



July 11, 2014

Mr. Jeffery F. Koerner  
Program Administrator  
Office of Permitting and Compliance  
Division of Air Resource Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: Solid Waste Authority of Palm Beach County  
Palm Beach Renewable Energy Facility No. 2  
Air Permit No. 0990234-028-AC (PSD-FL-413B)  
Application for revisions to Authorized Fuels

Dear Mr. Koerner,

On behalf of the Solid Waste Authority of Palm Beach County (“Authority”), I am submitting this application for revisions to the FDEP air construction permit (“Permit”) for the Palm Beach Renewable Energy Facility No. 2 (“Facility”). The Permit (FDEP Air Permit No. 0990234-028-AC; PSD-FL-413B) authorizes the Authority to burn municipal solid waste (“MSW”) and other materials as fuel in the Facility. The Authority is filing this application with the Department because the Authority wishes to revise the Permit to (a) authorize the processing of increased quantities of non-MSW materials, when the non-MSW materials are received at the Facility as segregated loads, and (b) expand the list of materials that are authorized fuels when received as segregated loads. These permit revisions are necessary so that the Authority can fully utilize the increased waste-to-energy (“WTE”) processing capacity that will be available when the Facility begins operating.

The Authority’s request is consistent with the 2012 amendment to Section 403.707(1), Florida Statutes, which instructs the Department to allow WTE facilities to “maximize [the] acceptance and processing of nonhazardous solid and liquid waste.” The Authority’s request also is consistent with the Department’s recent approvals for the Lake County, Lee County, and Hillsborough County WTE facilities. With regard to those three facilities, FDEP revised their permits to authorize the processing of additional quantities of non-MSW materials in segregated loads or the processing of biosolids as an authorized fuel.

The Authority’s Facility will be equipped with state-of-the-art air pollution control systems, including selective catalytic reduction (“SCR”) systems. Given these sophisticated control systems, the Authority believes that the Facility’s airborne emissions will not be affected in a

meaningful way if the Authority's Permit is revised, as requested, and the Facility burns increased amounts of non-MSW materials or an expanded list of these materials. For the same reason, the Authority believes the proposed revisions to the Permit and the changes in the Facility's fuel slate will not have a meaningful effect on the Facility's ability to comply with the emission limits in the Permit. The Authority is not requesting any changes to any of the emission limits in the Permit. Since the Facility will be equipped with multiple continuous emissions monitoring systems ("CEMS"), including CEMS for CO, NO<sub>x</sub>, SO<sub>2</sub> and a mercury CEMS, the Authority will be able to monitor the Facility's emissions in real time and thus confirm that the use of the proposed fuels is not causing violations of the applicable emission limits.

Section 3.A., Specific Condition 12, of the Facility's Permit identifies the authorized fuels for the Facility and it establishes certain limits on materials that are received at the Facility in segregated loads. The Authority now wishes to revise Specific Condition 12. In support of this request, the Authority has executed the appropriate FDEP air permit application forms and enclosed the forms in Attachment A to this letter. The Authority also has revised the Permit, using a strike-out/underline format, to highlight the Authority's proposed revisions to Specific Condition 12. (and to Specific Condition 35). The revised Permit is enclosed in Attachment B.

The Authority's proposed permit revisions are summarized below:

- Waste Tires – Specific Condition 12.b provides that waste tires may be used as a fuel at the Facility. If the waste tires are received as segregated loads, Specific Condition 12.b provides that such tires “shall not exceed 3%, by weight, of the Facility's total fuel.” The Authority wishes to change this limit to 5%.
- Total Quantity of Non-MSW Materials Received as Segregated Loads – Specific Condition 12.c identifies various types of solid waste that may be used as fuel at the Facility. However, Specific Condition 12.c also provides that if such materials are received as segregated loads, they “shall not exceed 5%, by weight, of the Facility's total fuel.” The Authority wishes to change this limit to 20%. The Authority recognizes that compliance with this limitation must be demonstrated on a monthly basis pursuant to Section 3.A, Specific Condition 35.c. The Authority is not requesting any change to the method of demonstrating compliance, but recognizes that Specific Condition 35.c will need to be revised to refer to 20%, rather than 5%.
- Additional Categories of Non-MSW Materials Received as Segregated Loads – As noted above, Specific Condition 12.c identifies various types of non-MSW material that may be used as fuel in the Facility. The Authority wishes to add the following materials to the list of authorized fuels under Specific Condition 12.c. The Authority also wishes to establish separate limits for each of these new materials, as indicated below:

