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RECEIVED

JAN 13 2000

BUREAU OF AIR REGULATION

January 11, 2000

Statewide consistency

Mr. Scott M. Sheplak, P.E.
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

VIA FEDERAL EXPRESS

SUBJECT: Hillsborough County Resource Recovery Facility
DRAFT Initial Title V Air Operation Permit No. 0570261-001-AV
Written Comments on DRAFT Permit

Dear Mr. Sheplak:

On behalf of Hillsborough County, Camp Dresser & McKee Inc. (CDM) is submitting written comments on the DRAFT Initial Title V Air Operation Permit for the Hillsborough County Resource Recovery Facility (Permit No. 0570261-001-AV), undated, but received in the County Administrator's office October 26, 1999. These comments also reflect input from the Facility operator, Ogden Martin Systems of Hillsborough, Inc. Our comments are listed by page number in the DRAFT permit, below:

- The SOB is only a summary for EPA*
- General:** In the Statement of Basis and in the Permit itself, it is not clear that the facility is presently undergoing significant modifications to meet the requirements of 40 CFR Subpart Cb. This is manifested in portions of the permit and the Statement of Basis where it refers to the existing units. The existing units at the time of the permit application were, in fact, as represented in the application. However, at present, Unit 3 has been fully retrofitted, Unit 2 is in the shake-down and testing process using the new air pollution control train equipment. Unit 1 has yet to be retrofitted. (A revised Statement of Basis is provided in Attachment 1 for your consideration. It incorporates many of the specific and general comments which follow). Compliance dates for various requirements throughout the permit are confusing due to the retrofit construction schedule. Hillsborough County requests that all compliance dates, reporting dates, etc. be conformed to a single date, that begin when the final unit (i.e., Unit 1) is retrofitted or simply December 10, 2000 as is stipulated in the State 111(d) plan. Otherwise, the County may have to track three separate regulatory compliance/reporting schedules which is unnecessarily costly, and may even lead to administrative errors and subject the facility to unintended and unnecessary enforcement.

S:\Hills_SWATb99025.doc

Annual test req'd by rule no date req'd.

Under the 111(d) all should have done or be under testing by 11/13/00.

Add permitting notes to clarify permit's organization.

*Doug Kedericks, P.E.
CDM*

*potential issues
=> Be NESHA applicable
=> Test frequency comments
=> Fuel Slate for existing units
Comment 4.
Comment 20.
Comment 25.
Comment 16.*

initial test only SAM.

*Can't change the 111(d) plan
Statewide may chosen to permit those
Section AB's to current operation
Section C-K applies after retrofit and testing*

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Page 2

*They are.
Larry George SIP
good research +
we've properly marked
facilities and calls
re. odor. Permits
from ACE permits, PSD
are f.e.*

Also, please ensure that every permit condition that is "not federally enforceable" is identified as such throughout the document, consistent with USEPA's March 5, 1996 "White Paper #2 for Improved Implementation of the Part 70 Operating Permit Program" and Florida Regulation, F.A.C. 62-213.440. Many of the following comments stem from guidance contained in USEPA's July 10, 1995 guidance "White Paper for Streamlined Development of Title V Permit Applications" which encourages elimination or replacement of potentially obsolete or dated PSD permit/New Source Review (NSR) language. We have attempted to identify a number of these in our comments which follow, but we have not identified all of them.

We request that a brief explanation be included which addresses why Subsection A and Subsection C of Section III treats Units Nos. 1, 2, and 3 as though they are entirely different units which they are not. Only, the emissions controls and monitoring systems are different. The combustors (i.e. grates, fans, air controls, and boilers) are the same equipment.

talk about

Further, we are requesting affirmative language be included in Subsections A and B that these subsections are effectively deleted from the permit subsequent to December 10, 2000, the final compliance date for the Hillsborough Facility to meet 40 CFR 60 Subpart Cb requirements and Florida's Section 111(d) Plan.

*All applicable requirements
need to be identified
only exception is test
methods. We've done
that. PSD are proper
changes.*

We also suggest that to simplify the Title V permit, PSD-FL-121(B) dated June 29, 1998 be included by reference in lieu of including portions of that permit in this operating permit. In addition, each section of PSD-FL-121(B) clearly indicates the State and Federal authority underlying each permit condition; this level of documentation in this Title V permit effectively distinguishes State only requirements, provides useful long-term reference points and is consistent with Title V permits elsewhere in the country.

*Rule identifies
specific test methods
Stakeholder consistency of
permitting.*

As a final general comment, it is requested that the Department use references to applicable federal test methods or equivalent rather than rewriting this language in the permit. This has a number of very significant advantages. It minimizes the potential for mistakes. It would allow use of test methods recognized to be more accurate without having to modify the Title V permit. It takes advantage of the due process and practical flexibility reflected in the text of the codes of State and Federal regulations and it avoids inconsistency between permit language and the actual test methods and requirements of F.A.C. 62-297. An example of this is that the draft permit states throughout that stack testing facilities must meet an 8 diameter and 2 stack diameter criteria. EPA Method 1 and F.A.C. 62-297 also allow testing with 2 and 0.5 stack diameter criteria. The Facility meets the latter criteria, but does not satisfy the 8 and 2 stack diameter criteria.

