Memorandum

Florida Department of
Environmental Protection

TO: Joseph Kahn, P.E., Director DARM

THRU: Trina L. Vielhauer, Chief

THRU: A. A. Linero, P.E.

FROM: Scott M. Sheplak, P.E.

DATE: September 29, 2006

SUBJECT: Hillsborough County
Department Solid Waste Management
Resource Recovery Facility Unit 4
Final Pemit Nos. 0570261-007-AC, PSD-FL-369, & PA83-19A

Attached for approval and signature is a final PSD permit for the construction of a nominal 600 ton per day (TPD) Municipal Waste Combustor referred to as Unit 4 at the existing facility.

This facility is a major PSD source. The proposed project is subject to PSD for emissions of NO_X, CO, MWC Acid Gases (SO_2+HCl), and MWC Organics (dioxin/furan). BACT standards are established for NO_X, CO, SO_2, HCl and dioxin/furans. Emissions of PM/PM_{10} and Hg are limited to provide reasonable assurances of PSD applicability avoidance. Pb and Cd emissions are limited pursuant to NSPS Subpart Eb.

Unit 4 will be a mass burn unit incorporating much of the same technology as the existing units. Air pollution controls will consist of a spray dryer, fabric filter, activated carbon injection system and a selective non-catalytic reduction (SNCR). In addition, the new unit will incorporate flue gas recirculation (FGR) for energy efficiency and pollution reduction.

This project is unique in that it will have the most stringent BACT for NO_X issued for a large MWC and the first Hg-CEMS required on an MWC in the United States!

Comments were received from U.S EPA Region 4, CDM and Covanta Hillsborough, Inc. Minor changes were made in response to the comments; see the attached Final Determination.

We recommend your approval and signature.

Attachments

TLV/AAL/sms

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit by:

Mr. Barry M. Boldissar, Director
Hillsborough County
Department of Solid Waste Management
601 East Kennedy Boulevard
Tampa, Florida 33602

DEP File No. 0570261-007-AC
Permit No. PSD-FL-369 (PA83-19A)
Hillsborough County Resource Recovery Facility
Unit 4, Nominal 600 TPD Municipal Waste Combustor
Hillsborough County

Enclosed is Final Permit Number 0570261-007-AC and PSD-FL-369 for the construction of a nominal 600 tons per day municipal waste combustor designated as Unit 4 at the Hillsborough County Resource Recovery Facility Site. The site is located at 350 North Falkenburg Road in Tampa, Hillsborough County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT (including the Final permit) was sent by certified mail (*) and copies were sent by U.S. Mail or electronic mail before the close of business on 10/3/06 to the person(s) listed:

Barry M. Boldissar, Hillsborough County DSWM*
Jim Norman, Chair, Hillsborough County BCC*
Pam Iorio, Mayor, City of Tampa
Glenn Hoag, Covanta Hillsborough, Inc.*
Gregg Worley, U.S. EPA Region 4, via e-mail
John Bunyak, National Park Service, via e-mail
Steven L. Palmer, P.E., DEP PPSO, via e-mail
Mara Nasca, DEP SWD, via e-mail
Paul Darst, DCA, via e-mail
Jerry Campbell, P.E. Hillsborough Co. EPC, via e-mail
Jason M. Gorrie, P.E., CDM, via e-mail

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk) 10/3/06 (Date)

FINAL DETERMINATION

Hillsborough County Resource Recovery Facility
Nominal 600 Tons per Day Municipal Waste Combustor
Unit 4

DEP File No. 0570261-007-AC (PSD-FL-369, PA83-19A)

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation

September 29, 2006

The Department of Environmental Protection (Department) distributed an Intent to Issue PSD Permit on May 25, 2006 for the construction of a nominal 600 tons per day (TPD) municipal waste combustor (MWC) at the existing Hillsborough County Resource Recovery Facility located southeast of Tampa, west of I-75 and near Brandon. The package included the Draft PSD Permit and the Department's Technical Evaluation and Preliminary Determination. These documents are available at the Department's web page at the following site:

www.dep.state.fl.us/Air/permitting/construction/hillsborough.htm

The Public Notice to Issue PSD Permit was published in the Tampa Tribune on May 25, 2006. The County provided proof of publication to the Department on June 13, 2006. No comments were received from the public. Comments were received from the U.S. Environmental Protection Agency (EPA).

A number of comments were submitted on behalf of the facility owner by its consultant, Camp Dresser McKee (CDM). Additional comments were received by the contracted facility constructor/operator, Covanta Hillsborough, Inc. These are detailed below together with the Department's responses.

No petitions for an administrative hearing regarding the Draft PSD Permit were filed. Therefore the Draft PSD permit was not a contested issue at the certification hearing that was conducted by the Division of Administrative Hearings (DOAH) on July 12, 2006. The DOAH certification case file is available at the following site:

www.doah.state.fl.us/internet/search/docket.cfm?CaseNo=05-004347

The Recommended Order was issued and filed by the Clerk of DOAH on August 2, 2006. The Recommended Order was substantially the same as the Proposed Recommended Order submitted on behalf of the County. It "Recommended that the Governor and Cabinet, sitting as the Siting Board, enter a Final Order granting a site certification for the construction and operation of Unit No. 4 at the Hillsborough County Resource Recovery Facility, in accordance with the Conditions of Certification contained in DEP Exhibit 2." The mentioned Conditions of Certification in the Recommended Order incorporated the Department's Draft PSD Permit as noticed with some minor changes documented below.

The Siting Board voted to approve the Recommended Order at its meeting of September 19, 2006. The Final Order signed by the Governor was clerked on September 27.

Following issuance of the Final Order, the Department is required to take final action on the PSD Permit. That decision is to issue the Final PSD Permit as detailed in the enclosed Notice of Permit. This Final Determination is in support of that decision and also documents the Department's consideration of comments received pursuant to the 30-day comment period and changes to the Draft PSD Permit resulting from those comments.

COMMENTS FROM U.S. EPA REGION 4

The EPA comments were submitted by letter from Mr. Gregg M. Worley dated June 20, 2006. Its comments are given in *italics*. The Department responses follow each comment and are in normal font.

1. *The preliminary determination does not contain a specific acknowledgement of fine particulate matter ($PM_{2.5}$) as a pollutant that will be emitted from Unit 4. Although EPA has not yet issued $PM_{2.5}$ new source review (NSR) implementation rules, $PM_{2.5}$ is a regulated NSR pollutant because it is subject to national ambient air quality standards. We recommend that FDEP acknowledge $PM_{2.5}$ as a regulated NSR pollutant in the final determination. As part of this acknowledgement, you could comment that PM_{10} is being used as a surrogate for $PM_{2.5}$ and that the particulate matter emissions controls proposed for this project are appropriate for control of fine particles.*

   The Department acknowledges that fine particulate matter ($PM_{2.5}$) is a pollutant that will be emitted from Unit 4 and that $PM_{2.5}$ is subject to National Ambient Air Quality Standards (NAAQS). Furthermore, the Department acknowledges that precursors, including sulfur dioxide (SO_2), nitrogen oxides (NO_X), hydrogen chloride (HCl), and ammonia (NH_3) are also emitted from Unit 4.

   MWC Metals/(PM/PM_{10}) and opacity are surrogates for $PM_{2.5}$ directly emitted from Unit 4. MWC Acid Gases (HCl/SO_2) and NH_3 are directly limited and thus reduce the potential for $PM_{2.5}$ formation in the environment.

   Overall, the Department's determination of best available control technology (BACT) is the most stringent to date in the United States. It is more stringent than the requirements in 40 CFR 60, Subpart Eb-Standards of Performance for New Stationary Sources and Emission Guidelines (including hazardous air pollutants) for Existing Sources Municipal Waste Combustors as revised and published by the Environmental Protection Agency (EPA) on May 10, 2006.

   The control strategy to meet the BACT emission limits consists of: spray dryer and fabric filter for MWC Acid Gases (HCl/SO_2) and MWC Metals/(PM/PM_{10}); flue gas recirculation (FGR); and, urea-based selective non-catalytic reduction (SNCR). The described strategy is appropriate for control of fine particles.

2. *We are unable to tell if consideration was given to the possibility of condensible particle emissions from Unit 4. The test method specified for particulate matter emissions in Condition 23 of the draft permit is EPA Method 5 which does not measure condensibles. Since the project narrowly avoided PSD review for PM_{10}, any particulate component not included in the PM_{10} emissions estimate could be important. We suggest that the final permit include a requirement for a one-time test of condensible emissions to assess whether such emissions need to be considered further for Unit 4.*

   The Department acknowledges the possibility of condensable particulate formation from Unit 4. At the time the Department received the application, the applicable Subpart Eb limit for MWC Metals as PM was 24 milligrams per dry standard cubic meter (mg/dscm) corrected

to 7 percent oxygen. The applicant proposed a PM BACT limit of 20.6 mg/dscm that equates to 25.1 tons per year (TPY).