Wastewater Treatment Residuals (Biosolids) (5% by weight limit)

Wastewater Treatment Residuals or Biosolids are the residuals from the treatment process used for domestic wastewater. This category of material includes dried and pelletized residuals. Biosolids are defined more specifically in FDEP Rule 62-640.200, F.A.C. The Authority anticipates that it will not receive or process Wastewater Treatment Residuals in quantities that exceed 5% of the Facility's total capacity.

Livestock Waste (10% by weight limit)

Livestock Waste is the material that has been used for livestock bedding and sanitary purposes in barns and stalls. The Livestock Waste may include animal food that has been spilled into the bedding. The waste material is comprised primarily of straw, wood shavings (sawdust), and hay, and also contains excreta of animals. The Authority anticipates receiving Livestock Waste from the equestrian stables located in Palm Beach County and perhaps from other locations in South Florida. The Authority estimates that, during the peak of the equestrian season, the Authority may receive 150 to 300 tons per day of Livestock Waste (i.e., up to 10% of the Facility's total capacity).

Waste Processing Residue from Ethanol Production (5% by weight limit)

Waste Processing Residue from ethanol production is typically the undigested organics, lignins, celluloses, and plastics remaining from anaerobic digestion treatment processes used on various waste streams, including MSW, vegetative or woody waste, and biosolids. The Authority estimates that these materials will not exceed 5% of the Facility's total capacity.

Waste Gasification Process Residue (5% by weight limit)

Waste Gasification Process Residue is the "char" or carbonaceous material remaining from the low to medium temperature processes used to gasify various waste streams, including MSW, vegetative or woody waste, and biosolids. The Authority estimates that these materials will not exceed 5% of the Facility's total capacity.

In addition to the Permit revisions described above, the Authority also wishes to clarify the terms of the Permit. The Authority believes the following waste materials are authorized fuels under Specific Condition 12. Nonetheless, the Authority wishes to revise the Permit and thereby explicitly identify the following materials as authorized fuels so that there will be no misunderstandings or confusion about this issue in the future. These materials are described below:

- Residue from the recycling of Construction & Demolition (C&D) Debris - This residue is the combustible material that is removed from typical C&D debris at a recycling facility. This residue is primarily comprised of wood, plastics, paper, packaging materials, and other similar combustible materials. Although this residue may contain some incidental amounts of noncombustible C&D debris (e.g., pieces of concrete, asphalt, stone, brick, wallboard, glass, etc.), the residue generated by recycling C&D debris is substantially the same as the MSW in the normal waste stream. The Authority believes this residue already is categorized under Specific Conditions 12.a.iii and 12.a.iv. as authorized fuel (i.e., wood pallets, clean wood, packaging materials, and containers), and is not subject to any restrictions on quantity. If the Department believes that these materials are not already authorized under Condition 12.a, or if the Department believes these materials should be subject to a limitation in Specific Condition 12.c when the materials are received as segregated loads, then the Authority requests that "Residue from recycling C&D Debris" be listed as a new category in Specific Condition 12.c., with a limit of 10%, by weight, of the Facility's total fuel.
- Residue from Processing MSW to Make Refuse Derived Fuel, Residue from Processing Recovered Materials, and Residue from Processing Recyclables at a Materials Recovery Facility - These residues are comprised of MSW that remains after MSW, recovered

materials, or recyclable materials are processed by the Authority. The Authority believes these residues are MSW, they are authorized fuels under Specific Condition 12, and they are not subject to any restrictions on quantity. The following paragraphs describe each of these residues in more detail:

#### Residue from Processing MSW to make Refuse Derived Fuel

The Authority processes MSW to create the Refuse Derived Fuel (“RDF”) that is burned in the Authority’s existing WTE facility (Palm Beach Renewable Energy Facility No. 1). The RDF is produced with MSW that is collected at curbside. The RDF production process includes size reduction in a flail mill, magnet separation of ferrous material, and separation of light and heavy fractions in a trommel, followed by an air classifier. The process produces separate streams of RDF, ferrous materials, aluminum, and residue. The residue from processing MSW for RDF consists primarily of small objects that are not carried completely through the RDF production process. The residue includes fragments of paper and plastic, broken glass, food waste, soil, and small quantities of miscellaneous objects. In short, the Authority starts with MSW and, after completing the RDF production process, the Authority is left with a residue that consists of MSW.

