-FL-258)) and have received no response. I have, in the past, asked the same question and never received an answer and thought maybe you or someone in your office could assist in this matter.

We have a massive 950MW merchant power plant proposing to build in our neighborhood within 1/2 mile of hundreds of homes and a large ball field (Brevard County-West of Cocoa). It is going to be fuel-fired, with only 36% efficiency technology ((5) "F" Class Combustion Turbines), selling the most expensive, wholesale, "peaking", electricity (not providing competition or service to our local energy provider), may use millions of gallons of our reclaimed and/or potable water, will be allowed to operate 1,000 hours per year on #2 distillate oil, which is much more polluting than gas, and more hours than they even expect to operate all year!! They want to locate it on a 37 acre site that is perfect for Constellation Power because of an adjacent substation, a close gas line, I-95 access, and close water lines, but not perfect for the hundreds of residents living within 3 miles of it, many of which are in economically depressed neighborhoods. FDEP has announced their intent to issue Oleander an air permit, because the company meets all State and Federal guidelines. However, there are thousands of Brevard County residents who have opposed the construction of this plant and have indicated so to FDEP, to no avail.

It appears these "merchant" power plants, that do not have to follow the Florida "Power Plant Siting Act" if they produce no steam, have found a serious loophole in Florida law, as I believe this particular plant would not be able to build in the area it is proposing because there doesn't appear to be a need for their energy within Brevard County, plus it is entirely too close to residents. It seems very unfair for a power plant to be able to add additional pollution to an area, only to profit and benefit themselves and provide energy to other areas of the state. This plant is only going to bring (12) jobs to Brevard County and possibly 10,000 oil tanker trucks to keep them supplied with oil, through the already busy intersection of 520 and I-95. There is a truck stop near this intersection and a man was just killed on April 2, 1999 (Florida Today Newspaper) near the intersection of 520 and I-95, when his car was hit by a tractor-trailer.

Also, I have attached a copy of the Oleander Power Project's recent newspaper

ad (one of many Oleander has ran in an attempt to gain support for their project) that states:

"Good for the Environment" and "Clean Energy". This is clearly a misleading ad as FDEP has classified their project as a Title V - Major Source of Pollution (permitted to emit up to 1,235 tons of NOx alone) and how can that be "Good" for the environment or called a source of "clean" energy? Also, representatives from Constellation Power (a wholly owned subsidiary of Baltimore Gas and Electric) have publicly stated, many times, that their plant will help shut down our old "dirty" ones. And yet they have many old "dirty" ones, themselves, up in Maryland, where they have fought regulations recently, that would require them to clean up their plants!! Also, they have publicly admitted that residents here would probably never be able to purchase electricity directly from them because of the nature of their plant being a "peaking" plant. Please let me know where I can go to file a complaint about their misleading advertising and promotion of their project.

Thank you for your time and consideration and any assistance you can render, regarding this issue, will be appreciated.

Sincerely,  
M. Adams  
4405 S. Hopkins Ave.  
Titusville, FL 32780  
(407) 268-0923

\*\*\*\*\*  
\*\*\*\*\*

Mr. Linero,  
\*\*\*\*

Mike Halpin recently wrote the following:  
As noted in the "Technical Evaluation and Preliminary Determination", the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Please be advised that (as requested) a public meeting is planned for May 13th at 7:00pm at the same location as the March 3rd meeting (Brevard County Agricultural Center) and is so stated in the intent document noted above.  
\*\*\*\*

I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?

I have asked this question before and have never really received an answer to it. You have held a public meeting on March 3, 1999 and have received multiple letters, almost 2,000 signatures on petitions against this plant and many comments from the public over here in Brevard County. Plus an article in our local paper stated that DEP would take public comments for another 30 days. And now you are having another hearing in May, because it was requested.

Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit?? What is the purpose for getting public input if DEP does not take it into consideration when making its decision?



At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)?

This county already has three power plants situated triangularly around it. Only one of which (FPL) services the residents here. The only time this area gets a break from emissions, is when the wind comes out of the South. I have seen a smog line in our sunsets many times west of Brevard County along the St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's? Can you explain why Volusia County's and West Palm Beach County's readings are lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia. Are there more vehicle emissions in Brevard County than there are in the Miami area???

A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?

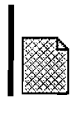
Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project.

In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

What is the magic number of homes in a 3.2 km. radius that FDEP considers significant? I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it.

Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them.

Thank-you for your time and thoughtful consideration.  
M. Adams

 - BBN0405.DOC

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 05-Apr-1999 06:12pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:**

**Tel No:**

**To:** Clair Fancy TAL ( FANCY\_C )  
**To:** Doug Beason TAL ( BEASON\_D )  
**To:** Mike Halpin TAL ( HALPIN\_M )  
**To:** Tammy Eagan TAL ( EAGAN\_T )  
**To:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Fwd: Oleander & Public Input

Ms. Adams was apparently dissatisfied that we took a week to respond to her latest questions. Since we usually responded in a day or two, she got used to a quick response and was unhappy when it took longer to answer a very difficult batch of questions (which I still have not answered in all the detail she probably wants).

Anyway, she will send the request to Governor Bush. I answered her request as best I can right now. So if the request gets referred by the Governor's office or the Secretary's office to us, please refer to the initial response that I copied all of you on. It can be beefed up if a letter is warranted.

Thanks. Al.

# INTEROFFICE MEMORANDUM

**Date:** 05-Apr-1999 12:17pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Fwd: Oleander & Public Input

Dear Mr. Linero,

I wrote this letter on March 31, 1999 and have still not received a response from you or anyone else, for that matter. Is it because I did not refer to the:

DEP File No. 0090180-001-AC (PSD-FL-258)?

I am now forwarding this letter to The Honorable Governor Bush and maybe he can shed some light on the matter of public input and where it fits into DEP's decision on whether or not to issue an air permit.

Sincerely,  
M. Adams

# INTEROFFICE MEMORANDUM

**Date:**  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Oleander & Public Input

Mr. Linero,

\*\*\*\*

Mike Halpin recently wrote the following:

As noted in the "Technical Evaluation and Preliminary Determination", the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Please be advised that (as requested) a public meeting is planned for May 13th at 7:00pm at the same location as the March 3rd meeting (Brevard County Agricultural Center) and is so stated in the intent document noted above.

\*\*\*\*

I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?

I have asked this question before and have never really received an answer to it. You have held a public meeting on March 3, 1999 and have received multiple letters, almost 2,000 signatures on petitions against this plant and many comments from the public over here in Brevard County. Plus an article in our local paper stated that DEP would take public comments for another 30 days. And now you are having another hearing in May, because it was requested.

Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit?? What is the purpose for getting public input if DEP does not take it into consideration when making its decision?

At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)?

This county already has three power plants situated triangularly around it. Only one of which (FPL) services the residents here. The only time this area

gets a break from emissions, is when the wind comes out of the South. I have seen a smog line in our sunsets many times west of Brevard County along the St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's? Can you explain why Volusia County's and West Palm Beach County's readings are lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia. Are there more vehicle emissions in Brevard County than there are in the Miami area???

A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?

Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project.

In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

What is the magic number of homes in a 3.2 km. radius that FDEP considers significant? I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it.

Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them.

Thank-you for your time and thoughtful consideration.

M. Adams

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 05-Apr-1999 06:03pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Doug Beason TAL ( BEASON\_D )  
**CC:** Mike Halpin TAL ( HALPIN\_M )  
**CC:** Clair Fancy TAL ( FANCY\_C )  
**CC:** Leonard Kozlov ORL ( KOZLOV\_L @ A1 @ ORL1 )

**Subject:** Re: Oleander & Public Input

Ms. Adams. I received your E-Mail dated April 5 prompting me to reply to your questions in your inquiry dated March 31. We hope to have more complete responses when we hold the second public meeting on the Oleander project on May 13 and when we prepare responses to all of the questions raised during the two public meetings.

Following are your questions followed by my preliminary responses:

"I wrote this letter on March 31, 1999 and have still not received a response from you or anyone else, for that matter. Is it because I did not refer to the DEP File No. 0090180-001-AC (PSD-FL-258)?"

Sorry if you feel the amount of time is long. I think you will agree that we have promptly responded to all of your other inquiries. I came in from vacation to review your request. The reason for any delay is totally unrelated to the file number.

"I understand that Oleander's proposal meets the State and Federal guidelines for an air permit. Where does public input fit into the decision making process?"

Typically when we receive an application, we distribute it to the EPA, the National Park Service, and our district office and begin our review. When we have made a preliminary decision, it is published by the applicant in a newspaper of general circulation. At that point we invite public comment, requests for public meetings, and provide the opportunity for petitions related to our intended action.

In the Oleander case, we accepted public input at an early date before the application was complete. We held a public meeting before we would normally hold one and we plan to hold another one on May 13. I certainly think the early public input affected the applicant's plans regarding the amount of fuel oil he will burn.

"Exactly how does public input have any impact on FDEP's decision on whether or not to issue an air permit??"

As I mentioned, the public input certainly had an effect on the amount of oil to be fired and therefore the preliminary BACT determination. We have (preliminarily) concluded that the project will not cause or contribute to a violation of any ambient air quality standards; that it will not have a significant impact; and made a preliminary determination of Best Available Control Technology. The public can further provide comments on the draft permit and BACT determination, the modeling, etc. If you believe the permit should not be issued at all, then you would need to review the materials we sent you and point out facts with which you disagree as well as the rules or statutes that support your conclusions that the permit should not be issued.

"What is the purpose for getting public input if DEP does not take it into consideration when making its decision?"

We do consider public input.

"At the last hearing, there was not one individual who spoke in favor of a new major source of pollution being placed in the middle of hundreds of residents (I estimate between 500 and 1,000 homes or more in a 3.2 km radius). Especially a power plant that will not service the residents nor does it appear will EVER service these residents because of the nature of their operation being very expensive, wholesale, "peaking" power. Why should these residents be burdened with the additional pollution in their neighborhood (even if it is "cleaner" pollution)? "

The applicable rules provide for the Prevention of Significant Deterioration of Air Quality. The applicant needs to show that there will not be any modeled exceedances of the ambient air quality standards beyond his property line; that there will not be increases in ambient air pollutants beyond the allowable increases for the given area; and that the Best Available Control Technology will be employed. There are other requirements, but these are the ones that stand out. The rules and statutes under which we review air permit applications do not address the additional considerations you mentioned.

"This county already has three power plants situated triangularly around it. Only one of which (FPL) services the residents here. The only time this area gets a break from emissions, is when the wind comes out of the South. I have seen a smog line in our sunsets many times west of Brevard County along the St. Johns River. Also, Brevard County's ozone readings have jumped up a lot this past year. Some blame the wildfires. Some blame vehicle emissions. Can you explain why Miami's ozone readings are much lower than Brevard County's?"

I can't explain why readings in Miami are much lower (if they are) than



Brevard

County. I was going to look into this and it is one of the reasons that I was taking more time than you wished. I will refer the matter to an expert in this

field and will provide a proper response (if there is one) at or by the time of

the next public meeting. My personal experience, however, is that the Miami-Dade County and the Broward County areas were historically ozone non-attainment areas. They tended to have higher maximum ozone readings. As a

result, they were required by federal and state laws and rules to: implement a motor vehicle inspection program; install Reasonable Available Control technology for volatile organic compounds and nitrogen oxides at existing facilities (such as power plants); require special gasoline pump dispensers; supply low vapor pressure gasoline; etc. If they now have lower ozone concentrations, it could be related to these mandated measures.

"Can you explain why Volusia County's and West Palm Beach County's readings are

lower than Brevard County's? Volusia County was one of the hardest hit with wildfires last year and the wildfires in Brevard were primarily in the far north end, near Volusia."

Again, if this is true, I cannot explain why. I will ask our expert on these matters to look into it and have an answer by the time of the next public meeting. I can tell you that ozone is a regional phenomenon. Sometimes the pollutants that cause high ozone readings are emitted far away and the ozone is

formed during transport. The impact could be many miles away. On the other hand, a pollutant like sulfur dioxide will (generally) be measured at a higher concentration the closer one is to the source.

"Are there more vehicle emissions in Brevard County than there are in the Miami area???"

No.

"A power plant of this type "to provide" high peak demands, should be placed where the shortage is happening. I do not recall having ever experienced a brownout or outage, because of high demand, in this area. I have heard that the west coast and north Florida are the ones with shortages of electricity. Is that true?"

I do not have the facts on this either (sorry). It is also not something that we can consider in an air permit application. As I understand it, there is a shortage of reserve requirements. Because it takes time to plan and build projects to meet or maintain reserve requirements, they are typically permitted

before the shortages manifest themselves as brownouts. Nevertheless, last

summer I experienced occasional disruptions where I live in the Panhandle. I don't know if the reasons were insufficient capacity or transmission problems.

"Also, with the reviewing and permitting that appears to be going on at FDEP, the State of Florida does not appear to be in an emergency situation to provide 8,000 MW of future energy needs in this state by the year 2006. You recently wrote to me indicating that 7,520 MW of power was being reviewed, permitted, or proposed excluding the Oleander Project. In addition to this, are the 100's of residents surrounding the proposed site considered "insignificant" in FDEP's consideration of such a proposal? Is that because many of them are manufactured homes? Or mobile homes? Or generally economically depressed neighborhoods?

The residents are not considered insignificant. Their (and your) comments and contributions to-date are appreciated.

"What is the magic number of homes in a 3.2 km. radius that FDEP considers significant?"

There is no magic number. There are key National Ambient Air Quality Standards that are designed to protect public health and welfare and prevent significant deterioration of air quality.

"I realize that there are 1,000's of homes near the FPL and OUC plants. However, having been in this area since 1974, I do know that most of those homes were built after the plants were already here. The proposed site that Oleander wants to build on is already surrounded by 100's of residents and is just over 1/4 mile from a playground/ballfield where many outdoor school activities are held. In addition, the site is adjoining a tourism zoning area with a motel and restaurant just to the southeast of it. Residents here feel it is not fair for them to receive added pollution and the possible massive use of natural resources when it appears this plant will do little to benefit them."

This one is a comment rather than a question. We will take a closer look at the modeling to make sure that concentrations of air pollutants at the points you mentioned do not exceed the allowable standards and increases.

Ms. Adams. I am leaving on vacation and, as you know, Mr. Halpin is responsible for matters related to this project. Please feel free to E-mail us as you have. I think you should also take advantage of our offer to call you and discuss all of these matters at length. We will still be happy to respond in writing to those issues where you really want an answer in writing.

If you wish, you can call my supervisor, Mr. Fancy, or Mike Halpin at 850/488-0114. Just tell them to call you right back.

Anyway, we look forward to meeting you some day. we certianly appreciate your comments and hope you will understand our occasional delay in responding. I hope this takes care of your immediate questions, leaving some of the answers until the public meeting.

Thank you. Al Linero.

March 29, 1999

RECEIVED  
APR - 1 1999  
Bureau of Air Monitoring  
& Mobile Sources

Ms Dotty Diltz  
Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS 5510  
Tallahassee, Florida 32399-2400



Re: Oleander Power Project; DEP File No. 009-180-001-  
AC (PSD-FL-258)

Dear Ms Diltz:

The applicant proposes to satisfy by computer modeling, the stipulations of the Clean Air Act (CAA) that require a pre-construction ambient air quality analysis for criteria pollutants. Brevard Citizens Against Pollution (BCAP) and residents in the vicinity of the proposed project are concerned that their health and well being are subject to the vagaries of a purely analytic approach to this analysis. The applicant proposes to use estimates of concentrations of the criteria pollutants in the vicinity of the site as inputs to the ISCST3 dispersion model. The computer model is an approximation of complex dynamics of the atmosphere and using estimated input data only increases the uncertainty in the output predictions.

BCAP requests that FDEP, as agent for implementing the CAA in Florida, impose on the applicant the following stipulation of the CAA:

"(7) The person who owns or operates, or proposes to own or operate, a major emitting facility for which a permit is required under this part agrees to conduct such monitoring as may be necessary to determine the effect which emissions from any such facility may have, or is having, on air quality in any area which may be affected by emissions from such source..."

BCAP and the 1700 residents who signed a petition (copies to DEP at the March 3 Hearing) against the proposed project live in the "...area which may be affected by emissions from such source." In order to assure that our health and well being are not adversely impacted by the proposed project, we request that the applicant be required to perform one year of pre-construction ambient air monitoring for the criteria pollutants in accordance with EPA/DEP approved procedures. We insist that this is our right under the Clean Air Act of the United States. The applicant shall then employ these data in the required pre-construction ambient air quality analysis. The costs associated with the monitoring shall be the responsibility of the applicant.

Yours truly,  
Robert J. Knodel, President

CC:

J. Bush  
D. Struhs  
A. Linero,  
D. Arbes,  
T. Scarborough, Jr.  
R. O'brien  
N. Higgs  
S. Carlson  
H. Voltz

824 Heron Road  
Cocoa, FL 32926

# INTEROFFICE MEMORANDUM

**Date:** 09-Apr-1999 08:04am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Clair Fancy TAL ( FANCY\_C )  
**CC:** Dotty Diltz TAL ( DILTZ\_D )

**Subject:** Oleander letter to D. Diltz dated March 29, 1999

Clair -

I'm not sure whether we should provide a written response (for Dotty) to the subject letter or not. Specifically, I'm not clear on whether our routine correspondence with concerned citizens should change (e.g. routed through OGC?) as a result of yesterdays filing for an Administrative Hearing. However, I have drafted the response below, if you believe that it is appropriate to move forward. Please let me know how to proceed.

Mr. Knodel -

Thank you for your input to the Oleander Project. I have been asked By Mrs. Diltz to respond to your request to include specific language from the Clean Air Act [Sec. 165.(7)] within the context of the permitting action. The State and Federal PSD rules implement those portions of the Clean Air Act including Section 165.(7). Florida's PSD rules were developed according to the Code of Federal Regulations, 40 CFR 51.166. Section 51.166(m) includes the potential requirement for an air quality analysis and may include preconstruction monitoring. However, 40 CFR 51.166(i)(8) provides for a specific exemption which may only be demonstrated by modeling. The State of Florida has adopted, and EPA has approved, this approach in Rule 62-212.400(3)(e) which is as follows:

(e) General Ambient Monitoring Exemption. A proposed facility or modification subject to the preconstruction review requirements of this rule shall be exempt from the monitoring requirements of Rule 62-212.400(5)(f) and (g), F.A.C., with respect to the specific pollutant if:

1. The emissions of the pollutant from the new facility or the net emissions increase of the pollutant from the modification would not have an impact on any area equal to or greater than that listed in Table 212.400-3, De Minimus Ambient Impacts; or

2. The ambient concentration of the pollutant in the area that the proposed facility or modification would affect is less than the appropriate de minimus concentration listed in Table 212.400-3; or

3. the pollutant is not listed in Table 212.400-3.

