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December 22, 2003

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DEC 24 2003

BUREAU OF AIR REGULATION

Mr. Scott M. Sheplak, P.E.
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

*Document was received
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12/22/3 at 15:38hrs
[Signature]*

**RE: Pinellas County Resource Recovery Facility
Title V Air Operation Permit Revision
DRAFT Permit Project No.: 1030117-005-AV
Revision to Title V Permit No. 1030117-002-AV
Comments to Draft Revision**

On November 3, 2003, the Florida Department of Environmental Protection (FDEP) issued a draft revised Title V operating permit for the Pinellas County (County) Resource Recovery Facility (Facility). The purpose of this letter is to request that FDEP include a number of County requested revisions that were not included in the draft permit. These items were discussed during a meeting on December 12, 2003 between County representatives and FDEP personnel.

Comment No. 1 – Quarterly Reporting of Excess Emissions

Condition B.77 contains the following verbiage:

"Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or submit a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; **or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted;** or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked..." **(emphasis added)**

[40 CFR 60.7(c)(1), (2), (3), and (4)]

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As part of EPA's recordkeeping and reporting burden reduction efforts, the text bolded in the excerpt above was removed from the EPA rule in a rulemaking action dated February 12, 1999 (Federal Register Volume 64, Number 29). *Therefore, the County requests that FDEP remove the excerpt from Condition B.77.*

The applicable subpart for large-unit MWCs (i.e., Subpart Eb as referenced by Subpart Cb) requires semiannual reporting of excess emissions [see 40 CFR § 60.59b(h) and Condition B.85]. To our knowledge, the Administrator has not made a case-by-case determination that more frequent reporting is required for the Facility. Therefore, for federal regulatory purposes, the required excess emissions reporting frequency is semiannual.

Condition B.90 requires quarterly excess emissions reporting, referencing Rule 63-213.440, F.A.C., which is the FDEP regulatory text regarding the required content of Title V operating permits. The section of this rule pertinent to excess emissions reporting is subsection 63-213.440(1)(b)3., which states the following:

“Each permit shall incorporate reporting requirements as follows:

- a. Submittal of reports of any required monitoring at least every 6 months. All instances of deviations from permit requirements must be clearly identified in such reports;
- b. Reporting, in accordance with requirements of subsection 62-210.700(6) and Rule 62-4.130, F.A.C., of deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.”

Item a. above contains a semiannual reporting frequency (as opposed to the quarterly frequency included in Condition B.90). The reference to subsection 62-210.700(6) is already implemented by Condition B.89, which requires a quarterly excess emissions report if requested by the DEP Southwest District Office. Finally, subsection 62-4.130 requires a facility to notify the FDEP if the permittee is temporarily unable to comply with any condition of their permit due to equipment breakdown or destruction, but contains no additional reporting requirements.

Because the underlying federal requirement for quarterly excess emissions reporting has been removed and FDEP rules do not contain any explicit quarterly reporting requirements, *the County requests that the phrase “calendar quarter” in Condition B.90 be changed to “semiannual period”*. As a note, Joe Cox of FDEP's Southwest District Office was contacted by Mr. Jeff Frensdorf of Wheelabrator Pinellas, Inc. to discuss this issue. Mr. Cox stated that he would support a change of reporting frequency from quarterly to semiannual. As a final note, the County will continue to notify FDEP of instances when excess emissions occur as a result of

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malfunctions (per Condition B.89) and, if requested by FDEP Southwest District Office personnel, will prepare and submit a quarterly report.

Comment No. 2 – Startup, Shutdown, and Malfunction

Conditions B.37.1 and B.37.2 of the draft permit are almost identical, except for the introductory phrase. During the December 12, 2003 meeting with the County, FDEP personnel stated that Condition B.37.1 should be deleted. *The County requests that FDEP delete Condition B.37.1 and renumber the remaining two portions of Condition B.37.*

Comment No. 3 – Excess Emissions

Condition B.38 allows excess emissions resulting from startup, shutdown, and malfunction for three hours in any 24-hour period. While the time frame of three hours is consistent with the general exemption language for municipal waste combustors (MWC) in the federal MWC regulations, the 24-hour limitation is not consistent.