#### Residue from Processing Recovered Materials

Recovered Materials are defined in Section 403.703(24), Florida Statutes, as metal, paper, glass, plastic, textile, or rubber materials that have been diverted and source separated from the solid waste stream. These materials are collected from residential and commercial customers and then processed at a Recovered Materials Processing Facility (“RMPF”). The residue generated at the RMPF includes non-recyclable materials (e.g., food waste) and recyclable materials that were missed or rejected on the sorting line at the RMPF. For example, the rejected materials in the residue may consist of wet newspaper, cardboard pizza boxes contaminated with food waste, non-recyclable plastics, Styrofoam packaging, mixed-color and broken glass cullet, and small pieces of other recyclable materials. This residue is comprised of items that are part of the normal waste stream (i.e., MSW).

#### Residue from Processing Recyclables at a Dirty MRF or a Single Stream MRF

Materials Recovery Facilities (“MRFs”) generate various residues from the processing of MSW and recyclable materials. At a “dirty” MRF, MSW is delivered and recyclable materials are extracted from the solid waste. At a “single stream” MRF, recyclable materials that are collected at curbside are delivered in a “single stream” (i.e., all of the customer’s recyclable materials are placed into one container and then collected together in a single, comingled load). The residues from dirty and single stream MRFs are materials that are rejected from the processing lines inside the MRFs (e.g., items that are removed from the sorting lines because they are unsuitable for recycling) and materials that simply escaped processing. As noted above, a dirty MRF processes MSW in cases where the recyclable materials were not removed before the MSW was delivered to the MRF. Consequently, the residue from a dirty MRF contains fragments of unrecovered recyclables (e.g., paper, cardboard, plastic, and metal), as well as larger pieces of these same materials that are uneconomical to recycle, plus broken glass, food waste, soil, and objects that escaped collection. The residue from a single stream MRF also contains fragments of recyclable material, recyclable material that was rejected because it was contaminated with food waste, and similar materials. Again, the materials in the residue consist of typical MSW.

- Materials for Witnessed Destruction – Materials for Witnessed Destruction include contraband and counterfeit consumer goods, which are authorized fuels under Specific

Condition 12.a.ii. Materials for witnessed destruction also include pharmaceuticals, off-specification consumer goods, and food products, which are authorized fuels under Specific Condition 12.c. Although the Permit already addresses these materials, the Authority believes the term “Materials for Witnessed Destruction” should be incorporated in Specific Condition 12 for clarification.

The Authority’s proposals, as described above, are not expected to meaningfully increase the emissions from the Authority’s new Facility. For this reason, the Authority is not requesting any changes to any of the emission limits in the Permit. The Authority is confident that the new Facility will be able to fully comply with all applicable emissions limitations at all times, including periods when the Facility is burning the non-MSW materials and segregated loads that are described in this application.

The Authority’s confidence is justified for at least four reasons. First, the Facility will utilize highly advanced air pollution control systems (including SCR) to minimize emissions. Second, most of the proposed materials are already part of the MSW that the Facility is authorized to receive. Third, the Facility will continuously monitor the emissions from each MWC unit via CEMS for multiple pollutants, which will enable the Authority to make real-time adjustments to the combustion process and control systems should temporary increases in emissions occur. Fourth, it is our understanding that emissions data from other Florida WTE facilities support the Authority’s conclusion. The Department recently approved Covanta’s request to burn increased quantities of non-MSW materials as segregated loads in the Lake County Resource Recovery Facility. The Department also authorized Lee County and Hillsborough County to burn wastewater treatment residuals/biosolids as fuel in their WTE facilities. It is our understanding that the emissions data from these three facilities have shown no meaningful increase in emissions when burning these materials.