I have included the Table which is referred to in the rule and is identical to the EPA implementing regulations of Section 51.166(1)(8). The

applicant has met the criteria for the exemption. It is important that the Department implement its rules according to our EPA approved PSD program and our statutory authority. Therefore, we are unable to comply with your specific request to the Department, to reject the applicant's ambient impact analysis and require preconstruction monitoring, overriding the written rules and regulations.

I hope that this is helpful to you.

Sincerely,

Michael P. Halpin



Florida  
Department of  
Environmental Protection

Jeb Bush  
Governor

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

David Struhs  
Secretary

F A X   T R A N S M I T T A L   S H E E T

DATE: \_\_\_\_\_

TO: Ken Corky

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

FROM: MIKE HAWKIN

PHONE: \_\_\_\_\_

Division of Air Resources Management

FAX: 850.922.6979

RE: \_\_\_\_\_

CC: \_\_\_\_\_

Total number of pages including cover sheet: 5

**Message** As you requested.

If there are any problems with this fax transmittal, please call the above phone number.

"Protect, Conserve, and Manage Florida's Environmental and Natural Resources"

Printed on recycled paper

March 29, 1999

RECEIVED  
APR - 1 1999  
Bureau of Air Monitoring  
& Mobile Sources

Ms Dotty Diltz  
Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS 5510  
Tallahassee, Florida 32399-2400



Re: Oleander Power Project; DEP File No. 009-180-001-  
AC (PSD-FL-258)

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BCAP requests that FDEP, as agent for implementing the CAA in Florida, impose on the applicant the following stipulation of the CAA:

"(7) The person who owns or operates, or proposes to own or operate, a major emitting facility for which a permit is required under this part agrees to conduct such monitoring as may be necessary to determine the effect which emissions from any such facility may have, or is having, on air quality in any area which may be affected by emissions from such source..."

BCAP and the 1700 residents who signed a petition (copies to DEP at the March 3 Hearing) against the proposed project live in the "...area which may be affected by emissions from such source." In order to assure that our health and well being are not adversely impacted by the proposed project, we request that the applicant be required to perform one year of pre-construction ambient air monitoring for the criteria pollutants in accordance with EPA/DEP approved procedures. We insist that this is our right under the Clean Air Act of the United States. The applicant shall then employ these data in the required pre-construction ambient air quality analysis. The costs associated with the monitoring shall be the responsibility of the applicant.

Yours truly,  
Robert J. Knodel, President

CC:

J. Bush  
D. Struhs  
A. Linero,  
D. Arbes,  
T. Scarborough, Jr.  
R. O'brien  
N. Higgs  
S. Carlson  
H. Voltz

824 Heron Road  
Cocoa, FL 32926





Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

April 20, 1999

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Robert J. Knodel  
824 Heron Road  
Cocoa, Florida 32926

Re: Oleander Power Project

Dear Mr. Knodel:

Thank you for your input to the Oleander Project. I have been asked by Mrs. Diltz to respond to your request of March 29, to include specific language from the Clean Air Act [Sec. 165.(7)] within the context of the Oleander permitting action. You requested that "... the applicant be required to perform one year of pre-construction ambient air monitoring for the criteria pollutants in accordance with EPA/DEP approved procedures...".

The State and Federal PSD rules implement those portions of the Clean Air Act including Section 165.(7). Florida's PSD rules were developed according to the Code of Federal Regulations, 40 CFR 51.166. Section 51.166(m) includes the potential requirement for an air quality analysis and may include preconstruction monitoring. However, 40 CFR 51.166(i)(8) provides for a specific exemption. The State of Florida has adopted, and EPA has approved, this approach in Rule 62-212.400(3)(e) which is as follows:

- (e) General Ambient Monitoring Exemption. A proposed facility or modification subject to the preconstruction review requirements of this rule shall be exempt from the monitoring requirements of Rule 62-212.400(5)(f) and (g), F.A.C., with respect to the specific pollutant if:
1. The emissions of the pollutant from the new facility or the net emissions increase of the pollutant from the modification would not have an impact on any area equal to or greater than that listed in Table 212.400-3, De Minimus Ambient Impacts; or
  2. The ambient concentration of the pollutant in the area that the proposed facility or modification would affect is less than the appropriate de minimus concentration listed in Table 212.400-3; or
  3. The pollutant is not listed in Table 212.400-3.



Jeb Bush  
Governor

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2. The ambient concentration of the pollutant in the area that the proposed facility or modification would affect is less than the appropriate de minimus concentration listed in Table 212.400-3; or
3. The pollutant is not listed in Table 212.400-3.

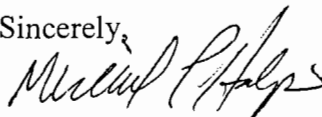
*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

*Printed on recycled paper.*

I have included the Table, which is referred to in the rule and is identical to the EPA implementing regulations of Section 51.166(i)(8). The applicant has met the first criteria for the exemption. It is necessary that the Department implement its rules according to our EPA approved PSD program and our statutory authority. Therefore, we are unable to comply with your specific request, to reject the applicant's ambient impact analysis and require pre-construction monitoring.

I hope that this is helpful to you.

Sincerely,



Michael P. Halpin

/mph

cc: D. Diltz  
A. Linero  
C. Fancy

TABLE 212.400-3  
DE MINIMIS AMBIENT IMPACTS

Pollutant	Concentration (Micrograms Per Cubic Meter)	Averaging Period
Nitrogen dioxide	14	Annual
Lead	0.1	Quarterly
Sulfur dioxide	13	24-hour
PM <sub>10</sub>	10	24-hour
Fluorides	0.25	24-hour
Mercury	0.25	24-hour
Carbon monoxide	575	8-hour
Hydrogen sulfide	0.2	1-hour
Ozone	No de minimis air quality level is provided for ozone. However, any net increase of 100 tons per year or more of volatile organic compounds subject to preconstruction review would be required to perform an ambient impact analysis, including the gathering of ambient air quality data.	

Specific Authority 403.061, FS.

Law Implemented 403.031, 403.061, 403.087, FS.

History -- Formerly 17-2.500; Amended 2-2-93; Formerly 17-212.400; Amended 11-23-94, 1-1-96, 3-13-96, 2-5-98.

**62-212.410 Best Available Control Technology (BACT). (Repealed)**

Specific Authority 403.061, FS.

Law Implemented 403.021, 403.031, 403.061, 403.087, FS.

History -- Formerly 17-2.630; Formerly 17-212.410; Amended 11-23-94, 1-1-96, Repealed 3-13-96.

March 29, 1999

RECEIVED  
APR - 1 1999  
Bureau of Air Monitoring  
& Mobile Sources

Ms Dotty Diltz  
Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS 5510  
Tallahassee, Florida 32399-2400



Re: Oleander Power Project; DEP File No. 009-180-001-  
AC (PSD-FL-258)

Dear Ms Diltz:

The applicant proposes to satisfy by computer modeling, the stipulations of the Clean Air Act (CAA) that require a pre-construction ambient air quality analysis for criteria pollutants. Brevard Citizens Against Pollution (BCAP) and residents in the vicinity of the proposed project are concerned that their health and well being are subject to the vagaries of a purely analytic approach to this analysis. The applicant proposes to use estimates of concentrations of the criteria pollutants in the vicinity of the site as inputs to the ISCST3 dispersion model. The computer model is an approximation of complex dynamics of the atmosphere and using estimated input data only increases the uncertainty in the output predictions.

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Robert J. Knodel, President

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A. Linero,  
D. Arbes,  
T. Scarborough, Jr.  
R. O'Brien  
N. Higgs  
S. Carlson  
H. Voltz

824 Heron Road  
Cocoa, FL 32926

# INTEROFFICE MEMORANDUM

**Date:** 18-Mar-1999 07:25pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** HALPIN\_M ( HALPIN\_M@A1@DER )  
**To:** LINERO\_A ( LINERO\_A@A1@DER )

**Subject:** Re: Oleander Power Project

Dear Mr. Halpin,

Thank-you for your response. However, I am a little confused.

Is Oleander Power Project required by DEP to actually use the (GE) turbines, after you issue an air permit, because they have, in fact, chosen that route? Or, because they originally requested a choice of turbines (GE or Westinghouse), is it ok for them to promote the lower TPY emissions, whether or not they use the more efficient (GE) turbines? In other words, after DEP has issued their permit, can they, in turn, use Westinghouse or other more inefficient turbines?

Sincerely,  
M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 19-Mar-1999 08:48am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Re: Oleander Power Project

Ms. Adams -

I have again left your note below my response for reference. The permit would be issued based upon the lower emission limit guarantees which they have obtained from GE. From my perspective, Oleander will simply be required to comply with the permitted emission limits. That does not necessarily preclude them from being able to procure a Westinghouse turbine should they be able to acquire the same guarantees.

Should the applicant decide (after receiving a permit based upon these lower emission limits) to go with a vendor which cannot meet the limits issued in their permits, they would be taking a huge risk since they would not be allowed to exceed their permitted limits. Only by permit revision (which requires another application, additional public notice and meetings and several months of time) may conditions be changed.

I hope that this answers your question.

Sincerely,  
Michael Halpin

---

Thank-you for your response. However, I am a little confused.

Is Oleander Power Project required by DEP to actually use the (GE) turbines, after you issue an air permit, because they have, in fact, chosen that route? Or, because they originally requested a choice of turbines (GE or Westinghouse), is it ok for them to promote the lower TPY emissions, whether or not they use the more efficient (GE) turbines? In other words, after DEP has issued their permit, can they, in turn, use Westinghouse or other more inefficient turbines?

Sincerely,  
M. Adams

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 10-Mar-1999 09:50am

**From:** Susan DeVore TAL  
DEVORE\_S

**Dept:** Air Resources Management

**Tel No:** 850/921-9537

**To:** Duwayne Lundgren

( dlundgre@manatee.brev.lib.fl.us@PMDf@EPIC66 )

**CC:** Mike Halpin TAL

( HALPIN\_M )

**Subject:** Re: Oleander Power Project

^We see that Constellation Power has reduced the amount of oil on their  
^permit to 1000 hours. The next question concerns how anyone monitors the  
^number of hours they burn a particular fuel. We know that from a cost  
^perspective they would always pick gas but from an availability perspective  
^they may not be able to do that. We do understand that they have a  
^secondary source of gas and will probably be able to burn gas almost all  
^the time. I would appreciate knowing how fuel type is monitored, however.  
^Thanks

Oleander will be required to keep records. These records may be found in an operators log, on the computer or strip charts.

Oleander will be required to submit an Annual Operating Report. The AOR has information about fuel oil and natural gas usage. It's the district's compliance section's responsibility to check the AOR with the permit requirements.

I am not familiar with this, since I haven't worked in compliance. I've sent this e-mail to Mike Halpin and he may be able to answer your question with more detail.



# INTEROFFICE MEMORANDUM

**Date:** 10-Mar-1999 10:08am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Susan DeVore TAL ( DEVORE\_S )  
**To:** Duwayne Lundgren ( dlundgre@manatee.brev.lib.fl.us@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Power Project

Mr. Lundgren -

Thank you for your question concerning Oleander. I have left your comment as well as Ms. DeVore's response below. The direct response to your question is that the amount of oil (and gas) which the applicant is authorized to use would be so stated in specific terms as a condition of the permit. As a means of compliance, it would be stated in the permit that it is incumbent upon the permittee to provide routine records and reports to the Department to validate these sorts of requirements. Should reason exist, the Department may make a specific on-site visit to check records. Lastly, local Department representatives do typically make routine visits to power plants to witness tests that occur there and are at liberty to request records of various types to validate that the emission sources are in compliance with the permit.

I hope that this answers your question.

Sincerely,  
Mike Halpin

YOUR QUESTION:

^We see that Constellation Power has reduced the amount of oil on their  
^permit to 1000 hours. The next question concerns how anyone monitors the  
^number of hours they burn a particular fuel. We know that from a cost  
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^the time. I would appreciate knowing how fuel type is monitored, however.  
^Thanks

Ms. DeVore's RESPONSE:

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I am not familiar with this, since I haven't worked in compliance. I've sent this e-mail to Mike Halpin and he may be able to answer your question with more detail.

TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION

Duke Energy New Smyrna Beach Power Company LLP

New Smyrna Beach Power Plant  
500 Megawatt Combined Cycle Power Plant  
New Smyrna Beach, Volusia County

DEP File No. PA 98-39 (PSD-FL-257)  
Facility ID No.: 1270152

Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation

January 8, 1999

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

---

## 1. APPLICATION INFORMATION

### 1.1 Applicant Name and Address

Duke Energy New Smyrna Beach Power Company, Ltd., LLP  
422 South Church Street, Legal PB05E  
Charlotte, North Carolina 28202-1904

Authorized Representative: William L. Sigmon, Jr, Vice-President

### 1.2 Reviewing and Process Schedule

10-05 98: Date of Receipt of Application  
10-14-98: Application found Complete per 403.5066, F.S.  
12-01-98: DEP Insufficiency Letter Including BAR Comments  
12-28-98: Received Applicant Responses to Insufficiency Questions  
01-08-99: Intent Issued

## 2. FACILITY INFORMATION

### 2.1 Facility Location

Refer to Figure 1. The proposed New Smyrna Beach Power Project site is approximately 5 miles west of downtown New Smyrna Beach and 0.5 miles northwest of the intersection of State Road 44 and I-95, Volusia County. This site is approximately 155 kilometers (96 miles) from the Chassahowitzka National Wildlife Refuge Class I PSD Area. The UTM coordinates of this facility are Zone 17; 500.30 km E; 3,209.80 km N.

### 2.2 Standard Industrial Classification Codes (SIC)

Industry Group No.	49	Electric, Gas, and Sanitary Services
Industry No.	4911	Electric Services

### 2.3 Facility Category

The New Smyrna Beach Power Project is a new major facility. The facility identification number (FID No.) in the Department database (ARMS system) is 1270152.

The new facility will be classified as a Major or Title V Source of air pollution because emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and particulate matter (PM/PM<sub>10</sub>) exceed 100 TPY. The new facility is within an industry included in the list of the 28 Major Facility Categories per Table 212.400-1, F.A.C. Because emissions will be greater than 100 TPY for NO<sub>x</sub>, CO and PM/PM<sub>10</sub>, the facility is also a Major Facility with respect to Rule 62-212.400, F.A.C., Prevention of Significant

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Deterioration (PSD) and a determination of Best Available Control Technology (BACT) is required for at least these three pollutants.

As a Major Facility, pollutants emitted in excess of the significant emission rates given in Table 212.400-2 of 40 TPY of sulfur dioxide (SO<sub>2</sub>) or volatile organic compounds (VOC), 25/15 TPY of particulate matter (PM/PM<sub>10</sub>), or 7 TPY of sulfuric acid mist (SAM), also require review per the PSD rules and a BACT determination. This facility is also subject to the Title IV Acid Rain Program, 40 CFR 72 and must apply for an Acid Rain Permit at least 24 months prior to start up.

### 3. PROJECT DESCRIPTION

This permit addresses the following emissions units:

<b>Emission Unit No.</b>	<b>System</b>	<b>Emission Unit Description</b>
001	Power and Steam Generation	One 165 Megawatt (nominal) Gas Combustion Turbine-Electrical generator with Unfired Heat Recovery Steam Generator (HRSG)
002	Power and Steam Generation	One 165 Megawatt (nominal) Gas Combustion Turbine-Electrical generator with Unfired Heat Recovery Steam Generator (HRSG)
003	Water Cooling	Cooling Tower Consisting of 12 Modules and Fans

Duke Energy New Smyrna Beach Power Company Ltd., LLP (Duke) proposes to construct a nominal 500 megawatt (MW) natural gas-fired combined cycle electrical power generation facility. The project includes: two nominal 165 MW gas combustion turbine-electrical generators; two unfired heat recovery steam generators (HRSG) capable of raising sufficient steam to generate an additional 170 MW in a single steam electrical turbine-generator; two 150-foot stacks; a 12 module cooling tower; a diesel-fired 0.5 MW emergency generator; a 287 HP diesel-fuel fired fire water pump; and ancillary equipment.

**Figure 2 - View of Duke New Smyrna 500 MW Combined Cycle Project**

## **TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

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This facility will be located adjacent to a new wastewater treatment plant owned and operated by the City of New Smyrna Beach. The wastewater plant will provide treated wastewater for reuse in the facility cooling tower and will accept blowdown from the HRSGs. The City will be entitled to purchase 20-30 MW of electricity but otherwise will not participate in the operation of the new facility which will be fully owned by Duke.

The prime movers and sources of air pollution will be General Electric PG7241FA (7FA) combustion turbine-generators. These will be equipped with Dry Low NO<sub>x</sub> (DLN-2.6) combustors for the control of NO<sub>x</sub> emissions. Only natural gas will be used in these units and there are no provisions for emergency or backup use of fuel oil. An exterior view of a GE MS7001FA (a predecessor of the PG7241FA) is shown in Figure 3. An internal view is shown in Figure 4.

**Figure 3 - Photograph of General Electric MS 7001FA Combustion Turbine**

**Figure 4 - Internal View of General Electric MS 7001FA Combustion Turbine**

According to the application, the facility will emit approximately 679 tons per year

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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(TPY) of NO<sub>x</sub>, 339 TPY of CO, 102 TPY of PM/PM<sub>10</sub>, 85 TPY of SO<sub>2</sub>, 25 TPY of VOC, and 10 TPY of SAM. Emission increases of all these pollutants (except VOC) will be greater than their respective significant emission rates per Table 212.400-2, F.A.C. and require review for the Prevention of Significant Deterioration (PSD) and a Best Available Control Technology (BACT) determination.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 4. PROCESS DESCRIPTION

Much of the following discussion is from a 1993 EPA document on Alternative Control Techniques for NO<sub>x</sub> Emissions from Stationary Gas turbines. Project specific information is interspersed where appropriate.

A gas turbine is an internal combustion engine that operates with rotary rather than reciprocating motion. Ambient air is drawn into the 18-stage compressor of the GE 7FA where it is compressed by a pressure ratio of about 15 times atmospheric pressure. The compressed air is then directed to the combustor section, where fuel is introduced, ignited, and burned. The combustion section consists of 14 separate can-annular combustors.

Flame temperatures in a typical combustor section can reach 3600 degrees Fahrenheit (°F). Units such as the 7FA operate at lower flame temperatures which minimize NO<sub>x</sub> formation. The hot combustion gases are then diluted with additional cool air and directed to the turbine section at temperatures of approximately 2400 °F. Energy is recovered in the turbine section in the form of shaft horsepower, of which typically more than 50 percent is required to drive the internal compressor section. The balance of recovered shaft energy is available to drive the external load unit such as an electrical generator.