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2. **Statement of Basis, first page, second paragraph:** In the fourth line the reference to a flyash handling building should be changed to "an ash handling building and system." Fly ash and bottom ash are combined upstream in the process. (Note: the Department may wish to use the facility description contained in Attachment 1 as a template for the facility description).

Please modify the last sentence of the second paragraph as follows: "The facility will continue to have an ash building and handling system." Please add a final sentence as follows: "A new lime storage silo and a new carbon storage silo will be provided."

To eliminate any long-term confusion over the maximum charging rate, we request that it be stated the same throughout the permit and that it be consistent with the June 15, 1998 Final Order Modifying Conditions of Certification [Operational Requirements, No. 9.b(1)] and June 29, 1998 Air Construction Permit PSD-FL-121(B). Please use the following:

"The maximum individual throughput shall not exceed 460 tons MSW per day (1380 tons per day entire facility), 172.7 MM Btu per hour and 102,000 pounds steam per hour (on a 4-hour block arithmetic average). The incinerator's boilers shall not be loaded in excess of their maximum operating capacity, equivalent to 1380 tons MSW per day total, but no more than 1200 tons MSW per day on an annual (52 week) rolling average basis for the entire facility"

applic. for 29 MW

3. **Statement of Basis, first page, third paragraph:** Reference to a 29-megawatt electric generator should be changed to "a 32.5 megawatt turbine-generator at a 0.85 power factor."

4. **Statement of Basis, second page carryover paragraph:** The reference to NESHAP for beryllium should be deleted. Based on the regulatory language in 40 CFR 61, Subpart C, it is clear that the Beryllium NESHAP is not applicable to the Facility, because the Facility does not accept beryllium-containing waste generated by any of the source categories listed in the rule (extraction plant, ceramic plant, foundries, and propellant plants that process beryllium or beryllium compounds). Although incinerators are listed in the applicability criteria, it is only incinerators that accept beryllium-containing waste generated by the source categories listed above that are affected by the rule.

Discure incinerator listed along with other categories USEPA Region 4 agrees to submit written confirmation

We request, therefore, that "NESHAP - 40 CFR 61, Subpart C . . . Rule 62-204.800(7), F.A.C." be deleted from this list. (The Facility-specific beryllium emissions limit from its existing PSD permit would still apply.)

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5. **Statement of Basis, second page first full paragraph:** In the fifth line, the sentence that states "The baghouse keeps the building under negative pressure." should be deleted. The baghouse is not capable of this.
6. **Statement of Basis, second page, last paragraph:** We are requesting that the sentence "The net steam energy of 1,158 Btu/lb of steam shall not be exceeded." be deleted. It is not possible or practical to calculate this value on a continuous or real-time basis. Net steam energy may be estimated, but it is just that, an estimate using historical operating data; it is not used in either Florida or Federal regulations as a practicably enforceable parameter. Further, the value of 1,158 Btu/lb is in conflict with PSD-FL-121(B) which cites the net steam energy as 1,378.86 Btu/lb. Please reconcile. Alternately, a sentence which states that: "The nominal design net steam energy is approximately 1,378.86 BTU/lb steam." would be acceptable.
7. **Statement of Basis, third page, carryover paragraph:** Contains another reference to NESHAP for beryllium which should be deleted (see Comment No.4).
8. **Statement of Basis, third page, first paragraph:** In the fifth line, the sentence which states that "The baghouse keeps the building under negative pressure." should be deleted. See requested substitute text in Comment #5 above. The baghouse is not capable of this.
9. **Statement of Basis, third page, third and fourth paragraphs:** The lime and carbon silos are exempt emission units under 62-296.700 F.A.C. The lime storage silo and the carbon storage silo will each have a maximum potential emission rate of 0.67 tons per year of particulate matter, based on the specified performance of the baghouse of 0.015 grains per dry standard cubic foot. Since this is less than one ton per year, we request, pursuant to Rule 62-296.700(2)(c), that DEP exempt the lime and carbon storage silos from the PM RACT requirements.
10. **Page 2, first paragraph:** We are requesting that the sentence "The net steam energy of 1,158 Btu/lb of steam shall not be exceeded" be deleted. It is not possible or practical to calculate this value on a continuous or real-time basis. Net stream energy may be estimated, but it is just that, an estimate using historical operating data. The use of net stream energy is not based in either Florida or Federal regulations. Further, the value of 1,158 Btu/lb is in conflict with PS FL 121(B) which cites the net stream energy as 1,378.86 Btu/lb. As noted in Comment #6 above, alternately, a sentence which states that: "The nominal design net steam energy is approximately 1,378.86 BTU/lb steam." would be acceptable.

see TV application

Consistent reference of the PSD permit

check 2/15/00 & 1/27/01

see response to above

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Permit Facility-wide conditions
hik

11. **Page 3.:** It may be very helpful to differentiate between emission unit ID Nos. for the retrofitted units versus the non-retrofitted units. This would help clarify when and what emission limitations apply to the respective MWCs. We would suggest descriptions of the retrofitted units be: Unit 1-B, Unit 2-C and Unit 3-D as the letter designations coincide with the APC train locations corresponding to each combustion unit and it is consistent with plant operating personnel nomenclature for the equipment.

