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March 17, 2011

Mr. Scott Sheplak, P.E.
Florida Department of Environmental Protection
Title V Section
Mail Station No. 5505
2600 Blair Stone Road
Tallahassee, Florida 32399

Subject: Solid Waste Authority of Palm Beach County
North County Resource Recovery Facility
Title V Air Operation Permit Renewal Application
Additional Information, File Numbers 0990234-020-AV and 0990234-019-AC

Dear Mr. Sheplak:

This letter is in response to the Request for Additional Information dated January 10, 2011. Our responses are as follows:

Question No. 1: **<u>Renewal Compliance Testing Requirements</u>: The emissions units in operation under this permit renewal project, e.g., two municipal solid waste boilers Nos. 1 and 2 with auxiliary burners, were required to test prior to renewal.**

A) <u>Steam Production Rates and Capacity</u> – What were the steam production rates in lbs/hour during the capacity tests? Were the compliance tests conducted within 90-100% of capacity as required by specific conditions T.12. of Permit No. 0990234-016-AV?

B) <u>Municipal Solid Waste Boiler Parameters</u> – Were the maximum demonstrated unit loads, the maximum demonstrated inlet temperatures to the particulate matter emission control devices and the average carbon mass feed rates provided in the compliance test report(s)? What were the values during compliance testing?

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Response:

A) The steam production rates during the compliance tests can be found in **Attachment A**. **Tables 1-A** below shows the percent capacity for Boiler 1during each of the tests; **Table 1-B** shows the same for Boiler 2.

B) **Table 2** below shows the maximum unit loads and maximum demonstrated inlet temperatures to the electrostatic precipitator during the compliance tests.

The activated carbon injection system was not in place at the time of the January 2010 compliance test and therefore was not part of this permit renewal application. It is currently being installed as part of the refurbishment project. Average carbon mass fee rates will be provided when the Title V permit is revised after the refurbishment project is complete.

Table 1-A: Percent Capacity for Steam Flow for Boiler 1 during Compliance Testing[1]

Steam Flow Capacity	324,000	lbs/hr	per 0990234-016-AV	
Run	**Date**	**Pollutant**	**Average Steam Flow (lbs/hr)**	**Percent Capacity**
1	1/12/2010	Dioxins/Furans	303,700	
2	1/13/2010	Dioxins/Furans	302,500	
3	1/13/2010	Dioxins/Furans	294,300	
Average for Dioxins/Furans for Boiler 1			***300,167***	***92.6%***
1	1/12/2010	Particulate Matter	302,500	
2	1/12/2010	Particulate Matter	303,100	
3	1/12/2010	Particulate Matter	303,300	
Average for Particulate Matter for Boiler 1			***302,967***	***93.5%***
1	1/15/2010	Hydrogen Chloride	296,200	
2	1/15/2010	Hydrogen Chloride	296,300	
3	1/15/2010	Hydrogen Chloride	294,200	
Average for Hydrogen Chloride forBoiler 1			***295,567***	***91.2%***
1	1/14/2010	Trace Metals (Pb, Hg, & Cd)	301,300	
2	1/14/2010	Trace Metals (Pb, Hg, & Cd)	293,900	
3	1/14/2010	Trace Metals (Pb, Hg, & Cd)	300,200	
Average for Trace Metals for Boiler 1			***298,467***	***92.1%***
Test Program Average - Boiler 1			**299,292**	**92.4%**

[1] The values presented in this table are not 4-hour block averages. They are averages for steam flow taken during the test runs.

Table 1-B: Percent Capacity for Steam Flow for Boiler 2 during Compliance Testing[1]

Steam Flow Capacity	324,000	lbs/hr	per 0990234-016-AV	
Run	**Date**	**Pollutant**	**Average Steam Flow (lbs/hr)**	**Percent Capacity**
1	1/18/2010	Dioxins/Furans	301,500	
2	1/18/2010	Dioxins/Furans	300,200	
3	1/20/2010	Dioxins/Furans	288,500	
Average for Dioxins/Furans for Boiler 2			***296,733***	***91.6%***
1	1/20/2010	Particulate Matter	289,500	
2	1/20/2010	Particulate Matter	285,900	
3	1/20/2010	Particulate Matter	289,400	
Average for Particulate Matter for Boiler 2			***288,267***	***89.0%***
1	1/15/2010	Hydrogen Chloride	293,900	
2	1/15/2010	Hydrogen Chloride	294,600	
3	1/15/2010	Hydrogen Chloride	300,200	
Average for Hydrogen Chloride for Boiler 2			***296,233***	***91.4%***
1	1/19/2010	Trace Metals (Pb, Hg, & Cd)	296,400	
2	1/19/2010	Trace Metals (Pb, Hg, & Cd)	298,200	
3	1/19/2010	Trace Metals (Pb, Hg, & Cd)	291,300	
Average for Trace Metals for Boiler 2			***295,300***	***91.1%***
Test Program Average - Boiler 2			294,133	90.8%

[1] The values presented in this table are not 4-hour block averages. They are averages for steam flow taken during the test runs.

Table 2: Maximum Unit Loads and Temperatures during Compliance Testing

Dioxins/Furans				
Run	**Date**	**Unit**	**Average Steam Flow (lbs/hr)**	**Average Temperature (°F)**
1	1/12/2010	1	303,700	295.1
2	1/13/2010	1	302,500	295.1
3	1/13/2010	1	294,300	295.1
Maximum for Boiler 1		*1*	*303,700*	*295.1*
1	1/18/2010	2	301,500	294.7
2	1/18/2010	2	300,200	294.4
3	1/20/2010	2	288,500	295.6
Maximum for Boiler 2		*2*	*301,500*	*295.6*

Question No. 2: **Compliance Assurance Monitoring (CAM) for the Biosolids Pelletization Facility (BPF):**

A) The Monitoring Approach in Table 1 shows pressure drop across the scrubber as Indicator No. 1 and water flow through the scrubber as Indicator No. 2. The justification indicates that water flow is the primary indicator (Indicator No. 1). I assume water flow is Indicator No. 1?