Figure 5 is a simplified process diagram showing the key plant components. In the Duke project, the unit will always operate in the combined cycle mode, meaning that the hot combustion turbine gases are further utilized rather than exhausted through a bypass stack. In this mode, each gas turbine directly drives an electric generator while the exhausted gases are used to raise steam in each HRSG. Together, the two HRSGs drive a single steam turbine-electrical generator.

Steam exiting the steam turbine is either returned for reheating in the high pressure section of the HRSG or sent to the condenser. Cooling water to the condenser is provided from a mechanical draft cooling tower. Demineralized makeup (well) water is added to the condensed water which is returned to the steam cycle. Cooling tower makeup water is provided from the adjacent wastewater treatment plant and the wellwater supply. Blowdown from the steam cycle is sent to the treatment plant.

In simple cycle mode, the thermal efficiency of the GE 7FA line of combustion turbines is about 35 percent. In combined cycle mode, with all steam used to generate electrical power, efficiencies of 56 percent are possible.

At high ambient temperature, the units cannot generate as much power because of lower compressor inlet density. To compensate for the loss of output (which can be on the order of 20 MW compared to referenced temperatures), an evaporative chiller



# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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may be installed ahead of the combustion turbine inlet. At an ambient temperature of 102 °F (and low relative humidity), roughly 10 MW of power can be regained by using the chillers.

The project includes highly automated controls, described as the GE Mark V Control System. The SPEEDTRONIC Mark V Gas Turbine Control System is designed to fulfill all of the gas turbine control requirements.

Additional process information related to the combustor design, and control measures to minimize NO<sub>x</sub> formation are given in the draft BACT determination distributed with this evaluation.

## 5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of 40 CFR 52.21, Chapter 403, Florida Statutes, and Chapters 62-4, 62-17, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Volusia County, an area designated as attainment for all other criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to review under Rule 62-212.400., F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for NO<sub>x</sub>, CO, PM/PM<sub>10</sub>, SO<sub>2</sub>, and SAM, exceed the significant emission rates given in Chapter 62-212, Table 62-212.400-2, F.A.C.

This PSD review includes a determination of Best Available Control Technology (BACT) for NO<sub>x</sub>, CO, PM/PM<sub>10</sub>, SO<sub>2</sub>, and SAM. An analysis of the air quality impact from proposed project upon soils, vegetation and visibility is required along with air quality impacts resulting from associated commercial, residential, and industrial growth.

The emission units affected by this PSD permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

### 5.1 State Regulations

Chapter 62-17	Electrical Power Siting
Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments

## **TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

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Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-214	Requirements For Sources Subject To The Federal Acid Rain Program
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.520	EPA Continuous Monitor Performance Specifications

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 5.2 Federal Rules

40 CFR 52.21	Prevention of Significant Deterioration (PSD)
40 CFR 60	NSPS Subparts GG
40 CFR 60	Applicable sections of Subpart A, General Requirements
40 CFR 72	Acid Rain Permits (applicable sections)
40 CFR 73	Allowances (applicable sections)
40 CFR 75	Monitoring (applicable sections including applicable appendices)
40 CFR 77	Acid Rain Program-Excess Emissions (future applicable requirements)

## 6. SOURCE IMPACT ANALYSIS

### 6.1 Emission Limitations

The proposed Units will emit the following PSD pollutants (Table 212.400-2): particulate matter, sulfur dioxide, sulfuric acid mist, nitrogen oxides, volatile organic compounds, carbon monoxide, and negligible quantities of fluorides, beryllium, mercury and lead. The applicant's proposed annual emissions are summarized in the table below and form the basis of the source impact review. The Department's proposed permitted allowable emissions for these Units are summarized in the Draft BACT document and Specific Conditions Nos. 18 through 23 of Draft Permit PSD-FL-257.

### 6.2 Emission Summary

The emissions for all PSD pollutants as a result of the construction of this facility are presented below:

### FACILITY EMISSIONS (TPY) AND PSD APPLICABILITY

Pollutants	Annual Emissions <sup>1</sup>	PSD Significance	PSD REVIEW?
PM/PM <sub>10</sub> <sup>2</sup>	102	25	Yes
SO <sub>2</sub>	85	40	Yes
NO <sub>x</sub>	679	40	Yes
CO	339	100	Yes
Ozone(VOC)	25	40	No
Sulfuric Acid Mist	10	7	Yes
Mercury	<<0.1	0.1	No
Lead	<<0.6	0.6	No

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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2. Based on 8760 hours of operation. Reference ambient temperature is 59 °F.
3. Includes 23 TPY from cooling tower.

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New Smyrna Beach Power Project  
-FL-257  
500 MW Combined Cycle Facility  
1270152

Permit No. PSD

Facility ID. No.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 6.3 Control Technology

Emissions control will be primarily accomplished by good combustion of clean natural gas. The gas turbine combustors will operate in lean pre-mixed mode to minimize the flame temperature and nitrogen oxides formation potential. The DLN-2.6 combustors will control combustion turbine emissions of NO<sub>x</sub> and CO to 9 and 12 ppm respectively @15% O<sub>2</sub> between 50 and 100% of full load under normal operating conditions. Selective catalytic reduction (SCR) is available if the NO<sub>x</sub> rates cannot be achieved by DLN technologies, or the guarantee is too expensive, or unforeseen operational problems occur (e.g. frequent tuning). A full discussion is given in the Draft Best Available Control Technology (BACT) Determination (see Permit Appendix BD). The Draft BACT is incorporated into this evaluation by reference.

## 6.4 Air Quality Analysis

### 6.4.1 Introduction

The proposed project will increase emissions of five pollutants at levels in excess of PSD significant amounts: PM<sub>10</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub> and sulfuric acid mist. PM<sub>10</sub>, NO<sub>x</sub> and SO<sub>2</sub> are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, and significant impact levels defined for them. CO is a criteria pollutant and has only AAQS and significant impact levels defined for it. SAM is a non-criteria pollutant and has no AAQS or PSD increments defined for it; therefore, no air quality impact analysis was required for SAM

The applicant's initial SO<sub>2</sub>, CO and NO<sub>x</sub> air quality impact analyses for this project predicted no significant impacts; therefore, further applicable AAQS and PSD increment impact analyses for these pollutants were not required. The nearest PSD Class I area is the Chassahowitzka National Wilderness Area located 155 km west of the project site. Based on the preceding discussion the air quality analyses required by the PSD regulations for this project are the following:

- A significant impact analysis for PM<sub>10</sub>, CO, NO<sub>x</sub> and SO<sub>2</sub>;
- An analysis of existing air quality for PM<sub>10</sub>, CO, NO<sub>x</sub> and SO<sub>2</sub>;
- A PSD increment analysis for PM<sub>10</sub>;
- An Ambient Air Quality Standards (AAQS) analysis for PM<sub>10</sub>;
- An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts.

Based on these required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application

## **TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

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complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A more detailed discussion of the required analyses follows.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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### 6.4.2 Analysis of Existing Air Quality and Determination of Background Concentrations

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. The monitoring requirement may be satisfied by using existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration. In addition, if EPA has not established an acceptable monitoring method for the specific pollutant, monitoring may not be required.

If preconstruction ambient monitoring is exempted, determination of background concentrations for PSD significant pollutants with established AAQS may still be necessary for use in any required AAQS analysis. These concentrations may be established from the required preconstruction ambient air quality monitoring analysis or from existing representative monitoring data. These background ambient air quality concentrations are added to pollutant impacts predicted by modeling and represent the air quality impacts of sources not included in the modeling.

The table below shows that predicted SO<sub>2</sub>, CO and NO<sub>x</sub> impacts from the project are predicted to be below the appropriate de minimus levels; therefore, preconstruction ambient air quality monitoring is not required for these pollutants. The table below shows that predicted PM<sub>10</sub> impacts from the project are predicted to be above the de minimus level; therefore, preconstruction ambient air quality monitoring is required for this pollutant. However, previously existing air quality data can be used to satisfy this monitoring requirement and to establish PM<sub>10</sub> background concentrations of 71 ug/m<sup>3</sup> and 21 ug/m<sup>3</sup>, for the 24-hour and annual averaging times, respectively. These background concentration values were used in the AAQS analysis required for PM<sub>10</sub>.

**Maximum Project Air Quality Impacts for Comparison to De Minimus Ambient Levels**

Pollutant	Averaging Time	Max Predicted Impact (ug/m <sup>3</sup> )	De Minimus Ambient Impact Level (ug/m <sup>3</sup> )	Impact Above/Below De Minimus
SO <sub>2</sub>	24-hour	1	13	BELOW
PM <sub>10</sub>	24-hour	26	10	ABOVE
CO	8-hour	14	500	BELOW

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

NO <sub>2</sub>	Annual	0.3	14	BELOW
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### 6.4.3 Models and Meteorological Data Used in the Significant Impact Analysis

The EPA-approved SCREEN3 (screening model) and Industrial Source Complex Short-Term (ISCST3) dispersion models were used to evaluate the pollutant emissions from the proposed project. These models determine ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. They incorporate elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfy the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Daytona Beach Regional Airport, Florida (surface data) and West Palm Beach, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

For determining the project's significant impact area, the highest predicted short-term concentrations and highest predicted annual averages were compared to their respective significant impact levels.

### 6.4.4 Significant Impact Analysis

Initially, the applicant conducts modeling using only the proposed project's emissions at worst load conditions. In order to determine worst-case load conditions the SCREEN3 model was used to evaluate dispersion of emissions from the combined cycle facility for three loads (50%, 75% and 100%) and four ambient temperature conditions (15, 59, 71 and 105 °F). If this modeling at worst-case load conditions shows significant impacts, additional multi-source modeling is required to determine the project's impacts on the existing air quality and any applicable AAQS and PSD increments. Receptors were placed within 10 km of the facility, which is located in a



## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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PSD Class II area. The receptor grid for predicting maximum concentrations in the vicinity of the project was composed mostly of a polar receptor grid centered on the combined cycle facility stacks. Receptors were placed on the site fence line spaced 25 m apart. There were near-field cartesian receptors starting 100 m from the site fence lines and extending out 1,000 m at 100 m spacings. A 500 m spacing for polar coordinate rings was used from 1,000 m to 5,000 m (with 36 receptors per ring at 10° intervals) from the stacks, and a 1,000 m spacing was used from 6,000 m out to 10,000 m from the stacks. For each pollutant subject to PSD and also subject to PSD increment and/or AAQS analyses, this modeling compares maximum predicted impacts due to the project with PSD significant impact levels to determine whether significant impacts due to the project are predicted in the vicinity of the facility. The tables below show the results of this modeling.

**TECHNICAL EVALUATION AND PRELIMINARY  
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Maximum Project Air Quality Impacts for Comparison to the PSD  
Class II Significant Impact Levels in the Vicinity of the Facility

Pollutant	Averaging Time	Max Predicted Impact (ug/m <sup>3</sup> )	Significant Impact Level (ug/m <sup>3</sup> )	Significant Impact?
SO <sub>2</sub>	Annual	0.04	1	NO
	24-hour	1	5	NO
	3-hour	6	25	NO
PM <sub>10</sub>	Annual	2	1	YES
	24-hour	26	5	YES
CO	8-hour	14	500	NO
	1-hour	36	2000	NO
NO <sub>x</sub>	Annual	0.3	1	NO

The results of the significant impact modeling show that there are no significant impacts predicted for emissions of SO<sub>2</sub>, CO, and NO<sub>x</sub> from this project. Therefore, no further modeling was required for these pollutants. Modeling results for PM/PM<sub>10</sub> are addressed in the next section.

**6.4.5 PSD Class II Increment Analysis**

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant. The results of the PSD Class II increment analysis for PM<sub>10</sub> are presented in the table below. They show that the maximum predicted impacts are less than the allowable increments.

**PSD Class II Increment Analysis**

Pollutant	Averaging Time	Max. Predicted Impact (ug/m <sup>3</sup> )	Impact Greater than Allowable Increment?	Allowable Increment ug/m <sup>3</sup>
PM <sub>10</sub>	Annual	3.7	NO	17
	24-hour	23.4	NO	30

**6.4.6 AAQS Analysis**

For pollutants subject to an AAQS review, the total impact on ambient air quality is obtained by adding a "background" concentration to the maximum modeled

## **TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

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concentration. This "background" concentration takes into account all sources of a particular pollutant that are not explicitly modeled. The results of the AAQS analysis are summarized in the table below. As shown in this table, emissions from the proposed facility are not expected to cause or contribute to a violation of an AAQS.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## AMBIENT AIR QUALITY IMPACTS

Pollutant	Averaging Time	Major Sources Impact (ug/m <sup>3</sup> )	Background Conc. (ug/m <sup>3</sup> )	Total Impact (ug/m <sup>3</sup> )	Total Impact Greater Than AAQS?	Florida AAQS (ug/m <sup>3</sup> )
PM <sub>10</sub>	Annual	3.7	21	24.7	NO	50
	24-hour	23	71	94	NO	150

### 6.4.7 Impacts Analysis

#### *Impact Analysis Impacts On Soils, Vegetation, And Wildlife*

Very low emissions are expected from this natural gas-fired combustion turbine in comparison with conventional power plant generating equal power. Emissions of acid rain and ozone precursors will be very low. The maximum ground-level concentrations predicted to occur for PM<sub>10</sub>, CO, NO<sub>x</sub>, and VOC as a result of the proposed project, including background concentrations and all other nearby sources, will be less than the respective ambient air quality standards (AAQS). Except for PM/PM<sub>10</sub>, the project impacts are less than the significant impact levels which in-turn are less than the applicable allowable increments for each pollutant. PM/PM<sub>10</sub> impacts from the project and all other development since the PSD program was implemented, are less than the applicable increment. Because the AAQS are designed to protect both the public health and welfare and the project impacts are less than significant or less than the allowable increment, it is reasonable to assume the impacts on soils, vegetation, and wildlife will be minimal or insignificant.

#### *Impact On Visibility*

Natural gas is a clean fuel and will be very efficiently combusted in the gas turbine. This will minimize smoke formation. The low NO<sub>x</sub> and SO<sub>2</sub> emissions will also minimize plume opacity. Because no add-on control equipment and no reagents are required, there will be no steam plume or tendency to form ammoniated particulate species. A regional haze analysis was performed which shows that the proposed project will not result in adverse impacts on visibility in the PSD Class I area. There may be a very localized steam plume effect from the cooling tower.

#### *Growth-Related Air Quality Impacts*

The applicant projects that there will be only short-term increases in the labor force to construct the project and that it will not result in permanent, significant commercial and residential growth in the vicinity of the project. Operation of the additional unit

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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will require nineteen permanent employees which will cause no significant impact on the local area.

The project is under review by the Public Service Commission, who have recently approved several power projects to help meet the low electrical reserves throughout the State of Florida. The PSC has not made a specific determination regarding the present project. On a large scale, the project will respond to state-wide and regional growth, accommodate more growth, and probably stimulate some additional growth. There are no adequate procedures under the PSD rules to fully assess these impacts. However, the type of project proposed has the smallest overall physical “footprint,” the least water requirements, the lowest capital costs, fewest labor requirements, and the lowest air emissions per unit of electric power generating capacity.

### *Hazardous Air Pollutants*

The project is not a major source of hazardous air pollutants (HAPs) and is not subject to any specific industry or HAP control requirements pursuant to Sections 112 of the Clean Air Act.

## 7. **CONCLUSION**

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations, provided the Department’s BACT determination is implemented.

*A. A. Linero, P.E.*  
*Teresa Heron, Engineer*  
*Cleve Holladay, Meteorologist*

# INTEROFFICE MEMORANDUM

**Date:** 10-Mar-1999 01:05pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Oleander vs Duke and TPY Breakdown

Mr. Linero,

Thank-you for responding so promptly. The Project Description and Impacts of Project Operations, I guess would be of the most interest. (Sections ES.3 and ES.5) So that it can be properly compared with Oleander. How many pages are those sections and can it be faxed? or E-mailed? or mailed?

I had asked about a week ago for the new breakdown of pollutants in TPY for Oleander and have still not received that info from Mike Halpin. Can you check into this for me? So that I can compare that as well. It looks as if the Duke Project is much more efficient. Is that true?

Do you know just where exactly the electricity in Florida has shown a shortage and/or brownouts? I have heard that the PSC states that Florida will need 8,000 more MW sometime in the near future.

Also, I would appreciate notice of when the Dept. plans to issue their intent to issue the permit for OPP.

Thanks again,  
M. Adams

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 10-Mar-1999 02:25pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Aspbb

( Aspbb@aol.com@PMDf@EPIC66 )

**CC:** Mike Halpin TAL

( HALPIN\_M )

**Subject:** Re: Oleander vs Duke and TPY Breakdown

Ms. Adams:

The sections you want are very short and will be faxed to you today. The details of course, would be in the large documents I mentioned previously.

Regarding you questions:

Mike will handle the question on the emissions from Oleander.

"Are Duke units more efficient than Oleander?"

Based on the amount of energy out compared to the energy in, the Duke units will be roughly 56 percent efficient while the Oleander units will be about 36 percent efficient. They will use the same combustion turbines but will operate differently as described in my previous E-Mail. Among peaking units, the Oleander units (based on the GE PG7241FA turbine) will be the most efficient. It is possible that an even larger Westinghouse unit(501G) is more efficient (maybe 38 percent simple cycle and 58 percent combined cycle), but not by much. It is available in very limited production and will emit much more pollutants. The first prototype will be built in Lakeland.

Do you know just where exactly the electricity in Florida has shown a shortage and/or brownouts? No. But the way electricity is moved around, I think it would be safe to say that shortage is state-wide. Your best bet would be to check out the Public Service Commission website and interact with them on it. I don't recall brown-outs. I think the PSC wants there to be enough reserve margin to prevent brown-outs. That requires permitting and construction of facilities well before the shortages manifest themselves as brown-outs.

I have heard that the PSC states that Florida will need 8,000 more MW sometime in the near future.(?)

I've heard numbers in the thousands of megawatts too. We recently permitted, are reviewing or expect applications on: FPL Fort Myers: 1500 MW, FPL Sanford: 1500 MW, SkyGen (Santa Rosa County): 240 MW, Lakeland: 250 MW, Tallahassee: 250 MW, Kissimmee: 250 MW, Duke New Smyrna: 500 MW, Gulf Power (Escambia County): 500 MW, TECO Polk County: 340 MW, FPC Polk County: 500 MW, Gainesville: 120 MW,

Jacksonville Kennedy: 170 MW, Jacksonville Northside: 600 MW, Jacksonville Brandy Branch: 500 MW, FPC Intercession City (Osceola County): 300 MW, Oleander

Power: 850-950 MW. There are more that I have not even heard of yet. The PSC would have a good idea on them.

Also, I would appreciate notice of when the Dept. plans to issue their intent to issue the permit for OPP.(?)

