



1601 Belvedere Road, Suite 211 South
West Palm Beach, Florida 33406
tel: 561 689-3336
fax: 561 689-9713

RECEIVED

MAR 03 2008

BUREAU OF AIR REGULATION

February 27, 2008

Mr. Alvaro Linero, P.E.
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Solid Waste Authority of Palm Beach County
North County Resource Recovery Facility
Biosolids Pelletization Facility
Supplemental Documents for Time Extension Request for
Air Construction Permit (Permit No: 0990234-006-AC and PSD-FL-108F)

Dear Mr. Linero:

This letter is in reference to the Florida Department of Environmental Protection (FDEP) Air Construction Permit Number 0990234 and PSD-FL-108F for the construction of a Biosolids Pelletization Facility (BPF) at the North County Resource Recovery Facility site. On behalf of the Solid Waste Authority of Palm Beach County, CDM requested a one year extension of the Air Construction Permit for the BPF in a letter dated February 7, 2008. Transmitted herewith is the supplemental information that was requested by FDEP in response to the February 7, 2008, letter.

The first six pages of FDEP form 62-200.910(1), "Application Information," are included as **Attachment A**. The Contractor's construction schedule, provided as **Attachment B**, indicates that construction will be completed by December 1, 2008. No design or construction changes have occurred to date that would affect the air emissions calculations or the Best Available Control Technology (BACT) analysis previously submitted. An updated BACT analysis is provided as **Attachment C**.

Please feel free to call me at (561) 689-3336 with any questions you may have.

Very truly yours,

Amber M. Barritt, P.E.
Project Manager
Camp Dresser & McKee Inc.



Mr. Alvaro Linero, P.E.
February 27, 2008
Page 2

Attachments

c: Jeff Koerner, FDEP, Bureau of Air Regulation
Scott Sheplak, FDEP, Bureau of Air Regulation
Mike Halpin, P.E., FDEP, Florida Energy Office
Cindy Mulkey, FDEP, Florida Energy Office
Russell Wider, FDEP, Bureau of Air Regulation
Lee Hoefert, FDEP, Southeast District
John O'Malley, PBC Health Department
Ray Schauer, SWA
Patrick Carroll, SWA
Mary Beth Morrison, SWA

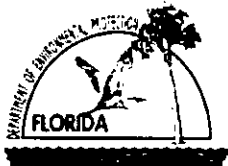
File: 2678-46715-079

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BUREAU OF AIR REGULATION

ATTACHMENT A



Department of Environmental Protection

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Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

BUREAU OF AIR REGULATION

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for any air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:

- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes 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/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Solid Waste Authority of Palm Beach County	
2. Site Name: North County Resource Recovery Facility	
3. Facility Identification Number: 0990234	
4. Facility Location... Solid Waste Authority of Palm Beach County, North County Resource Recovery Facility Street Address or Other Locator: 7501 North Jog Road City: West Palm Beach County: Palm Beach Zip Code: 33412-2414	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Amber M. Barritt, P.E., Project Manager	
2. Application Contact Mailing Address... Organization/Firm: Camp Dresser & McKee Street Address: 1601 Belvedere Road, Suite 211 S City: West Palm Beach State: FL Zip Code: 33406	
3. Application Contact Telephone Numbers... Telephone: (561) - 689-3336 ext. Fax: (561) - 689-9713	
4. Application Contact Email Address: barrittam@cdm.com	

Application Processing Information (DEP Use)

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

APPLICATION INFORMATION

Purpose of Application

This application for air permit is 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

This application is for one-year extension of the current air construction permit for the Biosolids Pelletization Facility

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
	Class I Landfill 3,500 scfm flare		
	Proposed 2,000 scfm flare (LRF/BPF)		
	Proposed 1,000 scfm flare (LRF/BPF)		


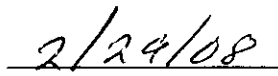
Application Processing Fee

Check one: Attached - Amount: \$ 0.00 Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

