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July 5, 2005

**RECEIVED**

JUL 11 2005

BUREAU OF AIR REGULATION

Mr. A.A. Linero, P.E.  
Program Administrator  
Permitting South Section  
Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**RE: Pinellas County Resource Recovery Facility  
Draft Title V Air Operation Permit Renewal No. 1030117-006-AV  
Response to FDEP Letter Dated May 4, 2005**

Dear Mr. Linero:

On May 4, 2005, the Florida Department of Environmental Protection (FDEP) issued a letter to the Pinellas County Resource Recovery Facility (Facility) stating that review of the Facility's Title V permit renewal application, electronically submitted on April 25, 2005, had begun. The letter stated that FDEP had deemed the application *incomplete* because additional information was needed. The purpose of this letter is to submit additional information, clarify the information contained in the Facility's Title V permit renewal application, and address FDEP's *incomplete* designation.

**CAM Applicability**

The May 4, 2005 letter indicates that a number of permit limits are based on *both* NSPS (40 CFR Part 60, Subpart Cb) and PSD applicable requirements. The letter goes on to say that "... *if there is a BACT or SIP standard for a pollutant that is different (either more stringent or less stringent) from the one addressed by the NSPS or NESHAP, CAM may still apply to the emissions unit for that standard.*"

**40 CFR Part 60, Subpart Cb Emission Limits**

The emission limits for the following pollutants are the exact limits of 40 CFR Part 60, Subpart Cb. When the Facility was retrofitted and the Title V permit revised to account for the applicability of Subpart Cb, FDEP also reopened and revised the Facility's PSD permits to incorporate the Subpart Cb limits. Therefore, because these emission limits are directly from Subpart Cb, which was initially proposed after November 15, 1990, CAM is not applicable [per 40 CFR §64.2(b)(1)(i)].

PLEASE ADDRESS REPLY TO:  
3095 - 114th Avenue North  
St. Petersburg, Florida 33716  
Phone: (727) 464-7500  
FAX: (727) 464-7713  
Website: [www.pinellascounty.org](http://www.pinellascounty.org)



Cb limits. Therefore, because these emission limits are directly from Subpart Cb, which was initially proposed after November 15, 1990, CAM is not applicable [per 40 CFR §64.2(b)(1)(i)].

- Permit Term B.18, Particulate Matter – 27 mg/dscm corrected to 7% O<sub>2</sub> [40 CFR 60.33b(a)(1)(i)]
- Permit Term B.20, Cadmium – 0.040 mg/dscm corrected to 7% O<sub>2</sub> [40 CFR 60.33b(a)(2)(i)]
- Permit Term B.25, Lead – 0.44 mg/dscm corrected to 7% O<sub>2</sub> [40 CFR 60.33b(a)(4)]
- Permit Term B.27 (please note that the current Title V permit has two items B.27), Dioxins/Furans – 30 ng/dscm (total mass) corrected to 7% O<sub>2</sub> [40 CFR 60.33b(c)(1)(ii)]
- Permit Term B.29, Nitrogen Oxides – 205 ppmv corrected to 7% O<sub>2</sub> (dry basis) [40 CFR 60.33b(d)]
- Permit Term B.30, Carbon Monoxide – 100 ppmv corrected to 7% O<sub>2</sub> (dry basis) [40 CFR 60.34b(a)]
- Permit Term B.26- Sulfur Dioxide – 29 ppmv corrected to 7% O<sub>2</sub> (dry basis)  
OR  
75% reduction corrected to 7% O<sub>2</sub>,  
whichever is more stringent [40 CFR 60.33b(b)(3)(i)]
- Permit Term B.27, Hydrogen Chloride, – 29 ppmv corrected to 7% O<sub>2</sub> (dry basis)  
OR  
95% reduction corrected to 7% O<sub>2</sub>,  
whichever is more stringent [40 CFR 60.33b(b)(3)(i)]

As discussed previously, these Subpart Cb limits are exempt from CAM.

Permit Terms B.26 and B.27 also contain not-to-exceed limits that are in addition to the Subpart Cb limits. These not-to-exceed limits are 122 ppmv for sulfur dioxide and 100 ppmv for hydrogen chloride, both corrected to 7% O<sub>2</sub> (dry basis). Although these emission limits are not directly from Subpart Cb, the Facility asserts that the Subpart Cb – required monitoring is sufficient to satisfy the requirements of CAM and, therefore, no formal CAM plan is necessary.