Will do!

Thank you

Al Linero



# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 10-Mar-1999 09:25am

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:**

**Tel No:**

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Mike Halpin TAL ( HALPIN\_M )  
**CC:** Steven Palmer TAL ( PALMER\_S )

**Subject:** Re: Oleander vs. Duke

Ms. Marlene Adams.

Following are answers to your questions comparing Oleander to Duke - to the extent that I can answer them.

How many hours are they (Duke) requesting to operate?  
8760 hours - nonstop.

Are they going to use oil as back-up and for how many hours?  
No oil.

How many units and stacks will they have?  
Two units, two stacks plus cooling towers.

How tall are the stacks going to be?  
150 foot stacks.

What is the breakdown of pollutants in TPY?  
NOx 679, CO 339, PM 102, VOC 25, SO2 85, sulfuric acid mist 10.

How many acres is the site?  
30.5 acres 0.5 miles NW of SR 44 and I-95

How close is the site to the nearest resident?  
I have not checked this out myself. However the Volusia County Comprehensive Plan identifies Samsula as a rural unincorporated community, located approximately 3.5 miles (roughly 5 km) West of the site and characterized by large lot rural, rural residential and agricultural development. There appears to be a parcel that is zoned as low density residential approximately 1 km to the East. It is not possible to say whether there are actually dwellings on it. There seems to be some actual high and low density residential development approximately 2.5 km to the Southeast.

Approximately how many residents are there within a 3.2 km radius?  
I don't know the answer to this question.

Is there any public playgrounds within 1/2 mile?  
I don't believe so but do not know.

Are there any public schools within a 3.2 km radius?  
I do not know.

Is there a freshwater river within 1 mile?  
I do not know, but the Indian River is not too far away.

How many employees are needed to operate? 19 employees.

Is the plant classified as a Title V Source of Air Pollution?  
Yes.

Are they going to need up to 1.9 million gallons of water to operate?  
They will need 3.75 million gallons per day. Initially 2.0 million will be treated effluent from an adjacent wastewater treatment plant.

Will they need potable water to operate?  
They will something like 1.75 million gallons per day of untreated wellwater and untreated water from New Smyrna Beach Utilities. I don't see that they will obtain potable water in any meaningful amounts. However both reuse water and groundwater will be filtered and treated on-site. Some of it will be treated to "demineralized water."

What is the difference between combined cycle and simple cycle?  
The projects use identical combustion turbines and both make direct power through electrical generators connected directly to the turbines. The simple cycle units exhaust gases to the atmosphere at 1100 degrees Fahrenheit. The combined cycle units have waste heat boilers that transfer that heat to steam. The steam is expanded in a conventional steam turbine that turns another electrical generator to produce 50 percent more electricity than the simple cycle configuration. The exhaust gases from combined cycle units are only 200 degrees.

To what extent does the PSC regulate them?  
Duke must (at least) demonstrate the Need for the Power to the PSC. A number of hearings have already been held. I cannot say to what extent Duke or any other utility is regulated.

Did they have to follow the Power Plant Siting Act?  
Yes.

You have indeed requested a lot of information. We only handle the air portion. Attached (as E-Mail) is a copy of the Technical Air Report we prepared for the Duke project. There is a five volume set of documents that was submitted by Duke to the Department's Site Certification Office (contact is Steve Palmer at 850/487-0472). That office is also preparing a staff report

on  
the project. Perhaps some of what you want is in the documents submitted by Duke or the staff report. I will fax you the executive summary and Table of Contents of Duke's submittal.

The documents consist of hundreds of pages and the Department might need to charge you to obtain more than a few pages. You can surely get a look at them by going to New Smyrna Beach or possibly Orlando where there should be copies of it at City or DEP offices. Check with Steve for other ideas about this. You might ask him when the administrative hearing will be held on the Site Certification application.

You can obtain more by checking out Volusia County, School District, and City of New Smyrna websites regarding schools, parks, residences, etc.

Thank you for your interest in these projects. Mike Halpin will continue to follow up on matters directly related to the Oleander project. Al Linero.

# INTEROFFICE MEMORANDUM

**Date:** 04-Mar-1999 03:56pm  
**From:** Aspbb  
Aspbb@aol.com@PMDF@EPIC66  
**Dept:**  
**Tel No:**

**To:** HALPIN\_M ( HALPIN\_M@A1@DER )  
**To:** LINERO\_A ( LINERO\_A@A1@DER )

**Subject:** Oleander Power Project

Mike Halpin,  
Can you please send me the new breakdown of maximum potential pollutants in  
TPY's reflecting the new hours of 1,000 for oil.  
Thank-you,  
Marlene Adams

# INTEROFFICE MEMORANDUM

**Date:** 08-Mar-1999 12:27pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Kim Tober TAL ( TOBER\_K )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Power Project

Ms. Adams -

Thank you for your note.

I currently am awaiting this information from the applicant. I will be happy to forward you a summary of the data as soon as I receive it.

Sincerely,  
Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 10-Mar-1999 01:23pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: FWD: Oleander vs Duke and TPY Breakdown

Re: Your message below

I responded to Ms. Adams, telling her that I would provide her the data as soon as I have it. I am awaiting the revised submittal from Golder which reflects the 1000 hours on oil rather than the 1500.

If you think it is appropriate, I could estimate those emissions and send it out before I receive Golder's submittal. Ken Kosky told me that he expected to get it out by the end of this week.

Let me know.

Mike

Hey Mike. Here is another E-Mail from Marlene Adams. I handled the stuff on Duke and will try to answer the efficiency question and get her a copy of the relevant pieces of the Duke Certification application, etc. Please send her whatever it is she asked for on Oleander when you have it. Thanks.

# INTEROFFICE MEMORANDUM

**Date:** 10-Mar-1999 04:18pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Power Project

Ms. Adams -

Since it may be a few more days before I receive the calculations from the applicant's registered engineer, I have taken the liberty of doing the calculations myself in order to provide you with an expeditious answer. In the event that there are any significant discrepancies between what I am providing to you and what is provided by the applicant's engineer, I will pass those along.

Here are the maximum potential pollutants in Tons Per Year reflecting an assumed 1000 hours per year of oil operation (out of the 3390 hours of operation requested). I am providing the oil data separate from the gas data for your use.

1000 hours of Oil operation: NOx 861, CO 253, SO2 258, VOC 38.5, PM 110  
2390 hours of Gas operation: NOx 374, CO 409, SO2 33, VOC 46.6, PM 54  
3390 hours of combined operation: NOx 1235, CO 662, SO2 291, VOC 85, PM 164

Sincerely,  
Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 11-Mar-1999 00:29am  
**From:** Aspbb  
Aspbb@aol.com@PMDF@EPIC66  
**Dept:**  
**Tel No:**

**To:** HALPIN\_M ( HALPIN\_M@A1@DER )  
**To:** LINERO\_A ( LINERO\_A@A1@DER )

**Subject:** Re: Oleander Power Project

In a message dated 99-03-10 17:38:54 EST, you write:

<< 3390 hours of combined operation: NOx 1235, CO 662, SO2 291, VOC 85, PM 164  
>>

Mike Halpin,

Thank you for the response. I had the opportunity to attend an information workshop Oleander put on this evening, and they had the breakdown as follows on a slide show they were showing the public.  
NOx 1235, CO 412, SO2 291, VOC 64, PM 96

It appears you were quite accurate with the NOx and SO2. However, the CO is quite a bit off (you were 250 higher) and the VOC (you were 21 higher), and the PM (you were 68 higher).

I would appreciate it greatly if you would recalculate to see if you were really that far off or if they were.

Thank-you for your time,  
M. Adams



# INTEROFFICE MEMORANDUM

**Date:** 11-Mar-1999 08:32am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Re: Oleander Power Project

Ms. Adams -

Thank you for your reply. I was hesitant to provide you with my estimates (pending their submittal to me) for these kinds of reasons (it can cause confusion). I will need to see their calculations to understand the differences. When I receive that, I will forward the data to you.

Sincerely,  
Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 18-Mar-1999 04:42pm  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Re: Oleander Power Project

Ms. Adams -

I had committed that I would get back with you on your request to specifically review the differences between what I had estimated on CO, VOC and PM emissions as compared to what you heard at an Oleander workshop you attended. I've left your note (below) for reference.

The applicant had originally requested limits which allowed them the ability to select either GE or Westinghouse as vendors and (as you might imagine) since vendor guarantees are rarely identical, they felt compelled to request the higher of the two guarantees for each individual pollutant to maintain that flexibility. Now, however the applicant has selected the vendor (GE) which provides them lower emission guarantees than originally requested for CO, VOC and PM (on oil) and have correspondingly reduced the requested emission rates; thus the differences. I am including my revised estimates of the facility-wide emissions which incorporate the applicant's newly requested emission rates and they are nearly identical to what you heard at the workshop you referenced. So, to directly respond to your request:

"I would appreciate it greatly if you would recalculate to see if you were really that far off or if they were.",  
I would have to say that both calculations are correct but are based upon different requested emission rates. They would be permitted for annual tonnages very close to what is shown here (and what you had referenced from the workshop you attended).

I hope that this helps.

1000 hours of Oil operation: NOx 861, CO 168, SO2 258, VOC 28.9, PM 42.5  
2390 hours of Gas operation: NOx 374, CO 245, SO2 33, VOC 35, PM 54  
3390 hours of combined operation: NOx 1235, CO 413, SO2 291, VOC 64, PM 96.5

Sincerely,  
Mike Halpin

---

YOUR MESSAGE:

In a message dated 99-03-10 17:38:54 EST, you write:

<< 3390 hours of combined operation: NOx 1235, CO 662, SO2 291, VOC 85, PM 164  
>>

Mike Halpin,

Thank you for the response. I had the opportunity to attend an information workshop Oleander put on this evening, and they had the breakdown as follows on a slide show they were showing the public.

NOx 1235, CO 412, SO2 291, VOC 64, PM 96

It appears you were quite accurate with the NOx and SO2. However, the CO is quite a bit off (you were 250 higher) and the VOC (you were 21 higher), and the PM (you were 68 higher).

I would appreciate it greatly if you would recalculate to see if you were really that far off or if they were.

Thank-you for your time,

M. Adams

# INTEROFFICE MEMORANDUM

**Date:** 05-Mar-1999 05:22pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** HALPIN\_M ( HALPIN\_M@A1@DER )  
**To:** LINERO\_A ( LINERO\_A@A1@DER )

**Subject:** Oleander Hours on Oil

Mike Halpin,

If Oleander Power Project receives an air permit based on 3390 hours of operation, 1,000 of which is currently proposed to be on oil, can this company come back, sometime in the future (after they are built), and submit an application to have the hours of operation on oil increased? And how long a period would they have to wait before they could do so?

Thank-you.

Marlene Adams

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 08-Mar-1999 08:05pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Aspbb

( Aspbb@aol.com@PMDf@EPIC66 )

**CC:** Mike Halpin TAL

( HALPIN\_M )

**Subject:** Re: Oleander Hours on Oil

Ms. Adams. This is in response to your question to Mike Halpin regarding future permit modifications to increase the hours of oil firing. Mike asked me to handle it for him.

Oleander can come back in the future to request an increase in hours of operation on oil. I know of no time requirements prior to making such a request. A request would trigger a similar review, including the same public notice process presently underway and the need to determine Best Available Control Technology.

Feel free to call me at 850/921-9523 or E-Mail me with your number and I'll call you back if you want to discuss the matter in greater detail. Mike continues to handle most other matters related to this application. Thank you.  
Al Linero

YOUR MESSAGE READS

Mike Halpin,

If Oleander Power Project receives an air permit based on 3390 hours of operation, 1,000 of which is currently proposed to be on oil, can this company come back, sometime in the future (after they are built), and submit an application to have the hours of operation on oil increased? And how long a period would they have to wait before they could do so?

Thank-you.

Marlene Adams

# INTEROFFICE MEMORANDUM

**Date:** 05-Mar-1999 04:35pm  
**From:** Douglas H. Sphar  
canoe2@digital.net@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** halpin\_m ( halpin\_m@A1@DER )  
**CC:** linerero\_a ( linerero\_a@A1@DER )

**Subject:** Regional Comparison of Power Plant Emission

Re: Oleander Power Project; DEP File No. 009-180-001-AC (PSD-FL-258)

Dear Mr. Halpin:

In reference to your presentation slide titled "Regional comparison of power plant emission (1997)"

Please revise the referenced chart to provide a more accurate comparison of emissions. The existing chart provides a very skewed viewpoint to unknowledgeable observers such as the new media. The Oleander worst case emissions scenario (column 5) is based on 3390 hours per year of operation whereas the other plants (in particular OUC-ST) are operating up to 8760 hours per year. That chart would be more meaningful if the emissions data for the other plants were normalized to 3390 hours of operation.

Please consider doing this in future presentations of this material.

Douglas H. Sphar  
(407) 636-0701 or canoe2@digital.net

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 06-Mar-1999 01:40pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Douglas H. Sphar ( canoe2@digital.net@PMDF@EPIC66 )  
**To:** Cleve Holladay TAL ( HOLLADAY\_C )  
**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** Re: Follow Up Question Set 1

Mr. Sphar. Thank you for your comments st the hearing as well as your letter and E-Mail inquiries. Mike will handle those related to emissions and I see that you E-Mailed him. Cleve will handle those related to modeling. His E-Mail address is holladay\_C@dep.state.fl.us

Cleve: Please handle following request from Mr. Sphar:

MR. SPHAR'S MESSAGE READS AS FOLLOWS:

Reference DEP File No. 0090180-001-AC (PSD-FL-238)  
Oleander Power Project.

Messrs:

At the March 3 hearing in Cocoa I asked some questions about DEP's review and concurrence in the Ambient Air Quality Analysis that was conducted by the applicant in accordance with the provisions of the Clean Air Act of the United States. I request some follow-up information.

In response to my questions, the DEP meteorologist stated he confirmed that the ISCST3 dispersion model used by the applicant is performing correctly based upon his review of model output using DEP provided test case input. The DEP meteorologist further stated that he has reviewed and concurs in the applicant's estimates of the pre-construction ambient atmosphere that exists at the site of the proposed facility. This estimated pre-construction ambient atmosphere forms a critical part of the input data set to the applicant's analysis. My questions are:

1. What are the bases for the applicant's estimates of the ambient concentrations of criteria pollutants that exist at the site today? Based on DEP's slides, there are no monitoring sites in Brevard County for SO<sub>2</sub>, CO, and NO<sub>x</sub>; but these are monitored in Winter Park.
2. Did the applicant extrapolate the Winter Park data to the proposed site west of Cocoa?
3. Winter Park is 35 miles inland and the dynamics of the atmosphere are predominately influenced by the land mass. The atmosphere at the

proposed site (12 mile from the ocean and 4 miles from the lagoon) is predominately influenced by the ocean/lagoons. How do estimates based on inland monitoring sites influence the fidelity of the applicants predictions?

4. Where is the location of the PM10 monitoring site in Brevard?

5. The official correspondences concerning the application make no reference to the model and input data reviews that the meteorologist said he conducted. Are these done on an informal or ad hoc basis? Does the DEP prepare a report or memo for file documenting the findings of such reviews and audits?

Yours truly,

Douglas H. Sphar

(407) 636-0701 or canoe2@digital.net



# INTEROFFICE MEMORANDUM

**Date:** 08-Mar-1999 10:51am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Douglas H. Sphar ( canoe2@digital.net@PMDf@EPIC66 )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Re: Regional Comparison of Power Plant Emission

Mr. Sphar -

Thank you for your comments relative to the Oleander presentation on 3/3/99. I will give consideration to your suggestion in the event that this data is used in future comparisons.

As you can imagine, it is sometimes difficult to convey technical information in a manner that is user-friendly for non-technical people. My preference is usually to stick with available data rather than massaging it for specific needs, as data manipulation often causes unfounded suspicions to occur.

Concerning the particulars of your suggestion, one would have to factor in at least two major variables in order to normalize the data for plant operation; one factor which you have alluded to is operating hours and the other factor is the percent output during that operating time. For example, the Oleander emissions were based upon 3390 hours per year of operation at 100% output. Unfortunately, we do not have easy access to all of the utility data required to do this calculation, although some utilities do report pieces of it to us for other purposes. We do have some of the 1997 data which I am passing along to you:

OUC Indian River #1 operating hours : 2694  
OUC Indian River #2 operating hours : 2421  
OUC Indian River #3 operating hours : 5266  
OUC Indian River CT-A operating hours : 266  
OUC Indian River CT-B operating hours : 614  
OUC Indian River CT-C operating hours : 222  
OUC Indian River CT-D operating hours : 513  
FPL Cape Canaveral #1 operating hours: 6689  
FPL Cape Canaveral #1 percent output : 20% (winter), 26% (spring),  
33% (summer) and 21% (fall)  
FPL Cape Canaveral #2 operating hours: 6570  
FPL Cape Canaveral #2 percent output : 20% (winter), 29% (spring),  
33% (summer) and 18% (fall)  
OUC Stanton #1 operating hours (8007)  
OUC Stanton #2 operating hours (8138)

Although I have not done the calculations, based upon the above data I believe that it is highly likely that normalization for 3390 hours and 100% output would result in increased emissions for the OUC Indian River and FPL Cape Canaveral sites and decreased emissions for the OUC Stanton plant.

An alternate method of comparison would be to take the maximum permitted emissions for those 3 sites (which is based upon 8760 hours and 100% output) and multiply those numbers by 39.7% to replicate the Oleander permitted maximum emissions shown on the slide (3390 hours and 100% output). I have provided for you some of the data available for that calculation should you wish to do it. Unfortunately, nearly all of those units have no limits on VOC and CO making this even a difficult comparison. (data in tons per year - TPY)

FPL CC1	SO2 44863	NOx Unlimited	PM10 1631
FPL CC2	SO2 48180	NOx Unlimited	PM10 1752
OUC ST1	SO2 20652	NOx 10869	PM10 543.5
OUC ST2	SO2 4693	NOx 3191	PM10 375.4
OUC IR1	SO2 9997	NOx Unlimited	PM10 364
OUC IR2	SO2 9997	NOx Unlimited	PM10 364
OUC IR3	SO2 36721	NOx Unlimited	PM10 364
OUC IR4	SO2 625	NOx 518	PM10 87.6
OUC IR5	SO2 28.5	NOx 592	PM10 237
OUC IR6	SO2 28.5	NOx 592	PM10 237
OUC IR7	SO2 625	NOx 518	PM10 87.6

I believe that this calculation weighs even more to Oleander's favor.

I am hopeful that you can appreciate the benefits of sticking to the raw data and avoiding the complicated discussions which can result from attempting to adjust it.

Thanks again.

