



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Air Resources Division

P.O. Box 25287

Denver, CO 80225

January 17, 2003

N3615 (2350)

A. A. Linero, P.E., Administrator
Department for Environmental Protection
New Source Review Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED

JAN 22 2003

BUREAU OF AIR REGULATION

Dear Mr. Linero:

We have reviewed the Lee County Energy Recovery Facility's (LCERF) Prevention of Significant Deterioration (PSD) permit application for the expansion of their Lee County, Florida facility. The facility is located approximately 90 kilometers northwest of Everglades National Park (NP), a Class I air quality area administered by the National Park Service (NPS). Proposed changes to the LCERF will cause emissions of nitrogen oxides (NO_x) to increase by 310 tons per year (TPY), sulfur dioxide (SO_2) to increase by 288 TPY, sulfuric acid mist (H_2SO_4) to increase by 73 TPY, particulate matter (PM_{10}) to increase by 22 TPY, and mercury (Hg) to increase by 0.187 TPY.

Based on our review of the permit application, we do not anticipate that the proposed project will have a significant impact on sensitive resources at the Everglades NP. However, we do have the following comments concerning the Best Available Control Technology analysis section.

Best Available Control Technology (BACT) Analysis

The LCERF project will include the addition of a third, 660 ton per day (tpd) municipal waste combustor (MWC) at the existing facility. SO_2 emissions will be controlled to 29 ppmdv by a Spray Dry Absorber. NO_x emissions will be controlled to 150 ppmdv by Selective Non-Catalytic Reduction (SNCR), and PM_{10} controlled to 0.009 gr/dscf by a fabric filter. Mercury emissions will be controlled by injection of activated carbon. No additional controls are proposed for H_2SO_4 emissions.

SO₂: We agree that a Spray Dry Absorber represents BACT. However, we question the emission limit proposed. The information presented in the LCERF application, Table 4-1 shows that a Spray Dry Absorber is capable of 85-95% SO₂ removal, while 80% SO₂ control is proposed for LCERF. We recommend that at least 90% SO₂ removal is BACT.

NO_x: The proposed SNCR will reduce NO_x emissions by 42%, from 260 ppm to 150 ppm. The LCERF PSD application identifies several MWCs in Europe and Canada, which are using the more efficient Selective Catalytic Reduction (SCR) technology to reduce emissions to 19-90 ppm. However, the application cites the cost of using SCR as being prohibitive. A review of the cost calculations provided in the PSD application, raises several questions. We question why the cost/benefit calculations were based on an SCR emission rate double that guaranteed by one of the potential vendors, while using the exact costs estimated by the same vendor. In the case of Babcock Borsig Power, its cost quotes to RTP dated 10/19/01 and 12/04/01, repeatedly asserts that its SCR system can reduce NO_x emission from 270 ppm at the SCR inlet to 50 ppm at the outlet, a removal efficiency of 82%.

Using SCR at 82% control efficiency could reduce NO_x emissions from the LCERF by an additional 214 TPY compared to the proposed 42% efficient SNCR system. We have estimated the costs and benefits of using SCR based upon Chapter 3 of the OAQPS Control Cost Manual. Based on our enclosed analysis, we estimate a cost of \$6300 to reduce a ton of NO_x.

Hg: A baghouse alone is 40-50% effective in capturing Hg emissions. The upstream injection of activated carbon should capture most of the elemental Hg in the gas stream and achieve a high degree of Hg control.

PM: A baghouse at 0.009 gr/dscf is proposed for the LCERF. However, because it is the baghouse that ultimately must capture particulates, toxic heavy metals, and the reaction products of acid gases, maximizing the collection efficiency of the baghouse becomes extremely important. Based on the Environmental Agency's RACT/BACT/LAER Clearinghouse for MWCs, we believe that the LCERF should be capable of reducing baghouse emissions to the same outlet concentration as a well-controlled boiler or electric arc furnace. For example, the Northhampton Generating station in Pennsylvania has a limit of 0.010 lb/mmBtu using a fabric filter and recently was tested at 0.0041-0.0045 lb/mmBtu. By comparison, the LCERF would emit PM at a rate of 0.018 lb/mmBtu. If we compare LCERF's proposed emissions to an electric arc furnace, its outlet concentration would exceed that of an electric arc furnace (i.e., Nucor, Darlington, SC @ 0.0018 gr/dscf) by a factor of five times.

In summary, LCERF should revise its cost analysis for SCR to reflect the actual capabilities to further limit NO_x emissions through the use of SCR. LCERF should also document and justify any deviations in its cost/benefit analysis from the OAQPS Cost Manual. LCERF should also propose lower limits for SO₂ and PM to better reflect emission levels achievable with the chosen technology.

Thank you for involving us in the review of the PSD permit application for the LCERF project. Please do not hesitate to contact me at (303) 969-2817 regarding future air quality matters involving the NPS.

Sincerely,



Darwin W. Morse
Environmental Protection Specialist
Policy, Planning and Permit Review Branch

Enclosure

cc: M. Halpin
D. Nelson
R. Blackburn, SD
B. Owen
G. Kittle, EPA
Z. Sampson, Xee Co.

Lee County Energy Recovery Facility

Table 1.a
Plant Data

Site	NPS Area(s)	Source		Capacity	
				(mmBtu/hr)	(TPD)
Lee County Energy Recovery Facility	EVER	1	MWC	275	660
				each	each

Given/Assumptions

Source	MWC
Exhaust gas flow (lb/Hr)	
Exhaust gas flow (acfm)	155,800
Basic Equipment Costs	\$6,300,000
Sales Tax	3%
Uncontrolled Emission rate (ppm)	270
Uncontrolled Emission rate (TPY)	489
Control efficiency (%)	81%
Controlled Emission rate (ppm)	50
Operating Hours per Year	8,760
Operating Hours per Shift	8
Operating Shifts per Year	1095
Operating Labor Cost (\$/hr)	\$45.00
Maintenance Labor Cost (\$/hr)	\$45.00
Electrical Cost (\$/kWh)	\$0.05
Reagent Use (lb NH3/lb NOx)	0.6
Reagent Costs (\$/T)	\$300
NH3 Pump & Dilution Air Blower Power (kW)	5
Power to Vaporize NH3 (kW/lb NH3 an)	2
Catalyst replacement	\$270,000
Catalyst life (Yr)	3
Catalyst Pressure Drop (in. H2O)	1.5
Heat rate penalty (% per inch pressure drop)	0.15%
Ammonia slip (ppm)	5
Equipment Life (Yr)	15
Interest Rate (%)	7.00%

Lee County Energy Recovery Facility

Table 1.b

Capital Costs (OAQPS Control Cost Manual Chapter 3--Catalytic Incinerators)

