Scott

RECEIVED

NOV 0 1 2013

DIVISION OF AIR RESOURCE MANAGEMENT

TITLE V AIR OPERATION PERMIT REVISION

Palm Beach Renewable Energy Park

Project 0990234 -031-AU

Prepared For: Solid Waste Authority of Palm Beach County

7501 North Jog Road

West Palm Beach, FL 33412

Submitted By: Golder Associates Inc.

6026 NW 1st Place

Gainesville, FL 32607 USA

Module AB 223

Distribution: FDEP – 4 copies

SWA - 2 copies

Golder Associates Inc. - 1 copy

A world of capabilities

delivered locally

13-01286





November 1, 2013

Module AB223
RECEIVED

Jeff Koerner
Administrator
Office of Permitting and Compliance
Florida Department Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Project 0990234-031-AV

DIVISION OF AIR

RESOURCE MANAGEMENT

RE: Title V Air Operation Permit 0990234-022-AV - Revision Application Biosolids Pelletization Facility Scrubber/Cyclone Project (EU010 & EU011) Replacement Emergency Generator PBREF Scalehouse (EU037) Palm Beach Renewable Energy Park (formerly known as NCRRF)

Dear Jeff:

Please find attached four (4) copies of the Title V Air Operation Permit Revision application for the Palm Beach Renewable Energy Park (PBREP) (facility ID 0990234, formerly known as NCRRF) owned by the Solid Waste Authority of Palm Beach County (SWAPBC) and located at 7501 North Jog Road in West Palm Beach, FL to incorporate the following:

- Air Project No. 0990234-026-AC Physical change to Tray Scrubbers and Cyclonic separators at the Biosolids Pelletizing Facility (BPF) (project was exempt from requiring AC permit) for Dyer Trains 1 & 2 (EU010, EU011). Submit revised CAM plan for Venturi Scrubbers.
- Air Project No. 0990234-027-AC Testing authorization for establishment of CAM parameters for the Venturi Scrubbers as part of the modified Tray Scrubbers and Cyclonic Separators at the BPF (project was exempt from requiring AC permit).
- Air Construction Permit No. 0990234-029-AC New emergency generator/stationary diesel engine to replace existing emergency generator/stationary diesel engine (EU ID 037) at the Scalehouse that serves the Waste-to-Energy Facility.
- Change the Site name from North County Resource Recovery Facility (NCRRF) to Palm Beach Renewable Energy Park (PBREP).

October 29, 2013 Title V Air Operation Revision Application Page 2 of 2

The facility is currently operating under Title V air operation permit No. 0990234-022-AV. Physical changes to the tray scrubbers and cyclonic separators at the BPF were authorized under Air Project No. 0990234-026-AC which also required PM/PM10 stack testing to establish CAM parameters for the Venturi Scrubbers. The stack testing has been completed, and the Title V revision application, which includes a revised CAM plan, is due on November 5, 2013. Please note that the replacement emergency generator/stationary diesel engine authorized under permit No. 0990234-029-AC has been purchased and delivery is expected by the end of November 2013. A compliance plan for the emergency generator set is included with the application to notify the Department after the installation and readiness testing is complete.

If you have any questions or need additional information please contact Mary Beth Morrison at (561) 640-4000 extension 4613.

Sincerely,

Mark Hammond **Executive Director**

Solid Waste Authority of Palm Beach County

Enclosures

cc:

Marc Bruner, SWA Mark McLean, SWA

Mary Beth Morrison, SWA

Sal Mohammad, Golder Associates Ken Kosky, Golder Associates Cynthia Hibbard, CDM Smith

APPLICATION FOR AIR PERMIT - LONG FORM



Department of Environmental Protection ECEIVED

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

DIVISION OF AIR RESOURCE MANAGEMENT

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.

<u>Ide</u>	entification of Facility
1.	Facility Owner/Company Name: Solid Waste Authority of Palm Beach County
2.	Site Name: Palm Beach Renewable Energy Park
3.	Facility Identification Number: 0990234
4.	Facility Location Street Address or Other Locator: 7501 North Jog Road
	City: West Palm Beach County: Palm Beach Zip Code: 33412
5.	Relocatable Facility? 6. Existing Title V Permitted Facility? ☐ Yes ☒ No ☒ Yes ☐ No
<u>Ap</u>	plication Contact
1.	Facility Contact Name: Mary Beth Morrison, Environmental Programs Manager

2. Facility Contact Mailing Address... Organization/Firm: Solid Waste Authority of Palm Beach County Street Address: 7501 North Jog Road City: West Palm Beach State: Palm Beach Zip Code: **33412** 3. Facility Contact Telephone Numbers: Telephone: (561) 640-4000 ext. 4613 Fax: (**561**) 640-3400

Facility Contact E-mail Address: mmorrison@swa.org

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):

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

Permit application to revise the current Title V air operating permit No. 0990234-022-AV to incorporate the following air projects:

- 1. Project No. 0990234-026-AC Physical change to Tray Scrubbers and Cyclonic separators at the Biosolids Pelletizing Facility (BPF) (physical change was exempt from requiring AC permit).
- 2. Project No. 0990234-027-AC Testing authorization for establishment of CAM parameters for the modified Tray Scrubbers and Cyclonic Separators at the BPF (project was exempt from requiring AC permit).
- 3. Air Construction Permit No. 0990234-029-AC New emergency generator/stationary diesel engine to replace existing emergency generator/stationary diesel engine (EU ID 037) at the Scalehouse.

Scope of Application

E		14.	1. 5
Emissions		Air	Air Permit
Unit ID	Description of Emissions Unit	Permit	Processing
Number		Type	Fee
010	Sludge Dryer Train No. 1	AF2A	N/A
011	Sludge Dryer Train No. 2	AF2A	N/A
037	Emergency Generator/Diesel Engine - NCRRF Scalehouse	AF2C	N/A

Application Processing Fee	
Check one: Attached - Amount: \$	

Owner/Authorized Representative Statement

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

1.	Owner/Authorize	d Representative 1	Name:			
2.	Owner/Authorize Organization/Firm	•	Mailing Addr	ess	_	
	Street Address	s:				
	City	y:	State:			Zip Code:
3.	Owner/Authorize	d Representative	Γelephone Νι	ımbers		
	Telephone: ()	ext.	Fax:	()
4.	Owner/Authorize	d Representative I	E-mail Addre	ss:		
5.	Owner/Authorize	d Representative S	Statement:			
	other legal entity su statements made in emissions reported	ubmitting this air pe this application are in this application o stand that a permit,	ermit applicati e true, accurat are based upo	on. To the e and con n reason	he be: mplei able i	ne corporation, partnership, or st of my knowledge, the te, and any estimates of techniques for calculating st, cannot be transferred without
	Signature			.	Date	

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."

011	The interest of the primary responsible official.
1.	Application Responsible Official Name: Mark Hammond, Executive Director
2.	Application Responsible Official Qualification (Check one or more of the following options, as applicable):
	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.
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
	For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
	☐ The designated representative at an Acid Rain source or CAIR source.
3.	Application Responsible Official Mailing Address Organization/Firm: Solid Waste Authority of Palm Beach County
	Street Address: 7501 North Jog Road
	City: West Palm Beach State: FL Zip Code: 33412
4.	Application Responsible Official Telephone Numbers Telephone: (561) 640 - 4000 ext. Fax: (561) 640 - 3400
5.	Application Responsible Official E-mail Address: mhammond@swa.org
6.	Application Responsible Official Certification:
apple that of real political states the deplemental states are the deplemen	the undersigned, am a responsible official of the Title V source addressed in this air permit plication. I hereby certify, based on information and belief formed after reasonable inquiry, at the statements made in this application are true, accurate and complete and that, to the best my knowledge, any estimates of emissions reported in this application are based upon asonable techniques for calculating emissions. The air pollutant emissions units and air allution control equipment described in this application will be operated and maintained so as comply with all applicable standards for control of air pollutant emissions found in the tutes of the State of Florida and rules of the Department of Environmental Protection and visions thereof and all other applicable requirements identified in this application to which a Title V source is subject. I understand that a permit, if granted by the department, cannot transferred without authorization from the department, and I will promptly notify the partment upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I trify that the facility and each emissions unit are in compliance with all applicable quirements to which they are subject, except as identified in compliance plan(s) submitted the this application.
	Signature Date

Professional Engineer Certification

1. Professional Engineer Name: Kennard F. Kosky
Registration Number: 14996
2. Professional Engineer Mailing Address
Organization/Firm: Golder Associates Inc.**
Street Address: 6026 NW 1st Place
City: Gainesville State: FL Zip Code: 32607
3. Professional Engineer Telephone Numbers
Telephone: (352) 336-5600 ext. 21156 Fax: (352) 336-6603
4. Professional Engineer E-mail Address: Ken_Kosky@golder.com
5. Professional Engineer Statement:
I, the undersigned, hereby certify, except as particularly noted herein*, that:
(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
(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.
(3) If the purpose of this application is to obtain a Title V air operation permit (check here ⊠, 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.
(4) If the purpose of this application is to obtain an air construction permit (check here ☐, 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 ☐, 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.
(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 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 corresponding application for air construction permit and with all provisions contained in such permit.
75 m 15/25/13
Signature Date
14980 14980
* Attach any exception to certification statement.
**Board of Professional Engineers Certificate of Authorization #00001670.
" ONAL TELEVISION
DEP Form No. 62-210.900(1) Form Y:\Projects\2013\13-01286 Palm Beach Cty\SWAPBC-F

Effective: 03/11/2010

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1.		dinates (km) 585.82 th (km) 2960.474	2.	Facility Latitude/Lo Latitude (DD/MM/ Longitude (DD/MM	SS)	26/45/53
3.	Governmental Facility Code:	4. Facility Status Code:	5.	Facility Major Group SIC Code:	6.	Facility SIC(s): 4953
7.	Facility Comment :			43		

Facility Contact

1.	Facility Contact Name:				
	Mary Beth Morrison, Environmental	Prog	ırams M	anage	er
2.	Facility Contact Mailing Address				
	Organization/Firm: Solid Waste Au	thor	ity of Pa	lm Be	each County
	Street Address: 7501 North Jog	Roa	d		
	City: West Palm Beac	:h	State:	FL	Zip Code: 33412
3.	Facility Contact Telephone Number	s:			
	Telephone: (561) 640-4000	ext.	4613		Fax: (561) 640-3400
4.	Facility Contact E-mail Address: m	mor	rison@s	swa.o	rg

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

	<i>v</i> 1				
1.	Facility Primary Responsible O	fficial Name:			
2.	Facility Primary Responsible O Organization/Firm: Street Address:	fficial Mailing	Address		
	City:	State:		Zip Code:	
3.	Facility Primary Responsible O	fficial Telephor	ne Numbers		
	Telephone: ()	ext.	Fax:	()	
4.	Facility Primary Responsible O	fficial E-mail A	ddress:		