A July 7, 1999 EPA policy memo (attached to permit renewal application, attached to this letter, and also available from <http://www.epa.gov/Region7/programs/artd/air/title5/t5memos/zannes.pdf>), gives EPA guidelines for determining whether the monitoring in Subpart Cb alone is sufficient to satisfy CAM requirements. These guidelines are listed below in italics, along with a description of how the Facility fulfills each of them.

1. *Does the applicable requirement(s) regulate the same or similar pollutant?* The pollutants with not-to exceed limits (i.e., sulfur dioxide and hydrogen chloride) are the same pollutants that are regulated by Subpart Cb.
2. *Do the pollutant limitations share a common format (e.g., pounds per hour or parts per million)?* The pollutant limitations are each in the format of ppmv corrected to 7% O<sub>2</sub> (dry basis).

The policy memo goes on to say that “[w]here possible, as determined through the permitting authority on a case-by-case basis, we fully support simplifying monitoring requirements for permits,

including through the application of one monitoring approach for multiple emission limitations of the same pollutant or dissimilar pollutants.” Further, the provisions of 40 CFR § 70.6(a)(3)(i) allows for a streamlined set of monitoring or testing requirements provided the specified monitoring or testing is adequate to assure compliance.

Based on the fact that the SO<sub>2</sub> and HCl not-to-exceed limits meet the guidelines outlined in EPA’s policy memo for monitoring sufficiency, and, therefore assures compliance with the applicable requirements, the Facility asserts that the requirements of CAM are satisfied by existing monitoring requirements and, therefore, no CAM plan submittal is required.

### Mercury

Permit Term B.21 contains a mercury limit based on Rule 62-296.416 (3)(a)1., F.A.C. that is more stringent than the Subpart Cb limit. However, the 62-296.416 mercury limit was incorporated directly into the Section 111d Subpart Cb state implementation plan regulations and could be considered exempt under 40 CFR 64.2 (b)(1)(i). Further CAM would not apply to the mercury emission limit since the mercury uncontrolled potential to emit for each MWC unit is significantly less than 10 tons per year as shown below.

MWC Unit Waste Input Capacity – 1100 tons MSW/day  
 Fifth Edition (10/96) AP-42 Uncontrolled Mercury Emission Factor – 0.0056 lb/ton MSW

$$\frac{\text{ton Hg}}{\text{yr}} = 1100 \frac{\text{ton MSW}}{\text{day}} * 0.0056 \frac{\text{lb Hg}}{\text{ton MSW}} * 365 \frac{\text{day}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}}$$

$$= 1.12$$

### Beryllium

Permit Term B.33 contains a beryllium limit for Unit 3 that is from PSD permit number PSD-FL-098(A). This permit term was accepted by the Facility during the permitting of Unit 3 in order to avoid PSD review of beryllium emissions. Therefore, CAM is potentially applicable to this emission limit.

No information exists regarding uncontrolled beryllium emissions from MWC units. However, the beryllium uncontrolled potential to emit for each MWC unit can be estimated by back calculating from the allowable emission limit and the control efficiency of the control equipment (i.e., fabric filters). Based on an assumed fabric filter control efficiency of 99% and the beryllium allowable limit of 9.0 x 10<sup>-5</sup> lbs/hr, the beryllium uncontrolled potential to emit is calculated as follows:

$$\frac{\text{ton Be}}{\text{yr}} = \frac{9.0 \times 10^{-5} \frac{\text{lb}}{\text{hr}}}{\left(1 - \frac{99}{100}\right)} * 8760 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}}$$

$$= 0.04$$

CAM does not apply to the beryllium emission limit because the beryllium uncontrolled potential to emit for each MWC unit is significantly less than 10 tons per year.

### Fluorides

Permit Term B.34 contains a fluorides limit for Unit 3 that is from PSD permit number PSD-FL-098(A). This permit term was determined as BACT for fluorides during the permitting of Unit 3. Therefore, CAM is potentially applicable to this emission limit.

A document titled “Final Determination and Permit Conditions, Pinellas County Resource Recovery Facility Unit 3, Pinellas County, Florida, PSD-FL-098, Prevention of Significant Deterioration (40 CFR 52.21), May 22, 1987” (see attached) provides a discussion of and basis for the fluorides BACT limit. On Page 6, Section G, the document states the following:

“The incineration of fluorine containing wastes results in the emissions of both particulate fluoride and gaseous fluoride (as hydrogen fluoride) emissions. Emission tests have reported fluoride emissions to be from 0.0002 to 0.2 lbs/ton MSW. The applicant has requested the upper limit as an emissions limit for this pollutant. EPA has determined that this request is justified as *no control for this pollutant has been installed at this facility nor will it be required*. The BACT emission rate has been determined to be 8.31 lbs/hr.”  
[Emphasis added]

CAM does not apply to the fluorides emission limit because the emission limit is based on uncontrolled emissions and therefore a control device is not necessary to achieve the limit.