The FDEP's Title V permits for the Hillsborough County facility (Permit No. 0570261-005-AV), City of Tampa McKay Bay facility (Permit No. 0570127-001-AV), and Palm Beach County facility (Permit No. 0990234-004-AV) each allow excess emissions for three hours "per occurrence". To reflect the underlying federal MWC requirements, and to achieve consistency with the FDEP's other MWC permits, the County requests that FDEP replace the phrase "in any 24 hour period" with "per occurrence" in Condition B.38.

Condition B.37.3 incorporates EPA's recognition that certain boiler malfunctions may require up to 15 hours to safely address and correct. To better reflect the underlying federal requirement, *the County requests that Condition B.37.3 be revised as follows, consistent with Condition B.7(d) in the recent Lee County PSD permit:*

B.37.3 Due to safety and equipment concerns, the SSM exemption period is allowed to be extended to a maximum of 15 hours in certain circumstances. The extended exemption applies only to CO emission limits in §60.53b(a) i.e., combustor operating practices during the following two situations:

- A loss of boiler water control (e.g., boiler waterwall tube failure); or
- A loss of combustion air control (loss of a combustion air fan, loss of an induced draft fan, or combustion grate bar failure).

Normal operating practices for controlling CO emissions involves the use of auxiliary fuel burners. However, use of these burners when operators cannot control boiler water or combustion air could result in the possibility of an explosion or severe damage to the MWC.

Comment No. 4 – Metals Recovery System and Ash Conditioning Building Scrubbers

As we discussed during the December 12, 2003 meeting, the County would like to request a revision to the Title V permit relating to the wet scrubbers. The Ash Conditioning Building (ACB) wet scrubber (Emission Unit ID No. 008) controls no specific sources inside the ACB.

Two pickup points are located in the ACB to control dust levels inside the ACB, primarily for worker comfort. The Material Recovery System (MRS) wet scrubber (Emission Unit ID No. 005) has a pickup point at the shredder/crusher to control dust inside the MRS enclosure whenever the shredder/crusher is operating and when deemed necessary by the operator. When operated, the wet scrubbers would emit particulate matter (PM). When dust levels inside the ACB or MRS enclosure do not warrant operation of the wet scrubbers, any minor amounts of dust would mostly remain inside the associated structures. Any emissions that might occur from ventilation fans, doors, or other openings would be regulated by the MWC fugitive ash EG limits in 40 CFR 60.36b and 40 CFR 60.55b as specified by Title V Permit Specific Conditions III.B.31 and III.B.53. As a practical matter, the ash is moist when it is delivered to the ACB, thus minimizing the potential for dust.

The current language in the Title V permit in Subsection C could be construed to require continuous operation of these devices as air pollution control devices whenever ash processing or material recovery operations were occurring. However, continuous operation of these devices is unnecessary. It would be more appropriate to consider the wet scrubbers as air pollution sources rather than air pollution control equipment. *Therefore, the County requests the following changes to Specific Condition III.C.3:*

From:

C.3 Hours of Operation. Each unit may operate continuously, i.e., 8,760 hrs/yr.

To:

C.3 Hours of Operation. Each unit may operate continuously, i.e., 8,760 hrs/yr. Operation of the two wet scrubbers (Emission Unit ID Nos. -003 and -005) is at the discretion of the operator as necessary to control dust levels inside the associated enclosures and maintain compliance with the limits in 40 CFR 60.36b and 40 CFR 60.55b for MWC fugitive ash.

