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BUREAU OF AIR REGULATION

December 28, 2005

Ms. Trina L. Vielhauer  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

Subject: Solid Waste Authority of Palm Beach County  
Proposed Biosolids Pelletization Facility  
Modification of Conditions of Certification, PA84-20  
Comments on Draft PSD Permit Issued

Dear Ms. Vielhauer:

The Solid Waste Authority of Palm Beach County (SWA) and CDM received the Florida Department of Environmental Protection's (FDEP) draft Prevention of Significant Deterioration (PSD) air construction permit modification including the Technical Evaluation and Preliminary Determination, FDEP's Intent to Issue PSD Air Construction Permit, and the Public Notice of Intent to Issue PSD Air Construction Permit. The following is a compilation of SWA's, CDM's and New England Fertilizer Company's (NEFCO) (contractor) comments on the draft.

#### **General Comments Throughout All Documents**

The application submitted by SWA, and the subsequent Request for Information (RAI) responses presented the potential emissions based on the rated capacity of each dryer train. The rated capacity of each dryer is 40 MMBTU/hr plus an additional 2 MMBTU/hr for the regenerative thermal oxidizer (for either landfill gas or natural gas). This brings the total rated capacity for each train to 42 MMBTU/hr, which equates to a rated capacity of 84 MMBTU/hr for the Biosolids Pelletization Facility as a whole. The draft documents refer to the rated capacities of 34.2 and 34.1 MMBTU/hr based on landfill gas and natural gas, respectively. These values are actually the emissions for each dryer under typical operating conditions. These values have been corrected throughout the draft documents.

The original application proposed two separate stacks on site, one for each train. However, it was determined that a single stack with two flues would better serve the project and provide



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for more favorable dispersion of emission. This change was documented in the response to FDEP's RAI dated July 15, 2005, which was submitted to FDEP on August 16, 2005. References to the dual stacks have been corrected throughout the documents, as provided in the attachments to this letter.

### **Intent to Issue PSD Air Construction Permit**

No comments.

### **Public Notice of Intent to Issue Air Construction Permit**

As corrected by FDEP prior to the publication, the Maximum Potential Emissions are to be presented in the final permit as follows:

<u>Pollutant</u>	<u>Maximum Potential Emissions</u>	<u>PSD Significant Emission Rate</u>
NOX	52.5	40
PM/PM <sub>10</sub>	22.6/22.3	25/15
SO <sub>2</sub>	39	40
CO	33.7	100
VOC	9.3	40
Hg	8.08 E-03	0.17

### **Technical Evaluation and Preliminary Determination**

Suggested corrections/changes are shown on the "track changes" version of the Technical Evaluation and Preliminary Determination document provided in **Attachment 1**.

Additional questions/clarifications are as follows:

Page 10 of 16 There are two tables on this page listing the major sources of NO<sub>x</sub> and PM in Palm Beach County. The SWA facility listing in these tables shows "1121.2 + 85" tons/year for NO<sub>x</sub> and "73 + 29" tons/year for PM. A footnote should be added to indicate what the number after the "+" refers to. If this added number refers to the BPF facility, these numbers need to be corrected to be consistent with the tons/year values listed in Table AP-1.

### **Draft PSD Permit**

Suggested corrections/changes to the Draft PSD are shown on the "track changes" version of the Draft PSD Permit document provided in **Attachment 2**.

Additional questions/clarifications are as follows:



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Page 6 of 14 Condition A.1. Permitted Capacity: it appears that there are two permitted capacities: a). wet tons for each dryer train and b). MMBTU/hr for the landfill/natural gas usage. How is compliance going to be measured and determined for these conditions? Can the operator meet wet tons of sludge per day or does it need to be measured in dry tons? How will the sludge be measured and monitored? Will compliance be a daily weight average based upon sludge delivery? Is the hourly limit for landfill/natural gas based on a 4-hour block or 1 hour limit?

Page 10 of 14 Condition C.1. Compliance Testing: SWA understands that an initial compliance test is required. Will the subsequent compliance and performance tests be required annually, or once per five-year period, prior to renewal of the Title V Operating Permit?

Page 10 of 14 Condition C.1. Compliance Testing: This section requires that the initial compliance tests be conducted within 60 days after achieving maximum production rate, but not later than 180 days after initial startup. The NESHAP General Provisions, 40 CFR 61 Subpart A, cited in the permit's NESHAP Appendix, require, however, that the initial compliance tests be conducted within 90 days after initial startup (see paragraph near the bottom of Appendix (NESHAP) p. A-2.). Rule 62-297.310, F.A.C. does not specify when compliance testing must be conducted. Since the General Provisions of the NESHAP are more applicable to the BPF than the General Provisions from the NSPS (which appears to be the source of the 180-day time period), we suggest that this be changed to be consistent with the NESHAP language requiring testing within 90 days.

Page 10 of 14 Condition C.1. Compliance Testing lists methods for various parameters required as part of the initial start up testing. However, no method is listed for Sulfur Dioxide. If a Sulfur Dioxide standard is kept for this permit (see comments for Table AP-1), please confirm that Method 6C will be acceptable to FDEP for this parameter.

Page 10 of 14 Condition C.2. Test Notification: This section requires that the owner/operator notify FDEP at least 15 days prior to a compliance test. This is inconsistent with the General Provisions of the NESHAP, cited at the top of Appendix (NESHAP) page A-3, which requires a notice of at least 30 days. We suggest that the language in Condition C.2 be changed to 30 days.



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Page 11 of 14 Condition C.5. Test Reports requires that test reports are to be submitted no later than 45 days after the last sampling run.

### Appendix BD

Suggested corrections/changes to Appendix BD are shown on the "track changes" version of the Draft PSD Permit document provided in **Attachment 3**.

### Table AP-1

Clarification of Footnote 2 for Emergency Generator and Cooling Tower: Under PM/PM<sub>10</sub> & Opacity, the standards listed for the Emergency Generator and Cooling Tower are footnoted as a basis for a standard, but not a standard. In the next columns over, no lb/hr or TPY limits have been set for these pieces of equipment. SWA understands from the footnote and these blanks that there are no permit standards or emissions limits for the Emergency Generator and Cooling Tower. Is this correct?

Emissions Limits for SO<sub>2</sub>, CO and VOC: The emissions limitations for all of the pollutants in this table, except for these three, are based on underlying requirements for BACT, or to meet the Mercury NESHAP. The only regulatory citation provided for the emissions limits for SO<sub>2</sub>, CO and VOC is Rule 62-4.070, F.A.C., which is the Standards of Issuing or Denying Permits; this section is generic, and does not contain specific requirements for the BPF. The maximum potential emission rates for these three pollutants are all well below the PSD significant emission rates; dispersion modeling was performed for SO<sub>2</sub> and CO emissions from the BPF voluntarily, and not because it was required for the PSD analyses. In addition, the maximum potential VOC emission rate of 8.8 TPY for the BPF as a whole is below the Generic Exemption Threshold for a minor preconstruction permit in Rule 62-210.300(3)(b). SWA requests that a more specific regulatory basis be provided for the emissions limitations for SO<sub>2</sub>, CO and VOC. If none can reasonably be provided, SWA requests that the emissions limitations be deleted from the permit for that pollutant.

Add Footnote No. 3: SWA requests that a footnote "3" be added to the Fuel(s) column stating that natural gas is an alternate fuel.

Additionally, there have been slight modifications to the site plan provided in the original application. A revised site plan is included in **Attachment 4** that now reflects the change to a



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single stack with two flues, rather than the original two separate stacks. No other significant changes have been made to the site plan.

SWA and CDM would appreciate the opportunity to review the draft again once FDEP has addressed these questions and comments. Please feel free to contact our office if you require any further information.

Very truly yours,

Kevin C. Leo, P.E., BCEE  
Project Manager  
Camp Dresser & McKee Inc.

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- Attachments:
1. Technical Evaluation & Preliminary Determination
  2. Draft Permit No. 0950137-006-AC and PSD-FL-108F
  3. Appendix BD- Best Available Control Technology Determination (BACT)
  4. Sheet D-03- Main Level Process Plan

c:

- Steven L. Palmer, P.E., FDEP/Tallahassee
- Al Linero, FDEP/Tallahassee
- John D. Booth, P.E., DEE, SWA
- Raymond H. Schauer, SWA
- Marc C. Bruner, PhD, SWA
- Patrick Carroll, SWA (w/enclosures – 4 copies)
- Marybeth Morrison, SWA
- Tom Tittle, FDEP Southeast District Office (w/enclosures – 2 copies)
- Scott Burns, SFWMD (w/enclosures – 1 copy)
- Jeananne Gettle, U.S. EPA (w/enclosures – 1 copy)
- John O'Malley, PBC Health Department (w/enclosures – 1 copy)

File: 2678-39373-079(1)

ATTACHMENT 1

Technical Evaluation & Preliminary Determination

**TECHNICAL EVALUATION  
&  
PRELIMINARY DETERMINATION**

**APPLICANT**

Solid Waste Authority of Palm Beach County

Facility ID No.: 0990234

**PROJECT**

DEP File No.: 0950137-006-AC and  
PSD-FL-108F

Biosolids Pelletization Facility

**COUNTY**

Palm Beach County

**PERMITTING AUTHORITY**

Florida Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation  
Air Permitting South Section  
Mail Station #5505, 2600 Blair Stone Road  
Tallahassee, Florida 32399-2400



November 18, 2005

## TECHNICAL EVALUATION & PRELIMINARY DETERMINATION

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### 1. GENERAL PROJECT INFORMATION

Solid Waste Authority of Palm Beach County  
7501 North Jog Road  
West Palm Beach, Florida 33412-2414

Authorized Representative: Mr. John D. Booth, Executive Director

#### Application Processing Schedule

May 4, 2005 Received application to construct; incomplete.  
July 15, 2005 Incompleteness letter.  
August 30, 2005 Received additional information; application complete.

{Note: The applicant requested a modification to their original project submitted in July 2002. The applicant has withdrawn the lime recalcination part of the project and increased the biosolids pelletization rate from 400 wet TPD to 675 wet TPD.}

#### Relevant Documents

- Permit PSD-FL-108E
- Power Plant Siting Act Certification PA84-20
- Current Title V Air Operation Permit 0990234-004-AV
- Department's Technical Evaluation & Preliminary Determination dated [Month day November 18, 2005]

### 2. FACILITY DESCRIPTION AND LOCATION

The facility, North County Resource Recovery Facility (NCRRF), is located at 7501 North Jog Road, West Palm Beach, Palm Beach County. The UTM coordinates are Zone 17; 585.8 km E; 2960.2 km N. {See **Figure No. 2-4** provided by the applicant showing the proposed site for this project}

This existing facility consists of a *very large* municipal waste combustor plant designed to process 2,000 tons per day (TPD) of municipal solid waste (MSW). This existing facility includes two boilers and two landfills, a Class I Landfill and a Class III Landfill, each with its own gas collection system and flare.



North County Resource Recovery Facility

[http://www.swa.org/site/information and documents/ncrrf.htm](http://www.swa.org/site/information%20and%20documents/ncrrf.htm)

### 3. PROPOSED PROJECT

#### Proposed Activity



## TECHNICAL EVALUATION & PRELIMINARY DETERMINATION

The applicant, Solid Waste Authority of Palm Beach County, proposes to construct a 675 wet tons of sludge per day (wtpd, at 20% solids) Biosolids Pelletization Facility (BPF). The BPF will have two 337.5 wtpd process trains and related appurtenances. The proposed BPF will be located adjacent to the existing landfill. Each dryer train at the BPF will combust landfill gas generated from the nearby landfill in a rotary drum dryer to dry sewage sludge, and then screen the dried sludge into marketable fertilizer pellets. Natural gas will be used as a backup fuel. Each dryer has a rated capacity of 34,240 MMBTU/hr based on landfill gas or 34,140 MMBTU/hr based on natural gas. An additional 2 MMBtuMMBTU/hr is required for each regenerative thermal oxidizer (RTO) making the total design capacity of each train 42 MMBtu MMBTU/hr (84 MMBtu MMBTU/hr total for the BPF).