### Particulate Matter Emissions

Permit Term C.1 contains particulate matter emission limits for four miscellaneous emission units. These include:

- Hydrated Lime Storage Silo – EU 004
- Metal Recovery System (MRS) – EU 005
- Activated Carbon and (Pebble) Lime Storage Silos – EU 006 and EU 007, respectively
- Ash Conditioning Building (ACB) – EU 008

The nature of these emission units is such that the calculation of an uncontrolled potential to emit is difficult. EPA’s AP-42 does not contain specific emission factors for these types of activities. Therefore, emission factors were derived from similar types of emissions units for which AP-42 presents emission factors. The emission factors used, and uncontrolled potential to emit, calculated for each emission unit is described below.

As noted in the following sections, the particulate matter emission calculations presented for CAM applicability purposes are very conservative in nature. The information is being provided for CAM applicability purposes only and should not be used for any other purpose.

#### *Hydrated Lime Storage Silo*

A supply truck pneumatically fills the hydrated lime storage silo through a fill line. Particulate matter emissions generated during this activity are controlled by a Siloair dust filter system. This process was judged to be similar to the pneumatic transfer of cement to an elevated storage silo. From Fifth Edition AP-42, Table 11.12-2 (10/01), the

uncontrolled emission factor for pneumatic cement unloading is 0.72 lb/ton. Using a transfer capacity of 25 tons per hour, the uncontrolled potential to emit (UPTE) is calculated as follows:

$$\begin{aligned} \text{UPTE}_{\frac{\text{ton}}{\text{yr}}} &= 25 \frac{\text{ton}}{\text{hr}} * 0.72 \frac{\text{lb}}{\text{ton}} * 8760 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} \\ &= 78.8 \frac{\text{ton}}{\text{yr}} \end{aligned}$$

This emission calculation is very conservative in nature because the storage silo's pneumatic fill system cannot be filled continuously. In reality, filling the silo takes approximately 1 hour and the silo is filled approximately once per month.

As shown in the calculation above, the particulate matter uncontrolled potential to emit for the hydrated lime storage silo is less than 100 tons per year. Therefore, CAM does not apply to the hydrated lime storage silo particulate matter emission limit.

#### *MRS*

The metal recovery system (MRS) separates up to 112 tons per hour of MSW residue (combined bottom ash and fly ash) into ferrous and nonferrous streams and an aggregate stream. In addition to numerous screening operations and material transfers (i.e., conveyors), the process also includes a shredder and a crusher. Particulate matter emissions are controlled by a Newell Industries, Inc. cyclone/wet scrubber. The control system is only operated when the processing systems are in operation and the materials being processed require dust control. The system is used to control processing emissions only and is not designed to reduce fugitive dust from other sources. Frequent monitoring of air emissions are used to evaluate system operational needs. The conditioning of raw materials is combined with control of processing feed rate to assure processing operations will exceed quality guidelines of air, water, aggregate and recycled metals at all times. The fly ash is wetted prior to conveyance to the Ash Conditioning Building and subsequent processing by the MRS. The bottom ash is quenched with water in the ash expeller prior to combination with the wetted fly ash.

The shredder and crushing processes were deemed to be similar to the fines crushing for crushed stone processing operations (i.e., estimated emissions will be conservatively high). The emission factors used are from Fifth Edition AP-42, Table 11.19.2-2 (8/04). Because the ash entering the MRS is wet, the controlled (by wet suppression) emission factor for fines crushing were used to calculate emissions

Using this emission factor, the shredder and crusher uncontrolled potentials to emit (UPTE) are calculated as follows:

$$\begin{aligned} \text{UPTE}_{\frac{\text{ton}}{\text{yr}}} &= 112 \frac{\text{ton}}{\text{hr}} * 0.0030 \frac{\text{lb}}{\text{ton}} * 8760 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} * 2 \text{ operations (shredder and crusher)} \\ &= 2.9 \frac{\text{ton}}{\text{yr}} \end{aligned}$$

Footnote b to Table 11.19.2-2 states the following:

“Controlled sources (with wet suppression) are those that are part of a processing plant that employs current wet suppression technology similar to the study group. ... Due to carry over of the small amount of moisture required, it has been shown that each source, with the exception of the crushers, does not need to employ direct water sprays.”