Comment No. 5 – Storage Silos

A number of FDEP permits (i.e., Covanta Lake, Lee County, Miami-Dade, and Palm Beach County) classify storage silos as insignificant sources. The potential emissions for the Facility's storage silos, based on full time operation of 8760 hr/yr, are:

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Hydrated Lime Silo = $0.257 \text{ lb/hr} = 0.03 \text{ gr/dscf} \times 60 \text{ min/hr} \times 1000 \text{ acf/min} / 7000 \text{ gr/lb}$
Pebble Lime Silo = $0.3086 \text{ lb/hr} = 0.03 \text{ gr/dscf} \times 60 \text{ min/hr} \times 1200 \text{ acf/min} / 7000 \text{ gr/lb}$
Carbon Silo = $0.3086 \text{ lb/hr} = 0.03 \text{ gr/dscf} \times 60 \text{ min/hr} \times 1200 \text{ acf/min} / 7000 \text{ gr/lb}$

Hydrated Lime Silo = $1.126 \text{ tpy} = 0.257 \text{ lb/hr} \times 8760 \text{ hrs/year} / 2000 \text{ lb/ton}$
Pebble Lime Silo = $1.352 \text{ tpy} = 0.3086 \text{ lb/hr} \times 8760 \text{ hrs/year} / 2000 \text{ lb/ton}$
Carbon Silo = $1.352 \text{ tpy} = 0.3086 \text{ lb/hr} \times 8760 \text{ hrs/year} / 2000 \text{ lb/ton}$

As noted in the April 15, 2003 permit application, the actual emissions from the storage silos are significantly lower than the potentials (based on the fact that, on average, the lime silos operate about 1 hour per day and the carbon silo operates about 1 hour per week).

Based on the emissions of these units as calculated above, these units meet the definition of insignificant per subsection 62-213.430(6)(b), F.A.C. *Therefore, the County requests that the storage silos be removed from Subsection C and added to the list of insignificant activities.*

Comment No. 6 – CERCLA-Related Permit Limits

In the April 17, 2002 Federal Register (67 FR 18899), USEPA published guidance on what constitutes a “federally permitted release” for certain air emissions. Air emissions in a 24-hour period greater by a CERCLA-reportable quantity than the federally enforceable emission limit must be reported to the National Response Center (NRC). Excess emissions (i.e., emissions greater than the permit limits) during startup, shutdown, and malfunctions (S/S/M) events at the facility are considered to be “permitted” in the Title V permit by federal and state regulations (and exempt from CERCLA reporting) as long as there are specific federally enforceable numeric permit limits for excess emissions during S/S/M periods.

Therefore, the County proposed in its application (Section 9.5 of report) that malfunction emission limits be included in the Title V permit. The CERCLA pollutants to be addressed (and their CERCLA reportable quantities) are those pollutants at the facility for which tail gas control malfunctions might result in CERCLA reportable emissions – i.e., NO_x, HCl, Hg (10, 5000, and 1 lbs/day from 40 CFR 302.4) and SO₂ (500 lbs/day from 40 CFR 355, Appendix A). The following emission limits for SO₂, HCl, and Hg were based on the “not-to-exceed” limits discussed with the Department absent any control by air pollution control equipment:

SO₂: 488 ppm_{dv} corrected to 7% O₂ (i.e., 122 ppm/[100%-75%]),
HCl: 2000 ppm_{dv} corrected to 7% O₂ (i.e., 100 ppm/[100%-95%]), and
Hg: 0.67 mg/dscm corrected to 7% O₂ (i.e., 0.10 mg/dscm/[100%-85%]).