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

	•		
1. Small Business	Stationary Source		☐ Unknown
2. Synthetic Non-T	Title V Source		
3. X Title V Source			
4. Major Source of	Air Pollutants, Other t	han Hazardous A	Air Pollutants (HAPs)
5. Synthetic Minor	Source of Air Pollutan	ts, Other than H	APs
6. Major Source of	Hazardous Air Polluta	nts (HAPs)	
7. Synthetic Minor	Source of HAPs		
8. \(\sum \) One or More En	nissions Units Subject t	o NSPS (40 CFR	R Part 60)
9. One or More En	nissions Units Subject t	o Emission Guid	lelines (40 CFR Part 60)
10. ⊠ One or More En	nissions Units Subject t	o NESHAP (40	CFR Part 61 or Part 63)
11. Title V Source S	Solely by EPA Designat	ion (40 CFR 70.	3(a)(5))
	Classifications Comme	nt:	
12. Facility Regulatory			
Applicability of the f	it No. 0990234-022-AV.		I regulations are available in the
Applicability of the f current Title V permi	it No. 0990234-022-AV. rain Nos. 1 and 2 (EUs 0	10 and 011) are s	-
Applicability of the f current Title V permi BPF Sludge Dryer Tr Compliance Assurar	it No. 0990234-022-AV. rain Nos. 1 and 2 (EUs 0 nce Monitoring requiren generator for the Scale CFR 60 Subpart IIII for	10 and 011) are s nents. house (EU 037) is	subject to 40 CFR 64,
Applicability of the f current Title V permi BPF Sludge Dryer Tr Compliance Assurar The new emergency provisions under 40	it No. 0990234-022-AV. rain Nos. 1 and 2 (EUs 0 nce Monitoring requiren generator for the Scale CFR 60 Subpart IIII for	10 and 011) are s nents. house (EU 037) is	subject to 40 CFR 64, s subject to the NSPS
Applicability of the f current Title V permi BPF Sludge Dryer Tr Compliance Assurar The new emergency provisions under 40	it No. 0990234-022-AV. rain Nos. 1 and 2 (EUs 0 nce Monitoring requiren generator for the Scale CFR 60 Subpart IIII for	10 and 011) are s nents. house (EU 037) is	subject to 40 CFR 64, s subject to the NSPS
Applicability of the f current Title V permi BPF Sludge Dryer Tr Compliance Assurar The new emergency provisions under 40	it No. 0990234-022-AV. rain Nos. 1 and 2 (EUs 0 nce Monitoring requiren generator for the Scale CFR 60 Subpart IIII for	10 and 011) are s nents. house (EU 037) is	subject to 40 CFR 64, s subject to the NSPS
Applicability of the f current Title V permi BPF Sludge Dryer Tr Compliance Assurar The new emergency provisions under 40	it No. 0990234-022-AV. rain Nos. 1 and 2 (EUs 0 nce Monitoring requiren generator for the Scale CFR 60 Subpart IIII for	10 and 011) are s nents. house (EU 037) is	subject to 40 CFR 64, s subject to the NSPS
Applicability of the f current Title V permi BPF Sludge Dryer Tr Compliance Assurar The new emergency provisions under 40	it No. 0990234-022-AV. rain Nos. 1 and 2 (EUs 0 nce Monitoring requiren generator for the Scale CFR 60 Subpart IIII for	10 and 011) are s nents. house (EU 037) is	subject to 40 CFR 64, s subject to the NSPS

List of Pollutants Emitted by Facility

[Y or N]? N N N N N N N N N N N N N
N N N N N N
N N N
N N N
N N
N
N
N
N
N
N
_

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

	or tyruiti emit Ei	TIDOIGIA CA DO			
1. Pollutant Subject to	2. Facility- Wide Cap	3. Emissions Unit ID's	4. Hourly Cap	5. Annual Cap	6. Basis for Emissions
Emissions	[Y or N]?	Under Cap	(lb/hr)	(ton/yr)	Cap
Cap	(all units)	(if not all units)	(10/11)		Cup
	(411 411115)	(ii not air airito)		-	
		_			
		-			
7	'.1	· · · · · · · · · · · · · · · · · · ·	·		'

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date: 5/10/2010
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: ☐ Previously Submitted, Date: 5/10/2010
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date: 5/10/2010
Ad	Iditional Requirements for Air Construction Permit Applications
-	Area Map Showing Facility Location: Attached, Document ID: Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): Attached, Document ID:
3.	Rule Applicability Analysis: Attached, Document ID:
	List of Exempt Emissions Units: Diesel storage tank, aqueous ammonia (19%) or urea rage tank, and ash handling system (based on 62-210.300(3)(b)1., F.A.C.) Attached, Document ID: Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: ☐ Attached, Document ID: ☐ Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): ☐ Attached, Document ID: ☐ Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): ☐ Attached, Document ID: ☐ Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): ☐ Attached, Document ID: ☐ Not Applicable
	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): ☐ Attached, Document ID: ☐ Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): ☐ Attached, Document ID: ☐ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1.	List of Exempt Emissions Units: ☐ Attached, Document ID: Not Applicable (no exempt units at facility)
Ac	Iditional Requirements for Title V Air Operation Permit Applications
1.	List of Insignificant Activities: (Required for initial/renewal applications only) Attached, Document ID: Not Applicable (revision application)
2.	Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought) Attached, Document ID:
	☐ Not Applicable (revision application with no change in applicable requirements)
3.	Compliance Report and Plan: (Required for all initial/revision/renewal applications)
	Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4.	List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only) Attached, Document ID:
	 □ Equipment/Activities Onsite but Not Required to be Individually Listed □ Not Applicable
5.	Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only) Attached, Document ID: Not Applicable
6.	Requested Changes to Current Title V Air Operation Permit: Attached, Document ID: Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:
Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
☐ Attached, Document ID: ☐ Previously Submitted, Date: ☐ Not Applicable (not an Acid Rain source)
Phase II NO _X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
Attached, Document ID: Previously Submitted, Date:
Not Applicable Not
New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
Attached, Document ID: Previously Submitted, Date:
Not Applicable One of the Property of the Pr
2. CAIR Part (DEP Form No. 62-210.900(1)(b)):
☐ Attached, Document 115 ☐ Treviously Submitted, Date
Additional Requirements Comment

ATTACHMENT SWA-FI-CV3

COMPLIANCE REPORT AND PLAN

October 2013 13-01286

ATTACHMENT SWAPBC-FI-CV3 COMPLIANCE REPORT AND PLAN

Emergency Generator – PBCREF Scalehouse (EU 037) Installation Introduction and Compliance Report

Air Construction Permit No. 0990234-029-AC issued on August 28, 2013, authorized installation and initial operation of Caterpillar® Model D60-8S 60kW Emergency Diesel Generator with 88 hp (66kW) stationary diesel engine to replace the existing emergency generator at the Palm Beach County Renewable Energy Park (PBCREP) Scalehouse (E.U. ID No. 037). Administrative requirement No. 8 of Permit No. 0990234-029-AC requires Solid Waste Authority of Palm Beach County (SWAPBC) to apply for a revised Title V operation permit at least 90 days prior to expiration of the permit, but no later than

180 days after completing the required work and commencing operation [Rule 62-213.420(1)(a), F.A.C.].

Air Project Nos. 0990234-026-AC (issued December 13, 2012) and 0990234-027-AC (issued May 17, 2013) authorized physical changes to the tray scrubbers and cyclonic separators at the Biosolids Pelletization Facility (BPF) and to perform PM/PM₁₀ stack testing to establish CAM parameters for the modified tray scrubbers and cyclonic separators. Air Project No. 0990234-026-AC also requires that within 180 days after tray scrubber/cyclonic separator work is done, SWAPBC will need to submit a Title V air operation permit revision application to include the venturi scrubber(s) in the CAM Plan. Note

that the venturi scrubbers were not relied on as PM control equipment in the original application and only

The stack testing has been completed and the Title V revision application to include the venturi scrubbers in the CAM plan is due on November 5, 2013. For the emergency generator, SWAPBC has completed the purchasing agreement, however the unit is not expected to be installed and tested for readiness before November 5, 2013.

Compliance Plan

the tray scrubbers were included in the CAM plan.

SWAPBC has purchased the replacement emergency generator/stationary diesel engine for the Palm Beach Renewable Energy Facility (PBREF) Scalehouse and expects the unit to be delivered in November 2013. After installation and readiness testing, the unit is expected to be ready for service by December 31, 2013. SWAPBC will notify FDEP as soon as the installation and readiness testing is complete. Please note that based on Air Construction Permit No. 0990234-029-AC, the unit is subject to NSPS 40 CFR 60, Subpart IIII and manufacturer certification can be provided to the Department in lieu of actual stack testing for the applicable emissions limits.



EMISSIONS UNIT INFORMATION Section [1] EU010 - BPF Sludge Dryer Train No. 1 III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

Section [1] EU010 - BPF Sludge Dryer Train No. 1

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1.	_	gulated Emissions Unit? air operation permit. Slonly.)		_
			missions Unit Informati	on Section is a regulated
		unit addressed in this Er	missions Unit Informati	on Section is an
<u>En</u>	<u>aissions Unit Descr</u>	iption and Status		
1.	Type of Emissions	Unit Addressed in this	Section: (Check one)	
	single process	S Unit Information Sections or production unit, or action which has at least one de	tivity, which produces of	one or more air
	of process or p	S Unit Information Section roduction units and active vent) but may also produced	vities which has at least	e emissions unit, a group one definable emission
		Unit Information Sections of the Unit Information Units and a		e emissions unit, one or fugitive emissions only.
2.	Description of Emissions Unit Addressed in this Section: BPF Sludge Dryer Train No. 1			
3.	Emissions Unit Ide	entification Number: 01	0	
4.	Emissions Unit	5. Commence	6. Initial Startup	7. Emissions Unit
	Status Code:	Construction	Date:	Major Group
	A	Date: 22 Dec 07	22 May 09	SIC Code:
8.	Federal Program A	pplicability: (Check all		
	☐ Acid Rain Unit	:		
	☐ CAIR Unit			
9.	Package Unit:			
	Manufacturer:		Model Number:	
	Generator Namepla			
11.	Emissions Unit Comment: 337.5 Wet tons per day (wtpd) sludge drying train and associated equipment (Baker Rullman Drum Assembly, Model No. SD-125-42).			

Section [1]

EU010 - BPF Sludge Dryer Train No. 1

Emissions Unit Control Equipment/Method: Control 1 of 4

1. Control Equipment/Method Description:

Dry Low-NOx Burner for NOx control

2. Control Device or Method Code: 205

Emissions Unit Control Equipment/Method: Control 2 of 4

1. Control Equipment/Method Description:

Regenerative Thermal Oxidizer (RTO) for VOC control

2. Control Device or Method Code: 131

Emissions Unit Control Equipment/Method: Control 3 of 4

1. Control Equipment/Method Description: Wet Scrubber - High Efficiency for PM control

2. Control Device or Method Code: **001**

Emissions Unit Control Equipment/Method: Control 4 of 4

1. Control Equipment/Method Description: Venturi Scrubber for PM control

2. Control Device or Method Code: 053

Section [1] EU010 - BPF Sludge Dryer Train No. 1

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Process or Throughput Rate: 337.5 wet tons/day	
2.	Maximum Production Rate: 67.5 dry tons/day	
3.	Maximum Heat Input Rate: 42 million Btu/hr	
4.	Maximum Incineration Rate: pounds/hr	
	tons/day	
5.	Requested Maximum Operating Schedule:	
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
	Dryer rated at 40 MMBtu/hr firing natural gas and/or landfill gas. 2 MMBtu/hr heat input from RTO.	