PSD-121(B)
See condition 12

12. **Page 4, Paragraph 2:** We believe that the odor standard is not federally enforceable because odor limitations are "unrelated to the purposes of the NSR program" (pursuant to USEPA's March 5, 1996 "White Paper #2 for Improved Implementation of the Part 70 Operating Permit Program") Please either delete this condition or add the words "Not federally enforceable" to this condition.

shrink
(existing)

13. **Page 4, Paragraph 4:** The facility does not store any 112(r) materials in regulated quantities. Please delete this permit condition or add a permitting note that indicates this fact.

ok
add

13A. **Page 5, Paragraph 7:** Please add the following permitting note: "The Department has not ordered any control devices or systems under the referenced Florida rule."

Subsection A.

14. **Page 6.:** The statement that each municipal waste incinerator is equipped with an American Air Filter is no longer correct. Units 2 and 3 now are now equipped with an SDA/FF. It may be helpful to add a permitting note here about the transition to the retrofitted APC trains.

(also see comments)
These conditions apply to existing units

Also, the heading "Section III. Emissions Unit(s) and Conditions" is repeated at the top of the page. One should be deleted. Also, please add a permitting note that these conditions in Parts A and B are applicable prior to December 10, 2000 only. After this date, Parts A and B are null and void and shall not be repeated in any subsequent revisions of this Title V permit.

ok
thank you

15. **Page 6, A.1.:** Please add the following to the end of this condition: "demonstrated on the basis of 440 tons per day or 400 tons per day on a 52 week rolling average." This language reflects the agreement reached with Hillsborough County EPC and was addressed in the PSD-FL-121(A) permitting action. Please refer to the permit file. It is not possible to demonstrate on a real-time basis, capacity in pounds per hour of refuse charged. The new federal regulations recognize this by identifying steam flow/rate [as a 4-hour block average] as a means of monitoring facility capacity.

ok
to make the PSD part

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*SMH
Prop. 11 signed waste*

16 Page 7.: Conditions A.3.0, A.3.1, A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7 should be eliminated because this is not the fuel definition or the record keeping requirements for the non-retrofitted MWCs. The fuel definition for this portion of the permit should reflect that in PSD-FL-121. Such records have not been maintained for the existing units. The reference to Florida Statutes at Section 403.706.5 is a state only enforceable requirement; this should be noted.

*1st approach
What are you
burning non-huffs
hot on the list?
Don't have to start doing it until
the permit is issued.*

17. Reserved ?

18. Page 10, A.8.: The reference to EPA should be changed to FDEP or the Department. Also, we are requesting that "two hours in any 24-hour period" be changed to "three hours per occurrence" for the duration of excess emissions due to equipment malfunction, consistent with the Emissions Guidelines (40 CFR 60.58b(a)(1)). The Department has previously granted three hours for this facility and for the Tampa facility. Also, note that two hours in any 24-hour period malfunction limitation is not a federally enforceable condition.

*PSD permit
includes e.e.
on opacity only.*

19. Page 11, A.11.: Please delete all of paragraphs (b), (2), and (3) as they are from Subpart E requirements which are not applicable to the existing units. The rule citation also needs to be corrected. Also please add "or equivalent" to each of the test methods listed in conditions A.11 to A.18 (if appropriate, given limited time frame for effectiveness), and to conditions C.37 to C.49 to allow for future test methods to be adopted by agreement between FDEP and the Facility without a potential need to amend the permit to allow for alternate test methods.

Subpart E applies

*no
need to go
thru ASP
process.*

20. Page 11, A.12.: Please add test Method 6C as an acceptable test method. Also, strike "annually" and insert the words "upon initial operation of the unit" as that was the requirement of PA 83-19 and PSD-FL-108 which was the original PSD permit (dated 7/7/86). It only required annual tests for TSP, not SO₂. No annual SO₂ test data exist for the facility.

no

major, annual

21. Page 12, A.13.: Please add test Method 7E as an acceptable test method. Also, strike "annually" and insert the words "upon initial operation of the unit" as that was the requirement of PA 83-19 and PSD-FL-121(A). No annual NO_x test data exist for the facility.

add

major, annual

22. Page 12, A.14.: Please add test Methods 18 and 25 as an acceptable test methods. Also, strike "annually" and insert the words "upon initial operation of the unit" as that was the requirement of PA 83-19 and PSD-FL-121(A). No annual VOC test data exist for the facility.

not major

every 5 years

*Rule requires annual test
for pollutants which are
an emission limit.
not major upon renewal*

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23) Page 12, A.15.: Please strike "annually" and insert the words "upon initial operation of the unit..." as that was the requirement of PA 83-19 and PSD-FL-121(A). No annual CO test data exist for the facility. *major error*

minor, 5 year test

24) Page 12, A.16.: Please add test Method 29 as an acceptable test method. Also, strike "annually" and insert the words "upon initial operation of the unit" as that was the requirement of PA 83-19 and PSD-FL-121(A). These permits did not require every five-year testing. F.A.C. 62-296.146 stipulates that Method 29 be used for mercury inventory purposes.