Therefore, “controlled” emission factors were used to calculate uncontrolled potential emission rates for all of the screening operations and material transfers.

The screening operations associated with the MRS were deemed to be similar to fines screening for crushed stone processing operations (i.e., estimated emissions will be conservatively high). From Fifth Edition AP-42, Table 11.19.2-2 (8/04), the “controlled” emission factor for fines screening is 0.0036 lb/ton. The MRS contains a total of 9 screening operations. MRS screening uncontrolled potential to emit (UPTE) is calculated as follows:

$$\begin{aligned} \text{UPTE}_{\frac{\text{ton}}{\text{yr}}} &= 112 \frac{\text{ton}}{\text{hr}} * 0.0036 \frac{\text{lb}}{\text{ton}} * 8760 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} * 9 \text{ transfer points} \\ &= 15.9 \frac{\text{ton}}{\text{yr}} \end{aligned}$$

The material transfers associated with the MRS were deemed to be similar to the conveyor transfer point for crushed stone processing operations (i.e., estimated emissions will be conservatively high). From Fifth Edition AP-42, Table 11.19.2-2 (8/04), the “controlled” emission factor for conveyor transfer points is 0.0014 lb/ton. The MRS contains a total of 60 material transfers. MRS material handling uncontrolled potential to emit (UPTE) is calculated as follows:

$$\begin{aligned} \text{UPTE}_{\frac{\text{ton}}{\text{yr}}} &= 112 \frac{\text{ton}}{\text{hr}} * 0.0014 \frac{\text{lb}}{\text{ton}} * 8760 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} * 60 \text{ transfer points} \\ &= 41.2 \frac{\text{ton}}{\text{yr}} \end{aligned}$$

Summing these, the MRS uncontrolled potential to emit is estimated to be 60.0 tons per year. This emission rate estimate is very conservative for the following reasons:

- A large portion of the throughput is ferrous and nonferrous metal, the processing of which is not expected to generate particulate emissions.
- All operations in the MRS are assumed to operate at the processing capacity of 112 tons per hour.
- The moisture content of the ash is significantly higher than that associated with crushed stone operations.
- Emissions from separate processes were combined rather than classifying each operation as separate emissions units.

The particulate matter uncontrolled potential to emit for the MRS is less than 100 tons per year. Therefore, CAM does not apply to the MRS particulate matter emission limit.

#### *Activated Carbon Storage Silo*

A supply truck pneumatically fills the activated carbon storage silo through a fill line. Particulate matter emissions generated during this activity are controlled by a Wheelabrator Canada, Inc. baghouse. This process was judged to be similar to the pneumatic transfer of cement to an elevated storage silo. From Fifth Edition AP-42, Table 11.12-2 (10/01), the uncontrolled emission factor for pneumatic cement unloading is 0.72 lb/ton. Using a transfer capacity of 25 tons per hour, the uncontrolled potential to emit (UPTE) is calculated as follows:

$$\begin{aligned} \text{UPTE}_{\frac{\text{ton}}{\text{yr}}} &= 25 \frac{\text{ton}}{\text{hr}} * 0.72 \frac{\text{lb}}{\text{ton}} * 8760 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} \\ &= 78.8 \frac{\text{ton}}{\text{yr}} \end{aligned}$$

This emission calculation is very conservative in nature because the storage silo's pneumatic fill system cannot be filled continuously. In reality, filling the silo takes approximately 1 hour and the silo is filled approximately twice per month.

As shown in the calculation above, the particulate matter uncontrolled potential to emit for the activated carbon storage silo is less than 100 tons per year. Therefore, CAM does not apply to the activated carbon storage silo particulate matter emission limit.

#### *Pebble Lime Storage Silo*

A supply truck pneumatically fills the pebble lime storage silo through a fill line. Particulate matter emissions generated during this activity are controlled by a Wheelabrator Canada, Inc. baghouse. This process was judged to be similar to the pneumatic transfer of cement to an elevated storage silo. From Fifth Edition AP-42, Table 11.12-2 (10/01), the uncontrolled emission factor for pneumatic cement unloading is 0.72 lb/ton. Using a transfer capacity of 25 tons per hour, the uncontrolled potential to emit (UPTE) is calculated as follows:

$$\begin{aligned} \text{UPTE}_{\frac{\text{ton}}{\text{yr}}} &= 25 \frac{\text{ton}}{\text{hr}} * 0.72 \frac{\text{lb}}{\text{ton}} * 8760 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} \\ &= 78.8 \frac{\text{ton}}{\text{yr}} \end{aligned}$$

This emission calculation is very conservative in nature because the storage silo's pneumatic fill system cannot be filled continuously. In reality, filling the silo takes approximately 1 hour and the silo is filled approximately once per day.