Section [1]

EU010 - BPF Sludge Dryer Train No. 1

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1.	. Identification of Point on Plot Plan or Flow Diagram: RTO Exhaust Stack		2. Emission Point 7	Type Code:	
3.					
4.	ID Numbers or Descriptio	ns of Emission Ui	nits with this Emission	n Point in Common:	
5.	Discharge Type Code: V	Stack Height138 feet	:	 Exit Diameter: 2.5 feet 	
8.	8. Exit Temperature: 9. Actual Volum 194 °F 15,000 acfm		umetric Flow Rate: 10. Water Vapor: %		
11.	Maximum Dry Standard F dscfm	low Rate:	12. Nonstack Emissi feet	on Point Height:	
13.	13. Emission Point UTM Coordinates Zone: 17 East (km): 585.6 North (km): 2960.08		14. Emission Point Latitude/Longitude Latitude (DD/MM/SS) Longitude (DD/MM/SS)		
15.	Emission Point Comment:				

Section [1] EU010 - BPF Sludge Dryer Train No. 1

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1.	. Segment Description (Process/Fuel Type): Solid Waste Disposal - Commercial/Institutional; Incineration: Special Purpose; Sewage Sludge Incinerator			
2.	Source Classification Cod 5-02-005-15	e (SCC):	3. SCC Units Wet tons of	: f sludge processed
4.	Maximum Hourly Rate: 14.1	5. Maximum 1 123,187.5	Annual Rate:	6. Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:
10.	Segment Comment: Max hourly rate = 337.5 wt Max annual rate = 337.5 wt Rotary sludge dryer with a and/or landfill gas firing ple Sludge is neither treated as	pd x 365 day/yr = rated capacity of us an additional 2	: 123,187.5 tons/y f 40 MMBtu/hr he 2 MMBtu/hr heat	eat input from natural gas
Seg	Segment Description and Rate: Segment of			
1.	1. Segment Description (Process/Fuel Type):			
2.	Source Classification Code	e (SCC):	3. SCC Units:	:
4.	Maximum Hourly Rate:	5. Maximum A	Annual Rate:	6. Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8. Maximum 9	% Ash:	9. Million Btu per SCC Unit:
10.	Segment Comment:	-		

Section [1]

EU010 - BPF Sludge Dryer Train No. 1

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1.	Dollytont Emitted	2 Drimow Control	2 Sagandam: Cantual	4 Dollytont
1.	Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
		Device Code	Device Code	Regulatory Code
	CO			EL
	NOx			EL
	PM/PM10			EL
	SO2			EL
	VOC			EL
	H114			EL

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
CO

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Perc	ent Efficie	ency of Control:
3. Potential Emissions: lb/hour	tons/year	-	netically Limited? es
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):		
6. Emission Factor:			7. Emissions Method Code:
Reference:			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period:
tons/year	From:	T	o:
9.a. Projected Actual Emissions (if required):	9.b. Projected	l Monitori	ng Period:
tons/year	☐ 5 yea	rs 🔲 10) years
11. Potential, Fugitive, and Actual Emissions Comment:			

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
CO

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: ESCPSD	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units: 3.37 lb/hr	4. Equivalent Allowable Emissions: 3.37 lb/hour 14.75 tons/year			
5.	5. Method of Compliance: None - initial testing demonstrated compliance.				
6.	6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV.				
Al	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	Method of Compliance:				
6.	6. Allowable Emissions Comment (Description of Operating Method):				
<u>Al</u>	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	Method of Compliance:				
6.	6. Allowable Emissions Comment (Description of Operating Method):				

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
NOx

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: NOx	2. Total Perc	ent Efficie	ency of Control:
3. Potential Emissions: lb/hour	tons/year	_	netically Limited? les No
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):		
6. Emission Factor:			7. Emissions Method Code:
Reference:			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period:
tons/year	From:	T	o:
9.a. Projected Actual Emissions (if required):	9.b. Projected	l Monitori	ng Period:
tons/year	☐ 5 yea	rs 🗌 10	0 years
10. Calculation of Emissions: No change to current potential emissions as a result of the project. 11. Potential, Fugitive, and Actual Emissions Comment:			
11. Folential, Fugitive, and Actual Emissions Comment:			

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
NOx

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

	1 thowable Emissions 1 thowable Emissions 1 o			
1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Emissions:	of Allowable
3.	Allowable Emissions and Units: 5.60 lb/hr	4.	Equivalent Allowable 5.60 lb/hour	Emissions: 24.55 tons/year
5.	Method of Compliance: Testing prior to operating permit renewal using	ng E	PA Method 7 or 7E.	
6.	Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on BACT determination. Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV.			
Al	lowable Emissions Allowable Emissions	c	f	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable lb/hour	Emissions: tons/year
5.	Method of Compliance:			
6. Allowable Emissions Comment (Description of Operating Method):				
Allowable Emissions Allowable Emissions of of				
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable l lb/hour	Emissions: tons/year
5.	Method of Compliance:			
6. Allowable Emissions Comment (Description of Operating Method):				

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
PM/PM10

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM/PM10	2. Total Perc	ent Efficie	ency of Control:
3. Potential Emissions: lb/hour	tons/year		netically Limited? les No
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):		
6. Emission Factor:			7. Emissions Method Code:
Reference:			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period:
tons/year	From:	T	o:
9.a. Projected Actual Emissions (if required):	9.b. Projected	l Monitori	ng Period:
tons/year	☐ 5 yea	rs 🗌 10	0 years
10. Calculation of Emissions: No change to current potential emissions as 11. Potential, Fugitive, and Actual Emissions Co		project.	•
11. Potential, Fugitive, and Actual Emissions Co	11. Potential, Fugitive, and Actual Emissions Comment:		

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
PM/PM10

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units: 2.42 lb/hr	4. Equivalent Allowable Emissions: 2.42 lb/hour 10.6 tons/year			
5.	Method of Compliance: Testing prior to operating permit renewal usin	ing EPA Method 5.			
6.	6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on BACT determination. Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV.				
Al	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	n of Operating Method):			
Al	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	of Operating Method):			

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
SO2

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Totelliai, Estimated Fugitive, and Dastime & Frojected Actual Emissions				
1. Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:			
3. Potential Emissions:	4. Synthetically Limited?			
lb/hour	tons/year			
5. Range of Estimated Fugitive Emissions (as	s applicable):			
to tons/year				
6. Emission Factor:	7. Emissions			
	Method Code:			
Reference:				
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:			
tons/year	From: To:			
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:			
tons/year	☐ 5 years ☐ 10 years			
10. Calculation of Emissions: No change to current potential emissions as 11. Potential Engitive and Actual Emissions C				
11. Potential, Fugitive, and Actual Emissions Comment:				

POLLUTANT DETAIL INFORMATION Page [1] of [5] **SO2**

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowa	able Emissions 1 of 1
----------------------------	-------------------------------------

<u>AI</u>	llowable Emissions Allowable Emissions 1 of	<u> </u>			
1,	Basis for Allowable Emissions Code: ESCPSD	Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units: 4.45 lb/hr	4. Equivalent Allowable Emissions: 4.45 lb/hour 19.5 tons/year			
5.	Method of Compliance: Testing prior to operating permit renewal usin	ng EPA Method 6C.			
6.	6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV.				
<u>Al</u>	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	Method of Compliance:				
6.	6. Allowable Emissions Comment (Description of Operating Method):				
Al	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	Method of Compliance:				
6. Allowable Emissions Comment (Description of Operating Method):					

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
VOC

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Totential, Estimated Fugitive, and Baseline & Frojected Actual Emissions			
1. Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:		
3. Potential Emissions:	4. Synthetically Limited?		
lb/hour	tons/year		
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):		
6. Emission Factor: Reference:	7. Emissions Method Code:		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:		
tons/year	From: To:		
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years		
10. Calculation of Emissions: No change to current potential emissions as a result of the project.			
11. Potential, Fugitive, and Actual Emissions Co	omment:		

POLLUTANT DETAIL INFORMATION Page [1] of [5] VÕC

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1
--

AI	lowable Emissions Allowable Emissions 1 o	I <u>1</u>			
1.	Basis for Allowable Emissions Code: ESCPSD	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:		
	1.0 lb/hr		1.0 lb/hour 4.4 tons/year		
5.	Method of Compliance: None - initial testing demonstrated compliance	ce.			
6.	6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV.				
<u>Al</u>	lowable Emissions Allowable Emissions	0	of		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:	- of (Omounting Mathod)		
6. Allowable Emissions Comment (Description of Operating Method):					
Al	Allowable Emissions Allowable Emissions of of				
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:		•		
6. Allowable Emissions Comment (Description of Operating Method):					

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
H114 - Mercury

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline &	k Projected Ac	tual Emissions
Pollutant Emitted: Mercury	2. Total Perc	ent Efficiency of Control:
3. Potential Emissions: lb/hour	tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):	
6. Emission Factor: Reference:		7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month Period:
tons/year	From:	То:
9.a. Projected Actual Emissions (if required):	9.b. Projected	Monitoring Period:
tons/year	☐ 5 yea	rs 🔲 10 years
10. Calculation of Emissions: No change to current potential emissions as		project.
11. Potential, Fugitive, and Actual Emissions C	omment:	

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
H114 - Mercury

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: ESCPSD	2.	Future Effective Date of Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E	missions:
	0.022 lb/24-hr		0.00092 lb/hour	0.004 tons/year
5.	Method of Compliance: Testing prior to operating permit renewal using	ng EF	PA Methods 101A or 105.	
6.	Allowable Emissions Comment (Description Permit No. 0990234-006-AC/PSD-FL-108F and			4-022-AV.
<u>Al</u>	lowable Emissions Allowable Emissions	o	f	
1.	Basis for Allowable Emissions Code:	1	Future Effective Date of Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E	missions:
			lb/hour	tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of C	perating Method):	
Al	owable Emissions Allowable Emissions	of	f	
1.	Basis for Allowable Emissions Code:		Future Effective Date of Emissions:	Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E lb/hour	missions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of C	perating Method):	

Section [1]

EU010 - BPF Sludge Dryer Train No. 1

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation 1 of 1 Visible Emissions Subtype: 2. Basis for Allowable Opacity: VE5 ○ Other □ Rule 3. Allowable Opacity: **Normal Conditions:** 5 % **Exceptional Conditions:** 20 % Maximum Period of Excess Opacity Allowed: 3 min/hour 4. Method of Compliance: Annual testing using EPA Method 9 Visible Emissions Comment: Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV. Visible Emissions Limitation: Visible Emissions Limitation 1. Visible Emissions Subtype: 2. Basis for Allowable Opacity: ☐ Other □ Rule 3. Allowable Opacity: Normal Conditions: % **Exceptional Conditions:** % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: **Visible Emissions Comment:**

Section [1] EU010 - BPF Sludge Dryer Train No. 1

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

		Monitor of
1.	Parameter Code:	2. Pollutant(s):
3.	CMS Requirement:	☐ Rule ☐ Other
4.	Monitor Information Manufacturer:	
	Model Number:	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
7.	Continuous Monitor Comment:	
<u>Co</u>	ontinuous Monitoring System: Continuous	Monitor of
1.	Parameter Code:	2. Pollutant(s):
3.	61.16 P	
	CMS Requirement:	Rule Other
4.	CMS Requirement: Monitor Information Manufacturer:	Rule Other
4.	Monitor Information	Rule Other Serial Number:
4.5.	Monitor Information Manufacturer:	
5.	Monitor Information Manufacturer: Model Number:	Serial Number:
5.	Monitor Information Manufacturer: Model Number: Installation Date:	Serial Number:
5.	Monitor Information Manufacturer: Model Number: Installation Date:	Serial Number:
5.	Monitor Information Manufacturer: Model Number: Installation Date:	Serial Number:
5.	Monitor Information Manufacturer: Model Number: Installation Date:	Serial Number:

Section [1] EU010 - BPF Sludge Dryer Train No. 1

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
	☐ Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
	□ Not Applicable
6.	Compliance Demonstration Reports/Records:
	Attached, Document ID:
	Test Date(s)/Pollutant(s) Tested:
	□ Previously Submitted, Date: August 5, 2013
	Test Date(s)/Pollutant(s) Tested: PM/PM10; June 24 - 26, 2013
	☐ To be Submitted, Date (if known):
	Test Date(s)/Pollutant(s) Tested:
	☑ Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document ID: Not Applicable

Section [1] EU010 - BPF Sludge Dryer Train No. 1

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1.		Rules 62-212.400(10)	and 62-212.500(7),
	F.A.C.; 40 CFR 63.43(d) and (e)): Attached, Document ID:	⊠ Not Applicable	
2.	Good Engineering Practice Stack Height Ar		400(4)(d) and 62-
	212.500(4)(f), F.A.C.):		` / ` /
	Attached, Document ID:		
3.	Description of Stack Sampling Facilities: (lonly)	Required for proposed n	ew stack sampling facilities
	Attached, Document ID:		
Ad	Iditional Requirements for Title V Air Ope	eration Permit Appli	<u>cations</u>
1.	Identification of Applicable Requirements: ☐ Attached, Document ID:		
2.	Compliance Assurance Monitoring:	1-IV2	☐ Not Applicable
3.	Alternative Methods of Operation: Attached, Document ID:	☑ Not Applicable	
4.	Alternative Modes of Operation (Emissions Attached, Document ID:		
Ad	Iditional Requirements Comment		_

ATTACHMENT SWA-EU010/011-IV2
COMPLIANCE ASSURANCE MONITORING PLAN

COMPLIANCE ASSURANCE MONITORING PLAN

Solid Waste Authority of Palm Beach County North County Resource Recovery Site Biosolids Pelletization Facility (BPF)

Sludge Dryer Trains #1 and #2
Particulate Matter (PM) Removal by Tray Scrubbers #1 and #2
Revised to Include PM Removal by Venturi Scrubbers #1 and #2

October 7, 2010 October 23, 2013

COMPLIANCE ASSURANCE MONITORING PLAN:

Biosolids Pelletization Facility - Sludge Dryer - Tray Scrubber and Venturi Scrubber for PM Control

I. Background

A. Emissions Unit

Description: Biosolids Pelletization Facility (BPF)

Identification: Sludge Dryer #1

Sludge Dryer #2

Facility: North County Resource Recovery Facility Site

7501 North Jog Road

West Palm Beach, FL 33412

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation: FDEP Permit No. 0990234-006-AC/PSD-FL-108F,

0990234-022-AV, and 0990234-026-AC

Emission limit:

Particulate matter: 2.42 lb/hr and 10.6 tons/year PM or PM10 for each

dryer train

Monitoring requirement: Initial Stack Test, and at other times as required by

DEP – U.S. EPA Method 5

C. Control Technology

Particulate matter (PM) emissions from the BPF sludge dryer trains #1 and #2 are controlled by wet impingement_tray/condenser scrubbers #1 and #2. Each scrubber is a "3-stage" Impinjet® scrubber manufactured by SLY, Inc.

Each tray/condenser scrubber is followed by a "polishing" Venturi scrubber, Venturi scrubbers #1 and #2. This is existing equipment, for which no credit was taken in the initial AC permit or AV revision applications. The Department's Exemption from Requirement to Obtain an Air Construction Permit and Authorization for Impingement Tray Scrubber and Cyclone Retrofit Project, dated December 13, 2012, requires that the Venturi scrubbers be included in the CAM Plan. Each existing Venturi scrubber is manufactured by SLY, Inc.

Tray scrubber. (It is followed by a "polishing" Venturi scrubber. However, no credit was taken in permit application for Venturi scrubber, and emission limits are based on performance of the Tray scrubber alone.)

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1. The monitoring approach for the impingement tray/condenser scrubbers is unchanged from the CAM Plan in Title V Permit No. 0990234-020-AV, and is shown in Table 1. The monitoring approach for the Venturi scrubbers is added as Table 2. Note that no changes are proposed to the existing monitoring approach for the Impingement Tray / Condenser Scrubbers.

TABLE 1. <u>IMPINGEMENT TRAY/CONDENSER SCRUBBERS</u> MONITORING APPROACH

E.U. ID Nos. 010 & 011	Indicator No. 1	Indicator No. 2
I. Indicator	Water flow (Q) through each wet tray/condenser scrubber	Pressure drop (dP) across each wet tray/condenser scrubber
Measurement Approach	The water flow is monitored with a magnetic flow meter.	The pressure drop is monitored with a differential pressure transmitter.
II. Indicator Range	An excursion is defined as a flow rate less than 1,000 gallons/minute (gpm)* in three consecutive observations over an eight-hour shift. Operators log a one-minute average reading three times per eight-hour shift when feeding sludge. If all three readings in the shift are less than 1,000 gpm, this triggers an inspection, corrective action, and reporting.	An excursion is defined as a pressure drop less than 6.0 inches of water ("H ₂ O)* across the tray scrubber in three consecutive observations over an eight-hour shift. Operators log a one-minute average reading three times per eight-hour shift when feeding sludge. If all three readings in the shift are less than 6.0 "H ₂ O, this triggers an inspection, corrective action, and reporting.
III. Performance Criteria		
A. Data Representativeness	The monitoring system consists of a magnetic flow meter with a sensor located in the water circulation line. Its minimum accuracy is ±5 percent of full scale.	The monitoring system consists of a differential pressure transmitter that compares the pressure between the inlet and outlet air taps. Its minimum accuracy is ± 5 percent of full scale.
B. Verification of Operational Status	Signal communicated to Supervisory Control And Data Acquisition (SCADA) system.	Signal communicated to SCADA system
C. QA/QC Practices and Criteria	Calibrated according to manufacturer's recommended procedures and frequency.	Calibrated according to manufacturer's recommended procedures and frequency
D. Monitoring Frequency	Data is electronically recorded, continuously.	Data is electronically recorded, continuously.
E. Data Collection Procedures	Rolling 1-minute averages are computed and displayed on analog screen.	Rolling 1-minute averages are computed and displayed on analog screen.
F. Averaging Period	1-minute average	1-minute average

^{*} The excursion level specified in this CAM Plan was established based upon the initial PM test data (September 2009) and the manufacturer's recommendations. The excursion level shall be re-evaluated at the time of permit renewal based upon the new most recent test data and the manufacturer's recommendations.

TABLE 2. VENTURI SCRUBBER MONITORING APPROACH

TABLE 2. VENTURI SCRU	JBBER MONITORING APPROA	<u>CH</u>
E.U. ID Nos. 010 & 011	Indicator No. 1	Indictor No. 2
I. Indicator	Water flow (Q) through each	Pressure drop (dP) across each
	Venturi scrubber	Venturi scrubber
Measurement Approach	The water flow is monitored with	The dP is monitored with a
	a magnetic flow meter.	differential pressure transmitter.
II. Indicator Range	An excursion is defined as a flow	An excursion is defined as a dP
	rate less than 10 gallons/minute	less than 3.8 inches of water
	(gpm)* in three consecutive	(H ₂ O)* across the venturi scrubber
	observations over an eight-hour	in three consecutive observations
	shift. Operators log a one-minute	over an eight-hour shift.
	average reading three times per	Operators log a one-minute
	eight-hour shift when feeding	average reading three times per
	sludge. If all three readings in the	eight-hour shift when feeding
	shift are less than 10 gpm, this	sludge. If all three readings in the
	triggers an inspection, corrective	shift are less than 3.8 H ₂ O, this
	action, and reporting.	triggers an inspection, corrective
	_	action, and reporting.
III. Performance Criteria		
A. Data	The monitoring system consists of	The monitoring system consists of
Representativeness	a magnetic flow meter with a	a differential pressure transmitter
	sensor located in the water	than compares the pressure
	circulation line. Its minimum	between the inlet and outlet air
	$\frac{\text{accuracy is} \pm 5 \text{ percent of full}}{\text{accuracy is}}$	traps. Its minimum accuracy is ±
	scale.	5 percent of full scale.
B. Verification of	Signal communicated to	Signal communicated to SCADA
Operational Status	Supervisory Control And Data	system.
	Acquisition (SCADA) system.	
C. QA/QC Practices and	Calibrated according to	Calibrated according to
<u>Criteria</u>	manufacturer's recommended	manufacturer's recommended
	procedures and frequency.	procedures and frequency.
D. Monitoring Frequency	Data is electronically recorded,	Data is electronically recorded,
	continuously.	continuously.
E. Data Collection	Rolling 1-minute averages are	Rolling 1-minute averages are
<u>Procedures</u>	computed and displayed on analog	computed and displayed on analog
	screen.	screen.
F. Averaging Period	1-minute average.	1-minute average.

^{*}The excursion level specified in this CAM Plan was established based upon PM test data (August 5, 2013). The excursion level shall be re-evaluated at the time of permit renewal based upon the new most recent test data.

JUSTIFICATION

I. Background

The pollutant-specific emission unit is a 337.5-wet-ton-per-day rotary sludge dryer in a process train that dries wastewater treatment plant sludge, and then screens the dried sludge into marketable fertilizer pellets. The BPF has two identical process trains. Sludge Dryer #1 (Sludge Dryer #2 is identical) exhausts to a separator cyclone to remove the pellets and most dust particles from the gas stream; the pellets are then sent to screens for sorting.

The exhaust gases continue to an impingement tray scrubber to remove remaining PM. Cyclone exhaust air enters the bottom of the tray scrubber tower. There is a water inlet at the top. The air flows up through three water- covered perforated plates with impingement baffles. Water enters the top plate, and flows down to successive plates by means of internal passages, or "downcomers". Water removes PM by impaction on water droplets created by air flowing through water covering the perforated plates and baffles.

About 65 percent of the scrubber exhaust is returned to the dryer as inlet air (and not emitted). About 35 percent goes to a <u>V</u>+enturi scrubber as a "polishing" step for PM removal, and then through a regenerative thermal oxidizer (for VOC removal) before being exhausted out the stack to the atmosphere.

The tray scrubber alone will reduce 97 percent of the inlet PM. The air permit Best Available Control Technology (BACT) analysis and permit limits for PM, therefore, were based on the control provided by tray scrubber alone, with no additional credit taken for the V+enturi scrubber. The May, 2013, Impingement Tray Scrubber and Cyclone Separator Retrofit Project-partially restored the design air flow rate of 53,000 acfm through each dryer/cyclone/scrubber train by increasing the depth of the cyclone inlet and replacing the two bottom trays of in the impingement tray scrubber with trays that have larger open areas. With these changes, it was necessary to take credit for PM removal by the Venturi scrubber in order to assure continuous compliance with the permit PM limits. FDEP authorized the changes to the cyclone separator and impingement tray scrubber as exempt from requiring an AC permit on December 13, 2012 (FDEP Project No. 0990234-026-AC). However, in 0990234-026-AC, FDEP required that the Venturi scrubbers be included in the CAM Plan.

The water flow rates to both the impingement/tray scrubber and to the Venturi scrubber are monitored. and Tthe pressure drop between the gas inlet and outlet of both scrubbers are monitored.

II. Rationale for Selection of Performance Indicators

Water flow rate was selected as a primary indicator. When the water flow rate drops below design flows, insufficient water is being applied to the exhaust gas stream to remove PM from the exhaust. The most likely causes of low water flow are failure of a recirculation pump or fouling of its associated heat exchanger.

Pressure drop was selected as a secondary performance indicator because maintaining an adequate water flow maintains the correct pressure drop and ensures adequate particulate removal.