B) Please provide a Microsoft Word version of the proposed CAM Plan.

Response:

A) Water flow is Indicator No. 1. Table 1 in the CAM plan has been revised to show water flow as Indicator No. 1 and pressure drop as Indicator No. 2. The revised CAM plan can be found in **Attachment B**.

B) A Microsoft *Word* version of the CAM Plan will be submitted electronically and is also included on the attached CD.

Question No. 3: ***New* Applicable Requirements – Federal Regulation Amendments, Municipal Waste Combustors (MWC) 40 Code of Federal Regulations (CFR) 60, Subpart Cb:**

U.S. EPA amended 40 CFR 60, Subparts Eb & Cb. The amendments had been promulgated by U.S. EPA on May 10,2006, and were adopted by reference into the Florida rules on May 31, 2007, at Rule 62-204.800(8)(b)7., Florida Administrative Code (F.A.C.) and Rule 62-204.800(9)(b), F.A.C. Note certain exceptions were made in the State of Florida's adoption of 40 CFR 60, Subpart Cb in Rule 62-204.800(9)(b), F.A.C. {excerpts of the rule adoption with the exceptions are enclosed}.

The new emission standards/limits took effect April 28, 2009 (compliance deadline) for all of the amendments.

As part of these amendments, the emission standards/limits in particular for dioxin/furan (D/F), lead (Pb), cadmium (Cd), mercury (Hg) and particulate matter (PM) were lowered for 'existing' units (Cb units). The chart below shows some of the air pollutant emission standards/limits which were lowered.

Air Pollutant	Federal Cb Emission Standard/Limit from:	Federal Cb Emission Standard/Limit to:
D/F	60 nanograms/dscm	35 nanograms/dscm
Pb	0.44 milligrams/dscm	0.40 milligrams/dscm
Cd	0.04 milligrams/dscm	0.035 milligrams/dscm
Hg[1]	70 micrograms/dscm	50 micrograms/dscm
PM	27 milligrams/dscm	25 milligrams/dscm

[1] Note. Florida Rule 62-296.416, F.A.C., Limits Hg to 70 micrograms/dscm

The amendments also changed test scheduling & frequency and provide an array of options for the use of new continuous emissions monitoring system (CEMS) technology for Hg, dioxin, multi-metal & hydrogen chloride (HCl) emissions.

A) Thank you for preparing the chart in Attachment J of the permit application, comparing the PSD best available control technology (BACT) emission standards/limits to the federal

Cb limits. Please prepare a similar chart showing the PSD BACT emission standards/limits vs. the federal Cb limits for Units 1 and 2 in the same units of measure. Please highlight the most stringent emission standard/limit for each pollutant in the chart.

B) Were any modifications to the units necessary to comply with the federal amendment changes?

Response:

A) A comparison table of the PSD BACT emissions standards with the Federal C_b limits is included in **Attachment C**. Additionally, Attachment C includes revisions to the emissions calculations that were previously submitted in Attachment J of the EPSAP application. The revisions are a result of first converting the PSD-FL-108 A to equivalent units as the Federal 40 CFR 60 Subpart C_b emissions limits using EPA Method 19 and then determining the more stringent limit. The more stringent limit was then utilized to determine the potential emissions in tons per year. Previously, in Attachment J of the EPSAP application, the comparison between the PSD-FL-108 A and the Federal C_b limits was made after the potential emissions calculations were computed for the facility on a tons per year basis.

B) No modifications to the units were required to comply with the federal amendment changes.

It is understood that the test schedule window for HCl and fugitive ash emissions was not updated in the federal register. The NCRRF will remain on the old federal fiscal year schedule until the correction is made by EPA at which time the NCRRF will also make the correction.

Question No. 4: **<u>Cooling Towers</u>: "WTE Cooling Towers (3)" are listed in Attachment D of the permit application as unregulated emissions units and/or activities. The previous Title Vpermit only included one (1) cooling tower in Appendix U.**

A) These two cooling towers are also referred to as "BPF Cooling Tower Train Nos. 1 & 2" currently in Appendix I, List of

Insignificant Emissions Units and/or Activities. Are the additional cooling towers from the BPF?

B) In Attachment N of the permit application, calculations are shown for "all 3 towers." Does this include the two cooling towers from the BPF?

The two BPF cooling towers need to be included in either Appendix I or U. We can discuss the appropriate classification further.

C) The current Title V permit indicates that the BPF cooling towers do not used chromium-based water treatment chemicals. Does the previously cited one cooling tower use chromium-based water treatment chemicals?

Response:

A) No, the additional cooling towers are not from the BPF. EU018 refers to the three cooling towers at the NCRRF Waste to Energy (WTE) plant. EU018 was listed in the previous Title V permits as only one cooling tower; however, there are actually three cooling towers located at the WTE plant. The 2005 EPSAP renewal application called EU018 "Cooling Tower" but noted in the comment that there are three cooling towers.

There are two cooling towers at the Biosolids Pelletization Facility (BPF). They are referred to as Cooling Tower Train #1 (EU013) and Cooling Tower Train #2 (EU015). These cooling towers are not related to nor associated with the WTE plant.

B) No, Attachment N does not include the two cooling towers from the BPF. It only contains the emissions calculations for the three WTE Cooling Towers (EU018). The emissions calculations for the BPF Cooling Towers were previously submitted under a recent Title V revision for the facility and were deemed insignificant.