As shown in the calculation above, the particulate matter uncontrolled potential to emit for the pebble lime storage silo is less than 100 tons per year. Therefore, CAM does not apply to the pebble lime storage silo particulate matter emission limit.

### *ACB*

The Ash Conditioning Building (ACB) contains two 20 ton capacity fly ash surge bins in which stabilizers such as phosphoric acid are added to condition the ash. Water is also added to control dust. Particulate matter emissions generated during this activity are controlled by a Tri-Mer Corporation wet venturi scrubber. This process was judged to be similar to the mixer loading (central mix) of cement at a concrete batch plant. From Fifth Edition AP-42, Table 11.12-2 (10/01), the uncontrolled emission factor for mixer loading (central mix) is 0.22 lb/ton. Using a throughput capacity of 42 tons per hour, the uncontrolled potential to emit (UPTE) is calculated as follows:

$$\begin{aligned} \text{UPTE}_{\frac{\text{ton}}{\text{yr}}} &= 42 \frac{\text{ton}}{\text{hr}} * 0.22 \frac{\text{lb}}{\text{ton}} * 8760 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} \\ &= 40.5 \frac{\text{ton}}{\text{yr}} \end{aligned}$$

As shown in the calculation above, the particulate matter uncontrolled potential to emit for the ACB is less than 100 tons per year. Therefore, CAM does not apply to the ACB particulate matter emission limit.

### **Control Equipment**

Bullet Number 4 of the May 4, 2005 letter requested an indication of whether there are control devices in place to limit emissions of each of the pollutants addressed by the Title V permit's specific conditions. Although as demonstrated above this listing is not needed in order to determine CAM applicability, following is a listing, by specific condition, of the control devices used by the facility:

- B.18, Particulate Matter – Baghouse
- B.20, Cadmium – Baghouse
- B.21, Mercury – Carbon Injection, Baghouse
- B.25, Lead – Baghouse



- B.26, Sulfur Dioxide – Spray Dryer Absorber
- B.27, Hydrogen Chloride – Spray Dryer Absorber
- B.27, Dioxins/Furans – Carbon injection, temperature control
- B.29, Nitrogen Oxides – Selective Non-Catalytic Reduction
- B.30, Carbon Monoxide – Natural gas burners – used as needed
- B.33, Beryllium – Baghouse
- B.34, Fluorides – No control (see previous discussion)
- C.1, Hydrated Lime Storage Silo Particulate Matter – Baghouse
- C.1, MRS Particulate Matter – Cyclone/Wet Scrubber
- C.1, Activated Carbon Silo Particulate Matter – Baghouse
- C.1, (Pebble) Lime Storage Silo Particulate Matter – Baghouse
- C.1, ACB Particulate Matter – Venturi Wet Scrubber

### **Unregulated Emission Units**

Bullet Number 5 of the May 4, 2005 letter noted “... three emissions units that are designated as *unregulated* (i.e., Nos. 11, 12, and one labeled “new”) and are not included in the facility’s current Title V permit. Please provide a narrative description of these units including historical background, and any prior permitting action by the Department concerning their status.”

### EU 011 and EU 012 – Main Lift Station Emergency Pump and RRF Emergency Fire Pump Diesel Engines

Permit No. 1030117-002-AV listed a group of three diesel fired internal combustion engines as EU 010. These emissions units were the engines associated with the Yard Waste Trommel, Main Lift Station Emergency Fire Pump, and the RRF Emergency Fire Pump. In a permit application dated April 15, 2003, the Facility requested that FDEP remove EU 010 from the permit. In the final issued permit No. 1030117-005-AV, FDEP assigned the EU 010 identifier to the Yard Waste Trommel diesel engine and moved the two emergency fire pumps to the insignificant activities list, based on their classification as emergency use equipment.

On September 6, 1995, EPA issued a memo discussing the method for calculating the potential to emit for emergency generators. That memo, specifically developed to address emergency generators, stated that potential emissions for emergency generators can be calculated based on 500 hours per year of operation. This approach was used to demonstrate that the emergency generators operated at the Facility are insignificant activities.