The recently issued Subpart Eb reduced the MWC Metals/PM limitation to 20 mg/dscm that would marginally avoid PSD for PM. The specified test method is still EPA Method 5 and it is consistent with the Department's definition of PM.

The Department reduced the MWC Metals/PM limit to 12 mg/dscm. This value is substantially less than the latest requirement in Subpart Eb and equates to 14.6 TPY. The significant emission rate for PM_{10} is 15 TPY. It is reasonable to expect that the condensable fraction would be less than 10 TPY and that the project will avoid PSD for PM.

It is also reasonable to assume that measurement of PM emissions less than 12 mg/dscm by EPA Method 5 will insure that PM_{10} emissions will (even when considering the condensable fraction) be less than 15 TPY.

The presence of the lime cake in the fabric filter provides ample opportunity for condensation, impaction, diffusion, and interception of condensable PM/PM_{10} to support the conclusion above.

3. *The tabular emissions limits summary in Condition 14 of the draft permit for sulfur dioxide and hydrogen chloride includes limits in terms of parts per million or percent reduction, with the following footnote: "Whichever standard is less stringent." Similarly, the emissions limits for mercury include limits in micrograms per dry standard cubic meter with the same footnote. The footnote is not assigned, however, to the listed pounds-per-hour emissions rates for these three pollutants. Furthermore, the text description of the limits is not altogether consistent with the tabular listings. For example, the text description of the sulfur dioxide limits in Condition 17 is "shall exceed neither 26 ppmvd nor19.2 lb/hr on a 24-hr daily geometric mean, or an emissions reduction of 80 percent shall be achieved." Please provide an explanation of how the emissions limits for sulfur dioxide, hydrogen chloride, and mercury are to be interpreted. Specifically, does compliance with the percent reduction requirements supersede compliance with all other limits?*

   Compliance with the percent reduction requirements does supersede compliance with the concentration and mass emission limits. The Department adhered to the form of the standards in Subpart Eb and insured that the limits (BACT or to avoid PSD) are at least as stringent as the requirements of that Subpart.

COMMENTS FROM CAMP DRESSER MCKEE (CDM)

Comments were received from Mr. Jason M. Gorrie of CDM by letter dated June 8, 2006. Mr. Gorrie is the professional engineer who sealed the air permit application on behalf of the County. The format and numeration are continued from the previous section.

4. *The emission limits we applied for in our application would have been the lowest emission limits in the USA. We are very concerned that the limits imposed in the Draft Permit may promote undesirable secondary effects.*

   The Department agrees that the NO_X limits are the lowest in the USA. However, European facilities have demonstrated they can achieve even lower limits without promoting the

claimed "undesirable secondary effects." This analysis is detailed in the Department's Technical Evaluation and Preliminary Determination and BACT.

5. *The County will need to inject urea at an aggressive rate if the Facility is to comply with the Department's proposed 90 ppmvd emission limit for NO_X. Increasing the urea injection rate is likely to result in increased levels of ammonia slip, which may exceed 10 ppmvd.*

   The Department believes that it will not be necessary to inject urea at an overly aggressive rate given incorporation of flue gas recirculation (FGR) into the design. This feature and the lower pre-treatment values were not considered by the bidder (FuelTech) in its proposal to supply the SNCR system. The 90 ppmvd NO_X emission limit applies on a 12-month basis and not on a 24-hour basis. Proper operation of the FGR system will moderate the average and typical maximum pre-treatment NO_X concentrations such that the SNCR urea injection rate should remain within the levels presumed necessary to meet the County's proposed 24-hr limit of 110 ppmvd while meeting the Department's 12-month limit of 90 ppmvd. See also the Department's Technical Evaluation and Preliminary Determination and BACT.

6. *A footnote to the previous CDM comment states: "The emissions data for the MWC facility in Brescia, Italy, show that there can be significant levels of ammonia slip when facilities try to reduce NO_X emissions to extremely low levels. The data for the Brescia facility were provided to the Department on February 28, 2006, in the County's response to the Department's Notice of Insufficiency."*

   The Department does not believe that 110 ppmvd on a 24-hour basis and 90 ppmvd on a 12-month basis are "extremely low levels." The Department addressed the Brescia data on page 18 of the Technical Evaluation distributed with the Draft PSD Permit. A Department representative has since visited the Brescia facility while on personal travel and discussed operation of the facility with the operations manager. These discussions support the Department's position that the 110 ppmvd and 90 ppmvd limits for NOx are achievable without ammonia slip problems. See the attached summary of the trip report from Mr. Al Linero to Mr. Tom Smith in the e-mail dated July 18, 2006.

7. *Under certain operating and atmospheric conditions, the ammonia slip may produce a highly opaque plume of ammonium chloride, which may violate the 10% opacity limit. Even if the plume does not constitute a permit violation, the plume is likely to generate negative publicity and ill will for the Facility, the County, and the Department. Other operating experience with SNCR to produce NO_X levels as low as that contemplated by the Draft Permit indicates that there will be other undesirable side effects such as plume formation and/or ammonia vapors in the workplace.*

   Other operators' experience with SNCR to produce NO_X levels as low or lower than contemplated by the Draft Permit support the DEP's conclusion that plume should not be an issue. The DEP added a permitting note to acknowledge this concern raised by the applicant.

8. *Specific Condition B.14 limits ammonia slip to 10 ppmvd when Unit 4 is operated at 195 MMBtu/hr and 15 ppmvd when Unit 4 is operated at 260 MMBtu/hr. It is our understanding that the Department derived these emission levels from the preliminary SNCR equipment specifications prepared by FuelTech. The FuelTech specifications should not be used as permit limits in this case because the specifications were based on a NO_X emission rate of*

110 ppmvd. Since the Department has imposed a NO_X emission limit of 90 ppmvd, the Facility will need to inject more urea than FuelTech anticipated and the SNCR specifications will need to be revised. Increasing the urea injection rate is likely to cause increased ammonia slip. We respectfully request the Department to reconsider the proposed ammonia slip limitations and adjust them in light of the proposed 90 ppmvd NO_X emission level. Please recognize that, to achieve an annual average of 90 ppmvd, it will be necessary to operate at even lower levels to offset the emissions at times when the NO_X levels are above 90 ppmvd.

The 90 ppmvd limit applies on a 12-month basis. There is no 12-month NH_3 limit. The NH_3 limit applies while the County demonstrates compliance with its short-term limit of 110 ppmvd. There is no requirement to demonstrate the ability to meet 10/15 ppmvd NH_3 while NO_X emissions are equal to 90 ppmvd.

9. *Quarterly stack tests for mercury should not be required in this case. The County has agreed to incur the expense associated with the installation and operation of a CEMS for mercury. The County should not be required to incur the additional expense of conducting quarterly stack tests for mercury on a permanent basis. Accordingly, the County respectfully requests the Department to eliminate the requirement in the Draft Permit for quarterly stack testing. If this proposal is unacceptable to the Department, the Department should amend the Draft Permit to state that the quarterly stack testing can be eliminated when the County installs and begins to operate the CEMS for mercury.*

   Quarterly stack testing is specified to demonstrate that mercury emissions are less than 0.022 lb/hr to avoid PSD applicability. The quarterly test is only required for the first two years of operation if a certified CEMS is not used. The Draft Permit was revised prior to the certification hearing. The revisions are shown with strikethrough and double underline.

   To eliminate any further confusion between Specific Conditions 19. and 26. with regard to this Hg testing frequency, a permitting note is added to Specific Condition 19. This permitting note, shown in italics, is added to the Revised Draft Permit. Specific Conditions 19. and 26. are now revised to read:

   Specific Condition 19.

   Mercury Hg: Emissions of Hg shall not exceed 28 µg/dscm or an emissions reduction of 85 percent shall be achieved as demonstrated during the required annual stack test.

   During the first two years of operation, emissions of Hg shall not exceed 0.022 lb/hr as measured during quarterly stack tests to provide reasonable assurance that 12-month emissions are less than the applicable PSD threshold of 200 lb/yr.

   After the certification of the Hg-CEMS as described in Specific Condition 35. ~~Thereafter~~, the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected during an annual stack test or from the ~~required~~ Hg-CEMS ~~as described in Specific Condition 26. Otherwise, the required quarterly testing for mercury shall continue~~.