III. Rationale for Selection of Indicator Ranges

A. Impingement Tray/Condenser Scrubbers

The selected indicator range for the water flow rate is greater than or equal to 1,000 gallons per minute (gpm). The selected indicator range for scrubber pressure drop is greater than or equal to 6.0 in. H₂O. Operators check the continuous SCADA analog displays for these parameters three times each eight-hour shift, and write down on a log sheet the one-minute average reading for scrubber water flow rate and pressure drop. When all three of these readings in an eight-hour shift are below the indicator range for either parameter, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All such excursions will be documented and reported in the Title V Permit Semi-Annual Report. The indicator levels for the scrubber water flow rate and pressure drop are based on normal scrubber operation, manufacturer's recommendations, and the initial performance test results.

The attached letter from Sly, Inc. states that the Impinjet® Tray Scrubbers are designed to provide the design PM removal efficiency at a minimum pressure drop of 6.0 in. H₂O, and a minimum flow rate of 159 gallons per minute (gpm). However, the Solid Waste Authority operates the scrubbers at much higher water flow rates (at least 1,000 gpm), because the tray scrubbers also serve as condensers cooling the hot dryer exhaust gases. If the water flow rate were to drop substantially below 1,000 gpm, air flow to the downstream fan would increase, overloading the motor, and causing it to shut down. A fan shutdown automatically shuts down the dryer. This fail-safe shutdown would occur, therefore, long before scrubber water flows became so low as to allow excess PM emissions.

The initial source testing (and most recent source testing) of the BPF sludge dryer trains was conducted in September, 2009. The scrubber was operating under normal conditions and the average scrubber water flow rate was between 1,000 and 1,100 gallons per minute. During this performance test, the average pressure drop was approximately 10 in. H₂O. Three PM test runs were conducted on each sludge dryer train exhaust stack, after the RTO, using U.S. EPA Method 5. During testing, the measured PM emissions from Sludge Dryer #1 averaged 0.162 lb/hr. The PM emissions from Sludge Dryer #2 averaged 0.193 lb/hr. Each of these measured PM emission rates was well below the permit limit of 2.42 lb/hr for each sludge dryer train. During the emissions test, the scrubber water flow and pressure drop were measured continuously. The complete test results are documented in the test report.

B. Venturi Scrubbers

The selected indicator range for the water flow rate is greater than or equal to 10 gpm. The selected indicator range for scrubber pressure drop is greater than or equal to 3.8 in. H₂O. As for the impingement tray/condenser scrubbers, operators check the SCADA displays for these

parameters three times each eight-hour shift when sludge is being fed, and log the one-minute average reading for scrubber water flow rate and pressure drop. When all three of these readings in an eight-hour shift are below the indicator range for either parameter, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported in the Title V Permit Semi-Annual Report. The indicator levels for the Venturi scrubber water flow rate and pressure drop are based on normal scrubber operation, operator experience, and performance testing conducted in June, 2013.

The Sly, Inc., manufacturer's recommendations for stand-alone operation are to operate the Venturi scrubbers at a water flow rate of 109 gpm and a pressure drop of 12.0 in. H₂O. Operator experience suggested that alternative water flow rate and pressure drop parameters could be established for the Venturi scrubbers that would ensure continuous compliance with PM emission limits. The CAM Plan requirements in 40 CFR 64.4(b) state that: "If the performance specifications proposed to satisfy §64.3(b)(2) or (3) include differences from manufacturer recommendations, the owner or operator shall explain the reasons for the differences between the requirements proposed by the owner or operator and the manufacturer's recommendations or requirements. The owner or operator also shall submit any data supporting the justification, and may refer to generally available sources of information used to support the justification... "New England Fertilizer Company (NEFCO), the BPF Operator, also operates the Greater Lawrence Sanitary District (GLSD) dryers located in North Andover, MA. The GLSD dryers are equipped with Sly tray scrubber/condensers and Sly Venturi scrubbers similar to those at the BPF. The pressure drop and extrapolated water flows of the GLSD tray scrubbers are also very similar to those at the BPF subsequent to the most recent modification. Three rounds of stack testing at GLSD indicated that at flow rates of 0, 10 and 35 gpm (well below the manufacturerrecommended 109 gpm), the Venturi scrubbers provided sufficient assurance that the PM limits would be met comfortably. With this experience in mind, similar stack testing was conducted at the BPF.

Testing conducted at the BPF in June, 2013, is contained in the attached PM/PM10 Compliance Testing Report, dated August 5, 2013. The upstream impingement tray/condenser scrubber in each train was maintained at normal conditions (approximately 1,100 gpm and pressure drop of approximately 8.0 to 9.0 in. H₂O), and the sludge feed rate was maintained at over 13 wet tons per hour (over 92% of the design/permitted feed rate). "Tuning" PM testing was conducted for four Venturi scrubber water flow rate set points on each train: 109 gpm, 55 gpm, 10 gpm, and 0 gpm. These "tuning" results, shown in Tables 2-1 and 2-2 in the attached report, demonstrated that the PM permit limit of 2.42 lb/hr was met for all of these conditions.

Preliminary and Compliance testing was then conducted for each of the two sludge dryer/tray scrubber/Venturi scrubber/RTO trains with the Venturi scrubber flow set to 10 gpm and the pressure drop set to "wide open." This produced a total of six one-hour runs on each sludge dryer train exhaust stack, after the RTO, using U.S. EPA Method 5. The scrubber water flow and pressure drop were measured continuously during each run. The complete set of results are shown in Tables 2-3, 2-4, 2-5 and 2-6 in the attached report. Tables 3 and 4 summarize these results. For BPF Sludge Dryer Train #1, each of the six individual one-hour-average runs had a PM emission rate well below the permit limit of 2.42 lb/hr, and also below the 2009 stack test

result of 0.162 lb/hr. The lowest one-hour average Venturi scrubber water flow for the six runs was 10.0 gpm, and the lowest pressure was 3.8 inches H_2O . Similarly,BPF Sludge Dryer Train #2 had each of its six individual one-hour-average runs produce a PM emission rate well below the permit limit, and also below the 2009 stack test result. The lowest one-hour average Venturi scrubber water flow for Train #2's six runs was 9.4 gpm, and the lowest pressure was 3.4 inches H_2O .

Based on these results, a Venturi scrubber flow rate of 10.0 gpm and a pressure drop of 3.8 inches H₂O are proposed as indicator levels for both Venturi scrubbers.

TABLE 3: PM/PM10 TEST RESULTS FOR BPF SLUDGE DRYER TRAIN #1

Run No.	June 26 and 27, 2013 Run I.D.	Venturi Scrubber Flow (gpm)	Venturi Scrubber Pressure (in H ₂ O)	PM/PM10 Emission Rate (lb/hr)
<u>1</u>	<u>U1-M5-Pre5</u>	<u>10.0</u>	<u>4.3</u>	<u>0.100</u>
<u>2</u>	<u>U1-M5-Pre6</u>	<u>10.8</u>	<u>4.1</u>	<u>0.086</u>
<u>3</u>	<u>U1-M5-Pre7</u>	10.6	<u>4.4</u>	<u>0.103</u>
	Average	10.5	<u>4.3</u>	<u>0.096</u>
	<u>Range</u>	10.0 - 10.8	<u>4.1 – 4.4</u>	0.086 - 0.103
<u>4</u>	<u>U1-M5-R1</u>	<u>10.3</u>	<u>3.8</u>	<u>0.085</u>
<u>5</u>	<u>U1-M5-R2</u>	10.7	<u>4.1</u>	<u>0.083</u>
<u>6</u>	<u>U1-M5-R3</u>	10.1	<u>4.0</u>	0.043
	<u>Average</u>	10.4	<u>4.0</u>	<u>0.070</u>
	Range	<u>10.1 – 10.7</u>	<u>3.8 – 4.1</u>	0.043 - 0.083
	2009 Test Result			<u>0.162</u>
	Permit Limit			2.42

TABLE 4: PM/PM10 TEST RESULTS FOR BPF SLUDGE DRYER TRAIN #2

Run No.	Run I.D.	Venturi Scrubber Flow (gpm)	<u>Venturi</u> <u>Scrubber</u> <u>Pressure (in</u> <u>H₂O)</u>	PM/PM10 Emission Rate (lb/hr)
1	<u>U2-M5-Pre5</u>	10.3	<u>3.9</u>	0.044
2	U2-M5-Pre6	9.4	3.4	<u>0.055</u>
3	U2-M5-Pre7	10.5	3.6	<u>0.046</u>
	Average	10.0	3.6	<u>0.048</u>
	Range	<u>9.4 – 10.5</u>	3.4 - 3.9	0.044 - 0.055
4	<u>U2-M5-R1</u>	<u>10.7</u>	<u>3.6</u>	<u>0.054</u>
<u>5</u>	<u>U2-M5-R2</u>	<u>10.3</u>	<u>3.5</u>	<u>0.040</u>
<u>6</u>	<u>U2-M5-R3</u>	10.2	3.8	<u>0.103</u>
	<u>Average</u>	<u>10.4</u>	<u>3.6</u>	<u>0.066</u>
	Range	<u>10.2 – 10.7</u>	3.5 - 3.8	0.040 - 0.103
	2009 Test Result			<u>0.193</u>
	Permit Limit			2.42

Section [1]

EU011 - BPF Sludge Dryer Train No. 2

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

Section [1]

EU011 - BPF Sludge Dryer Train No. 2

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1.	_	gulated Emissions Unit' air operation permit. S only.)	•		- -
	emissions unit				ion Section is a regulated
	unregulated en				
<u>En</u>	nissions Unit Desci	ription and Status			
1.	Type of Emissions	Unit Addressed in this	Sec	tion: (Check one)	
	single process	s Unit Information Secti or production unit, or ac which has at least one d	tivi	ty, which produces	one or more air
	of process or p		vitie	s which has at least	e emissions unit, a group t one definable emission
					e emissions unit, one or e fugitive emissions only.
2.	Description of Em EU011 - BPF Sludg	issions Unit Addressed : e Dryer Train No. 2	in th	is Section:	
3.	Emissions Unit Ide	entification Number: 01	1		
4.	Emissions Unit	5. Commence	6.	Initial Startup	7. Emissions Unit
	Status Code:	Construction		Date:	Major Group
	A	Date: 22 Dec 07		22 May 09	SIC Code:
8.	Federal Program A	applicability: (Check all	tha	<u> </u>	
	☐ Acid Rain Unit				
	☐ CAIR Unit				
9.	Package Unit:				
	Manufacturer:			Model Number:	
10.	Generator Namepl	ate Rating: kW			
11.		mment: day (wtpd) sludge dryin embly, Model No. SD-12			equipment (Baker

Section [1]

EU011 - BPF Sludge Dryer Train No. 2

Emissions Unit Control Equipment/Method:	Control	1	of	4
--	---------	---	----	---

- 1. Control Equipment/Method Description:
 - Dry Low-NOx Burner for NOx control
- 2. Control Device or Method Code: 205

Emissions Unit Control Equipment/Method: Control 2 of 4

- 1. Control Equipment/Method Description:
 Regenerative Thermal Oxidizer (RTO) for VOC control
- 2. Control Device or Method Code: 131

Emissions Unit Control Equipment/Method: Control 3 of 4

- Control Equipment/Method Description: Wet Scrubber - High Efficiency for PM control
- 2. Control Device or Method Code: 001

Emissions Unit Control Equipment/Method: Control 4 of 4

- 1. Control Equipment/Method Description: Venturi Scrubber for PM control
- 2. Control Device or Method Code: 053

Section [1]