Cost Item	Factor	Cost
Direct Costs		MWC
Purchased equipment costs		
SCR + auxiliary equipment		\$6,300,000
Ductwork		\$100,000
Increased fan size		\$50,000
Total A		\$6,450,000
Sales taxes		\$0
Freight		\$0
Purchased equipment cost, PEC B=		\$6,450,000
Direct installation costs		\$5,686,750
Painting		\$30,000
Direct installation costs		\$5,716,750
Site preparation	As required, SP	\$29,000
CEM Buildings	As required, Bldg.	\$25,000
Concrete		\$40,000
SCR Building		\$530,000
Electrical Systems		\$56,000
Instrumentation Systems		\$8,000
Insulation systems		\$29,000
		\$717,000
Total Capital Costs		\$12,883,750
Indirect Costs (installation)		
Engineering		
Construction and field expenses		
Contractor fees	0.10 B	\$645,000
Start-up	0.02 B	\$129,000
Performance test	0.01 B	\$64,500
Contingencies	0.03 B	\$193,500
Total Indirect Cost, IC	0.16 B	\$1,032,000
Total Capital Investment = DC + IC	0.16 B+SP+Bldg	\$13,915,750

Lee County Energy Recovery Facility

Table 1.c

Annual Costs (OAQPS Control Cost Manual Chapter 3—Catalytic Incinerators)

Cost Item	Factor		Cost
<u>Direct Annual Costs, DC</u>			MWC
Operating labor			
Operator	0.5 hr/shift		\$24,638
Supervisor	15% of operator		\$3,696
Operating materials			
Reagent			
0.6 T NH ₃ /T NO _x	489 TPY NO _x *	0.81 % control = 239 TPY *	239 TPY 300 \$/T =
			\$71,738
Maintenance			
Labor	0.5 hr/shift		\$24,638
Material	100% of maintenance labor		\$24,638
Catalyst replacement	\$270,000 +	3% tax + 5% freight =	\$292,005
	\$292,005 * CRF @	0.3811 =	\$111,269
Electricity			
NH ₃ Pump & Dilution Air Blower Power	5 kW*	0.05 \$/kWh*	8,760 hr/yr=
			\$2,190
Vaporization of aqueous NH ₃	2 kW/lbNH ₃ an*0.28lb/NH ₃ /lbNH ₃ *	54.6 lb NH ₃ /hr*	
		0.05 \$/kWh*	8,760 hr/yr=
			\$13,391
Total DC			\$276,197
<u>Energy Costs</u>			
Annual Electrical Needs			\$2,847
Additional ID fan power			\$116,946
			\$119,793
<u>Indirect Annual Costs, IC</u>			
Overhead	60% of maintenance costs		\$31,782.38
Administrative charges	2% of Total Capital Investment		\$278,315
Property tax	1% of Total Capital Investment		\$139,158
Insurance	1% of Total Capital Investment		\$139,158
Capital recovery	0.1098 * [Total Capital Investment-(1+	0.00)(Cat Cost)]	\$1,515,658
Total IC			\$2,104,070
Total Annual Cost		DC + IC	\$2,500,060

Lee County Energy Recovery Facility

Table 1.d

Cost Effectiveness

Source	MWC	Units
Pollutant	NOx	
Uncontrolled emissions	489	TPY
Control efficiency	81%	
Controlled emissions	91	TPY
Pollutants removed	399	TPY
Annual cost	\$2,500,060	/yr
Annual cost - Emission fees saved	\$2,488,103	@ \$30/T
Cost/ton	\$6,273	/T



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

December 27, 2002

4APT-APB

MEMORANDUM

SUBJECT: Lee County Energy Recovery Facility
FROM: Jim Little - EPA Region 4, Air Permits Section
TO: Mike Halpin - Florida Department of Environmental Regulation

Lee County, Florida, has proposed the installation and operation of a third municipal waste combustor (Unit 3) at the existing Lee County Energy Recovery Facility. This memo contains our preliminary comments on the prevention of significant deterioration (PSD) air permit application for the project (Volume III of the Supplemental Application for Power Plant Site Certification). The comments in this memo pertain to sections of the application other than the air quality impact analysis sections. At a later time we may provide additional comments including air quality impact analysis comments.

In the following items, the referenced page numbers are page numbers in the application.

1. For several pollutants, the applicant has proposed the federal new source performance standards (NSPS) in subpart Eb as best available control technology (BACT). We support the comments made by the Florida Department of Environmental Protection's (FDEP's) Bureau of Air Regulation (memo from Mike Halpin to Buck Oven dated December 12, 2002) to the effect that an emissions level meeting an applicable NSPS is the minimum requirement and not necessarily the level representative of BACT. For all pollutants where the proposed BACT emissions levels are no better than the NSPS, we recommend that FDEP give careful consideration to the possibility of lower BACT levels. Reviewing actual emissions data from the existing Units 1 and 2 might be helpful in evaluating the feasibility of lower emissions.
2. On page 1-4 the following statement appears: "There are no PSD significant changes planned for Units 1 and 2 at this time." Changes to Units 1 and 2 do not have to produce significant emissions increases in and of themselves to be included as part of the PSD review for Unit 3. Will there be changes to Units 1 and 2, and, if so, will these changes produce emissions increases of any quantity?

3. In a number of places the applicant makes a comment to the effect that the proposed emissions limits for Unit 3 are an overestimate of actual emissions that will occur. For example, on pages 1-4 and 1-5, the applicant qualitatively compares proposed emissions limits [for particulate matter (PM), sulfur dioxide (SO₂), volatile organic compounds (VOC), fluorides, carbon monoxide, cadmium, hydrogen chloride, lead, mercury, municipal waste combustor (MWC) organics, and nitrogen oxides (NO_x)] to federal new source performance standards (NSPS) and to the existing emissions limits for Units 1 and 2, and then goes on to state that "Actual emissions from Unit 3 are expected to be lower than the limits proposed by Lee County." If the applicant is confident that actual emissions will be lower than those proposed, it would seem reasonable to conclude that BACT emissions limits should be lower than those in the application. As a possible compromise for pollutants that will be measured continuously, dual emissions limits might be appropriate - a higher short-term limit to account for occasional elevated emissions and a lower long-term limit equivalent to the applicant's expectation of lesser actual emissions.
4. For assistance in assessing the reasonableness of the proposed emissions limits, a helpful comparison would be a summary of actual emissions measurement data for Units 1 and 2. If the applicant believes that actual emissions from Unit 1 and 2 for a given pollutant are not likely to be representative of emissions from Unit 3, an explanation of why such measurements are not representative could be provided in the summary.
5. On page 1-5 the applicant expresses an intent to request at a future time the deletion of emissions limits for sulfuric acid mist, fluorides, arsenic, beryllium, VOC, and ammonia. (This request will depend on the results of initial compliance emission tests.) Although the merits of such a request are not at issue until the request (with supporting data) actually takes place, we wish to note that the procedure of deleting emissions limits based on a one-time test is not necessarily a good practice, for at least two reasons. One, the proposed emissions limits for VOC, fluorides, and beryllium serve as enforceable PSD-avoidance emissions rates for these pollutants. Second, the results of a single test on new equipment is not necessarily indicative of long-term performance.
6. Table 2-1 on page 2-4 contains a comparison of emissions from Unit 3 to the PSD significant emissions increases levels. Will there be any emissions increases from emissions units or activities other than Unit 3? If so, those increases should be added to the Unit 3 increases for PSD applicability purposes.
7. The estimated sulfuric acid mist emissions increase from Unit 3 is approximately 74 tons per year (tpy). This seems very high, especially in light of the statement on page 1-5 that the applicant will probably request deletion of the sulfuric acid mist emissions limit at some future date. We recommend that FDEP review any sulfuric acid emissions measurement data for Units 1 and 2 to assess whether the proposed Unit 3 rate is excessive.