The BPF Cooling Towers (EU013 and EU015) are insignificant emissions units per Rule 62-213.430(6), F.A.C., as listed in Attachment D to the permit application.

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They emit less than 5 tons per year of any regulated pollutant. EU018 is an unregulated emissions unit because it does not have any emissions limits. It is significant because each cooling tower of EU018 emits greater than 5 tons per year of particulate matter as seen in Attachment N of the permit application.

C) The three (3) WTE Cooling Towers (EU018) do not use chromium-based water treatment chemicals.

Question No. 5: **<u>Landfills</u>: Is the Class III landfill still accepting asbestos waste disposal material?**

Response:

Yes, the Class III landfill is accepting minimal asbestos waste material.

We trust that these responses adequately address each question. If you need further clarification, feel free to contact me at 561-689-3336.

Very truly yours,

3/17/2011

Manuel J. Hernandez, P.E.
No. 59796
Project Manager
Camp Dresser & McKee Inc.

MJH/aat

Enclosures

File: 2678-78434.02.01

cc: Mr. Mark Hammond, SWA
Mr. Mark McLean, SWA
Ms. Mary Beth Morrison, SWA
Ms. Cynthia Hibbard, CDM

ec: Mr. Mike Halpin, P.E., DEP Siting
Mr. Lennon Anderson, P.E., DEP SED
Mr. James Stormer, PBCHD
Ms. Barbara Friday, DEP BAR
Ms. Victoria Gibson, DEP BAR

ATTACHMENT A

WTE Stack Test Steam Production Rates

1.0 COMPENDIUM (cont'd)

TABLE 1:1:
EMISSIONS AND EPA TEST METHODS

Particulate Matter-Outlet	**EPA METHOD 5**
Hydrogen Chloride-Inlet /Outlet	**EPA METHOD 26**
Trace Metals (Pb, Hg, & Cd)-Outlet	**EPA METHOD 29**
VOC as Total Hydrocarbons-Outlet	**EPA METHOD 25A**
Sulfur Dioxide-Inlet /Outlet **Nitrogen Oxides**-Outlet **Carbon Monoxide**-Inlet **Carbon Dioxide/Oxygen**-Inlet/Outlet	**EPA METHOD 6C** **EPA METHOD 7E** **EPA METHOD 10** **EPA METHOD 3A**
Polychlorinated Dibenzo-p-Dioxins-Outlet **Polychlorinated Dibenzo-furans** **Tetra through Octa PCDD/DF**	**EPA METHOD 23**
Visible Emissions (Opacity)-Boilers & Ash House	**EPA METHODS 9 & 22**

1.0 COMPENDIUM (cont'd)

The following table **(Table 1-3)** summarizes boilers 1 and 2 emission test program schedule. The tests were conducted during the period January 12 to January 20, 2010. In accordance with FDEP requirements, all the tests were performed in triplicate.

TABLE 1-3:
TEST SCHEDULE

DATE	LOCATION	TEST	TIME
Day 1 - 1/12/10	Boiler 1 Outlet	B1-M5-R1 (soot blowing period)	0822-1027
		B1-M23-R1	1230-1645
		B1-M5-R2	1115-1330
		B1-M5-R3	1353-1601
Day 2 - 1/13/10	Boiler 1 Outlet	B1-M23-R2 B1-M23-R3	0732-1150 1220-1644
		B1-M29-R1	0810-1015
Day 3 – 1/14/ 10	Boiler l Outlet	B1-M29-R2	1030-1247
		B1-M29-R3	1306-1515
Day 4 –1 /15/10	Boiler 1 Inlet & Outlet	B1- M26-R1 B1-CEM (M3A, M6C, M7E, M10, 25A)-R1	0905-1005 0905-1005
		B1-M26-R2 B1-CEM M3A, M6C, M7E, M10, 25A)-R2	1030-1130 1030-1130
		B1-M26-R3 B1-CEM M3A, M6C, M7E, M10, 25A)-R3	1205-1305 1205-1305
	Boiler 2 outlet	B2-M26-R1 B2-CEM (M3A, M6C, M7E, M10, 25A)-R1	1436-1548 1436-1548
		B2-M26-R2 B2-CEM (M3A, M6C, M7E, M10, 25A)-R2	1610-1710 1610-1710
		B2-M26-R3 B2-CEM (M3A, M6C, M7E, M10, 25A)-R3	1740-1840 1740-1840
Day 5- 1/18/10	Boiler 2 Inlet & Outlet	B2-M23-R1	0800-1215
		B2-M23-R2	1245-1700
Day 6- 1/19/10	Boiler 2 Outlet	B2-M29-R1	0950-1200
		B2-M29-R2	1250-1458
		B2-M29-R3	1515-1723
Day 7- 1/20/10	Boiler 2 Outlet	B2-M5-R1 (soot blowing period)	0732-0940
		B2-M23-R3	0915-1330
		B2-M5-R2	0955-1200
		B2-M5-R3	1220-1425
		M22 on the Ash House	1110- 1710
		The Method 9 test on each boiler was conducted during the first hour of the first Method 5 tests.	

