



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV  
333 COURTLAND STREET  
ATLANTA, GEORGIA 30365

FEB 9 1989

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

RECEIVED  
FEB 17 1989  
DER-BAQM

Mr. Thomas M. Henderson  
Project Director  
Broward County Resource  
Recovery Office  
115 South Andrews Avenue, Room 521  
Ft. Lauderdale, Florida 33301

Re: North Broward Resource Recovery Facility (PSD-FL-112)

Dear Mr. Henderson:

Pursuant to the February 5, 1989, request from Ms. Kerri L. Barsh, Attorney, Greenberg, Traurig, Hoffman, Lipoff, Rosen & Quentel, P.A., this is to confirm that the U.S. Environmental Protection Agency (EPA) has determined that the modifications to the federally issued Prevention of Significant Deterioration (PSD) permit (PSD-FL-112) proposed at the North Broward Resource Recovery Facility (RRF) will meet all applicable requirements of 40 CFR §52.21. Specifically, the federally issued PSD permit No. PSD-FL-112 will be modified to reflect the construction of three (3) municipal waste incinerators rather than four (4) as previously planned. All other conditions and limitations specified in the original PSD permit issued on July 28, 1987, will remain in force and effect.

Accordingly, PART I, Specific Conditions, item c.(1) will now be revised to read as follows:


- c. (1) None of the three individual municipal solid waste incinerators shall be charged in excess of 302.5 mmBtu/hr and 806.6 tons per day MSW (108% rated capacity) nor produce in excess of 186,000 lbs/hr of steam (3-hr rolling average).

In addition to the above change, the original construction authorization signed by Lee A. DeHihns, III, Deputy Regional Administrator, will be modified to authorize this change. Enclosed with this letter, please find the modified page to permit PSD-FL-112 authorizing the construction of the three municipal waste combustors.

Please be advised that the modifications to your PSD permit herein described shall become a binding part of permit PSD-FL-112. This permit modification shall become effective upon receipt of this letter unless you notify us of your objection to the conditions contained herein within ten (10) days after receipt of this letter.

If you have any questions concerning this matter, please contact Mr. Wayne Aronson of my staff at (404) 347-2864.

Sincerely yours,

  
Greer C. Tidwell  
Regional Administrator

Enclosure

cc: C. H. Fancy, Deputy Chief  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

PERMIT TO CONSTRUCT UNDER THE RULES FOR THE  
PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

Pursuant to and in accordance with the provisions of Part C, Subpart 1 of the Clean Air Act, as amended, 42 U.S.C. §7470 et. seq., and the regulations promulgated thereunder at 40 CFR §52.21, as amended at 50 Fed. Reg. 28550 (July 12, 1985),

North Broward County Resource Recovery Facility

is, as of the effective date of this permit (PSD-FL-112) authorized to construct a resource recovery facility consisting of three 806.6 ton per day (maximum capacity) mass burn, municipal solid waste incinerators and appurtenances at the following location:

2700 Hilton Road (N.W. 48th Street)  
Pompano Beach, Florida 33060  
Unincorporated Broward County, Florida.

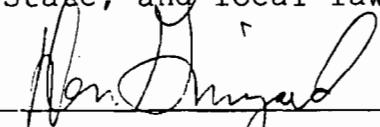
Upon completion of authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements and other conditions set forth in the attached Part I. - Specific Conditions and Part II. - General Conditions.

This permit is hereby issued on JUL 23 1987 and shall become effective thirty (30) days after receipt hereof unless a petition for administrative review is filed with the Administrator during that time. If a petition is filed any applicable effective date shall be determined in accordance with 40 CFR §124.19(f)(1).

If construction does not commence within 18 months after the effective date of this permit, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, this permit shall expire and authorization to construct shall become invalid.

This authorization to construct shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of Federal, State, and local law.

\_\_\_\_\_  
Date Signed

  
\_\_\_\_\_  
for Regional Administrator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

OCT 20 1988

4APB/APT-aes

Mr. Thomas M. Henderson, Project Director  
Resource Recovery Office  
Room 521  
115 South Andrews Avenue  
Fort Lauderdale, Florida 33301

Re: North Broward Resource Recovery Facility, PSD-FL-113

Dear Mr. Henderson:

This letter is in response to your request of August 15, 1988, to modify PSD-FL-113 by substituting three von Roll incinerator units for four Volund incinerator units.

We understand with this substitution that: (1) source parameters of exit temperature, exit velocity, and equivalent diameter will now be the same as the South Broward unit, and (2) there will be no increase in the emission rates on other conditions of the permit used to assure that the estimated annual emissions are not exceeded.

Upon review of the new source parameters and comparing the dispersion modeling results presented in Tables IV-5 of both the South Broward and North Broward final determinations, we agree with your position that the modeled impacts for the North Broward units will approximate those of the South Broward units with the substitution of the changed stack parameters. Therefore, we concur that a new modeling analysis will not be required. We do require that a public notice be issued to advise the public of the changes being made and how the PSD increment will be impacted.

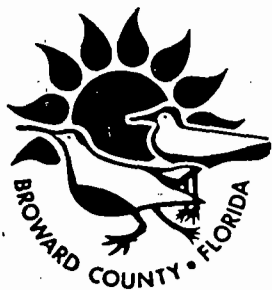
If I can be of further assistance, please contact me or Mr. Wayne Aronson of my staff at (404) 347-2864.

Sincerely yours,

*Bruce P. Miller*

Bruce P. Miller, Chief  
Air Programs Branch  
Air, Pesticides, and Toxics  
Management Division

cc: Clair H. Fancy, Deputy Chief  
Bureau of Air Quality Management  
Florida Department of Environmental  
Regulation



## Resource Recovery Office

Room 521, 115 South Andrews Avenue  
 Fort Lauderdale, Florida 33301  
 (305) 357-6458

August 15, 1988

Mr. Bruce Miller, Chief, Air Program Branch  
 United States Environmental Protection Agency  
 Region IV  
 345 Courtland Street  
 Atlanta, Georgia 30365

Re: North Broward Resource Recovery Facility, PSD-FL-113

Dear Mr. Miller:

Thank you again for meeting with representatives of Broward County, its consulting engineer and project vendor on Thursday, August 4, 1988, concerning the potential for changing the incinerator equipment supplier for the North Broward Resource Recovery project.

It is our understanding that a major modification review would be triggered by an increase in either the emission rates stated in the Permit's specific conditions or in the facility's estimated annual emissions if such emissions exceed significant levels. Further, it is our understanding that a major modification review would not be triggered if there is no change in the emission rates or the other conditions of the permit used to assure that the estimated annual emissions are not exceeded, i.e. facility heat input rate, waste charging rate and steam flow rate. We would also have to demonstrate by modeling or other means that the changes in physical characteristics of the stack, such as flue exit diameters, would not result in significantly different ambient impacts.

Based upon our above described understanding, we request that the agency consider the following rewording of Part I, Specific Condition 1.c.(1) of the PSD Permit as a minor and not a major permit modification:

"c. (1) None of the three ~~four~~ individual municipal incinerators shall be charged in excess of 302.5 ~~226.9~~ mmBtu/hr and 806.6 ~~605~~ tons per day MSW (1.08 ~~1.10~~% rated capacity) nor produce in excess of 186,000 ~~139,500~~ lbs/hr of steam (3-hr rolling average)."

[New material underlined. Deleted material ~~struck~~.]

BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS

Scott I. Cowan Howard Craft Howard Forman Nicki Englander Grossman Ed Kennedy Sylvia Poitier Gerald Thompson

An Equal Opportunity Employer

This change would allow for the substitution of three von Roll incinerator units for four Volund incinerator units. It would not change the specified emission rates or total facility heat input rate, waste charging rate or steam flow rate. We, therefore, believe such a change to be a "minor modification" in the context of the PSD Permit. See the two attached tables labeled "Physical Facilities and Permit Capacity Parameters" and "PSD Permit Emission Limitations."

After review, we believe further modeling to demonstrate compliance with ambient air quality standards (AAQS) and PSD increments is unnecessary. The reason for this is that the data that would be input into the model would be the same as that used in the modeling for the South Broward facility. These parameters include stack gas velocity, temperature and diameter, emissions and metrological data. The difference in stack height between the facilities, i.e. +1.6 meters, actually favors lower predicted concentrations for the North Broward facility. Thus, the impacts predicted for the South Broward facility as listed in Table V-5 and V-6 of the Final Determination can be used directly to assure compliance with AAQS and PSD increments for the North Broward facility.

Either Ron Mills or I will be in contact with Wayne Aronson later this week to verify our understanding of the "minor modification" nature of the proposed change and acceptability of using South Broward modeling results.

Again, thank you for meeting with us last Thursday on short notice. Your timely consideration of this matter is most appreciated.

Sincerely,



Thomas M. Henderson  
Project Director

TMH/bd

cc: Wayne Aronson and Janet Hayward, USEPA Region IV  
Neil Moses, Mark Hepp and Bruno Dunn, Wheelabrator  
Environmental Systems, Inc.  
Ron Mills and David Cerrato, Malcolm Pirnie, Inc.  
Steve Smallwood and Hamilton Owen, Florida Department of  
Environmental Regulation

PHYSICAL FACILITIES AND PERMIT CAPACITY PARAMETERS

<u>PARAMETERS</u>	<u>NORTH FACILITY</u>	<u>SOUTH FACILITY</u>	<u>Proposed NORTH FACILITY</u>
Number of Units	4	3	3
Nameplate Capacity			
Per Unit (tons/day)	550	750	750
Per Facility (tons/day)	2200	2250	2250
Maximum Heat Input Rate			
Per Unit (mmBtu/hour)	226.9	323.6	302.5
Per Facility (mmBtu/hour)	907.6	970.8	907.6
Maximum Charging Rate			
Per Unit (tons/day)	605	863	806.6
Per Facility (tons/day)	2420	2588	2420
Maximum Steam Rate			
Per Unit (lbs/hr)	139,500	192,000	186,000
Per Facility (lbs/hr)	558,000	576,000	558,000
-----			
Stack Exit Above Grade	61.0 M	59.4 M	61.0 M
Number of Flues per Stack	4	3	3
Flue Exit Diameters	1.5 M	2.29 M	2.29 M
Flue Exit Temperature	380°K	381°K	381°K
Flue Gas Exit Velocity	18.2 M/Sec	18.0 M/Sec	18.0 M/Sec
Flue Gas Exit Flow Rate	68,260 ACFM/Flue	157,000 ACFM/Flue	157,000 ACFM/Flue
Assumed Equivalent Single Flue - Stack Diameter	3.0 M	5.03 M	5.03 M
Assumed Equivalent Single Flue - Exit Velocity	18.2 M/Sec	11.2 M/Sec	11.2 M/Sec

PSD PERMIT EMISSION LIMITATIONS

<u>POLLUTANTS*</u>	<u>NORTH FACILITY</u>	<u>SOUTH FACILITY</u>	<u>Proposed NORTH FACILITY</u>
Particulate Matter	0.015gr/dscf corrected to 12% CO <sub>2</sub>	0.15gr/dscf corrected to 12% CO <sub>2</sub>	0.15gr/dscf corrected to 12% CO <sub>2</sub>
Sulfur Dioxide	0.140 or 65% removal (not to exceed 0.310)	0.140 or 65% removal (not to exceed 0.310)	0.140 or 65% removal (not to exceed 0.310)
Nitrogen Oxides	0.560	0.560	0.560
Carbon Monoxide	0.090	0.090	0.090
Lead	0.00056	0.00150	0.00056
Mercury	7.50 x 10 <sup>-4</sup>	7.50 x 10 <sup>-4</sup>	7.50 x 10 <sup>-4</sup>
Beryllium	9.30 x 10 <sup>-7</sup>	9.30 x 10 <sup>-7</sup>	9.30 x 10 <sup>-7</sup>
Fluoride	0.0040	0.0040	0.0040
Sulfuric Acid Mist	>90% removal not to exceed 4.70 x 10 <sup>-3</sup>	>90% removal not to exceed 4.70 x 10 <sup>-3</sup>	>90% removal not to exceed 4.70 x 10 <sup>-3</sup>
Opacity: Stack	15%	15%	15%
Refuse Bunker, Ash Handling & Load Out	10%	10%	10%

\* Note: Values in lbs/mmBtu unless otherwise noted. Assumed Heat Content of MSW = 4500 Btu/lb.