Sincerely,

Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 08-Mar-1999 01:05pm  
**From:** Douglas H. Sphar  
canoe2@digital.net@PMDF@EPIC66  
**Dept:**  
**Tel No:**

**To:** Mike Halpin TAL 850/488-0114 ( HALPIN\_M@A1@DER )

**Subject:** Re: Regional Comparison of Power Plant Emission

Thanks for the prompt response. I also am sensitive about the implications of "massaging data". We have been very diligent in not presenting data that are not from an recognized sourcen or making unreasonable inferences from such data. I also appreciate that data are often not captured in form and content that are suitable for direct comparison.

I will study your response and get back to you if I need any further clarifications.

Thanks, Doug Sphar

Mike Halpin TAL 850/488-0114 wrote:

> Mr. Sphar -

>

> Thank you for your comments relative to the Oleander presentation on 3/3/99.

> I will give consideration to your suggestion in the event that this data is  
> used in future comparisons.

> As you can imagine, it is sometimes difficult to convey technical  
information

> in a manner that is user-friendly for non-technical people. My preference is  
> usually to stick with available data rather than massaging it for specific  
> needs, as data manipulation often causes unfounded suspicions to occur.

> Concerning the particulars of your suggestion, one would have to factor in  
at

> least two major variables in order to normalize the data for plant operation;  
> one factor which you have alluded to is operating hours and the other factor  
is

> the percent output during that operating time. For example, the Oleander  
> emissions were based upon 3390 hours per year of operation at 100% output.  
> Unfortunately, we do not have easy access to all of the utility data required  
> to do this calculation, although some utilities do report pieces of it to us  
> for other purposes. We do have some of the 1997 data which I am passing along  
> to you:

>

> OUC Indian River #1 operating hours : 2694  
> OUC Indian River #2 operating hours : 2421  
> OUC Indian River #3 operating hours : 5266  
> OUC Indian River CT-A operating hours : 266

- > OUC Indian River CT-B operating hours : 614
- > OUC Indian River CT-C operating hours : 222
- > OUC Indian River CT-D operating hours : 513
- > FPL Cape Canaveral #1 operating hours: 6689
- > FPL Cape Canaveral #1 percent output : 20% (winter), 26% (spring),
- > 33% (summer) and 21% (fall)
- > FPL Cape Canaveral #2 operating hours: 6570
- > FPL Cape Canaveral #2 percent output : 20% (winter), 29% (spring),
- > 33% (summer) and 18% (fall)
- > OUC Stanton #1 operating hours (8007)
- > OUC Stanton #2 operating hours (8138)

> Although I have not done the calculations, based upon the above data I  
 > believe that it is highly likely that normalization for 3390 hours and 100%  
 > output would result in increased emissions for the OUC Indian River and FPL  
 > Cape Canaveral sites and decreased emissions for the OUC Stanton plant.

> An alternate method of comparison would be to take the maximum permitted  
 > emissions for those 3 sites (which is based upon 8760 hours and 100% output)  
 > and multiply those numbers by 39.7% to replicate the Oleander permitted  
 maximum

> emissions shown on the slide (3390 hours and 100% output). I have provided  
 for

> you some of the data available for that calculation should you wish to do  
 it.

> Unfortunately, nearly all of those units have no limits on VOC and CO making  
 > this even a difficult comparison. (data in tons per year - TPY)

> FPL CC1	SO2 44863	NOx Unlimited	PM10 1631
> FPL CC2	SO2 48180	NOx Unlimited	PM10 1752
> OUC ST1	SO2 20652	NOx 10869	PM10 543.5
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> OUC IR3	SO2 36721	NOx Unlimited	PM10 364
> OUC IR4	SO2 625	NOx 518	PM10 87.6
> OUC IR5	SO2 28.5	NOx 592	PM10 237
> OUC IR6	SO2 28.5	NOx 592	PM10 237
> OUC IR7	SO2 625	NOx 518	PM10 87.6

> I believe that this calculation weighs even more to Oleander's favor.

> I am hopeful that you can appreciate the benefits of sticking to the raw  
 > data and avoiding the complicated discussions which can result from  
 attempting

> to adjust it.

> Thanks again.

> Sincerely,

> Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 05-Mar-1999 11:53am  
**From:** Douglas H. Sphar  
canoe2@digital.net@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** halpin\_m ( halpin\_m@A1@DER )  
**To:** linero\_a ( linero\_a@A1@DER )

**Subject:** Follow Up Question Set 2

Reference DEP File No. 0090180-001-AC (PSD-FL-238)  
Oleander Power Project.

Messrs:

I request contour plots of stack exhaust gas temperature and velocity as a function of height above ground (or distance from stack exit plane). One turbine at one ambient free-stream temperature condition will be fine. I would prefer an ambient wind velocity of zero. Basically, I wish to see a temperature and velocity characterization of the turbine exhaust plume.

If these data are not emailable (I can accommodate most graphic formats) then please send by post to me at:

819 Heron road  
Cocoa, FL 32926-2320

Yours truly,  
Douglas H. Sphar  
(407) 636-0701 or canoe2@digital.net

# INTEROFFICE MEMORANDUM

**Date:** 08-Mar-1999 08:17am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**To:** Cleve Holladay TAL ( HOLLADAY\_C )

**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** FWD: Follow Up Question Set 2

Cleve -

These questions (Set No. 2) appear to be your area as well.

Mike

# INTEROFFICE MEMORANDUM

**Date:** 05-Mar-1999 11:53am  
**From:** Douglas H. Sphar  
canoe2@digital.net@PMDF@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** Follow Up Question Set 2

Reference DEP File No. 0090180-001-AC (PSD-FL-238)  
Oleander Power Project.

Messrs:

I request contour plots of stack exhaust gas temperature and velocity as a function of height above ground (or distance from stack exit plane). One turbine at one ambient free-stream temperature condition will be fine. I would prefer an ambient wind velocity of zero. Basically, I wish to see a temperature and velocity characterization of the turbine exhaust plume.

If these data are not emailable (I can accommodate most graphic formats) then please send by post to me at:

819 Heron road  
Cocoa, FL 32926-2320

Yours truly,  
Douglas H. Sphar  
(407) 636-0701 or canoe2@digital.net

# INTEROFFICE MEMORANDUM

**Date:** 05-Mar-1999 11:50am  
**From:** Douglas H. Sphar  
canoe2@digital.net  
**Dept:**  
**Tel No:**

**Subject:** Follow Up Question Set 2

Reference DEP File No. 0090180-001-AC (PSD-FL-238)  
Oleander Power Project.

Messrs:

I request contour plots of stack exhaust gas temperature and velocity as a function of height above ground (or distance from stack exit plane). One turbine at one ambient free-stream temperature condition will be fine. I would prefer an ambient wind velocity of zero. Basically, I wish to see a temperature and velocity characterization of the turbine exhaust plume.

If these data are not emailable (I can accommodate most graphic formats) then please send by post to me at:  
819 Heron road  
Cocoa, FL 32926-2320

Yours truly,  
Douglas H. Sphar  
(407) 636-0701 or canoe2@digital.net



# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 12-May-1999 03:40pm

**From:** Cleve Holladay TAL  
HOLLADAY\_C@A1

**Dept:**

**Tel No:**

**To:** bmccann ( bmccann@golder.com )  
**To:** canoe2 ( canoe2@digital.net )  
**To:** halpin\_m ( halpin\_m@dep.state.fl.us )

**Subject:** Re: Follow Up Question Set 2

Mr. Sphar:

I apologize for not getting back with you sooner. However, the information you have requested is not available to me. This type of information is not required to be submitted by the applicant nor is it required by us in our review. If you still have an interest in obtaining this information you might wish to contact the applicant's consultant. I am providing their information below:

Golder Associates, Inc.  
6241 NW 23rd Street  
Gainesville, FL 32653  
352-336-5600  
Attn: Robert McCann

# INTEROFFICE MEMORANDUM

**Date:** 05-Mar-1999 11:06am  
**From:** Douglas H. Sphar  
canoe2@digital.net@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** halpin\_m ( halpin\_m@A1@DER )  
**To:** linero\_a ( linero\_a@A1@DER )

**Subject:** Follow Up Question Set 1

Reference DEP File No. 0090180-001-AC (PSD-FL-238)  
Oleander Power Project.

Messrs:

At the March 3 hearing in Cocoa I asked some questions about DEP's review and concurrence in the Ambient Air Quality Analysis that was conducted by the applicant in accordance with the provisions of the Clean Air Act of the United States. I request some follow-up information.

In response to my questions, the DEP meteorologist stated he confirmed that the ISCST3 dispersion model used by the applicant is performing correctly based upon his review of model output using DEP provided test case input. The DEP meteorologist further stated that he has reviewed and concurs in the applicant's estimates of the pre-construction ambient atmosphere that exists at the site of the proposed facility. This estimated pre-construction ambient atmosphere forms a critical part of the input data set to the applicant's analysis. My questions are:

1. What are the bases for the applicant's estimates of the ambient concentrations of criteria pollutants that exist at the site today? Based on DEP's slides, there are no monitoring sites in Brevard County for SO<sub>2</sub>, CO, and NO<sub>x</sub>; but these are monitored in Winter Park.
2. Did the applicant extrapolate the Winter Park data to the proposed site west of Cocoa?
3. Winter Park is 35 miles inland and the dynamics of the atmosphere are predominately influenced by the land mass. The atmosphere at the proposed site (12 mile from the ocean and 4 miles from the lagoon) is predominately influenced by the ocean/lagoons. How do estimates based on inland monitoring sites influence the fidelity of the applicants predictions?
4. Where is the location of the PM<sub>10</sub> monitoring site in Brevard?
5. The official correspondences concerning the application make no reference to the model and input data reviews that the meteorologist said he conducted. Are these done on an informal or ad hoc basis? Does the DEP prepare a report or memo for file documenting the findings of

such reviews and audits?

Yours truly,

Douglas H. Sphar

(407) 636-0701 or canoe2@digital.net

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 12-May-1999 04:47pm  
**From:** Cleve Holladay TAL  
HOLLADAY\_C  
**Dept:** Air Resources Management  
**Tel No:** 850/488-1344

**To:** Mike Halpin TAL ( HALPIN\_M )  
**To:** canoe2@digital.net@in  
**To:** bmccann@golder.com@in

**Subject:** Re: FWD: Follow Up Question Set 1

Reference DEP File No. 0090180-001-AC (PSD-FL-238)  
Oleander Power Project.

Messrs:

At the March 3 hearing in Cocoa I asked some questions about DEP's review and concurrence in the Ambient Air Quality Analysis that was conducted by the applicant in accordance with the provisions of the Clean Air Act of the United States. I request some follow-up information.

In response to my questions, the DEP meteorologist stated he confirmed that the ISCST3 dispersion model used by the applicant is performing correctly based upon his review of model output using DEP provided test case input. The DEP meteorologist further stated that he has reviewed and concurs in the applicant's estimates of the pre-construction ambient atmosphere that exists at the site of the proposed facility. This estimated pre-construction ambient atmosphere forms a critical part of the input data set to the applicant's analysis. My questions are:

1. What are the bases for the applicant's estimates of the ambient concentrations of criteria pollutants that exist at the site today? Based on DEP's slides, there are no monitoring sites in Brevard County for SO<sub>2</sub>, CO, and NO<sub>x</sub>; but these are monitored in Winter Park.

DEP Response: As stated in the technical evaluation and preliminary determination, which was forwarded to you in late March, predicted SO<sub>2</sub>, PM<sub>10</sub>, CO and NO<sub>x</sub> impacts from the project were below the appropriate de minimis ambient impact levels (Table 62-212.400-3, Florida Administrative Code, F.A.C.). Therefore, preconstruction ambient air quality monitoring to characterize the ambient air quality in the vicinity of the site was not required. As a result of this the answers to questions to 2, 3 and 4 are not relevant.

2. Did the applicant extrapolate the Winter Park data to the proposed

site west of Cocoa?

3. Winter Park is 35 miles inland and the dynamics of the atmosphere are predominately influenced by the land mass. The atmosphere at the proposed site (12 mile from the ocean and 4 miles from the lagoon) is predominately influenced by the ocean/lagoons. How do estimates based on inland monitoring sites influence the fidelity of the applicants predictions?

4. Where is the location of the PM10 monitoring site in Brevard?

5. The official correspondences concerning the application make no reference to the model and input data reviews that the meteorologist said he conducted. Are these done on an informal or ad hoc basis? Does the DEP prepare a report or memo for file documenting the findings of such reviews and audits?

DEP response:

The review was summarized in the department's above-mentioned technical evaluation and preliminary determination for the project.

Yours truly,

Douglas H. Sphar

(407) 636-0701 or canoe2@digital.net

TO: Mike Halpin  
FROM: Dick Arbes  
DATE: March 10, 1999  
SUBJECT: Ozone Monitoring Network

The following information is forwarded in regard to your discussion with Tammy Eagan of my staff.

The ozone monitoring network in Florida is designed based on the federal requirements for ambient monitoring networks. The network size is based largely on the number of urban areas which have a population of greater than 200,000 people. Cocoa Beach-Palm Bay is one such area. It is required to have two ozone monitors. One of these monitors is required to be sited to monitor the maximum concentration that is expected in that area. Due to the meteorology experienced and peninsular design of Florida, the sea breeze impact creates conditions for the highest expected ozone levels; the areas where ozone has been found to be worst is on or near the coast.

To form, ozone generally requires volatile organic compounds and nitrogen oxides to mix in the presence of sunlight. Even so, ozone is a very reactive molecule. When ozone mixes with nitrogen oxides, as would be found near a major roadway, it is scavenged. The nitrogen oxides destroy the ozone; thus ozone would not be expected to have the highest concentration near a major highway.

If you have any additional questions, please call either Tammy or myself.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 11-Mar-1999 11:25am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/488-0114

**To:** Dick Arbes TAL ( ARBES\_D )

**CC:** Tammy Eagan TAL ( EAGAN\_T )

**Subject:** Re: Ozone Monitoring

Dick -

I called your office (GIC) but no response. Thanks for the attached memo. It is informative and can likely correct misconceptions, although it doesn't directly answer the question that was put to us at the public meeting last week.

We were asked:

"Will the DEP agree to place ozone monitoring in the area (we live) where the subject power plant is to be built."

We responded that we would need time to respond, and when pressed to be specific, Al committed to "about 7 days".(which is today)

I would like to respond as either a "yes" or "no" and if the answer is "no" to explain why. At the meeting, we explained that the monitoring is not a requirement for permitting of the plant, although some residents seemed to feel strongly that they "were out of compliance now" and insisted that if we would simply monitor "their area" we would see the problem.

Based upon your note, I believe that we can explain that we would not expect to see an ozone problem (in their area) that is worse than the area we currently measure. However, I would sure like to provide additional rationale for not complying with their request if some existed. Are there any other appropriate reasons that can be stated? Also, I'd appreciate your assistance with my response (to them) which I've taken a first cut at below:

[To: Resident]

During the March 3rd meeting, we were requested to consider placing an ozone monitor in close proximity to the area where the Oleander Power Plant is planned to be built. We indicated at that meeting that there was no requirement to do such monitoring and that we consider the area to be in compliance based upon current measurements. However (as was committed to during the meeting) we have reviewed the matter with the appropriate Department representatives and conclude that there is no basis to do such monitoring. It should be understood that Brevard County is one of only ?? counties in the state to have two such monitors and that no county has three. Additionally, these monitors are placed in very specific areas in order to ensure that the maximum area reading is being attained (see below memo from Dick Arbes).

I hope that this helps to explain the issue better.  
Sincerely,

Mike Halpin

---

(YOUR MEMO HERE):

The following information is forwarded in regard to your discussion with Tammy Eagan of my staff.

The ozone monitoring network in Florida is designed based on the federal requirements for ambient monitoring networks. The network size is based largely on the number of urban areas which have a population of greater than 200,000 people. Cocoa Beach-Palm Bay is one such area. It is required to have two ozone monitors. One of these monitors is required to be sited to monitor the maximum concentration that is expected in that area. Due to the meteorology experienced and peninsular design of Florida, the sea breeze impact creates conditions for the highest expected ozone levels; the areas where ozone has been found to be worst is on or near the coast.

To form, ozone generally requires volatile organic compounds and nitrogen oxides to mix in the presence of sunlight. Even so, ozone is a very reactive molecule. When ozone mixes with nitrogen oxides, as would be found near a major roadway, it is scavenged. The nitrogen oxides destroy the ozone; thus ozone would not be expected to have the highest concentration near a major highway.

If you have any additional questions, please call either Tammy or myself.

---

Dick - Can you help with this?

Thanks  
Mike



# INTEROFFICE MEMORANDUM

**Date:** 11-Mar-1999 02:26pm  
**From:** Tammy Eagan TAL  
EAGAN\_T  
**Dept:** Air Resources Management  
**Tel No:** 850/488-6140

**To:** Mike Halpin TAL ( HALPIN\_M )  
**CC:** Dick Arbes TAL ( ARBES\_D )

**Subject:** Re: Ozone Monitoring

Mike,

Let me give this another try...

We were asked:

"Will the DEP agree to place ozone monitoring in the area (we live) where the subject power plant is to be built."

We responded that we would need time to respond, and when pressed to be specific, Al committed to "about 7 days".(which is today)

I would like to respond as either a "yes" or "no" and if the answer is "no" to explain why.

The answer is no.

At the meeting, we explained that the monitoring is not a requirement for permitting of the plant, although some residents seemed to feel strongly that they "were out of compliance now" and insisted that if we would simply monitor "their area" we would see the problem.

Based upon your note, I believe that we can explain that we would not expect to see an ozone problem (in their area) that is worse than the area we currently measure. However, I would sure like to provide additional rationale for not complying with their request if some existed. Are there any other appropriate reasons that can be stated?

The basic reason is that resources are limited. Last year was exceptional. Prior to that only 2 exceedances have been recorded between 1993 to 1997. Additional monitoring has not been shown as advantageous.

Also, I'd appreciate your assistance with my response (to them) which I've taken a first cut at below:

[To: Resident]

During the March 3rd meeting, we were requested to consider placing an ozone monitor in close proximity to the area where the Oleander Power Plant is planned to be built. We indicated at that meeting that there was no requirement to do such monitoring and that we consider the area to be in compliance based upon current measurements. However

(as was committed to during the meeting) we have reviewed the matter with the appropriate Department representatives and conclude that there is no basis to do such monitoring. It should be understood that Brevard County is one of only 14 counties in the state to have two such monitors. Additionally, these monitors are placed in very specific areas in order to ensure that the maximum area reading is being attained (see below memo from Dick Arbes).

I hope that this helps to explain the issue better. Sincerely, Mike Halpin

---

(YOUR MEMO HERE):

The following information is forwarded in regard to your discussion with Tammy Eagan of my staff.