NESAP pollutant annual

25) Page 12, A.17.: Please add test Method 29 as an acceptable test method. Also, strike "annually" and insert the words "upon initial operation of the unit" as that was the requirement of PA 83-19 and PSD-FL-121(A). No annual Be test data exist for this facility. No permit required five-year testing for Be.

Rule 62-297.310, FAC rule must w/ exception of capacity reference

26) Page 13, A.20.: Please revise this condition to read as follows: "Testing of emissions shall be conducted with the emissions unit operation at plus or minus 10 percent of nominal capacity (150 MM Btu per hour)." The language that is presently there reflects the Emission Guideline and NSPS language which is not applicable to the existing units. The revised language reflects the current permit conditions for the existing units.

Should be consistent

27) Page 14, A.24.: Paragraphs under (a) need to be renumbered (1 is missing as are 6, 7, and 8). We request that paragraph 2 be deleted as it is not applicable to the facility it is applicable only to fossil fuel steam generators. *model ?*

27A) Page 14, A.26.: Because the cited rule, 62-297.310, F.A.C. applies to Monitoring of Operations during stack testing, we request that the heading be changed to "Stack Test Process Variables" alternate suggestion for heading is "Monitoring of Operations During Stack Tests" - which is closer to FDEP's language to avoid any future confusion.

no, consistency.

o.k. if PSD only

28) Page 16, A.28.: We request that the requirement for quarterly tonnage reporting be deleted as it is not a current permit condition, it was deleted in the PSD-FL-121(A) permit action whereby daily refuse charging rates are to be estimated on a 12 month rolling average. Tonnage data are maintained at the facility and are available for Department inspection. Also, please note that 40 CFR 60.53, Subpart E addresses daily charging rate. FAC Rule 22-213.440(1)b2.b addresses record retention requirements and is silent on any reporting requirements.

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29. **Page 20, A.37.:** Please delete this permit condition as it is not applicable to the existing units and is not contained in any of the applicable permits. This condition needs to be removed from Section A of the Title V permit to avoid any confusion as to when these recording keeping requirements become effective (i.e. following the completion of the retrofit). No such records exist for the existing units.

depends on whether or not they accept fuel state. If delete then prohibit 99011 books

30. **Page 22, A.42.:** This condition refers to acid rain and is not applicable to the Facility. We request that it be removed. We would be required to revise our fuel usage beyond Subpart Db requirements and modify the "acceptable fuels" portions of this Title V permit in order to even achieve the 20% or more fossil fuel consumption.

31. **Page 23 Brief Description:** The description and emissions limitations for the ash conveyor and handling system provided in Subsection B are substantially different from those in the June 26, 1998 Air Construction Permit, PSD-FL-121(B) - Section III.C.1 to C.3) relative to the description of the ash conveyors and handling systems and testing thereof. Please reconcile.

keep for an applicable permits standards consistency. Acid rain testing existing system permit booklet

The description given for the ash handling system is not entirely accurate. To make it accurate please make the following editorial changes:

- (1) In the first line, delete the word "flyash" and insert "bottom ash quench tanks and subsequently conveyed to the ash" handling building.
- (2) In the second line, delete the word "completely" and insert "covered or."
- (3) Delete the last sentence regarding the building is kept under negative pressure, it is not.

32. **Page 24, B.2.:** Please add the words "or covered" to the end of this condition to clarify that some ash handling facilities are covered but not necessarily fully enclosed.

no
Per limit w/ engine minor per test minor. VE limit annual test req'd.

33. **Pages 24 through 27; B.5, B.6., B.7., B.8., B.9., B.10., B.11., B.12., B.13., and B.15.:** In PSD-FL-121 there are no requirements for annual testing of the ash handling building or systems. Other than for an initial test, the facility has done no testing and has no records of such testing. We are requesting that all of these conditions be deleted from this portion of the permit to avoid confusion over what testing was required when (i.e. before or after the retrofit to comply with 40 CFR Subpart Cb).

The following Comments (Nos. 34, 35, 36, 37) are relevant only if our requests in Comment No. 33 are denied.