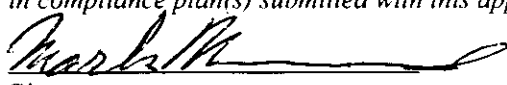
Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name : Mark Hammond, Executive Director
2. Owner/Authorized Representative 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: 33412-2414
3. Owner/Authorized Representative Telephone Numbers... Telephone: (561) - 640-4000 Fax: (561) - 683-4067
4. Owner/Authorized Representative Email Address:
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i>  Signature  Date

APPLICATION INFORMATION

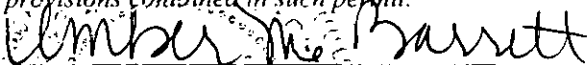

Application Responsible Official Certification

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

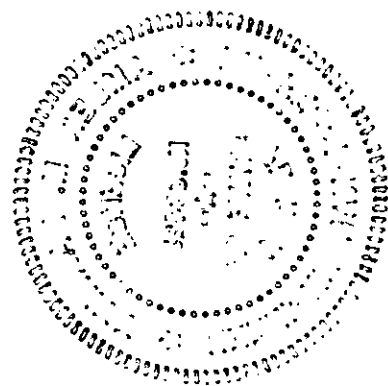
1. Application Responsible Official Name:	Mark Hammond, Executive Director
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):	<p><input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.</p> <p><input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively.</p> <p><input checked="" type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.</p> <p><input type="checkbox"/> The designated representative at an Acid Rain source.</p>
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 Fax: 561 - 683-4067
5. Application Responsible Official Email Address:	
6. Application Responsible Official Certification:	<p><i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i></p> <p> Signature</p> <p><u>2/29/08</u> Date</p>

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Amber M. Baritt, P.E. Registration Number: 66423
2. Professional Engineer Mailing Address... Organization/Firm: Camp Dresser & McKee Inc. Street Address: 1601 Belvedere Road, Suite 211 South City: West Palm Beach State: FL Zip Code: 33406
3. Professional Engineer Telephone Numbers... Telephone: 561 - 689-3336 Fax: 561 - 689-9713
4. Professional Engineer Email Address: barrittam@cdm.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/> , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/> , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i>   Signature _____ Date _____ (Seal)

* Attach any exception to certification statement.