Resource Recovery Office

Room 521, 115 South Andrews Avenue  
Fort Lauderdale, Florida 33301  
(305) 357-6458

RECEIVED

OCT 31 1988

DER-BAQM

October 26, 1988

Hamilton S. Oven, Jr., P.E.  
Administrator, Siting Coordination Section  
Division of Air Resources Management  
Florida Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Request for Modification - North Broward County Resource  
Recovery Facility PA 86-22

Dear Buck:

I am responding to your letter of October 14, 1988, which requested air dispersion modeling runs and supporting information demonstrating the proposed modification to the captioned project would not violate ambient air quality standards and impacts would be within the envelope considered in the original proceedings.

After receiving your letter, I requested Ken Kosky of KBN Engineering to contact Tom Rogers of the Division of Air Resources to discuss the details of your request. Based upon their discussion, I am forwarding copies of the following correspondence which we believe is responsive to your request:

1. Letter of April 9, 1987, from Thomas M. Henderson to Wayne Aronson of USEPA Region IV. Attached were tables subsequently incorporated into the PSD Permit for the South Broward Project. The tables summarize modeling assumptions and results. Specifically source parameters, emission rates, predicted ambient impacts and comparisons to PSD Increments and AAQS data were provided.
2. Letter of August 15, 1988, from Thomas M. Henderson to Bruce Miller of USEPA Region IV. The letter reviews the modification request to the North Broward Project PSD Permit and County's rationale for not performing additional modeling. See second paragraph on page 2 of the letter and attachments.

BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS

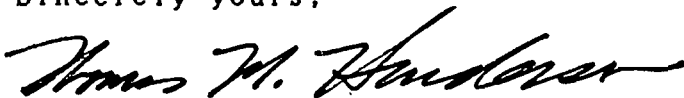
Scott I. Cowan Howard Craft Howard Forman Nicki Englander Grossman Ed Kennedy Sylvia Poitier Gerald Thompson

An Equal Opportunity Employer

3. Letter of October 20, 1988, from Bruce Miller of USEPA Region IV to Thomas M. Henderson. This letter states USEPA's agreement with the County's position on the need for further modeling.

If you or Tom Rogers need more information or clarification of points addressed in the enclosed correspondence, then please contact either Ken Kosky or I.

Sincerely yours,



Thomas M. Henderson  
Project Director

TMH/bd

Enclosures

cc: ✓ Clair Fancy, FDER  
Tom Rogers, FDER  
Ron Mills, Malcolm Pirnie  
Ken Kosky, KBN Engineering  
Kerri Barsh, Greenberg Traurig  
Neil Moses, Wheelabrator Environmental Systems  
Jim Wiegner, Wheelabrator Environmental Systems

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP		ACTION NO	
		ACTION DUE DATE	
1. TO: (NAME, OFFICE, LOCATION)		Initial	
	<i>Clair Faney</i>	Date	
2.	<i>Ed Svec. 8/21</i>	Initial	
		Date	
3.		Initial	
		Date	
4.		Initial	
		Date	
REMARKS:  <i>Check with Julie Cobb on how we should handle this. Clair</i>		INFORMATION	
		<input type="checkbox"/>	Review & Return
		<input type="checkbox"/>	Review & File
		<input type="checkbox"/>	Initial & Forward
		DISPOSITION	
		<input type="checkbox"/>	Review & Respond
		<input type="checkbox"/>	Prepare Response
		<input type="checkbox"/>	For My Signature
		<input type="checkbox"/>	For Your Signature
		<input type="checkbox"/>	Let's Discuss
		<input type="checkbox"/>	Set Up Meeting
		<input type="checkbox"/>	Investigate & Report
		<input type="checkbox"/>	Initial & Forward
		<input type="checkbox"/>	Distribute
		<input type="checkbox"/>	Concurrence
		<input type="checkbox"/>	For Processing
FROM:  <i>Judy Rogers</i>		DATE	<i>8-21</i>
		PHONE	



CITY OF  
**DEERFIELD BEACH**  
FLORIDA

150 N.E. SECOND AVENUE • 33441 • (305) 427-3331

**J. ELDON MARIOTT**  
CITY MANAGER

August 14, 1986

DER

AUG 20 1986

BAQM

MAYOR  
**JEAN M. ROBB**

VICE MAYOR  
**BENJAMIN BUDD**

COMMISSIONERS  
**CARL NIXON**  
**JOSEPH TRACTENBERG**  
**DR. ERNEST J. VISCO**

Mr. Steve Smallwood  
Florida Department Of Environmental Regulation  
Air Bureau  
2600 Blairstone Road  
Tallahassee, Florida 32301

Re: North Broward County Resource Recovery Facility

Dear Mr. Smallwood:

In recognition of the fact that the Florida Department of Environmental Regulation has determined that the Best Available Control Technology (BACT) for the referenced facility includes the use of scrubbers and bag house filters and in recognition of environmental and health concerns, the City of Deerfield Beach has:

1. Passed City Resolution No. C-1986/55, a copy of which is enclosed.
2. Committed to spend up to \$5,000.00 in joining with other cities to provide a fund for legal counsel in proceedings for the referenced facility.

The purpose of this letter is to request and urge the Department Of Environmental Regulation to use all of its influence and statutory powers to achieve the incorporation of scrubbers and bag house filters as a Permit Condition for the referenced facility.

Very truly yours,

J. Eldon Mariott  
City Manager

JEM/lg

Encl.

RESOLUTION NO. C-1986/55

A RESOLUTION OF THE CITY OF DEERFIELD BEACH, FLORIDA, STATING ITS POSITION ON ENVIRONMENTAL CONTROLS CONCERNING THE PROPOSED NORTH BROWARD COUNTY RESOURCE RECOVERY FACILITY SITE

WHEREAS, Broward County proposes to construct a facility less than two miles from the City boundaries of Deerfield Beach to burn garbage in order to produce electricity; and

WHEREAS, the burning of garbage will produce harmful pollutants, the emission of which into the atmosphere needs to be controlled with the best available control technology; and

WHEREAS, the Florida Department of Environmental Regulation has determined that the best available control technology for such facility includes the use of scrubbers and bag house filters in addition to efficient electrostatic precipitators; and

WHEREAS, that if the plant is to be built, the citizens of north Broward County, including but not limited to the residents of Deerfield Beach, Florida, are entitled to the greatest possible protection against unnecessary health hazards; and

WHEREAS, the Special Resource Recovery Environmental Review Committee established by the City of Pompano Beach to study and comment on the applications by Broward County and the City of Deerfield Beach agree with the Department of Environmental Regulation's technical staff in finding that Broward County's application does not propose adequate control technology, because, among other shortcomings, it omits the use of scrubbers and bag house filters;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DEERFIELD BEACH, FLORIDA:

SECTION 1. That if the plant is to be built, the use of scrubbers and bag house filters be included as well as efficient electrostatic precipitators as protection against unnecessary health hazards as well as including any other precipitators to protect the environment.

SECTION 2. That a copy of this Resolution be sent to the governor, all members of the Cabinet, the Broward delegation, the Broward League of Cities and the City of Pompano Beach.

ADOPTED THIS 24TH DAY OF JUNE, A.D., 1986

*Jean M. Roll*

MAYOR

ATTEST:

*Quinn A. Dickard*

CITY CLERK

DEPARTMENT OF ENVIRONMENTAL REGULATION

<b>ROUTING AND TRANSMITTAL SLIP</b>		ACTION NO
		ACTION DUE DATE
1. TO: (NAME, OFFICE, LOCATION)		Initial
<i>Alan</i>		Date
2.	<i>Ed Guac 8/20</i>	Initial
		Date
3.		Initial
		Date
4.		Initial
		Date
REMARKS: <i>Same as Deerfield Beach</i>		INFORMATION
		<input type="checkbox"/> Review & Return
		<input type="checkbox"/> Review & File
		<input type="checkbox"/> Initial & Forward
		<input type="checkbox"/>
		DISPOSITION
		<input type="checkbox"/> Review & Respond
		<input type="checkbox"/> Prepare Response
		<input type="checkbox"/> For My Signature
		<input type="checkbox"/> For Your Signature
		<input type="checkbox"/> Let's Discuss
		<input type="checkbox"/> Set Up Meeting
		<input type="checkbox"/> Investigate & Report
		<input type="checkbox"/> Initial & Forward
		<input type="checkbox"/> Distribute
		<input type="checkbox"/> Concurrence
		<input type="checkbox"/> For Processing
		<input type="checkbox"/> Initial & Return
FROM: <i>Judy Rogers</i>		DATE: <i>8-21</i>
		PHONE:



DER  
AUG 20 1986  
BAQM

# City of Margate, Florida

5790 MARGATE BOULEVARD  
MARGATE, FLORIDA 33063

TELEPHONE 972-6454

August 18, 1986

Mr. Steve Smallwood  
Florida Department of Environmental  
Regulation, Air Bureau  
2600 Blairstone Road  
Tallahassee, FL 32301

RE: Northern Broward County Resource Recovery Plant

Dear Mr. Smallwood:

Margate is one of northern Broward County's cities which have authorized funds to retain legal counsel to ensure that the County's resource recovery plant contains baghouse filters and scrubbers. It is my understanding that DER acknowledges these as the Best Available Control Technology (BACT). The City feels that the BACT should be a condition of permit approval and we urge DER to press for the BACT at the upcoming administrative hearings.

While filters and scrubbers are not yet required by regulation, we anticipate this in the future. And for reasons of cost-effectiveness, Margate would like to see these pollution control devices required prior to the issuance of permits. Also, installation of the BACT during construction would be easier than undergoing modifications later.

Aside from cost-savings, environmental protection is a priority of the City. We feel that the BACT should be employed to reduce any pollution which the facility may emit.

If Margate may be of assistance in this matter, please do not hesitate to call.

Very Truly Yours,

George Mudd  
Acting City Manager

cc:  
THH  
Mayor

kkg

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

August 19, 1986

Mrs. Frances Bernardo  
President  
Crystal Lake Golf Villas  
Association II, Inc.  
4791 N. W. 18th Avenue  
Pompano Beach, Florida 33064

Re: North Broward County Resource Recovery  
Facility Project, Inc.

Dear Mrs. Bernardo:

Secretary Tschinkel has asked me to respond to your letter and resolution, which was passed by your Board on July 29, 1986, and which supports the use of scrubbers and baghouses to control the air emissions from the proposed North Broward County Resource Recovery Facility.

The Department's Bureau of Air Quality Management, which has been reviewing that portion of the proposed facility's application which concerns air quality issues, is in agreement with your Association's position on the type of technology the proposed facility should utilize to control its air emissions. However, the Bureau of Air Quality Management has recommended to the Secretary that due to a number of policy issues associated with the determination of what constitutes Best Available Control Technology for these facilities, that regulations should be adopted by the Environmental Regulation Commission that would better enable the Department to regulate the facility's air emissions. Thus, the Department is going to recommend that Broward County leave space in the design and construction of the facility to retrofit the facility with more stringent air pollution control equipment, pending the adoption of new regulations by the Environmental Regulation Commission. A rule adoption schedule has been proposed by the Bureau of Air Quality Management, which anticipates rule adoption by the Environmental Regulation Commission during Spring, 1987.



DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP		ACTION NO
		ACTION DUE DATE
1. TO: (NAME, OFFICE, LOCATION)		Initial Date
2.	<i>Clair - this response</i>	Initial Date
3.		Initial Date
4.	<i>15 o/c with me.</i>	Initial Date
	<i>Mary has signed</i>	Initial Date
REMARKS:	<p><i>this one, - fl</i></p> <p>The attached is a letter I drafted for Mary Smallwood's signature. I do not know if she sent it out</p>	INFORMATION
		<i>8/22/86</i>
		Review & Return
		Review & File
		Initial & Forward
		DISPOSITION
		Review & Respond
		Prepare Response
		For My Signature
		For Your Signature
	Let's Discuss	
	Set Up Meeting	
	Investigate & Report	
	Initial & Forward	
	Distribute	
	Concurrence	
	For Processing	
	Initial & Return	
FROM:	<i>Julie</i>	DATE <i>8-21-86</i>
		PHONE

Notwithstanding the Department's position on the North Broward County Resource Recovery Facility, you and your association will have an opportunity to present your views to the Hearing Officer during the Certification Hearing, which is scheduled to begin on October 14, 1986, in Pompano Beach.