The BPF will help eliminate phosphorus loading of the Lake Okeechobee drainage basin and other environmentally sensitive basins in the area due to land application of wastewater sludge. Major metropolitan areas in the U.S. are pelletizing sludge rather than applying it to land.

The proposed activity is to begin as soon as possible and is scheduled to last 18 months. An expiration date of March 31, 2008, for this air construction permit should allow sufficient time to complete the required testing and to submit the test reports.

The proposed new emissions units are:

E.U. ID Nos.	Brief Description
-###	Sludge Dryer Train #1
-###	Sludge Dryer Train #2
-###	Recycle Material Bin & Pellet Storage Silo for Sludge Dryer Train #1
-###	Cooling Tower Train #1
-###	Recycle Material Bin & Pellet Storage Silo for Sludge Dryer Train #2
-###	Cooling Tower Train #2
-###	Emergency Generator

#### 4. APPLICABLE REGULATIONS

##### Regulatory Classifications

Title III: The facility is identified as a major source of hazardous air pollutants (HAPs).

NESHAP: The proposed project will be subject to the requirements of the National Emission Standard for Hazardous Air Pollutants of 40 CFR 61 Subpart E, NESHAP for Mercury.

NESHAP: The facility operates one or more units subject to National Emission Standards for Hazardous Air Pollutants of 40 CFR 63.

MACT: A case-by case MACT was not required. Since neither the NCRRF or the proposed projects are constructed or reconstructed major sources of HAPs, this rule does not apply.

Title IV: The facility operates no units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

NSPS: The facility operates one or more units subject to New Source Performance Standards of 40 CFR 60.

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Stationary Sources - Emission Standards in Chapter 62-296, F.A.C.: The facility operates one or more units subject to an emission standard.

RACT: The entire State of Florida is either classified as attainment or considered to be in attainment (i.e., unclassifiable) with respect to the NAAQS for all pollutants. In addition, Palm Beach County is not part of any maintenance areas for lead or PM. Therefore, the proposed projects are not subject to the Reasonably Available Control Technology (RACT) requirements for these pollutants in Rule 62-296, F.A.C. The NO<sub>x</sub> RACT provisions of Rule 62-296.500(b), FAC, do apply to facilities in Palm Beach County. However, new or modified NO<sub>x</sub> emitting facilities subject to major-source PSD permitting and preparing a BACT analysis are exempt from these requirements. Since the BPF will be meeting NO<sub>x</sub> BACT, these rules do not apply.

PSD: The facility is an existing PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

Power Plant Siting Act: This project was requested to be an amendment leading to the modification of the existing power plant siting certification PA84-20.

### **Permit(s) Required**

The Department requires the owner or operator of any emissions unit to obtain an appropriate permit prior to beginning construction, modification, or initial or continued operation, unless exempted pursuant to Department rule or statute. The Department has specific rules on when an air construction permit is required {see Rule 62-210.300(1), F.A.C.}, when an air operation permit is required {see Rule 62-210.300(2), F.A.C.} and when activity is exempt from permitting {see Rules 62-210.300(3) and 62-4.040, F.A.C.}. The proposed activity is not specifically exempted from permitting in Rules 62-210.300(3) or 62-4.040, F.A.C.

### **Air Construction Permit Required**

The proposed activity involves the addition of an emissions unit which will result in an increase of actual emissions. The Department requires an air construction permit for the owner or operator to proceed with the proposed activity.

### **Prevention of Significant Deterioration (PSD) Applicability**

The Department regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) Program, as defined in Rule 62-212.400, F.A.C. PSD preconstruction review is required in areas that are currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) for each regulated pollutant or areas designated as "unclassifiable" for such pollutants. A facility is considered "major" with respect to PSD if it emits or has the potential to emit:

- ≥ 250 tons per year of any regulated pollutant, or
- ≥ 100 tons per year of any regulated pollutant and belonging to one of 28 PSD Major Facility Categories, or
- ≥ 5 tons per year of lead.

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This facility includes municipal incinerators, which belongs to the "List of 28 PSD Facility Categories" specified in Table 62-212.400-1, F.A.C. For facilities in the listed categories, the threshold for classification as a PSD major source is 100 tons per year. This facility is a PSD-major source of air pollution because the potential emissions of several pollutants are greater 100 tons per year. The proposed activity will be located in Palm Beach County, which is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS). As such, all new projects are reviewed for the applicability of PSD preconstruction review based on the PSD Significant Emission Rates (SER) specified in Table 62-212.400-2, F.A.C. Pollutant emissions from the project exceeding these rates are considered "significant" and subject to PSD preconstruction review. This means that the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each PSD-significant pollutant as well as evaluate the air quality impacts. Although a facility may be "major" with respect to PSD for only one regulated pollutant, the project may be subject to PSD preconstruction review for several PSD-significant pollutants.

The following table summarizes the applicant's PSD applicability analysis for this project.

**Table 1. Summary of the Applicant's PSD Applicability**

Pollutant	Net Increase, TPY <sup>a</sup>	PSD Threshold, TPY SER	Subject to PSD Review?
CO	33.7	100	No
NO <sub>x</sub>	52.5	40	Yes
SO <sub>2</sub>	39.1	40	No
VOC	9.3	40	No
PM	22.6	25	No
PM <sub>10</sub>	22.3	15	Yes
TRS compounds H <sub>2</sub> S	0.00	10	No
Lead <sup>b</sup>	6.39E-03	0.60	No
Mercury <sup>b</sup>	8.08E-03	0.17	No
Total HAPs <sup>c</sup>	0.85051 g/d	25	No

a. "TPY" means tons per year.

b. Equivalent TPY values are shown for these air pollutants; the actual rate values are in pounds per year

c. Total HAPs for case-by-case MACT applicability.

As shown in this table, the proposed project is subject to PSD preconstruction review for emissions of: NO<sub>x</sub> and PM<sub>10</sub>. {For the detailed summary of emissions see the applicant's **Table 2-1 SWA Biosolids Pelletization Facility, and Class I Landfill Flares Proposed Maximum Potential Controlled Emission Rates and PSD Applicability** in Section 2 of the permit application.}

**Applicant's PSD Applicability**

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The Class I Landfill's 1,800 scfm flare has been replaced by a 3,500 scfm flare. Two more flares, a 1,000 scfm flare and a 2,000 scfm flare will be added at the Class I Landfill in the next few years to handle gas generation at full build-out of the Landfill, and to allow for flow variability as the BPF draws up to 2,800 scfm of landfill gas. The flares are a separate project from the BPF, but are being considered in this PPSA because they meet the definition of "contemporaneous" projects in the Prevention of Significant Deterioration Rules (40 CFR 51.166 and 62-212.400, F.A.C.).

A modification to an existing major source is subject to PSD regulations if it is located in a PSD attainment area and it is a major modification. The project site and vicinity are currently considered to be in attainment with air quality standards for all PSD pollutants (40 CFR 81.310 and Rule 62-204, F. A.C.). A major modification is a physical change or a change in method of operation of a major source which would result in a "significant net emissions increase" of a regulated pollutant. In this case, the physical change is the addition of the BPF and the three flares.

Each proposed modification at the NCRRF site is required to take into account all other permitted air emission increases and decreases that have occurred in the 5 years prior to the proposed modification. Since the BPF and flares would all be built within 5 years of each other, they must be considered together in the PSD applicability determination. Similarly, the decommissioning of the existing 1,800 scfm flare at the Class I Landfill has already occurred and must be included with this project for permitting purposes. The rules for calculating the "net emissions increase" for these projects state that maximum potential emission rates be used for the new sources, and actual annual average emission rates (over the most recent 2 years) be used for the calculation of decreases for the decommissioned sources. Since the existing 1,800 scfm was decommissioned before the BPF had commenced full-scale operation, the SWA can take credit for the net reduction in emissions. The calculated net emissions increases for all PSD pollutants are shown in Table 2-1 of the permit application submitted to the Department's power plant siting office. The totals in Table 2-1 reflect that the flare emissions have been reduced by the amount of gas consumed by the BPF. The emissions from the now decommissioned 1,800 scfm flare have been subtracted from the total. The maximum potential annual emission rates presented in Table 2-1 for the new sources were calculated with the assumption that each unit could operate 365 days per year at 100 percent load. As explained in Section 2 of Volume II, three flares (3,500 scfm; 2,000 scfm; and 1,000 scfm each) are proposed to be installed at the Class I Landfill in the same 5-year period as these projects. The 3,500 scfm flare has already been installed and is in use. These three flares are exempt from PSD permitting. However, because they are contemporaneous projects with the BPF, their emission rates are included in the first total shown in Table 2-1. The second total in Table 2-1 shows that the net emissions increase for the BPF project alone would exceed the PSD "significant net emissions increase" threshold (Rule 62-212.400, F.A.C., Table 212.400-2) for nitrogen oxides (NO<sub>x</sub>) and particulate matter (PM). The proposed BPF project, therefore, is subject to PSD requirements, and a "major" modification to the NCRRF site's existing PSD permit must be prepared.

The SWA is required to apply for a major modification to their existing NCRRF Site PSD Permit due to the emissions increase from the new BPF. More specific details regarding the air emissions from the dryer stack can be found in the PSD permit application.

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A detailed summary of the net emissions increases is found in the applicant's **Table 2-1 SWA Biosolids Pelletization Facility, and Class I Landfill Flares Proposed Maximum Potential Controlled Emission Rates and PSD Applicability Air Operation Permit Required**

The existing facility operates under a Title V permit. A revision to the Title V permit will be required to allow the operation of the proposed activity.

### 5. APPLICANT'S PROCESS/OPERATION DESCRIPTION

The New England Fertilizer Company (NEFCO) was selected to design, build and operate the project. **Figure 2-4 Process Flow Diagram** in the permit application is a process flow diagram of the drum drying system (DDS). The **Figure 2-3 Proposed Site Plan** is a site layout diagram showing the proposed location of the specific equipment.

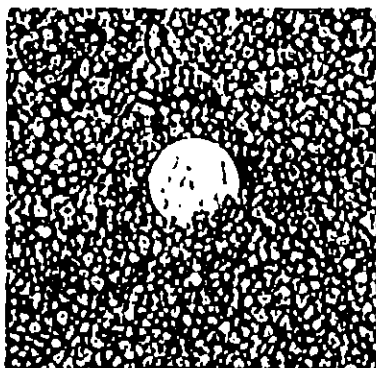
Sludge will be delivered to the site in the form of cake sludge with 10 to 20 percent solids content. It is anticipated that the sludge will need to be hauled in dump trucks or trailer trucks that can easily be emptied. The truck will off-load into one of two 30 wet ton reclaim bins that will ultimately feed the two BPF trains.

The DDS uses a portion of the already-dried material as an additive to the dewatered sludge cake to get it past the sticky phase. When mixed, the cake, or "wet" material, coats the dried particles, or "recycled" material, to obtain a non-sticky mixture, usually in the 50 to 70 percent dry solids content range. The added benefit to this process is that the heat energy now needs only to be spent on removing moisture from the surface of each particle, while the core of the particle is already dry.