Using the 500 hours per year value for the emergency pumps, potential emissions of NO<sub>x</sub>, the pollutant with the highest emission factor in AP-42, are calculated as follows:

#### EU 011

$$\frac{\text{ton NO}_x}{\text{yr}} = 114 \text{ HP} * 0.031 \frac{\text{lb NO}_x}{\text{HP-hr}} * 500 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} = 0.88$$

## EU 012

$$\frac{\text{ton NO}_x}{\text{yr}} = 235 \text{ HP} * 0.031 \frac{\text{lb NO}_x}{\text{HP-hr}} * 500 \frac{\text{hr}}{\text{yr}} * \frac{\text{ton}}{2000 \text{ lb}} = 1.82$$

Based on this calculation of NO<sub>x</sub> emissions and the AP-42 emission factors for the remainder of the pollutants emitted by diesel engines, the two emergency pumps would qualify as insignificant activities under 62-213.300(2)(a)1.b., F.A.C. However, although EU 011 and EU 012 are emergency type equipment, technically they are not emergency generators. Therefore, the facility thought it prudent to include them in the Title V renewal permit application and seek FDEP discretion as to whether they can be treated as insignificant emissions units (based on potential emissions using the 500 hours per year value for emergency generators) or if they are more appropriately classified as unregulated sources (based on full time operation).

### New EU – Portable Tub Grinder Diesel Engine

The following is a brief background of the utilization of the tub grinder on site at Pinellas County Solid Waste Operations.

#### *Purpose*

Pinellas County accepts separated vegetative debris at their Solid Waste Management Operation. This material is initially processed by grinding. Final processing is conducted using a windrow stockpile and then screening before it is offered for use as a mulch.

#### *Operation*

The grinding operation is conducted by a private contractor that is subcontracted through the landfill operator, Onyx. Pinellas County stock piles raw vegetative debris until there is sufficient quantity to require a two week grinding operation. It typically takes four to five weeks to accumulate this quantity of raw vegetative waste materials.

The grinding contractor mobilizes the portable grinder and other mobile equipment to the Pinellas County facility. These grinding operations are conducted immediately to the south of the existing County yard waste mulching operation. The mobile equipment utilized by the grinding contractor includes a front-end loader. The front-end loader is used to feed the raw vegetative materials into the grinder and to stock pile the shredded chips of vegetative materials. Existing County equipment (front-end loaders) move the processed material stockpile to the windrow area.

During the two week processing period, the grinding operation is conducted for a maximum of eight hours per work day. Grinding operations are not conducted during weekends and holidays.

It is possible that the grinding contractor may mobilize different grinding equipment each time they return to the Pinellas facility.

*History*

Pinellas County has been conducting this processing operation in this manner for over 15 years. This processing equipment has not been owned or operated by Pinellas County during this period. County staff stated that they have not obtained any air permits for this operation.

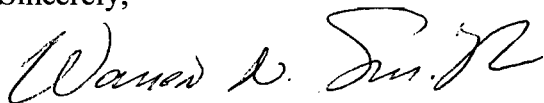
EPA policy requires that the operation of contractor owned and operated sources be included in a facility's Title V permit applications for applicability purposes. No regulatory requirements apply specifically to the tub grinder. Therefore, the Facility included the tub grinder in the Title V renewal permit application as an unregulated source.

**Incompleteness Determination**

The Facility requests that the FDEP, upon receipt and review of this letter, issue a completeness determination for the Title V permit renewal application. The Facility understands that, per 62-213.420(1)(b)2., such determination does not prevent FDEP from seeking additional information at a later time.

Attached is a Responsible Official Certification as required by Rule 62-213.420(4) of the Florida Administrative Code for any document submitted to the Department for a Title V facility. In addition, a registered Professional Engineer certification is attached, per Department policy regarding the submittal of documents containing calculations. Should you have any questions, please contact me at (727-464-7500) or Mr. M. Kirk Dunbar of HDR Engineering, Inc. at (763-591-5476).

Sincerely,



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

**Attachments**

- cc: P. Talley - Pinellas County Utilities
- D. Dee - Landers & Parsons
- M. Santella - Wheelabrator Pinellas Inc.
- D. Castro - HDR Engineering, Inc.
- K. Dunbar - HDR Engineering, Inc.
- D. Elias - RTP Environmental Associates, Inc.
- T. Cascio - FDEP DARM
- J. Waters – FDEP, Southwest District Office

**Professional Engineer Certification**

1. Professional Engineer Name: Donald Castro

Registration Number: 44569

2. Professional Engineer Mailing Address...

Organization/Firm: HDR Engineering, Inc.

Street Address: 2202 North West Shore Blvd., Suite 250

City: Tampa

State: Florida

Zip Code: 33607-5755

3. Professional Engineer Telephone Numbers...

Telephone: (813) 282 - 2404 ext.