8. In Table 2-1 on page 2-4, the applicant shows the MWC metals emission rate (as PM) as equal to the total PM emission rate. Is the applicant assuming that all particles emitted from the facility are made up entirely of metals?
9. In Table 2-1 on page 2-4, the applicant shows the fluorides emission rate from Unit 3 to be 2.986 tpy which is just slightly less than the PSD significant emissions increase level of 3 tpy. The estimate of 2.986 tpy is derived from an estimate of total hydrogen fluoride (HF) emissions (3.145 tpy) by removing the hydrogen component. Our reading of Florida's PSD rules do not indicate that this is an allowed procedure for calculating fluorides emissions. We recommend that FDEP assess whether in fact emissions of fluorides are exempt from PSD review.
10. The applicant is proposing a higher NO_x emission rate during the first year compared to succeeding years as allowed by federal NSPS. Since the applicant already has operating experience on two similar units at the same site burning essentially the same waste material, we question whether the higher first-year emission rate is needed in this case.
11. On page 3-4, the applicant proposes "Secondary Emissions Limits" for lead and cadmium. Although FDEP might find useful the concept of intermediate emission rates as benchmarks that trigger certain actions, we do not favor the concept of secondary "limits." There should be only one set of values that has the designation "limits."
12. On page 3-9, the applicant proposes use of the 80 percent removal approach for setting allowable SO₂ emissions. Based on this approach, the applicant proposes a maximum allowable SO₂ emissions limit of 100 ppmvd (7 percent oxygen). Unless the applicant is absolutely sure that the maximum uncontrolled SO₂ emission rate will be as high as 500 ppmvd (7 percent oxygen), we do not see how a maximum allowable rate of 100 ppmvd can be set as verification that an 80 percent removal efficiency has been achieved.
13. On page 3-18, the applicant discusses an ammonia slip level of 50 ppmvd (7 percent oxygen). Is this a vendor estimate from the company that will supply the selective non-catalytic reduction system. Are any ammonia slip measurements available for Units 1 and 2?
14. The applicant proposes use of selective non-catalytic reduction (SNCR) as BACT for NO_x emissions with BACT emission rates equal to the NSPS (180 ppmvd the first year and 150 ppmvd thereafter). Based on Appendix F of the application, the proposed value of 150 ppmvd is based on an expected inlet concentration of 260 ppmvd and an estimated removal efficiency of 42 percent. We are unable to tell from the application what is the basis of the estimated removal efficiency or why a higher efficiency might not be achievable. For the current generation of SNCR control systems, we would expect that a

higher efficiency might be possible. Additional information from the applicant on SNCR control efficiencies would be helpful.

15. FDEP's Bureau of Air Regulation has requested several items of additional information related to the evaluation of selective catalytic reduction (SCR) for control of NO_x emissions (memo from Mike Halpin to Buck Oven dated December 12, 2002). We do not have any additional items to add to the Bureau's list at this time. However, we wish to comment on the applicant's statement on page 4-39 that no MWC facilities in the U.S. currently include use of SCR for NO_x control. Although this statement is correct, we also note that very few (if any) large MWCs have been installed in the U.S. since the relatively recent advent of improved SCR systems resulting from the greatly increased use of SCR in such varied applications as combustion turbines and coal-fired power plants.

cc: M. Halpin
D. Nelson
R. Blackman, SD
B. Quinn
G. Benayah, NPS
Y. Sampson, See A.

LANDERS & PARSONS, P.A.

ATTORNEYS AT LAW

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December 23, 2002

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

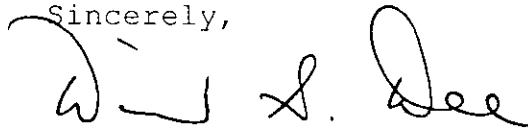
Re: Notice of Filing Lee County's Supplemental Application
for Unit 3; DEP File No. 90-30SA1; PSD-FL-151 and
0710119-001-AP

Dear Mr. Oven:

Enclosed for your file is an "Affidavit of Publication" and a copy of a notice that was published in the Ft. Myers News-Press concerning the supplemental application for Unit 3 of the Lee County Solid Waste Energy Recovery Facility. This PPSA notice also constitutes the County's notice of filing an application for a Prevention Significant Deterioration permit for Unit 3.

Please call me if you have any questions.

Sincerely,



David S. Dee

Enclösure

cc: ✓ A. A. Linero (w/attachments)

Lindsey Sampson

Sam Rosania

M. Halpern

RECEIVED

DEC 24 2002

BUREAU OF AIR REGULATION

NEWS-PRESS
Published every morning - Daily and Sunday
 Fort Myers, Florida
Affidavit of Publication

STATE OF FLORIDA
 COUNTY OF LEE

Before the undersigned authority, personally appeared
Kieanna Henry
 who on oath says that he/she is the
Asst. Legal Clerk of the News-Press, a daily newspaper,
 published at Fort Myers, in Lee County, Florida; that the
 attached copy of advertisement, being a
Display
 in the matter of Power Plant Facility
 in the _____ Court
 was published in said newspaper in the issues of
December 16, 2002

Affiant further says that the said News-Press is a paper of general circulation daily in Lee, Charlotte, Collier, Glades and Hendry Counties and published at Fort Myers, in said Lee County, Florida and that said newspaper has heretofore been continuously published in said Lee County, Florida, each day, and has been entered as a second class mail matter at the post office in Fort Myers in said Lee County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Kieanna Henry

Sworn to and subscribed before me this
16th day of December 2002 by

Kieanna Henry
 personally known to me or who has produced

as identification, and who did or did not take an oath.

Notary Public *Brenda Leighton*

Print Name _____

My commission Expires:



Brenda Leighton
 COMMISSION # 00203995 EXPIRES
 February 14, 2003
 803 DEC. 14 2003
 NOTARY PUBLIC

RECEIVED

DEC 24 2002

BUREAU OF AIR REGULATION

NOTICE OF APPLICATION FOR CONSTRUCTION AND OPERATION OF AN ADDITION TO A POWER PLANT FACILITY LOCATED NEAR FORT MYERS, IN LEE COUNTY, FLORIDA

A supplemental application (numbered 90-30SA1) has been filed by Lee County for certification to authorize construction and operation of an addition to an existing electrical power plant, known as the Lee County Solid Waste Energy Recovery Facility (Facility). The supplemental application is now pending before the Division of Administrative Hearings (DOAH Case No. 02-4573EPP), prior to action by the Governor and Cabinet, pursuant to the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes (F.S.). The Facility currently consists of two municipal waste combustor (MWC) units (i.e., Units 1 and 2). Each unit burns approximately 600 tons per day (tpd) of municipal solid waste (MSW) and generates approximately 20 megawatts (nominal) of electricity. The proposed addition to the Facility will consist of another 600 tpd (nominal) MWC unit (i.e., Unit 3), which will generate another 20 megawatts (nominal) of electricity. The proposed project also includes associated facilities, structures and appurtenances. The Facility is located in unincorporated Lee County approximately 2.5 miles east of the intersection of Interstate 75 and State Road 82, on the north side of Buckingham Road.