Thank you for sharing the Crystal Lake Golf Villas Association's resolution with the Department. We are hopeful that your Association will come forward to support the Department's position as it undergoes rule promulgation on these important issues.

Sincerley,

Mary Smallwood  
Director  
Division of Environmental  
Permitting

cc: Victoria Tschinkel  
Steve Smallwood  
Karen Brodeen



## CITY OF COCONUT CREEK

OFFICE OF THE CITY MANAGER  
1071 N.W. 45TH AVENUE  
COCONUT CREEK, FLORIDA 33066  
TELEPHONE (305) 979-6500

August 6, 1986

Mr. Steve Smallwood  
Florida Department of Environmental  
Regulation, Air Bureau  
2600 Blirstone Road  
Tallahassee FL 32301

DER  
AUG 13 1986  
BAQM

RE: Northern Broward County Resource Recovery Plant

Dear Mr. Smallwood:

It is my understanding that the DER may not advocate installation of scrubbers and baghouse filters as a condition of permit approval for the North Broward County Resource Recovery Plant at upcoming administrative hearings even though the DER acknowledges that these baghouse filters and scrubbers are the Best Available Control Technology (BACT).

Five cities in northern Broward County have authorized funds to retain legal counsel to ensure that the County's resource recovery facility contains the BACT. More cities will join in this effort by the end of August. We urge DER to press for installation of the BACT at the Northern Broward County Plant before permits are issued and construction begins. While future rules and regulations may require installation of filters and scrubbers at completed plants it will be more difficult to compel retrofit modifications than to require installation of these pollution control mechanisms while the plant is under construction. Additionally, it will cost less for Broward County to install this equipment during construction than to retrofit its plant after the fact.

If Coconut Creek can be of any assistance in this matter, please call.

Sincerely,

DENNIS MELE  
City Manager

DM/cmt  
122-L-86-6667

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION



# Interoffice Memorandum

TO: Hamilton Oven

THRU: Clair Fancy  
Bill Thomas *BT*

FROM: Ed Svec *E. Svec*

DATE: March 17, 1986

SUBJ: North Broward County Completeness Review

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: <i>CLAIR FANCY</i>	LOCTN: _____
To: _____	LOCTN: _____
To: _____	LOCTN: _____
FROM: _____	DATE: _____

The Bureau of Air Quality Management has reviewed the application from Broward County and has found it complete but insufficient.

The initial review has discovered the following insufficiencies:

1. Modeling outputs used in the analysis of this application were not included.
2. The significant impact areas for SO<sub>2</sub>, PM, NO<sub>2</sub>, and CO were not determined.
3. The impact of all minor sources within 10 kilometers of the significant impact area for each of the above stated pollutants was not evaluated.
4. Additional pollutants of concern to citizens living near the facility (hydrogen chloride, dioxins, furans, and other heavy metals) were not addressed in the application.
5. The particle size distribution of the pollutants and the collection efficiency of the proposed particulate control device for these particle sizes were not addressed.
6. The emission factors used in the application for sulfur dioxide, lead, fluorides, and mercury differ from the emission factors used in the South Broward County application. The same fuel analysis used in the South Broward County is presented in this application. In light of this fact, a justification for different emission factors is needed.

ES: jr



Resource Recovery Office

Room 406, 115 South Andrews Avenue  
Fort Lauderdale, Florida 33301  
(305) 357-6458

July 25, 1988

RECEIVED

JUL 27 1988

DER-BAQM

Mr. Bruce Miller  
United States Environmental Protection Agency  
Region IV  
345 Courtland Street  
Atlanta, Georgia 30365

Re: North Broward Resource Recovery Facility, PSD-FL-113

Dear Mr. Miller:

Wheelabrator Technologies Inc. (the parent company of the vendor for the South Broward Resource Recovery Facility) is acquiring the refuse-to-energy business of Waste Management Inc. (the parent company of the vendor for the North Broward Resource Recovery Facility). As a result, we are evaluating the potential for substitution of the von Roll technology for the Volund technology on the North Broward Facility. We believe that the substitution of this technology will involve only minor modifications to the existing PSD Permit. We would like to meet with you to discuss the regulatory requirements of such a revision.

We plan to call you on Wednesday, July 27th to arrange a meeting at your offices in Atlanta for the following week.

Sincerely,

Thomas M. Henderson  
Project Director

TMH/bd

cc: Wheelabrator Environmental Systems, Inc.  
Malcolm Pirnie, Inc.

Steve Smallwood, Florida Dept. of Environmental Regulation

BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS

Scott I. Cowan Howard Craft Howard Forman Nicki Englander Grossman Ed Kennedy Sylvia Poitier Gerald Thompson

An Equal Opportunity Employer



15 Sept. 87  
Atlanta, GA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

SEP 15 1987

4APT/APB-am

DER

SEP 18 1987

BAQM

Mr. Thomas M. Henderson  
Project Director  
Broward County Resource Recovery Office  
115 South Andrews Avenue, Room 521  
Ft. Lauderdale, Florida 33301

Re: North Broward Resource Recovery Facility  
(PSD-Fl-112)

Dear Mr. Henderson:

This is to notify you that no petitions have been filed with the Administrator regarding the above issued Prevention of Significant Deterioration (PSD) permit which you received on August 3, 1987, for the above referenced municipal solid waste incineration facility in Broward County, Florida. Therefore, in accordance with the provisions of the above permit, the effective date is September 3, 1987. If construction does not commence within eighteen (18) months after this effective date, or if construction is discontinued for a period of eighteen (18) months or more, or if construction is not completed within a reasonable time, this permit shall expire and authorization to construct shall become invalid.

Please direct any questions you may have to Mr. Wayne Aronson of my staff at (404) 347-2864.

Sincerely yours,

Winston A. Smith, Director  
Air, Pesticides, and Toxics  
Management Division

cc: ~~Mr. Clair Fancy, Deputy Chief~~  
~~Bureau of Air Quality Management~~  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301-2400

Copied: Clair Fancy }  
Barry Andrews } 9/21/87 (mr)  
Pradep Raval }

## GREENBERG, TRAUIG, HOFFMAN, LIPOFF, ROSEN &amp; QUENTEL, P.A.

JEFFREY P. AGRON  
 FERNANDO C. ALONSO  
 CESAR L. ALVAREZ  
 LINDA C. ANDREWS  
 RUDOLPH F. ARAGON  
 KERRI L. BARSH  
 HILARIE BASS  
 ALYSSA M. BAUMGARTEN  
 NORMAN J. BENFORD  
 LISA J. BERGER  
 MARK D. BLOOM  
 LEONARDO F. BRITO  
 FRANCIS B. BROGAN, JR.  
 BURT BRUTON  
 STEVE BULLOCK  
 ROBERT K. BURLINGTON  
 ALBERTO R. CARDENAS  
 PHILLIP J. CARVER  
 RICHARD G. CHERRY  
 SUE M. COBB  
 KENDALL B. COFFEY  
 DIANE M. CONNIFF  
 JEFFREY D. DECARLO  
 OSCAR G. DE LA GUARDIA  
 ALBERT A. DEL CASTILLO  
 ALAN T. DIMOND  
 LUCIA A. DOUGHERTY  
 CHARLES W. EDGAR, III  
 SUSAN D. ELSEY  
 HENRY H. (BUCKY) FOX  
 ROBERT J. FRIEDMAN  
 ROBERT C. GANG  
 RICHARD G. GARRETT  
 BRIAN K. GART  
 BRUCE H. GILES-KLEIN  
 RICHARD J. GIUSTO  
 LAWRENCE J. GODOFFSKY

ALAN S. GOLD  
 STEVEN E. GOLDMAN  
 STEVEN M. GOLDSMITH  
 JOSEPH G. GOLDSTEIN  
 LAWRENCE S. GORDON  
 MATTHEW B. GORSON  
 DIANNE GREENBERG  
 MELVIN N. GREENBERG  
 ROBERT L. GROSSMAN  
 CARMEN M. HERNANDEZ  
 LISA A. HIRSCH  
 KENNETH C. HOFFMAN  
 LARRY J. HOFFMAN  
 MARCOS D. JIMENEZ  
 MARTIN KALB  
 LORI E. KILBERG  
 TIMOTHY E. KISH  
 STEVEN J. KRAVITZ  
 STEVEN A. LANDY  
 ALAN S. LEDERMAN  
 GARY A. LEVINSON  
 NORMAN H. LIPOFF  
 CARLOS E. LOUMIET  
 JUAN P. LOUMIET  
 NANCY LURIA-COHEN  
 BRUCE E. MACDONOUGH  
 ROBERT P. MACINA  
 ANDREW L. MANN  
 PEDRO J. MARTINEZ-FRAGA  
 JOEL D. MASER  
 JUAN J. MAYOL, JR.  
 WILLIAM LEE MCGINNESS  
 JOHN T. METZGER  
 LOUIS R. MONTELLO, JR.  
 ALICIA M. MORALES  
 JANET L. O'BRIEN  
 REBECCA R. ORAND

DEBBIE M. ORSHEFSKY  
 STEVAN J. PARDO  
 OLGA E. PARRA  
 MARSHALL R. PASTERNAK  
 BYRON G. PETERSEN  
 ALBERT D. QUENTEL  
 JOEL REINSTEIN  
 MARK J. REISMAN  
 LUIS REITER  
 CONSTANCE M. RIDDER  
 ANDRES RIVERO  
 KENNETH B. ROBINSON  
 NICHOLAS ROCKWELL  
 RAQUEL A. RODRIGUEZ  
 ALAN H. ROLNICK  
 MARVIN S. ROSEN  
 RICHARD A. ROSENBAUM  
 RONALD M. ROSENGARTEN  
 DAVID L. ROSS  
 ALDEN E. RUDOLPH  
 GARY A. SAUL  
 CLIFFORD A. SCHULMAN  
 MARLENE K. SILVERMAN  
 STUART H. SINGER  
 HOLLY R. SKOLNICK  
 DAVID R. SOFTNESS  
 LAURA P. STEPHENSON  
 DAVID J. TANEY  
 LAURA M. THOMAS  
 OSVALDO F. TORRES  
 ROBERT H. TRAUIG  
 JERROLD A. WISH  
 ROBERT M. WOLF  
 TIMOTHY D. WOLFE  
 SHEILA WOLFSON  
 ADAM S. ZIPPER

ZACHARY H. WOLFF (RETIRED)

MIAMI OFFICE  
 1221 BRICKELL AVENUE  
 MIAMI, FLORIDA 33131  
 TELEPHONES  
 MIAMI (305) 579-0500  
 BROWARD (305) 523-8111  
 TELEX 80-3124  
 TELECOPY (305) 579-0717

WEST PALM BEACH OFFICE  
 100 AUSTRALIAN AVENUE • SUITE 201  
 WEST PALM BEACH, FLORIDA 33406  
 (407) 683-6611  
 TELECOPY (407) 683-8447

BROWARD OFFICE  
 500 EAST BROWARD BOULEVARD • SUITE 1350  
 FORT LAUDERDALE, FLORIDA 33394  
 (305) 765-0500  
 TELECOPY (305) 765-1477

WRITER'S DIRECT NO:  
 (305) 579-0772

PLEASE REPLY TO:  
 MIAMI OFFICE

September 29, 1988

**BY FEDERAL EXPRESS**

Betsy Pittman, Esq.  
 Assistant General Counsel  
 Office of the General Counsel  
 State of Florida  
 Department of Environmental Regulation  
 Twin Towers Office Building  
 2600 Blair Stone Road  
 Tallahassee, Florida 32301

Re: **Request for Certification Modification of Power  
 Plant Site Certification for North Broward County  
 Resource Recovery Facility - P.A. 86-22**

Dear Ms. Pittman:

In accordance with section 403.516 of the Florida Statutes and rule 17-17.211(4) of the Florida Administrative Code, North Broward County Resource Recovery Project, Inc., and Broward County file this request for modification of the conditions of certification for the North Broward County Resource Recovery Facility. In support of this request for modification, Broward County and North Broward County Resource Recovery Project, Inc., allege as follows:

1. Broward County is a political subdivision of the State of Florida and the co-applicant for power plant site certification for the North Broward County Resource Recovery Facility. Wheelabrator Environmental Systems, Inc., is the

vendor and the operator of the incinerator equipment proposed for the mass-burn facility, and successor in interest to North Broward Resource Recovery Project, Inc., a co-applicant of the site certification in question. The original vendor, Waste Management, Inc., merged its waste-energy operations with Wheelabrator Technologies Inc., parent of Wheelabrator Environmental Systems Inc., on August 12, 1988.