EU011 - BPF Sludge Dryer Train No. 2

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

Maximum Production Rate: 67.5 dry tons/day	
Maximum Heat Input Rate: 42 million Btu/hr	
Maximum Incineration Rate: pounds/hr	
tons/day	
Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year
2 MMBtu/hr heat input from RTO.	
	Maximum Heat Input Rate: 42 million Btu/hr Maximum Incineration Rate: pounds/hr tons/day Requested Maximum Operating Schedule: 24 hours/day

Section [1] EU011 - BPF Sludge Dryer Train No. 2

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1.	Identification of Point on l Flow Diagram: RTO Exha		2.	Emission Point 7	Type Code:
3.	Descriptions of Emission I Dryer Train Nos. 1 and 2 ha	Points Comprising as its own flue with	nin a	shared single sta	ack.
4.	ID Numbers or Description	ns of Emission Ur	nits v	with this Emission	Point in Common:
5.	Discharge Type Code: V	6. Stack Height 138 feet	:		7. Exit Diameter: 2.5 feet
8.	Exit Temperature: 9. Actual Volum 194 °F 15,000 acfm		metric Flow Rate:		10. Water Vapor: %
11.	Maximum Dry Standard F dscfm	low Rate:	12.	Nonstack Emissi feet	on Point Height:
13.	Emission Point UTM Coor Zone: 17 East (km): North (km)	585.6	14.	Emission Point I Latitude (DD/Ml Longitude (DD/N	<i>'</i>
15.	Emission Point Comment:				

Section [1] EU011 - BPF Sludge Dryer Train No. 2

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1.	Segment Description (Process/Fuel Type): Solid Waste Disposal - Commercial/Institutional; Incineration: Special Purpose; Sewage Sludge Incinerator										
2.	Source Classification Cod 5-02-005-15	e (So	CC):	3. SCC Units: Wet tons of		ge processed					
4.	Maximum Hourly Rate: 14.1	5.	Maximum 123,187.5	Annual Rate:	6.	Estimated Annual Activity Factor:					
7.	Maximum % Sulfur:	8.	Maximum	% Ash:	9.	Million Btu per SCC Unit:					
10.	10. Segment Comment: Max hourly rate = 337.5 wtpd x day/24 hr = 14.1 ton/hr. Max annual rate = 337.5 wtpd x 365 day/yr = 123,187.5 tons/yr Rotary sludge dryer with a rated capacity of 40 MMBtu/hr heat input from natural gas and/or landfill gas firing plus an additional 2 MMBtu/hr heat input from RTO. Sludge is neither treated as fuel nor incinerated.										
Segment Description and Rate: Segment of											
1. Segment Description (Process/Fuel Type):											
2.	Source Classification Code	e (SC	CC):	3. SCC Units:							
4.	Maximum Hourly Rate:	5.	Maximum	Annual Rate:	ı	Estimated Annual Activity Factor:					
7.	Maximum % Sulfur:	8.	Maximum	% Ash:	9.	Million Btu per SCC Unit:					
10.	Segment Comment:										

Section [1]

EU011 - BPF Sludge Dryer Train No. 2

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

_			T	T . = 44
1.	Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
		Device Code	Device Code	Regulatory Code
	СО			EL
	NOx			EL
	PM/PM10			EL
	SO2			EL
	VOC			EL
	H114			EL
			-	
	-			

POLLUTANT DETAIL INFORMATION
Page [1] of [5]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted:	2. Total Perc	ent Efficie	ency of Control:				
3. Potential Emissions:	tons/year	4. Synth	netically Limited?				
5. Range of Estimated Fugitive Emissions (as to tons/year	•						
6. Emission Factor:			7. Emissions Method Code:				
Reference:							
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period:				
tons/year	From:	T	o:				
9.a. Projected Actual Emissions (if required):	9.b. Projected	d Monitori	ng Period:				
tons/year	☐ 5 yea		years				
10. Calculation of Emissions: No change to current potential emissions as a result of the project.							
11. Potential, Fugitive, and Actual Emissions C	omment:						

POLLUTANT DETAIL INFORMATION

Page [1] of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: ESCPSD	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units: 3.37 lb/hr	4.	Equivalent Allowable Emissions: 3.37 lb/hour 14.75 tons/year
5.	Method of Compliance: None - initial testing demonstrated compliance	e.	
6.	Allowable Emissions Comment (Description Permit No. 0990234-006-AC/PSD-FL-108F and		
Al	lowable Emissions Allowable Emissions	c	of
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (Operating Method):
<u>Al</u>	owable Emissions Allowable Emissions	0	f
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (perating Method):

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
NOx

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Pollutant Emitted: NOx	2. Total Perc	ent Efficie	ency of Control:			
3. Potential Emissions:			netically Limited?			
lb/hour	tons/year	Y	es No			
5. Range of Estimated Fugitive Emissions (as	s applicable):					
to tons/year						
6. Emission Factor:			7. Emissions			
Reference:			Method Code:			
	01 0 1	24 1	D : 1			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline					
tons/year	From:		o:			
9.a. Projected Actual Emissions (if required):	9.b. Projected	9.b. Projected Monitoring Period:				
tons/year						
10. Calculation of Emissions:						
No change to current potential emissions as	a result of the	project.				
11. Potential, Fugitive, and Actual Emissions Co	omment:					

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
NOx

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units: 5.60 lb/hr	4.	Equivalent Allowable Emissions: 5.60 lb/hour 24.55 tons/year
5.	Method of Compliance: Testing prior to operating permit renewal using	ng El	PA Method 7 or 7E.
6.	Allowable Emissions Comment (Description Allowable emissions based on BACT determine Permit No. 0990234-006-AC/PSD-FL-108F and	natio	on.
Al	lowable Emissions Allowable Emissions	0	f
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	<u> </u>	
6.	Allowable Emissions Comment (Description	of C	perating Method):
Al	lowable Emissions Allowable Emissions	o:	f
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of C	perating Method):

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
PM/PM10

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM/PM10	2. Total Perc	ent Efficie	ency of Control:
3. Potential Emissions: lb/hour	tons/year		netically Limited? es
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):		
6. Emission Factor:			7. Emissions Method Code:
Reference:			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period:
tons/year	From:	T	o:
9.a. Projected Actual Emissions (if required):	9.b. Projected	d Monitori	ng Period:
tons/year	☐ 5 yea	rs 🗌 10	0 years
10. Calculation of Emissions: No change to current potential emissions as 11. Potential Engitive and Actual Emissions Co.		project.	
11. Potential, Fugitive, and Actual Emissions Co	omment:		

POLLUTANT DETAIL INFORMATION Page [1] of [5] PM/PM10

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 o	1s <u>1</u> of	Emissions	owable	Α	Emissions	able	Allov
---	----------------	-----------	--------	---	------------------	------	-------

<u>Al</u>	lowable Emissions Allowable Emissions 1 or	of <u>1</u>
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units: 2.42 lb/hr	4. Equivalent Allowable Emissions: 2.42 lb/hour 10.6 tons/year
5.	Method of Compliance: Testing prior to operating permit renewal usin	ng EPA Method 5.
6.	Allowable Emissions Comment (Description Allowable emissions based on BACT determit Permit No. 0990234-006-AC/PSD-FL-108F and	ination.
Al	lowable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):
Al	lowable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
SO2

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: SO2	2. Total Perc	ent Efficie	ency of Control:		
3. Potential Emissions:			netically Limited?		
lb/hour	tons/year	☐ Y	es 🗌 No		
5. Range of Estimated Fugitive Emissions (as	s applicable):		-		
to tons/year					
6. Emission Factor:			7. Emissions		
Reference:			Method Code:		
	0 h D 1'	24	Davida I.		
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline				
	From:		0:		
9.a. Projected Actual Emissions (if required):	9.b. Projected				
tons/year					
10. Calculation of Emissions: No change to current potential emissions as 11. Potential, Fugitive, and Actual Emissions C		project.			
11. Potential, Fugitive, and Actual Emissions C	omment:				

POLLUTANT DETAIL INFORMATION Page [1] of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Al	lowable Emissions Allowable Emissions 1 of	I <u>1</u>			
1.	Basis for Allowable Emissions Code: ESCPSD	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units: 4.45 lb/hr	4. Equivalent Allowable Emissions: 4.45 lb/hour 19.5 tons/year			
5.	Method of Compliance: Testing prior to operating permit renewal usin	ng EPA Method 6C.			
6.	Allowable Emissions Comment (Description of Operating Method): Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV.				
<u>Al</u>	Allowable Emissions Allowable Emissions of of				
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
	5. Method of Compliance:				
0.	6. Allowable Emissions Comment (Description of Operating Method):				
Al	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	5. Method of Compliance:				
6.	6. Allowable Emissions Comment (Description of Operating Method):				

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
VOC

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions					
1. Pollutant Emitted: voc	2. Total Perc	cent Efficiency of Control:			
3. Potential Emissions:		4. Synthetically Limited?			
lb/hour	tons/year	☐ Yes ☐ No			
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):				
6. Emission Factor: Reference:		7. Emissions Method Code:			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:				
tons/year	From:	То:			
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years				
10. Calculation of Emissions: No change to current potential emissions as a result of the project. 11. Potential, Fugitive, and Actual Emissions Comment:					
, - 1 3					

POLLUTANT DETAIL INFORMATION Page [1] of [5] VOC

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>A1</u>	Allowable Emissions 1 of	1 1			
1.	Basis for Allowable Emissions Code: ESCPSD	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units: 1.0 lb/hr	4.	Equivalent Allowable Emissions: 1.0 lb/hour 4.4 tons/year		
5.	Method of Compliance: None - initial testing demonstrated compliance	e.			
6.	Allowable Emissions Comment (Description of Operating Method): Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV.				
Al	lowable Emissions Allowable Emissions	c	of		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
	Method of Compliance:				
6.	6. Allowable Emissions Comment (Description of Operating Method):				
Al	lowable Emissions Allowable Emissions	c	f		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:				
6.	6. Allowable Emissions Comment (Description of Operating Method):				

POLLUTANT DETAIL INFORMATION
Page [1] of [5]
H114 - Mercury

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1 otential, Estimated Fugitive, and Dasenne & Frojected Actual Emissions				
1. Pollutant Emitted: Mercury	2. Total Percent Efficiency of Control:			
3. Potential Emissions: lb/hour	4. Synthetically Limited? tons/year ☐ Yes ☐ No			
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):			
6. Emission Factor: Reference:	7. Emissions Method Code:			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:			
tons/year	From: To:			
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years			
10. Calculation of Emissions: No change to current potential emissions as a result of the project.				
11. Potential, Fugitive, and Actual Emissions Co	omment:			

POLLUTANT DETAIL INFORMATION Page [1] of [5] H114 - Mercury

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable	Emissions	Allowable	Emissions	1	of	1

Al	<u>nowable Emissions</u> Allowable Emissions <u>1</u> o	1 <u>1</u>			
1.	Basis for Allowable Emissions Code: ESCPSD	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units: 0.022 lb/24-hr	4. Equivalent Allowable Emissions: 0.00092 lb/hour 0.004 tons/year			
5.	Method of Compliance: Testing prior to operating permit renewal using	ng EPA Methods 101A or 105.			
6.	Allowable Emissions Comment (Description of Operating Method): Permit No. 0990234-006-AC/PSD-FL-108F and Title V Air Permit No. 0990234-022-AV.				
Al	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
	5. Method of Compliance:6. Allowable Emissions Comment (Description of Operating Method):				
<u>Al</u>	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	. Method of Compliance:				
6.	6. Allowable Emissions Comment (Description of Operating Method):				

Section [1]

EU011 - BPF Sludge Dryer Train No. 2

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

<u>V 13</u>	sible Emissions Limitation: Visible Emissi	ons Emitation 1 or 1	
1.	Visible Emissions Subtype:	2. Basis for Allowable (Opacity:
	VE5	☐ Rule	
3.	Allowable Opacity:		
		cceptional Conditions:	20 %
	Maximum Period of Excess Opacity Allowe	ed:	3 min/hour
4.	Method of Compliance: Annual testing using	ng EPA Method 9	
			<u> </u>
5.	Visible Emissions Comment: Permit No. 0990234-006-AC/PSD-FL-108F ar	nd Title \/ Air Bormit No. 000	00224 022 AV
	Fermit No. 0990234-006-AC/PSD-FL-106F at	id Title V Air Permit No. 093	9UZJ4-UZZ-AV.
Vis	sible Emissions Limitation: Visible Emissi	ons Limitation of	
1.	Visible Emissions Subtype:	2. Basis for Allowable (Opacity:
	· ·	☐ Rule	Other
3.	Allowable Opacity:		
	Normal Conditions: % Ex	ceptional Conditions:	%
_	Maximum Period of Excess Opacity Allowe	ed:	min/hour
4.	Method of Compliance:		
5	Visible Emissions Comment:		
٠.	Visite Emissions Comment.		