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A NO_x malfunction emission limit of 400 ppm_{dv} corrected to 7% O₂ is proposed by the County that should never be exceeded during a malfunction. These emissions are the maximum potential S/S/M emissions ever expected and are based on analyses of maximum potential inlet concentrations performed in support of the air permit application (dated around April 1995) for the Facility's Emission Guideline retrofit. Since these uncontrolled emissions formed the basis of the "not-to-exceed" permit limits currently contained in the Title V permit, they are already implicitly reflected in the Title V permits. Based on the air quality modeling analyses performed for the EG retrofit application, no exceedances of ambient air quality standards (AAQS) or Class II PSD increments would occur as a result of these S/S/M emissions. *The County requests incorporation of the not-to-exceed limits discussed above for SO₂, HCl, Hg, and NO_x as federally enforceable permit terms.*

Comment No. 7 – Reclassification of Diesel Engines

The facility operates a number of emergency fire pumps and generators that are classified as "unregulated" emissions in the draft permit. Because the units do not operate as a "bank", they are considered individual emissions units that are not grouped as an activity. Based on the potential emissions of this emergency equipment (see Attachment 1), each of these units meets the definition of insignificant per subsection 62-213.430(6)(b). As a note, the potential to emit for each of these units is based on 500 hours per year of operation, per an EPA policy memo dated September 6, 1996. A number of the other Florida MWC facilities classify these types of emission units as insignificant. *Therefore, the County requests that the FDEP move each of these emission units from the listing of unregulated emissions units to the listing of insignificant emissions units.*

The gasoline-powered generator listed at the Maintenance Service Building does not exist and the County requests that it be deleted from the permit.

The County wishes to continue classifying the Yard Waste Trommel as an unregulated source.

Comment No. 8 – Cooling Tower

The facility operates a cooling tower that is a potential source of particulate matter. The cooling tower does not use any chromium-based water treatment chemicals and is not subject to any source-specific regulatory requirements. *Therefore, the County requests FDEP to add the cooling tower to the list of unregulated emissions units operated at the facility.*

Comment No. 9 - Condition B.11(8)

The County requests that FDEP insert the word "knowingly" as the tenth word in Condition B.11(8). As a note, although the permit term references PSD construction permits, the actual language of the condition is not part of the PSD construction permits. Therefore, this revision can be made without modifying the underlying PSD construction permits.

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The County appreciates the opportunity to comment on its draft Title V permit. Because this comment letter contains emission calculations, a Responsible Official and registered P.E. form is included as Attachment 2 to this letter. Should you have any questions, please contact me at your convenience (727-464-7500).

Sincerely,



Warren N. Smith, Director
Pinellas County Department of Solid Waste Operations

Attachments

- cc: P. Talley - Pinellas County Utilities (w/o enclosures)
R. Hauser - Pinellas County Department of Solid Waste Operations (w/o enclosures)
R. Embree - HDR Engineering, Inc. (w/ 2 enclosures)
K. Dunbar - HDR Engineering, Inc. (w/o enclosures)
D. Elias - RTP Environmental Associates, Inc. (w/o enclosures)
D. Dee - Landers & Parsons (w/o enclosures)
M. Santella - Wheelabrator Pinellas Inc. (w/o enclosures)

Attachment 1

Job No. 8167

HDR Computation

Project	Pinellas County Resource Recovery Facility
Subject	Facility Generators - Potential Emission Calcs.
Task	RRF Emergency Fire Pump

Computed	MKD
Checked	
Date	12/19/03

Distillate Oil Combustion (Electric Services): SCC 2-01-001-02						
Hours	Power Output (kW)	Horsepower (HP)	Heating Value (Btu/gal)	Heat Input (MMBtu/hr) ^c	Fuel Input (gal/hr)	Fuel Use (MMgal/yr)
500	---	235	137,000	1.75	13	0.006

PSD-Regulated Air Pollutants	CAS#	Emission Factor (lb/bhp-hr)	Pollutant Emissions	
			lb/hr	TPY
Nitrogen Oxides (NO _x) ^a	10102-43-9	3.10E-02	7.29	1.82
Carbon Monoxide (CO) ^a	630-08-0	6.68E-03	1.57	0.39
Particulate Matter (PM) ^a	-	2.20E-03	0.52	0.13
Particulate Matter < 10 Microns (PM ₁₀) ^a	-	2.20E-03	0.52	0.13
Volatile Organic Compounds (VOC) ^a	-	2.51E-03	0.59	0.15
Sulfur Dioxide (SO ₂) ^a	7446-09-5	2.05E-03	0.48	0.12
Lead (Pb)	7439-92-1	negl.	---	---
Sulfuric Acid (H ₂ SO ₄)	7664-93-9	negl.	---	---