2. As indicated on the revision pages accompanying this request, Broward County and North Broward County Resource Recovery Project, Inc., seek to modify the application for power plant site certification, findings of fact, and the conditions of certification for the facility in question to permit the substitution of three Von Roll incinerator units for four Volund incinerator units. The proposed change of incinerator units is to a more established, environmentally sound technology, a technology to which the vendor is committed for the long-term.
3. The proposed modification would not change the specified emission rates or total facility heat input rate, waste-charging rate, or steam flow rate of the resource recovery facility and would therefore constitute a minor modification to the application for certification of the resource recovery facility (as modified by the final order of certification), the conditions of certification, the findings of fact and conclusions of law of the final order of certification, or the studies conducted under rule 17-17.050 of the Florida Administrative Code, upon which the certification and accompanying conditions were based.
4. Because the modification proposed by Broward County and North Broward County Resource Recovery Project, Inc.. will have no significant effect on emission rates or annual emissions for the facility in question, Broward County and North Broward County Resource Recovery Project, Inc., are entitled to the relief requested under chapter 403 of the Florida Statutes and chapter 17-17 of the Florida Administrative Code.
5. Condition XII of the Conditions of Certification for the North Broward County Resource Recovery Facility expressly delegates to the Secretary of the DER the authority to modify the certification and conditions of certification relating to the boiler capacity of the incinerating equipment. Therefore, Broward County and the North Broward County Resource Recovery Project, Inc., ask that the Secretary approve the proposed modifications after the termination of



the prescribed notice period, in accordance with rule 17-17.151 of the Florida Administrative Code.

Accompanying this request are fourteen copies of the proposed amendments to the original application for site certification, thirteen sets of which were transmitted to Mr. Hamilton Oven, Jr., along with a copy of this correspondence. Broward County is filing this request for modification with the Office of General Counsel consistent with rule 17-1.25 of the Florida Administrative Code and is sending notice of the proposed modification to each party to the original certification proceedings on the North Broward County Resource Recovery Facility at each party's last address, as shown on the record of the proceedings. Upon DER's receipt of this request to modify certification, DER must provide notice, as prescribed in rule 17-17.151 of the Florida Administrative Code.

Accordingly, Broward County and North Broward County Resource Recovery Project, Inc., ask that DER grant this request for certification modification on the North Broward County Resource Recovery Facility, as shown on the enclosed permit documents, consistent with section 403.516 of the Florida Statutes and rule 17-17.211 of the Florida Administrative Code.

Respectfully submitted,

GREENBERG, TRAUIG, HOFFMAN,  
LIPOFF, ROSEN & QUENTEL, P.A.  
1221 Brickell Avenue, PH-1  
Miami, Florida 33131  
Telephone: (305) 579-0500

By:   
KERRI L. BARSH

KLB:wp  
Enclosures

cc: Mr. Hamilton Oven, Jr. (with thirteen sets of enclosures)  
Mr. Thomas M. Henderson  
Mr. Cornelius F. Moses, III  
Noel M. Pfeffer, Esq.  
Mr. Kennard Koskey  
Mr. Bruce Miller  
Mr. Wayne Arronson  
Mr. Ron Mills  
C. Lawrence Keeseey, Esquire  
Bonnie Davis, Esquire  
Elizabeth D. Ross, Esquire



Resource Recovery Office

Room 521, 115 South Andrews Avenue  
Fort Lauderdale, Florida 33301  
(305) 357-6458

RECEIVED

AUG 17 1988

DER-BAQM

August 15, 1988

Mr. Bruce Miller, Chief, Air Program Branch  
United States Environmental Protection Agency  
Region IV  
345 Courtland Street  
Atlanta, Georgia 30365

Re: North Broward Resource Recovery Facility, PSD-FL-113

Dear Mr. Miller:

Thank you again for meeting with representatives of Broward County, its consulting engineer and project vendor on Thursday, August 4, 1988, concerning the potential for changing the incinerator equipment supplier for the North Broward Resource Recovery project.

It is our understanding that a major modification review would be triggered by an increase in either the emission rates stated in the Permit's specific conditions or in the facility's estimated annual emissions if such emissions exceed significant levels. Further, it is our understanding that a major modification review would not be triggered if there is no change in the emission rates or the other conditions of the permit used to assure that the estimated annual emissions are not exceeded, i.e. facility heat input rate, waste charging rate and steam flow rate. We would also have to demonstrate by modeling or other means that the changes in physical characteristics of the stack, such as flue exit diameters, would not result in significantly different ambient impacts.

Based upon our above described understanding, we request that the agency consider the following rewording of Part I, Specific Condition 1.c.(1) of the PSD Permit as a minor and not a major permit modification:

"c. (1) None of the three ~~four~~ individual municipal incinerators shall be charged in excess of 302.5 ~~226.9~~ mmBtu/hr and 806.6 ~~605~~ tons per day MSW (1.08 ~~1.10~~% rated capacity) nor produce in excess of 186,000 ~~139,500~~ lbs/hr of steam (3-hr rolling average)."

[New material underlined. Deleted material ~~struck~~.]

BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS

Scott I. Cowan Howard Craft Howard Forman Nicki Englander Grossman Ed Kennedy Sylvia Poitier Gerald Thompson

An Equal Opportunity Employer

This change would allow for the substitution of three von Roll incinerator units for four Volund incinerator units. It would not change the specified emission rates or total facility heat input rate, waste charging rate or steam flow rate. We, therefore, believe such a change to be a "minor modification" in the context of the PSD Permit. See the two attached tables labeled "Physical Facilities and Permit Capacity Parameters" and "PSD Permit Emission Limitations."

After review, we believe further modeling to demonstrate compliance with ambient air quality standards (AAQS) and PSD increments is unnecessary. The reason for this is that the data that would be input into the model would be the same as that used in the modeling for the South Broward facility. These parameters include stack gas velocity, temperature and diameter, emissions and meteorological data. The difference in stack height between the facilities, i.e. +1.6 meters, actually favors lower predicted concentrations for the North Broward facility. Thus, the impacts predicted for the South Broward facility as listed in Table V-5 and V-6 of the Final Determination can be used directly to assure compliance with AAQS and PSD increments for the North Broward facility.

Either Ron Mills or I will be in contact with Wayne Aronson later this week to verify our understanding of the "minor modification" nature of the proposed change and acceptability of using South Broward modeling results.

Again, thank you for meeting with us last Thursday on short notice. Your timely consideration of this matter is most appreciated.

Sincerely,



Thomas M. Henderson  
Project Director

TMH/bd

cc: Wayne Aronson and Janet Hayward, USEPA Region IV  
Neil Moses, Mark Hepp and Bruno Dunn, Wheelabrator  
Environmental Systems, Inc.  
Ron Mills and David Cerrato, Malcolm Pirnie, Inc.  
Steve Smallwood and Hamilton Oven, Florida Department of  
Environmental Regulation

PHYSICAL FACILITIES AND PERMIT CAPACITY PARAMETERS

<u>PARAMETERS</u>	<u>NORTH FACILITY</u>	<u>SOUTH FACILITY</u>	<u>Proposed NORTH FACILITY</u>
Number of Units	4	3	3
Nameplate Capacity			
Per Unit (tons/day)	550	750	750
Per Facility (tons/day)	2200	2250	2250
Maximum Heat Input Rate			
Per Unit (mmBtu/hour)	226.9	323.6	302.5
Per Facility (mmBtu/hour)	907.6	970.8	907.6
Maximum Charging Rate			
Per Unit (tons/day)	605	863	806.6
Per Facility (tons/day)	2420	2588	2420
Maximum Steam Rate			
Per Unit (lbs/hr)	139,500	192,000	186,000
Per Facility (lbs/hr)	558,000	576,000	558,000
-----			
Stack Exit Above Grade	61.0 M	59.4 M	61.0 M
Number of Flues per Stack	4	3	3
Flue Exit Diameters	1.5 M	2.29 M	2.29 M
Flue Exit Temperature	380°K	381°K	381°K
Flue Gas Exit Velocity	18.2 M/Sec	18.0 M/Sec	18.0 M/Sec
Flue Gas Exit Flow Rate	68,260 ACFM/Flue	157,000 ACFM/Flue	157,000 ACFM/Flue
Assumed Equivalent Single Flue - Stack Diameter	3.0 M	5.03 M	5.03 M
Assumed Equivalent Single Flue - Exit Velocity	18.2 M/Sec	11.2 M/Sec	11.2 M/Sec

PSD PERMIT EMISSION LIMITATIONS

<u>POLLUTANTS*</u>	<u>NORTH FACILITY</u>	<u>SOUTH FACILITY</u>	<u>Proposed NORTH FACILITY</u>
Particulate Matter	0.015gr/dscf corrected to 12% CO <sub>2</sub>	0.15gr/dscf corrected to 12% CO <sub>2</sub>	0.15gr/dscf corrected to 12% CO <sub>2</sub>
Sulfur Dioxide	0.140 or 65% removal (not to exceed 0.310)	0.140 or 65% removal (not to exceed 0.310)	0.140 or 65% removal (not to exceed 0.310)
Nitrogen Oxides	0.560	0.560	0.560
Carbon Monoxide	0.090	0.090	0.090
Lead	0.00056	0.00150	0.00056
Mercury	7.50 x 10 <sup>-4</sup>	7.50 x 10 <sup>-4</sup>	7.50 x 10 <sup>-4</sup>
Beryllium	9.30 x 10 <sup>-7</sup>	9.30 x 10 <sup>-7</sup>	9.30 x 10 <sup>-7</sup>
Fluoride	0.0040	0.0040	0.0040
Sulfuric Acid Mist	>90% removal not to exceed 4.70 x 10 <sup>-3</sup>	>90% removal not to exceed 4.70 x 10 <sup>-3</sup>	>90% removal not to exceed 4.70 x 10 <sup>-3</sup>
Opacity: Stack	15%	15%	15%
Refuse Bunker, Ash Handling & Load Out	10%	10%	10%

\* Note: Values in lbs/mmBtu unless otherwise noted. Assumed Heat Content of MSW = 4500 Btu/lb.



Resource Recovery Office

Room 521, 115 South Andrews Avenue  
Fort Lauderdale, Florida 33301  
(305) 357-6458

December 2, 1988

RECEIVED

DEC 7 1988

DER-BAQM

Mr. Hamilton S. Oven, Jr. P.E.  
Administrator, Siting Coordination Section  
Division of Air Resources Management  
Florida Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Request for Certification Modification - North Broward County  
Resource Recovery Facility PA 86-22

Dear Buck,

This letter is to confirm our willingness to modify the air emission limits and related monitoring provisions in the State Conditions of Certification for the North Broward Resource Recovery Project so that they are identical to the Federal Prevention of Significant Deterioration Permit as discussed in our telephone conversation on Monday, November 28, 1988.

If it is possible to make these changes under the current request for certification modification and published notice, then we would be willing to prepare the appropriate documentation and submit it to you within the next week.

If this approach is not possible, we would request that the current request for certification modification be granted as is by the Secretary so we can proceed with securing our permanent financing now scheduled for mid-January 1989. Every day of delay costs the County about \$100,000, so we sincerely appreciate your assistance in keeping us on schedule.

The additional modifications related to differences between the State Certification and Federal Permit Conditions could then be separately noticed and made. Since we have to meet the more stringent federal standards under any circumstance, we do not believe a delay of a few weeks in making such modifications should pose any problem for either the Department or the U.S. Environmental Protection Agency.

I apologize for the delay in getting you this letter, but those involved from the County and Wheelabrator Environmental Systems got tied up this week on project financing documentation

BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS

Scott I. Cowan Howard Craft Howard Forman Nicki Englander Grossman Ed Kennedy Sylvia Poitier Gerald Thompson

An Equal Opportunity Employer

negotiations. Thank you again for your timely consideration of this situation.