EMISSIONS UNIT INFORMATION Section [1] EU011 - BPF Sludge Dryer Train No. 2

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

<u>Ct</u>	ontinuous Monitoring System: Continuous	Monitor of		
1.	Parameter Code:	2. Pollutant(s):		
3.	CMS Requirement:	☐ Rule ☐ Other		
4.	Monitor Information Manufacturer:			
	Model Number:	Serial Number:		
5.	Installation Date:	6. Performance Specification Test Date:		
7.	Continuous Monitor Comment:			
Continuous Monitoring System: Continuous Monitor of				
	continuous violinoring system:	Monitor of		
_	Parameter Code:	2. Pollutant(s):		
_				
1.	Parameter Code:	2. Pollutant(s):		
3.	Parameter Code: CMS Requirement: Monitor Information	2. Pollutant(s):		
3.	Parameter Code: CMS Requirement: Monitor Information Manufacturer:	2. Pollutant(s): Rule Other		
3. 4.	Parameter Code: CMS Requirement: Monitor Information Manufacturer: Model Number:	2. Pollutant(s): Rule Other Serial Number:		
 3. 4. 5. 	Parameter Code: CMS Requirement: Monitor Information Manufacturer: Model Number: Installation Date:	2. Pollutant(s): Rule Other Serial Number:		
 3. 4. 5. 	Parameter Code: CMS Requirement: Monitor Information Manufacturer: Model Number: Installation Date:	2. Pollutant(s): Rule Other Serial Number:		
 3. 4. 5. 	Parameter Code: CMS Requirement: Monitor Information Manufacturer: Model Number: Installation Date:	2. Pollutant(s): Rule Other Serial Number:		
 3. 4. 5. 	Parameter Code: CMS Requirement: Monitor Information Manufacturer: Model Number: Installation Date:	2. Pollutant(s): Rule Other Serial Number:		
 3. 4. 5. 	Parameter Code: CMS Requirement: Monitor Information Manufacturer: Model Number: Installation Date:	2. Pollutant(s): Rule Other Serial Number:		

Section [1] EU011 - BPF Sludge Dryer Train No. 2

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
6.	Compliance Demonstration Reports/Records: Attached, Document ID: Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date: August 5, 2013 Test Date(s)/Pollutant(s) Tested: PM/PM10; June 24 - 26, 2013
	To be Submitted, Date (if known): Test Date(s)/Pollutant(s) Tested:
	⊠ Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document ID:

Section [1]

EU011 - BPF Sludge Dryer Train No. 2

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1.					
	F.A.C.; 40 CFR 63.43(d) and (e)): Attached, Document ID:	☑ Not Applicable			
2.	Good Engineering Practice Stack Height A				
	212.500(4)(f), F.A.C.):	NA Ameliachia			
2	Attached, Document ID:				
3.	only)	Required for proposed new stack sampling facilities			
	Attached, Document ID:	☑ Not Applicable			
Ad	Iditional Requirements for Title V Air Op	eration Permit Applications			
1.	Identification of Applicable Requirements: Attached, Document ID:				
2.	Compliance Assurance Monitoring:	WA-EU010/011/IV2			
3.	Alternative Methods of Operation: Attached, Document ID:	Not Applicable ■			
4.	Alternative Modes of Operation (Emissions Attached, Document ID:	•			
Ad	lditional Requirements Comment				
					

Section [1]

EU037 - Emergency Generator

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through 1 as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

DEP Form No. 62-210.900(1) Effective: 03/11/2010

Section [1] EU037 - Emergency Generator

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1.	or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)							
	☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.							
	☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.							
<u>En</u>	<u>nissions Unit Desc</u>	ription and Status						
1.	Type of Emissions	Unit Addressed in thi	s Section: (Check one)					
	single process	or production unit, or a	tion addresses, as a sing activity, which produces definable emission poin	one or more air				
	of process or p	roduction units and ac		le emissions unit, a group et one definable emission e.				
				le emissions unit, one or e fugitive emissions only.				
2.	<u> </u>	issions Unit Addressed ator/Stationary Diesel E	l in this Section: ngine - PBREF Scalehor	JSe.				
3.	Emissions Unit Ide	entification Number: 0	37					
4.	Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:				
	<u>C</u>			49				
8.	_	Applicability: (Check a	ll that apply)					
	☐ Acid Rain Uni	t						
_	☐ CAIR Unit							
	Package Unit: Manufacturer: Cat	<u> </u>	Model Number:	D60-8S				
10.	Generator Namepl	ate Rating: 60 kW						
11.	Emissions Unit Co Caterpillar D60-8S C4.4 diesel engine.	emergency diesel gene	rator set associated wit	h 88.5 bhp Caterpillar				

DEP Form No. 62-210.900(1) Effective: 03/11/2010

Section [1] EU037 - Emergency Generator

Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method: Control of
1. Control Equipment/Method Description:
1. Control Equipment/Method Description:
Control Equipment/Method Description: Control Device or Method Code:
Control Equipment/Method Description: Control Device or Method Code: Emissions Unit Control Equipment/Method: Control of
Control Equipment/Method Description: Control Device or Method Code: Emissions Unit Control Equipment/Method: Control of
Control Equipment/Method Description: Control Device or Method Code: Emissions Unit Control Equipment/Method: Control of

Section [1] EU037 - Emergency Generator

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

6.	Operating Capacity/Schedule Co The emergency engine will opera		hr/vr for maintenance
		52 weeks/year	8,760 hours/year
		24 hours/day	7 days/week
5.	Requested Maximum Operating	Schedule:	
		tons/day	
4.	Maximum Incineration Rate:	pounds/hr	
3.	Maximum Heat Input Rate: 0.72	million Btu/hr	
2.	Maximum Production Rate:		
1.	Maximum Process or Throughp	ut Rate:	

maximum 50 hr/yr for non-emergency operation.

Maximum heat input based on 5.2 gal/hr of No. 2 fuel usage and 138,000 Btu/gal.

There are no limits for emergency operation.

DEP Form No. 62-210.900(1) Effective: 03/11/2010

EMISSIONS UNIT INFORMATION Section [1]

EU037 - Emergency Generator

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

	ication of Point on Diagram:	Plot Plan or	2.	Emission Point 7	Type Code:
	ptions of Emission				_
		ns of Emission Ur	nits v	with this Emission	n Point in Common:
5. Discha	rge Type Code:	6. Stack Height feet	:		7. Exit Diameter: feet
8. Exit Temperature: 9. Actual Volumer acfm			metric Flow Rate:		10. Water Vapor: %
	um Dry Standard F dscfm	low Rate:	12. Nonstack Emission Point Height: feet		
13. Emission Point UTM Coordinates Zone: East (km): North (km):		14. Emission Point Latitude/Longitude Latitude (DD/MM/SS) Longitude (DD/MM/SS)			
` '					

Section [1] EU037 - Emergency Generator

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1.	 Segment Description (Process/Fuel Type): Internal Combustion Engines; Electric Generation; Distillate Oil; Reciprocating 							
2.	Source Classification Cod 2-01-001-02	e (SCC):	3. SCC Units: Thousand Gallons Burned					
4.	Maximum Hourly Rate: 0.0052	5. Maximum . 0.52	Annual Rate:	6.	Estimated Annual Activity Factor:			
7.	Maximum % Sulfur: 0.0015	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 136			
10.	Segment Comment: Max annual rate = 5.2 gal/h Hourly fuel usage based or	r x 100 hr/yr = 52 n manufacturer d	0 gal/yr. ata.					
Ses	gment Description and Ra		of					
1.	1. Segment Description (Process/Fuel Type):							
2.	Source Classification Code	e (SCC):	3. SCC Units:					
4.	Maximum Hourly Rate:	5. Maximum A	Annual Rate:	6.	Estimated Annual Activity Factor:			
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit:			
10.	Segment Comment:							

Section [1]

EU037 - Emergency Generator

E. EMISSIONS UNIT POLLUTANTS

<u>List of Pollutants Emitted by Emissions Unit</u>

1. Pollutan	t Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
1. 1 Offutali	Limited	Device Code	Device Code	
		Device Code	Device Code	Regulatory Code
PM				EL
PM ₁₀				NS
PM _{2.5}				NS
SO ₂				EL
CO				EL
voc			_	NS
NOx			-	EL
_				
_				

POLLUTANT DETAIL INFORMATION

Page [1] of [5]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1 Ottimal, Estimated Fugitive, and Dascinic o	1 10/ceteu Ae	tuai Diiiis	310113
1. Pollutant Emitted:	2. Total Perc	ent Efficie	ency of Control:
3. Potential Emissions:		4. Synth	netically Limited?
	tons/year	☐ Y	es 🛛 No
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable).		
6. Emission Factor: 5.0 g/kWhr	-		7. Emissions
_			Method Code:
Reference: 40 CFR 60 Subpart IIII			0
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period:
tons/year	From:	T	o:
9.a. Projected Actual Emissions (if required):	9.b. Projected	l Monitori	ng Period:
tons/year	☐ 5 yea	rs 🗌 10) years
10. Calculation of Emissions: Potential hourly = 5 g/kW-hr x 66 kW/hr x lb/4 Potential annual = 0.73 lb/hr x 100 hr/yr x ton 11. Potential, Fugitive, and Actual Emissions Co	/2000 lb = 0.037		
11. Folential, Fugitive, and Actual Emissions Co	omment:		

POLLUTANT DETAIL INFORMATION

Page [1] of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Al	lowable Emissions Allowable Emissions 1 or	f 1					
1.	Basis for Allowable Emissions Code: RULE	2.	2. Future Effective Date of Allowable Emissions:				
3.	Allowable Emissions and Units: 5.0 g/kWhr	4.	 Equivalent Allowable Emissions: 0.73 lb/hour 0.037 tons/yea 				
5.	Method of Compliance: Maintain manufacturer certification						
6.	 Allowable Emissions Comment (Description of Operating Method): 40 CFR 60 SUbpart IIII [Rule 60.4205(b)] and 40 CFR 89.112(a) and Air Construction Permit No. 0990234-029-AV. 						
Al	lowable Emissions Allowable Emissions	c	of				
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	of Allow	/able		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable lb/hour	Emissio	ns: tons/year		
5.	Method of Compliance:						
6.	Allowable Emissions Comment (Description	of (Operating Method):				
All	lowable Emissions Allowable Emissions		f				
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	of Allow	/able		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable lb/hour	Emissio	ns: tons/year		

DEP Form No. 62-210.900(1) Effective: 03/11/2010

5. Method of Compliance:

6. Allowable Emissions Comment (Description of Operating Method):

POLLUTANT DETAIL INFORMATION
Page [2] of [5]
NOx

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOx	2. Total Percent Efficie	ency of Control:	
3. Potential Emissions: 0.68 lb/hour 0.034	_	netically Limited? es 🛛 No	
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):		
6. Emission Factor: 4.7 g/kW-hr Reference: 40 CFR 60 Subpart IIII		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period·	
tons/year		o:	
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitori ☐ 5 years ☐ 10	ng Period: O years	
10. Calculation of Emissions: Potential hourly = 4.7 g/kW-hr x 66 kW/hr x lb/453.6 g = 0.68 lb/hr Potential annual = 0.68 lb/hr x 100 hr/yr x ton/2000 lb = 0.034 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Note: Emission rate of 4.7g/kW-hr includes non-methane hydrocarbon (NMHC) emissions.			