ATTACHMENT B

Activity ID	Activity Description	Rem Dur	Total Float	%	Early Start	Early Finish	2008												2009												
							JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
DESIGN																															
Close-Out Submittals																															
36200	Close-Out Submittals	76	-145	80	02APR07A	25SEP08	Close-Out Submittals																								
36500	Compile Record Drawings	25	-145	10	02APR07A	23SEP08	Compile Record Drawings																								
36300	Compile O&M Manuals	30	-157	0	10JUN08	22JUL08	Compile O&M Manuals																								
48800	Compile Testing Plan	10	-157	0	10JUN08	23JUN08	Compile Testing Plan																								
48900	Deliver Testing Plan	2	-157	0	24JUN08	25JUN08	Deliver Testing Plan																								
36400	Deliver O&M Manuals	2	-101	0	23JUL08	24JUL08	Deliver O&M Manuals																								
36600	Deliver Record Drawings	2	-145	0	24SEP08	25SEP08	Deliver Record Drawings																								
49000	Certificate of Readiness	0	-145	0		25SEP08	Certificate of Readiness																								
PROCUREMENT																															
PO 11.1 Conveyors, Bins, & Hopper Equipment																															
34200	PO 11.1 Conveyors, Bins, & Hopper Equipment	15	-150	98	10AUG08A	20FEB08	PO 11.1 Conveyors, Bins, & Hopper Equipment																								
34500	Review Shop Drawings	1	-143	93	11AUG08A	31JAN08	Review Shop Drawings																								
34700	Manufacture Equipment	10	-150	83	27AUG07A	13FEB08	Manufacture Equipment																								
34900	Return Shop Drawings to Vendor	2	-143	0	01FEB08	04FEB08	Return Shop Drawings to Vendor																								
34810	Develop O&M Manuals(inc. spare parts list)	10	-88	0	05FEB08	18FEB08	Develop O&M Manuals(inc. spare parts list)																								
34800	Deliver Equipment	5	-150	0	14FEB08	20FEB08	Deliver Equipment																								
34820	Approve O&M Manuals(inc. spare parts list)	10	-88	0	19FEB08	03MAR08	Approve O&M Manuals(inc. spare parts list)																								
PO 11.2 Product Storage Silos																															
34900	PO 11.2 Product Storage Silos	47	-189	93	01SEP08A	04APR08	PO 11.2 Product Storage Silos																								
35310	Develop O&M Manuals(inc. spare parts list)	20	-182	33	17OCT07A	27FEB08	Develop O&M Manuals(inc. spare parts list)																								
35400	Manufacture Equipment	42	-169	30	17OCT07A	28MAR08	Manufacture Equipment																								
35320	Approve O&M Manuals(inc. spare parts list)	15	-182	0	28FEB08	19MAR08	Approve O&M Manuals(inc. spare parts list)																								
35500	Deliver Equipment	5	-189	0	31MAR08	04APR08	Deliver Equipment																								
PO 11.3 Dust Control Oil Tank																															
50000	PO 11.3 Dust Control Oil Tank	45	-140	83	12SEP08A	02APR08	PO 11.3 Dust Control Oil Tank																								
50500	Manufacture Equipment	15	-115	80	10JUN07A	20FEB08	Manufacture Equipment																								
50180	Vendor Recommendation	0	22	0		30JAN08	Vendor Recommendation																								
50410	Develop O&M Manuals(inc. spare parts list)	23	-140	0	31JAN08	05MAR08	Develop O&M Manuals(inc. spare parts list)																								
50420	Approve O&M Manuals(inc. spare parts list)	13	-140	0	06MAR08	28MAR08	Approve O&M Manuals(inc. spare parts list)																								
50600	Deliver Equipment	5	-140	0	27MAR08	02APR08	Deliver Equipment																								
PO 11.4 Dust Control Oil Pump																															
50700	PO 11.4 Dust Control Oil Pump	92	-187	87	12SEP08A	09JUN08	PO 11.4 Dust Control Oil Pump																								
50820	Vendor Recommendation	0		100			Vendor Recommendation																								
50840	NEFCO Approval	0		100			NEFCO Approval																								
50860	Execute P.O. Agreement	10	-187	0	31JAN08	13FEB08	Execute P.O. Agreement																								
50900	Develop Shop Drawings	30	-187	0	14FEB08	26MAR08	Develop Shop Drawings																								
51000	Review Shop Drawings	15	-187	0	27MAR08	16APR08	Review Shop Drawings																								