The ozone monitoring network in Florida is designed based on the federal requirements for ambient monitoring networks. The network size is based largely on the number of urban areas which have a population of greater than 200,000 people. Cocoa Beach-Palm Bay is one such area. It is required to have two ozone monitors. One of these monitors is required to be sited to monitor the maximum concentration that is expected in that area. Due to the meteorology experienced and peninsular design of Florida, the sea breeze impact creates conditions for the highest expected ozone levels; the areas where ozone has been found to be worst is on or near the coast.

To form, ozone generally requires volatile organic compounds and nitrogen oxides to mix in the presence of sunlight. Even so, ozone is a very reactive molecule. When ozone mixes with nitrogen oxides, as would be found near a major roadway, it is scavenged. The nitrogen oxides destroy the ozone; thus ozone would not be expected to have the highest concentration near a major highway.

If you have any additional questions, please call either Tammy or myself.

## INTEROFFICE MEMORANDUM

**Date:** 12-Mar-1999 08:47am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Tammy Eagan TAL ( EAGAN\_T )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Re: Ozone Monitoring

Tammy -

Thanks! I'll deal with it from here, although I would like to have you with Cleve and I at the next public meeting. Is any time in late April especially bad for you?

Mike

# INTEROFFICE MEMORANDUM

**Date:** 16-Mar-1999 10:49am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )  
**CC:** Joseph Kahn TAL ( KAHN\_J )  
**CC:** Kim Tober TAL ( TOBER\_K )

**Subject:** Brevard County additional ozone monitoring

Al, et.al -

FYI - Here is the response that I've prepared to deal with the resident's request for ozone monitoring at the March 3rd Public Meeting. I would appreciate your thoughts.

Thanks

Mike

[To: Resident]

During the March 3rd meeting, the Department was requested to consider placing an ozone monitor in close proximity to the area where the Oleander Power Plant is planned to be built. We indicated at that meeting that there was no requirement to do such monitoring and that we consider the area to be in compliance based upon current measurements. However (as was committed to during the meeting) we have reviewed the matter with the appropriate Department representatives and have concluded that there is no technical basis to do such monitoring. It should be understood that Brevard County is one of only 14 counties in the state to have two such monitors. Additionally, these monitors are placed in very specific areas in order to ensure that the maximum area reading is being attained (see below memo from Dick Arbes, Administrator of Ambient Air Monitoring Program)).

I hope that this helps to explain the issue better.

Sincerely,

Michael P. Halpin

---

The ozone monitoring network in Florida is designed based on the federal requirements for ambient monitoring networks. The network size is based largely on the number of urban areas which have a population of greater than 200,000 people. Cocoa Beach-Palm Bay is one such area. It is required to have two ozone monitors. One of these monitors is required to be sited to monitor the maximum concentration that is expected in that area. Due to the meteorology

experienced and peninsular design of Florida, the sea breeze impact creates conditions for the highest expected ozone levels; the areas where ozone has been found to be worst is on or near the coast.

To form, ozone generally requires volatile organic compounds and nitrogen oxides to mix in the presence of sunlight. Even so, ozone is a very reactive molecule. When ozone mixes with nitrogen oxides, as would be found near a major roadway, it is scavenged. The nitrogen oxides destroy the ozone; thus ozone would not be expected to have the highest concentration near a major highway.

If you have any additional questions, please call either Tammy or myself.

## INTEROFFICE MEMORANDUM

**Date:** 16-Mar-1999 01:35pm  
**From:** Joseph Kahn TAL  
KAHN\_J  
**Dept:** Air Resources Management  
**Tel No:** 850/921-9519

**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** Re: Brevard County additional ozone monitoring

Mike,

I recommend just incorporating Dick's explanation of the monitor siting directly into your response rather than have it as an attachment.

-Joe



Florida  
Department of  
Environmental Protection

Jeb Bush  
Governor

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

David Struhs  
Secretary

F A X T R A N S M I T T A L S H E E T

DATE: 7/7/99  
TO: Doug Beards  
PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_  
FROM: Mike Hawn PHONE: 921-9530  
Division of Air Resources Management FAX: 850.922.6979  
RE: \_\_\_\_\_  
CC: \_\_\_\_\_

Total number of pages including cover sheet: 3

Message

Doug  
Here's the letter you requested.  
I've attached my original fax to you  
dated 4/16 also.  
Mike Hawn

If there are any problems with this fax transmittal, please call the above phone number.



Florida  
Department of  
Environmental Protection

Jeb Bush  
Governor

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

David Struhs  
Secretary

F A X T R A N S M I T T A L S H E E T

DATE: 4-16-99

TO: Doug Benson

PHONE: \_\_\_\_\_

FAX: 921-3000

FROM: MIKE ALLOW

PHONE: 921-9530

Division of Air Resources Management

FAX: **850.922.6979**

RE: \_\_\_\_\_

CC: \_\_\_\_\_

Total number of pages including cover sheet: 2

**Message**

*Doug-*

*As I mentioned. Here's another letter from  
Mr Rowe, re: ENVIRONMENTAL JUSTICE.*

*I would ~~really~~ appreciate it if you would  
respond to the letter. The last paragraph is one  
I'm not certain how to answer.*

*Mike*

If there are any problems with this fax transmittal, please call the above phone number.



RECEIVED

418 Pennsylvania Avenue  
Rockledge, Florida 32955  
12 April 1999

APR 16 1999

BUREAU OF  
AIR REGULATION

C. H. Fancy, P.E. Chief  
Bureau of Air Regulations  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Dep File C090180-001-AC (PSD-FL-258)  
Five 190-MW DUAL-FUEL "F" Class  
Combustion Turbines

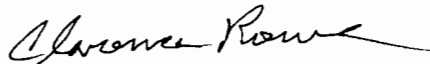
Dear Mr. Fancy:

The following comments are provided in response to your Notice of Intent to issue Air Construction Permit for the Orleander Power project proposed at 527 Townsend Road, Cocoa, Brevard County, Florida. During the public hearing at the Agricultural Center in Cocoa several presenters requested the Department conduct a survey of the specific areas to be impacted by this proposed plant to determine air quality and present pollution lead. Secondly, this proposed plant, while projected to be within emission limits, adds to the already emissions load within the fallout zone.

Both the St. Johns River and the Indian River Lagoon are within the fallout zone. Both bodies of water are already experiencing high levels of pollutants. This plant will contribute to higher levels of pollution.

We believe your Department has a responsibility under Executive Order 12898, February 11, 1994, to go beyond mere technical compliance review in isolation without regard to the overall and future environmental impact. As the regulatory agency for the State, who better can discharge the responsibility for environmental justice. We previously raised this issue and again request a full investigation and hearing on the current air quality and long-term projection prior to permitting any additional polluters.

Sincerely,



Clarence Rowe

CR:r

Jul 7 '99 11:47

D.O.7 Check condition of remote Fax. 69213000



Florida Department of Environmental Protection

Jeb Bush Governor

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

David Struhs Secretary

FAX TRANSMITTAL SHEET

DATE: 7/7/99

TO: Doug Pearson

PHONE: FAX: 921-3000

FROM: MIKE HALPIN PHONE: 921-9530

Division of Air Resources Management FAX: 850.922.6979

RE:

CC:

Total number of pages including cover sheet: 3

Message

Doug

Here's the letter you requested. I've attached my original fax to you (dated 4/16) as well.

Mike Halpin



Florida  
Department of  
Environmental Protection

Jeb Bush  
Governor

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

David Struhs  
Secretary

F A X T R A N S M I T T A L S H E E T

DATE: 7/7/99  
TO: Doug Pearson  
PHONE: \_\_\_\_\_

FAX: 921-3000

FROM: MIKE HALPIN

PHONE: 921-9530

Division of Air Resources Management

FAX: 850.922.6979

RE: \_\_\_\_\_

CC: \_\_\_\_\_

Total number of pages including cover sheet: ~~2~~ 3

Message

Doug

Here's the letter you requested.  
I've attached my original fax to you  
(dated 4/16) as well.

Mike Halpin

If there are any problems with this fax transmittal, please call the above phone number.



Florida  
Department of  
Environmental Protection

Jeb Bush  
Governor

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

David Struhs  
Secretary

F A X T R A N S M I T T A L S H E E T

DATE: 4-16-99

TO: Doug Benson

PHONE: \_\_\_\_\_

FAX: 921-3000

FROM: MIKE ALLOW

PHONE: 921-9530

Division of Air Resources Management

FAX: 850.922.6979

RE: \_\_\_\_\_

CC: \_\_\_\_\_

Total number of pages including cover sheet: 2

**Message**

Doug-

As I mentioned. Here's another letter for  
MR ROWE, RE: ENVIRONMENTAL JUSTICE.

I would ~~really~~ appreciate it if you would  
respond to the letter. The last paragraph is one  
I'm not certain how to answer.

Mike

If there are any problems with this fax transmittal, please call the above phone number.

**RECEIVED**

418 Pennsylvania Avenue  
Rockledge, Florida 32955  
12 April 1999

APR 16 1999

BUREAU OF  
AIR REGULATION

C. H. Fancy, P.E. Chief  
Bureau of Air Regulations  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Dep File C090180-001-AC (PSD-FL-258)  
Five 190-MW DUAL-FUEL "F" Class  
Combustion Turbines

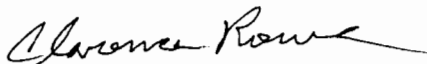
Dear Mr. Fancy:

The following comments are provided in response to your Notice of Intent to issue Air Construction Permit for the Orleander Power project proposed at 527 Townsend Road, Cocoa, Brevard County, Florida. During the public hearing at the Agricultural Center in Cocoa several presenters requested the Department conduct a survey of the specific areas to be impacted by this proposed plant to determine air quality and present pollution load. Secondly, this proposed plant, while projected to be within emission limits, adds to the already emissions load within the fallout zone.

Both the St. Johns River and the Indian River Lagoon are within the fallout zone. Both bodies of water are already experiencing high levels of pollutants. This plant will contribute to higher levels of pollution.

We believe your Department has a responsibility under Executive Order 12898, February 11, 1994, to go beyond mere technical compliance review in isolation without regard to the overall and future environmental impact. As the regulatory agency for the State, who better can discharge the responsibility for environmental justice. We previously raised this issue and again request a full investigation and hearing on the current air quality and long-term projection prior to permitting any additional polluters.

Sincerely,



Clarence Rowe

CR:r

April 20, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Clarence Rowe  
418 Pennsylvania Avenue  
Rockledge, Florida 32955

Re: Oleander Power Project

Dear Mr. Rowe:

Thank you for your input on the Oleander project. I have been asked by Mr. Fancy to respond to your letter addressed to him concerning comments on the Notice of Intent to Issue Air Construction Permit for the Oleander Power Project in Brevard County. Your comments appear to fall within three categories and I will attempt to address them herein.

1. Your first comment deals with the point that several presenters at the March 3<sup>rd</sup> public meeting had requested pre-construction ozone monitoring to be completed before approval of the plant. The Department was asked to consider this issue in the approval process. In response to the request, the Department provided its analysis in the "Technical Evaluation and Preliminary Determination", a copy of which was previously forwarded to you. In summary, the existing rules authorize an exemption to this requirement, if the project emissions fall below "de Minimus" values, which this project does. Therefore, the Department does not have the authority to require the monitoring, but has asked the applicant to consider, as a good corporate citizen, the installation and operation of a station in the neighborhood to provide the citizens with requested information about air quality in the area.
2. Your second comment notes that regional water bodies such as the St. Johns River and the Indian River Lagoon will be affected by the pollution from the proposed project. Our authority to issue Air Construction permits is based upon the project's impact on the ambient air quality standards. This project meets those criteria for issuance of a permit.
3. Your third comment deals with the concept of environmental justice and refers to Executive Order 12898. As noted, you had raised this issue in a prior letter, to which Mr. Linero had responded. Our Office of General Counsel (OGC) is of the opinion that review of this project is limited to the applicable rules and statutes and these do not address the issue of so-called "environmental fairness". I believe that this is the extent to which I can review this issue for you. Should you need to speak with someone else, the appropriate person would be Douglas Beason in the Office of General Counsel, at 850/921-9624.

Thank you for your comments and your interest in this project.

Sincerely,

Michael P. Halpin  
New Source Review Section

/mph  
cc: Douglas Beason  
Clair Fancy

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 08-Feb-1999 10:23am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Doug Beason TAL ( BEASON\_D )

**Subject:** FWD: Re: Phone Correspondence re: Oleander

Doug -

I understand (from Al Linero's memo which is attached) that he forwarded to you my recent documentation of the subject phone correspondence. I inherited this project from Susan DeVore and she indicated to me that you were agreeable to attending the public meeting in Cocoa on March 3rd. I would appreciate the opportunity to briefly discuss this project with you as there are some issues that I am fairly sure will be raised at the meeting which are legal in nature and would be appropriate for you to comment on. One item that I need your input on deals with "environmental fairness"; this issue was specifically raised by a Mr. Clarence Rowe in a February 1st letter to Clair Fancy and I am not knowledgeable enough to address it personally.

Please call or come by (Title V / NSRS section) at your convenience.

Thanks

Mike Halpin  
921-9530

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 10-Feb-1999 05:01pm

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/488-0114

**To:** Howard Rhodes TAL ( RHODES\_H )

**Subject:** Question for you

Howard -

Our paths don't cross much these days, but I hope you're doing well (with the "changing of the guard" and whatnot). I'm doing fine and staying quite busy. I do have a question related to an issue with Oleander and I figured that you may be the best source for the answer (or at least to point me to the person with the answer).

We received a letter from a local resident about this project, requesting that we deny a permit and he (twice) in the letter referred to the concept of "environmental fairness" as a basis. He stated that he perceived the project as a "crass commercial venture foisted upon a low income community because they are without political muscle to prevent the act". Although I have a sense for what the issue is all about (I recall the issue arising in conjunction with Orimulsion) I could find no one back then that could explain it to me.

Our public meeting is scheduled in 3 weeks (on March 3rd) and I will be the one on the "hot seat", hence I'd like to be somewhat versed on the issue. Can you assist? Thanks!

Mike



# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 05-Feb-1999 12:14pm

**Expires:** 12-Feb-1999 00:00am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/488-0114

**To:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Clair Fancy TAL ( FANCY\_C )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )

**Subject:** Phone Correspondence re: Oleander

I received a phone call at 11am today (2/5) from a Mr. Mike Stallings. The purpose of his call was (apparently) to discuss Oleander and to be sure that he was included on the correspondence for the project. He additionally had several comments/questions as follows:

1) Is the DEP officially "neutral" but also on "their" (the opposition to the plant) side?

I stated that our job was to ensure that the applicant met all requirements of the State and Federal rules and laws as they pertain to air. I indicated that if the applicant complies with all requirements, we are obligated to issue a permit.

2) I commented that we were still planning to hold a public meeting on March 3rd to review the permit application with the general public. He asked if the sole purpose of the meeting is to solicit public comment? I stated that our purpose is to educate the public on what the applicant has applied for and review what the rules require. I also stated that we would review the proposed plant's corresponding effects on air emissions. I noted that we would then solicit public comment in order to determine if all factors had been considered in the issuance of a permit.

3) He asked what were some examples of public input that could be included in the permit?

I told him that off the top of my head, I wasn't sure. However, if the public comment revealed a rule that had been overlooked, we certainly would address that.

4) When are you required to issue an "intent to issue"?

I stated that I thought that we had 30 days from the applicant's last submission (earlier this week) in order to deem the application as complete or not. Presuming that it is complete, we should be in a position by the public meeting (March 3rd) to declare our intentions.

5) He asked if we would be able to deny a permit if the applicant had lied in the application?

I indicated that I had never heard of an applicant lying, and presumed that it may be possible to deny an application on that basis. However, I noted that if there were an error in an application, it is more likely that to be an

oversight. I stated that we require a P.E. to certify that the application is correct and by doing so, the P.E. puts his or her reputation and livelihood on the line. Hence, I operate under the assumption that the information is accurate, and if not is an honest mistake.

6) Mr. Stallings then noted that he was under the impression that power plants were not sited in South Florida due to tighter restrictions around the Everglades. He asked if this was accurate?

I stated that to my knowledge a power plant could be sited in South Florida, however if it was near a "protected area" (of which I suspect the Everglades is) the restrictions on the plant would likely be tougher due to the tighter rules regarding air quality impacts in those areas.

7) Mr. Stallings asked at what point a hearing could be requested. I indicated that I thought that after the Department has "noticed" an intent to issue an air permit, anyone was able to request this type of thing (an Administrative Hearing), given that certain requirements were met (of which I am not knowledgeable).

I would like to be sure that the appropriate folks in our Legal Dept. are aware of the issues above, as they are likely to be raised at the public meeting.

M.P.Halpin

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 05-Feb-1999 08:25pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**Subject:** Re: Phone Correspondence re: Oleander

Mike. I think your answers are sensible. I forwarded the E-Mail to Doug Beason. Maybe you can prepare a package for Doug with a very distilled version of the application and copies of correspondence to date. Al.

# INTEROFFICE MEMORANDUM

**Date:** 23-Feb-1999 08:39am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Doug Beason TAL ( BEASON\_D )  
**CC:** Alvaro Linero TAL ( LINERO\_A )

**Subject:** Oleander meeting next Wednesday

Doug -

I haven't heard back from you yet, but thought that I'd send a small sample of the comments that I've received. I need to spend a few minutes discussing similar related issues as soon as possible. This was received by e-mail and I would specifically like your thoughts on item 5 below.

Thanks  
Mike

Mr. Halpin,

I appreciate your informing me of the Public Workshop, as well as the fact that the project, as currently proposed, appears to be capable of meeting the rules for an air permit. I do have a few questions, however.

1. What is the specific reason that Oleander Power Project has reduced their hours of operation, on oil, to 1,500, as opposed to 2,000?
2. Did Constellation Power provide written confirmation, as you requested, from the City of Cocoa, that the amount of water usage, you specified in your December letter, can be supplied? And what, exactly, is the expected water usage of their current proposal?
3. What was Constellation Power's specific response, to your December letter, concerning the 20,000 tanker trucks of oil expected to meet their needs? And what is the expected tanker truck need now?
4. What was Constellation Power's response to your question about the 60' stack height? And where else, in Florida or in the country, is their a similar project with just 60' stacks? Does your determination, for an air permit, depend on comparing this proposal to another project with similar characteristics?
- 5.. What exactly is the Public Workshop's purpose? Does public input have any bearing on DEP's decision of whether or not to issue an air permit or is it simply a formality?

Also, I would appreciate your sending me a copy of the agenda for the Public Workshop.

You can mail it, fax it, or e-mail it to [aspbb@yahoo.com](mailto:aspbb@yahoo.com).

Marlene Adams  
4405 S. Hopkins Ave.  
Titusville, FL 32780  
(407) 268-0923  
(407) 268-3119 - Fax

Thank-you.