   {Permitting Note: If the Hg-CEMS is certified prior to the end of the first two years of operation, the permittee may use the CEMS in lieu of the remaining quarterly tests.}

Specific Condition 26.

Subsequent Compliance Testing: Annual compliance stack tests for NO_X, CO, SO_2, HCl, PM/PM_{10}, lead, cadmium, dioxins/furans, and ammonia shall be conducted during each federal fiscal year (October 1st to September 30th). Data collected from the reference method during the required RATA tests for CO, NO_X, and SO_2 may be used to satisfy the annual testing requirement provided the notification requirements and emission testing requirements for performance and compliance tests of this permit are satisfied.

Prior to the certification of the Hg-CEMS as described in Specific Condition 35.,
~~P~~performance tests for Hg emissions shall be conducted on a calendar year basis to demonstrate compliance with the concentration/reduction standards. ~~Performance tests to demonstrate compliance with the lb/hr Hg standard shall be conducted on a quarterly basis.~~

~~Following the first two years of operation, the owner or operator may demonstrate compliance with the Hg limits in this permit using the required Hg CEMS in lieu of the quarterly and annual testing requirements provided all provisions of Specific Condition 35 and subpart 40 CFR 60.58b(n) and (o) are met. Otherwise, the required quarterly testing for mercury shall continue.~~ After the certification of the Hg-CEMS as described in Specific Condition 35., the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected from the Hg-CEMS.

[Rules 62-297.310(7)(a) and (b), and 62-296.416, F.A.C., and 40 CFR 60.8 and 60.58b]

ADDITIONAL COMMENTS FROM CDM

Additional comments were received from Mr. Jason M. Gorrie of CDM by letter dated June 22, 2006.

10. Section III, Item 7 of the Draft Permit states that "the maximum steam production rate shall not exceed 164,000 pounds steam per hour (on a 4-hour block arithmetic average)." The County's application evaluated capacity of the new Unit 4 on an MMBtu/hr basis, not on a steam production rate basis. Relating steam production rate (in pounds per hour) to heat release rate (in MMBtu) is difficult given the varying heat content of the fuel (MSW) and the relatively wider operating window that municipal waste combustors operate within. This is recognized by the USEPA in that Subpart Eb establishes the maximum steam load as 110% of the maximum demonstrated steam load during the most recent dioxin/furan performance test.

The County is not opposed to establishing a never to be exceeded value for steamflow, however, the preliminary specifications provided by the boiler vendors suggest that 164,000 lbs/hr is too low. The maximum steamflow should be 190,000 lb/hr. This is equivalent to the 288 MMBtu per hour input used in our air quality analyses.

The 164,000 pounds steam per hour value had been obtained from the technical specification document prepared by Burns and Roe, Enterprises, Inc. (see SPEC NO. Hills-SM-101A, dated 6-30-05). Similarly, the same documents indicate a heat input of 260 mmBtu/hr. The application was based on a 288 MMBtu/hr heat input.

It is conceivable that the new unit will be able to produce more steam, but the waste processing or heat input rates (or both) will likely be substantially greater than the nominal ratings. The Department will change the steam flow limitation to 190,000 pounds/hr as requested in the emissions unit description and Specific Condition 7. The emission limits for the facility remain unchanged and the permittee must operate the facility to comply with these limits.

11. *Specific Conditions 14 through 21 of the Draft Permit establish lb/hr limitations for many of the regulated pollutants emitted from Unit 4. The emission limitations established as BACT and imposed through NSPS standards are expressed on a concentration basis (either mg/dscm or ppmdv7). Past Department practice has been to establish "equivalent emissions" (in ton/yr) based on the requisite concentration limitation. However, this Draft Permit establishes an actual mass limitation rather than an equivalent emission.*

    From discussions with you, it is our understanding that the EPA requires a mass emission limitation to be imposed when a PSD threshold is triggered. As you know, the concentration limitations have varying averaging periods associated with them. For instance, SO_2 concentration is regulated on a 24-hr geometric mean average and CO concentration is regulated on a 4-hr block arithmetic average. In order to avoid confusion over differing averaging periods, and to satisfy EPA's mass emission limitation requirements, we suggest that the Department establish a ton/year limitation rather than a lb/hour limitation. Such an approach will preserve operating flexibility, avoid confusion, and embody EPA's PPSD increment-consumption requirements. With the flow CEM it will be possible to accurately determine compliance with an annual mass emission limitation.

    Inclusion of pounds per hour (lb/hr) limitations is the common practice for the Department's PSD permitting and BACT determinations. Few MWC units have been built in recent years. However, virtually all of the Department's PSD Permit for non-MWCs include technological limits such as concentrations and relatively short-term mass limits.

12. *Specific Condition No. 29.a. authorized three hours in any 24-hour period of excess emissions. Specific Condition No. 29.c. provisionally allows up to 15 hours for certain types of malfunctions resulting in CO emissions. For clarity, we suggest that the language in 28.a. reference the special provisions of 29.c.*

    The Department separates the State excess emissions rule provisions from the Federal excess emissions regulations. The permitting note after Specific Condition 28. applies to Specific Conditions 28. and 29. For clarity, the permitting note is moved after the Excess Emissions header, before Specific Conditions 28.

COMMENTS FROM COVANTA HILLSBOROUGH, INC. (CHI)

Comments were received from Mr. Joseph Threshler by letter dated June 23, 2006. Mr. Threshler is a CHI Vice President. CHI is the County's contracted "constructor/operator" of the facility. The format and numeration are continued from the previous section. Many of the comments are duplicative of those submitted by CDM for which responses have already been provided and will not be repeated here.

13. *Emissions Unit 107 - Continuous Monitors. The equipment scope listed in under Continuous Monitors includes a continuous flue gas flow rate monitor. Continuous flue gas flow rate monitors have been applied to 40 CFR Part 75 sources; however, they have not been required or applied to large municipal waste combustors because EPA Method 19 has met all of the RATA requirements without introducing additional capital and O&M costs.*

    If the Department is interested in monitoring long-term mass emission rates, EPA method 19 is recommended because of its successful history and because it does not introduce additional cost.

    Given their incremental cost without the provision of any net environmental benefit, Covanta recommends that the requirement for flue gas flow rate monitors be amended to allow the Applicant the opportunity to select either a flue gas monitor or to use EPA Method 19. In either case, the mass emission rate will be subject to the same data quality as determined by the Relative Accuracy Test Audit.

    The flowmeter is necessary to accurately measure CO, SO_2 and NOx emissions on a continuous basis and consistent with the specified averaging periods. The flow meter will remain a requirement as described in Specific Condition 34. of the permit.

14. *Condition 19. In order to establish consistency in permit averaging period between Condition 19 and Condition 35, the following is proposed for the third paragraph of Condition 19;*

    Thereafter, the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected from the required Hg-CEMS as described in Specific Condition 26 with Hg-CEMS data being reported as a quarterly average. Otherwise the required quarterly testing for mercury shall continue.

    The "quarterly" references are to testing frequency in Specific Condition 19. and to the reporting of data in Specific Condition 35., not to the averaging period for mercury emissions data. Specific Conditions 19. and 26. related to Hg compliance and monitoring were addressed and certain changes were made as previously mentioned.

CONCLUSION

The Department will issue the Final PSD Permit with the changes noted above.

Sheplak, Scott

From: Linero, Alvaro
Sent: Tuesday, July 18, 2006 12:32 PM
To: 'Smitht@hillsboroughcounty.org'
Cc: 'jtreshler@covanta.com'
Subject: Update on NOx Technology
Attachments: IMG_0701.JPG; IMG_0711.JPG

Hi Tom:

It's been a while since we met about Unit 4. understand the hearing before the ALJ was conducted last week and I trust all went well.

I just got back from vacation in Switzerland and Italy. I saw the big blue stack for the Brescia facility right off of the Venice/Milan Autostrade (big highway) and couldn't resist pulling over and taking a look.

I met with the Director of the ASM Brescia WTE Plant, Mr. Lorenzo Zamboni lzaniboni@asm.it He gave me a complete rundown of their operations and a tour. I wanted to pass along what may be helpful to you while in the design phase of Hillsborough Unit 4.

All three units operate with SNCR systems. They have Martin moving grates, FGR, spray dryer/fabric filter combos, and activated carbon injection systems. They operate each unit at ~80 mg NOx/m3 which equates to ~ 60 ppmv and were doing so on the day of my visit.

They have no plume issues under their present operations. I myself saw zero opacity. Any potential plume problems from achieving the relatively low NOx values are abated by two fairly recent developments at the plant.