Hazardous Air Pollutants (not regulated under PSD rules, per federal CAA)	CAS#	Emission Factor (lb/MMBtu)	Pollutant Emissions	
			lb/hr	TPY
Acrolein ^b	107-02-8	9.25E-05	0.0002	0.0000
Acetaldehyde ^b	75-07-0	7.67E-04	0.0013	0.0003
Benzene ^b	71-43-2	9.33E-04	0.0016	0.0004
Formaldehyde ^b	50-00-0	1.18E-03	0.0021	0.0005
Naphthalene ^b	91-20-3	8.48E-05	0.0001	0.0000
Polynuclear Aromatic Hydro. (PAHs) ^b	-	1.68E-04	0.0003	0.0001
Propylene ^b	115-07-1	2.58E-03	0.0045	0.0011
Toluene ^b	108-88-3	4.09E-04	0.0007	0.0002
Xylene ^b	1330-20-7	2.85E-04	0.0005	0.0001
Total HAPs			0.028	

Notes:

- ^a Emission factors from AP-42 (10/96), Table 3.3-1.
- ^b Emission factors from AP-42 (10/96), Table 3.3-2.
- ^c Calculated assuming 7,000 Btu/hp-hr

Job No. 8167

HDR Computation

Project	Pinellas County Resource Recovery Facility
Subject	Facility Generators - Potential Emission Calcs.
Task	Lift Station Emergency Fire Pump

Computed	MKD
Checked	
Date	12/19/03

Distillate Oil Combustion (Electric Services): SCC 2-01-001-02						
Hours	Power Output (kW)	Horsepower (HP)	Heating Value (Btu/gal)	Heat Input (MMBtu/hr) ^c	Fuel Input (gal/hr)	Fuel Use (MMgal/yr)
500	—	115	137,000	1.75	13	0.006

PSD-Regulated Air Pollutants	CAS#	Emission Factor (lb/bhp-hr)	Pollutant Emissions	
			lb/hr	TPY
Nitrogen Oxides (NO _x) ^a	10102-43-9	3.10E-02	3.57	0.89
Carbon Monoxide (CO) ^a	630-08-0	6.68E-03	0.77	0.19
Particulate Matter (PM) ^a	-	2.20E-03	0.25	0.06
Particulate Matter < 10 Microns (PM ₁₀) ^a	-	2.20E-03	0.25	0.06
Volatile Organic Compounds (VOC) ^a	-	2.51E-03	0.29	0.07
Sulfur Dioxide (SO ₂) ^a	7446-09-5	2.05E-03	0.24	0.06
Lead (Pb)	7439-92-1	negl.	---	---
Sulfuric Acid (H ₂ SO ₄)	7664-93-9	negl.	---	---

Hazardous Air Pollutants (not regulated under PSD rules, per federal CAA)	CAS#	Emission Factor (lb/MMBtu)	Pollutant Emissions	
			lb/hr	TPY
Acrolein ^b	107-02-8	9.25E-05	0.0002	0.0000
Acetaldehyde ^b	75-07-0	7.67E-04	0.0013	0.0003
Benzene ^b	71-43-2	9.33E-04	0.0016	0.0004
Formaldehyde ^b	50-00-0	1.18E-03	0.0021	0.0005
Naphthalene ^b	91-20-3	8.48E-05	0.0001	0.0000
Polynuclear Aromatic Hydro. (PAHs) ^b	-	1.68E-04	0.0003	0.0001
Propylene ^b	115-07-1	2.58E-03	0.0045	0.0011
Toluene ^b	108-88-3	4.09E-04	0.0007	0.0002
Xylene ^b	1330-20-7	2.85E-04	0.0005	0.0001
Total HAPs			0.0028	