M. Adams

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 25-Feb-1999 05:01pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** Call from Clarence Row about Oleander

Mike. This gentleman (Clarence Row) talked with Charlotte. He wanted Clair. He says he sent Clair a letter dated February 1 and has not received a response. I called gim and left a message on his machine. I left him your phone and E-Mail and encouraged him to call you. Can you follow up? Thanks. Al.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 26-Feb-1999 08:10am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:** Air Resources Management

**Tel No:** 850/488-0114

**To:** Alvaro Linero TAL ( LINERO\_A )

**To:** Doug Beason TAL ( BEASON\_D )

**Subject:** Re: Call from Clarence Row about Oleander

Al -

(I've left the text to your message below).

This is the gentleman that wrote the letter requesting that the project not be approved on the basis of "environmental fairness". It was written to Clair and someone left it on my desk.

I am not adequately versed on this subject to provide a reply and have given a copy of Mr. Rowe's letter to Doug Beason. If he contacts me, I will need to defer to Doug.

Doug can you please assist?

Thanks

Mike

Mike. This gentleman (Clarence Row) talked with Charlotte. He wanted Clair. He says he sent Clair a letter dated February 1 and has not received a response. I called gim and left a message on his machine. I left him your phone and E-Mail and encouraged him to call you. Can you follow up? Thanks.  
Al.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 27-Feb-1999 12:24pm

**From:** Kim Tober TAL  
TOBER\_K

**Dept:**

**Tel No:**

**To:** Doug Beason TAL ( BEASON\_D )

**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** Letter About Oleander to Clarence Rowe

Doug. I believe Mike sent you a letter from Mr. Rowe. Mr. Rowe called me to say he would like a written reply so I went ahead and prepared one and already sent it to him. We will get similar questions on the issue of "Environmental Justice" or, in Mr. Rowe's words, Environmenbtal Fairness." We will also get questions regarding why the project will not be reviewed for need and siting. The answers are in the letter. You might want to double-check my opinion on it.

Thanks. Al.





Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
February 27, 1999

David B. Struhs  
Secretary

Mr. Clarence Rowe  
418 Pennsylvania Avenue  
Rockledge, Florida 32955

Dear Mr. Rowe:

Thank you for your letter dated February 1 regarding the Oleander Power permit application and your calls following it up. Your letter asked that we consider your concerns and deny the permit. We are still considering the application and comments received to-date. We will determine shortly whether we intend to issue the permit and will publicly notice that decision. Thereafter, we will consider additional comments in making a final decision on the matter in several months.

We will provide the Public with our most up-to-date information at the meeting scheduled on March 3. Attached is the agenda. The meeting was noticed in the Orlando Sentinel (Brevard Edition) and the Florida Administrative Weekly. We also informed those individuals and County officials who asked to be advised of developments regarding the application.

Attached is the information you requested regarding emissions from existing and planned power plants in Brevard County. Interestingly, the proposed plant has about the same capacity as each of the existing plants. However the maximum annual emissions possible from the proposed Oleander facility are much lower than the actual emissions from the existing three plants. We expect the actual emissions from the Oleander Plant (if permitted) to be substantially less than the maximum values given for that proposed plant just as the existing plants actually emit much less total pollution than allowed.

As we discussed, this project will not undergo a "Need Determination" by the Public Service Commission or "Site Certification" by the Governor and Cabinet in accordance with Sections 403.501-518 of the Florida Statutes. These are required for projects that produce electrical energy from steam. The power generated from the Oleander Project derives from direct conversion of mechanical energy from the gas turbines to electrical power without undergoing a steam cycle.

Our review will be largely based on the ambient air quality effects of the project and our rule requirement to make a determination of the "Best Available Control Technology" for it. I understand Brevard County passed a moratorium on construction of power plants until the local Code of Ordinances is amended. They will take public input on the matter. We do not have an "Environmental Fairness" criterion (such as you mentioned in your letter) in the governing statutes and rules that allows us to deny air permits on that basis. However we are appreciative of the issue and forwarded your letter to our Office of General Counsel to research the matter in more detail and provide us a more precise opinion.

If you have any further questions regarding this project, please contact Mike Halpin at 850/921-9530. Feel free to submit additional questions and comments at the meeting on March 3.

Sincerely,

A. A. Linero, P.E. Administrator  
New Source Review Section

AAL/aal

Enclosures

*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

*Printed on recycled paper.*

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 14-Apr-1999 04:42pm

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**To:** Doug Beason TAL ( BEASON\_D )  
**CC:** Patricia Comer TAL ( COMER\_P )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Clair Fancy TAL ( FANCY\_C )  
**CC:** Joseph Kahn TAL ( KAHN\_J )

**Subject:** FWD: Letter About Oleander to Clarence Rowe

Doug -

I received another phone call today from Mr. Rowe. You might recall that Mr. Rowe was the gentleman inquiring about "Environmental Fairness" in conjunction with the Oleander Project. I had given you my copy of his letter to Clair (dated early February) for your use. To my knowledge, that is where the issue was first raised on this project.

He indicated to me that based upon Al's letter to him dated February 27, 1999 (which I have attached) he was awaiting a response on Al's statement "However we are appreciative of the issue and forwarded your letter to our Office of General Counsel to research the matter in more detail and provide us a more precise opinion." He specifically expects a written opinion from "General Counsel" and direction on how he can proceed to "register" his claim so as to achieve a result.

I indicated to him that I would contact you and relay his request. He stated that another letter (from him) was forthcoming, but did not provide details on who it was addressed to or what issues were being raised.

I need your help on this, as I am not the right person to address the issue. His address is in the attached letter.

Thanks

Mike Halpin

# INTEROFFICE MEMORANDUM

**Date:** 15-Apr-1999 11:43am  
**From:** Doug Beason TAL  
BEASON\_D  
**Dept:** Office General Counsel  
**Tel No:** 850/488-9314

**To:** Patricia Comer TAL ( COMER\_P )  
**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** Re: FWD: Letter About Oleander to Clarence Rowe

Mike - I don't think it is necessary to conduct further research and issue an opinion. I think Al's letter pretty much sums it up - our review is limited to the applicable rules and statues and the applicable rules and statutes don't address environmental fairness. If you or Al think that it is necessary to inform Mr. Rowe that I agree with the statement it Al's letter, then please do so.

I suggest you talk that over with Doug. My response is pretty much for future reference. Doug will have to litigate this case.

# INTEROFFICE MEMORANDUM

**Date:** 15-Apr-1999 11:51am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** Doug Beason TAL ( BEASON\_D )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Patricia Comer TAL ( COMER\_P )

**Subject:** Re: FWD: Letter About Oleander to Clarence Rowe

Doug -

Thanks for the input. I still need some help, though. I am certain that Mr. Rowe expects something further (in writing, based on his comments to me) from us on the matter. How do you recommend that we (I?) respond to further letters and phone calls?

Mike

Mike - I don't think it is necessary to conduct further research and issue an opinion. I think Al's letter pretty much sums it up - our review is limited to the applicable rules and statues and the applicable rules and statutes don't address environmental fairness. If you or Al think that it is necessary to inform Mr. Rowe that I agree with the statement in Al's letter, then please do so.

I suggest you talk that over with Doug. My response is pretty much for future reference. Doug will have to litigate this case.

# INTEROFFICE MEMORANDUM

**Date:** 15-Apr-1999 11:54am  
**From:** Doug Beason TAL  
BEASON\_D  
**Dept:** Office General Counsel  
**Tel No:** 850/488-9314

**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** Re: FWD: Letter About Oleander to Clarence Rowe

Mike - you or Al can send him a letter indicating that OGC is of the opinion that review is limited to the applicable rules and statutes and that the rules and statutes do not address the issue of so-called "environmental fairness." You can address all further inquiries to my office.

Doug -

Thanks for the input. I still need some help, though. I am certain that Mr. Rowe expects something further (in writing, based on his comments to me) from us on the matter. How do you recommend that we (I?) respond to further letters and phone calls?

Mike

Mike - I don't think it is necessary to conduct further research and issue an opinion. I think Al's letter pretty much sums it up - our review is limited to the applicable rules and statutes and the applicable rules and statutes don't address environmental fairness. If you or Al think that it is necessary to inform Mr. Rowe that I agree with the statement in Al's letter, then please do so.

I suggest you talk that over with Doug. My response is pretty much for future reference. Doug will have to litigate this case.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 15-Apr-1999 01:44pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Mike Halpin TAL ( HALPIN\_M )  
**To:** Doug Beason TAL ( BEASON\_D )  
**CC:** Patricia Comer TAL ( COMER\_P )  
**CC:** Jeffrey E. Brown TAL ( BROWN\_JE )

**Subject:** Re: FWD: Letter About Oleander to Clarence Rowe

Hey Mike and Doug. I go along with Doug's advice. Thanks Doug.

Doug. We first met with Oleander in November (before they submitted an application and before Mike was assigned the project). At that time, David Dee and Mr. Wolfinger of Oleander were interested in knowing how to address Environmental Justice in their application. I don't remember if you or Jeff Brown attended the meeting. It was left to David and OGC to discuss. I do know that it was not addressed in the application. We did not deem it incomplete on that point.

Like we discussed prior to the March public meeting, it is an item likely to come up at one or both public meetings. We know that there is/was a Department contact named Michael Owens. He was going to offer to get together with OGC to discuss Environmental Justice.

At the May public meeting or in discussions with Mr. Rowe, we will limit our discussion to what we already said and know. You (Doug) may want to help us effectively communicate this at the meeting (if it does come up).

Thank you. Al Linero.

Mr. Clarence Rowe  
April 20, 1999  
Page 2 of 2

April 20, 1999

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Clarence Rowe  
418 Pennsylvania Avenue  
Rockledge, Florida 32955

Re: Oleander Power Project

Dear Mr. Rowe:

Thank you for your input on the Oleander project. I have been asked by Mr. Fancy to respond to your letter addressed to him concerning comments on the Notice of Intent to Issue Air Construction Permit for the Oleander Power Project in Brevard County. Your comments appear to fall within three categories and I will attempt to address them herein.

1. Your first comment deals with the point that several presenters at the March 3<sup>rd</sup> public meeting had requested pre-construction ozone monitoring to be completed before approval of the plant. The Department was asked to consider this issue in the approval process. In response to the request, the Department provided its analysis in the "Technical Evaluation and Preliminary Determination", a copy of which was previously forwarded to you. In summary, the existing rules authorize an exemption to this requirement, if the project emissions fall below "de Minimus" values, which this project does. Therefore, the Department does not have the authority to require the monitoring, but has asked the applicant to consider, as a good corporate citizen, the installation and operation of a station in the neighborhood to provide the citizens with requested information about air quality in the area.
2. Your second comment notes that regional water bodies such as the St. Johns River and the Indian River Lagoon will be affected by the pollution from the proposed project. Our authority to issue Air Construction permits is based upon the project's impact on the ambient air quality standards. This project meets those criteria for issuance of a permit.
3. Your third comment deals with the concept of environmental justice and refers to Executive Order 12898. As noted, you had raised this issue in a prior letter, to which Mr. Linero had responded. Our Office of General Counsel (OGC) is of the opinion that review of this project is limited to the applicable rules and statutes and these do not address the issue of so-called "environmental fairness". I believe that this is the extent to which I can review this issue for you. Should you need to speak with someone else, the appropriate person would be Douglas Beason in the Office of General Counsel, at 850/921-9624.

Thank you for your comments and your interest in this project.

Sincerely,

Michael P. Halpin  
New Source Review Section

/mph  
cc: Douglas Beason  
Clair Fancy

# INTEROFFICE MEMORANDUM

**Date:** 03-May-1999 08:46am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**To:** Doug Beason TAL ( BEASON\_D )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Joseph Kahn TAL ( KAHN\_J )  
**CC:** Clair Fancy TAL ( FANCY\_C )

**Subject:** Another phone call from Mr. Rowe

Doug -

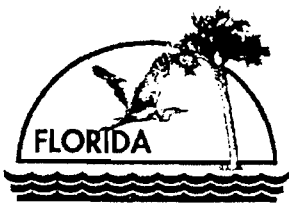
I've been out of the office, but I received a voice-mail from Mr. Rowe on the Oleander issue on Friday, 4/30. Although his message was cut short in "midstream", he indicated that he had spoken to you and that he was unsatisfied with the responses. He was asking me to have someone return his call to provide him a satisfactory response. I am passing this along to you because I don't know how else to handle it ( I am sure that I cannot adequately clarify what you have passed along to him).

I've attached the letter which I last wrote him for reference.

Thanks

Mike





# Department of Environmental Protection

Jeb Bush  
Governor

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

David Struhs  
Secretary

May 3, 1999

Mr. Clarence Rowe  
418 Pennsylvania Avenue  
Rockledge, Florida 32955

Re: Oleander Power Project

As noted during our recent conversation, the Department is responsible for regulating the construction and operation of major stationary air pollution sources within the State of Florida. As part of this program and pursuant to federal law, the Department undertakes Prevention of Significant Deterioration ("PSD") review with respect to the construction of major facilities which result in a significant net increase in the emissions of a regulated air pollutant.

Chapter 62-212 contains the preconstruction review requirements for proposed new facilities. Rule 62-212.400, F.A.C., contains the general preconstruction review requirements and specific requirements for emission units subject to PSD review. The provisions of the rule generally apply to the construction or modification of a major stationary source located in an area in which the state ambient air quality standards are being met. The Department's PSD requirements include the application of Best Available Control Technology (BACT) to control the emission of a regulated air pollutant.

Florida's PSD permitting program is based on the PSD permitting standards set forth in the federal Clean Air Act of 1970, as amended by the Clean Air Act Amendments of 1977. Florida has fulfilled the requirements of administering the federal PSD program by obtaining the EPA's approval of its state regulations. These PSD permitting standards are an essential element of Florida's State Implementation Plan. The significance of EPA's approval is the EPA's determination that Florida's PSD program satisfies the requirements of federal law. Florida's State Implementation Plan, containing PSD permitting regulations, is embodied in Chapters 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. Enclosed are copies of the above-referenced rules.

EXTRA COPY  
AS PER  
MR ROWE'S  
REQUEST.

During our recent conversation you raised a general question as to the applicability of Executive Order 12898 to the Department's review of the pending PSD permit application for the Oleander electrical power plant. The Executive Order provides in pertinent part that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

As I noted during our conversation, the Department's review of the pending permit application is limited to a determination of whether the applicant has provided reasonable assurance of compliance with the requirements of the Department's PSD program. The Department's permitting decision is driven by an analysis of the environmental impacts resulting from the emission of regulated air pollutants from the proposed facility.

The provisions of the above-referenced Executive Order concerning environmental justice have not been adopted either by rule or by statute as part of the Department's federally approved PSD program. However, this does not mean the Department's actions in reviewing the PSD permit application are not subject to review for compliance with Title VI of the Civil Rights Act of 1964. The U.S. Environmental Protection Agency is the federal agency responsible for ensuring that the Department's PSD Program does not "use criteria, methods, or practices the discriminate on the basis of race, color, or national origin.

Enclosed for your review is a copy of an Interim Guidance Document for the Investigation of Title VI Administrative Complaints Challenging permits. I would suggest that any comments or questions that you may have concerning the Department's compliance with Title VI be directed to the E.P.A.'s Office of Civil Rights, Mail Code 1201, Washington, D.C., 20460. The phone number for the Office of Environmental Justice is (800) 962-6215.

Please feel free to contact my office should you have any questions.

Sincerely,

W. Douglas Beason, Esq.



# Department of Environmental Protection

Jeb Bush  
Governor

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

David Struhs  
Secretary

May 3, 1999

Mr. Clarence Rowe  
418 Pennsylvania Avenue  
Rockledge, Florida 32955

Re: Oleander Power Project

As noted during our recent conversation, the Department is responsible for regulating the construction and operation of major stationary air pollution sources within the State of Florida. As part of this program and pursuant to federal law, the Department undertakes Prevention of Significant Deterioration ("PSD") review with respect to the construction of major facilities which result in a significant net increase in the emissions of a regulated air pollutant.

Chapter 62-212 contains the preconstruction review requirements for proposed new facilities. Rule 62-212.400, F.A.C., contains the general preconstruction review requirements and specific requirements for emission units subject to PSD review. The provisions of the rule generally apply to the construction or modification of a major stationary source located in an area in which the state ambient air quality standards are being met. The Department's PSD requirements include the application of Best Available Control Technology (BACT) to control the emission of a regulated air pollutant.

Florida's PSD permitting program is based on the PSD permitting standards set forth in the federal Clean Air Act of 1970, as amended by the Clean Air Act Amendments of 1977. Florida has fulfilled the requirements of administering the federal PSD program by obtaining the EPA's approval of its state regulations. These PSD permitting standards are an essential element of Florida's State Implementation Plan. The significance of EPA's approval is the EPA's determination that Florida's PSD program satisfies the requirements of federal law. Florida's State Implementation Plan, containing PSD permitting regulations, is embodied in Chapters 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. Enclosed are copies of the above-referenced rules.

During our recent conversation you raised a general question as to the applicability of Executive Order 12898 to the Department's review of the pending PSD permit application for the Oleander electrical power plant. The Executive Order provides in pertinent part that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

As I noted during our conversation, the Department's review of the pending permit application is limited to a determination of whether the applicant has provided reasonable assurance of compliance with the requirements of the Department's PSD program. The Department's permitting decision is driven by an analysis of the environmental impacts resulting from the emission of regulated air pollutants from the proposed facility.

The provisions of the above-referenced Executive Order concerning environmental justice have not been adopted either by rule or by statute as part of the Department's federally approved PSD program. However, this does not mean the Department's actions in reviewing the PSD permit application are not subject to review for compliance with Title VI of the Civil Rights Act of 1964. The U.S. Environmental Protection Agency is the federal agency responsible for ensuring that the Department's PSD Program does not "use criteria, methods, or practices the discriminate on the basis of race, color, or national origin.

Enclosed for your review is a copy of an Interim Guidance Document for the Investigation of Title VI Administrative Complaints Challenging permits. I would suggest that any comments or questions that you may have concerning the Department's compliance with Title VI be directed to the E.P.A.'s Office of Civil Rights, Mail Code 1201, Washington, D.C., 20460. The phone number for the Office of Environmental Justice is (800) 962-6215.

Please feel free to contact my office should you have any questions.

Sincerely,

W. Douglas Beason, Esq.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 06-May-1999 03:19pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Doug Beason TAL ( BEASON\_D )

**To:** Mike Halpin TAL ( HALPIN\_M )

**To:** Patricia Comer TAL ( COMER\_P )

**Subject:** Re: Clarence Rowe

Doug. Thank you for preparing the letter to Clarence. This was the "opinionClair and I read it over. We both thought it was good. Al.