1.0 COMPENDIUM (cont'd)

TABLE 1:9:
SUMMARY OF THE AVERAGE STEAM FLOW DURING THE TESTS

Date	Boiler No.	Run No.	Start Time	End Time	Average Steam Load Klbs/hour	Average Temp. deg. (F)
1/12/10	1	B1-M5-R1	0822	1027	302.5	295.2
1/12/10	1	B1-M5-R2	1115	1330	303.1	295.1
1/12/10	1	B1-M5-R3	1352	1601	303.3	295.1
1/12/10	1	B1-M23-R1	1230	1645	303.7	295.1
1/13/10	1	B1-M23-R2	0732	1150	302.5	295.1
1/13/10	1	B1-M23-R3	1220	1644	294.3	295.1
1/15/10	1	B1-M26-R1	0905	1005	296.2	295.2
1/15/10	1	B1-M26-R2	1030	1130	296.3	295.2
1/15/10	1	B1-M26-R3	1205	1305	294.2	295.1
1/14/10	1	B1-M29-R1	0810	1015	301.3	295.1
1/14/10	1	B1-M29-R2	1030	1247	293.9	295.1
1/14/10	1	B1-M29-R3	1306	1515	300.2	295.1
1/20/10	2	B2-M5-R1	0732	0940	289.5	294.2
1/20/10	2	B2-M5-R2	1010	1220	285.9	294.6
1/20/10	2	B2-M5-R3	1250	1456	289.4	294.4
1/18/10	2	B2-M23-R1	0800	1215	301.5	294.7
1/18/10	2	B2-M23-R2	1245	1700	300.2	294.4
1/20/10	2	B2-M23-R3	1250	1655	288.5	295.6
1/15/10	2	B2-M26-R1	1436	1548	293.9	294.6
1/15/10	2	B2-M26-R2	1610	1710	294.6	294.7
1/15/10	2	B2-M26-R3	1740	1840	300.2	295.1
1/19/10	2	B2-M29-R1	0950	1200	296.4	294.6
1/19/10	2	B2-M29-R2	1250	1458	298.2	294.7
1/19/10	2	B2-M29-R3	1515	1723	291.3	294.3

ATTACHMENT B

Revised CAM Plan

(Microsoft *Word* version is on the attached CD)

Additional Information
File Numbers 0990234-020-AV
and 0990234-019-AC

BPF CAM Plan

SUBMITTED TO:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

March 17, 2011

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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

Final
October 28, 2010

COMPLIANCE ASSURANCE MONITORING PLAN:
Biosolids Pelletization Facility - Sludge Dryer – Tray 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
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

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.

TABLE 1 - MONITORING APPROACH

	Indicator No. 1	Indicator No. 2
I. Indicator	Water flow through wet scrubber	Pressure drop across wet 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 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 gallons/minute, this triggers an inspection, corrective action, and reporting.	An excursion is defined as a pressure drop less than 6.0 inches of water 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 inches, 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 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.
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.
Averaging Period	1-minute average	1-minute average

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 venturi 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 venturi scrubber. The water flow rate to the tray scrubber and the pressure drop between the gas inlet and outlet 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

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. H_2O. 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. H_2O, 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. H_2O. 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.

Impinjet® Scrubbers

Collect Particulates and Absorb Odors, Vapors and Gases

Rugged and uncomplicated in design, Impinjet Scrubbers can realize efficiencies in excess of 99% on many types of dust or gases.

Both particle collection and absorption of gases, odors, vapors, etc. can be done at the same time.

Ready for Today...Ready for the Future

Unique flexibility is furnished by Impinjet Scrubbers. Made with the future in mind, additional stages can be added to existing installations to improve efficiency to handle tomorrow's requirements–*without increasing liquid consumption*. There is no need to buy complete new units.

For Cooling & Condensing, Too

The outlet gas can be cooled to less than 5°F above the temperature of the incoming liquid. Often solvents such as alcohols, pentane, hexane, acetone, ethylene glycol, chloroform, etc. are recovered from inert gas streams such as nitrogen or carbon dioxide. Chilled solvent is used as direct contact condensing liquid and removes the heat from the gas stream as it gains heat.

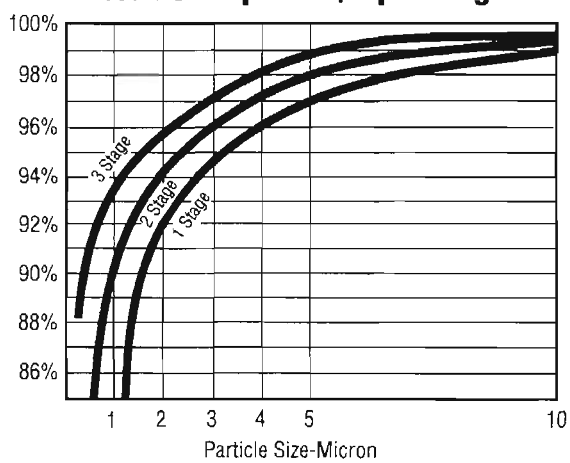
Scrubbers also recover waste heat. Heat from dryers and other processes that would normally be exhausted can be used to heat water being fed to the scrubber almost to the wet bulb temperature of the inlet gas. For cooling and condensing and for heat recovery, our designs can accommodate high hydraulic loadings.

Highlights

- High absorption efficiency for gases, odors and vapors
- Efficiencies exceeding 98% for particles 5 microns or larger
- Multiple stages can be added to improve efficiency
- Capacities from 500 to over 100,000 CFM

  Water requirements as low as 1-1/2 GPM per 1000 ACFM (typically, 3 GPM per 1000 ACFM)

Standard Impinjet Efficiency@ Pressure Drop of 1-1/2" per Stage



Pressure Drop @ 70°F.

Number on Stages	Normal Capacity (Inches, W.G.)	Max. Capacity (Inches, W.G.)
One Stage	3.0	4.25
Two Stage	4.5	6.4
Three Stage	6.0	8.5

Pressure drop is an important consideration in evaluating the efficiency expected of a scrubber in a given application and in fan, drive and motor selection.

When high efficiency is required, the use of additional stages provides a corresponding increase in pressure drop. The above chart shows

To correct pressure drop to operating conditions, multiply standard pressure drop by the ratio of outlet density to standard density.