The County's supplemental application is available for public inspection during normal business hours at the following locations:

Department of Environmental Protection
 Siting Coordination Office
 2600 Blair Stone Road, Suite 649
 Twin Towers Office Building
 Tallahassee, Florida 32399

Department of Environmental Protection
 Ft. Myers Office
 2295 Victoria Avenue, Suite 364
 Ft. Myers, Florida 33901

Public Works Department
 1500 Monroe Street, 4th Floor
 Ft. Myers, Florida 33901

Ft. Myers/Lee County Public Library
 2050 Central Avenue
 Ft. Myers, Florida 33901

Cape Coral Library
 921 S.W. 39th Terrace
 Cape Coral, Florida 33914

East County Regional Library
 881 Gunnery Road
 Lehigh Acres, Florida 33917

South County Regional Library
 21100 Three Oaks Parkway
 Estero, Florida 33928

State agencies and local governments will be studying the supplemental application and preparing reports and recommendations on the proposed facility for the certification hearing. Interested individuals should review the supplemental application and bring matters of concern to the appropriate agency's attention as soon as possible. Information regarding the appropriate contact persons in the agencies may be obtained from Mr. Hamilton Owen, Jr., at the Department of Environmental Protection's Siting Coordination Office, Suite 649, 2600 Blair Stone Road, Tallahassee, Florida 32399, at (850)245-8002.

A public hearing on the effects of the construction and operation of Unit 3 on the previously certified site, is expected to be held within 150 days. Any person wishing to participate in the proceedings, either as a party or without party status, must follow either Section 403.508(4) or (5), F.S. Under Section 403.508(4)(a), F.S., the parties to the proceeding shall include:

1. The applicant, Lee County
2. The Florida Public Service Commission.
3. The Florida Department of Community Affairs.
4. The Florida Fish and Wildlife Conservation Commission.
5. The South Florida Water Management District.
6. The Florida Department of Environmental Protection.
7. The Southwest Florida Regional Planning Council

The remainder of Section 403.508(4), F.S., states:

- (b) Any party listed in paragraph (a) [Section 403.508(4)(a)] other than the Department or the applicant may waive its right to participate in these proceedings. If such listed party fails to file a notice of its intent to be a party on or before the 90th day prior to the certification hearing, such party shall be deemed to have waived its right to be a party.
- (c) Upon the filing with the administrative law judge of a notice of intent to be a party at least 15 days prior to the date of the land use hearing, the following shall also be parties to the proceeding:
 1. Any agency not listed in paragraph (a) [Section 403.508(4)(a)] as to matters within its jurisdiction.
 2. Any domestic nonprofit corporation or association formed, in whole or in part, to promote conservation or natural beauty; to protect the environment, personal health, or other biological values; to preserve historical sites; to promote consumer interests; to represent labor, commercial or industrial groups; or to promote comprehensive planning or orderly development of the area in which the proposed electrical power plant is to be located.
- (d) Notwithstanding paragraph (e) [Section 403.508(4)(e)], failure of an agency described in subparagraph (c)(1) [Section 403.508(4)(c)] to file a notice of intent to be a party within the time provided herein shall constitute a waiver of the right of that agency to participate as a party in the proceeding.
- (e) Other parties may include any person, including those persons enumerated in paragraph (c) [Section 403.508(4)(c)] who have failed to timely file a notice of intent to be a party, whose substantial interests are affected and being determined by the proceeding and who timely file a motion to intervene pursuant to chapter 120 and applicable rules. Intervention pursuant to this paragraph may be granted at the discretion of the designated administrative law judge and upon such conditions as he or she may prescribe any time prior to 30 days before the commencement of the certification hearing.
- (f) Any agency, including those whose properties or works are being affected pursuant to Section 403.509(4), shall be made a party upon the request of the department or the applicant.

Failure to follow the requirements and meet the timetables set forth in Section 403.508(4), F.S., shall constitute a waiver of any right a person may have to participate as a party to this proceeding.

Section 403.508(5), F.S., states:

When appropriate, any person may be given an opportunity to present oral or written communications to the designated administrative law judge. If the designated administrative law judge proposes to consider such communications, then all parties shall be given an opportunity to cross-examine or challenge or rebut such communications.

Any notice of intent to be a party or motion to intervene must be sent to:

J. Lawrence Johnston
 Administrative Law Judge
 Division of Administrative Hearings
 The Desoto Building
 1230 Apalachee Parkway
 Tallahassee, Florida 32399-3060

and must contain the following: reference to the application number; the case number of the Division of Administrative Hearings; the name, address, and telephone number of the agency or person wishing to intervene; and allegations sufficient to demonstrate the agency or person is entitled to participate in the proceeding. The notice or motion must be sent by mail to the applicant and to all parties. (A list of parties may be obtained from the Department's Office of Siting Coordination at the address above.) Those wishing to intervene in these proceedings, unless appearing on their own behalf, must be represented by an attorney or other person who can be determined to be qualified to appear in administrative proceedings pursuant to Chapter 120, F.S., or Rule 28-106.106, F.A.C.

In regard to variances or other relief, Section 403.511(2), F.S., requires that each party shall notify the applicant and other parties at least 60 days prior to the certification hearing of any nonprocedural requirements not specifically listed in the application from which a variance, exemption, exception, or other relief is necessary in order for the Board to certify any electrical power plant proposed for certification. Rule 62-17.133(2), F.A.C., similarly requires that agencies identify in their reports any such needed variances or other relief. Failure to provide such notice shall be treated as a waiver from nonprocedural requirements of the Department or any other agency. However, no variance shall be granted from standards or regulations of the Department applicable under any federally delegated or approved permit program, except as expressly allowed in such program.

Sections 403.511(1) and (2), F.S., state:

(1) Subject to the conditions set forth therein, any certification signed by the Governor shall constitute the sole license of the state and any agency as to the approval of the site and the construction and operation of the proposed electrical power plant, except for the issuance of department licenses required under any federally delegated or approved permit program and except as otherwise provided in subsection (4) [403.511(4)].