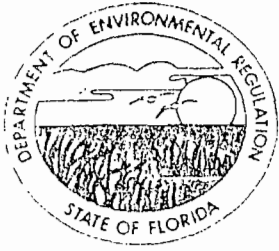
Sincerely yours,

A handwritten signature in black ink, appearing to read "Thomas M. Henderson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Thomas M. Henderson

Project Director

cc: Bruce Miller, EPA  
Mark Armentrout, EPA  
Clair Fancy, FDER  
Ron Mills, Malcolm Pirnie  
Ken Kosky, KBN Engineering  
Kerri Barsh, Greenberg Traurig  
Neil Moses, Wheelabrator  
Jim Wiegner, Wheelabrator



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

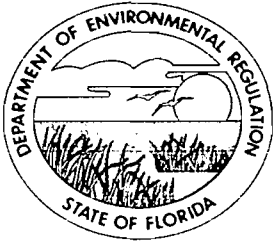
## PANAFAX TRANSMITTAL FORM

TO Ken Kosky, KBN LOCATION Gainesville  
374-1577  
MACHINE PHONE # 904-~~377-4789~~  
CONFIRMATION PHONE # \_\_\_\_\_  
# PAGES 2 (including cover sheet)

FROM Buck Owen LOCATION Tallahassee  
PHONE # 486-1744

If there are problems with this transmittal,  
please call the person listed above.





## Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

October 19, 1989

Mr. Kennard F. Kosky, P.E.  
KBN Engineering and Applied Sciences, Inc.  
Post Office Box 14288  
Gainesville, Florida 32604

Dear Mr. Kosky:

The Department of Environmental Regulation has reviewed the revised site plan including the relocation of the stack for the North Broward Resource Recovery Project. The Department finds that the changes fall within the boundaries of the certified site and does not materially change any environmental impacts. The Department has no objection to the proposed site redesign.

Sincerely,

*Hamilton S. Owen, Jr.*  
Hamilton S. Owen, Jr., P.E.  
Administrator, Office of  
Siting Coordination  
Division of Air Resources  
Management

HSO

cc: Tom Henderson



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

October 19, 1989

Mr. Kennard F. Kosky, P.E.  
KBN Engineering and Applied Sciences, Inc.  
Post Office Box 14288  
Gainesville, Florida 32604

Dear Mr. Kosky:

The Department of Environmental Regulation has reviewed the revised site plan including the relocation of the stack for the North Broward Resource Recovery Project. The Department finds that the changes fall within the boundaries of the certified site and does not materially change any environmental impacts. The Department has no objection to the proposed site redesign.

Sincerely,

*Hamilton S. Owen, Jr.*  
Hamilton S. Owen, Jr., P.E.  
Administrator, Office of  
Siting Coordination  
Division of Air Resources  
Management

HSO

cc: Tom Henderson



## *Florida Department of Environmental Regulation*

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

TO: Isadore Goldman  
Alex Padva  
Don White

FROM: Buck Oven

DATE: October 10, 1989

SUBJECT: North Broward County Resource Recovery Facility  
PA 86-22

Enclosed please find a copy of a letter and drawings concerning a site modification of the North Broward RRF. Please circulate to the appropriate personnel and let me know if you have any problems with this. Please note the time constraints expressed by the applicant.

Encl:



October 9, 1989

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

RECEIVED  
OCT 10 1989

DEPT. OF ENVIRONMENTAL REGULATION

Subject: North Broward County Resource Recovery Project  
Power Plant Site Certification P.A. 86-22  
DOAH Case No. 86-0074

Dear Mr. Oven:

This correspondence is being submitted on behalf of the above referenced power plant site certification as notice of an amendment to information previously supplied concerning the location of facilities. The amendment is related to the site plan and stack location, and is not a "major amendment" as defined in 17-17.021(10) Florida Administrative Code (F.A.C.). The amendment would not change any of the conditions of certification.

Extensive geotechnical testing has revealed three previously developed landfill cells on the site. These landfill cells, shown in the attached drawing identified as Plate 1 by Dames and Moore, encompass about 50 percent of the area that require heavy foundation support, i.e., the tipping area, refuse pit and boilers. This condition will not allow the development of the site using the current foundation design. If the current site plan were to be followed, extensive additional piling would be required, which would have a considerable financial and severe schedule impact on the project.

An alternative site plan has been developed which mitigates this foundation problem, while not changing the previously described effects on the environment [refer to the Site Certification Application (SCA) and previous amendments]. The optimum site plan is presented on Sheet No. 1 of the Keith and Schnars, P.A. drawing.

The revised site plan moves the stack 38 ft (12 meters) west and 285 ft (87 meters) north of the stack location on the previous site plan. KBN staff, which performed the air quality impact analyses for the project, has reviewed this stack location change. Because the revised stack location is a minimal distance (i.e., 87.7 meters) from the currently approved location, the maximum predicted impacts due the facilities emissions will not change from that previously submitted. The revised UTM coordinates for the stack: 583.9 km east and 2907.6 km north.

**KBN ENGINEERING AND APPLIED SCIENCES, INC.**

P.O. Box 14288 5700 SW 34th Street Gainesville, FL 32604 904/375-8000 Telex: 984689 KBN ENG UD



H. Oven  
October 9, 1989  
Page Two

The location and number of stormwater retention areas were modified to accommodate the revised site plan; rather than a single stormwater retention pond, two interconnected ponds will be constructed. However, the retention volume remains the same. As described in the SCA, the retention volume have been sized to meet the Broward County and South Florida Water Management District stormwater management regulations.

It is desired to start commencement of construction of the foundations by November 1, 1989 with prior grubbing and clearing. Please review this at your earliest convenience. I will call you by this Thursday to review any questions. If possible we would desire a written concurrence of this change by the following week. Please call if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Kennard F. Kosky". The signature is written in a cursive, flowing style.

Kennard F. Kosky, P.E.  
Principal Engineer

cc: J. R. Wiegner, Wheelabrator Environmental Systems Inc.  
T. M. Henderson, Broward County Resource Recovery Office

KFK/mla



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

4APT-AP/lms

SEP 2 1986

Honorable E. Clay Shaw, Jr.  
House of Representatives  
Washington, D.C. 20515

RE: North Broward County Resource Recovery Facility

Dear Mr. Shaw:

This is in response to your letter of August 18, 1986, regarding correspondence from Mr. Sol Press, President of the Wynmoor Community Council, concerning the proposed construction of the 2,250 ton per day municipal solid waste (MSW) incinerator to be located near Sample Road in Broward County, Florida.

With regard to the North Broward County MSW incinerator, the State of Florida Department of Environmental Regulation (DER) has primary responsibility for issuing construction permits to companies wanting to build plants in Florida. When a application for an air permit is submitted to the Florida DER, the agency reviews the application and determines if the source is subject to regulations for the Prevention of Significant Deterioration (PSD), New Source Performance Standards (NSPS), or National Emission Standards for Hazardous Air Pollutants (NESHAP). If the source is subject to PSD requirements, the Florida DER reviews the permit application, and prepares the preliminary determination and the draft construction permit. EPA reviews the preliminary determination, as well as the draft permit prepared by Florida DER, to ensure that applicable PSD requirements are met. The preliminary determination and draft permit are subject to public comment. After the public comment period, the State agency prepares the final determination and construction permit, and forwards them to EPA. The Florida DER issues the PSD construction permit with the conditions contained in the final determination, thereby granting a company authority to construct the source.

The North Broward County MSW incinerator will be subject to NSPS and PSD as well as the State requirements for Power Plant Site Certification. The application for certification was received by the Florida DER in February 1986, and certification is scheduled for issuance in mid-October 1986. The PSD permit application was received by this office on February 12, 1986. However, the Florida DER has not issued the preliminary determination nor gone to public notice. When the determination is issued, Mr. Press will have the opportunity to review the documents and make comments. In addition, we will review the preliminary determination to ensure that emission controls for the

DER

SEP 8 1986

BAQM

pollutants sulfur and nitrogen oxides are Best Available Control Technology. Although this technology will not eliminate all dioxide emissions, they will be dramatically reduced by emission limits achieved through proven operational practice, and design, and/or control equipment.

I hope this letter addresses your concerns regarding dioxide emissions from the proposed facility. If you or Mr. Press have any further questions regarding the plant, please contact me.

Sincerely yours,

*Lee G. Dykhus, ID, Deputy*

Jack E. Ravan  
Regional Administrator

DEPARTMENT OF ENVIRONMENTAL REGULATION

**ROUTING AND  
TRANSMITTAL SLIP**

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

*Steve Smalleywood*

Initial

Date

2.

*Barry A.*

Initial

Date

3.

Initial

Date

4.

Initial

Date

REMARKS:

**DER**  
**MAY 27 1987**  
**BAQM**

INFORMATION

Review & Return

Review & File

Initial & Forward

DISPOSITION

Review & Respond

Prepare Response

For My Signature

For Your Signature

Let's Discuss

Set Up Meeting

Investigate & Report

Initial & Forward

Distribute

Concurrence

For Processing

Initial & Return

FROM:

*Denise*

DATE

*5/27/87*

PHONE





City of

DER Pompano Beach

Florida

orig date  
copy Steve M/wq

MAY 27 1987

May 19, 1987

BAQM

Mr. Bruce P. Miller  
Chief, Air Programs Branch  
United States Environmental Protection Agency  
345 Courtland Street  
Atlanta, Georgia 30365

RECEIVED

MAY 26 1987

Dear Mr. Miller:

Office of the Secretary

To assess the effect of the pollutant emissions from the North Broward Resource Recovery Facility upon our ambient air quality, the City of Pompano Beach created an Environmental Review Committee. Dr. Karl Scheller, a member of this Committee, has done an independent study of the expected environmental impact, and he has provided the City Commission with his concerns.

Dr. Scheller has estimated the dioxin emissions from the North Broward Facility upon the basis of the optimistic concentration assumptions advanced by Broward County. Dr. K. H. Jones, an environmental engineer retained by Broward County as an expert witness, testified that dioxin emissions from the incinerator would be half the world-wide average and would not exceed (50) nanograms per cubic meter. For the sake of being conservative, Dr. Scheller has corrected the volumetric flow rates for the exit gas temperature from the stack. This would have the effect of reducing the calculated total dioxin emission by a factor of two (2). Under this set of assumptions, Dr. Scheller has concluded the plant would emit 137 grams of dioxin per year.

In order to appreciate the significance of this number, Dr. Scheller offered the following perspective. In 1985, Sweden declared a moratorium on the construction of new solid waste incinerators, because the government found that the total amount of the most toxic dioxin isomer (2,3,7,8 TCDD) released from all the plants in their country was 5 grams per year. A survey made available to Dr. Scheller of the composition breakdown of dioxins emitted from mass incinerators indicates that this particular isomer will constitute from 2%-19% of the total dioxin content. In the case of

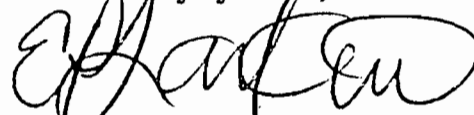
Mr. Bruce P. Miller  
May 14, 1987  
Page Two

the North Broward Facility, the emission of the most lethal dioxin component could range from 3-26 grams per year. Dr. Scheller concluded the one North Broward Facility may emit more toxic dioxin than the entire totality of garbage burners in Sweden.

After an intensive study by three Swedish government agencies for a period of one year, a recommendation was made to lift the moratorium provided that existing plants reduced their dioxin emissions to a maximum of 2 nanograms per cubic meter. Applied to the North Broward Plant, Dr. Scheller found an emission of 2,3,7,8 TCDD would be restricted to 5.8 grams per year. New incinerators in Sweden are required to meet much stricter standards, 0.1 nanograms per cubic meter, equivalent to 0.3 grams per year for the county mass-burner. Therefore, Dr. Scheller found this facility would not be permitted to open in Sweden.

Under the provisions of a suit settled on May 9, 1986, the EPA is required to reach a decision by June 21, 1987 on a petition requesting regulation of polycyclic organic matter (POMS) in incinerator emissions. This category of chemicals includes dioxins. We respectfully request you review this letter before final action on the petition is taken.