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- no 33A. **Page 24, B.5.:** As noted in Comment 27, please reword the heading to specify that this permit condition addresses only "Determination of Process Variables During Stack Testing."
- no 34. **Page 24, B.6.:** We are requesting that Particulate Emission from the ash handling system, including the baghouse, be determined using Method 9. The visible emission standard of five percent opacity is specified in B.4, but there is no explicit waiver of Method 5 testing exemption pursuant to FAC 62-297.620(4). We are requesting such a specific authorization here. The initial test was done based upon visual observation Specific Condition #5c(1) of air permit PSD-FL-121 specifically waives "compliance test requirements for the ash handling facility... in accordance with Rule 17-2.700(3)(d), FAC."
35. **Page 24, B.8.:** The waiver of the compliance test needs to be written into the permit as noted in this condition. The visible emission standard of five percent opacity is specified in B.4, but there is no explicit waiver authorized, consistent with PSD-FL-121 as noted above. We are requesting such an authorization. Further, a permitting note is needed to indicate that PSD-FL-121-(A) contains no annual requirement for demonstrating compliance with the limitations contained in B.3 or B. 4.
36. **Page 26, B.13.:** Paragraphs under (a) require renumbering. Also, we request that paragraph (a) 2. be deleted as it is not applicable to the facility or to the ash handling system.
- rule requires 37. **Page 27, B.14.:** We are requesting that the 45 day period for reporting test results be changed to 60 days, consistent with condition A.29.

Subsection C.

38. **Page 29, III Subsection C, Brief Description:** We have the following comments:

- no (1) It may be helpful to change the E.U. ID Numbers to reflect that these are the retrofitted MWC units. (See Comment No. 11).
- o.k. (2) In the first paragraph the "s" should be removed following 102,000 and placed after the lb in lb/hr.
- no (3) reference to the NESHAP for Be should be deleted per our previous comments. (See Comment No. 4).
- no (4) See Comment Nos. 6 and 10 regarding net steam energy. We are requesting the same at this location.

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no (5) The last sentence in the permitting note referencing Subpart Eb may be confusing to some. It is requested that it be deleted or restated that "any Reference to Subpart Eb is applicable only insofar as that regulation is referenced in Subpart Cb."

no
change
direct quote of PSD permit
con. Air. C.1.
39. Page 30, C.1.: To be consistent with the concept of "heat input" as verified by steam flow, we are requesting that the words "of 4500 Btu/lb" be inserted in the fifth line following 1200 tons. In the same line we are requesting that 52 week rolling average be changed to 12 month rolling average consistent with Condition C.87. Condition C.87 is word-for-word consistent with Condition B.14 of Air Construction Permit PSD-FL-121(B) and should either be paraphrased in Condition C.1 or cross-referenced.

no
combine
SPB.2
in PSD permit
Also, we are requesting that the combustion efficiency calculation requirement be deleted. It is not required under 40 CFR 60 Subpart Cb and it is not required in other MWC permits issued by the Department. Eliminating it would also be consistent with USEPA's March 5, 1996 "White Paper #2 for Improved Implementation of the Part 70 Operating Permit Program." which encourages elimination or replacement of potentially obsolete or dated PSD permit/NSR language. The Title V permit substantially tightens the carbon monoxide (CO) limit. USEPA and other states now use CO monitoring as the preferred measure of good operating practice to achieve good combustion efficiency.

o.k.
40. Page 30, C.2.: We are requesting that all of this language be deleted and replaced with language that stipulates that the Hillsborough County MWC Units 1, 2, and 3 are large units pursuant to 40 CFR 60 Subpart Cb. Paragraph (2) is not applicable to the Hillsborough Facility, it is not a batch feed MWC.

no
41. Page 33, (h): Please add the following sentence to this paragraph. "Waste materials specifically authorized above do not require Department approval." This will avoid any future confusion over what wastes need Department approval prior to processing.

o.k.
might
42. Page 33, C.6.8.: Please strike the last sentence in the note, as it is inconsistent with condition B.8 on page 13, PSD-FL-121(B). Auxiliary burner operations occur primarily during start-up and shut-down, consequently an average hourly heat input from these is not appropriate to these facilities.

o.k.
quote of ride
43. Page 34/35, C.10.: In (1) please place a period after "arithmetic average" and delete the remainder of the sentence because it is not applicable. Also, please delete Paragraph (2) as it is not applicable to the Hillsborough Facility.

o.k.
[reserved]
44. Pages 37 and 38, C.11., C.12., C.13 and C.14.: We are requesting that in lieu of the obscure time schedules contained in these conditions, specific dates be identified to

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avoid confusion particularly in light of the retrofit construction schedule which will result in three separate dates when units are started-up. We are suggesting that December 10, 2000 be used for the start-up date for the facility because that is the due date for the retrofit construction in accordance with the state 111(d) plan. Also, when referencing to a time frame following an event (e.g. State Plan approval), please insert the actual date as it is known. This will also eliminate confusion in the future.