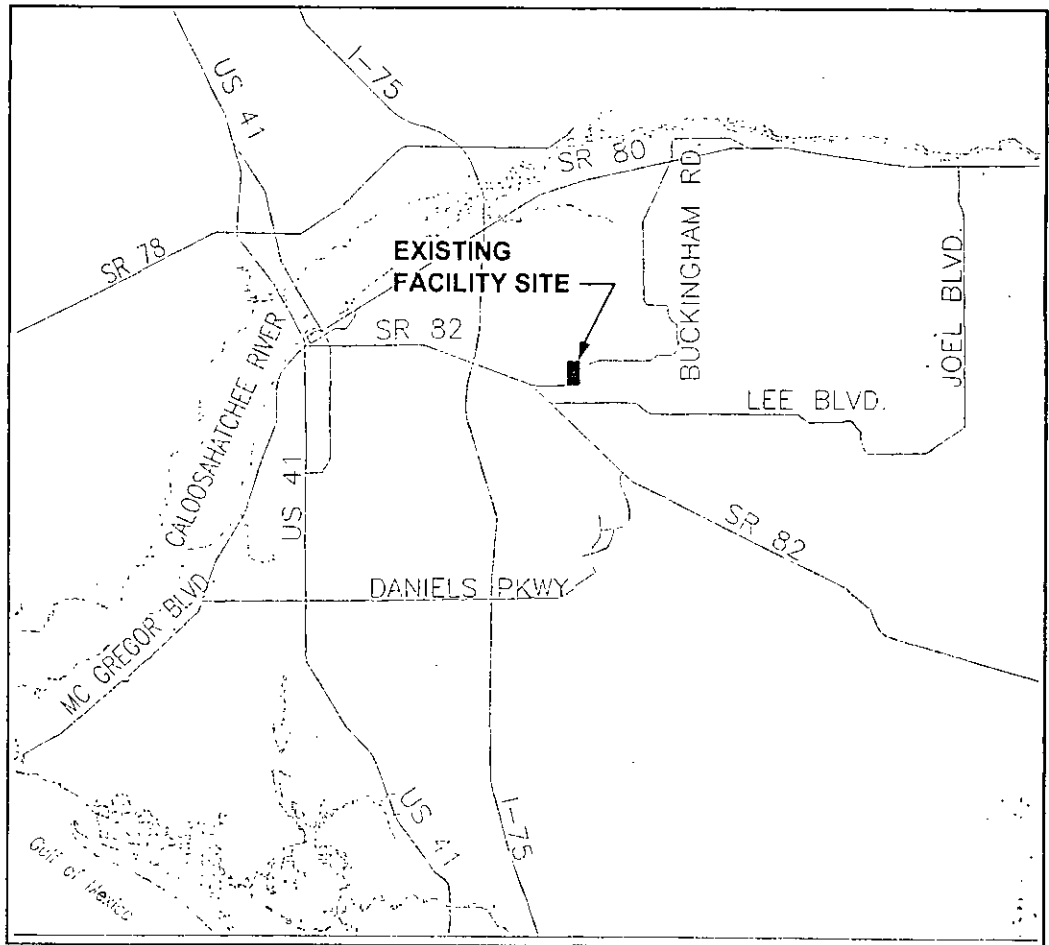
(2)(a) The certification shall authorize the applicant named therein to construct and operate the proposed electrical power plant, subject only to the conditions of certification set forth in such certification, and except for the issuance of department licenses or permits required under any federally delegated or approved permit program.

(b) Except as provided in subsection (4) [403.511(4)], the certification may include conditions which constitute variances, exemptions, or exceptions from nonprocedural requirements of the department or any agency which were expressly considered during the proceeding unless waived by the agency as provided below and which otherwise would be applicable to the construction and operation of the proposed electrical power plant. No variance, exemption, exception, or other relief shall be granted from a state statute or rule for the protection of endangered or threatened species, aquatic preserves, Outstanding National Resource Waters, or Outstanding Florida Waters or for the disposal of hazardous waste, except to the extent authorized by the applicable statute or rule or except upon a finding by the siting board that the public interests set forth in Section 403.502 in certifying the electrical power plant at the site proposed by the applicant overrides the public interest protected by the statute or rule from which relief is sought. Each party shall notify the applicant and other parties at least 60 days prior to the certification hearing of any nonprocedural requirements not specifically listed in the application from which a variance, exemption, exception, or other relief is necessary in order for the board to certify any electrical power plant proposed for certification. Failure of such notification by an agency shall be treated as a waiver from nonprocedural requirements of the department or any other agency. However, no variance shall be granted from standards or regulations of the department applicable under any federally delegated or approved permit program, except as expressly allowed in such program.

Issues relating to the County's use of, connection to, or the crossing of properties and works of agencies may be addressed in the certification proceeding. These issues may involve Lee County, the City of Ft. Myers or the South Florida Water Management District.

Lee County's application includes a request for a Prevention of Significant Deterioration permit for Unit 3. This application also constitutes a request for an Air Operation Permit for a major source. Further, the County will seek authorization for a National Pollutant Discharge Elimination System permit for the construction and operation of the Facility.

This public notice is also provided in compliance with the federal Coastal Zone Management Act, as specified in 15 CFR Part 930, Subpart D. Public comments on the County's federal consistency certification should be directed to the Federal Consistency Coordinator, Department of Community Affairs, Sadowski Building, 2555 Shumard Oak Boulevard, Tallahassee, Florida 32399.



Memorandum

Florida Department of Environmental Protection

TO: Buck Oven, PPSO

THRU: Trina Vielhauer, Chief, BAR

THRU: Al Linero, Administrator, NSR Section, BAR

FROM: Mike Halpin

DATE: December 12, 2002

SUBJECT: Lee County Solid Waste Energy Recovery Facility
PA 90-30C; PSD-FL-332 (0710119-002-AC)

Please include the following questions and comments in your Sufficiency package to Lee County:

1. The application states, "...regardless of the emission limit set in the permits, there will be no difference in the design or operation of the facility, unless SCR is required. Permit limits more stringent than the NSPS merely increase the risk of spurious 'exceedances' of an overly-restrictive standard". However, these statements directly contradict the premise for establishing Best Available Control Technology (BACT). The following is provided for informational purposes.

According to EPA guidance, the BACT requirement is defined as: "an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under the Clean Air Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results."

During each BACT analysis, which is done on a case-by-case basis, the reviewing authority evaluates the energy, environmental, economic and other costs associated with each alternative technology, and the benefit of reduced emissions that the technology would bring. The reviewing authority then specifies an emissions limitation for the source that reflects the maximum degree of reduction achievable for each pollutant regulated under the Act. The NSPS represent the absolute minimum requirement, as well as the starting point for the development of a BACT Determination. The design and operation of the facility is intended to be consistent with the Department's BACT Determination, not vice-versa. The applicant should not assume that the NSPS emission requirements represent appropriate BACT settings.

2. The application states "The permit limits must be set to accommodate the full range of variability that may occur in the waste stream over this time and should be independent of the Materials Separation Plan." The requirement for a Materials Separation Plan is embodied within 40CFR60 Subpart Eb. This regulation (New Source Performance Standard) represents the minimum standards, for which a facility must comply in order to be permitted for operation. Please explain why the Department should not consider this plan in the establishment of a permit limit.