Start Date: 01JAN08 Finish Date: 01DEC08 Date Date: 31JAN08 Run Date: 04FEB08 18:55	Legend: Early Bar Target Bar Program Bar Critical Activity	W/P24 NEFCO-HDR-TURNER Jan 31, 08 Update PBC-SWA BIOSOLIDS PROCESS FACILITY Remaining Schedule by Phase of Work	Sheet 1 of 10 <table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Date	Revision	Checked	Approved																																								
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Activity ID	Activity Description	Rem. Dur.	Total Dur.	%	Early Start	Early Finish	2008												2009												
							JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
38640	Site/Scale Foundation	20	-186		0	07APR08	02MAY08	[Gantt Bar]																							
CMU							[Gantt Bar]																								
39000	CMU Masonry Walls (Summary)	8	-189	88	01NOV07A	11FEB08	[Gantt Bar]																								
65005	CMU Elevator Shaft Complete	6	-189	20	26JAN08A	11FEB08	[Gantt Bar]																								
65015	CMU Control Wall Complete	6	-178	20	28JAN08A	11FEB08	[Gantt Bar]																								
STRUCTURAL STEEL & MISCELLANEOUS METALS							[Gantt Bar]																								
38205	Fab Structural Steel	14	-192	30	14JAN08A	19FEB08	[Gantt Bar]																								
39100	Structural Steel & Misc. Metals	17	-192	0	20FEB08	13MAR08	[Gantt Bar]																								
39200	Erect Building Steel	10	-192	0	20FEB08	04MAR08	[Gantt Bar]																								
38400	Steel Joists	7	-192	0	05MAR08	13MAR08	[Gantt Bar]																								
39420	Equip. Tower Steel	5	-180	0	05MAR08	11MAR08	[Gantt Bar]																								
39410	Metal Decking	5	-183	0	19MAR08	25MAR08	[Gantt Bar]																								
39415	Remove Braces from Process Area Walls	2	-189	0	26MAR08	27MAR08	[Gantt Bar]																								
39300	Equipment Structure Screen	15	-124	0	30APR08	20MAY08	[Gantt Bar]																								
ROOFING, DOORS, WINDOWS & FINISHES							[Gantt Bar]																								
39500	Roofing, Doors, Windows & Finishes	52	-130	0	09APR08	20JUN08	[Gantt Bar]																								
39600	Built-Up Roofing System	15	-140	0	09APR08	28APR08	[Gantt Bar]																								
39610	Admin Framing/Drywall	15	-140	0	30APR08	20MAY08	[Gantt Bar]																								
39700	Doors & Windows	10	-140	0	08MAY08	22MAY08	[Gantt Bar]																								
39800	Insulation, Flashing, Caulking & Sealing	5	-140	0	23MAY08	30MAY08	[Gantt Bar]																								
39900	Acoustical Ceiling	5	-140	0	02JUN08	06JUN08	[Gantt Bar]																								
40100	Paint & Protective Coatings	15	-130	0	02JUN08	20JUN08	[Gantt Bar]																								
40000	Ceramic Tile & Vinyl Flooring	5	-140	0	06JUN08	13JUN08	[Gantt Bar]																								
CARPENTRY, SPECIALTIES & FURNISHINGS							[Gantt Bar]																								
40200	Carpentry, Specialties & Furnishings	21	-130	0	02JUN08	30JUN08	[Gantt Bar]																								
40300	Rough Carpentry	5	-129	0	02JUN08	06JUN08	[Gantt Bar]																								
40400	Cabinets / Millwork	5	-129	0	06JUN08	13JUN08	[Gantt Bar]																								
40500	Laboratory Equipment	4	-129	0	18JUN08	19JUN08	[Gantt Bar]																								
40600	Toilet Partitions & Bath Accessories	4	-130	0	25JUN08	28JUN08	[Gantt Bar]																								
40700	Refrigerator & Misc. Furnishings	2	-130	0	27JUN08	30JUN08	[Gantt Bar]																								
CONCRETE, RECLAIMER BINS & CONVEYORS							[Gantt Bar]																								
40900	Cake Receiving / Storage Equipment	78	-167	0	31JAN08	19MAY08	[Gantt Bar]																								
41100	Reclaimer Bin Conveyors SC-102/202	15	-138	0	31JAN08	20FEB08	[Gantt Bar]																								
40900	Reclaimer Bins TA-102/202	10	-148	0	21FEB08	05MAR08	[Gantt Bar]																								
41400	Sludge Storage Conveyors SC-103/203	24	-187	0	17MAR08	17APR08	[Gantt Bar]																								
41200	Load-In Belt Conveyors BC-102/202	12	-167	0	02APR08	17APR08	[Gantt Bar]																								
39220	Support Structure Walkway @ Storage Bins	4	-167	0	02MAY08	07MAY08	[Gantt Bar]																								
41300	Storage Bin Conveyors BC-101/201	6	-187	0	08MAY08	19MAY08	[Gantt Bar]																								