The Authority’s application for certain Permit revisions is not subject to PSD review. The Authority is not requesting approval to make any physical changes or modifications to the Facility. The Facility has not yet commenced operations and, therefore, its “baseline actual emissions” are equal to its potential emissions. Since the Authority is not requesting any increase in any of the emission limits in the Facility’s Permit, the Authority’s request will not result in an increase in the Facility’s potential emissions. Consequently, none of the PSD significant emission rate thresholds will be exceeded by this request.

We look forward to working with the Department and addressing any questions the Department may have regarding the Authority’s proposed Permit revisions. If you have any questions concerning this application, please contact Mr. Joel Cohn with ARCADIS U.S., Inc. at (757) 873-4411 or via e-mail at [Joel.Cohn@arcadis-us.com](mailto:Joel.Cohn@arcadis-us.com).

Very truly yours,



Mark Hammond  
Executive Director  
Solid Waste Authority of Palm Beach County

Attachments: Attachment A - Permit Application  
Attachment B – Permit mark-up (highlighting proposed revisions)

cc: M. Bruner  
R. Schauer  
P. Carroll  
M. Morrison  
L. Richter, ARCADIS  
J. Cohn, ARCADIS  
A. Chattopadhyay, ARCADIS  
D. Dee, GBW



Imagine the result



**Solid Waste Authority of  
Palm Beach County**

**Palm Beach Renewable  
Energy Facility No. 2**

## **Attachment A**

**FDEP Permit Application Form**

July 2014



# Department of Environmental Protection

## Division of Air Resource Management

### APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

**Air Construction Permit** – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

**Air Operation Permit** – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

**To ensure accuracy, please see form instructions.**

#### Identification of Facility

1. Facility Owner/Company Name: <b>Solid Waste Authority of Palm Beach County</b>	
2. Site Name: <b>Palm Beach Renewable Energy Facility No. 2 (PBREF No. 2)</b>	
3. Facility Identification Number: <b>0990234</b>	
4. Facility Location... Street Address or Other Locator: <b>7501 North Jog Road</b> City: <b>West Palm Beach</b> County: <b>Palm Beach</b> Zip Code: <b>33412</b>	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

#### Application Contact

1. Application Contact Name: <b>Joel S. Cohn, P.E.</b>	
2. Application Contact Mailing Address... Organization/Firm: <b>ARCADIS U.S., Inc.</b> Street Address: <b>701 Town Center Drive, Suite 600</b> City: <b>Newport News</b> State: <b>Virginia</b> Zip Code: <b>23606</b>	
3. Application Contact Telephone Numbers... Telephone: <b>(757) 873 - 4411</b> ext.      Fax: <b>(757) 873 - 8723</b>	
4. Application Contact E-mail Address: <b>joel.cohn@arcadis-us.com</b>	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):



## APPLICATION INFORMATION

### Purpose of Application

**This application for air permit is being submitted to obtain: (Check one)**

#### **Air Construction Permit**

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

#### **Air Operation Permit**

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

#### **Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)**

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

**Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:**

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

### Application Comment



The purpose of this permit application is to request revisions to the final air construction permit (Air Permit No. 0990234-028-AC (PSD-FL-413B) issued on August 27, 2013 for the Solid Waste Authority of Palm Beach County's Palm Beach Renewable Energy Facility No. 2 (PBREF No. 2). Permit revisions are being requested to allow for the use of additional quantities of non-MSW materials as fuel when received as segregated loads and to expand the list of currently authorized materials to be used as fuel when received as segregated loads.



## APPLICATION INFORMATION

### Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name : <b>Mark Hammond, Executive Director</b>
2. Owner/Authorized Representative Mailing Address... Organization/Firm: <b>Solid Waste Authority of Palm Beach County</b> Street Address: <b>7501 North Jog Road</b> City: <b>West Palm Beach</b> State: <b>Florida</b> Zip Code: <b>33412</b>
3. Owner/Authorized Representative Telephone Numbers... Telephone: <b>(561) 640-4000</b> ext. Fax: <b>(561) 640-3400</b>
4. Owner/Authorized Representative E-mail Address: <b>mhammond@swa.org</b>
5. Owner/Authorized Representative Statement:  <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i>   Signature   Date