Firstly, they are operating at a lower HCl emission limit following Italy's adoption of certain European Union requirements. Their typical emissions are 4 mg HCl/m3 and the limit is 10 mg/m3. I believe the values are not too different from 4 and 10 ppmv in terms of U.S. standards. You might check your historical record of HCl emissions from Unit 1, 2, and 3 and see how they typically do and check into what your new unit is likely to do.

Secondly, Unit 2 is equipped with the SNCR system in the furnace plus a thin single stage "dusty side" SCR system within the economizer section. It is only about 60 cm in depth (and ~4x13 meters cross-section). The unit was originally designed for that possibility and provided for something like 5 stages of "dusty-side" SCR. They only use one stage. The benefits of the this "trim" SCR system are reduction of reagent consumption and ammonia slip with minimal pressure drop.

They shoot for the same 80 mg/m3 (60 ppmv) NOx exhaust values on all three units. Your 90 ppmv long term value would be roughly 120 mg/m3 so the job will be easier if designed right.

I went ahead and included one picture of the small SCR piece (alongside a corpulent Colombian) so you can see what is physically entailed. I also included a picture of the stack taken on July 6 so you can see what I saw.

Feel free to contact me if you would like to know more about my trip. Good luck on the planned expansion project!

Sincerely,

Al Linero
1-850-921-9523

FINAL

PERMITTEE

Hillsborough County Department Solid Waste Management 601 East Kennedy Boulevard Tampa, Florida 33602	**DEP File No.:** 0570261-007-AC **Permit No.:** PSD-FL-369
	Facility ID No.: 0570261
	Project: Resource Recovery Facility Unit 4

PROJECT AND LOCATION

This permit authorizes the construction of a nominal 600 ton per day (TPD) Municipal Waste Combustor referred to as Unit 4 at the existing facility.

The existing facility, Hillsborough County Resource Recovery Facility (HCRRF), is located at 350 N. Falkenburg Road, Tampa, Hillsborough County. The UTM coordinates are Zone 17, 368.2 km East and 3092.7 km North; Latitude: 27° 57' 14" North and Longitude: 82° 40' 22" West.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the work specified in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

Appendices

The following Appendices are attached as part of this permit.

Appendix A - NSPS Subpart A, Identification of General Provisions

Appendix BD - BACT Determination

Appendix Eb - NSPS Subpart Eb, Standards of Performance For Large Municipal Waste Combustors

Appendix GC - General Conditions

Appendix SC - Standard Conditions

Expiration Date: December 31, 2009

Joseph Kahn, P.E. — Effective Date: 10/2/06

Director

Division of Air Resource Management

JK/TLV/AAL/sms

FACILITY DESCRIPTION

The existing facility, Hillsborough County Resource Recovery Facility (HCRRF), is located at 350 N. Falkenburg Road, Tampa, Hillsborough County.

The existing facility consists of three municipal waste combustors (MWCs), each having a nominal design rate capacity of 400 tons MSW (municipal solid waste) per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound.

The facility is owned by Hillsborough County and is currently operated by Covanta Hillsborough, Inc. a subsidiary of Covanta Energy Corporation. The Hillsborough County Resource Recovery Facility began operation in 1987.

PROJECT

The permittee, Hillsborough County, proposes to construct a new 600 ton per day (TPD) Municipal Waste Combustor referred to as Unit 4 at the existing facility. The nominal design rate capacity is 600 tons MSW per day, with a nominal heat input of 288 MMBtu per hour and nominal steam production of 163,780 pounds per hour (maximum 190,000 lb/hr). The new unit will be equipped with two natural gas-fired auxiliary burners, each with a nominal heat input of 50 MMBtu per hour. The new unit will be installed at the existing site. The flue for the new boiler is already encased in the existing stack. With the addition of the fourth unit, the existing 220 feet tall stack will contain four active flue streams. With the addition of this unit, the site capacity will increase from approximately 1,200 TPD to 1,800 TPD. The site's steam electric generating capacity will be increased from 39 MW to 47 MW (nominal).

The existing ash building and handling system will be expanded. Two new lime storage silos and a new activated carbon storage silo will be constructed for Unit 4.

Unit 4 will be a mass burn unit incorporating much of the same technology as the existing units including: combustion on a reverse-reciprocating grate system; ash discharge system; energy recovery through the furnace waterwall, superheater and economizers; electrical power production; and a pollution control system consisting of a spray dryer, fabric filter, activated carbon injection system and a selective non-catalytic reduction (SNCR). In addition, the new unit will incorporate flue gas recirculation for energy efficiency and pollution reduction.

REGULATORY CLASSIFICATIONS

Section 111, Clean Air Act, Standards of Performance for New Stationary Sources (NSPS): The new unit is a large Municipal Waste Combustor (MWC) unit subject to 40CFR60, Subpart Eb - Standards of Performance for New Stationary Sources and Emission Guidelines for Municipal Waste Combustors.

Sec*tion 112, Clean Air Act, Hazardous Air Pollutants (HAPs):* The facility is a major source of HAPs. The maximum achievable control technology (MACT) requirements typically specified in the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for this industry were included in 40CFR60, Subpart Eb as required by Section 169, Clean Air Act, Solid Waste Combustion.

Title IV, Acid Rain: The facility operates no units subject to the acid rain provisions of the Clean Air Act.

Title V, Clean Air Act, Permits: The facility is a Title V or "Major Source" of air pollution because the potential emissions of at least one regulated pollutant exceed 100 tons per year or because it is a Major Source of HAPs. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO_X), particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), and volatile organic compounds (VOC).

Part C, Clean Air Act, Prevention of Significant Deterioration (PSD): The facility is located in an area that is designated as "attainment", "maintenance", or "unclassifiable" for each pollutant subject to a National Ambient Air Quality Standard. The facility is classified as a "municipal incinerator capable of charging more than 250 tons of refuse per day", which is one of the facility categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year, therefore the facility is classified as a "Major Stationary Source" with respect to Rule 62-212.400 F.A.C.

Stationary Sources - Emission Standards in Chapter 62-296, F.A.C.: The facility operates one or more units subject to emission standards. The new Unit 4 is subject to the mercury standard in Rule 62-296.416, F.A.C. The numerical mercury emissions limit under state Rule 62-296.416, F.A.C., is more stringent than the NSPS emissions limit.

Reasonable Available Control Technology (RACT): The entire State of Florida is either classified as attainment or considered to be in attainment (i.e., unclassifiable) with respect to the NAAQS for all pollutants. However, the facility is located in a maintenance area for ozone, particulate matter and lead. The VOC and NO_X RACT provisions do not apply. The new unit has operations that are subject to PM RACT.

Siting: The facility was originally certified under PA83-19 pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

RELEVANT DOCUMENTS

- Received Site Certification and PSD application on November 21, 2005;
- Sufficiency information requested via Power Plant Siting Office on January 10, 2006;
- Supplemental information received on January 17, 2006;
- Received responses to sufficiency request on March 2, 2006;
- Intent to Issue PSD Permit distributed with Siting Staff Report on May 24, 2006;
- Department's Technical Evaluation & Preliminary Determination dated May 24, 2006;
- Comments received from Camp Dresser McKee (CDM) submitted on behalf of the County and dated June 8 and June 22, 2006;
- Comments received from Covanta Hillsborough, Inc. and dated June 22, 2006;
- Recommended Certification Order issued by the Division of Administrative Hearing on August 2, 2006;
- Final Order, including Conditions of Certification, approved by the Siting Board on September 19 and clerked on September 27, 2006; and
- Department's Final Determination dated September 29, 2006.

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, modify or operate this emissions unit shall be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114. Copies of these documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the compliance authority. The compliance authority is the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
3. General Conditions: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and the Title 40, Parts 51, 52, 60, 63, 72, 73, and 75 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
   [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Construction and Expiration: The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. In conjunction with an extension of the 18-month period to commence or continue construction (or to construct the project in phases), the Department may require the permittee to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for emissions units regulated by the project. For good cause, the permittee may request that this PSD air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, 62-210.300(1), and 62-212.400(6)(b), F.A.C.]
6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

7. Source Obligation.
   (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.
   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification
   (c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
   [Rule 62-212.400(12), F.A.C.]
8. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.
   [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
9. Title V Permit: This permit authorizes construction of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emission units. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Bureau of Air Regulation and a copy to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

A. Common Conditions

The proposed new emissions units are:

E.U. ID No.	Emission Unit Descriptions
-107	Nominal 288 MMBtu/hr Municipal Waste Combustor & Auxiliary Burners - Unit 4
-108	Pebble Lime Storage Silo - Unit 4
-109	Dolomitic Lime Storage Silo - Unit 4
-110	Activated Carbon Storage Silo - Unit 4
-111	Cooling Tower Cell

CONSTRUCTION ACTIVITIES

1. Unconfined Particulate Matter Emissions: Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter include the following requirements consistent with current practices by the permittee:

   All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. The unpaved areas of the facility will be maintained and either sodded or landscaped. Hoods, fans, filters, or similar equipment will be used to contain, capture, and/or vent particulate matter. The conveyor systems of the facility will be enclosed or covered. The ash will be wetted before being stored in the ash handling building. Speed limit signs shall be posted. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor or the refuse bunker while trucks are entering or leaving) shall be under negative air pressure. [Rule 62-296.320(4)(c)2., F.A.C.; and, items proposed by the applicant.]