Start Date 01JAN08	Finish Date 01DEC08	Date Date 31.AUG08	Run Date 04FEB08 16:05	<input type="checkbox"/> Early Bar <input type="checkbox"/> Target Bar <input type="checkbox"/> Progress Bar <input type="checkbox"/> Critical Activity	WPT4 NEFCO-HDR-TURNER Jan 31, 08 Update PRC-SWA BIOSOLIDS PROCESS FACILITY Remaining Schedule by Phase of Work	Sheet 9 of 10 <table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Date	Revision	Checked	Approved																
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						JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC												JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC											
						JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
42705	Mobilize Mech Sub - initial inventory	31-104	70	28JAN08	04FEB08	☒ Mobilize Mech Sub - initial inventory																							
43140	Rough Set Furnace	2-170	0	31JAN08	01FEB08	☒ Rough Set Furnace																							
43000	Scrubber / Condensers IT-101/201	4-189	0	04FEB08	07FEB08	☒ Scrubber / Condensers IT-101/201																							
42700	Pellet Transporters PT-101/210	2-104	0	05FEB08	06FEB08	☒ Pellet Transporters PT-101/210																							
41800	Recycle Bins TA 101/201	8-157	0	05MAR08	14MAR08	☒ Recycle Bins TA 101/201																							
42000	Main Fans F-101/201	2-187	0	05MAR08	06MAR08	☒ Main Fans F-101/201																							
42800	Pellet Coolers CL-101/201	2-123	0	05MAR08	06MAR08	☒ Pellet Coolers CL-101/201																							
41800	Furnaces FU-101/201	5-180	0	06MAR08	12MAR08	☒ Furnaces FU-101/201																							
42800	Dust Collectors DC-101/201	2-123	0	07MAR08	10MAR08	☒ Dust Collectors DC-101/201																							
39210	Support Structure Walkway @ Mixers	5-180	0	10MAR08	14MAR08	☒ Support Structure Walkway @ Mixers																							
42900	Dust Collector Fans F-103/203	2-123	0	11MAR08	12MAR08	☒ Dust Collector Fans F-103/203																							
42100	Combustion Air Fans F-102/202	2-113	0	13MAR08	14MAR08	☒ Combustion Air Fans F-102/202																							
41700	Dryer Feed Mixers MX-101/201	10-167	0	17MAR08	28MAR08	☒ Dryer Feed Mixers MX-101/201																							
42500	Crushers CR-101/201	10-125	0	17MAR08	28MAR08	☒ Crushers CR-101/201																							
43100	Venturi Scrubbers VS-101/201	2-189	0	17MAR08	18MAR08	☒ Venturi Scrubbers VS-101/201																							
42300	Mixer Feed Conveyors SC-101/201	20-187	0	31MAR08	25APR08	☒ Mixer Feed Conveyors SC-101/201																							
42400	Screensers SCN-101/201	5-125	0	31MAR08	04APR08	☒ Screensers SCN-101/201																							
42200	Cyclone Separators DA-103/203	7-125	0	07APR08	15APR08	☒ Cyclone Separators DA-103/203																							
43300	Heat Exchangers HE-101/201	2-170	0	17JUN08	18JUN08	☒ Heat Exchangers HE-101/201																							
43200	Condenser / Venturi Pumps P-101/201 P-110/210	1-147	0	23JUL08	23JUL08	☒ Condenser / Venturi Pumps P-101/201 P-110/210																							
43400	RTO Equipment	16-159	0	12MAY08	03JUN08	☒ RTO Equipment																							
43500	Regen. Thermal Oxidizer TO-101/201	10-159	0	12MAY08	23MAY08	☒ Regen. Thermal Oxidizer TO-101/201																							
43600	RTO Fans F-104/204	2-159	0	26MAY08	27MAY08	☒ RTO Fans F-104/204																							
43700	RTO Exhaust Stack	4-159	0	26MAY08	03JUN08	☒ RTO Exhaust Stack																							
43800	Building Scrubber Equipment	34-184	0	21APR08	06JUN08	☒ Building Scrubber Equipment																							
43900	Building Scrubber BS-301/302	5-163	0	27APR08	25APR08	☒ Building Scrubber BS-301/302																							
44000	Building Scrubber Fans F-301/302	2-163	0	28APR08	29APR08	☒ Building Scrubber Fans F-301/302																							
44100	Building Scrubber Pumps P-303/304	2-163	0	30APR08	01MAY08	☒ Building Scrubber Pumps P-303/304																							
44200	Chemical Feed Pumps P-304/305	2-184	0	03JUN08	04JUN08	☒ Chemical Feed Pumps P-304/305																							
44300	Chemical / Acid Storage Tanks TA-305/6/7	2-184	0	05JUN08	08JUN08	☒ Chemical / Acid Storage Tanks TA-305/6/7																							
44400	Product Storage Equipment	31-124	0	05MAY08	17JUN08	☒ Product Storage Equipment																							
44500	Product Storage Silos PS-101/202	25-189	0	05MAY08	06JUN08	☒ Product Storage Silos PS-101/202																							
44600	Product Receivers PT-102/202	4-124	0	10JUN08	13JUN08	☒ Product Receivers PT-102/202																							
44800	Product Mixers MX-102/202	2-169	0	10JUN08	11JUN08	☒ Product Mixers MX-102/202																							