The evaporation process in the DDS actually takes place within the triple-pass rotating drum. The sludge is conveyed through the rotating drum via flights mounted on the drum walls, until such time as it is dry enough and, therefore, light enough to be lifted and pneumatically-conveyed out of the drum. DDS technology significantly limits over-drying of material, which is where odors are created. The high-speed airstream carries dried particles and the evaporated moisture. The DDS uses a two-stage separation process to remove the solids from the air. Following these stages, the airstream is more than 98 percent clear of particulates.

The material exiting the rotary valve following the separation devices is an agglomerate of particles of all sizes. Many beneficial reuse options require a uniform distribution of particle size. For this reason, it may be necessary to classify the particles by size prior to discharge as final product.

The final product is biosolids pellets, also referred to as pelletized sludge (see the picture below).



<http://faculty.washington.edu/clh/leaddemoa.html>

The DDS can use different types of fuels such as natural gas or landfill gas/methane. It is the intent of this design to use the landfill gas as the primary source with natural gas as a backup. The gas will fuel the burner to warm the recycled process air via a heat exchanger before it enters the furnace. The maximum heat input to each dryer is 34.240 MMBTU/hr based on landfill gas or 34.140 MMBTU/hr based on natural gas.

## 6. AIR POLLUTANT EMISSIONS AND CONTROLS

The Class I Landfill has an existing landfill gas collection and control system that combusts the gas in a 3,500 scfm open flare. During operation of the BPF, the flare will be "turned-down" and the Class I Landfill would supply the approximately 2,800 scfm of landfill gas needed by the BPF at the design capacity (84 MMBtu/hr of landfill gas with a heat content of 500 British thermal units per standard cubic foot (btu/scf). The landfill gas burners at the BPF will themselves serve as air pollution devices for controlling the emissions of non-methane organic compounds (NMOCs) from landfill gas. They will be designed to provide 98 percent destruction removal efficiency for NMOCs.

Hot combustion gases (about 841°F at the dryer inlet) will flow through a rotating drum with the biosolids, driving off water, and volatile organic compounds (VOCs). At the dryer exhaust end, a cyclonic separator will remove the pellets and heavier dust particles from the gas stream and send these to screens for size sorting. The exhaust gases, containing products of combustion (nitrogen oxide (NO<sub>x</sub>), carbon monoxide (CO), and sulfur dioxide (SO<sub>2</sub>)), particulate matter (PM), and VOCs, will then go through a tray condenser and venturi scrubber. These devices will remove PM and some SO<sub>2</sub>. The gases will then go through a RTO to combust the VOCs before exiting the exhaust stack.

The BPF will include a tray condenser/scrubber and venturi scrubber with cyclonic separator to remove PM<sub>10</sub> and possible SO<sub>2</sub> along with a regenerative thermal oxidizer (RTO) to combust the VOCs before exiting the exhaust stack. The tray condenser/scrubber will also remove some NH<sub>3</sub>. Particulate matter emissions from the screening operation, recycle material and the two pellet storage silos will be controlled by baghouses; the pellets will be conveyed to trucks in an enclosed area to minimize fugitive dust emissions.

Odors of wastewater origin are often formed as a result of bacterial action on wastes when insufficient dissolved oxygen is available to the bacteria or when anaerobic bacteria are part of the unit process as

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anaerobic digestion. One way of treating this odor is to collect and treat the odorous gases. There are several methods of treatment for these odors. One such proven technology is wet scrubbing (absorption) by use of packed tower scrubbers. Two separate odor control systems are proposed for the facility. The odor control system will include packed tower scrubbers for the sludge receiving area and an RTO for reduction of odors from the process air train.

The packed tower scrubber receives air from the building area to be treated, which enters the bottom of the tower. A scrubbing liquid such as sodium hypochlorite is sprayed over the top of the packing material, creating a large liquid surface area at the liquid-gas interface. The odorous gas is absorbed by the scrubbing liquid and air, free of these contaminants, will either discharge to the atmosphere or to a second stage packed tower via a mist eliminator. The scrubbing liquid is captured in a sump at the bottom of the scrubber tower where it is pumped back to the top of the scrubber tower. The addition of sodium hydroxide and sodium hypochlorite solutions to the recycling scrubbing liquid will be required to provide a constant inflow of fresh scrubbing chemicals for optimum scrubber performance. Make-up water will be added continuously to maintain a constant water supply. Spent scrubbing liquid will overflow to the onsite wastewater pump station to be pumped to the East Central Regional Wastewater Treatment Facility (WWTF) for further treatment. Two 8-foot diameter tanks, one each for sodium hydroxide and sodium hypochlorite will be used for chemical storage. Both tanks will be surrounded by containment walls.

Each biosolids dryer train will have the following additional air emissions sources: exhaust vent on one recycle material bin exhaust from one fertilizer pellet storage silo, and one cooling tower. All of these are potential sources of PM emissions. Each of two recycle material bins will be ventilated through a fugitive dust control baghouse and then through a building odor scrubber. Dusty air resulting from silo filling operations will be ducted to the recycle bin baghouses, mentioned above. Emissions from the cooling towers and emergency generator are uncontrolled.

### 7. AVAILABLE INFORMATION

In addition to information provided and referenced in the application, the Department also relied on the following information resources:

- RACT/BACT/LAER Clearinghouse (RBLC) database.
- World Wide Web site searches.
- Additional Information Response.

### 8. COMMENTS ON THE APPLICATION

Comments from the National Park Service or EPA Region 4.

As of the date of this report, none.

### 9. AIR QUALITY IMPACT ANALYSIS REVIEW

#### 9.1 Introduction

The proposed project will increase emissions of two pollutants at levels in excess of PSD significant amounts: PM/PM<sub>10</sub> and NO<sub>x</sub>. PM<sub>10</sub> and NO<sub>x</sub> are criteria pollutants and have

## TECHNICAL EVALUATION & PRELIMINARY DETERMINATION

national and state ambient air quality standards (AAQS), PSD increments, significant impact levels and de minimis monitoring levels defined for them.

### 9.2 Major Stationary Sources in Palm Beach County

The current largest stationary sources of air pollution in Palm Beach County are listed below. The information is from annual operating reports submitted to the Department.

**Table 9.2.1 Major Sources of NO<sub>x</sub> in Palm Beach County (2004)**

<u>Owner</u>	<u>Site Name</u>	<u>Tons per year</u>
Florida Power & Light	Riviera	3807.7
<b>Solid Waste Authority</b>	<b>Palm Beach County</b>	<b>1121.2 + 85</b>
New Hope Power Partnership	Okeelanta Cogeneration Plant	871.7
Sugar Cane Growers Co-Op	Sugar Cane Growers Co-Op	860.6
<b>Florida Power &amp; Light</b>	<b>West County Energy (proposed)</b>	<b>856</b>
U.S. Sugar Corp.	Bryant Mill	443.2
Osceola Farms	Osceola Farms	348.2
United Technologies Corp.	Pratt & Whitney Aircraft	238

**Table 9.2.2. Major Sources of PM in Palm Beach County (2004)**

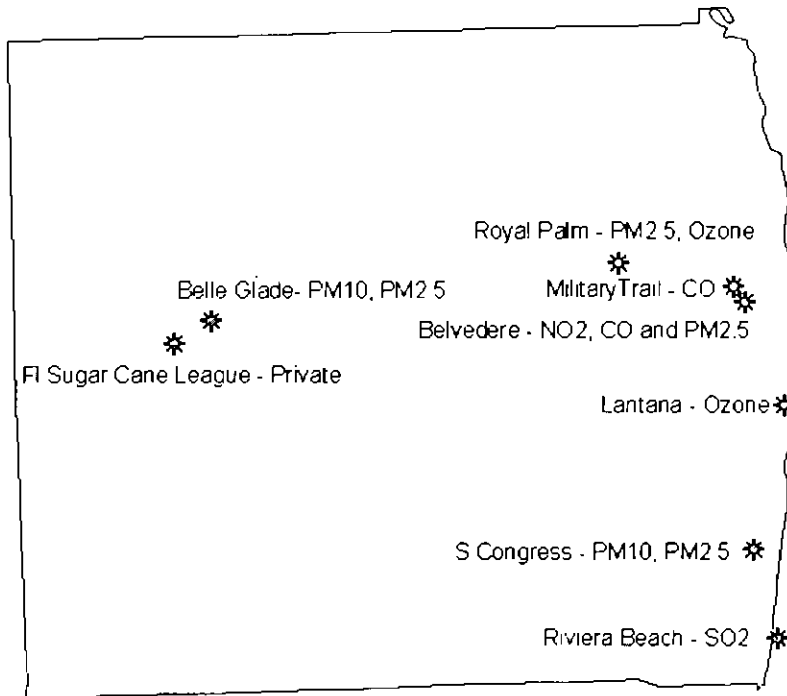
<u>Owner</u>	<u>Site Name</u>	<u>Tons per year</u>
Florida Power & Light	Riviera Power Plant	923
<b>Florida Power &amp; Light</b>	<b>West County Energy (proposed)</b>	<b>652</b>
Sugar Cane Growers Co-Op	Sugar Cane Growers Co-Op	440
Osceola Farms	Osceola Farms	287
US Sugar Corporation	Bryant Sugar Mill	260
Atlantic Sugar Association	Atlantic Sugar Mill	240
<b>Solid Waste Authority</b>	<b>Palm Beach County</b>	<b>73 + 29</b>

### 9.4 Air Quality and Monitoring in the Palm Beach County

The Palm Beach County Health Department operates twelve monitors at seven sites measuring PM<sub>10</sub>, PM<sub>2.5</sub>, ozone, CO, NO<sub>2</sub> and SO<sub>2</sub>. The 2004 monitoring network is shown in the figure below.



**TECHNICAL EVALUATION & PRELIMINARY DETERMINATION**



**Figure 9.4. The Palm Beach County Health Department Ambient Air Monitoring Network**

Measured ambient air quality information is summarized in the following table.

**Table 9.4. Ambient Air Quality in Palm Beach County Nearest to Project Site (2004)**

Pollutant	Location	Averaging Period	Ambient Concentration				Units
			High	2nd High	Mean	Standard	
PM <sub>10</sub>	Delray Beach	24-hour	82	62		150 <sup>a</sup>	ug/m <sup>3</sup>
		Annual			30*	50 <sup>b</sup>	ug/m <sup>3</sup>
SO <sub>2</sub>	Riviera Beach	3-hour	2	2		500 <sup>a</sup>	ppb
		24-hour	1	1		100 <sup>a</sup>	ppb
		Annual			1*	20 <sup>b</sup>	ppb
NO <sub>2</sub>	Palm Beach	Annual			10*	53 <sup>b</sup>	ppb
CO	WPB Military Trail	1-hour	4	4		35 <sup>a</sup>	ppm
		8-hour	2	2		9 <sup>a</sup>	ppm
Ozone	Royal Palm Beach	1-hour	0.080	0.077		0.12 <sup>c</sup>	ppm
		8-hour	0.072	0.069		0.08 <sup>c</sup>	ppm

\* The Mean does not satisfy summary criteria due to missing data.

a - Not to be exceeded more than once per year

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b - Arithmetic mean

c - Not to be exceeded on more than an average of one day per year over a three-year period

The highest measured values of all pollutants are all less than the respective National Ambient Air Quality Standards (NAAQS). Based on local emission trends, it is not likely that ground-level concentrations will approach the NAAQS levels. The exception is ozone because it is formed from precursors that are clearly available (NO<sub>x</sub> and VOC). The precursors are more available during drought years. The tendency to form ozone is accentuated by hot ambient temperature, high pressure, and relatively low wind speed.