## APPLICATION INFORMATION

### Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: <b>Mark Hammond, Executive Director</b>
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input checked="" type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source or CAIR source.
3. Application Responsible Official Mailing Address... Organization/Firm: <b>Solid Waste Authority of Palm Beach County</b> Street Address: <b>7501 North Jog Road</b> City: <b>West Palm Beach</b> State: <b>Florida</b> Zip Code: <b>33412</b>
4. Application Responsible Official Telephone Numbers... Telephone: <b>(561) 640-4000</b> ext. Fax: <b>(561) 640-3400</b>
5. Application Responsible Official E-mail Address: <b>mhammond@swa.org</b>

**APPLICATION INFORMATION**

6. Application Responsible Official Certification:


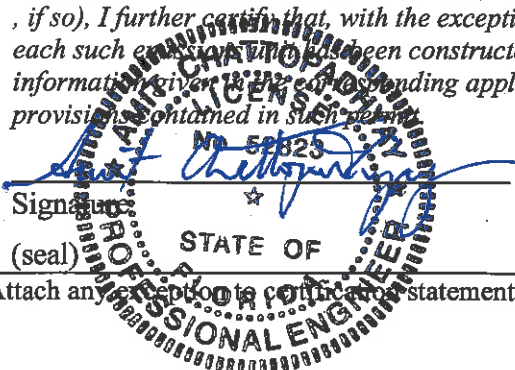
I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

  
Signature

7/10/2014  
Date

# APPLICATION INFORMATION

## Professional Engineer Certification

1. Professional Engineer Name: <b>Amit Chattopadhyay</b> Registration Number: <b>52823</b>
2. Professional Engineer Mailing Address... Organization/Firm: <b>Malcolm Pirnie/ARCADIS U.S., Inc.</b> Street Address: <b>17-17 Route 208 North, 2<sup>nd</sup> Floor</b> City: <b>Fair Lawn</b> State: <b>New Jersey</b> Zip Code: <b>07410</b>
3. Professional Engineer Telephone Numbers... Telephone: <b>(201) 398 - 4311</b> ext. Fax: <b>(201) 797 - 4399</b>
4. Professional Engineer E-mail Address: <b>Amit.Chattopadhyay@arcadis-us.com</b>
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the pending application for air construction permit and with all provisions contained in such permit.</i>  Signature:  (seal)  Date: <u>7/7/2014</u>

\* Attach any correspondence or communication statement.



**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**A. GENERAL EMISSIONS UNIT INFORMATION**

**Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Description of Emissions Unit Addressed in this Section: <b>Municipal Waste Combustor (MWC) Units 3, 4, 5.</b> <b>Three identical units each rated to process 1,000 tons/day of municipal solid waste (MSW).</b>			
3. Emissions Unit Identification Number: <b>024, 025, 026</b>			
4. Emissions Unit Status Code: <b>C</b>	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: <b>49</b>
8. Federal Program Applicability: (Check all that apply)			
<input type="checkbox"/> Acid Rain Unit			
<input type="checkbox"/> CAIR Unit			
9. Package Unit: Manufacturer:		Model Number:	
10. Generator Nameplate Rating: <b>nominal 90 – 100 MW (combined for MWC Units 3, 4, and 5)</b>			



11. Emissions Unit Comment:

**The emissions unit information in this section applies to each of three identical MWC units. No changes are proposed to the information previously provided in items A. through I. of DEP Form No. 62-210.900(1) as contained in Appendix A of the PSD Permit Application for PBREF No. 2, dated May 2010. Consequently, DEP form pages covering the additional information under items A. through I. are not provided herein.**

**The purpose of this permit application is to request revisions to Section 3.A., Condition 12 of the current air construction permit for PBREF No. 2 pertaining to the use of non-MSW materials as authorized fuels for the MWC units when these materials are received as segregated loads.**