Example: Using .0615 #/ Cu. Ft. Dry Air from Density Correction example and the 1 stage average capacity pressure drop of 3" at 70°F. (density .075) the operating

SLY INC.
TECHNOLOGY FOR A CLEAN ENVIRONMENT

July 27, 2010

Mr. Mike Thayer
NEFCO
500 Victory Road
Quincy, MA 02171

Subject: SWA Project
Impinjet Wet Scrubber
Sly Order No. RVM-1529
CAM Plan

Dear Mike,

We understand that NEFCO's client (SWAPBC) has been required by the Florida DEP to develop and implement a Compliance Assurance and Monitoring Plan because the dryer plant has been "bubbled" with another emitter on the same site. The CAM Plan requires that inferential standards be used to monitor the particulate matter collection efficiency of the Impinjet scrubbers.

The accompanying literature shows that the normal pressure drop of a three stage Impinjet such as yours is 6 inches water column. Further, the normal flow is 3 gpm per 1000 cfm, or 159 gpm, for these 53,000 acfm systems.

It should be noted that these scrubbers were designed for much higher water flows for reasons apart from particulate collection. They were also designed to act as condensers to improve dryer performance. Thus they have been supplied with much larger water flows to provide the necessary heat sink to operate as condensers. Increased water flow also raises the design pressure drop.

However, operating these scrubbers at flows as low as 159 gpm and a pressure drop of six inches will not affect the particulate collection efficiency as designed.

Yours truly,

Bill Kurz
SLY, INC.
P:(843)558-7380

Cc: Ted Kurz-Sly, Inc.

ATTACHMENT C

Comparison of PSD and Federal Emissions Standards

PSD Permit Limits and Federal Emissions Guidelines[1]

Pollutant	PSD-FL-108 A Permit Limit	Units	Averaging Time[2]	Federal EG[3]	Units	Averaging Time
Particulate Matter[4]	0.015	grains/dscf		25	mg/dscm	
NOx[4]	0.48	lb/MMBTU	24-hr block average	250	ppmvd	24-hr block average
Carbon Monoxide[4]	200	ppmvd	24-hr block average	200	ppmvd	24-hr block average
	400	ppmvd	4-hr block average			
Lead[4]	0.0004	lb/MMBTU		0.4	mg/dscm	
Mercury[4]	0.00024	lb/MMBTU		0.05	mg/dscm	
Beryllium	7.30E-07	lb/MMBTU				
Fluoride	0.0032	lb/MMBTU				
VOC	0.016	lb/MMBTU				
SO_2[4]	30	ppmvd	24-hr daily geometric mean	29	ppmvd	24-hr daily geometric mean
Hydrogen Chloride[4]	25	ppmvd		29	ppmvd	
Dioxins/Furans[5]	60	ng/dscm		35	ng/dscm	
Cadmium[4]				0.035	mg/dscm	
Opacity	10%		6-min average	10%		6-min average

Notes:

[1] Limits and emissions guidelines used for calculation purposes. In addition, percent removals apply for certain pollutants.

[2] Unless otherwise indicated, the averaging time is the average of three, one-hour performance tests.

[3] 40 CFR 60 Subpart C_b

[4] Corrected to 7% Oxygen

[5] Averaging time equals the average of three, four-hour performance tests.

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PSD Permit Limits and Federal Emissions Guidelines Comparison with Equivalent Units [1]

Pollutant	PSD-FL-108 A Permit Limit	Units	Equivalent PSD-FL-108 A Permit Limit [6]	Units	Averaging Time [2]	Federal EG [3]	Units	Averaging Time
Particulate Matter [4]	0.015	grains/dscf	34	mg/dscm		25	mg/dscm	
NOx [4]	0.48	lb/MMBTU	279	ppmvd	24-hr block average	250	ppmvd	24-hr block average
Carbon Monoxide [4]	200	ppmvd	200	ppmvd	24-hr block average	200	ppmvd	24-hr block average
	400	ppmvd	400	ppmvd	4-hr block average			
Lead [4]	0.0004	lb/MMBTU	0.45	mg/dscm		0.4	mg/dscm	
Mercury [4]	0.00024	lb/MMBTU	0.27	mg/dscm		0.05	mg/dscm	
Beryllium	7.30E-07	lb/MMBTU	7.30E-07	lb/MMBTU		-		
Fluoride	0.0032	lb/MMBTU	0.0032	lb/MMBTU		-		
VOC	0.016	lb/MMBTU	0.016	lb/MMBTU		-		
SO_2 [4]	30	ppmvd	30	ppmvd	24-hr daily geometric mean	29	ppmvd	24-hr daily geometric mean
Hydrogen Chloride [4]	25	ppmvd	25	ppmvd		29	ppmvd	
Dioxins/Furans [5]	60	ng/dscm	60	ng/dscm		35	ng/dscm	
Cadmium [4]			-			0.035	mg/dscm	
Opacity	10%		10%		6-min average	10%		6-min average

Notes:

[1] Limits and emissions guidelines used for calculation purposes. In addition, percent removals apply for certain pollutants.

[2] Unless otherwise indicated, the averaging time is the average of three, one-hour performance tests.

[3] 40 CFR 60 Subpart C_b

[4] Corrected to 7% Oxygen

[5] Averaging time equals the average of three, four-hour performance tests.

[6] PSD-FL-108A emissions limits coverted to the same units as the 40 CFR 60 Subpart Cb emissions limits.
Conversions were calculated using EPA Method 19 as shown on the next sheet.