**9.5 Air Quality Impact Analysis**

Significant Impact Analysis

Significant Impact Levels (SILs) are defined for PM/PM<sub>10</sub>, and NO<sub>x</sub>. A significant impact analysis is performed on each of these pollutants to determine if a project can cause an increase in ground level concentration greater than the SIL for each pollutant.

In order to conduct a significant impact analysis, the applicant uses the proposed project's emissions at worst load conditions as inputs to the models. The models used in this analysis and any required subsequent modeling analyses are described below. The highest predicted short-term concentrations and highest predicted annual averages predicted by this modeling are compared to the appropriate SILs for the PSD Class I Everglades National Park (ENP) and the PSD Class II Areas (everywhere except the ENP).

The applicant, in an effort to model worst load conditions, included the three flares (not subject to PSD review) in their modeling analysis to determine whether the project would lead to a violation of the AAQS.

If this modeling at worst-load conditions shows ground-level increases less than the SILs, the applicant is exempted from conducting any further modeling. If the modeled concentrations from the project exceed the SILs, then additional modeling including emissions from all facilities or projects (multi-source modeling) is required to determine the proposed project's impacts compared to the AAQS or PSD increments.

The applicant's initial PM/PM<sub>10</sub>, and NO<sub>x</sub>, air quality impact analyses for this project indicated that maximum predicted impacts from all pollutants are less than the applicable SILs for the Class II area (i.e. all areas except ENP). These values are tabulated in the table below and compared with existing ambient air quality measurements from the local ambient monitoring network.

**Table 9.5.1. Maximum Projected Air Quality Impacts from Biosolids Pelletization Facility (Including 3 Flares) for Comparison to the PSD Class II Significant Impact Levels**

Pollutant	Averaging Time	Max Predicted Impact (ug/m <sup>3</sup> )	Significant Impact Level (ug/m <sup>3</sup> )	Baseline Concentrations (ug/m <sup>3</sup> )	Ambient Air Standards (ug/m <sup>3</sup> )	Significant Impact?
PM <sub>10</sub>	Annual	0.3	1	~30	50	NO
	24-Hour	3.7	5	~82	150	NO
NO <sub>2</sub>	Annual	0.9	1	~19	100	NO

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It is obvious that maximum predicted impacts from the project are much less than the respective AAQS and the baseline concentrations in the area. They are also less than the respective significant impact levels that would otherwise require more detailed modeling efforts.

The applicant elected to do modeling for sulfur dioxide and carbon monoxide as well. The results showed concentrations less than the respective significant impact levels and AAQS as well.

The nearest PSD Class I area is the Everglades National Park (ENP) located about 128 km to the south-southwest of the project site. Maximum air quality impacts from the proposed project are summarized in the following table. The results of the initial PM/PM<sub>10</sub>, and NO<sub>x</sub> air quality impact analyses for this project indicated that maximum predicted impacts PM/PM<sub>10</sub>, and NO<sub>x</sub> are less than the applicable SILs for the Class I area. Therefore, no further detailed modeling efforts are required for these pollutants.

### **Maximum Air Quality Impacts from the Biosolids Pelletization Facility (Including Three Flares) Project for comparison to the PSD Class I SILs at ENP**

The applicant also modeled to predict impacts at the Big Cypress National Preserve which is located approximately 112 km to the southwest of the facility. The modeled impacts are also less than the applicable SILs for the area.

### Preconstruction Ambient Monitoring Requirements

A preconstruction monitoring analysis is done for those pollutants with listed de minimis impact levels. These are levels, which, if exceeded, would require pre-construction ambient monitoring. For this analysis, as was done for the significant impact analysis, the applicant uses the proposed project's emissions at worst load conditions as inputs to the models. As shown in the following table, the maximum predicted impacts for all pollutants with listed de minimis impact levels were less than these levels. Therefore, no pre-construction monitoring is required for those pollutants.

**Table 9.5.2. Maximum Air Quality Impacts for Comparison to the De Minimis Ambient Impact Levels.**

Pollutant	Averaging Time	Max Predicted Impact (ug/m <sup>3</sup> )	De Minimis Level (ug/m <sup>3</sup> )	Baseline Concentrations (ug/m <sup>3</sup> )	Impact Greater Than De Minimis?
PM <sub>10</sub>	24-hour	4	10	~82	NO
NO <sub>2</sub>	Annual	0.9	14	~19	NO

Based on the preceding discussions, the only additional detailed air quality analyses (inclusive of all sources in the area) required by the PSD regulations for this project are the following:

- An analysis of impacts on soils, vegetation, visibility, and of growth-related air quality modeling impacts.

Models and Meteorological Data Used in the Air Quality Analysis

**PSD Class II Area:** The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project in the surrounding Class II Area. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. It incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition.

The ISCST3 model allows for the separation of sources, building wake downwash, and various other input/output parameters. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfied the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from West Palm Beach Airport. The 5-year period of meteorological data was from 1987 through 1991. This airport station was selected for use in the study because it is the closest primary weather station to the study area and is most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

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

**PSD Class I Area:** The California Puff (CALPUFF) dispersion model was used to evaluate the pollutant emissions from the proposed project in the Class I ENP and Big Cypress National Preserve beyond 50 km from the proposed project. The applicant used CALPUFF in the "screening" mode and therefore used the same meteorological data that was used for the ISCST model processed in a different manner.

CALPUFF is a non-steady state, Lagrangian, long-range transport model that incorporates Gaussian puff dispersion algorithms. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, line, area, and volume sources.

The CALPUFF model has the capability to treat time-varying sources, is suitable for modeling domains from tens of meters to hundreds of kilometers, and has mechanisms to handle rough or complex terrain situations. Finally, the CALPUFF model is applicable for inert pollutants as well as pollutants that are subject to linear removal and chemical conversion mechanism.

## 9.6 Additional Impacts Analysis

## TECHNICAL EVALUATION & PRELIMINARY DETERMINATION

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### Impact on Soils, Vegetation, and Wildlife:

The maximum ground-level concentrations predicted to occur for PM<sub>10</sub> and NO<sub>x</sub> as a result of the proposed project, including background concentrations and all three flares (not subject to PSD), will be considerably less than the respective AAQS. Since the project impacts are either less than significant or considerably less than the AAQS, it is reasonable to assume the impacts on soils, vegetation, or wildlife will be minimal or insignificant.

As part of the Additional Impact Analysis, Air Quality Related Values (AQRV) are evaluated with respect to the Class I area. This includes the analysis of sulfur and nitrogen deposition. The CALPUFF model is also used in this analysis to produce quantitative impacts. The results of the analysis show that nitrogen and sulfur deposition rates are below the significant impact levels (0.01 kg/ha/yr) determined by the National Park Service for the ENP.

According to the applicant, the predicted deposition rates of sulfur and nitrogen (0.0003 and 0.0001 kg/ha/yr respectively) impacts are still much less than the buffering capacities of the soils in the ENP and much less than the observed deposition rates existing in the area.

### Impact on Visibility:

The applicant submitted a regional haze analysis for the ENP and the Big Cypress National Preserve. The analysis included modeling from the CALPUFF model. The Visibility Analysis showed that the proposed project will be well below the visibility threshold of 5% in change in light extinction for both sensitive areas.

### Growth-Related Impacts Due to the Proposed Project:

According to the applicant, the proposed project will add approximately 13 new permanent employees. This increase will not result in significant commercial and residential growth near the project. Few new permanent employees will cause no significant impact on the local area.

### Growth-Related Air Quality Impacts since 1977:

According to the applicant, the population of Palm Beach County has more than doubled since the late seventies. This population currently works in the Trade, Transportation and Utilities sector, which includes the retail industry and the Professional and Business Services sector mostly.

Although, the population has increased greatly, the air pollution trends do not show an increase in pollutant concentrations with this population growth. The county is in attainment with the NAAQS.

Despite the growth in Southeast Florida, air quality has improved as evidenced by the redesignation of the Tri-County (Broward, Miami-Dade, and Palm Beach) area to attainment status with respect to the ozone standard.

## 10. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete PSD permit application, reasonable

## TECHNICAL EVALUATION & PRELIMINARY DETERMINATION

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assurances provided by the applicant, the draft determinations of Best Available Control Technology (BACT), review of the air quality impact analysis, and the conditions specified in the draft permit.

Deborah Nelson is the project meteorologist responsible for reviewing and validating the air quality impact analysis. She may be contacted at [deborah.nelson@dep.state.fl.us](mailto:deborah.nelson@dep.state.fl.us) and 850/921-9537.

Scott M. Sheplak is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer by telephone 850/921-9537 or e-mail [Scott.Sheplak@dep.state.fl.us](mailto:Scott.Sheplak@dep.state.fl.us) in the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

*{Filename: PSD-FL-108F TEPD}*

ATTACHMENT 2

Draft Permit No. 0950137-006-AC and PSD-FL-108F

## DRAFT

### PERMITTEE

Solid Waste Authority of Palm Beach County  
North County Resource Recovery Facility (NCRRF)  
7501 North Jog Road  
West Palm Beach, Florida 33412-2414

<p><b>Permit No.:</b> 0950137-006-AC and PSD-FL-108F <b>Expires:</b> March 31, 2008 <b>Facility ID No.:</b> 0990234 <b>Project:</b> Biosolids Pelletization Facility</p>
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### PROJECT AND LOCATION

This permit authorizes the construction of a 675 wet tons per day of sludge (wtpd, at 20% solids) Biosolids Pelletization Facility (BPF).

The facility, North County Resource Recovery Facility (NCRRF), is located at 7501 North Jog Road, West Palm Beach, Palm Beach County. The UTM coordinates are Zone 17; 585.8 km E; 2960.2 km N.

### STATEMENT OF BASIS

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

### APPENDICES

The following appendices are attached as part of this permit.

Appendix GC - Construction Permit General Conditions

Appendix BD - BACT Determination

Table AP-1 Summary of Air Pollutants

Appendix 40 CFR 61 Subpart A - NESHAP General Provisions (version dated 05/06/04)

Appendix 40 CFR 61 Subpart E - NESHAP for Mercury (version dated 03/20/03)

Appendix SS-1, Stack Sampling Facilities

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Michael G. Cooke, Director  
Division of Air Resource Management



## SECTION I. FACILITY INFORMATION (DRAFT)

### FACILITY DESCRIPTION

The facility, North County Resource Recovery Facility (NCRRF), is located at 7501 North Jog Road, West Palm Beach, Palm Beach County. The UTM coordinates are Zone 17; 585.8 km E; 2960.2 km N. {See Figure No. 2-4 provided by the applicant showing the proposed site for this project}

This existing facility consists of a *very large* municipal waste combustor plant designed to process 2,000 tons per day (TPD) of municipal solid waste (MSW). This existing facility includes two boilers and two landfills, a Class I Landfill and a Class III Landfill, each with its own gas collection system and flare.

### PROJECT

The permittee, Solid Waste Authority of Palm Beach County, proposes to construct a BPF with a nominal capacity of 675 wet tons of sludge per day (wtpd, at 20% solids) Biosolids Pelletization Facility (BPF). The BPF will have two 337.5 wtpd process trains and related appurtenances. The proposed BPF will be located adjacent to the existing landfill. Each dryer train at the BPF will combust landfill gas generated from the nearby landfill in a rotary drum dryer to dry sewage sludge, and then screen the dried sludge into marketable fertilizer pellets. Natural gas will be used as a backup fuel. Each dryer has a rated capacity of 34.240 MMBTU/hr based on landfill gas or 34.140 MMBTU/hr based on natural gas. An additional 2 MMBTU/hr is required for each regenerative thermal oxidizer (RTO) making the total design capacity of each train 42 MMBTU/hr (84 MMBTU/hr total for the BPF).