continued in the PSD

45. Page 39, C.15., C.17., and C.18.: We are requesting that the limitations expressed as lb/MM Btu be deleted, as they are not required by the Emission Guidelines. Also, the limitations stated in terms of lb/hr and lb/yr are state limitations only and as such should not be federally enforceable. We are requesting that a permit note to this effect be included. We are further requesting that the limitations in terms of lb/hr be deleted as these values are based upon air flow estimates and not actual measured airflow. We are confident that the annual emissions (tons/year) can be successfully demonstrated using lb/hr values multiplied by annual operating hours. We would stipulate to providing the Department with the lb/hr values from annual compliance testing, we do not however, think it should be a limitation.

see Rule 2-246.416(1), FAC.
no
both Hg permits
from the 246.416 &
NSPS used
Does source even
want to do waste
separation

46. Page 39, C.19.: This regulation is no longer applicable to the new MWC units, please delete it from the permit or move it to subsection A.

47. Page 40, C.20.: We are requesting that this condition be deleted or moved to subsection A because it is not applicable to the retrofitted Hillsborough Facility. The facility does not employ waste separation for mercury reduction.

48. Page 40, C.21.: We are requesting that this condition be deleted as it is not applicable to the retrofitted MWC units at the Hillsborough Facility.

will become outdated

49. Page 40, C.22.: We are requesting that the limitation expressed as lb/MM Btu and lb/hr be deleted as it is not required by the Emission Guidelines. (See Comment No. 45).

see PSD permit

50. Page 41, C.23., C.24., C.25., and C.26.: We are requesting that the limitations expressed as lb/MM Btu and lb/hr be deleted as they are not required by the Emission Guidelines. (See Comment Number 45).

51. Page 42, C.27., C.28., and C.29.: We are requesting that the limitations expressed as lb/MM Btu and lb/hr be deleted as they are not required by the Emission Guidelines. (See Comment No. 45).

add permitting note that the averaging times corresponds to the test method

In C.28.: Please specify that the emission limitation is a three-hour average.

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- In C.29.: Please specify that the emission limitation is a three-hour average. *Be*
52. Page 42, C.30.: Please specify that the emission limitation is a three-hour average. *VOC*
53. Page 42, C.31.: Please specify that the emission limitation is a three-hour average. *SAM*
Also, in the permitting note, please delete reference to acid rain because those provisions do not apply to the facility.

54. Page 43, C.34.: In the second line, we believe the reference to Subpart Eb should be Cb. *model*
This Subpart clearly states how malfunctions are limited to three hours per occurrence. We are requesting that "Except as provided by 40 CFR 60.56b" in the first line be deleted because it is applicable to air curtain incinerators. For clarification, we request that "malfunction" be included in the second sentence (i.e., Duration of startup or shutdown or malfunction periods.....).

no₂ a substitute submit
note create
o.k. — 54A. Page 47, C.40.: In (5), the reference to Condition C.82 should be C.81.(f).

o.k. — 55. Page 51, (iii): 7 nanograms should be 15 nanograms as specified in Subpart Cb. (This appears in four locations in this paragraph). *model*

see PSD permit
56. Page 53, C.45.: The Hillsborough Facility emits little or no detectable Fluoride and the Department recognizes that MWCs in Florida emit little or no detectable levels of Fluoride. We are requesting that the annual compliance test requirement be changed to a frequency of every five years, consistent with requirements for other MWC facilities.

57. Page 53, C.46.: The Hillsborough Facility emits little or no detectable Beryllium and the Department recognizes that MWCs in Florida emit little or no detectable levels of Beryllium. We are requesting that the annual compliance test requirement be changed to a frequency of every five years, consistent with requirements for other MWC facilities.

If not major, renewal test.
58. Page 53, C.48. and C.49.: Please specify that testing requirements for these pollutants (VOC and H₂SO₄ mist) are for initial compliance demonstration only, consistent with PSD-FL-121(B). A note should also be added stating that "According to PSD-FL-121, the Facility is not subject to any emission limitations or testing requirements for sulfuric acid mist.

Add submit test to initial test has been submitted.
quote of the note submit to existing
59. Page 54, C.50.: Please insert the words "Except as otherwise specified herein," at the beginning of this condition.

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- rule quote*

60. **Page 54, C.51.:** Please insert "(102,000 lb/hr 4-hour average)" at the end of the first sentence. This will avoid any future confusion that the permitted capacity is measured based upon steam flow. Please substitute the term "maximum demonstrated municipal waste combustor unit load" for "maximum operation rate" in the third sentence of this condition. Respectfully, maximum demonstrated MWC unit load is clearly defined in regulations and permits, operation rate is not.
- Do these units
soot blow?
If yes, then condition
o.k.*

61. **Page 55, C.55.(a):** Paragraphs require renumbering. (Paragraphs 1, 6, 7, and 8 are missing). Also, paragraph (2) should be deleted because it is not applicable to the Hillsborough Facility.

no

*If changed affects model. }
permit review
model check
Do effluents
combine?*
- 62. **Page 59, C.64.:** Please delete this condition because there are no combined effluents at this facility and it is not applicable. Also, please change the heading of Monitoring of Operations to "Stack Test Process Variables". (See Comment No. 27).
- no applies
at all times*

63. **Page 60, C.66.:** Please make changes requested in Comment #27 to avoid confusion in the future since this condition could be misread to imply that it applies at times other than during stack testing.