Sincerely yours,



E. Pat Larkins  
Mayor

cc: Broward County Legislative Delegation  
Wayne Voight, Staff Director  
Senate Natural Resources & Conservation Committee  
Dale Twachtmann, Secretary  
Department of Environmental Regulations

DEPARTMENT OF ENVIRONMENTAL REGULATION

**ROUTING AND TRANSMITTAL SLIP**

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

Barry Andrews, BAQM

Initial

Date

2.

Initial

Date

3.

Initial

Date

4.

Initial

Date

REMARKS:

FYI

INFORMATION

DER

SEP 25 1985

BAQM

Review & Return

Review & File

Initial & Forward

DISPOSITION

Review & Respond

Prepare Response

For My Signature

For Your Signature

Let's Discuss

Set Up Meeting

Investigate & Report

Initial & Forward

Distribute

Concurrence

For Processing

Initial & Return

FROM:

Julie Costas

DATE

PHONE

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

September 24, 1986

Honorable Theodore Thomas  
Member  
Coconut Creek City Council  
2803 Victoria Way  
Apartment M-2  
Coconut Creek, Florida 33066

Dear Mr. Thomas:

The Governor's office has asked me to respond to your questions concerning the department's position on whether or not acid gas control should be required for the North Broward County Resource Recovery project.

The department believes that a clear resolution of the type of air pollution controls that will be required for new municipal solid waste incinerators in Florida is a public policy issue of major importance. The department's new solid waste disposal regulations which are necessary to protect groundwater and drinking water supplies will significantly increase the cost of landfill operation. These regulations and the increasing cost of land that is suitable for landfill operations provides strong environmental and economic incentives for local governments to look to incineration of municipal solid waste as a means of preserving the valuable landfill space that remains.

There are basically three things that can be done to limit the emissions of air pollutants from municipal solid waste incinerators -- use state-of-the-art combustion technology, use state-of-the-art fine particulate gas cleaning equipment, and use lime scrubbing to reduce emissions of acid gases.

The rules under which these facilities are currently permitted are called the Prevention of Significant Deterioration, or PSD rules. These rules require that the emission limits for new incinerators be set in accordance with a rule referred to as the Best Available Control Technology (BACT) rule. This rule requires BACT limits to be set for a specific list of air pollutants specified in the regulation.

Honorable Theodore Thomas  
Page Two  
September 24, 1986

In applying that rule to new incinerators there is little disagreement that state-of-the-art combustion controls and state-of-the-art particulate gas cleaning control equipment are required. There is disagreement, however, whether acid gas control can be required under the existing rules.

The reason for the difference of opinion on acid gas control is that some people believe that only the pollutants specified in the regulation are to be considered in evaluating air pollution emissions from new facilities. Sulfur dioxide, sulfuric acid mist, fluorides, and nitrogen dioxide are the only "acid gases" listed in the regulations. The predominant acid gases (sulfur dioxide and nitrogen dioxide) emitted from a municipal incinerator are comparable in quantity to that emitted from an industrial boiler using clean fuel oil. Therefore, some argue that acid gas controls to further reduce the emissions of these two air pollutants are not warranted.

Those who believe acid gas control should be required on new incinerators point to the fact that a relatively large amount of hydrochloric acid (HCL) is emitted from municipal incinerators if uncontrolled. In addition, hydrochloric acid is believed to chemically react with various organic compounds in the refuse to form various types of toxic organic compounds such as dioxins and furans. Test data developed in Japan and Germany, and tests recently conducted in Canada have demonstrated that the technology referred to as dry scrubbing can be very effective in reducing hydrochloric acid emissions and also in reducing the emissions of dioxin and furans from these facilities. Proponents of acid gas control argue that although the existing rules may not allow setting a standard for hydrochloric acid, the emission of hydrochloric acid and other pollutants not on the list of pollutants in the rule should be considered in the evaluation in the emission limiting standards for sulfur dioxide and nitrogen dioxide. This review would allow the regulatory agency to set the standards for these pollutants at a more stringent level than would otherwise apply to ensure that the unlisted pollutants are also captured.

The department's position on all this is that the establishment of a requirement for acid gas control through the existing PSD/BACT rule is a legally debatable issue. However, based on the technical information that is now available, the department believes that acid gas control should be required for at least all new units. The department also recognizes that the EPA will

Honorable Theodore Thomas  
Page Three  
September 24, 1986

be releasing new information on this question over the next three months. The results of tests that the department has helped to co-sponsor in Massachusetts on the emissions of dioxin and acid gases will also become available this winter.

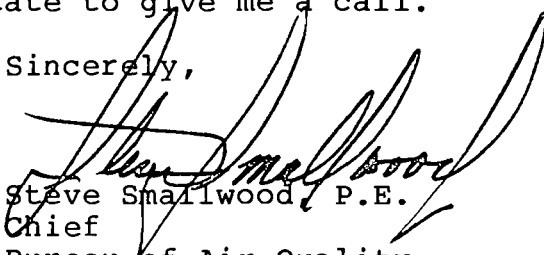
Therefore, the department has chosen to require applicants for new incinerators to leave space in the system they plan to build to install acid gas control at a later time, if the pending rule-making ends up requiring that.

The department's air technical staff believe that the rulemaking will find that acid gas control is both practical and prudent for at least all new incinerators.

We recognize that some people believe that we should advocate acid gas control as being required by the existing PSD/ BACT rule. We understand that point of view. But, we feel the issue can be more quickly and more clearly resolved through the rule-making process, which is better suited for forming new public policy. The existing BACT determination process and the Power Plant Certification process is not an appropriate vehicle, in our view, for establishing new public policy on an issue as broad and as important as this one.

If you need additional information on the bureau's position on this matter, please do not hesitate to give me a call.

Sincerely,



Steve Smallwood, P.E.  
Chief  
Bureau of Air Quality  
Management

SS: jr

cc: Victoria J. Tschinkel  
C. H. Fancy, P.E.  
Linda Shelley, Esquire  
Julie Costas, Esquire



United States Department of the Interior

DER

NATIONAL PARK SERVICE  
SOUTHEAST REGIONAL OFFICE

MAY 21 1986

75 Spring Street, S.W.  
Atlanta, Georgia 30303

BAQM

IN REPLY REFER TO:

N3615(SER-OPS)

MAY 16 1986

Mr. Tom Rogers  
Bureau of Air Quality Management  
State of Florida  
Department of Environmental Regulations  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

Dear Mr. Rogers:

Thank you for sending us a copy of North Broward County Resource Recovery Project, Incorporated's power plant site certification for a proposed resource recovery facility in Broward County, Florida. The proposed project would be located approximately 78 kilometers (km) northeast of Everglades National Park, a Class I area, and 65 km northeast of Big Cypress National Preserve, a Class II area.

Our review of the information sent to us is contained in the enclosed technical review document. The North Broward application makes the sixth application we have reviewed within the last 12 months for such facilities in the vicinity of these park units. If this trend continues, the National Park Service is concerned that the cumulative impacts from numerous such facilities, if not controlled using what we feel is best available control technology, would cause potential adverse impacts on park resources. Therefore, we are requesting that a flue gas scrubbing system be installed to control SO<sub>2</sub> (reduce SO<sub>2</sub> by over 80 percent), fluoride, hydrogen chloride and sulfuric acid mist, and that nitrogen oxides and particulate matter be controlled at a more stringent level than that proposed by the applicant. Once your technical review of the project is completed, we would like to review your preliminary determination document. We will submit any additional comments regarding the project during the 30-day public comment period.

If you have any questions regarding the enclosed comments, please contact Miguel Flores of our Air Quality Division in Denver at (303) 236-8765.

Sincerely,

Acting

*Frank Catrozza*  
Regional Director  
Southeast Region

Enclosure

Technical Review of Power Plant Site Certification Application  
for North Broward County Resource Recovery Project, Inc.

by

Permit Review and Technical Support Branch  
Air Quality Division - Denver

North Broward County Resource Recovery Project, Inc. (North Broward) is proposing to construct a resource recovery facility in north Broward County. The location is approximately 78 kilometers (km) NE of Everglades National Park, a PSD class I area administered by the National Park Service. The proposed project is also located approximately 65 km NE of the closest point of Big Cypress National Preserve, a class II area, also administered by the National Park Service. The purpose of the proposed facility is to dispose of solid waste generated in north Broward County. The proposed project is a mass-burn facility with a continuous design rated capacity of 2,200 tons per day (TPD) of solid waste, and an electrical generating capacity of 55.5 megawatts. North Broward has mentioned that they may have an ultimate generating capacity of approximately 83 megawatts using 3300 TPD of solid waste. If North Broward wants to increase the capacity to 3300 TPD, the project must be re-evaluated to determine the effects of the associated increase in emissions.

The emissions from the proposed facility are estimated as follows based on 2,200 TPD of refuse burned: 134 tons per year (TPY) of particulate matter (PM), 1,592 TPY of sulfur dioxide (SO<sub>2</sub>), 1,620 TPY of nitrogen oxides (NO<sub>x</sub>), 260 TPY of carbon monoxide (CO), 37.6 TPY of volatile organic compounds (VOC), 5.79 TPY of lead (Pb), 52.1 TPY of fluorides (F), 136 TPY of sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>), 0.0027 TPY of beryllium (Be), 2.7 TPY of mercury (Hg), and 0.09 TPY of arsenic (As). Under the PSD regulations, these emission rates are considered significant for all except VOC. Therefore, new source review is required for PM, SO<sub>2</sub>, NO<sub>x</sub>, CO, Pb, F, H<sub>2</sub>SO<sub>4</sub>, Be, Hg, and As. Following are our comments on the best available control technology, air quality, and air quality related values analyses with respect to the project's expected impacts.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

The major sources of emissions at the proposed North Broward County Resource Recovery Facility are the four associated furnaces. Therefore, our review focuses on emission controls on these units. Our BACT comments for the proposed furnaces are similar to the comments we submitted for the proposed Collier County and south Broward County resource recovery facilities. These comments were submitted to the Florida Department of Environmental Regulation (DER) previously. We again reference the publication entitled, "Air Pollution Control at Resource Recovery Facilities". This document was published in May 1984 by the California Air Resources Board (CARB) and discusses resource recovery facilities in detail. As of 1984, all refuse burning facilities with applications pending in California are proposing control technologies that are the same as, or more stringent than, the guideline emission limits discussed in this report.



For a new major source, a BACT analysis is required for each regulated pollutant emitted in significant amounts. For the proposed facility, the following pollutants will be emitted in significant amounts and require BACT review: PM, SO<sub>2</sub>, NO<sub>x</sub>, CO, Pb, F, Be, Hg, H<sub>2</sub>SO<sub>4</sub>, and As.

#### Particulate Matter

North Broward is proposing to use electrostatic precipitators (ESPs) to minimize PM emissions generated by combustion of the solid waste in the furnaces. Each ESP will be designed to reduce the exhaust gas PM concentration to 0.02 grains per dry standard cubic foot (gr/dscf). North Broward states that an ESP with an outlet grain loading of 0.02 gr/dscf is best available control technology for the proposed facility. We agree with North Broward that high efficiency control devices such as ESPs or baghouses represent BACT. However, stack testing data for other solid waste incinerators indicate these devices are capable of controlling PM emissions below the proposed 0.02 gr/dscf rate. In fact, based on information provided in the CARB document mentioned above, an emission limit of 0.01 gr/dscf can be achieved with these devices. This is the guideline emission limit proposed by the CARB for new resource recovery facilities in California and should be considered as the BACT limit for Florida facilities as well. The 0.01 gr/dscf rate is also the rate specified in the Maine Department of Environmental Protection's recent license to Penobscot Energy Recovery Company (PERC) for a resource recovery facility in Orrington, Maine. Therefore, we recommend the DER specify 0.01 as the BACT limit for North Broward.

#### Sulfur Dioxide

North Broward is proposing no control devices for limiting SO<sub>2</sub> emissions; rather, they are proposing the firing of low sulfur refuse as BACT for the proposed facility. The resulting BACT limit proposed is 0.55 pounds per million Btu heat input (lb/10<sup>6</sup> Btu).