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

This section of the permit addresses the following emissions units.

Emissions Unit 107

Description: Emissions unit 107 consists of a nominal 600 TPD mass-burn municipal waste combustor (MWC) with two nominal 50 mmBtu/hr natural gas-fired auxiliary burners. The project will also include: a new nominal 17 megawatt (MW) steam turbine-electrical generator; expansion of the ash handling and refuse building; a new transformer yard; a new lime silo; a urea reagent storage tank; and a new settling basin. Exhaust from the new unit will be directed to a separate flue already constructed within the existing 220 foot stack.

Steam Capacity: The nominal steam production rate is 163,780 pounds of steam per hour. The maximum steam production limit is 190,000 lb steam/hr (4-hour block average). The nominal heat input is approximately 288 mmBtu/hour.

Controls: Controls consist of: efficient combustion on the grate and furnace; flue gas recirculation (FGR); a spray dryer/absorber in conjunction with a fabric filter (SD/FF) for control of acid gases, particulate matter, and most metals; activated carbon injection (ACI) to enhance mercury (Hg) removal; selective non-catalytic reduction (SNCR) by ammonia or urea injection for NO_X control.

Stack Parameters: The Department may require the permittee to perform additional air dispersion modeling should the actual specified stack dimensions change. The following summarizes the exhaust characteristics:

Fuel	Heat Input Rate	Exhaust Temp., °F	Flow Rate ACFM
MSW	~288 mmBtu/hour	270° F	~125,000

Continuous Monitors: The unit is equipped with continuous emissions monitoring systems (CEMS) to measure and record NO_X, CO, SO_2, and Hg as well as instrumentation to monitor steam flow, flue gas flow rate, oxygen, temperature, and opacity.

APPLICABLE STANDARDS AND REGULATIONS

1. BACT Determinations: The emission unit addressed in this section is subject to a Best Available Control Technology (BACT) determination for nitrogen oxides (NO_X), carbon monoxide (CO), MWC acid gases (SO_2+HCl); SO_2 as an individual pollutant, and MWC organics (dioxin/furan). [Rule 62-212.400, F.A.C.]
2. NSPS Requirements: The municipal waste combustor and auxiliary burners shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subparts.

(a) **Subpart A, General Provisions**, including:

- 40 CFR 60.7, Notification and Record Keeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements

(b) **Subpart Eb, Standards of Performance for Large Municipal Waste Combustors**

3. Emission Standards for Stationary Sources: This unit has a charging rate of 40 tons per day or more and is subject to the requirements of Stationary Sources – Emission Standards for Waste-To-Energy Facilities of Rule 62-296.416, F.A.C.

AIR POLLUTION CONTROL TECHNOLOGY

4. Control Equipment: The owner or operator shall install, operate and maintain the following air pollution control equipment consistent with the manufacturers' specifications.

NO_X Controls: A flue gas recirculation system (FGR) will be used to limit NO_X formation. A urea-based selective non-catalytic reduction (SNCR) system will be employed for the destruction of NO_X.

MWC Acid Gas Control: A spray dryer (SD) with lime injection will be installed to absorb MWC acid gases.

MWC Organics and Mercury (Hg): An activated carbon injection (ACI) system will be installed to adsorb MWC organics and mercury (Hg).

Particulate Matter (PM/PM_{10}): A fabric filter (FF) baghouse, including absorption/adsorption reagent, will be installed to remove particulate matter.

[BACT Determination, and Rules 62-4.070(1), and (3), F.A.C.]

OPERATIONAL DESCRIPTIONS AND LIMITATIONS

5. Nameplate: The combustor (boiler) shall have a metal name plate affixed in a conspicuous place on the shell showing the manufacturer, model number, type of waste, and rated capacity. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

6. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

7. Permitted Capacity. The maximum steam production rate shall not exceed 190,000 pounds steam per hour (on a 4-hour block arithmetic average).

{Permitting Note: The nominal capacity of Unit 4 is 600 tons per day and has been determined to be greater than 250 tons per day, thus classifying the unit as a "large MWC unit" under NSPS - 40 CFR 60, Subpart Eb.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., 40 CFR 60, Subpart Eb, and Design]

8. Maximum Demonstrated Municipal Waste Combustor Unit Load. Unit load means the steam load of the municipal waste combustor measured as specified in 40 CFR 60.58b(I)(6). Each unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load." Maximum demonstrated municipal waste combustor unit load means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics. Higher loads are allowed for testing purposes as specified in 40 CFR 60.53b(b). [40 CFR 60.34b(b), 60.51b, 60.53b(b), and 60.58b(I)(6)]

9. Prohibited Fuels:

   a. The facility shall not burn:
      i. those materials that are prohibited by state or federal law;
      ii. those materials that are prohibited by this permit;
      iii. lead acid batteries;
      iv. hazardous waste;
      v. nuclear waste;
      vi. radioactive waste;
      vii. sewage sludge;
      viii. explosives;
      ix. beryllium-containing waste, as defined in 40 CFR 61, Subpart C.

   b. Further, the facility shall not knowingly burn:
      i. nickel-cadmium batteries pursuant to Section 403.7192 (3);
      ii. mercury containing devices and lamps pursuant to Sections 403.7186(2), and (3);
      iii. untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from similar generators (or sources);
      iv. segregated loads of biological waste; and
      v. CCA treated wood.

10. Authorized Fuels. The primary fuel for the facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995). Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below:

    a. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:
       i. Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
       ii. Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
       iii. Wood pallets, clean wood, and land clearing debris;

iv. Packaging materials and containers;
v. Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
vi. Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.

b. Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with **Specific Condition 36.** of this subsection.

c. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with **Specific Condition 36.** of this subsection.

i. Construction and demolition debris.
ii. Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
iii. Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
iv. Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
v. Waste materials that:
   (a) are generated in the manufacture of items in categories (iii) or (iv), above and are functionally or commercially useless (expired, rejected or spent); or
   (b) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
vi. Waste materials that contain oil from:
   (a) the routine cleanup of industrial or commercial establishments and machinery; or
   (b) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
vii. Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).

{Permitting note: Waste materials specifically authorized above do not require Department approval.}

viii. Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW.

[Rule 62-4.070(1), and (3), F.A.C.]

11. Segregated Loads: The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

    a. well mixed with MSW in the refuse pit; or

    b. alternately charged with MSW in the hopper.

12. Combustion Practices: To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

    a. comply with good combustion operating practices in accordance with 40 CFR 60.53b;

    b. install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and

    c. record and maintain the CEMS data in accordance with 40 CFR 60.59b.

    These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit.

    Natural gas may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

MONITORING OF OPERATIONS

13. Continuous Steam Flow Monitoring: Municipal waste combustor unit load means the steam load of the municipal waste combustor unit measured as specified in §60.58b(i)(6). The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in kilograms (or pounds) per hour on a continuous basis, and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam flow shall be calculated in 4-hour block arithmetic averages. Higher unit loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b).
    [Rules 62-204.800(8) and 62-4.070(1), and (3), F.A.C., and 40 CFR 60.53(a), and 60.58b(i)]

EMISSIONS STANDARDS

14. Emissions from Unit 4 shall not exceed the emissions standards listed in the following table or in **Specific Conditions 15.-22.** and using the test methods and procedures described in **Specific Conditions 23.-27.**

Pollutant	Emission Standard/Limit[1]	Lb/hour	Basis
Nitrogen Oxides (NO_X)	1st year of operation:		
	150 ppmvd - 24 hour block average and	79.8	Subpart Eb
	110 ppmvd- 30 day rolling average	58.5	Limit PTE
	Thereafter:		
	110 ppmvd - 24 hour block average and	58.5	BACT
	90 ppmvd - 12 month rolling average	47.9	BACT
Carbon Monoxide (CO)	80 ppmvd – 30-day rolling avg.	25.9	BACT
	100 ppmvd - 4 hr block average	32.4	BACT/Eb
Sulfur Dioxide (SO_2)	26 ppmvd - 24 hour block average or 80% reduction[2]	19.2	BACT/Eb
Hydrogen Chloride (HCl)[3]	25 ppmvd or 95% reduction[2]	25.4	BACT/Eb
Particulate Matter (PM/PM_{10})	12.0 mg/dscm	3.3	Avoid PSD
Lead (Pb)	140 µg/dscm	NA	Subpart Eb
Mercury (Hg)	28 µg/dscm or 85% reduction[2]	0.022	Avoid PSD/Eb
Cadmium (Cd)	10 µg/dscm	NA	Subpart Eb
Dioxins/Furans[4]	13.0 ng/dscm	3.61×10^{-6}	BACT/Eb
Opacity	10 % - 6 minute average	NA	BACT/Eb
Ammonia Slip	@ 195 MMBtu/hr: 10 ppmvd @ 260 MMBtu/hr: 15 ppmvd	NA	PM, Opacity.