64. **Page 60, C.66.(b):** Because these devices are not applicable to the Hillsborough Facility and to avoid future confusion, please modify the first sentence as follows: "Equipment or instruments used to directly or indirectly determine process variable, including flow meters shall be calibrated... Eliminating the other language will avoid confusion on this issue in the future.
- See placard page
should have been
provided.*

65. **Page 60, C.71.:** Figure 1 is referenced, but is not contained in the draft permit package.
- applies to future
construction*

66. **Page 63, C.74.:** Because this condition has already been satisfied, please delete it, or as an alternate, reword it to make it clear that it applies to any future MWC units not covered by this permit.
- o.k.
provide
language*

67. **Page 64/65, C.75.:** Please add a permitting note that states that the Hillsborough Facility will comply with this condition utilizing the gravimetric system or direct weigh system as the primary indicator of the carbon injection rate. Please clarify that the associated averaging period be a daily averaged lb/hr.
- no*

68. **Page 65.:** (11) is missing. We do not believe that the CFR language is applicable to the Hillsborough facility as it relates to maintenance of siting records. Simply add "(11) Reserved."

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rule quote
69. **Page 65, C.77.:** Please delete the parenthetical at the end of the first paragraph. It is not consistent with the requirements of 40 CFR 60.59b section (h) which provides that semiannual reporting is only necessary where an excess emission, not authorized under the permit, was recorded.

no recordkeeping when retrofit
not a 30day rolling avg. already specified
70. **Page 71, C.86.:** We are requesting that the following additional sentence be added: "These records shall be kept commencing December 1, 2000. This will avoid confusion vis-a-vis the retrofit construction schedule and will avoid issues associated with the ability to precisely track waste charging rates to individual MWC units. As a practical matter, the facility accepts few if any segregated loads at this time and has no plans to change operations between now and the completion of the retrofit, undertaken to comply with 40 CFR 60 Subpart Cb. Also, we are requesting that the 30-day rolling average in the last paragraph be changed to a 30-day or monthly average for record keeping purposes. This would more easily be integrated with the current tonnage recording system.

see response document 30-
71. **Page 73, C.94.:** The Hillsborough County Facility is not subject to Acid Rain regulations. Please delete this condition.

Subsect. D.
o.k.
in the PSD permit
please explain.
72. **Page 74, Subsection D. Brief Description:** In the first sentence the reference to a "flyash handling building" should say "ash handling building" as the flyash and bottom ash are combined. In the second sentence, please insert the words "or covered" following the word "enclosed." Please strike the last sentence of the first paragraph because it is not factual. Please refer to earlier comments on the description of the residue handling system.

See D.11., D.12. and D.4. & D.5.
73. **Page 77, D.13.:** We request that the Department specifically grant the waiver to allow the use of Method 9 visible emissions test for the particulate matter compliance test referenced in this condition pursuant to F.A.C. 62-297.620(4).

no, all apply
to traps
manic
milk/dies e.o. 514
74. **Pages 77 through 83, Conditions D.13., D.14., D.15., D.16., D.18., D.20., D.21., D.22., and D.23.:** With the exception of the basic reporting requirement in D.23, we are requesting that these conditions be deleted because they are not applicable to this emissions unit (e.g. the ash management system). Doing so would streamline the permit significantly and would pursue USEPA's policy in this regard. Given our request for use of Method 9 for PM compliance purposes, subsection D.23.(c) could be deleted to streamline the permit.

If our requests in Comment No. 74 are granted, Comment Nos. 75 and 76 may be ignored.

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no, "kept boiler plate" don't reply

75. **Page 78, D.16. (a):** We request that this condition, which relates to soot blowing, be deleted because it is not applicable to the ash handling system operation. Also, Paragraphs 1, 5, 6, 7, and 8 are missing. They should be marked "Reserved" if all of Condition D.16. (a) is not deleted.

see 73. reserve

o.k.

76. **Page 79, D.16. (c):** We request that the Department specifically grant the waiver to allow the use of Method 9 visible emissions test for the particulate matter compliance test and state this in this condition. (See Comment No. 73).

no

77. **Page 82, D.23.(b):** We are requesting that the 45 day period be changed to 60 days to coincide with our other test reporting due dates.

Subsection E.

78. **Page 85, E.8.:** We request that the Department specifically grant the waiver to allow the use of Method 9 visible emissions test for the particulate matter compliance test and state this in this condition for the lime silo baghouse. (See Comment No. 73).

see 73. reserve

vide quote

79. **Page 86, E.10.:** Given the nature of this emission unit (baghouse on a pebble lime silo), this condition could simply specify that the observation period be 30 minutes. Everything else in this condition is not applicable. We request that it be modified in this regard.

o.k.