Fax: (813) 282 - 2440

4. Professional Engineer Email Address: don.castro@hdrinc.com

5. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*(3) If the purpose of this application is to obtain a Title V air operation permit (check here ), if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.*

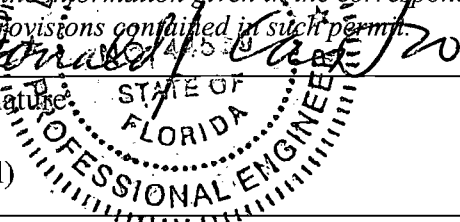
*(4) If the purpose of this application is to obtain an air construction permit (check here , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature

STATE OF  
FLORIDA

(seal)



Date

7/5/05

\* Attach any exception to certification statement.

**Pinellas County Resource Recovery Facility**

**Title V Permit No: 1030117-005-AV**

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

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

Attached Document(s): DRAFT Title V Operation Permit Renewal No. 1030117-006-AV  
Response to May 4, 2005 Supplemental Information Request

**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.

  
\_\_\_\_\_  
Signature

6/10/05  
\_\_\_\_\_  
Date

Pick Talley  
\_\_\_\_\_  
Name

Director of Utilities  
\_\_\_\_\_  
Title



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

Certified Mail -- Return Receipt Requested

May 4, 2005

Mr. Pick Talley  
Director of Utilities  
Pinellas County Utilities Administration  
14 South Fort Harrison Avenue  
Clearwater, Florida 33756

Re: DRAFT Title V Air Operation Permit Renewal No. 1030117-006-AV  
**Pinellas County Resource Recovery Facility**

Dear Mr. Talley:

We have begun the review of your Title V permit renewal application received on April 25, 2005. However, we must deem your application *incomplete*, because we need further information relative to the following items:

- Compliance Assurance Monitoring (CAM) exemption justification data. In the Supplemental Information Comment submitted as part of the EPSAP electronic application for each of the three municipal waste combustors, you state "Compliance Assurance Monitoring Plan – CAM does not apply to this emissions unit". For reference, we have listed below specific conditions of your current Title V permit that address pollutant limitations. As noted in these conditions, in many cases the specified limits are based on *both* NSPS (40 CFR 60, Subpart Cb) and PSD applicable requirements.
- We assume that your argument is that CAM Plans are not required for a number of pollutants subject to post-1990 NSPS emission limit (40 CFR, Subpart Cb). *However if there is a BACT or SIP standard for a pollutant that is different (either more stringent or less stringent) from the one addressed by the NSPS or NESHAP, CAM may still apply to the emissions unit for that standard.* Based on this finding, please provide the additional analysis required, and submit the necessary CAM plans if warranted.
- As part of the analysis to determine if CAM plans are required for emissions units using add-on control devices to meet an emissions limitation, you need to calculate the pre-control potential emissions (PTE) of all the pollutants with SIP-based limitations to assess if the pre-control\_PTE values exceed the Title V thresholds for CAM applicability.

"More Protection, Less Process"

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- Please indicate if there are *control devices in place* to limit emissions of each of the pollutants addressed by the Title V permit's specific conditions.
- We note that the permit renewal application contains three emissions units that are designated as *unregulated* (i.e., Nos. 11, 12, and one labeled "new") and are not included in the facility's current Title V permit. Please provide a narrative description of these units including historical background, and any prior permitting action by the Department concerning their status.
- When we receive this information, we will continue processing your application. If you have any questions, please contact Tom Cascio at 850-921-9526.
- Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Permit applicants are advised that Rule 62-213.420(1)(b), F.A.C., requires applicants to respond to requests for information within 90 days, unless the applicant has requested in writing, and has been granted, additional time within 90 days.

Selected Specific Conditions of 1030117-005-AV:

**Particulate Matter**

**B.18.** The emission limit for particulate matter (PM/PM<sub>10</sub>) contained in the gases discharged to the atmosphere is 27 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. [40 CFR 60.33b(a)(1)(i); and, PA 78-11(B) & PA 83-18(B)]

**Cadmium**

**B.20.** The emission limit for cadmium contained in the gases discharged to the atmosphere is 0.040 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. [40 CFR 60.33b(a)(2)(i)]

**Mercury**

**B.21.** The emission limit for mercury contained in the gases discharged to the atmosphere is,  
(1) 0.070 milligrams per dry standard cubic meter, corrected to 7 percent oxygen; or  
(2) 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, with a not-to-exceed cap of 0.10 milligrams per dry standard cubic meter, corrected to 7 percent oxygen, whichever is less stringent. [40 CFR 60.33b(a)(3); Rule 62-296.416(3)(a)1., F.A.C.; and, PA 78-11(B) & PA 83-18(B)]