1 All concentration values are corrected to 7% O_2.
µg/dscm: Micrograms per dry standard cubic meter
mg/dscm: Milligrams per dry standard cubic meter
ng/dscm: Nanograms per dry standard cubic meter
ppmvd: Part per million dry volume
NA: not applicable

2 Whichever standard is less stringent.

3 HCl is not a BACT pollutant. However, it must be limited together with SO_2 because they both comprise MWC-Acid Gases which has its own PSD threshold.

4 Dioxins/furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans

15. Nitrogen Oxides (NO_X): During the first calendar year of operation, emissions of NO_X in the stack exhaust gas as measured by the required CEMS shall exceed neither 150 ppmvd on a 24-hr daily arithmetic average nor 79.8 lb/hr and shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 30-operating day rolling average.

    Thereafter, emissions of NO_X in the stack exhaust gas as measured by the required CEMS shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 24-hr daily arithmetic average and shall exceed neither 90 ppmvd nor 47.9 lb/hr on a 12-month rolling average, rolled monthly.

    {Permitting Note: The owner or operator may request a permit modification of the 90 ppmvd NO_X standard if ammonia plume or slip issues arise and persist at the facility. The Department reserves the right to make a final determination on any such request.}

16. Carbon Monoxide (CO): Emissions of CO in the stack exhaust gas as measured by the required CEMS shall exceed neither 100 ppmvd on a 4-hr block average nor 32.4 lb/hr and shall exceed neither 80 ppmvd nor 25.9 lb/hr on a 30-operating day rolling average.

17. Sulfur Dioxide (SO_2): Emissions of SO_2 as measured by the required CEMS shall exceed neither 26 ppmvd nor 19.2 lb/hr on a 24-hr daily geometric mean, or an emissions reduction of 80 percent shall be achieved.

18. Hydrogen Chloride (HCl): Emissions of HCl shall exceed neither 25 ppmvd nor 25.4 lb/hr or, an emissions reduction 95 percent shall be achieved as demonstrated during the required stack test.

19. Mercury Hg: Emissions of Hg shall not exceed 28 µg/dscm or an emissions reduction of 85 percent shall be achieved as demonstrated during the required annual stack test.

    During the first two years of operation, emissions of Hg shall not exceed 0.022 lb/hr as measured during quarterly stack tests to provide reasonable assurance that 12-month emissions are less than the applicable PSD threshold of 200 lb/yr.

    After the certification of the Hg-CEMS as described in **Specific Condition 35.,** the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected during an annual stack test or from the Hg-CEMS.

    {Permitting Note: If the Hg-CEMS is certified prior to the end of the first two years of operation, the permittee may use the CEMS in lieu of the remaining quarterly tests.}

20. Dioxins/Furans: Emissions of dioxins/furans shall exceed neither 13.0 ng/dscm nor 3.61×10^{-6} lb/hr.

21. Particulate Matter (PM/PM_{10}): Emissions of PM shall exceed neither 12.0 mg/dscm nor 3.3 lb/hr. This will simultaneously demonstrate compliance with the PM_{10} limits.

    {Permitting note: Compliance with this condition will also demonstrate that emissions are less than the 15 TPY PSD thresholds for PM_{10} and MWC-Metals.}

22. Opacity: Visible emissions shall not exceed 10 percent opacity on a 6-minute average as measured by the required continuous opacity monitoring system (COMS) and measured by an annual visible emissions test (VE).

TEST METHODS AND PROCEDURES

23. Test Methods: Any required stack test shall be performed in accordance with the following methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
5	Determination of Particulate Emissions. The minimum sample volume shall be 30 dry standard cubic feet.
6C	Determination of SO_2 Emissions (Instrumental).
7E	Determination of NO_X Emissions (Instrumental). NO_X emissions testing shall be conducted with the air heater operating at the highest heat input possible during the test.
9	Visual Determination of Opacity
10	Measurement of Carbon Monoxide Emissions (Instrumental). The method shall be based on a continuous sampling train.
23	Measurement of Dioxin/Furan Emissions
26 or 26A	Determination of Hydrogen Chloride Emissions
29	Determination of Metals Emissions from Stationary Sources
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Source • This is an EPA conditional test method. • The minimum detection limit shall be 1 ppm.

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "http://www.epa.gov/ttn/emc/ctm.html". The other methods are specified in Appendix A of 40 CFR 60, adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. Tests shall be conducted in accordance with the appropriate test method and the applicable requirements specified in this permit, and NSPS Subpart A in 40 CFR 60. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

24. Testing Requirements: Initial tests shall be conducted between 90% and 100% of permitted capacity; otherwise, this permit shall be modified to reflect the true maximum capacity as constructed. Subsequent annual tests shall be conducted between 90% and 100% of permitted capacity in accordance with the requirements of Rule 62-297.310(2), F.A.C.
[Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]

25. Initial Compliance Demonstration: Initial compliance stack tests shall be conducted within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup. In accordance with the test methods specified in this permit, Unit 4 exhaust stack gas shall be tested to demonstrate compliance with the emission standards for NO_X, CO, SO_2, HCl, PM/PM_{10}, lead, cadmium, Hg, dioxin/furans, and ammonia. The permittee shall provide the Compliance Authority with any other initial emissions performance tests conducted to satisfy vendor guarantees. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]

26. Subsequent Compliance Testing: Annual compliance stack tests for NO_X, CO, SO_2, HCl, PM/PM_{10}, lead, cadmium, dioxins/furans, and ammonia shall be conducted during each federal fiscal year (October 1st to September 30th). Data collected from the reference method during the required RATA tests for CO, NO_X, and SO_2 may be used to satisfy the annual testing requirement provided the notification requirements and emission testing requirements for performance and compliance tests of this permit are satisfied.

    Prior to the certification of the Hg-CEMS as described in **Specific Condition 35.**, performance tests for Hg emissions shall be conducted quarterly during the fist two years of operation then on a calendar year basis to demonstrate compliance with the concentration/reduction standards.

    After the certification of the Hg-CEMS as described in **Specific Condition 35.**, the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected from the Hg-CEMS.

    [Rules 62-297.310(7)(a) and (b), and 62-296.416, F.A.C., and 40 CFR 60.8 and 60.58b]

27. Continuous Compliance: The permittee shall demonstrate continuous compliance with the CO, NO_X, and SO_2 emissions standards based on data collected by the certified CEMS. The permittee shall demonstrate continuous compliance with the opacity limit based on data collected by the required COMS. [Rule 62-210.200 (BACT), F.A.C., and 40 CFR 60, Subpart Eb]

EXCESS EMISSIONS

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary or supersede any requirement of an NSPS or NESHAP provision.}

28. Department Regulations: The following conditions apply only to the emissions limits given in **Specific Conditions 14.-22.** that were specified pursuant to BACT or to avoid PSD applicability.

    a. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. The Department authorizes three hours in any 24-hour period for this emissions unit. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner.

    b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

c. The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown and malfunction) shall be used to report emissions for the Annual Operating Report.

[Rule 62-210.700, F.A.C.]