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 Remaining Schedule by Phase of Work

Date	Revision	Checked	Approved

Activity ID	Activity Description	Rem Dur	Total Pct	% Complete	Early Start	Early Finish	2008												2009											
							JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
47630	Energize Transformer #1 (FPL)	0	-12	0		19MAR08	◆ Energize Transformer #1 (FPL)																							
47700	Elect Cond/Cable Tray Train 1	80	-192	0	02APR08	25JUN08	█ Elect Cond/Cable Tray Train 1																							
47710	Elect Cond/Cable Tray Train 2	80	-192	0	02APR08	25JUN08	█ Elect Cond/Cable Tray Train 2																							
47800	Electrical MCCs & Equipment	5	-191	0	01MAY08	07MAY08	△ Electrical MCCs & Equipment																							
47900	Pull & Terminate Elect Train 1	80	-191	0	08MAY08	01AUG08	△ Pull & Terminate Elect Train 1																							
47910	Pull & Terminate Elect Train 2	80	-183	0	08MAY08	01AUG08	△ Pull & Terminate Elect Train 2																							
47720	Inst Cond/Cable Tray Train 1	45	-192	0	26JUN08	28AUG08	█ Inst Cond/Cable Tray Train 1																							
47730	Inst Cond/Cable Tray Train 2	45	-192	0	26JUN08	28AUG08	█ Inst Cond/Cable Tray Train 2																							
47920	Pull & Terminate Inst Train 1	45	-192	0	11JUL08	12SEP08	△ Pull & Terminate Inst Train 1																							
47930	Pull & Terminate Inst Train 2	45	-192	0	11JUL08	12SEP08	△ Pull & Terminate Inst Train 2																							
47980	Install Transformer #2/Pull Feeders (FPL)	15	-112	0	21JUL08	08AUG08	△ Install Transformer #2/Pull Feeders (FPL)																							
48000	Energize Pre-Power	10	-191	0	04AUG08	15AUG08	△ Energize Pre-Power																							
48100	Loop Check Instructions	10	-185	0	04AUG08	15AUG08	△ Loop Check Instructions																							
47890	Energize Transformer #2 (FPL)	0	-121	0		21AUG08	◆ Energize Transformer #2 (FPL)																							
47650	Permanent Power	2	-191	0	22AUG08	25AUG08	△ Permanent Power																							
47800	Instrumentation	10	-192	0	15SEP08	26SEP08	█ Instrumentation																							
START UP & TESTING																														
48780	Standby Generator Functional Test	5	-140	0	22MAY08	26MAY08	△ Standby Generator Functional Test																							
48715	Screening/Crusher/Separator Eq Functional Test	5	-191	0	26AUG08	01SEP08	△ Screening/Crusher/Separator Eq Functional Test																							
48775	Air Compressor Equip. Functional Test	1	-190	0	26AUG08	28AUG08	△ Air Compressor Equip. Functional Test																							
48735	Pneumatic Syst. Equip. Functional Test	1	-190	0	27AUG08	27AUG08	△ Pneumatic Syst. Equip. Functional Test																							
48710	Dryer Equip. Functional Test	5	-190	0	01SEP08	08SEP08	△ Dryer Equip. Functional Test																							
48760	RTO Equip. Functional Test	2	-178	0	01SEP08	02SEP08	△ RTO Equip. Functional Test																							
48720	Conveyance Equip. Functional Test	5	-191	0	05SEP08	11SEP08	△ Conveyance Equip. Functional Test																							
48725	Product Storage Silos Functional Test	2	-179	0	05SEP08	08SEP08	△ Product Storage Silos Functional Test																							
48727	Land Fill Gas Operational (By Others)	0	-178	0		08SEP08	◆ Land Fill Gas Operational (By Others)																							
48740	Pellet Cooler Equip. Functional Test	1	-179	0	08SEP08	08SEP08	△ Pellet Cooler Equip. Functional Test																							
48730	Scrubber/Dust Control Equip. Functional Test	2	-190	0	11SEP08	12SEP08	△ Scrubber/Dust Control Equip. Functional Test																							
48745	Cooling Tower & Pump Functional Test	3	-191	0	18SEP08	18SEP08	△ Cooling Tower & Pump Functional Test																							
48765	Bldg Scrubber Equip. Functional Test	3	-186	0	18SEP08	18SEP08	△ Bldg Scrubber Equip. Functional Test																							
48785	Chemical Feed Pumps Functional Test	2	-191	0	23SEP08	24SEP08	△ Chemical Feed Pumps Functional Test																							
48770	N2O2 Equip. Functional Test	2	-190	0	23SEP08	24SEP08	△ N2O2 Equip. Functional Test																							
48785	Polymer Feed Syst. Functional Test	2	-190	0	23SEP08	24SEP08	△ Polymer Feed Syst. Functional Test																							
48750	Venturi Pump Equip. Functional Test	1	-191	0	25SEP08	25SEP08	△ Venturi Pump Equip. Functional Test																							
48600	Final City Inspections	1	-191	0	18AUG08	18AUG08	△ Final City Inspections																							