The emission guideline recommended in the CARB document is 30 ppm, which corresponds to an SO<sub>2</sub> emission rate of approximately 0.08 lb/10<sup>6</sup> Btu. To achieve this emission level, which is significantly more stringent than the rate proposed by North Broward County, flue gas controls such as wet or dry scrubbing are required. Dry scrubbing processes have been effectively employed at pilot and full-scale refuse burning facilities in Europe, Japan, and the United States. Wet scrubbers have also been employed at full-scale refuse burning facilities. Also, applicants for two resource recovery facilities in Maine recently proposed the use of spray dryer scrubbers to minimize SO<sub>2</sub> and acid gas emissions. The resulting SO<sub>2</sub> emissions from the PERC facility referenced above were recently permitted at 0.067 lb/10<sup>6</sup> Btu after the scrubbing. The SO<sub>2</sub> emissions from Regional Waste Systems' (RWS) proposed facility in Portland, Maine, were estimated to be 0.074 lb/10<sup>6</sup> Btu.

It is our understanding that flue gas scrubbers will also be installed at the Palm Beach County resource recovery facility. In addition, for the Collier County resource recovery facility, the DER made a preliminary determination

that flue gas scrubbing or similar technology was BACT for control of acid gases. The DER also indicated that the installation of an acid gas removal system would also provide control for SO<sub>2</sub> emissions. We assume that the DER will make a similar determination for North Broward and require flue gas scrubbing for the proposed facility. Therefore, because the flue gas scrubbing system required for control of acid gases will also reduce SO<sub>2</sub> emissions, we recommend the DER specify SO<sub>2</sub> limits for North Broward that reflect the SO<sub>2</sub> reductions achievable with a flue gas scrubbing system, and are comparable with the above CARB limits.

#### Nitrogen Oxides and Carbon Monoxide

The two primary variables that affect the formation of NO<sub>x</sub> from resource recovery furnaces are the temperature and the concentration of oxygen in the combustion zone. North Broward is proposing furnace design and good combustion practices as NO<sub>x</sub> BACT. Combustion controls include use of low excess air, limiting peak combustion temperature, and good air/fuel mixing in the combustion chamber. North Broward determined that a NO<sub>x</sub> emission rate of 5.0 lb/ton (0.55 lb/10<sup>6</sup> Btu) represent BACT for the proposed facility. We agree with North Broward that the proposed use of combustion controls represent BACT. However, based on information presented in the CARB report and other reports referenced in North Broward's PSD application, we feel combustion control can reduce NO<sub>x</sub> emissions to the 3.0 lb/ton or lower range. For example, on page 4-10 of the PSD application it states that Camp, Dresser and McKee (1984) reported emission factors for five operating solid waste fired facilities in the United States ranging from 2.1 to 4.6 lb/ton. Three other facilities were permitted at a rate of about 3.0 lb/ton. EPA (1984a) also cites a factor of 3.0 lb/ton. The application also states that Henningson, Durham and Richardson (1985b) surveyed eleven solid waste incinerators throughout the United States and found NO<sub>x</sub> emissions ranging between 1.1 and 4.7 lb/ton. In addition, A.D. Little's (1981) survey showed emissions to range from 0.7 to 4.4 lb/ton. Based on this information, we do not understand why North Broward feels a 5.0 lb/ton rate represents BACT.

Carbon monoxide emissions result primarily from incomplete combustion. North Broward is proposing as BACT a combustion control system that will insure sufficient mixing of the solid waste fuel and air so that the emissions of products of incomplete combustion are minimized. We agree with North Broward that the proposed combustion controls represent BACT for emission of CO from the proposed facility. North Broward is proposing to emit 260 TPY of CO.

#### Other Pollutants

Other pollutants emitted from the proposed facility that require BACT review include, Pb, F, Be, Hg, H<sub>2</sub>SO<sub>4</sub> and As. In addition, although presently not a regulated pollutant, significant amounts of hydrogen chloride (HCl) can be emitted from municipal incinerators and should be minimized.

Lead, Be, and As are emitted in the solid phase. Therefore, the ESPs proposed to control PM emissions will also control these pollutants. We agree that the proposed ESPs represent BACT for these pollutants.

Fluorides,  $H_2SO_4$ , HCl, and mercury are emitted primarily in the gaseous phase. North Broward did not propose additional controls for these pollutants. However, assuming the DER determines dry scrubbing is BACT for acid gas control, as they did for the Collier County resource recovery facility, these emissions would be reduced by as much as 90 percent. We feel a dry scrubbing system or equivalent is BACT for these pollutants.

#### AIR QUALITY ANALYSIS

The application indicates that ISCST was used to predict the maximum air quality impacts due to the proposed plant. This seems to be an appropriate application of this model for this source. The air quality modeling analysis predicts maximum  $SO_2$  3-hour and 24-hour concentration increases of 3.2 micrograms per cubic meter ( $ug/m^3$ ) and  $0.61 ug/m^3$  that added to the background values of  $27 ug/m^3$  and  $12 ug/m^3$  would give total concentration levels of  $30.2 ug/m^3$  and  $12.61 ug/m^3$  respectively in Everglades National Park. The proposed plant is predicted to add only a minor amount to the annual concentration level in the park.

The attached table (from the application) shows the maximum predicted concentrations of the pollutants to be emitted from the proposed plant and concentrations known to adversely impact vegetation. Using a ratioing technique we calculated the maximum concentration of arsenic to be  $0.0005 ug/m^3$ . We have also converted each concentration expressed in  $ug/m^3$  to parts per million (ppm) for the heavy metals, for easier comparison to known effects levels.

#### AIR QUALITY RELATED VALUES ANALYSIS

There are numerous air quality related values (AQRVs) found in Everglades National Park. These include 14 Federally listed endangered and threatened species, and a number of unlisted rare and threatened species. There are also many species of epiphytes, including certain species of orchids, that are not found anywhere else in the National Park system and are uniquely sensitive to air pollution.

In addition to the resources of Everglades National Park, we are concerned about the resources of Big Cypress National Preserve. It is the responsibility of the National Park Service, under the Organic Act of 1916, to ensure that the unique resources of Everglades National Park and Big Cypress National Preserve are protected from degradation. Big Cypress contains 10 Federally threatened or endangered species and is famous for a high diversity of rare bromeliads and orchids.

The discussion below on the sensitive resources of Everglades National Park and Big Cypress National Preserve is partially from testimony given by Jack Morehead, former Superintendent of Everglades National Park, outlining NPS concerns over air pollution effects on park resources from a Dade County power plant. Because of these concerns the NPS and Florida Power and Light have instituted some research projects that are not yet complete.

Dade County Slash Pine. This pine (Pinus elliotti var. densa) is a variety of slash pine that is biologically distinct from the slash pine that is found in other parts of the southeastern U.S. (Tomlinson, 1980). Originally including some 200,000 to 300,000 acres along a limestone ridge in southeast Florida, it has been seriously cut back by farming and urban development so that the only remaining contiguous population (approximately 20,000 acres) of this variety in the world is in Everglades National Park. The species is known to be sensitive to ozone: levels as low as 0.05 parts per million (ppm) for 18 weeks of exposure have been shown to depress photosynthesis nine percent (Barnes, 1972). Stands of this pine are very open, thus increasing the flux of pollutants to many individual trees. In addition, this species does not grow with only one annual ring per year as temperate pines do. Instead, this species can produce as many as five growth flushes a year, thus subjecting five new sets of needles to air pollutants. NPS is currently funding fumigation studies exposing the pine to both ozone and SO<sub>2</sub> because the likelihood of synergistic effects is high (pines are known to be highly sensitive to both pollutants (Smith, 1981). These studies, conducted by the Environmental Protection Agency Corvallis Environmental Research Laboratory, have shown that south Florida slash pine is extremely sensitive to a few episodes of acute SO<sub>2</sub> when ozone levels average only .04 - .05 ppm/7 hour daylight mean. One exposure to one hour of SO<sub>2</sub> at 534 ug/m<sup>3</sup> plus three exposures at 267 ug/m<sup>3</sup> throughout the growing season caused significant reductions in biomass and size of seedling trees, even without the appearance of foliar injury symptoms. Permanent plots and potted seedlings of slash pine have been installed in Everglades National Park to monitor effects of these pollutants. So far, there have been reports of ozone-like symptoms on pines in Everglades National Park.

Lichens. Tropical hardwood trees in the hammocks in the park are typically covered with many species of foliose lichens. Lichens are extremely sensitive to low annual averages of SO<sub>2</sub> (less than 0.01 ppm) and have been observed to disappear in areas where such concentrations are found (Skye, 1968; Richardson, D.H.S. et al., 1981; Manning, W.J. & W. A. Feder, 1980). Lichens are the food base for the unique and rare Liguus tree snails for which Everglades National Park serves as a significant portion of their remaining habitat and population (George, 1972). The effects of SO<sub>2</sub> on these lichens could lead to irreversible loss of the tree snails. NPS is currently conducting studies of the SO<sub>2</sub> sensitivities of lichens in Everglades National Park. Of the lichens studied, one, Ramalina denticulata, appears to be sensitive to SO<sub>2</sub> levels at 100 ug/m<sup>3</sup> for six hours a week for 10 weeks. This lichen is in a genus that is known to die out at SO<sub>2</sub> annual average concentrations between 5 and 30 ug/m<sup>3</sup>.

Epiphytes. The park is famous for numerous species of orchids and bromeliads, species of vascular plants that grow on branches of trees in hammocks and pinelands. The epiphytes depend on the branches for support and some nutrients, but they depend entirely on precipitation for water and most nutrients. These species have a unique susceptibility to acid precipitation and dry deposition of SO<sub>2</sub> and metals on their foliage. A review of the literature has shown that anatomically, physiologically, and ecologically they are uniquely sensitive to air pollution (Benzing, 1981). A study on the sensitivity of

epiphytes in Everglades National Park to air pollution (SO<sub>2</sub> and O<sub>3</sub>) was initiated this year. In addition, these epiphytes and the sensitive lichen species have been placed in biomonitoring plots in the parks and other areas of south Florida. They will be studied and sampled every year for air pollution effects.

Other pollutants emitted by the proposed facility deserve special attention in the AQRV analysis. Fluoride is much more phytotoxic than SO<sub>2</sub>, and lichens and orchids are hypersensitive to it at the parts per billion level. In addition, elevated levels of Hg and As have been found in invertebrates in the park (Ogden et al. 1974).

Due to currently high ozone levels in the park, reported ozone-like symptoms on slash pine, and the synergistic effect of ozone and SO<sub>2</sub>, reduction of NO<sub>x</sub> emissions from 5.0 to 3.0 lb/ton and SO<sub>2</sub> emissions by use of a flue gas scrubber, will minimize the impact on park resources. The use of a flue gas scrubber would also reduce fluoride emissions which are toxic to lichens and epiphytes, and it would help reduce H<sub>2</sub>SO<sub>4</sub> and HCl which contribute to the acidity of rainfall.

#### Conclusions

The resources of Everglades National Park and Big Cypress National Preserve are unique, and many are sensitive to air pollutants. The area is a high growth area and there are presently applications pending for at least four resource recovery plants within 100 kilometers of these parks. Due to this high growth, the sensitivity of park resources, and the proposed NO<sub>x</sub>, SO<sub>2</sub>, and PM emission rates not reflecting BACT, the National Park Service requests that:

- (1) The NO<sub>x</sub> emission rate be reduced from 5.0 to 3.0 lb/ton;
- (2) a flue gas scrubbing system be installed and the emission limitations for SO<sub>2</sub>, F, H<sub>2</sub>SO<sub>4</sub>, HCl, and Hg be reduced to reflect the reductions achievable through the use of such a system; and
- (3) an emission rate of 0.01 gr/dscf be specified as BACT for PM.