PSD-FL-108 A Permit Limits Coversion Calculations:

Particulate Matter

$$\frac{0.015\ \text{grains}}{\text{dscf}} * \frac{1\ \text{g}}{15.43\ \text{grain}} * \frac{35.31\ \text{dscf}}{1\ \text{dscm}} * \frac{1000\ \text{mg}}{\text{g}} = \frac{\mathbf{34.3\ mg}}{\mathbf{dscm}}$$

NOx[1,3]

$$\frac{0.48\ \text{lb}}{\text{MMBtu}} * \frac{430.0\ \text{ng/J}}{\text{lb/MMBTU}} = \frac{206.4\ \text{ng}}{\text{J}}$$

$$\frac{206\ \text{ng}}{\text{J}} * \frac{1\ \text{J}}{2.57\text{E-}07\ \text{dscm}} * \frac{13.9}{20.9} = \frac{5.34\text{E+}08\ \text{ng}}{\text{dscm}}$$

$$\frac{5.34\text{E+}08\ \text{ng}}{\text{dscm}} * \frac{0.000000001\ \text{ppm NOx}}{1.91\text{E+}06\ \text{ng/dscm}^{2}} = \mathbf{279\ ppmvd}$$

Lead[1,3]

$$\frac{0.0004\ \text{lb}}{\text{MMBtu}} * \frac{430.0\ \text{ng/J}}{\text{lb/MMBTU}} = \frac{0.172\ \text{ng}}{\text{J}}$$

$$\frac{0.172\ \text{ng}}{\text{J}} * \frac{1\ \text{J}}{2.57\text{E-}07\ \text{dscm}} * \frac{13.9}{20.9} = \frac{4.45\text{E+}05\ \text{ng}}{\text{dscm}}$$

$$\frac{4.45\text{E+}05\ \text{ng}}{\text{dscm}} * \frac{0.000000001\ \text{g}}{1\ \text{ng}} * \frac{1000\ \text{mg}}{1\ \text{g}} = \frac{\mathbf{0.45\ mg}}{\mathbf{dscm}}$$

Mecury[1,3]

$$\frac{0.00024\ \text{lb}}{\text{MMBtu}} * \frac{430.0\ \text{ng/J}}{\text{lb/MMBTU}} = \frac{0.103\ \text{ng}}{\text{J}}$$

$$\frac{0.103\ \text{ng}}{\text{J}} * \frac{1\ \text{J}}{2.57\text{E-}07\ \text{dscm}} * \frac{13.9}{20.9} = \frac{2.67\text{E+}05\ \text{ng}}{\text{dscm}}$$

$$\frac{2.67\text{E+}05\ \text{ng}}{\text{dscm}} * \frac{0.000000001\ \text{g}}{1\ \text{ng}} * \frac{1000\ \text{mg}}{1\ \text{g}} = \frac{\mathbf{0.27\ mg}}{\mathbf{dscm}}$$

1. Calculation based on factor for municipal solid waste from 40 CFR 60, Appendix A-7, Method 19
2. Coversion factor from 40 CFR 60, Appendix A-7, Table 19-1.
3. Corrected to 7% oxygen

Exit Gas Flow Rate Calculations

Exist Gas Flow Rate per boiler

Dry Exhaust Flow Rate per boilder	118,174	dscfm @ 7% oxygen
Percent O_2 in Dry Exhaust Stream	8.9	%
Oxygen Correction Factor	1.16	(e.g. (20.9-7)/(20.9-8.9))
Dry Exhaust Flow Rate	136,885	dscfm

Convert dscfm to scfm 136,885 $\frac{ft^3}{min * (1-0.20)}$ = **192,443** **scfm**

	Actual Conditions	Dry Standard Conditions
Moisture content of gas	29%	0%
Temperature of gas (°F)	300	68

Convert scfm to acfm 192,443 $\frac{sft3 \quad 459.67^0 R + 300^0 F}{min * \quad 459.67^0 R + 68^0 F}$ = **277,055** **acfm**

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Potential Emission Rates - Based on PSD-FL-108A Permit Limits

Flue gas flow at stack exit	118,174	dscfm, with	7% O_2 conc.
Maximum Heat Input Rate	427.5	MMBTU/hr	
Be Concentration[1]	7.30E-07	lb/MMBTU	
Fl Concentration[1]	3.20E-03	lb/MMBTU	
VOC Concentration[1]	0.016	lb/MMBTU	
HCl Concentration[1]	25	ppmvd, corrected to	7% O_2 conc.

Fluoride Emissions

Calculated Fl emission rate:

$$\frac{3.20\text{E-}03 \ \text{lb}}{1 \ \text{MMBTU}} * \frac{427.5 \ \text{MMBTU}}{\text{hr}} * \boxed{1.4 \ \frac{\text{lb}}{\text{hr}}}$$

Calculated Fl annual emission rate:

$$\frac{1.4 \ \text{lb}}{\text{hr}} * \frac{1 \ \text{ton}}{2000 \ \text{lbs}} * \frac{24 \ \text{hour}}{1 \ \text{day}} * \frac{365 \ \text{days}}{1 \ \text{year}} = \boxed{5.99 \ \frac{\text{ton}}{\text{year}}}$$

Beryllium Emissions

Calculated Be emission rate:

$$\frac{0.00000073 \ \text{lb}}{1 \ \text{MMBTU}} * \frac{427.5 \ \text{MMBTU}}{1 \ \text{hr}} = \boxed{3.1\text{E-}04 \ \frac{\text{lb}}{\text{hr}}}$$

Calculated Be annual emission rate:

$$\frac{3.1\text{E-}04 \ \text{lb}}{\text{hr}} * \frac{1 \ \text{ton}}{2000 \ \text{lbs}} * \frac{24 \ \text{hour}}{1 \ \text{day}} * \frac{365 \ \text{days}}{1 \ \text{year}} = \boxed{1.37\text{E-}03 \ \frac{\text{ton}}{\text{year}}}$$