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Fully B-
 Target Bar
 Progress Bar
 Critical Activity

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Activity ID	Activity Description	Rem Dur	Total Float	%	Early Start	Early Finish	2008												2009											
							JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
14040	Issue C.O.	3	-191	0	18AUG08	21AUG08	▽ Issue C.O.																							
48610	Pre-Power City Inspections	1	-145	0	23SEP08	23SEP08	▽ Pre-Power City Inspections																							
48300	Final Check-Out Dry Run	10	-182	0	28SEP08	10OCT08	▬ Final Check-Out Dry Run																							
48400	Process Start-Up Wet Product	5	-271	0	11OCT08	15OCT08	▬ Process Start-Up Wet Product																							
48620	Stack Testing	20	-176	0	13OCT08	07NOV08	▽ Stack Testing																							
48600	Acceptance Testing	45	-271	0	16OCT08	29NOV08	▬ Acceptance Testing																							
48700	Final Acceptance	0	-190	0		01DEC08	◆ Final Acceptance																							
OFFSITE UTILITIES																														
53900	Approve Resubmittal of Pumps & Controls	10	-81	33	30DEC07A	08FEB08	▽ Approve Resubmittal of Pumps & Controls																							
53700	Fab/Del Pumps & Controls	60	-50	0	11FEB08	02MAY08	▽ Fab/Del Pumps & Controls																							
84800	FPL Power Drop	58	-38	7	12OCT08A	28MAR08	▽ FPL Power Drop																							
84215		1	22	0	31JAN08	31JAN08	▽																							
84500	Install Power & Controls	10	-50	0	28APR08	08MAY08	▽ Install Power & Controls																							
64400	Install Pumps	5	-50	0	05MAY08	09MAY08	▽ Install Pumps																							
64210	Water Active	0	-50	0		12MAY08	◆ Water Active																							
64800	Start-up Lift Station	1	-50	0	12MAY08	12MAY08	▽ Start-up Lift Station																							

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Legend:
 ▬ Daily Bar
 ▬ Target Bar
 ▬ Progress Bar
 ▬ Critical Activity

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 Remaining Schedule by Phase of Work

Date	Revision	Checked	Approved

ATTACHMENT C



Memorandum

*To: Disha Shah and Cynthia Hibbard
CDM*

*From: Frank Sapienza
CDM*

Date: February 23, 2008

Subject: Update of BACT Analysis

*Project: Air Permit Application for Biosolids Pelletization Facility for
Solid Waste Authority of Palm Beach County, FL*

The purpose of this memorandum is to update the Best Available Control Technology (BACT) analysis submitted for the Biosolids Pelletization Facility (BPF) for the Solid Waste Authority of Palm Beach County (SWA), Florida.