Notes:

- ^a Emission factors from AP-42 (10/96), Table 3.3-1.
- ^b Emission factors from AP-42 (10/96), Table 3.3-2.
- ^c Calculated assuming 7,000 Btu/hp-hr

Job No. 8167

HDR Computation

Project	Pinellas County Resource Recovery Facility
Subject	Facility Generators - Potential Emission Calcs.
Task	Chlorine Treatment Emergency Generator

Computed	MKD
Checked	
Date	12/19/03

Distillate Oil Combustion (Electric Services): SCC 2-01-001-02						
Hours	Power Output (kW)	Horsepower (HP)	Heating Value (Btu/gal)	Heat Input (MMBtu/hr) ^c	Fuel Input (gal/hr)	Fuel Use (MMgal/yr)
500	---	120	137,000	1.75	13	0.006

PSD-Regulated Air Pollutants	CAS#	Emission Factor (lb/bhp-hr)	Pollutant Emissions	
			lb/hr	TPY
Nitrogen Oxides (NO _x) ^a	10102-43-9	3.10E-02	3.72	0.93
Carbon Monoxide (CO) ^a	630-08-0	6.68E-03	0.80	0.20
Particulate Matter (PM) ^a	-	2.20E-03	0.26	0.07
Particulate Matter < 10 Microns (PM ₁₀) ^a	-	2.20E-03	0.26	0.07
Volatile Organic Compounds (VOC) ^a	-	2.51E-03	0.30	0.08
Sulfur Dioxide (SO ₂) ^a	7446-09-5	2.05E-03	0.25	0.06
Lead (Pb)	7439-92-1	negl.	---	---
Sulfuric Acid (H ₂ SO ₄)	7664-93-9	negl.	---	---

Hazardous Air Pollutants (not regulated under PSD rules, per federal CAA)	CAS#	Emission Factor (lb/MMBtu)	Pollutant Emissions	
			lb/hr	TPY
Acrolein ^b	107-02-8	9.25E-05	0.0002	0.0000
Acetaldehyde ^b	75-07-0	7.67E-04	0.0013	0.0003
Benzene ^b	71-43-2	9.33E-04	0.0016	0.0004
Formaldehyde ^b	50-00-0	1.18E-03	0.0021	0.0005
Naphthalene ^b	91-20-3	8.48E-05	0.0001	0.0000
Polynuclear Aromatic Hydro. (PAHs) ^b	-	1.68E-04	0.0003	0.0001
Propylene ^b	115-07-1	2.58E-03	0.0045	0.0011
Toluene ^b	108-88-3	4.09E-04	0.0007	0.0002
Xylene ^b	1330-20-7	2.85E-04	0.0005	0.0001
Total HAPs			0.0028	

Notes:

- ^a Emission factors from AP-42 (10/96), Table 3.3-1.
- ^b Emission factors from AP-42 (10/96), Table 3.3-2.
- ^c Calculated assuming 7,000 Btu/hp-hr

Job No. 8167

HDR Computation

Project	Pinellas County Resource Recovery Facility
Subject	Facility Generators - Potential Emission Calcs.
Task	Scale Station Emergency Generator

Computed	MKD
Checked	
Date	12/19/03

Distillate Oil Combustion (Electric Services): SCC 2-01-001-02						
Hours	Power Output (kW)	Horsepower (HP)	Heating Value (Btu/gal)	Heat Input (MMBtu/hr) ^c	Fuel Input (gal/hr)	Fuel Use (MMgal/yr)
500	---	110	137,000	1.75	13	0.006