29. Regulations pursuant to 40 CFR 60, Subpart Eb: The following conditions apply only to the emissions limits given in **Specific Conditions 14.-22.** that were specified pursuant to 40 CFR 60, Subpart Eb.

a. *The opacity standards* set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. [40 CFR 60.11(c)]

b. *Startup, Shutdown and Malfunction.* Except as provided by 40 CFR 60.56b, the standards under 40 CFR 60, Subpart Eb, as incorporated in Rule 62-204.800(8)(b), F.A.C., apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup or shutdown periods are limited to 3 hours per occurrence, except as provided in 40 CFR 60.58b(a)(1)(iii). During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).

i. The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the affected facility is combusting fossil fuel or other non-municipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

ii. Continuous burning is the continuous, semi-continuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

[40 CFR 60.58b(a)]

c. *Special Provisions for CO*: For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence.
[40 CFR 60.58b(a)(1)(iii)]

CONTINUOUS MONITORING REQUIREMENTS

30. CEM Systems: The permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the emissions of CO, NO_X, Hg and SO_2 from Unit 4 in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this subsection. All continuous monitoring systems other than the Hg CEMS shall be installed and functioning within the required performance specifications by the time of the initial performance tests. The Hg CEMS shall be installed and functioning within the required performance specifications by the end of the second year of operation as specified in **Specific Condition 35**.

a. *CO Monitor:* The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.

b. *NO_X Monitor:* The NO_X monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. The NO_X monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.

a. *SO2 Monitor.* The SO_2 monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 6C in Appendix A of 40 CFR 60. The SO_2 monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.

b. *Diluent Monitor.* A continuous emission monitoring system for measuring the oxygen content of the flue gas at each location where carbon monoxide, sulfur dioxide, nitrogen oxides emissions are monitored shall be installed, calibrated, maintained, and operated in accordance with the requirements of 40 CFR 60.58b.

c. *Mercury Monitor.* A mercury monitor (Hg CEMS) shall be installed, certified and operated as described in **Specific Condition 35.** below.

31. COMS: A continuous opacity monitoring system (COMS) shall be installed, calibrated, operated, and maintained in exhaust stack in a manner sufficient to demonstrate continuous compliance with the opacity standard specified in this section. Opacity shall be based on a 6-minute block average computed from at least one observation (measurement) every 15 seconds. For the COMS, the 6-minute block averages shall begin at the top of each hour. The COMS shall meet the applicable requirements of 40 CFR 60.58b(c)(8).

32. CEMS/COMS Certification and Initial Startup: Each CEMS/COMS, other than the Hg CEMS, required by this permit shall be installed prior to startup. Within 60 calendar days of achieving the maximum production rate, but no later than 180 calendar days after initial startup, the owner or operator shall certify each CEMS/COMS. Upon certification of each CEMS/COMS, the owner or operator shall demonstrate compliance with all applicable standards as specified in this permit. The Hg CEMS shall be installed and functioning within the required performance specifications within the first two years of operation as specified in **Specific Condition 35**. [Rules 62-4.070(3), 62-210.800, 62-210.200(BACT) and 62-297.520, F.A.C.; 40 CFR 60.7(a), 60.13(b), and 60.58b, and Appendix B]

33. CEMS Data Requirements: The CEMS shall express the results in the units of the applicable standard and in accordance with 40 CFR 60 subparts A, and Eb.

    a. *Data Exclusion*: Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, and malfunctions. Limited amounts of CEMS emissions data (other than mercury data) recorded during some of these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of **Specific Conditions 28. and 29.** in this subsection. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.

    b. *Availability*. Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be reported in the quarterly excess emissions report. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Compliance Authority. The monitor availability requirements of this condition do not apply to the Hg CEMS for the first two years of operation of the CEM system. (This is consistent with the Hg CEMS availability requirement of subpart Eb.)

34. Continuous Flow Monitor: A continuous flow monitor shall be installed to determine the stack exhaust flow rate to be used in determining mass emission rates. The flow monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 6.
[Rules 62-210.200(BACT), 62-204.800(8), and 62-4.070(1) and (3), F.A.C.]

35. Mercury Continuous Emissions Monitoring System (Hg-CEMS): Within 24 months of commencing operation, the owner or operator shall install and certify a mercury CEMS demonstrated to meet the requirements in Performance Specification 12A (PS-12A), "Specifications and Test Procedures for Total Vapor phase Mercury Continuous Monitoring Systems in Stationary Sources," or that has passed verification tests conducted under the auspices of the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program. If the vendor provides to the Department verification of certification difficulties such that the CEMS cannot be certified by the certification deadline, and every reasonable effort has been made to do so, the Department shall grant a reasonable extension of time to certify the CEMS. After certification the owner or operator will begin reporting Hg mass emissions data. The owner or operator shall adhere to the calibration drift and quarterly performance evaluation procedures and ongoing data quality assurance procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, Appendix B. The mass emissions shall be estimated based on the actual data collected no later than 10 days following the end of the month. The mercury monitoring data results shall be submitted quarterly. The CEMS shall only be used as the method of compliance if the owner or operator, at a minimum, meets the requirements of 40 CFR 60.58b(n). Prior to use of the Hg-CEMS as the method to demonstrate compliance, the owner or operator shall submit written notice to the Department, and receive approval for missing data substitution and a data calculation approach plans.
[Rules 62-4.070(1) and (3), and 62-210.200(BACT), F.A.C., 40 CFR 60.58b, and, Hillsborough County Environmental Protection Commission Local Ordinance 1-3.53.1(f), *Municipal Solid Waste Incinerators* (for Hg monitoring)]

REPORTING AND RECORD KEEPING REQUIREMENTS

36. Segregated Solid Waste Record Keeping: The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of **Specific Condition 10.** of this subsection:
    a. Each segregated load of non-MSW materials, subject to the percentage weight limitations of **Specific Condition 10.,** which is received for processing, shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.
    b. Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.
    c. Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 5% restriction shall be divided by the total weight of all waste materials received in the same calendar month,

and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

[Rules 62-4.070(1) and (3), and 62-210.200(BACT), F.A.C.]

37. Stack Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the specified in Rule 62-297.310(8), F.A.C. [Rule 62-297.310(8), F.A.C.]
38. Malfunction Notifications: If temporarily unable to comply with any condition of the permit due to breakdown of equipment (malfunction) or destruction by hazard of fire, wind or by other cause, the permittee shall immediately (within one working day) notify the Compliance Authority. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. If requested by the Compliance Authority, the owner or operator shall submit a quarterly written report describing the malfunction. [Rules 62-210.700(6) and 62-4.130, F.A.C.]
39. SIP Quarterly Report: Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing: equipment malfunctions resulting in excluded CEMS data and/or excess emissions; and the monitor availability of each CEMS. The report shall contain the information and follow the general format specified in 40 CFR 60.7(c), subpart A. [Rules 62-4.070(3), 62-4.130, and 62-210.200(BACT), F.A.C.]
40. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370, F.A.C.]

C. Lime and Carbon Storage Silos

This section addresses the following emissions units.

E.U. ID No.	Emission Unit Descriptions
108	Pebble Lime Storage Silo - Unit 4
109	Dolomitic Lime Storage Silo - Unit 4
110	Activated Carbon Storage Silo - Unit 4

EQUIPMENT AND CONTROL TECHNOLOGY

1. Equipment Description: The permittee is authorized to construct one pebble lime storage silo, one dolomitic lime storage silo, and one activated carbon storage silo. Each silo will have a volume of approximately 2,900 cubic feet and will be equipped with its own fabric filter baghouse.
2. Baghouse Controls: Each emissions unit identified for lime and carbon storage shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.015 gr/dscf.

PERFORMANCE REQUIREMENTS

3. Hours of Operation. These emission units may operate continuously (8,760 hours/year). [Rules 62-4.160(2), and 62-210.228(PTE), F.A.C.]
4. Emissions Limits: The following standards apply to each emissions point of this unit:
   a. Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
   b. Fugitive emissions are limited to 10% opacity from any emissions point not controlled by a baghouse.

   [Rule 62-070(3), F.A.C.]

   {Note: The baghouses are designed to control PM emissions to 0.015 grains/dry standard cubic foot (gr/dscf). The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM_{10} for all emission points in this emission unit system will be less than 0.5 TPY.}

   [Rules 62-4.070(3), F.A.C.]
5. Compliance Demonstrations: Each emission point shall be tested to demonstrate initial compliance with the emission standards for visible emissions in accordance with EPA Method 9. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the visible emission limits for each emission point shall be demonstrated during each federal fiscal year (October 1^{st} to September 30^{th}). [Rules 62-4.070(3), and 62-297.310(7)(a), F.A.C]
6. Test Methods: Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix C of this permit, and the applicable NESHAP provisions.

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

REPORTING AND RECORD KEEPING

7. Baghouse O&M Plan: For each baghouse the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse inspections and maintenance activities shall be recorded in a written log. The O&M plan shall be submitted to the Compliance Authority prior to the initial compliance tests for this unit. [Rule 62-4.070(3), F.A.C.]

8. Test Reports: For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]

This section addresses the following emissions unit.