### Regulatory Classifications

Title III: The facility NCRRF is identified as a major source of hazardous air pollutants (HAPs).

NESHAP: The proposed project will be subject to the requirements of the National Emission Standard for Hazardous Air Pollutants of 40 CFR 61 Subpart E, NESHAP for Mercury.

NESHAP: The facility operates one or more units subject to National Emission Standards for Hazardous Air Pollutants of 40 CFR 63.

MACT: A case-by case MACT was not required. Since neither the NCRRF or the proposed projects are constructed or reconstructed major sources of HAPs, this rule does not apply. Because the proposed BPF project is not by itself a major source of HAPs, this rule does not apply.

Title IV: The facility operates no units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

NSPS: The facility operates one or more units subject to New Source Performance Standards of 40 CFR 60.

Stationary Sources - Emission Standards in Chapter 62-296, F.A.C.: The facility operates one or more units subject to an emission standard.

RACT: The entire State of Florida is either classified as attainment or considered to be in attainment (i.e., unclassifiable) with respect to the NAAQS for all pollutants. In addition, Palm Beach County is not part of any maintenance areas for lead or PM. Therefore, the proposed projects are not subject to the Reasonably Available Control Technology (RACT) requirements for these pollutants in Rule 62-296, F.A.C. The NOx RACT provisions of Rule 62-296.500(b), FAC, do apply to facilities in Palm

Solid Waste Authority of Palm Beach County  
Biosolids Pelletization Facility

North County Resource Recovery Facility  
File No. 0990234-006-AC and PSD-FL-108F

**SECTION I. FACILITY INFORMATION (DRAFT)**

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Beach County. However, new or modified NOx emitting facilities subject to major-source PSD permitting and preparing a BACT analysis are exempt from these requirements. Since the BPF will be meeting NOx BACT, these rules do not apply.

**PSD:** The facility is an existing PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

**Power Plant Siting Act:** This project was requested to be an amendment leading to the modification of the existing power plant siting certification PA84-20.

**RELEVANT DOCUMENTS**

- Permit PSD-FL-108E
- Power Plant Siting Act Certification PA84-20
- Current Title V Air Operation Permit 0990234-004-AV
- Department's Technical Evaluation & Preliminary Determination dated [Month day November 18, 2005]

## SECTION II. ADMINISTRATIVE REQUIREMENTS

### GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, modify or operate this emissions unit shall be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114. Copies of these documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the compliance authority. The Southeast District DEP will serve as Compliance Authority.
3. General Conditions: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of this project shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Permit Expiration: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]
6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Title V Permit: This permit authorizes construction of the proposed project and initial operation to determine compliance with Department rules. This project involves no changes in the descriptions, applicable requirements, or conditions of the facility Title V Operation Permit. The permittee is required to apply for a revised Title V operation permit following completion of the project.

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

The proposed new emissions units are:

<b>E.U. ID Nos.</b>	<b>Brief Description</b>
-###	Sludge Dryer Train #1
-###	Sludge Dryer Train #2
-###	Recycle Material Bin & Pellet Storage Silo for Sludge Dryer Train #1
-###	Cooling Tower Train #1
-###	Recycle Material Bin & Pellet Storage Silo for Sludge Dryer Train #2
-###	Cooling Tower Train #2
-###	Emergency Generator

**CONSTRUCTION ACTIVITIES**

1. Unconfined Particulate Matter Emissions: Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at the BPF include the following requirements consistent with current practices by the Solid Waste Authority:
  - a. Pave all parking lots and permanent drives;
  - b. Street sweep paved areas on a regular basis; and,
  - c. Use a water truck to spray water on unpaved roads and active unpaved areas.[Rule 62-296.320(4)(c)2., F.A.C.; and, items a., b., and c. proposed by the applicant.]
  
2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.  
[Rule 62-296.320(2), F.A.C.]

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

**Subsection A. This section addresses the following emissions units.**

<b>E.U. ID Nos.</b>	<b>Brief Description</b>
-###	Sludge Dryer Train #1
-###	Sludge Dryer Train #2

The BPF will have two 337.5 wtpd sludge drying trains Dryer Train #1 and #2, and related appurtenances. Each dryer train at the BPF will combust landfill gas generated from the nearby landfill in a rotary drum dryer to dry sewage sludge, and then screen the dried sludge into marketable fertilizer pellets. Natural gas will be used as a backup fuel. Each dryer has a rated capacity of 34.240 MMBTU/hr based on landfill gas or 34.140 MMBTU/hr based on natural gas. An additional 2 MMBtu/hr is required for each regenerative thermal oxidizer (RTO) making the total design capacity of each train 42 MMBTU/hr (84 MMBTU/hr total for the BPF).

Dry low NOx burners and acid addition in the tray/condenser scrubber will be used to control NOx emissions from each dryer's exhaust. A tray/condenser scrubber and a venturi scrubber will be used to control PM emissions from each dryer's exhaust. The BPF will also use a regenerative thermal oxidizer (RTO) on each dryer exhaust to control VOC emissions and odors. Each dryer train has its own stackflue[gl] within a single shared stack.

**The following specific conditions apply to the emissions units listed above:**

**Essential Potential to Emit (PTE) Parameters**

**A.1. Permitted Capacity.** The maximum process rate for each dryer train shall be 337.5 wet tons of sludge per day (wtpd, at 20% solids), or 67.5 tons per day of sludge on a dry solids throughput basis. The maximum process rate for the Biosolids Pelletization Facility (BPF) shall be 675 wet tons of sludge per day (wtpd, at 20% solids), or 135 dry tons of sludge per day on a dry solids throughput basis. The maximum heat input rates for the dryers are as follows:

E.U. ID No.		Landfill Gas	Natural Gas
-###	Sludge Dryer Train #1	34.242 MMBtu/hour	34.142 MMBtu/hour
-###	Sludge Dryer Train #2	34.242 MMBtu/hour	34.142 MMBtu/hour

[Rules 62-4.160(2) and 62-210.228(PTE), F.A.C. and PSD-FL-108F]

**A.2. Methods of Operation - Fuels.** The dryers shall be fired primarily by landfill gas with natural gas used as an alternate backup fuel.

[Rules 62-4.160(2) and 62-210.228(PTE), F.A.C. and PSD-FL-108F]

**A.3. Hours of Operation.** These emission units may operate continuously, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.228(PTE), F.A.C. and PSD-FL-108F]

**Emission Limitations and Standards**

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

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**A.4.** Emissions from each the dryer trains' stack shall not exceed the specific emission limitations and standards in **Table AP-1 Summary of Air Pollutants** attached to this permit. [BACT Determination and Rule 62-4.070, F.A.C.]

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

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**40 CFR 61 Subpart E, NESHAP for Mercury.**

**A.5.** The dryers shall comply with **Appendix 40 CFR 61 Subpart E - NESHAP for Mercury** attached to this permit.

**40 CFR 61 Subpart A - NESHAP General Provisions**

**A.6.** The dryers shall comply with **Appendix 40 CFR 61 Subpart A - General Provisions** attached to this permit.

**Test Methods and Procedures**

**A.7.** These emissions units are also subject to the conditions contained in **Subsection C. Common Conditions.**

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Subsection B. This section addresses the following emissions units.

E.U. ID Nos.	Brief Description
-###	Recycle Material Bin & Pellet Storage Silo for Sludge Dryer Train #1
-###	Cooling Tower Train #1
-###	Recycle Material Bin & Pellet Storage Silo for Sludge Dryer Train #2
-###	Cooling Tower Train #2
-###	Emergency Generator

Each biosolids dryer train will have the following additional air emissions sources: exhaust vent on one recycle material bin exhaust from one fertilizer pellet storage silo, and one cooling tower. All of these are potential sources of PM emissions. Each of two recycle material bins will be ventilated through a fugitive dust control baghouse and then through a building odor scrubber. Dusty air resulting from silo filling operations will be ducted to the recycle bin baghouses, mentioned above. Emissions from the cooling towers and emergency generator are uncontrolled.

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity.

These emissions units are associated with the Biosolids Pelletization Facility (BPF). The maximum process/operation rates for the BPF associated emissions units are based on the 675 wet tons of sludge per day (wtpd, at 20% solids), or 135 tons of sludge per day on a dry solids throughput basis.. [Rules 62-4.160(2) and 62-210.228(PTE), F.A.C. and PSD-FL-108F]

B.2. Hours of Operation. These emission units may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.228(PTE), F.A.C. and PSD-FL-108F]

Emission Limitations and Standards

B.3. Emissions from these emissions units shall not exceed the specific emission limitations and standards in **Table AP-1 Summary of Air Pollutants** attached to this permit. [BACT Determination and Rule 62-4.070, F.A.C.]

Test Methods and Procedures

B.4. These emissions units are also subject to the conditions contained in **Subsection C. Common Conditions.**

B.5. Minor PM Particulate Source Test Methods. The maximum permitted allowable particulate matter emission rate (gr/dscf) from the silos and material recycling bins are stated in **Table AP-1.** Because of the expense and complexity of conducting a stack test on minor sources of particulate matter, and because these sources are equipped with a baghouse, the Department pursuant to the



**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

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authority granted under Rule 62-297.620(4), F.A.C., hereby establishes a visible emission limitation not to exceed an opacity of 5% in lieu of a particulate stack test. In accordance with Rule 62-297.620(4), minor particulate sources equipped with baghouses with visible emissions that are greater than or equal to 5 percent opacity may result in the permittee being required to perform a stack test in accordance with approved methods to verify compliance with the gr/dscf emission limits. The visible emissions test shall be conducted by a certified observer using Method 9 and the procedures in 40 CFR. 60.11 and Rule 62-297.320, F.A.C.  
[Rule 62-297.620(4), F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### Subsection C. Common Conditions

This section addresses the following emissions units.

E.U. ID Nos.	Brief Description
-###	Sludge Dryer Train #1
-###	Sludge Dryer Train #2
-###	Recycle Material Bin & Pellet Storage Silo for Sludge Dryer Train #1
-###	Recycle Material Bin & Pellet Storage Silo for Sludge Dryer Train #2

### Test Methods and Procedures

**C.1. Compliance Testing.** Compliance with the emission limitations and standards shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A and 40 CFR 61, Appendix B adopted by reference in Chapter 62-204, F.A.C. The tests shall be conducted within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup of such facility and at such other times as may be required by the Department or the EPA.

Unless other methods are proposed to and approved by the Department, the following test methods shall be used for compliance testing on both BPF dryer trains.

**Method 5** Determination of Particulate Matter Emissions from Stationary Sources (I) and (A).

**Method 9** Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).

**Method 7** Determination of Nitrogen Oxides Emissions from Stationary Sources (I) and (A).

**Method 10** Determination of Carbon Monoxide Emissions from Stationary Sources (I).

**Method 25** Determination of Volatile Organic Compound Emissions from Stationary Sources (I).

**Method 101A** Determination of Particulate and Gaseous Mercury Emissions from Sewage Sludge Incinerators (I) and (A) or Method 105 Determination of Mercury in Wastewater Treatment Plant Sewage Sludge (I) and (A). Specific Testing and sampling conditions as outlined in 40 CFR 61.53 and 61.54 shall be followed as described.

This facility shall comply with all applicable requirements of Rule 62-297.310, F.A.C. General Compliance Test Requirements and 40 CFR 60.8. Performance Tests [Chapter 297 F.A.C., Stationary Sources - Emissions Monitoring; and 40 CFR 60 Subpart A, and 40 CFR 61, Subpart A, General Provisions]

**C.2. Test Notification.** The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

[Rule 62-297.310( )9., F.A.C.]