POLLUTANT DETAIL INFORMATION
Page [2] of [5]
NOx

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions	Allowable	Emissions	1	of	1

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Emissions:	Allowable
3.	Allowable Emissions and Units: 4.7 g/kWhr	4.	Equivalent Allowable E. 0.68 lb/hour	missions: 0.034 tons/year
5.	Method of Compliance: Maintain manufacturer certification			
6.	Allowable Emissions Comment (Description 40 CFR 60 Subpart IIII [Rule 60.4205(b)] and 40 Permit No. 0990234-029-AV. Allowable emissions include non-methane hy	0 CF	R 89.112(a) and Air Cons	
Al	lowable Emissions Allowable Emissions	c	f	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E lb/hour	missions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (Operating Method):	
<u>All</u>	owable Emissions Allowable Emissions	0	f	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E. lb/hour	missions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (Operating Method):	

POLLUTANT DETAIL INFORMATION
Page [3] of [5]
PM

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control:		
3. Potential Emissions: 0.06 lb/hour 0.003	1	thetically Limited? Yes ⊠ No	
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):		
6. Emission Factor: 0.4 g/kWhr		7. Emissions Method Code:	
Reference: 40 CFR 60 Subpart IIII			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-mon	th Period:	
tons/year	From:	To:	
9.a. Projected Actual Emissions (if required):	9.b. Projected Monito	ring Period:	
tons/year	☐ 5 years ☐	10 years	
10. Calculation of Emissions: Potential hourly = 0.40 g/kW-hr x 66 kW/hr x lb/453.6 g = 0.06 lb/hr Potential annual = 0.06 lb/hr x 100 hr/yr x ton/2000 lb = 0.003 TPY			
11. Potential, Fugitive, and Actual Emissions Co	onment:		

POLLUTANT DETAIL INFORMATION
Page [3] of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emission	s 1	of	1
--	-----	----	---

_				
1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E	Emissions:
	0.40 g/kWhr		0.06 lb/hour	0.003 tons/year
_	<u>-</u>		7.00 10/110 4 1	
5.	Method of Compliance: Maintain manufacturer certification			
6.	Allowable Emissions Comment (Description 40 CFR 60 Subpart IIII [Rule 60.4205(b)] and 4 Permit No. 0990234-029-AV.			truction
<u>Al</u>	lowable Emissions Allowable Emissions			
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of	f Allowable
			Emissions:	
3.	Allowable Emissions and Units:	1	Equivalent Allowable E	missions:
5.	Anowable Emissions and Omits.	٦٠.	lb/hour	tons/year
				tons/year
	Method of Compliance: Allowable Emissions Comment (Description	of	Operating Method):	
	lowable Emissions Allowable Emissions			
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E	missions:
			lb/hour	tons/year
5	Method of Compliance:		_	•
J.				3_
6.	Allowable Emissions Comment (Description	of (Operating Method):	

POLLUTANT DETAIL INFORMATION
Page [4] of [5]
SO2

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:			ency of Control:		
SO2			,,		
3. Potential Emissions:		4. Synth	etically Limited?		
0.0006 lb/hour 0.0000 ;	3 tons/year	☐ Y	es 🛛 No		
5. Range of Estimated Fugitive Emissions (as	s applicable):				
to tons/year					
6. Emission Factor: 0.006 lb/hr (0.0015% S fue	1)		7. Emissions		
Deferences 40 OFF 60 O L = 4 IIII			Method Code:		
Reference: 40 CFR 60 Subpart IIII	8.b. Baseline 2	.1	D ' 1		
8.a. Baseline Actual Emissions (if required):					
tons/year	From:	Te			
9.a. Projected Actual Emissions (if required): 9.b. Projected Monitor					
) years		
10. Calculation of Emissions:	(0000 lb 0 00	000 TDV			
Potential annual = 0.0006 lb/hr x 100 hr/yr x t	on/2000 lb = 0.00	1003 174			
11. Potential, Fugitive, and Actual Emissions Comment:					
1111 Octobrilla Lagrand, and Freduit Difficulties C	V				

POLLUTANT DETAIL INFORMATION
Page [4] of [5]
SO2

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

\mathbf{AI}	lowable	Emissions	Al	lowable	Emiss	ions	1	of.	1

	Thowade Emissions 1 of	· <u>-</u>	
1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units: Maximum S content 0.0015% by weight\	4.	Equivalent Allowable Emissions: 0.0006 lb/hour 0.00003 tons/year
5.	Method of Compliance: Fuel specification		
6.	Allowable Emissions Comment (Description 40 CFR 60 Subpart IIII [Rule 60.4207(b)] and 4 Permit No. 0990234-029-AV.	of (0 CF	Operating Method): R 80.510(b) and Air Construction
<u>Al</u>	lowable Emissions Allowable Emissions	<u> </u>	f
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (Operating Method):
<u>Al</u>	owable Emissions Allowable Emissions	0	f
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (Operating Method):

POLLUTANT DETAIL INFORMATION

Page [5] of [5]

VOC

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: NMHC	2. Total Percent Efficiency of Control:		
3. Potential Emissions: 0.22 lb/hour 0.011		hetically Limited? Yes 🛛 No	
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):	-	
6. Emission Factor: 4.7 g/kW-hr Reference: 40 CFR 60 Subpart IIII		7. Emissions Method Code: 3	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period·	
tons/year		Го:	
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitor		
tons/year	ŭ	0 years	
10. Calculation of Emissions: See Table 1 in Part II. 11. Potential, Fugitive, and Actual Emissions Control Note: Emission rate of 4.7g/kW-hr includes Note:			

POLLUTANT DETAIL INFORMATION Page [] of []

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emiss	sions Allowable Emissions	_ of	<u> </u>	
1. Basis for Allo	owable Emissions Code:	2.	Future Effective Date of Allowab Emissions:	ole
3. Allowable Er	nissions and Units:	4.	Equivalent Allowable Emissions lb/hour to	: ons/year
5. Method of Co	ompliance:			
_	nissions Comment (Description			
Allowable Emiss	sions Allowable Emissions	c	of	
1. Basis for Allo	owable Emissions Code:	2.	Future Effective Date of Allowab Emissions:	ole
3. Allowable En	nissions and Units:	4.	Equivalent Allowable Emissions: lb/hour to	: ons/year
5. Method of Co				
6. Allowable En	nissions Comment (Description	of (Operating Method):	
Allowable Emiss	ions Allowable Emissions	c	of	
1. Basis for Allo	wable Emissions Code:	2.	Future Effective Date of Allowab Emissions:	ole
3. Allowable En	nissions and Units:	4.	Equivalent Allowable Emissions: lb/hour to	: ons/year
5. Method of Co	mpliance:			
6. Allowable En	nissions Comment (Description	of (Operating Method):	

Section [1]

EU037 - Emergency Generator

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

A 15	Sible Emissions Limitation: Visible Emissi	ons Limitation 1 of 1		
1.	Visible Emissions Subtype: VE20	2. Basis for Allowable ⊠ Rule	Opacity: Other	
3.	Allowable Opacity:		_	
		cceptional Conditions:	% min/hour	
	Maximum Period of Excess Opacity Allowed:			
4.	Method of Compliance:			
5.	Visible Emissions Comment: Rule 62-296.3	20(4)(b), F.A.C., General v	visible emissions	
	standard.			
Vis	ible Emissions Limitation: Visible Emissi	ons Limitation of _		
1.	Visible Emissions Subtype:	2. Basis for Allowable	• •	
		Rule	☐ Other	
3.	Allowable Opacity:			
		cceptional Conditions:	%	
	Maximum Period of Excess Opacity Allowe	ed: 	min/hour	
4.	Method of Compliance:			
5.	Visible Emissions Comment:	-		

Section [1]

EU037 - Emergency Generator

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

<u>Continuous Monitoring System:</u> Continuous Monitor of				
1.	Parameter Code:	2. Pollutant(s):		
3.	CMS Requirement:	☐ Rule ☐ Other		
4.	Monitor Information Manufacturer:			
	Model Number:	Serial Number:		
5.	Installation Date:	6. Performance Specification Test Date:		
7.	Continuous Monitor Comment:			
Continuous Monitoring System: Continuous Monitor of				
1.	Parameter Code:	2. Pollutant(s):		
3.	CMS Requirement:	☐ Rule ☐ Other		
4.	Monitor Information Manufacturer:			
	Model Number:	Serial Number:		
5.	Installation Date:	6. Performance Specification Test Date:		
7.	Continuous Monitor Comment:			

Section [1] EU037 - Emergency Generator

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date		
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date		
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date		
4.	Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date		
5.	operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date		
	☑ Not Applicable		
6.	1		
	Attached, Document ID:		
	Test Date(s)/Pollutant(s) Tested:		
	☐ Previously Submitted, Date:		
	Test Date(s)/Pollutant(s) Tested:		
	☐ To be Submitted, Date (if known):		
	Test Date(s)/Pollutant(s) Tested:		
	Not Applicable Not Applicable		
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.		
7.	Other Information Required by Rule or Statute: ☐ Attached, Document ID: ☒ Not Applicable		

Section [1]

EU037 - Emergency Generator

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1.				
	F.A.C.; 40 CFR 63.43(d) and (e)): Attached, Document ID:	✓ Not Applicable		
2.		ht Analysis (Rules 62-212.400(4)(d) and 62-		
2.	212.500(4)(f), F.A.C.):	in Analysis (Rules 02-212.400(4)(u) and 02-		
	Attached, Document ID:	⊠ Not Applicable		
3.	only)	es: (Required for proposed new stack sampling facilities		
	Attached, Document ID:	Not Applicable		
Ad	Additional Requirements for Title V Air Operation Permit Applications			
1.	Identification of Applicable Requireme ☐ Attached, Document ID:			
2.	Compliance Assurance Monitoring: Attached, Document ID:	Not Applicable		
3.	Alternative Methods of Operation: Attached, Document ID:	Not Applicable		
4.	Alternative Modes of Operation (Emission Attached, Document ID:			
Ad	Additional Requirements Comment			

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

Africa + 27 11 254 4800
Asia + 852 2562 3658
Australasia + 61 3 8862 3500
Europe + 356 21 42 30 20
North America + 1 800 275 3281
South America + 55 21 3095 9500

solutions@golder.com www.golder.com

Golder Associates Inc. 6026 NW 1st Place Gainesville, FL 32607 USA

Tel: (352) 336-5600 Fax: (352) 336-6603