Review of BACT Applicability and Methodology

The BACT analysis evaluates control technologies for nitrous oxides (NO_x) and particulate matter (PM) for the 135 dtpd (675 wtpd) BPF. The BPF contains two trains (i.e. two biosolids dryers and associated APC systems.) The total maximum potential NO_x emission rate from the two BPF trains will be approximately 49 tons per year, which is greater than the Prevention of Significant Deterioration (PSD) significant net emissions increase level for a Major Modification (i.e. 40 tons per year). In addition, the total maximum potential PM emission rate will be approximately 21 tons per year; this exceeds the PSD significant net emissions increase level (15 tons per year of PM₁₀). (Rule 62-212.400(2)(e)2., F.A.C.) Therefore, since the project's NO_x and PM emissions constitute PSD significant net increases for these two pollutants, the new facility is classified as a Major Modification and a BACT analysis is required for the two pollutants that exceed the PSD significance level. All other maximum potential air pollutant emission rates for the BPF will be below the PSD significant net emissions increase levels.

A BACT analysis is an evaluation of the "best available" air pollution control technology for a particular emission source and for particular pollutants (in this case PM and NO_x). The evaluation must consider the environmental, economic and energy impacts of each control technology. Furthermore, the analysis must be "top-down," that is, it must start with the most

stringent control alternative and work down to the least effective control alternative. The most effective control technology which is determined to be technically and economically feasible is BACT.

Update of BACT Analysis

The US EPA RACT/BACT/LEAR Clearinghouse database was searched again to determine if any new BACT determinations had been recorded for municipal biosolids drying plants in the USA. The only municipal biosolids dryer facility listed in the database was this project, the BPF for the SWA. In addition, based on CDM's contacts with dryer manufacturers, no new dryer facilities with more advanced air pollution control systems have been proposed or have come on line within the last year.

NO_x Control Technology Review

The NO_x control technologies evaluated in the BACT were:

1. Low Temperature Selective Catalytic Reduction
2. Low Temperature Ozone Oxidation
3. Multi-Chemical Wet Scrubbing System
4. Low NO_x Burner and Acid Addition

The first three NO_x control technologies listed have not been applied to a municipal biosolids dryer facility as of this submittal date. The technical and economic evaluations presented in the BACT analysis are still valid with the exception that the costs to implement these technologies have most likely increased slightly due to inflation. Since the application of these technologies to a biosolids dryer facility has not changed and their associated capital and operations and maintenance costs have not significantly changed, then the cost per ton of NO_x removed has essentially remained the same or slightly increased. Each of these three technologies had very high costs per ton of NO_x removed, ranging from \$17,700/ton to \$29,900/ton, and were judged to be economically infeasible. The present day costs for these technologies would be essentially the same, if not slightly higher, and therefore these technologies are still judged to be economically infeasible.

The fourth control technology, Low NO_x Burner and Acid Addition, would accomplish 50 percent control of NO_x and would still have a low cost per ton of NO_x removed of approximately \$2,900/ton. Since the Low NO_x Burner and Acid Addition alternative is both technically and economically feasible, it is still BACT for the BPF.

PM Control Technology Review

The base case for PM control is an impingement tray scrubber/condenser with dryer exhaust recirculation which will achieve 97 percent control of PM and an emission rate of 2.42 lb of PM/hr-dryer. The following PM control technologies were evaluated in the BACT:

1. Fabric Filter
2. Dry Electrostatic Precipitator (Dry ESP)
3. Wet Electrostatic Precipitator (Wet ESP)

The technical and economic evaluation of these control technologies has not changed significantly since the initial BACT submittal. The use of a fabric filter on a biosolids dryer would still be technically risky due to the potential for blinding of the filter medium. In addition the unit removal cost of this alternative would still be very high at approximately \$26,700/ton.

The use of a Dry ESP is still judged to be technically risky due to the likelihood of condensation, corrosion and fouling inside the ESP. The unit cost of \$31,600/ton has not changed significantly since the BACT was submitted, and therefore it is still judged to be economically infeasible.

The Wet ESP is technically feasible and could be applied to a biosolids dryer. The unit cost of adding a Wet ESP is still very high at approximately \$29,400/ton and hence it is still judged to be economically infeasible. Since all of the proposed PM control technologies are still economically infeasible, BACT for PM control is the base case which consists of an impingement tray scrubber which serves as a condenser and particulate scrubber. The impingement tray scrubber will control PM emissions to 10.6 tons per year for each train, a total of 21.2 tons of PM per year for both trains.