# INTEROFFICE MEMORANDUM

**Date:** 22-Feb-1999 12:38pm  
**From:** Aspbb  
Aspbb@aol.com@PMDf@EPIC66  
**Dept:**  
**Tel No:**

**To:** HALPIN\_M ( HALPIN\_M@A1@DER )

**Subject:** Re: Application for Air Construction Permit - Oleander Po

Mr. Halpin,

I appreciate your informing me of the Public Workshop, as well as the fact that the project, as currently proposed, appears to be capable of meeting the rules for an air permit. I do have a few questions, however.

1. What is the specific reason that Oleander Power Project has reduced their hours of operation, on oil, to 1,500, as opposed to 2,000?
2. Did Constellation Power provide written confirmation, as you requested, from the City of Cocoa, that the amount of water usage, you specified in your December letter, can be supplied? And what, exactly, is the expected water usage of their current proposal?
3. What was Constellation Power's specific response, to your December letter, concerning the 20,000 tanker trucks of oil expected to meet their needs? And what is the expected tanker truck need now?
4. What was Constellation Power's response to your question about the 60' stack height? And where else, in Florida or in the country, is their a similar project with just 60' stacks? Does your determination, for an air permit, depend on comparing this proposal to another project with similar characteristics?
- 5.. What exactly is the Public Workshop's purpose? Does public input have any bearing on DEP's decision of whether or not to issue an air permit or is it simply a formality?

Also, I would appreciate your sending me a copy of the agenda for the Public Workshop.

You can mail it, fax it, or e-mail it to aspbb@yahoo.com.

Marlene Adams  
4405 S. Hopkins Ave.  
Titusville, FL 32780  
(407) 268-0923  
(407) 268-3119 - Fax

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 25-Feb-1999 04:55pm  
**From:** Alvaro Linero TAL  
LINERO\_A  
**Dept:** Air Resources Management  
**Tel No:** 850/921-9532

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** Re: Fwd: Application for Air Construction Permit - Oleander Po

Ms. Adams. I received the message in the following paragraph. I have forwarded it to Mr. Halpin who is the assigned Department contact on these issues. You may call him at 850/921-9530 if you like, and he can call you back. Also you can E-Mail him directly at halpin\_m@dep.state.fl.us

Thank you. Al Linero.

YOUR MESSAGE WAS:

"Mr. Linero,  
I appreciate you sending me a copy of Oleander's (Golder Associates) response to your letters of Dec. 17th and 22nd. However, the questions that I posed to Mr. Halpin (on Feb. 22nd) included several items that can not be answered by their responses. They are questions directly to FDEP and I would appreciate an answer.  
Thank-you,  
Marlene Adams"

# INTEROFFICE MEMORANDUM

**Date:** 26-Feb-1999 11:16am

**From:** Mike Halpin TAL  
HALPIN\_M

**Dept:**

**Tel No:**

**To:** Aspbb ( Aspbb@aol.com@PMDf@EPIC66 )  
**CC:** Cleve Holladay TAL ( HOLLADAY\_C )  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Doug Beason TAL ( BEASON\_D )  
**CC:** Kim Tober TAL ( TOBER\_K )

**Subject:** Re: Application for Air Construction Permit - Oleander Po

Ms. Adams -

I understand that you have contacted Mr. Linero requesting Department responses to your questions below. We had forwarded you a copy of Constellation's responses to our questions and had planned to try to address remaining issues at the public meeting. However, I will attempt to do comply with your request at this time. Below is the text of your e-mail message with my responses:

Mr. Halpin,

I appreciate your informing me of the Public Workshop, as well as the fact that the project, as currently proposed, appears to be capable of meeting the rules for an air permit. I do have a few questions, however.

1. What is the specific reason that Oleander Power Project has reduced their hours of operation, on oil, to 1,500, as opposed to 2,000?

I can only speculate as to why the applicant reduced their requested hours of operation on oil from 2000 to 1500 and am unaware of any requirement to do so. However, since the result of it is a reduction in emitted air pollutants, I find it to be positive. My preliminary conclusion on this topic does include a recommendation for a further reduction (to 1000 hours) for similar reasons.

2. Did Constellation Power provide written confirmation, as you requested, from the City of Cocoa, that the amount of water usage, you specified in your December letter, can be supplied? And what, exactly, is the expected water usage of their current proposal?

The applicant provided confirmation (in their February 1 response to our questions) that the City Of Cocoa is capable of meeting their water requirements. I have confirmed this with the City of Cocoa Water Department. Please be aware that we as an Air Regulation Bureau, we do not require other permits such as water, zoning, etc. These are the responsibility of the applicant and other Agencies. The question about water was asked of the applicant only to have a reasonable assurance that the method of controlling a specific air pollutant (NOx) while combusting oil is achievable, since water



injection is the proposed method. In the event that the applicant is unable to secure the water needed, the applicant can choose to burn gas only, or to resubmit an application (these are two possibilities I can think of).

With regards to the quantity of water required, the applicant answered the question in their response. Of note, a further reduction of oil operation (as I noted in my response to question 1 above) will result in a corresponding further reduction in their water requirements.

3. What was Constellation Power's specific response, to your December letter, concerning the 20,000 tanker trucks of oil expected to meet their needs? And what is the expected tanker truck need now?

Constellation's response was forwarded to you. The same logic applies here concerning a further reduction in hours of oil operation.

4. What was Constellation Power's response to your question about the 60' stack height? And where else, in Florida or in the country, is there a similar project with just 60' stacks? Does your determination, for an air permit, depend on comparing this proposal to another project with similar characteristics?

Constellation's response was forwarded to you. Regarding stack height (in general terms) plants with higher emission rates of pollutants require higher stack heights in order to ensure proper dispersion. Conversely, plants with lower emission rates are able to employ lower stack heights. The proposed 60' stack height provides ample dispersion for this project and ensures that there will be no significant air quality impacts. The determination is not based upon

similar projects, but rather is specifically evaluated for each project. I am unable to provide you with a complete listing of where else there are 60' stacks, however I can pass along that my records indicate that a recently installed unit at the City of Gainesville's Deerhaven Generating Station (began commercial operation in 1995) which is of similar technology (simple cycle combustion turbine) has a 52' stack. Although it's permitted emission rate is higher than the Constellation proposal while firing natural gas, it is similar to it in other emission rates. Also, it is similarly permitted for 3900 hours of operation of which 2000 hours may be on oil.

5.. What exactly is the Public Workshop's purpose? Does public input have any bearing on DEP's decision of whether or not to issue an air permit or is it simply a formality?

There are multiple purposes to the meeting/workshop, one of which is that there are requirements to do so under certain conditions. As a representative of the Air Division of DEP, I plan to use the meeting to explain the application to interested parties, to provide my initial evaluation of it's impact, and use the public input to ensure that all air-pollution issues have been addressed.

Also, I would appreciate your sending me a copy of the agenda for the Public Workshop.

You can mail it, fax it, or e-mail it to [aspbb@yahoo.com](mailto:aspbb@yahoo.com).

I've attached a copy of the agenda (in Word 97 format) and hope that the information I have provided is useful to you.

Michael P. Halpin

## MEETING AGENDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
7:00 pm - 9:00pm MARCH 3, 1999  
BREVARD COUNTY AGRICULTURAL CENTER  
THIS MEETING IS OPEN TO THE PUBLIC

1. Introduction Vivian Garfein, Director, FDEP Central District
2. Public Participation Process Douglas Beason, OGC.
3. Application Details Michael P. Halpin
4. Ambient Air Impact/Modeling Cleveland G. Holladay
5. Public Comments
6. Adjourn

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 26-Feb-1999 12:43pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Aspbb

( Aspbb@aol.com@PMDf@EPIC66 )

**CC:** Mike Halpin TAL

( HALPIN\_M )

**Subject:** Re: Application for Air Construction Permit - Oleander Po

Ms. Adams. Hello again!

I referred the matter to Mr. Halpin. He will get back to you. I only gave you his phone number in case you want to call him about it. I recommend that you E-Mail Mr. Halpin (halpin\_m@dep.state.fl.us) directly about the status of your issues so he can update you faster. Feel free to copy me so I can follow them up with him.

Thanks again. Al Linero.

YOUR MESSAGE WAS:

"Mr. Linero,

I forwarded my original questions that I had already sent to Mike Halpin. I assumed that because I received an agenda for the March 3rd meeting, that Mike Halpin had referred my questions to you. I am confused. Is Mr. Halpin going to e-mail me back the answers or are you saying that I must call him to get them?

Thank-you,

Marlene Adams"

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 31-Jan-1999 03:04pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** See Below

**Subject:** Local Air Ordinance Authority

To Ms. Marlene Adams. Your question was:

"Can a local county implement requirements for polluting industries, as far as air pollution is concerned, that exceed DEP's limits? I have found local ordinances in states around the country that are far tougher than our local requirements (Brevard County) for air pollution. I was told by county officials that local government cannot exceed DEP's air pollution standards. Is this true?? If not, can you direct me to cities or counties in Florida that have already enacted pollution prevention ordinances that exceed DEP's?"

My response is:

I am not in a position to evaluate what authority your county has based on its charter, etc. I certainly cannot confirm or dispute an opinion provided by your county officials. I am aware that a Clean Air Ordinance was proposed to the Alachua County Commission. It was not passed by the Commission, but was placed on the November ballot through a petition and barely lost. I know that it proposed some standards that are more strict than those of the Department of Environmental Protection. I do not know what further action might have been required had it passed.

I know that the City of Jacksonville had or has an odor ordinance that is more strict than that of the Department. Broward County had or has a more strict biomedical waste incinerator rule than that of the Department. I also recall that Manatee County had an air ordinance. It "sunset" and then was revived. It may have had a provision or two that are more strict than those of the Department.

There have been a number of legal cases and perhaps changes in statutes that can affect the answer. What may have been a correct answer 5 years ago could be different if given a year ago or next year. I really do not know any more and can only recommend that you work with your local officials on the matter. They can contact the other counties to check the present status of the mentioned ordinances and the authority to write them.

By the way, the contact on the Oleander Project within the Department is Mike Halpin. Please follow up any technical or administrative matters with him. Ms. DeVore resigned her full-time job and will not be involved in the Oleander project. Thank you. Al Linero.

**Distribution:**

**To:** Aspbb ( Aspbb@aol.com@PMDF@EPIC66 )  
**CC:** craigbock ( craigbock@yahoo.com@PMDF@EPIC66 )  
**CC:** RKnodel ( RKnodel@aol.com@PMDF@EPIC66 )  
**CC:** Patricia Comer TAL ( COMER\_P )  
**CC:** Susan DeVore TAL ( DEVORE\_S )  
**CC:** Mike Halpin TAL ( HALPIN\_M )

# INTEROFFICE MEMORANDUM

**Date:** 06-Jan-1999 04:22pm  
**From:** Mike Stallings  
mikestallings@yahoo.com@PMDF@EPIC66  
**Dept:**  
**Tel No:**

**Subject:** water consumption

Al, I saw your letter to Mr. Wolfinger of Dec 22, 98. In paragraph number 2, you mention water consumption in LBS/HR per turbine and then extend that to GALLONS/HR for all 5 turbines. The next point you make says that the plant will use 748 MILLION GALLONS per year. Could you please double check those figures for me? We come up with just over a million gallons per day with about 90 days per year (2000 hrs), this works out to about 100 million gallons per year. Our figures just include the water added on a 1:1 ratio with fuel when using #2 fuel oil. It does not include any water for exhaust gas cooling. Thanks for your assistance, Mike S.

---

DO YOU YAHOO!?

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# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 06-Jan-1999 06:25pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:**

**Tel No:**

**To:** Mike Halpin TAL ( HALPIN\_M )

**CC:** Susan DeVore TAL ( DEVORE\_S )

**Subject:** FWD: water consumption

Mike. I believe this was your issue. Please follow up. Mr. Bock's phone number is somewhere in our records. I recommend a call rather than preparing a thorough written explanation. We can just copy him on Oleander's reply when we get it (assuming it addresses the point). However, we should consider all public comments in our review of the project.

Thanks. Al.





Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

December 22, 1998

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard L. Wolfinger, Vice President  
Oleander Power Project, L.P.  
250 West Pratt Street, 23rd floor  
Baltimore, MD 21201

Re: Request for Additional Information No. 2  
DEP File No. 0090180-001-AC (PSD-FL-258)  
Oleander Power Project - Five 190 MW Combustion Turbines

Dear Mr. Wolfinger:

Further to our letter dated December 17, 1998 and in an effort by the Department to gain reasonable assurance as to how the proposed power plant will operate, additional information is requested. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

- 1) What commitment has been received from FGT concerning their ability to supply OPP's gas consumption requirements? Please provide documentation from FGT specifying that:
  - FGT is capable of accommodating OPP's gas supply needs. [Based upon application, the requirements appear to be 1.81 mmcf/hr per machine or 9.05 mmcf/hr for all 5 machines]
  - What quantity of the 9 mmcf/hr gas is to be contracted as readily available or "firm".
  - What quantity of the 9 mmcf/hr gas is to be considered as occasionally available or "interruptible".
  - For "interruptible" supplies, please provide FGT's probability estimates for gas availability during peak power periods in quantities up to 9 mmcf/hr.
- 2) What commitments have been received concerning water supplies? Please provide documentation from local water suppliers (e.g. the City of Cocoa) or appropriate permitting agencies that:
  - OPP's water supply needs for NO<sub>x</sub> control (water injection during oil firing) can be met [based upon application, the requirements appear to be at least 120,900 lb/hr per machine or 362,000 gallons/hr for all 5 machines]

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*Printed on recycled paper.*

- Annual water consumption for NO<sub>x</sub> control of 724 million gallons per year can be met [assumes 2000 hours per year oil operation on all 5 turbines].
- 3) Describe the impacts of the fuel oil delivery. Based upon the application, trucking of the fuel oil is contemplated. At 2000 hours per year of oil operation on all 5 turbines, an annual oil consumption of approximately 146 million gallons may be consumed, or approximately 20,000 truckloads.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please note that per Rule 62-4.055(1): *“The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department..... Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application.”*

If you have any questions, please call Mike Halpin (permit engineer) at 850/921-9530.

Sincerely,

A.A. Linero, P.E. Administrator  
New Source Review Section

cc: Gregg Worley, EPA  
John Bunyak, NPS  
Len Koslov, DEP CD  
Ken Kosky, P.E., Golder Associates

# INTEROFFICE MEMORANDUM

**Date:** 07-Jan-1999 09:58am  
**From:** Mike Halpin TAL  
HALPIN\_M  
**Dept:** Air Resources Management  
**Tel No:** 850/488-0114

**To:** mikestallings@yahoo.com@in  
**CC:** Alvaro Linero TAL ( LINERO\_A )  
**CC:** Susan DeVore TAL ( DEVORE\_S )

**Subject:** Re: water consumption question

Mr. Stallings:

I was asked to contact you by Mr. Linero, but have been unable to locate your phone number. Concerning the subject of water consumption at Oleander's proposed plant, you identified a discrepancy between the FDEP's water consumption calculations and your own. I would propose that we await the applicant's response to this issue (which should be forthcoming soon), but would be willing to further discuss it with you, if you like. Please forward your telephone number if you wish to further discuss.

Sincerely,  
Mike Halpin

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 15-Dec-1998 02:10pm

**From:** Alvaro Linero TAL  
LINERO\_A

**Dept:** Air Resources Management

**Tel No:** 850/921-9532

**To:** Susan DeVore TAL ( DEVORE\_S )

**To:** Mike Halpin TAL ( HALPIN\_M )

**Subject:** FWD: E-mail Inquiry on the Oleander Power Plant

Hi. This letter came in through the Ombudsman's Office. I replied by sending a copy of what we already sent Ms. Whitfield who lives nearby. Al.

# INTEROFFICE MEMORANDUM

**Date:** 15-Dec-1998 09:12am  
**From:** Joni Scott TAL  
SCOTT\_J@EPIC6A1@EPIC9  
**Dept:** Office of Ombudsman  
**Tel No:** 850/921-1222

**Subject:** E-mail Inquiry on the Oleander Power Plant

Hi Al,

We received this e-mail with concerns over the proposed Oleander Power Plant. Since your office is handling the permit processing phase, could someone from your office please respond directly back to Ms. Adams? Thanks so much, Joni Scott, Ombudsman's Office

From: Marlene L. Adams  
E-mail Address: Aspbb@aol.com  
Phone: 407/268-0923  
Fax: 407/268-3119

"The Oleander Power Project (currently being reviewed by DEP for permitting) is going to build this plant in the middle of our residential neighborhoods on just a 33 acre site with only 60 foot stacks. They are not even going to provide electricity or jobs to our area, and yet we are going to suffer the air pollution and resource usage by this company. Is there not some regulation that prohibits this type of construction in the middle of residential areas, with only 60 foot stacks, and is clearly not in the best interests of the citizens surrounding this plant???? I would appreciate a response and some direction to find any regulations that may help us prevent this intrusion into our quality of life. Thank-you."

December 10, 1998

Ms. Kay Whitfield  
2505 Trotters Trail  
Cocoa, Florida 32926

Dear Ms. Whitfield:

Secretary Kirby Green asked us to respond to your November 24 letter about the power plant proposed in Brevard County.

An application was received during the week of November 24 from Oleander Power for an air permit to construct five 190 megawatt simple cycle gas and distillate oil-fired combustion turbines. Enclosed is the application narrative. The application is being reviewed and a determination will be made as to whether it is complete or if the applicant must provide additional information regarding the project.

Once the application is complete, within 60 days, a preliminary determination will be made to issue or deny. Shortly thereafter, the applicant, interested persons, and your elected officials will be provided with copies of the intended action and any relevant documents. A notice will be published in a newspaper having general circulation in your county and providing opportunities for public comment.

A public meeting in Brevard County is being considered prior to the issuance of an Intent. You will be advised of the venue when it is known.

Some of your concerns relate to zoning matters that do not come under the purview of our review. However, we contacted your local zoning official who informed us that the issue of public participation related to power plant planning in Brevard County will be considered at the County Commission's meeting of December 15. Enclosed is a copy of the Commission Agenda that was downloaded from the County website.

In your letter you mentioned water discharge permits. By copy of this letter, we are asking Richard Drew, Chief, Bureau of Water Facilities Regulation, to provide comments regarding any concerns about water pollution that he may have. Mr. Drew can be contacted at (850)487-0563.

Your interest in this matter is welcomed. If you have any questions, please call Al Linero at 850/921-9523 or Susan Devore-Fillmore at 850/921-9537 in the Tallahassee office. Len Kozlov is the Air Program Administrator in our Central District office. His address is 3319 Maguire Boulevard, Suite 232, Orlando 32803-3767. He may be contacted directly at 407/894-7555.

Sincerely,

C. H. Fancy, Chief  
Bureau of Air Regulation

CHF/aal

enclosures

cc: Richard Drew, BWFR