VOC Emissions

Calculated VOC emission rate:

$$\frac{0.016 \ \text{lb}}{1 \ \text{MMBTU}} * \frac{427.5 \ \text{MMBTU}}{1 \ \text{hr}} = \boxed{6.84 \ \frac{\text{lb}}{\text{hr}}}$$

Calculated VOC annual emission rate:

$$\frac{6.8 \ \text{lb}}{\text{hr}} * \frac{1 \ \text{ton}}{2000 \ \text{lbs}} * \frac{24 \ \text{hour}}{1 \ \text{day}} * \frac{365 \ \text{days}}{1 \ \text{year}} = \boxed{29.96 \ \frac{\text{ton}}{\text{year}}}$$

Hydrogen Chloride Emissions

Dry volumetric flow rate:

$$118{,}174 \ \frac{\text{dscfm}}{@ \ 7\% \ O_2} * \frac{1 \ \text{dscm}}{35.31 \ \text{dscf}} * \frac{1 \ \text{min}}{60 \ \text{sec}} = \frac{55.78 \ \text{dscm}}{1 \ \text{sec}}$$

Calculated HCl emission rate:

$$\frac{25.00 \ \text{mol HCl}}{1.\text{E+}06 \ \text{moles}} * \frac{41.57 \ \text{moles}}{1 \ \text{dscm}} * \frac{36.46 \ \text{g}}{1 \ \text{mole}} = \frac{0.038 \ \text{g}}{\text{dscm}}$$

$$\frac{0.038 \ \text{g}}{\text{dscm}} * \frac{55.78 \ \text{dscm}}{1 \ \text{sec}} = \boxed{2.11 \ \frac{\text{g}}{\text{sec}}} = \boxed{16.76 \ \frac{\text{lb}}{\text{hr}}}$$

Calculated HCl annual emission rate:

$$\frac{2.11 \ \text{g}}{\text{sec}} * \frac{1 \ \text{ton}}{907200 \ \text{g}} * \frac{60 \ \text{sec}}{1 \ \text{min}} * \frac{60 \ \text{min}}{1 \ \text{hour}} * \frac{24 \ \text{hour}}{1 \ \text{day}} * \frac{365 \ \text{days}}{1 \ \text{year}} = \boxed{73.47 \ \frac{\text{ton}}{\text{year}}}$$

Sources:

[1] North County Resource Recovery Facility Prevention of Significant Deterioration Air Permit and North County Resource Recovery Facility Air Operation Permit No. 0990234-004-AV

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Potential Emission Rates - Based on Federal Emission Guidelines

Flue gas flow at stack exit	118,174	dscfm, with	7% O_2 conc.
Maximum Heat Input Rate	472.5	MMBTU/hr	
PM Concentration[1]	25	mg/dscm, corrrected to	7% O_2 conc.
NO_X Concentration[1]	250	ppmvd, corrected to	7% O_2 conc.
CO Concentration[1]	200	ppmvd, corrected to	7% O_2 conc.
Pb Concentration[1]	0.4	mg/dscm, corrrected to	7% O_2 conc.
Hg Concentration[1]	0.05	mg/dscm, corrrected to	7% O_2 conc.
SO_2 Concentration[1]	29	ppmvd, corrected to	7% O_2 conc.
PCDD/PCDF Concentration[1]	35	ng/dscm, corrrected to	7% O_2 conc.
Cd Concentration[1]	0.035	mg/dscm, corrrected to	7% O_2 conc.

PM Emissions

Calculate PM emission rate:

$$\frac{25\ \text{mg}}{1\ \text{dscm}} * \frac{118{,}174\ \text{dscf}}{1\ \text{min}} * \frac{1\ \text{dscm}}{35.31\ \text{dscf}} * \frac{1\ \text{min}}{60\ \text{sec}} * \frac{1\ \text{g}}{1.E+03\ \text{mg}} = \frac{\mathbf{1.39}\ \text{g}}{\text{sec}} = \frac{11.06\ \text{lb}}{\text{hr}}$$

Calculated PM annual emission rate:

$$\frac{1.39\ \text{g}}{\text{sec}} * \frac{1\ \text{ton}}{907200\ \text{g}} * \frac{60\ \text{sec}}{1\ \text{min}} * \frac{60\ \text{min}}{1\ \text{hour}} * \frac{24\ \text{hour}}{1\ \text{day}} * \frac{365\ \text{days}}{1\ \text{year}} = \frac{\mathbf{48.47}\ \text{ton}}{\text{year}}$$

Nitrogen Oxide Emissions

Dry volumetric flow rate:

$$\frac{118{,}174\ \text{dscfm}}{@\ 7\%\ O_2} * \frac{1\ \text{dscm}}{35.31\ \text{dscf}} * \frac{1\ \text{min}}{60\ \text{sec}} = \frac{55.78\ \text{dscm}}{1\ \text{sec}}$$

Calculated NO_x emission rate:

$$\frac{250\ \text{mol NOx}}{1.E+06\ \text{moles}} * \frac{41.57\ \text{moles}}{1\ \text{dscm}} * \frac{46.01\ \text{g}}{1\ \text{mole}} = \frac{0.478\ \text{g}}{\text{dscm}}$$

$$\frac{0.478\ \text{g}}{\text{dscm}} * \frac{55.78\ \text{dscm}}{1\ \text{sec}} = \frac{\mathbf{26.67}\ \text{g}}{\text{sec}} = \frac{211.49\ \text{lb}}{\text{hr}}$$

Calculated NO_x annual emission rate:

$$\frac{26.67\ \text{g}}{\text{sec}} * \frac{1\ \text{ton}}{907200\ \text{g}} * \frac{60\ \text{sec}}{1\ \text{min}} * \frac{60\ \text{min}}{1\ \text{hour}} * \frac{24\ \text{hour}}{1\ \text{day}} * \frac{365\ \text{days}}{1\ \text{year}} = \frac{\mathbf{927.15}\ \text{ton}}{\text{year}}$$