Imagine the result



**Solid Waste Authority of  
Palm Beach County**

**Palm Beach Renewable  
Energy Facility No. 2**

## **Attachment B**

**Proposed Permit Revisions**

July 2014

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

#### A. Municipal Solid Waste Combustor (MWC) Units 3, 4, and 5 (EU ID Nos. 024, 025 and 026)

12. **Authorized Fuels:** The primary fuel for the facility is MSW, including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), F.S. (1995). Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below:
- a. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:
    - i. Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
    - ii. Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
    - iii. Wood pallets, clean wood, and land clearing debris;
    - iv. Packaging materials and containers;
    - v. Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
    - vi. Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
  - b. Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 35%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with **Specific Condition 35** of this subsection.
  - c. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total (cumulative) quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 520%, by weight, of the facility's total fuel and, except as specifically provided below, none of the following materials individually shall exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with **Specific Condition 35** of this subsection. The Department's prior approval is not required to use the following materials as fuel, subject to the conditions and limitations contained in this permit.
    - i. Construction and demolition debris.
    - ii. Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
    - iii. Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
    - iv. Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
    - v. Waste materials that:
      - (a) are generated in the manufacture of items in categories (iii) or (iv), above and are functionally or commercially useless (expired, rejected or spent); or
      - (b) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
    - vi. Materials for Witnessed Destruction. These materials consist of the products and goods that are identified in Sections 12.c.iii., 12.c.iv., and 12.c.v., above.
    - vii. Waste materials that contain oil from:

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

#### A. Municipal Solid Waste Combustor (MWC) Units 3, 4, and 5 (EU ID Nos. 024, 025 and 026)

- (a) the routine cleanup of industrial or commercial establishments and machinery; or
  - (b) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
- viii. Used oil and used oil filters. Used oil containing a polychlorinated biphenyls (PCB) concentration equal or greater than 50 parts per million (ppm) shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).
- ~~{Permitting note: Waste materials specifically authorized above do not require Department approval.}~~
- ix. Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW.
  - x. Biosolids. Biosolids are defined in 62-640.200(6), F.A.C., to mean the residues generated from the treatment of domestic wastewater at domestic wastewater treatment facilities. Note that "liquid biosolids" as defined in 62- 640.200(28), F.A.C. (i.e., biosolids that are less than 12% solids by weight, or that are determined to contain free liquids as defined by Method 9095B (Paint Filter Liquids Test)) are not authorized fuels.
  - xi. Livestock waste at a maximum quantity not to exceed 10% by weight, of the facility's total fuel. Livestock waste means the material that has been used for livestock bedding and sanitary purposes in barns and stables. Livestock waste typically is comprised of straw, wood shavings (sawdust), hay, waste animal feed, and similar materials. Such waste contains the excreta of animals.
  - xii. Waste processing residue from ethanol production. Such material contains the undigested organics, lignins, celluloses and plastics remaining from the anaerobic digestion treatment processes used on various waste streams including MSW, vegetative and woody waste, and biosolids.
  - xiii. Waste gasification process residue. Such material is the "char" or carbonaceous material remaining from the low to medium temperature processes used to gasify various waste streams including MSW, vegetative and woody waste, and biosolids.
- d. The following materials also are authorized fuels at the facility.
- i. The combustible residue generated when recycling construction and demolition debris. Such materials include wood, plastic, paper, packaging materials, and similar combustible materials, but may also include incidental amounts of noncombustible material (e.g., concrete).
  - ii. The residue generated when processing MSW to make refuse derived fuel.
  - iii. The residue generated when processing recovered materials in a recovered materials processing facility, as those terms are defined in Rules 62-701.200(95) and (96), F.A.C., respectively.
  - iv. The residue generated when processing recyclable materials at a materials recovery facility, as those terms are defined in Rules 62-701.200(98) and (71), F.A.C., respectively.

[Rule 62-4.070(1), and (3), F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

#### A. Municipal Solid Waste Combustor (MWC) Units 3, 4, and 5 (EU ID Nos. 024, 025 and 026)

35. **Segregated Solid Waste Record Keeping:** The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of **Specific Condition 12** of this subsection:

- a. Each segregated load of non-MSW materials, subject to the percentage weight limitations of **Specific Condition 12** of this subsection, which is received for processing, shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured and recorded using the facility truck scale.
- b. Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 35% limitation.
- c. Each day the total weight of segregated non-MSW materials received that are subject to the 520% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 520% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 520% limitation.
- d. Each day the weight of each segregated non-MSW material received that is subject to a 5% or 10% individual material restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of each segregated non-MSW material subject to a 5% or 10% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% or 10% limitation.

[Rules 62-4.070(1) and (3), and 62-210.200(BACT), F.A.C.]