**C.3. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in **Appendix SS-1, Stack Sampling Facilities**, attached to this permit.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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[Rule 62-297.310(6), F.A.C.]

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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#### C.4. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.  
[Rule 62-297.310(5), F.A.C.]

#### C.5. Test Reports.

(1) (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

## SECTION IV. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

### Appendix GC - Construction Permit General Conditions

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

## SECTION IV. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

### Appendix GC - Construction Permit General Conditions

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

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology (not applicable to project);
  - (b) Determination of Prevention of Significant Deterioration (not applicable to project); and
  - (c) Compliance with New Source Performance Standards (not applicable to project).
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - (c) Records of monitoring information shall include:
    1. The date, exact place, and time of sampling or measurements;
    2. The person responsible for performing the sampling or measurements;
    3. The dates analyses were performed;
    4. The person responsible for performing the analyses;
    5. The analytical techniques or methods used; and
    6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

ATTACHMENT 3

Appendix BD- Best Available Control Technology Determination (BACT)



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

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**Solid Waste Authority of Palm Beach County**  
**North County Resource Recovery Facility Site**  
**PSD-FL-108F and 0990234-006-AC**  
**Palm Beach County, Florida**

**BACKGROUND**

Solid Waste Authority of Palm Beach County  
7501 North Jog Road  
West Palm Beach, Florida 33412-2414

Authorized Representative: Mr. John D. Booth, Executive Director

**APPLICATION PROCESSING SCHEDULE**

May 4, 2005            Received application to construct; incomplete.  
July 15, 2005            Incompleteness letter.  
August 30, 2005        Received additional information; application complete.

{Note: The applicant requested a modification to their original project submitted in July 2002. The applicant has withdrawn the lime recalcination part of the project and increased the biosolids pelletization rate from 400 wet TPD to 675 wet TPD.}

The applicant, Solid Waste Authority of Palm Beach County, proposes to construct a 675 wet tons of sludge per day (wtpd, at 20% solids) Biosolids Pelletization Facility (BPF). The BPF will have two 337.5 wtpd process trains and related appurtenances. The proposed BPF will be located adjacent to the existing landfill. Each dryer train at the BPF will combust landfill gas generated from the nearby landfill in a rotary drum dryer to dry sewage sludge, and then screen the dried sludge into marketable fertilizer pellets. Natural gas will be used as a backup fuel. Each dryer has a rated capacity of 34.240 MMBTU/hr based on landfill gas or 34.140 MMBTU/hr based on natural gas. An additional 2 MMBtu/hr is required for each regenerative thermal oxidizer (RTO) making the total design capacity of each train 42 MMBtu (84 MMBtu total for the BPF).

**AIR POLLUTION CONTROL TECHNOLOGY REVIEW**

**Applicant's NO<sub>x</sub> and PM Review**

**Summary of NO<sub>x</sub> Control Technologies Reviewed by the Applicant**

In Section 5 of the PSD permit application, the applicant provided a thorough review of NO<sub>x</sub> control technologies. The use of NO<sub>x</sub> controls will reduce NO<sub>x</sub> emissions by at least 50%. The applicant reviewed the following NO<sub>x</sub> control strategies: (1) low temperature SCR; (2) low temperature ozone oxidation; (3) multi-chemical wet scrubbing system; and, (4) low NO<sub>x</sub> burners with acid addition. The cost \$/ton of NO<sub>x</sub> removed for each respective strategy is: (1) \$17,700; (2) \$29,900 (3) \$20,200 and, (4) \$2,900. The only technology determined to be technically and economically feasible is the low NO<sub>x</sub> burners with acid addition. The Greater Lawrence Sanitary

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

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District and Massachusetts Water Resource Authority have low NO<sub>x</sub> burners on the dryer and RTO and acid addition to the condenser/scrubber. According to the applicant, no other controls were indicated in use by other biosolids suppliers.

**Summary of PM Control Technologies Reviewed by the Applicant**

In Section 5 of the PSD permit application, the applicant provided a thorough review of PM control technologies. A tray condenser/scrubber and exhaust gas recirculation is considered to be integral parts of the dryer system. The use of the tray condenser/scrubber will achieve 97% control. After the tray condenser/scrubber the exhaust stream is split with 75% of the stream being recycled back to the dryer. The remaining 25% of the exhaust stream goes to a venturi scrubber to remove particles prior to the regenerative thermal oxidizer (RTO) to prevent PM from clogging the heat exchanger media in the RTO. Control technologies were evaluated for the remaining 25% gas stream. The uses of three additional control technologies were evaluated: (1) fabric filter; (2) dry ESP; and, (3) wet ESP. The cost \$/ton to remove PM from each of these technologies is respectively: (1) \$26,700; (2) \$31,600; and, (3) \$29,400. According to the applicant, none of these additional control technologies are economically feasible.

The proposed BPF and combined flare maximum expected air pollutant emission rates, based on regulatory requirements, vendor information, and the results of the Best Available Control Technology (BACT) analysis are summarized in Section 5 of Volume II of the permit application.

In summary, the applicant proposes the use of dry low NO<sub>x</sub> burners with acid addition in the tray/condenser scrubber to control NO<sub>x</sub> emissions from each dryer's exhaust. The applicant proposes to use a tray/condenser scrubber and a venturi scrubber to control PM emissions from each dryer's exhaust. The BPF will also use a regenerative thermal oxidizer (RTO) on the dryer exhaust to control VOC emissions and odors. Fabric filters will be used on each material recycle bin exhaust and each pellet storage silo exhaust to control PM emissions.

**Department's Preliminary NO<sub>x</sub> and PM BACT Determinations**

Due to the limited information available in the RBLC database, similar projects were reviewed. Large metropolitan areas were researched due to large quantities of wastewater sludge generated used to produce pelletized biosolids.

In the response to request additional information dated August 16, 2005, the applicant provided a summary of projects around the country. The table lists the projects, location, air pollution control systems and startup year. All of the plants with drum dryers use a one or two stage scrubbing system. The larger biosolid facilities use RTOs. (See the **Table 1 Municipal Biosolids Dryer Plants in the USA** provided in the Response to Request for Additional Information dated August 16, 2005)

The applicant provided actual performance data summarizing key information from the Greater Lawrence Sanitary District project located in North Andover, Massachusetts which is very similar to the proposed project. The applicant's summary included a scaling of this project to this

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

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operating project, e.g., size of unit, air pollutant emission rates, fuels, etc. This BPF project will be unique in that it will be the first biosolids drying facility to use landfill gas as its primary fuel. The control technologies proposed for this project are proven at the operating Greater Lawrence Sanitary District project. The Greater Lawrence Sanitary District project started up in 2003.

General manufacturer information for the BACT technology proposed specifically, the dry low NOx burners, tray scrubber/condenser scrubber, and venturi scrubber was also provided. The dry low NOx burners are Kinedizer® gas burners provided by Maxon Corporation, or equal. The scrubber manufacturer is by SLY, Inc., or equal. The tray scrubber/condenser scrubber alone will reduce inlet PM at least 97% {See **Attachment 2 Manufacture's Product Literature** provided the Response to Request for Additional Information dated August 16, 2005 }

The applicant provide information on 30 projects around the U.S. with 10 of the projects having start up dates between 2003 and 2006 {See the **Table 1 Municipal Biosolids Dryer Plants in the USA.**} This proposed project's control technologies are consistent with the few recent projects using dry low NOx burners and RTOs.

The department accepts the applicant's proposed BACT technologies. The proposed control technology proposed for PM emissions is readily available and proven. The use of additional PM controls is not cost effective; the cost to remove additional PM is between \$26,000 and \$32,000 /ton. The proposed control technology for NOx emissions, specifically, dry low NOx burners, is readily available and is demonstrated in other types of stationary sources of air pollution. The use of dry low NOx burners with an estimated cost of \$2,900/ton is cost effective. In general, a cost effectiveness value for NOx control is \$18,000/ton.

**BACT EMISSION LIMITATIONS AND STANDARDS**

**Department's Procedure**

In accordance with Rule 62-212.400, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

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

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

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The EPA currently stresses that BACT should be determined using the "Top-Down" approach, particularly when permits are issued by states acting on behalf of EPA. The Department considers Top-Down to be a useful tool, though not a unique or required approach to achieve a BACT under the State regulations. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category.

If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

**NSPS AND NESHAP REVIEW**

The NSPS and NESHAP federal regulations do not contain emission standards or limitations for NO<sub>x</sub> or PM/PM<sub>10</sub>.

The BPF dryer is subject to the mercury standard under the National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR 61, Subpart E. The mercury emissions standard under the NESHAP is 3.2 kg (7.1 lb) of mercury per 24-hour period. This is equivalent to 1.296 TPY. The applicant proposed a limit of 8.08 E-03 TPY which is much lower than the NESHAP and the significant emission rate for Hg. This facility is not subject to BACT requirements for mercury (Hg).

**VE STANDARDS REVIEW**

While the general VE standard in Rule 62-296.320, F.A.C., limits VE to 20% from each train's stack, a VE limit of 5% with the exception for 20% up to 3-minutes in 1-hour should be attainable; expected VE from such an emissions unit is 0%. The Greater Lawrence Sanitary District, City of Largo and the City of Tampa units meet a VE limit of 5%.

**BACT Emission Limitations and Standards**

The emission limitations and standards from three similar facilities were reviewed, two of which are located in Florida. The three facilities reviewed were: (1) Greater Lawrence Sanitary District project located in North Andover, Massachusetts; (2) City of Largo and, (3) City of Tampa. Each 337.5 TPD dryer train of this project processes an equivalent 123,187 TPY of wet sludge. Emissions standards and limitations from these projects are summarized below.

(1) Greater Lawrence Sanitary District (GLSD). This wastewater treatment plant project is located in North Andover, Massachusetts. Each train at this facility processes approximately 13,870 TPY wet dry biosolids (the wet sludge moisture content is 70% per Massachusetts DEP). Emissions are controlled by tray scrubbers with acid addition, venturi scrubbers and RTOs. PM is limited to 0.64 pounds/hour; VE 5%, and NO<sub>x</sub> to 1.20 pounds/hour. The applicant scaled the emission limits from the GLSD by a factor of 3.378 to this project as follows: PM to 2.42 pounds/hour; and NO<sub>x</sub> to 4.54 pounds/hour.

(2) City of Largo. The City of Largo Wastewater Reclamation Facility located in Pinellas County, Florida operates two sludge dryer trains. The facility was upgraded in 1991. Each train processes

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

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143,13836,455 TPY of wet sludge. Emissions are controlled by venturi scrubbers and an RTO. PM is limited to 3 pounds/hour; VE 5%, and VOC to 2.05 pounds/hour.

(3) City of Tampa. The City of Tampa Howard F. Curren AWT Plant located in Hillsborough County, Florida operates two sludge dryer trains. Each train processes 13,24864,900 TPY of wet sludge. This facility began operations in 1990. Emissions are controlled by venturi scrubbers and an RTO. PM is limited to 10.3 pounds/hour; VE 5%, and VOC to 7.1 pounds/hour.

Based on the selected control technologies the BACT emission limitations and standards proposed for this project are shown in **Table AP-1 Summary of Air Pollutants**. BACT standards are established for PM/PM<sub>10</sub>, opacity and NO<sub>x</sub>. Emissions of SO<sub>2</sub>, CO, VOC and Hg are limited for reasonable assurances. Emissions from each train are calculated in the exhaust gases exiting the dryer and RTO. Establishment of a performance standard on the dry low NO<sub>x</sub> burners themselves was not possible due to the design of each train; NO<sub>x</sub> emissions are also formed in the RTO.