Carbon Monoxide Emissions

Dry volumetric flow rate:

$$\frac{118{,}174\ \text{dscfm}}{@\ 7\%\ O_2} * \frac{1\ \text{dscm}}{35.31\ \text{dscf}} * \frac{1\ \text{min}}{60\ \text{sec}} = \frac{55.78\ \text{dscm}}{1\ \text{sec}}$$

Calculated CO emission rate:

$$\frac{200\ \text{mol CO}}{1.E+06\ \text{moles}} * \frac{41.57\ \text{moles}}{1\ \text{dscm}} * \frac{28.01\ \text{g}}{1\ \text{mole}} = \frac{0.233\ \text{g}}{\text{dscm}}$$

$$\frac{0.233\ \text{g}}{\text{dscm}} * \frac{55.78\ \text{dscm}}{1\ \text{sec}} = \frac{\mathbf{12.99}\ \text{g}}{\text{sec}} = \frac{103.00\ \text{lb}}{\text{hr}}$$

Calculated CO annual emission rate:

$$\frac{12.99\ \text{g}}{\text{sec}} * \frac{1\ \text{ton}}{907200\ \text{g}} * \frac{60\ \text{sec}}{1\ \text{min}} * \frac{60\ \text{min}}{1\ \text{hour}} * \frac{24\ \text{hour}}{1\ \text{day}} * \frac{365\ \text{days}}{1\ \text{year}} = \frac{\mathbf{451.54}\ \text{ton}}{\text{year}}$$

Potential Emission Rates - Based on Federal Emission Guidelines

Lead Emissions

Calculated Pb emission rate:

0.4	mg	*	118,174	dscf	*	1	dscm	*	1	min	*	1	g	=	**2.2E-02**	**g**	=	0.18 lb
1	dscm		1	min		35.31	dscf		60	sec		1.E+03	mg			**sec**		hr

Calculated Pb annual emission rate:

2.2E-02	g	*	1	ton	*	60	sec	*	60	min	*	24	hour	*	365	days	=	**0.78**	**ton**
	sec		907200	g		1	min		1	hour		1	day		1	year			**year**

Mercury Emissions

Calculated Hg emission rate:

0.05	mg	*	118,174	dscf	*	1	dscm	*	1	min	*	1	g	=	**2.8E-03**	**g**	=	0.02 lb
1	dscm		1	min		35.31	dscf		60	sec		1.E+03	mg			**sec**		hr

Calculated Hg annual emission rate:

2.8E-03	g	*	1	ton	*	60	sec	*	60	min	*	24	hour	*	365	days	=	**0.10**	**ton**
	sec		907200	g		1	min		1	hour		1	day		1	year			**year**

Sulfur Dioxide Emissions

Dry volumetric flow rate:

118,174	dscfm	*	1	dscm	*	1	min	=	55.78	dscm
	@ 7% O_2		35.31	dscf		60	sec		1	sec

Calculated SO_2 emission rate:

29	mol SO2	*	41.57	moles	*	64.07	g	=	7.72E-02	g
1.E+06	moles		1	dscm		1	mole			dscm

7.72E-02	g	*	55.78	dscm	=	**4.31**	**g**	=	34.16 lb
	dscm		1	sec			**sec**		hr

Calculated SO_2 annual emission rate:

4.31	g	*	1	ton	*	60	sec	*	60	min	*	24	hour	*	365	days	=	**149.76**	**ton**
	sec		907200	g		1	min		1	hour		1	day		1	year			**year**

Dioxins/Furans (PCDD/PCDF) Emissions

Calculated PCDD/PCDF emission rate:

35	ng	*	118,174	dscf	*	1	dscm	*	1	min	*	1	g	=	**2.E-06**	**g**	=	1.55E-05 lb
1	dscm		1	min		35.31	dscf		60	sec		1.E+09	ng			**sec**		hr

Calculated PCDD/PCDF annual emission rate:

2.0E-06	g	*	1	ton	*	60	sec	*	60	min	*	24	hour	*	365	days	=	**6.79E-05**	**ton**
	sec		907200	g		1	min		1	hour		1	day		1	year			**year**

Cadmium Emissions

Calculated Cd emission rate:

0.035	mg	*	118,174	dscf	*	1	dscm	*	1	min	*	1	g	=	**2.0E-03**	**g**	=	0.02 lb
1	dscm		1	min		35.31	dscf		60	sec		1.E+03	mg			**sec**		hr

Calculated Cd annual emission rate:

2.0E-03	g	*	1	ton	*	60	sec	*	60	min	*	24	hour	*	365	days	=	**0.07**	**ton**
	sec		907200	g		1	min		1	hour		1	day		1	year			**year**

Sources:

[1]Federal Emissions Guidelines (40 CFR 60.33)

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Summary of Potential Emissions for EU 001 and EU 002

Pollutant	Controlled Emissions		
	lb/hr	TPY	Limit (Federal/PSD)
Particulate Matter	11.06	48.47	Federal
NOx	211.49	927.15	Federal
Carbon Monoxide	103.00	451.54	Federal
Lead	0.18	0.78	Federal
Mercury	0.02	0.10	Federal
Beryllium	3.12E-04	1.37E-03	PSD
Fluoride	1.37	5.99	PSD
VOC	6.84	29.96	PSD
SO_2	34.16	149.76	Federal
Hydrogen Chloride	16.76	73.47	PSD
PCDD	1.55E-05	6.79E-05	Federal
Cadmium	0.02	0.07	Federal

Federal: 40 CFR 60 Subpart C_b
PSD: PSD-FL-108 A

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