Memorandum

Florida Department of Environmental Protection

3. Please confirm that no additional fuels (such as natural gas or propane) beyond MSW are required for the operation of this incinerator. The application solely lists MSW within the "Segment Information" portion of the application. Also, please address whether a fuel slate, which is identical to that of the existing incinerators, is being proposed.
4. Please provide the estimated time frames required, estimated number of annual start-ups and the estimated emission levels of each criteria pollutant for hot and cold start-up periods.
5. The Department requires as a submittal, a minimum of two project specific, written cost estimates for a wet scrubbing system from separate vendors. The system should be designed to remove acid gases at a minimum of 96%. A corresponding cost-effectiveness should be computed using standard EPA guidelines. In addition to capital cost requirements, the submittal should include vendor estimates for use in determining any applicable annualized operating and maintenance costs as well as recommended spare parts.
6. The application appears to indicate that the annual emissions of NO_x are 310.1 TPY based upon an emission rate of 150 ppmvd @ 7%O₂. The application additionally requests that the first year NO_x emissions be limited to a higher standard of 180 ppmvd @ 7% O₂. Please provide a PTE for the first year of operation.
7. Please confirm that a notice of the filing of the application has been published in a newspaper of general circulation in the area where the facility will be located.
8. The following questions are related to the proposed rejection of an SCR for the control of NO_x emissions from the new unit. The cost effectiveness calculations seem to be based upon the proposals from BBP and Seghers, and the Department questions the following line items:
 - A. Freight charges appear to be included in the BBP proposal and again in the cost-effectiveness calculations.
 - B. The SCR building enclosure (and accompanying firewater booster pump and fire protection additions) appears to be a Lee County requirement, rather than State or Federal; please confirm and provide the County documentation supporting the requirement. It appears to add at least \$1,000,000 to the overall project cost.
 - C. Please explain the requirement for an additional \$25,000 for a building to house a process CEM.
 - D. According to the EPA Cost Guidance Manual, "in general, SCR does not require buildings, site preparation, offsite facilities, land, and working capital". Please provide documentation supporting the additional \$530,000 estimate for an SCR enclosure (complete with wind load design), and show how this estimate is affected by the elimination of the requirement for the SCR building enclosure.
 - E. Please provide supporting documentation for the \$29,000 expenditure for "Site Preparation" for an SCR with a 23 sq ft footprint
 - F. Please explain the basis of the expenditure for "ID Fan Increase" shown as a Direct Installation Cost, which is in addition to the expenditure for the increased fan size. Describe the additional work to be required as a result of the size increase (that work which is beyond the cost of the fan).
 - G. Please explain the Indirect Cost estimates of "Vendor Engineering and Related Costs" as well as "Vendor Fees". What type of vendor is being referred to and for what work?
 - H. Please explain the basis of the 10% contingency given BBP's statement that "These estimates are conservative and with additional data and the scope further defined, BBP expects these estimates to be reduced".
 - I. Please provide the estimated HP requirements for the ID Fan, assuming that the incinerator is fitted with and without SCR.

Memorandum

Florida Department of Environmental Protection

- J. Please explain the reason for the Indirect Annual Costs of "Miscellaneous Painting" and Miscellaneous Equipment Rebuild" which are in addition to the Direct Annual "Operations and Maintenance Labor" costs.
 - K. According to the EPA Cost Guidance Manual, "the cost of overhead for an SCR system is also considered to be zero. An SCR system is not viewed as risk-increasing hardware (e.g., a high energy device such as a boiler or a turbine). Consequently, insurance on an SCR system is on the order of a few pennies per thousand dollars annually". Please provide the annual property insurance costs for the existing facility. Additionally, provide the estimated property insurance costs for the complete 3rd unit addition, based upon current Lee County estimates.
 - L. The Indirect Annual Cost "Lost Power From Reheat" should not be based upon lost opportunity sales of KW (\$0.05 per KWH), but rather the actual steam production costs. Please provide the estimated cost (fuel plus O&M) of generating the 7600-lb/hr steam demand required for reheating. On the quotes based upon gas reheating, please provide the rationale for natural gas prices at \$5.00 per 1000 cf. Also, please provide actual Lee County natural gas costs (\$ per 1000 cf) for each of the prior 24 months.
 - M. According to EPA's cost guidance manual, for that portion of the catalyst, which is replaced every few years the "annual catalyst cost... is a function of the future worth of the catalyst". Please use this methodology and an assumed 7% interest rate.
 - N. The BBP quote was based upon a controlled outlet of 50 ppm NO_x. The cost-effectiveness calculations appear to be incorrectly based upon a controlled outlet of 100 ppm NO_x.
 - O. The Seghers quote was based upon a controlled outlet of 100 ppm NO_x, yet Seghers indicates, "The emission limit of 100 ppmvd (147 mg/Nm³) is very high; an SCR system can reach an emission level of 70 mg/Nm³. The higher limit suggested by Covanta does not reduce the investment cost of the system and does not allow the advantages of SCR to come out. Basically, it means that you pay for a state of the art technology and then use it only at 50% of its abilities. As a matter of fact, Seghers has built a WTE facility where we meet 150 mg/NM³ as daily average with a simple SNCR (i.e. non-catalytic) and flue gas recirculation". Please provide a revised Seghers cost effectiveness calculation utilizing 50 ppm outlet and 20-year depreciation at 7% Capital Recovery.
 - P. The Department appreciates the 15 versions of SCR cost effectiveness calculations which were provided, but only two are based upon 20-year depreciation and none are based upon the Haldor-Topsoe quotation, which appears to be the most cost effective. Please provide a cost-effectiveness calculation based upon the Haldor-Topsoe quote and 20-year depreciation at 7% Capital Recovery.
 - Q. Please provide the Department with the range of interest rates for which Lee County anticipates to acquire financing for this project (or the equivalent yield rate for Revenue Bonds).
9. The Department requires as a submittal, a minimum of two project specific, written cost estimates for an SNCR with flue gas recirculation, at a controlled NO_x outlet of 100-ppmvd as a daily average. Seghers should be one of the vendors to supply a quote, based upon their representation, which is noted above. A corresponding cost-effectiveness should be computed using standard EPA guidelines. In addition to capital cost requirements, the submittal should include vendor estimates for use in determining any applicable annualized operating and maintenance costs as well as recommended spare parts.
10. Please provide the Department with the modeling files for the Class I and Class II analyses performed for the application.

We will provide Park Service and EPA comments as soon as they are available. Please advise the applicant that they may contact me at 850/921-9519 or Deborah Galbraith at 850/921-9537 regarding the above questions.



LEE COUNTY
S O U T H W E S T F L O R I D A

BOARD OF COUNTY COMMISSIONERS

Writer's Direct Dial Number: (239) 338-3302

Bob Janes
District One

December 3, 2002

Douglas R. St. Cerny
District Two

Ms. Trina Vielhauer, Director
Division of Air Resources Management
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399

Ray Judah
District Three

Andrew W. Coy
District Four

John E. Albion
District Five

Donald D. Stilwell
County Manager

James G. Yaeger
County Attorney

Diana M. Parker
County Hearing Examiner

RECEIVED

DEC 10 2002

BUREAU OF AIR REGULATION

SUBJECT: Lee County Waste To Energy Facility

Dear Ms. Vielhauer:

It was a pleasure to meet you and show you the Lee County waste to energy (WTE) Facility yesterday. The Board of County Commissioners, the citizens of Lee County, and the Solid Waste Division are very proud of our facility and the flawless environmental record that has been maintained throughout its operation. The employees at the plant and county staff deserve credit for operating one of the best-run waste to energy plants in the country.

The Lee County WTE Facility is the newest facility of its kind in Florida (excluding the recent Clean Air Act retrofits in the State). We believe that the County set the "bar" for low emission municipal waste combustors as the first facility in the state to operate with maximum available control technology (MACT) standards as part of the WTE's PSD permit.

As you know, the County has recently submitted a supplemental application requesting approval to add a third combustion unit, which was also planned for in the original Site Certification. The proposed emission limits for this unit are at, and for some parameters, below the NSPS limits. Additionally, we have proposed 'secondary' emission limits for certain parameters that, if exceeded, will trigger a review process by the County in order to determine possible operating problems and if necessary, initiate operational changes..

One question expressed by the Division of Air Resources Management (DARM) personnel during pre-application meetings regarded the feasibility of SCR for NOx control. Certain vendors of catalysts and/or catalytic equipment have touted this technology as a substitute for the proven application of SNCR pollution control equipment. The County's BACT review for NOx control equipment indicates that SCR technology is not only cost prohibitive for WTE Facility application, but also unreliable for a waste disposal system that the Lee County community depends on for continuous daily operation. The County agrees with the Florida Department of Environmental Protection's mission to reduce pollution to the greatest practical extent and we believe that our proposed facility and emission control systems will achieve such goals.