LITERATURE CITED

- A.D. Little, Inc. 1981. Municipal Incinerator Emission Estimates.
- Barnes, R.L. 1972. Effects of chronic exposure to ozone on photosynthesis and respiration of pines. *Environ. Pollut.* 3: 133-138.
- Benzing, David H. 1981. The Potential for the Impact of Acid Rain and Other Potential Air-borne Toxins on Epiphytic Vegetation on Everglades National Park. Report to the National Park Service, Air Quality Division, Denver, Colorado.
- Camp, Dresser & McKee, Inc. 1984. Solid Waste Energy Recovery Facility-Application for Power Plant Site Certification, Hillsborough County Board of County Commissions.
- George, J.C. 1972. Everglades Wildguide. National Park Service, Office of Publications.
- Henningson, Durham, and Richardson. 1983. Revised Application for Power Plant Siting, for the Third Boiler Expansion at the Pinellas County Resource Facility.
- Manning, W.J. & W.A. Feder. 1980. Biomonitoring Air Pollutants with Plants. Applied Science Publishers, London.
- Ogden, J.C. et al. 1974. Pesticides, polychlorinated byphenols and heavy metals in upper food chain levels, Everglades National Park and vicinity. Final report. Everglades National Park. NTIS # PB-235 359.
- Richardson, D.H.S. & E. Nieboer. 1981. Lichens and Pollution Monitoring. *Endeavor* 5: 127-133.
- Skye, E. 1968. *Acta Phytogeo. Suecica*. 52 Uppsala.
- Smith, W.H. 1981. Air Pollution and Forests. Springer-Verlag, New York
- Tomlinson, P.B. 1980. The Biology of Trees Native to Tropical Florida. Harvard Univ. Printing Office, Allston, Mass.
- U.S. Environmental Protection Agency. 1984a. Compilation of Air Pollutant Emission Factors (AP-42). Through Supplement 15.

Table 8-1. Maximum Predicted Concentrations Due to the Proposed NBCRR Facility Compared to Concentrations Known to Adversely Impact Vegetation

Pollutant	Average Period	Concentration (ug/m <sup>3</sup> )			Lowest Concentration Known to Impact Vegetation (ug/m <sup>3</sup> )	Reference	
		Maximum Predicted Due to Facility	Background* (ppm)	Total (Facility Plus Background)			
SO <sub>2</sub>	3-hour	34.6	27	61.6	260 for 6 hours 12 times in 12 weeks	Flagler and Younger, 1982	
TSP	24-hour	0.71	63	63.7	32,000†	Thompson <u>et al.</u> , 1984	
NO <sub>2</sub>	Annual	0.73	34	34.7	120	Thompson, 1970	
	3-hour	35.2	**	35.2	188	Tingey, 1971.	
CO	1-hour	11.0	7,000	7,011	Vegetation not impacted by CO	--	
Pb	3-month	0.0026	$3.1 \times 10^{-6}$	0.2	Unavailable to plants in high calcium and organic soils	Zimdahl and Skogerboe, 1977	
	24-hour		$3.6 \times 10^{-5}$				
F <sup>-</sup>	24-hour	0.27	$3.5 \times 10^{-4}$	**	0.27	1 to 3	McCune, 1969. Adams, 1956.
Be	24-hour	0.000014	$3.8 \times 10^{-8}$	**	0.000014	Not known to be available to plants	Gough <u>et al.</u> , 1979
Hg	24-hour	0.014	**	0.014	10 (Duration unknown)	Stahl, 1969	
As	24-hour	0.0005	$1.5 \times 10^{-7}$				

\*Second highest 24-hour or highest annual average concentration measured within 10 km of the facility (see Section 5.2). The 3-hour concentration is not available with monitoring technique. The 3-hour background concentration was assumed equal to 2.25 times the 24-hour concentration of 12 µg/m<sup>3</sup> (DER, 1985).

†Assumes deposition velocity of 0.18 cm/sec.

\*\*Ambient monitoring data not available in Broward County.

Source: ESE, 1986.

From - PSD Application - North Broward

DEPARTMENT OF ENVIRONMENTAL REGULATION

**ROUTING AND TRANSMITTAL SLIP**

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

*Buck Oven*

Initial

Date

2.

*Rm. 309L*

Initial

Date

3.

Initial

Date

4.

Initial

Date

REMARKS:

*ZYI*

**RECEIVED**

OCT 24 1989

DER - BAQM

INFORMATION

Review & Return

Review & File

Initial & Forward

DISPOSITION

Review & Respond

Prepare Response

For My Signature

For Your Signature

Let's Discuss

Set Up Meeting

Investigate & Report

Initial & Forward

Distribute

Concurrence

For Processing

Initial & Return

FROM:

*Nottie Ginger*

DATE

*10/24*

PHONE

*8-0870*





# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

September 26, 1989

Shapo, Freeman and Freedman  
200 South Biscayne Boulevard  
Suite 4310  
Miami, Florida 33131

*Copies*

Attention: Jackie

Dear Jackie:

Enclosed please find a copy of the Final Order and the Recommended Order for the North Broward County Resource Recovery Project as requested. Please remit to the Department of Environmental Regulation \$2.65 to pay for copying costs.

Sincerely,

*Hamilton S. Owen, Jr.*

Hamilton S. Owen, Jr., P.E.  
Administrator, Office of  
Siting Coordination  
Division of Air Resources  
Management

cc: Dottie Ginger

RECEIVED

OCT 24 1989

DER - BAQM

1989 OCT 16 PM 1:52

RECEIVED  
DER - MAIL ROOM

*Book Over*

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

**No. 141063**

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from *Shapo Freeman & Freedman* Date *10-17-89*

Address \_\_\_\_\_ Dollars \$ *2<sup>65</sup>*

Applicant Name & Address \_\_\_\_\_

Source of Revenue *Copies*

Revenue Code *CYR* Application Number *2588*

By *Ottie Ginger*

BEFORE THE GOVERNOR AND CABINET  
OF THE STATE OF FLORIDA

In Re: NORTH BROWARD COUNTY  
RESOURCE RECOVERY PROJECT  
POWER PLANT SITING CERTIFICATION  
APPLICATION P.A. 86-22

DOAH CASE No. 86-0674  
OGC File No. 86-0216

---

FINAL ORDER

The following members of the Florida Electrical Power Plant Siting Board were present and participated in the disposition of this matter:

Honorable Bob Martinez  
Governor

Honorable George Firestone  
Secretary of State

Honorable Robert Butterworth  
Attorney General

Honorable Gerald A. Lewis  
Comptroller

Honorable Bill Gunter  
Treasurer & Insurance Commissioner

Honorable Betty Castor  
Commissioner of Education

Honorable Doyle Conner  
Commissioner of Agriculture

BY THE GOVERNOR AND CABINET:

The Governor and Cabinet, sitting as the Siting Board, having heard presentations by parties; having reviewed the Recommended Order and Conditions of Certification dated January 9, 1987, (attached and incorporated as Exhibit "A"); the record below; and being fully advised herein, it is ORDERED:

1. Broward County's Motion to Strike Cities' Notice of Supplementing the Record is hereby GRANTED. Cities' Notice of Supplementing the Record is unauthorized by the rules of administrative procedure, and is irrelevant and immaterial to the issues presented in this proceeding.

2. Broward County's Motion to Strike Cities' Proposed Final Order is hereby GRANTED. Cities' Proposed Final Order is

violative of the rules of administrative procedure in that Cities were not a party to the proceeding; the Proposed Final Order was untimely filed; the Cities' Petitions to Intervene were properly denied; and the Hearing Officer properly exercised his authority by excluding correspondence dated October 6, 1986, from the U.S. Environmental Protection Agency to DER.

3. The Joint Motion of Applicant Broward County and Florida Department of Environmental Regulation to Correct Conditions of Certification is hereby GRANTED. Page 31 of the Hearing Officer's Recommended Conditions of Certification is deleted, and page 32 is substituted as page 31.

4. The Recommended Order dated January 9, 1987, including the Conditions of Certification numbered pp. 1-31 (as corrected), is hereby APPROVED and ADOPTED in toto.

Any party to this order has a right to seek judicial review of the order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Siting Board, Department of Environmental Regulation, in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and filing a copy of Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty (30) days from the date this Order is filed with the Clerk of the Siting Board.

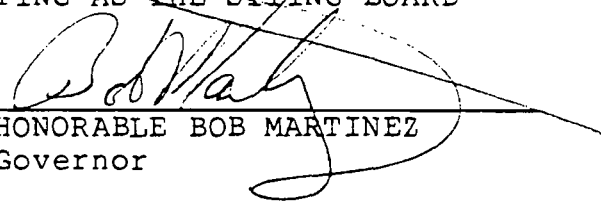
DONE AND ORDERED this 9th day of March, 1987, in Tallahassee Florida, subsequent to a vote of the Governor and Cabinet at the duly noticed and constituted Cabinet Meeting of March 3, 1987.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to S120.52  
Florida Statutes, with the designated Department  
Clerk, receipt of which is hereby acknowledged.

C. Hutchins  
Clerk

3-9-87  
Date

FOR THE GOVERNOR AND CABINET,  
SITTING AS ~~THE~~ SITING BOARD

BY:   
HONORABLE BOB MARTINEZ  
Governor

Copies furnished:  
(see attached list)

STATE OF FLORIDA  
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: NORTH BROWARD COUNTY ) CASE NO. 86-0674  
RESOURCE RECOVERY )  
PROJECT, INC. ) NOTICE OF TAKING  
POWER PLANT SITING ) DEPOSITION  
CERTIFICATION APPLICATION )  
P.A. 86-22 )

---

TO: JULIA D. COSTAS, ESQ.  
Assistant General Counsel  
Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

**DER**  
**OCT 10 1988**  
**BAQM**

PLEASE TAKE NOTICE that the undersigned attorneys  
will take the deposition of:

<u>NAME AND ADDRESS</u>	<u>DATE AND TIME</u>	<u>PLACE</u>
BARRY ANDREWS Department of Environ- mental Regulation Twin Towers Office Building 2600 Blair Stone Road Tallahassee, FL 32301	Monday, October 13, 1986, at 5:00 p.m.	Coral Room, Palm-Aire Hotel Resort and Conference Center, 2501 Palm-Aire Drive North, Pompano Beach, FL

upon oral examination before OWEN COLLIFLOWER, Court Reporter,  
or any other officer appointed by law to take depositions  
in the State of Florida. The oral examination will continue  
until completed. The deposition is being taken for the  
purpose of discovery, for use at trial, and for such other  
purposes as are permitted under the rules of civil procedure  
and the rules of the Florida Administrative Code. Please  
bring with you at the time of deposition any and all files,  
reports, letters, and any other documentation relating  
to Broward County's application for power plant siting  
certification (No. P.A. 86-22) in the possession of the  
Department of Environmental Regulation, including those  
related to the Department's justification for requiring  
the emission limits proposed by the Department for this project.

Broward County makes this request for production under the rules of civil procedure and the Public Records Act, chapter 119 of the Florida Statutes.

I CERTIFY that a true copy of the foregoing Notice was express-mailed to the address specified above on the 7th day of October, 1986.

GREENBERG, TRAURIG, ASKEW,  
HOFFMAN, LIPOFF, ROSEN &  
QUENTEL, P.A.  
Special Counsel  
1401 Brickell Avenue  
Miami, Florida 33131  
Telephone: (305) 579-0500

BY: Timothy A. Smith  
TIMOTHY A. SMITH

CERTIFICATE OF SERVICE

I CERTIFY that on this 7th day of October 1986 a true copy of the foregoing Notice was served on the deponent named above, the original and one true copy of the foregoing Notice were mailed to WILLIAM J. KENDRICK, Hearing Officer, Division of Administrative Hearings, the Oakland Building, 2009 Apalachee Parkway, Tallahassee, FL 32301, and a true copy of this Notice was mailed to:

Susan F. Delegal, Esq.  
General Counsel  
Suite 423  
Governmental Center  
115 South Andrews Avenue  
Ft. Lauderdale, Florida 33301

Michael B. Twomey, Esq.  
Staff Counsel  
Public Service Commission  
101 East Gaines Street  
Tallahassee, Florida 32301

Timothy A. Smith, Esq.  
Greenberg, Traurig, Askew,  
Hoffman, Lipoff, Rosen  
& Quentel, P.A.  
1401 Brickell Avenue  
Miami, Florida 33131

C. Lawrence Keeseey, Esq.  
General Counsel  
Office of the General  
Counsel  
Department of Community  
Affairs  
2571 Executive Center  
Circle East  
Tallahassee, Florida 32301  
Elizabeth D. Ross, Esq.  
District Counsel  
South Florida Water Management  
District  
P.O. Drawer V  
West Palm Beach, Florida 33402

J. Alan Cox, Esq.  
Attorney for Municipalities  
105 West 5th Avenue  
Tallahassee, Florida 32303

Timothy A. Smith  
TIMOTHY A. SMITH