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

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**DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:**

Recommended By:

Reviewed By:

\_\_\_\_\_  
Scott M. Sheplak, P.E., Permit Engineer

\_\_\_\_\_  
A. A. Linero, P.E. Administrator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

Air Permitting South Section  
Bureau of Air Regulation  
Division of Air Resource Management  
State of Florida, Department of Environmental Protection  
Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, FL 32399

Recommended By:

Approved By:

\_\_\_\_\_  
Trina L. Vielhauer  
Bureau of Air Regulation

\_\_\_\_\_  
Michael G. Cooke, Director  
Division of Air Resource Management

\_\_\_\_\_  
Date

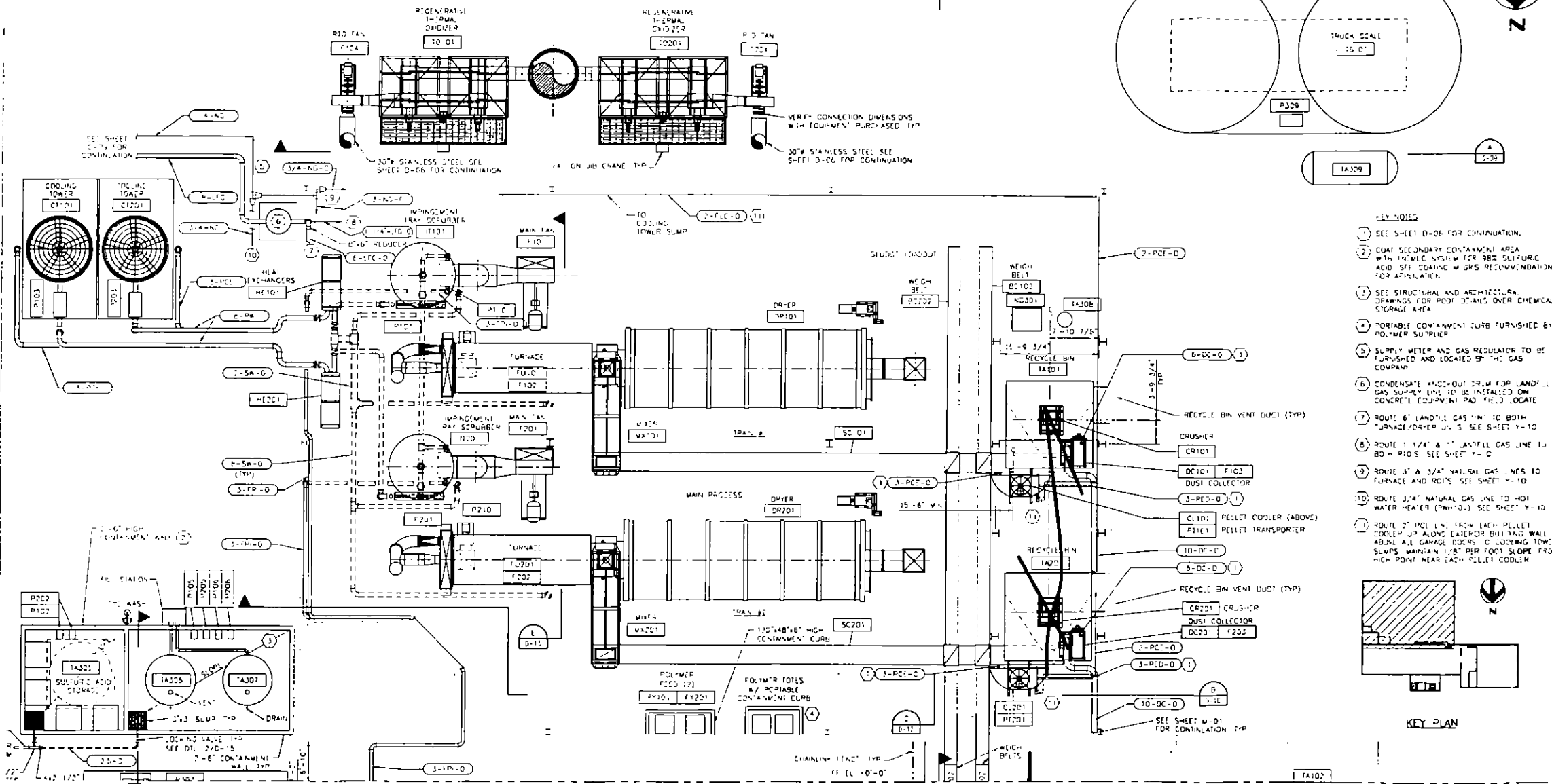
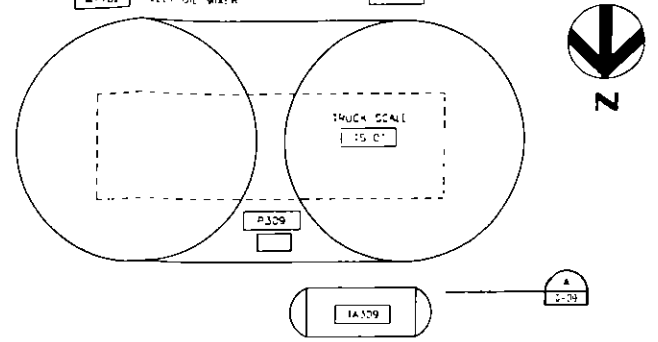
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ATTACHMENT 4

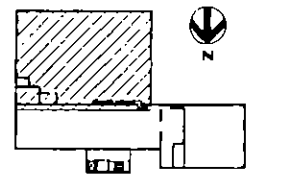
Sheet D-03- Main Level Process Plan

P1001 11 FACE S/D  
 A1102 11 LOCK (ABOVE)  
 P1102 11 PRODUCT RECEIVER (ABOVE)  
 M1102 11 PELLET OIL MIXER

P1501 STORAGE TANK  
 A1502 11 LOCK (ABOVE)  
 P1502 11 PRODUCT RECEIVER (ABOVE)  
 M1502 11 PELLET O. MIXER



- KEY NOTES**
- SEE SHEET D-06 FOR CONTINUATION.
  - COAT SECONDARY CONTAINMENT AREA WITH EPDM SYSTEM FOR 98% SULFURIC ACID. SEE COATING MFG'S RECOMMENDATIONS FOR APPLICATION.
  - SEE STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR ROOF DETAILS OVER CHEMICAL STORAGE AREA.
  - PORTABLE CONTAINMENT CURB FURNISHED BY POLYMER SUPPLIER.
  - SUPPLY METER AND GAS REGULATOR TO BE FURNISHED AND LOCATED BY THE GAS COMPANY.
  - CONDENSATE KICK-OUT FROM FURNACE/DRYER GAS SUPPLY LINE TO BE INSTALLED ON CONCRETE EQUIPMENT PAD. FIELD LOCATE.
  - ROUTE 6" LANDFILL GAS VENT TO BOTH FURNACE/DRYER UNITS. SEE SHEET Y-10.
  - ROUTE 1 1/4" & 1" LANDFILL GAS LINE TO BOTH R10'S. SEE SHEET Y-10.
  - ROUTE 3" & 3/4" NATURAL GAS LINES TO FURNACE AND REIS. SEE SHEET Y-10.
  - ROUTE 3/4" NATURAL GAS LINE TO HOT WATER HEATER (RHW-1). SEE SHEET Y-10.
  - ROUTE 2" HDG LINES FROM EACH PELLET COOLER UP ALONG EXTERIOR BUILDING WALL ABOVE ALL GARAGE DOORS TO COOLING TOWER SLOPES. MAINTAIN 1/8" PER FOOT SLOPE FROM HIGH POINT NEAR EACH PELLET COOLER.



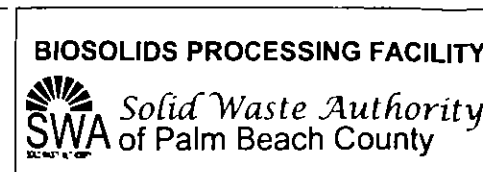
MAIN PROCESS AREA PLAN  
 1/28" = 1'-0"  
 MATCH LINE A - SEE D-04 FOR CONTINUATION



DATE	DESCRIPTION
11/10/20	60% REVISED
9/28/20	60% REVISED
9/21/20	30% REVISED
10/20/20	05/20/20

PROJECT MANAGER	DEVELOPER	CHECKED BY
ARCHITECTURAL	S. BRON	
STRUCTURAL	M. HANON	
CIVIL	R. TRAVIS	
PROCESS	E. DELORENZO	DR
Mechanical	E. SPILL	
Electrical	L. SMITH	
PROJECT NUMBER	00000000024020	

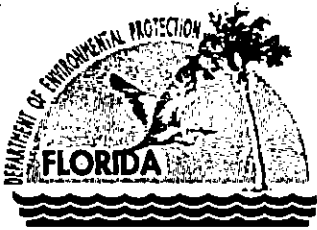
SWA of Palm Beach County  
 1111 N. US Highway 1  
 Palm Beach, FL 33480  
 Phone: 561-835-1234



**MAIN LEVEL PROCESS PLAN**

FILE NAME: 000-03  
 SCALE: 1/2" = 1'-0"  
 SHEET: D-03





Jeb Bush  
Governor

# Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struhs  
Secretary

August 16, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Donald L. Lockhart  
Executive Director  
Solid Waste Authority of Palm Beach Co.  
7501 North Jog Road  
West Palm Beach, Florida 33412-2414

Re: DEP File No. 0990234-006-AC (PSD-FL-108E)  
Solid Waste Authority of Palm Beach County  
North County Resource Recovery Facility Modifications

Dear Mr. Lockhart:

The Department received your application for the construction of a 2,300 scfm back up flare, a lime recalcination facility (LRF), and a biosolids pelletization facility (BPF) in West Palm Beach, Palm Beach County, Florida on June 17, 2002. Based on a technical review, the application is incomplete. Pursuant to Rules 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C., please submit the following information, including all assumptions, reference materials and calculations:

1. Volume II - Page I.Part 5-1 and I. Part 7-1 of the application under Description of Proposed Project or Alterations and/or Application Comment, it states that this application is also for " the addition of a flare for the Class I landfill with a design flow rate of 3,500 scfm". However, the following application section did not include information about this unit. On Volume III, page 1-8 of the Project Overview and Summary of Air Quality Impacts states that a separate air permit will be submitted for this 3,500 scfm flare. Please explain this discrepancy.
2. Volume II: Appendices G, H, J, K, L and M. Please submit this information.
3. What type of flare will be the proposed 2,300 scfm flare (steam-assisted, nonassisted, air-assisted, open, closed, etc)?
4. Submit the PM recalculation as soon as the design of the cross-bar cooler is complete.
5. Provide a detailed description of the control equipment for each facility. Include a detailed engineering design specification of the control devices (baghouse, ESP, RTO, venturi, etc) used at each facility.

*"More Protection, Less Process"*

*Printed on recycled paper.*

6. How many cooling towers will be installed?
7. Proposed BACT Analysis:
  - Expand the BACT analysis to include the social and economic impact of the application of each chosen technology. Rule 62-212.400(6) F.A.C.
  - Provide energy, environmental and economic costs of each proposed technology. It appears that all the Tables with these data are missing from Volume III, Section 4. Rule 62.212.400 (6) F.A.C.
  - Provide the BACT determinations of any other state. Rule 62-212.400 (6) F.A.C
8. Air Quality Analysis: Please submit all air dispersion modeling input and output files on CDs. Review of the air quality analysis will begin when these files are received.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature.