The attachments to this letter summarize the NOx control (reductions) and costs associated

Ms. Vielhauer
December 3, 2002
Page 2 of 2

with such reductions for both SCR and SNCR technology. As I expressed to you during your visit, my review of this analysis is such that I cannot reasonably state to the County's Board that the potential (but still unproven in WTE applications) benefits of SCR merit such a large financial investment by the citizens of Lee County. This is a particularly appropriate position to assume when looking at the marginal NOx reduction compared to the cost impacts.

The Solid Waste Division and the plant's employees take pride in and have responsibility for the facility's record. We understand that all aspects of the plant's operation are open to local public review and scrutiny at all times. There continues to be no logical reason, nor financial incentive, to operate the facility at anything less than optimal operation for lowest emission levels. This is why the County's WTE Facility's environmental record is so exemplary. It appears however that the County may be penalized for having a WTE Facility that outperforms its permit requirements by the establishment of more restrictive limits.

The County believes that its project team has provided an exhaustive and complete supplemental application addressing all regulatory issues and requests for the construction and operation of a third combustion unit at the Lee WTE Facility. We believe that the proposed facility exceeds the requirements of Florida law and regulations. We hope that you and your staff agree that the proposed facility expansion and emission controls provide for the public safety while conserving resources and providing an exceptional disposal system for Lee and Hendry counties.

Again, it was very nice meeting you and I hope that the tour gave you a little more insight into the operations of a waste to energy plant. The project team is prepared to assist DARM during its review of the application as necessary. If you have any questions or would like to discuss anything further, please call me.

Sincerely,



Lindsey J. Sampson, P.E., Director
Solid Waste Division

Enclosure

cc: Don Stilwell, County Manager
Jim Lavender, Public Works Director
Tom Eriksen, Covanta Plant Manager
Ron Blackburn, DEP South District
David Owen, Ass't. County Attorney
Sam Rosania, MPI
David Dee, Landers & Parsons

A. J. Miro

M. Halpin

B. Owen

C. Galbraith

Table I-1 - Unit 3 Incremental NOx Removal Cost Analysis

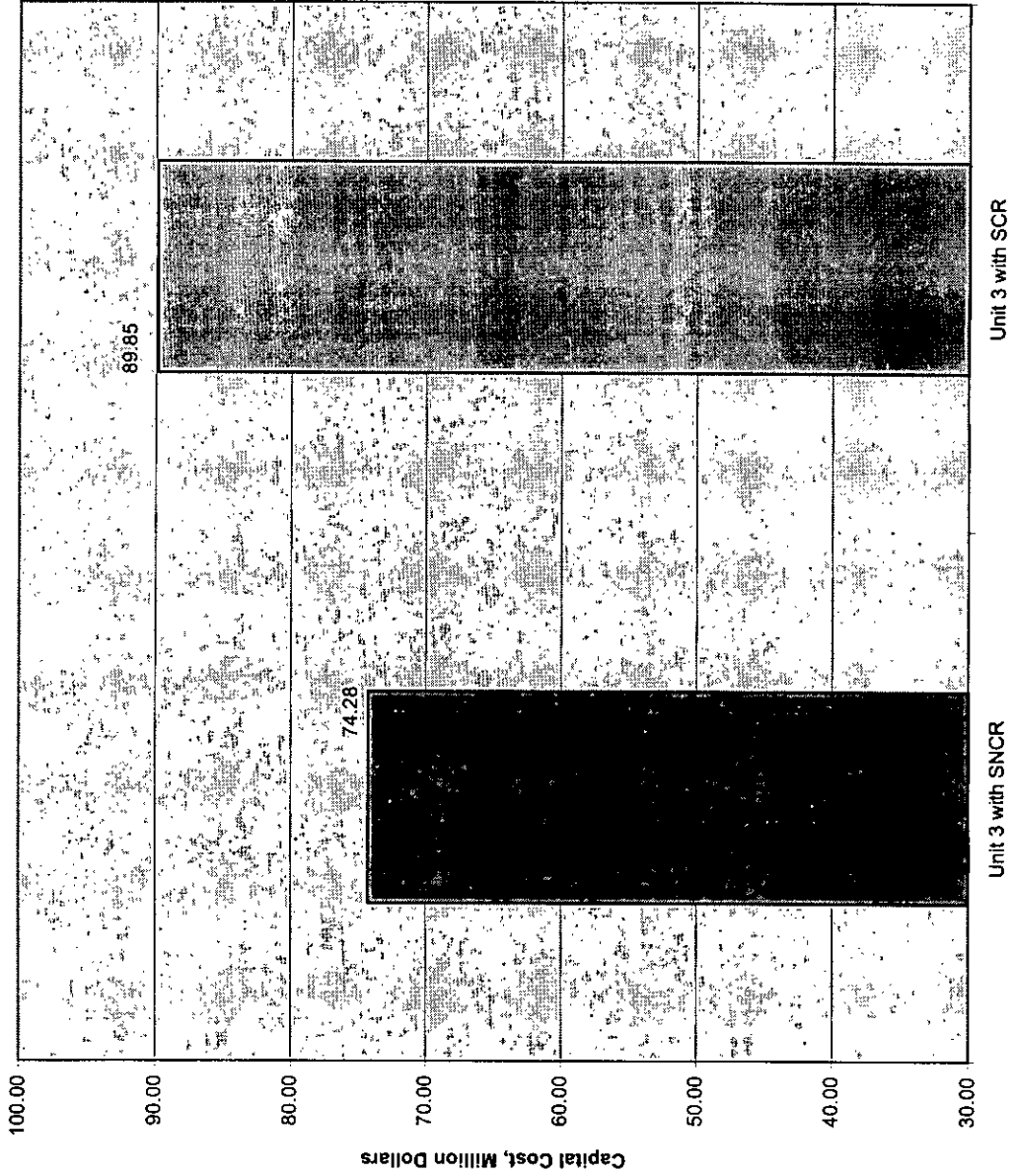
Case No.	Controlled NOx	NOx Removed tons per year	Incremental NOx Removal, tpy	Annualized Cost of NOx Removal	Cost of NOx Removal dollars per ton (\$/t)	Incremental Cost of NOx Removal, \$/t
	ppmdv @ 7% O2					
	Note (1)			Note (2)	Note (2)	Note (2) (3)
SNCR	150	206	Base	\$415,308	\$2,016	Base
SCR (BBP)	100	301	95	\$2,662,774	\$8,846	\$23,658

Note 1: Controlled NOx performance level is estimated for long term sustained operation