PSD-Regulated Air Pollutants	CAS#	Emission Factor (lb/bhp-hr)	Pollutant Emissions	
			lb/hr	TPY
Nitrogen Oxides (NO _x) ^a	10102-43-9	3.10E-02	3.41	0.85
Carbon Monoxide (CO) ^a	630-08-0	6.68E-03	0.73	0.18
Particulate Matter (PM) ^a	-	2.20E-03	0.24	0.06
Particulate Matter < 10 Microns (PM ₁₀) ^a	-	2.20E-03	0.24	0.06
Volatile Organic Compounds (VOC) ^a	-	2.51E-03	0.28	0.07
Sulfur Dioxide (SO ₂) ^a	7446-09-5	2.05E-03	0.23	0.06
Lead (Pb)	7439-92-1	negl.	---	---
Sulfuric Acid (H ₂ SO ₄)	7664-93-9	negl.	---	---

Hazardous Air Pollutants (not regulated under PSD rules, per federal CAA)	CAS#	Emission Factor (lb/MMBtu)	Pollutant Emissions	
			lb/hr	TPY
Acrolein ^b	107-02-8	9.25E-05	0.0002	0.0000
Acetaldehyde ^b	75-07-0	7.67E-04	0.0013	0.0003
Benzene ^b	71-43-2	9.33E-04	0.0016	0.0004
Formaldehyde ^b	50-00-0	1.18E-03	0.0021	0.0005
Naphthalene ^b	91-20-3	8.48E-05	0.0001	0.0000
Polynuclear Aromatic Hydro. (PAHs) ^b	-	1.68E-04	0.0003	0.0001
Propylene ^b	115-07-1	2.58E-03	0.0045	0.0011
Toluene ^b	108-88-3	4.09E-04	0.0007	0.0002
Xylene ^b	1330-20-7	2.85E-04	0.0005	0.0001
Total HAPs			0.0028	

Notes:

- ^a Emission factors from AP-42 (10/96), Table 3.3-1.
- ^b Emission factors from AP-42 (10/96), Table 3.3-2.
- ^c Calculated assuming 7,000 Btu/hp-hr

Job No. 8167

HDR Computation

Project **Pinellas County Resource Recovery Facility**
 Subject **Facility Generators - Potential Emission Calcs.**
 Task **Maintenance Service Building Emergency Generator**

Computed **MKD**
 Checked _____
 Date **12/19/03**

Distillate Oil Combustion (Electric Services): SCC 2-01-001-02						
Hours	Power Output (kW)	Horsepower (HP)	Heating Value (Btu/gal)	Heat Input (MMBtu/hr) ^c	Fuel Input (gal/hr)	Fuel Use (MMgal/yr)
500	80	107	137,000	1.75	13	0.006

PSD-Regulated Air Pollutants	CAS#	Emission Factor (lb/bhp-hr)	Pollutant Emissions	
			lb/hr	TPY
Nitrogen Oxides (NO _x) ^a	10102-43-9	3.10E-02	3.32	0.83
Carbon Monoxide (CO) ^a	630-08-0	6.68E-03	0.72	0.18
Particulate Matter (PM) ^a	-	2.20E-03	0.24	0.06
Particulate Matter < 10 Microns (PM ₁₀) ^a	-	2.20E-03	0.24	0.06
Volatile Organic Compounds (VOC) ^a	-	2.51E-03	0.27	0.07
Sulfur Dioxide (SO ₂) ^a	7446-09-5	2.05E-03	0.22	0.05
Lead (Pb)	7439-92-1	negl.	---	---
Sulfuric Acid (H ₂ SO ₄)	7664-93-9	negl.	---	---

Hazardous Air Pollutants (not regulated under PSD rules, per federal CAA)	CAS#	Emission Factor (lb/MMBtu)	Pollutant Emissions	
			lb/hr	TPY
Acrolein ^b	107-02-8	9.25E-05	0.0002	0.0000
Acetaldehyde ^b	75-07-0	7.67E-04	0.0013	0.0003
Benzene ^b	71-43-2	9.33E-04	0.0016	0.0004
Formaldehyde ^b	50-00-0	1.18E-03	0.0021	0.0005
Naphthalene ^b	91-20-3	8.48E-05	0.0001	0.0000
Polynuclear Aromatic Hydro. (PAHs) ^b	-	1.68E-04	0.0003	0.0001
Propylene ^b	115-07-1	2.58E-03	0.0045	0.0011
Toluene ^b	108-88-3	4.09E-04	0.0007	0.0002
Xylene ^b	1330-20-7	2.85E-04	0.0005	0.0001
Total HAPs			0.0028	