If there are any questions, please call or e-mail Teresa Heron. Matters regarding modeling issues should be directed to Cleve Holladay (meteorologist) at 850/921-8986 and e-mail [cleve.holladay@dep.state.fl.us](mailto:cleve.holladay@dep.state.fl.us) . Matters regarding the technical information may be directed to Teresa Heron (review Engineer) at 850/921-9529 and e-mail [teresa.heron@dep.state.fl.us](mailto:teresa.heron@dep.state.fl.us)

Sincerely,



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

AAL/th

cc: Tom Tittle, DEP SED  
Alex Makled, P.E., CDM  
Jeananne Gettle, EPA  
John Bunyak, NPS  
Steve Palmer, DEP PPSO

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Received by (Please Print Clearly) <i>R. Murphy</i>      B. Date of Delivery <i>7/21/99</i></p> <p>C. Signature <i>R. Murphy</i>      <input type="checkbox"/> Agent  <input checked="" type="checkbox"/> Addressee</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1 Article Addressed to:</p> <p>Mr. Donald L. Lockhart  Executive Director  Solid Waste Authority of  Palm Beach County  7501 North Jog Road  West Palm Beach, FL  33412-2414</p>	<p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail      <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered      <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail      <input type="checkbox"/> C.O.D.</p> <p>4 Restricted Delivery? (Extra Fee)      <input type="checkbox"/> Yes</p>

2. 7001 0320 0001 3692 8031

PS Form 3811, July 1999      Domestic Return Receipt      102595-00 M-0952

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

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OFFICIAL USE

Postage	\$	Postmark Here
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Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Sent To **Donald L. Lockhart**

Street, Apt. No. or PO Box **7501 N. Jog Rd.**

City, State, ZIP **W. Palm Bch., FL 33412-2414**

PS Form 3800, January 2001      See Reverse for Instructions

7001 0320 0001 3692 8031



YOUR PARTNER FOR  
SOLID WASTE SOLUTIONS

RECEIVED

DEC 08 2005

BUREAU OF AIR REGULATION

December 5, 2005

Ms. Trina L. Vielhauer  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Dear Ms. Vielhauer:

Enclosed please find one (1) original Proof of Publication from the Palm Beach Post for the Solid Waste Authority's Biosolids Pelletization Project.

If you have any questions or need any further information, please feel free to contact me at (561) 615-4571.

Sincerely,

Patrick D. Carroll  
Assistant Director

Enc.

Cc: Scott Sheplack

# THE PALM BEACH POST

Published Daily and Sunday  
West Palm Beach, Palm Beach County, Florida

## PROOF OF PUBLICATION

STATE OF FLORIDA

COUNTY OF PALM BEACH

Before the undersigned authority personally appeared Wendy Elliott, who on oath says that she is **Classified Advertising Supervisor** of The Palm Beach Post, a daily and Sunday newspaper published at West Palm Beach in Palm Beach County, Florida; that the attached copy of advertising, being Notice in the matter of DEP0990234-006-AC & PSD-FL-108F in the --- Court, was published in said newspaper in the issues of November 29, 2005. Affiant further says that the said The Post is a newspaper published at West Palm Beach, in said Palm Beach County, Florida, and that the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, daily and Sunday and has been entered as second class mail matter at the post office in West Palm Beach, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement, and affiant further says that she/he 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.

*Wendy Elliott*

Sworn to and subscribed before this 30<sup>th</sup> day of November, A.D. 2005

*[Signature]*

Personally known XX or Produced Identification \_\_\_\_\_  
Type of Identification Produced \_\_\_\_\_



Karen M. McIntire  
Commission # DD359366  
Expires: NOV. 15, 2008  
Bonded Thru  
Atlantic Bonding Co., Inc.

740 10 3190  
PUBLIC NOTICE OF  
INTENT TO ISSUE AIR  
CONSTRUCTION PERMIT  
STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL  
PROTECTION  
DEP File No  
0990234-006 AC and  
PSD FL 108F  
Solid Waste Authority of  
Palm Beach County  
North County Resource  
Recovery Facility  
Biosolids Pelletization Facility  
Palm Beach County  
The Department of Environ-  
mental Protection (Depart-  
ment) gives notice of its  
intent to issue an air con-  
struction permit modifica-  
tion to Solid Waste Author-  
ity of Palm Beach County, to  
modify its existing PSD con-  
struction permit for the  
North County Resource  
Recovery Facility located at  
7501 North Jog Road, West  
Palm Beach, Palm Beach  
County, A Best Available  
Control Technology (BACT)  
determination was required  
for nitrogen oxides (NOx)  
and particulate matter (PM)  
emissions pursuant to Rule  
62.212 of the F.A.C. and 40  
CFR 52.21. The applicant's  
mailing address is: 7501  
North Jog Road, West Palm  
Beach, Florida 33412-2414.  
This permitting action is for  
the construction of a Bio-  
solids Pelletization Facility  
(BPF) at North County  
Resource Recovery Facility  
Site in Palm Beach County.  
The BPF will primarily com-  
bust landfill gas generated  
from the nearby landfill and  
use natural gas as a back-  
up fuel in two 337.5 wet ton  
per day drum dryers to dry  
sewage sludge, and then  
screen the dried sludge into  
marketable fertilizer pellets.  
The applicant proposes the  
use of dry low NOx burners  
and acid addition in the  
dryer condenser scrubber to  
control NOx emissions from  
each dryer's exhaust. The  
applicant proposes to use a  
dryer condenser scrubber  
and a venturi scrubber to  
control PM emissions from  
each dryer's exhaust. The  
BPF will also use a regen-  
erative thermal oxidizer  
(RTO) on the dryer exhaust  
to control VOC emissions  
and odors. Fabric filters will  
be used on each material  
recycle bin exhaust and  
each pellet storage silo  
exhaust to control PM emis-  
sions.  
According to the applicant,  
the combined maximum  
emissions from this project  
in tons per year are summa-  
rized below:  
Pollutant  
NOx  
Maximum Potential Emis-  
sions  
52.5  
PSD Significant Emission  
Rate  
40  
Pollutant  
PM/PM10  
Maximum Potential Emis-  
sions  
22.6/22.3  
PSD Significant Emission  
Rate  
25/15  
Pollutant  
SO2  
Maximum Potential Emis-  
sions  
39  
PSD Significant Emission  
Rate  
10  
Pollutant  
CO  
Maximum Potential Emis-  
sions  
33.7  
PSD Significant Emission  
Rate  
100  
Pollutant  
VOC  
Maximum Potential Emis-  
sions  
4.3  
PSD Significant Emission  
Rate  
10  
Pollutant  
Hg  
Maximum Potential Emis-  
sions  
9.08 E-03  
PSD Significant Emission  
Rate  
0.17  
An air quality impact analy-  
sis was required for nitro-  
gen oxides (NOx) and  
PM/PM10. According to the  
applicant, maximum pre-  
dicted air quality impacts  
due to emissions from the  
proposed project for nitro-  
gen oxides (NOx) and  
PM/PM10 are less than the  
significant impact levels  
applicable to PSD Class II  
Areas (i.e., areas outside of  
the Everglades National  
Park). Therefore, an incre-  
ment consumption analysis  
was not required. The  
project has no significant  
impact on the PSD Class I  
Everglades National Park  
area. Based on the required  
analyses, the Department  
has reasonable assurance  
that the proposed project  
will not cause or contribute  
to a violation of any state or  
federal ambient air quality  
standard.  
The Department will issue  
the FINAL Permit, in accor-  
dance with the conditions of  
the DRAFT Permit, unless a  
response received in accor-  
dance with the following  
procedures results in a dif-  
ferent decision or signifi-  
cant change of terms or  
conditions.

who asked the Department  
for notice of agency action  
may file a petition within  
fourteen days of receipt of  
that notice, regardless of the  
date of publication. A  
petitioner shall mail a copy  
of the petition to the  
applicant at the address  
indicated above at the time  
of filing. The failure of any  
person to file a petition  
within the appropriate time  
period shall constitute a  
waiver of that person's right  
to request an administrative  
determination (hearing)  
under sections 120.569 and  
120.57 F.S. or to intervene  
in this proceeding and partic-  
ipate as a party to it. Any  
subsequent intervention will  
be only at the approval of  
the presiding officer upon  
the filing of a motion in  
compliance with Rule 28-  
106.205 of the Florida  
Administrative Code.  
A petition that disputes the  
material facts on which the  
Department's action is  
based must contain the  
following information: (a)  
The name and address of  
each agency affected and  
each agency's file or ident-  
ification number, if known.  
(b) The name, address, and  
telephone number of the  
petitioner, the name, ad-  
dress, and telephone num-  
ber of the petitioner's  
representative, if any, which  
shall be the address for  
service purposes during the  
course of the proceeding,  
and a explanation of how  
the petitioner's substantial  
interests will be affected by  
the agency's determination;  
(c) A statement of how and  
when petitioner received  
notice of the agency action  
or proposed action; (d) A  
statement of all disputed  
issues of material fact in  
these proceedings. The petition  
must so indicate; (e) A  
concise statement of the  
ultimate facts alleged,  
including the specific facts  
the petitioner contends  
warrant reversal or modifi-  
cation of the agency's  
proposed action; (f) A  
statement of the specific  
rules or statutes the  
petitioner contends require  
reversal or modification of  
the agency's proposed  
action; and (g) A statement  
of the relief sought by the  
petitioner, stating precisely  
the action petitioner wishes  
the agency to take with  
respect to the agency's  
proposed action.  
A petition that does not  
dispute the material facts  
upon which the Depart-  
ment's action is based  
shall state that no such  
facts are in dispute,  
and otherwise shall contain  
the same information as  
set forth above, as required  
by Rule 28.106.301.  
Because the administrative  
hearing process is designed  
to formulate final agency  
action, the filing of a petition  
means that the Depart-  
ment's final action may be  
different from the position  
taken by it in this notice.  
Persons whose substantial  
interests will be affected by  
any such final decision of  
the Department on the  
application have the right to  
petition to become a party to  
the proceeding, in accor-  
dance with the requirements  
set forth above.  
A complete project file is  
available for public inspec-  
tion during normal business  
hours, 8:00 a.m. to 5:00  
p.m., Monday through  
Friday, except legal holi-  
days, at:  
Dept. of Environmental  
Protection  
Bureau of Air Regulation  
Suite 4,  
111 S. Magnolia Drive  
Tallahassee, Florida 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979  
Division of Environmental  
Science and Engineering  
Palm Beach County  
Health Department  
901 Evernia Street  
West Palm Beach, Florida  
33401  
Telephone: 561/355-3070  
Fax: 561/355-2442  
Dept. of Environmental  
Protection  
Southeast District  
400 North Congress Avenue  
West Palm Beach, Florida  
33401  
Telephone: 561/681-6600  
Fax: 561/681-6755  
The complete project file  
includes the application,  
technical evaluations, Draft  
Permit, and the information  
submitted by the respon-  
sible official, exclusive of  
confidential records under  
Section 403.111, F.S. Inter-  
ested persons may contact  
Scott M. Sheplak, P.E. at  
111 South Magnolia Drive,  
Suite 4, Tallahassee, Flor-  
ida 32301, or call 850/921-  
9532, for additional infor-  
mation. The draft permit,  
technical evaluation and preli-  
minary determination can be  
accessed at the following  
web site: www.dep.state.  
fl.us/air/permitting/construct/  
him.  
PUB: The Palm Beach Post  
November 29, 2005

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of this Public Notice of Intent to Issue PSD Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

This PSD permitting action is being coordinated with a certification under the Power Plant Siting Act (Sections 403.501-519, F.S.). If a petition for an administrative hearing on the Department's Intent to Issue is filed by a substantially affected person, that hearing shall be consolidated with the certification hearing, as provided under Section 403.507(3).

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person