Note 2: Based on 7% annual interest rate and 20 years amortization

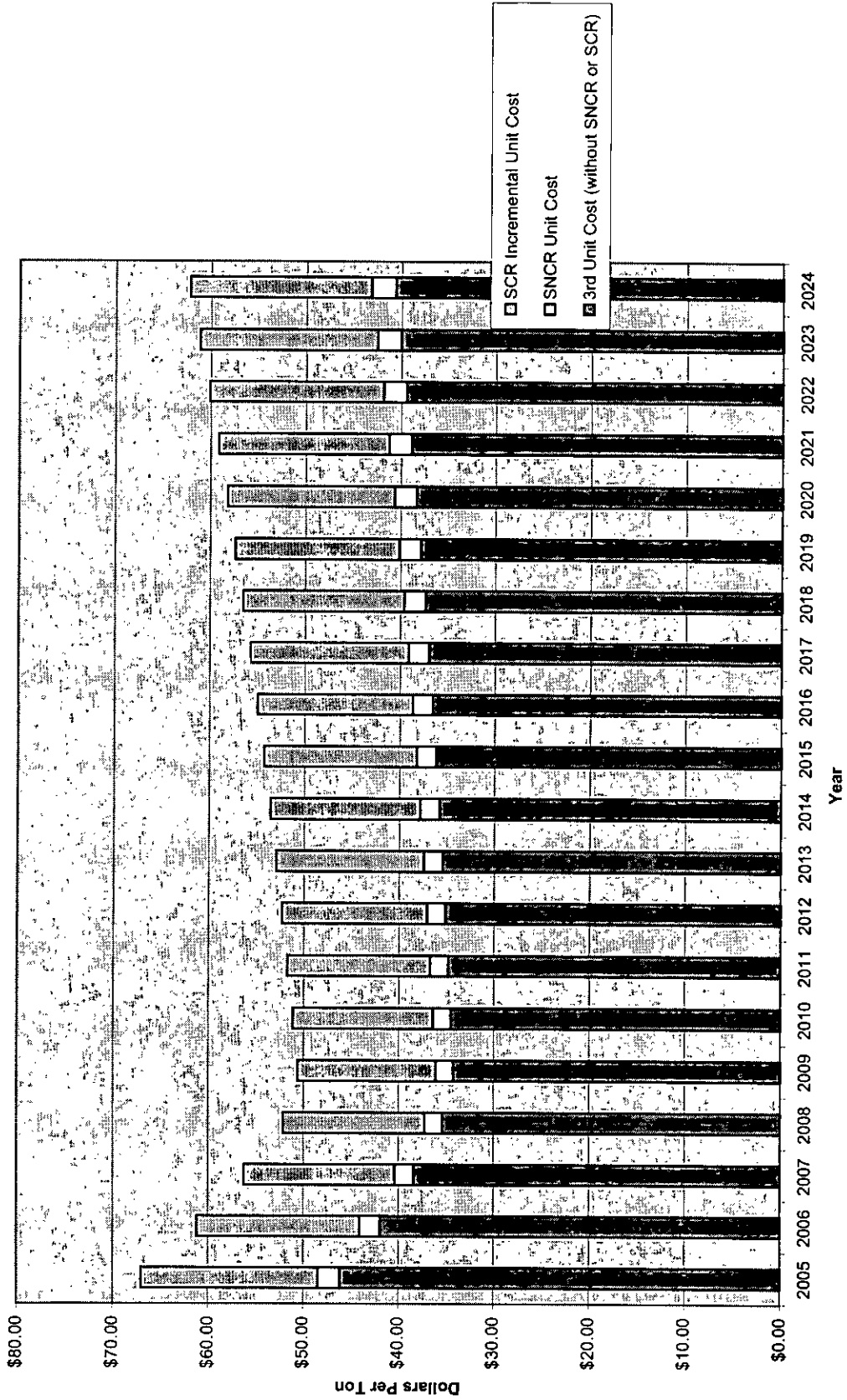
Note 3: This column includes incremental cost of removing NOx using SCR over the cost of removing NOx using SNCR

Figure I-1 Estimated Capital Cost Comparison (2002 Dollars)



Operating Cost = O&M Fee Paid to the Operator + Debt Service Expenses - Energy Revenue, on per ton MSW basis, Estimated

Figure I-2 Unit 3 MSW Processing - Operating Cost Impacts
 (Based on 7% Interest Rate & 20 Year Life)





Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

November 18, 2002

Ms. Jeaneanne M. Gettle
Acting Chief
Air Permits Section
U.S. EPA, Region 4
61 Forsyth Street
Atlanta, Georgia 30303

RE: Lee County Energy Recovery Facility
Municipal Waste Combustion Unit No. 3
DEP File No. 0710119-002-AC, PSD-FL-332

Dear Ms. Gettle:

Enclosed for your review and comment is a PSD application submitted by the Lee County Board of County Commissioners to construct a new municipal waste combustion unit at the Lee County Energy Recovery Facility in Fort Myers, Lee County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/922-6979. If you have any questions, please contact Mike Halpin, review engineer, at 850/921-9519.

Sincerely,

Patty Adams
pa

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

AAL/pa
Enclosure
cc: Mike Halpin

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**LETTER OF
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APR 08 2002

BUREAU OF AIR REGULATION

To: Mike Halpin
Florida Department of
Environmental Protection
Bureau of Air Regulation
111 South Magnolia, Suite #4
Tallahassee, FL 32301

Date: March 18, 2002
Project: MPLC
From: Donald F. Elias

We Are Sending You: Attached Under Separate Cover
Via: 1st Class Mail Federal Express Hand Delivery
 United Parcel Service Other _____

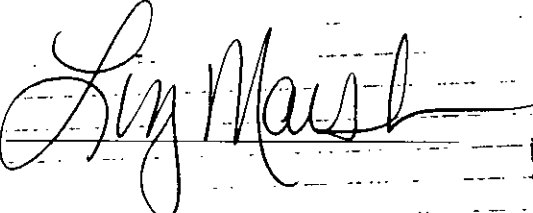
Copies	Date	No.	Description
1			Proposed Emission Factors for Lee County Energy Recovery Facility's Third Combustor Unit

These are Transmitted as Checked Below:

- For Approval For Review and Comment Resubmit ___ Copies for Approval
- For Your Use Copies Returned After Loan For Signature
- As Requested Returned for Corrections For Signature and Submittal to State

Remarks: Emailed to you today. Thank you.

Copy to: _____

Signed: 

If enclosures are not as noted, kindly notify us at once.

Proposed Emission Factors for
Lee County Energy Recovery Facility's
Third Combustor Unit

Pollutant Name	Emission Factor Corrected to 7% Oxygen
Ammonia	50 ppm _{dv}
Arsenic (Ar)	10.74 ug/dscm
Beryllium (Be)	0.15 ug/dscm
Carbon Monoxide (CO)	100 ppm _{dv}
Cadmium (Cd)	20 ug/dscm
Hydrogen Chloride (HCl)	25 ppm _{dv} or 95% Control*
Hydrogen Fluoride (HF)	3.5 ppm _{dv}
Lead (Pb)	200 ug/dscm
Mercury (Hg)	70 ug/dscm or 85% Control*
Municipal Waste Combustor Organics (Total PCDD/PCDF)	13 ng/dscm
Nitrogen Oxides (NO _x)	180 ppm _{dv} 1 st year; 150 ppm _{dv} thereafter
Particulate Matter (PM)	0.009 grains/dscf
Sulfur Dioxide (SO ₂)	29 ppm _{dv} or 80% Control*
Sulfuric Acid Mist (SAM)	16 ppm _{dv}
Volatile Organic Compounds (VOC)	30 ppm _{dv}

Note: ppm_{dv} = parts per million by volume (dry basis)
 ug = micrograms
 ng = nanograms
 dscm = dry standard cubic meter
 dscf = dry standard cubic foot

*Whichever is less restrictive