E.U. ID No.	Emissions Unit Description
111	One Cooling Tower Cell

EQUIPMENT

1. Cooling Tower: The permittee is authorized to construct one cooling tower cell with the following nominal design characteristics: a circulating water flow rate of 11,000 gpm; drift eliminators; a drift rate of no more than 0.001 percent of the circulating water flow. [Application; Design]

EMISSIONS AND PERFORMANCE REQUIREMENTS

2. Drift Rate: Within 60 days of commencing commercial operation, the permittee shall certify that the cooling tower was constructed to achieve the specified drift rate of no more than 0.001 percent of the circulating water flow rate. [Rule 62-210.200(BACT), F.A.C.]

{Permitting Note: This work practice standard is established as BACT avoidance for PM/PM_{10} emissions from the cooling tower. Based on this design criteria, potential emissions are expected to be less than 0.5 tons of PM per year and less than 0.25 tons of PM_{10} per year. Actual emissions are expected to be lower than these rates.}

APPENDIX A - NSPS SUBPART A, IDENTIFICATION OF GENERAL PROVISIONS

Emissions units subject to a New Source Performance Standard of 40 CFR 60 are also subject to the applicable requirements of Subpart A, the General Provisions, including:

§ 60.1 Applicability.

§ 60.2 Definitions.

§ 60.3 Units and abbreviations.

§ 60.4 Address.

§ 60.5 Determination of construction or modification.

§ 60.6 Review of plans.

§ 60.7 Notification and Record Keeping.

§ 60.8 Performance Tests.

§ 60.9 Availability of information.

§ 60.10 State Authority.

§ 60.11 Compliance with Standards and Maintenance Requirements.

§ 60.12 Circumvention.

§ 60.13 Monitoring Requirements.

§ 60.14 Modification.

§ 60.15 Reconstruction.

§ 60.16 Priority List.

§ 60.17 Incorporations by Reference.

§ 60.18 General Control Device Requirements.

§ 60.19 General Notification and Reporting Requirements.

Individual subparts may exempt specific equipment or processes from some or all of these requirements. The general provisions may be provided in full upon request.

APPENDIX BD – BACT DETERMINATION

Refer to the draft BACT proposal discussed in the initial Technical Evaluation for this project and to the Final Determination issued with the Final permit for the rationale regarding the following BACT determination.

Pollutant	Emission Standard/Limit[1]	Lb/hour	Basis
Nitrogen Oxides (NO_X)	110 ppmvd - 24 hour block average and 90 ppmvd - 12 month rolling average	58.5 47.9	BACT BACT
Carbon Monoxide (CO)	80 ppmvd – 30-day rolling avg. 100 ppmvd - 4 hr block average	25.9 32.4	BACT BACT/Eb
Sulfur Dioxide (SO_2)	26 ppmvd - 24 hour block average or 80% reduction[2]	19.2	BACT/Eb
Hydrogen Chloride (HCl)[3]	25 ppmvd or 95% reduction[2]	25.4	BACT/Eb
Dioxins/Furans[4]	13.0 ng/dscm	3.61×10^{-6}	BACT/Eb
Opacity	10 % - 6 minute average	NA	BACT/Eb

[1] All concentration values are corrected to 7% O_2.
µg/dscm: Micrograms per dry standard cubic meter
mg/dscm: Milligrams per dry standard cubic meter
ng/dscm: Nanograms per dry standard cubic meter
ppmvd: Part per million dry volume
NA: not applicable

[2] Whichever standard is less stringent.

[3] HCl is not a BACT pollutant. However, it must be limited together with SO_2 because they both comprise MWC-Acid Gases which has its own PSD threshold.

[4] Dioxins/ furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans

1. Nitrogen Oxides (NO_X): Emissions of NO_X in the stack exhaust gas as measured by the required CEMS shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 24-hr daily arithmetic average and shall exceed neither 90 ppmvd nor 47.9 lb/hr on a 12-month rolling average, rolled monthly.

2. Carbon Monoxide (CO): Emissions of CO in the stack exhaust gas as measured by the required CEMS shall exceed neither 100 ppmvd on a 4-hr block average nor 32.4 lb/hr and shall exceed neither 80 ppmvd nor 25.9 lb/hr on a 30-operating day rolling average.

3. Sulfur Dioxide (SO_2): Emissions of SO_2 as measured by the required CEMS shall exceed neither 26 ppmvd nor 19.2 lb/hr on a 24-hr daily geometric mean, or an emissions reduction of 80 percent shall be achieved.

4. Hydrogen Chloride (HCl): Emissions of HCl shall exceed neither 25 ppmvd nor 25.4 lb/hr or, an emissions reduction 95 percent shall be achieved as demonstrated during the required stack test.

5. Dioxins/Furans: Emissions of dioxins/furans shall exceed neither 13.0 ng/dscm nor 3.61×10^{-6} lb/hr.

   {Permitting note: Compliance with this condition will also demonstrate that emissions are less than the 15 TPY PSD thresholds for PM_{10} and MWC-Metals}

6. Opacity: Visible emissions shall not exceed 10 percent opacity on a 6-minute average as measured by the required continuous opacity monitoring system (COMS) and measured by an annual visible emissions test (VE).

[40 CFR 60.44b, Rules 62-210.200(BACT), 62-204.800(8), 62-4.070, F.A.C.]

APPENDIX Eb - NSPS Subpart Eb, Standards of Performance For Large Municipal Waste Combustors.

Applicability of 40CFR60, Subpart Eb- Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996.

The proposed Hillsborough County Resource Recovery Facility Unit 4 is a new Large Municipal Waste Combustor (Large MWC) because it is a waste combustion unit that is capable of combusting more than 250 tons per day (TPD) of municipal solid waste (MSW).

The rules applicable to Large MWC's are given at 40CFR60, Sections 60.50b through 60.59b. More specifically, Unit 4 is a Mass Burn Waterwall Furnace. The emission limits applicable to this category of MWC are specified by type of combustor in the relevant sections, paragraphs and tables that address individual pollutants including CO, NO_X, SO_2, HCl, PM, dioxin/furan, opacity, Cd, Hg, Pb, and various emission monitoring and operational parameters.

Subpart 40CFR60, Subpart Eb was revised on May 10, 2006 just a few days prior to preparation of the draft permit for Unit 4. The Department is revising the Subpart description normally included in this appendix to reconcile the new requirements with the previous ones. An updated and complete Appendix Eb highlighting the requirements applicable to Unit 4 will be included in the final permitting action if and when issued.

The Department has insured that the Permit is at least as stringent as the requirements of the revised Subpart Eb. Particular attention has been given to the revised PM, Pb, Cd and Hg including the use of Hg-CEMS.

The previous version of 40CFR60, Subpart Eb with links to the May 10, 2006 changes is available at:

http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=e62a6113b2c8fd1679806489b479eab4&rgn=div6&view=text&node=40:6.0.1.1.1.15&idno=40

Appendix GC - General Conditions

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

   a. Have access to and copy and records that must be kept under the conditions of the permit;
   b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
   c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

   Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

   a. A description of and cause of non-compliance; and

   b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

   The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

    a. Determination of Best Available Control Technology (X);
    b. Determination of Prevention of Significant Deterioration (X);
    c. Compliance with National Emission Standards for Hazardous Air Pollutants ( ); and
    d. Compliance with New Source Performance Standards (X).

14. The permittee shall comply with the following:

    a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

    c. Records of monitoring information shall include:

        1) The date, exact place, and time of sampling or measurements;
        2) The person responsible for performing the sampling or measurements;
        3) The dates analyses were performed;
        4) The person responsible for performing the analyses;
        5) The analytical techniques or methods used; and
        6) The results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Appendix SC - Construction Permit Standard Conditions

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at this facility.

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permitee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]

6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and62-210.200(203), F.A.C.]

8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]

9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

10. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.

    a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.

    b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

    c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

    [Rule 62-297.310(4), F.A.C.]

14. Determination of Process Variables

    a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

    b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

    [Rule 62-297.310(5), F.A.C.]

15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.

16. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]

17. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide

sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1) The type, location, and designation of the emissions unit tested.
2) The facility at which the emissions unit is located.
3) The owner or operator of the emissions unit.
4) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8) The date, starting time and duration of each sampling run.
9) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10) The number of points sampled and configuration and location of the sampling plane.
11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12) The type, manufacturer and configuration of the sampling equipment used.
13) Data related to the required calibration of the test equipment.
14) Data on the identification, processing and weights of all filters used.
15) Data on the types and amounts of any chemical solutions used.
16) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18) All measured and calculated data required to be determined by each applicable test procedure for each run.
19) The detailed calculations for one run that relate the collected data to the calculated emission rate.
20) The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

RECORDS AND REPORTS

19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]

20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C

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Solid Waste Management Department
Hillsborough County
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