Notes:

- ^a Emission factors from AP-42 (10/96), Table 3.3-1.
- ^b Emission factors from AP-42 (10/96), Table 3.3-2.
- ^c Calculated assuming 7,000 Btu/hp-hr

Job No. 8167

HDR Computation

Project	Pinellas County Resource Recovery Facility
Subject	Facility Generators - Potential Emission Calcs.
Task	Mosquito Control Area Emergency Generator

Computed	MKD
Checked	
Date	12/19/03

Gasoline Combustion (Electric Services): SCC 2-02-003-01

Hours	Power Output (kW)	Horsepower (HP)	Heating Value (Btu/gal)	Heat Input (MMBtu/hr) ^b	Fuel Input (gal/hr)	Fuel Use (MMgal/yr)
500	3	4	130,000	1.75	13	0.007

PSD-Regulated Air Pollutants	CAS#	Emission Factor (lb/bhp-hr)	Pollutant Emissions	
			lb/hr	TPY
Nitrogen Oxides (NO _x) ^a	10102-43-9	1.10E-02	0.04	0.01
Carbon Monoxide (CO) ^a	630-08-0	4.39E-01	1.76	0.44
Particulate Matter (PM) ^a	-	7.21E-04	0.00	0.00
Particulate Matter < 10 Microns (PM ₁₀) ^a	-	7.21E-04	0.00	0.00
Volatile Organic Compounds (VOC) ^a	-	2.16E-02	0.09	0.02
Sulfur Dioxide (SO ₂) ^a	7446-09-5	5.91E-04	0.00	0.00
Lead (Pb)	7439-92-1	negl.	---	---
Sulfuric Acid (H ₂ SO ₄)	7664-93-9	negl.	---	---

Notes:

^a Emission factors from AP-42 (10/96), Table 3.3-1.

^b Calculated assuming 7,000 Btu/hp-hr

Attachment 2

Pinellas County Resource Recovery Facility

Title V Permit No: 1030117-002-AV

Facility Location:
3001 - 110th Avenue North
St. Petersburg, FL 33716
Pinellas County

Mailing Address:
Pick Talley, Director of Utilities
Pinellas County Utilities Administration
14 South Fort Harrison Avenue, 5th Floor
Clearwater, FL 33756

Attached Document(s): Comments on DRAFT Permit No.: 1030117-005-AV

RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am the responsible official as defined in Chapter 62-213, F.A.C., of the Title V source for which this document is being submitted. I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

<u><i>Pick Talley</i></u>	<u>12-22-03</u>
Signature	Date
<u>Pick Talley</u>	<u>Director of Utilities</u>
Name	Title

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Ronald D. Larson Registration Number: PE27310
2. Professional Engineer Mailing Address: Organization/Firm: HDR Engineering, Inc. Street Address: 2202 N. Westshore Blvd., Suite 250 City: Tampa State: Florida Zip Code: 33607
3. Professional Engineer Telephone Numbers... Telephone: (813) 282 - 2398 Fax: (813) 282 - 2440
4. Professional Engineer Email Address: Ron.Larson@hdrinc.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <p>(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</p> <p>(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.</p> <p>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input checked="" 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.</p> <p>(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.</p> <p>(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.</p>
<p>Signature: <u>Ronald D. Larson</u> Date: <u>12/22/03</u></p> <p>(seal) STATE OF FLORIDA PROFESSIONAL ENGINEER NO. 27310</p>

* Attach any exceptions to certification statement.