**Lead**

**B.25.** The emission limit for lead contained in the gases discharged to the atmosphere is 0.44 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.  
[40 CFR 60.33b(a)(4)]

**Sulfur Dioxide**

**B.26.** The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere is,

- (1) 29 parts per million by volume, corrected to 7 percent oxygen (dry basis); or
- (2) 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), with a not-to-exceed cap of 122 parts per million by volume, corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.  
[40 CFR 60.33b(b)(3)(i); and, PA 78-11(B) & PA 83-18(B)]

**Hydrogen Chloride**

**B.27.** The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere is,

- (1) 29 parts per million by volume, corrected to 7 percent oxygen (dry basis); or
- (2) 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), with a not-to-exceed cap of 100 parts per million by volume, corrected to 7 percent oxygen (dry basis), whichever is less stringent.  
[40 CFR 60.33b(b)(3)(ii); and, PA 78-11(B) & PA 83-18(B)]

**Dioxins/Furans**

**B.27.** The emission limit for dioxins/furans contained in the gases discharged to the atmosphere that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.  
[40 CFR 60.33b(c)(1)(ii); and, PA 78-11(B) & PA 83-18(B)]

**Nitrogen Oxides**

**B.29.** The emission limit for nitrogen oxides contained in the gases discharged to the atmosphere is 205 parts per million by volume, corrected to 7 percent oxygen, dry basis. The permittee may request authorization from the Department to conduct nitrogen oxides emissions averaging pursuant to 40 CFR 60.33b.  
[40 CFR 60.33b(d); and, PA 78-11(B) & PA 83-18(B)]

**Carbon Monoxide**

**B.30.** The emission limit for carbon monoxide contained in the gases discharged to the atmosphere is 100 parts per million by volume, measured at the combustor outlet in conjunction



with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis, and calculated as a 4-hour block average.

[40.CFR 60.34b(a); and, PA 78-11(B) & PA 83-18(B)]

**Beryllium**

**B.33.** Emissions of beryllium to the atmosphere from Unit 3 shall not exceed  $9.0 \times 10^{-5}$  lbs/hr. EPA and the permittee mutually agree that actual test data may demonstrate that a higher emission limit is required because the unit's emission controls are for particulate (PM) control only, without regard to the composition of the particulate matter. Any request for modification shall be in accordance with the requirements of the Florida PSD regulations (Rule 62-212.400, F.A.C.).

[PSD-FL-098(A)]

**Total Fluorides**

**B.34.** Total fluorides emissions from Unit 3 shall not exceed 8.31 lbs/hr. EPA and the permittee mutually agree that actual test data may demonstrate that a higher emission limit is required. Any request for modification shall be in accordance with the requirements of the Florida PSD regulations (Rule 62-212.400, F.A.C.).

[PSD-FL-098(A)]

**C.1. Particulate Matter Emissions.**

(1) Hydrated lime storage silo. Particulate matter emissions shall not exceed 0.005 gr/dscf from the baghouse outlet at the hydrated lime storage silo.

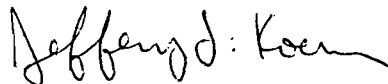
(2) MRS. Particulate matter emissions shall not exceed 0.0102 gr/dscf from the cyclone/wet scrubber system outlet at the MRS.

(3) Activated carbon and lime storage silos. Particulate matter emissions shall not exceed 0.005 gr/dscf from the baghouse outlet at each silo.

(4) ACB. Particulate matter emissions shall not exceed 0.03 gr/dscf from the wet scrubber system outlet at the ACB.

[(1) Rule 62-297.620(4), F.A.C.; and, Revised Title V application pages received September 15, 1999; (2) Applicant request and, PA 78-11(B,C) & PA 83-18(B,C); (3) Rule 62-297.620(4), F.A.C., applicant request and, PA 78-11(B,C) & PA 83-18(B,C); and, (4) PA 78-11(C) & PA 83-18(C)]

Sincerely,



For

A. A. Linero, P.E.  
Program Administrator  
Permitting South Section

Mr. Pick Talley  
Pinellas County Utilities Administration

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Cc: Jason Waters, Southwest District Office  
Donald Castro, P.E., HDR Engineering, Inc., 2202 North West Shore Blvd., Suite 250,  
Tampa, FL 33607-5755

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