80. **Page 86, E.11. (a):** We request that this condition, which relates to soot blowing, be deleted because it is not applicable to the lime silo baghouse operation. Also Paragraphs 1, 5, 6, 7, and 8 are missing. They should be marked "Reserved" if all of Condition E.11. (a) is not deleted.

no

81. **Page 87, E.11. (c):** We request that the Department specifically grant the waiver to allow the use of Method 9 visible emissions test for the particulate matter compliance test and state this in this condition. (See Comment No. 73).

see 73. reserve

Need to determine rate during v.e. test, all permitting material to description.

82. **Page 88, E.12.:** We are requesting that the Department specify process variables for this emission unit or delete this condition because it is not applicable. The unit (e.g., lime silo baghouse) is either on or off (Please see Comment Nos. 63 and 64. They are applicable here also).

83. **Page 87, E.14.:** We are requesting that the 45 day period be changed to 60 days to coincide with our other test reporting due dates. Given our request for use of Method 9 for PM compliance purposes, subsection (c) could be deleted to streamline the permit.

no

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Subsection f.

- no 84. **Page 91, F.8.:** We request that the Department specifically grant the waiver to allow the use of Method 9 visible emissions test for the particulate matter compliance test and state this in this condition for the carbon storage silo baghouse. (See Comment No. 73).
see 73. revise
- no 85. **Page 91, F.9.:** This condition is not applicable to the carbon silo baghouse. All of the conditions for this emissions unit should mirror those for the lime silo baghouse.
- no 86. **Page 92, F.10.:** Condition 2.a. is not applicable to this emissions unit. We request that it be deleted to streamline the permit.
- o.k. 87. **Page 92, F.11. (a):** We request that this condition, which relates to soot blowing, be deleted because it is not applicable to the carbon storage silo baghouse operation. Also, paragraphs 1, 5, 6, 7, and 8 are missing. They should be marked "Reserved" if all of Condition F.11. (a) is not deleted.
- no 88. **Page 93, F.11. (c):** We request that the Department specifically grant the waiver to allow the use of Method 9 visible emissions test for the particulate matter compliance test and state this in this condition. (See Comment No. 84.).
see 73. revise
- no 89. **Page 94, F.12.:** We are requesting that the Department specify process variables for this emission unit or delete this condition because it is not applicable. The unit (e.g., carbon silo baghouse) is either on or off. (Please see Comment Nos. 63 and 64. They are applicable here also).
- no 90. **Page 94, F.14.:** We are requesting that the 45 day period be changed to 60 days to coincide with our other test reporting due dates. Given our request for use of Method 9 for PM compliance purposes, subsection (c) could be deleted to streamline the permit.
- o.k. 91. **Appendix U-1, List of Unregulated Emissions Units and /or Activities:** Please add NaOH storage tank to this list.
- o.k. 92. **Appendix I-1, List of Insignificant Emissions Units and /or Activities:** Please add Aqueous Ammonia (19%) Storage Tank to this list. Also, the 1100-gallon fuel tank should be relabeled as a 449-gallon fuel tank.
- no 93. **Appendix H-1, Permit History/ID Number Changes:** There are a number of PSD permits listed with expiration dates. PSD permits do not expire per se provided that the construction actually takes place. The construction of the listed facilities has taken place, therefore there should not be any expiration dates noted for the PSD permits.

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93A. **Table 1-1, Page 3 of 6:** The reference to PSD-FL-086 is incorrect. The emission limits identified for SO₂, NO_x and CO in this citation come from Subpart Cb. PSD-FL-086 is the City of Tampa's McKay Bay Facility PSD permit, an entirely different facility. Also, there is no "allowable emission limit for sulfuric acid mist." It and the reference to "equivalent emissions" should be eliminated.

Yes, if any — 94. **Table 2-1:** This table will require revision to conform it to any changes requested above.

o.k. Where? — 95. **Table 2-1, Pages 3 and 4 of 6:** Indicates CMS for VOC and Sulfuric Acid Mist. There are no CMS for these pollutants. Please modify this table.

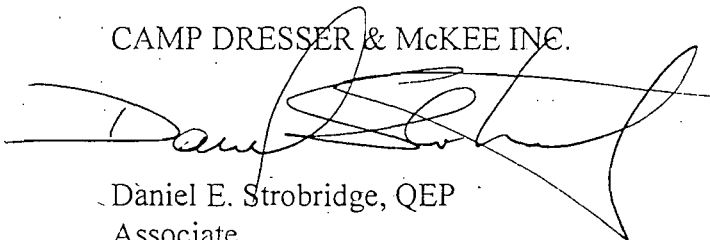
If not we still! — 96. The Table indicates that Method 5 will be done upon renewal for the ash handling system, carbon and lime silos. This is inconsistent with PSD-FL-121(B) which only requires annual Method 9 testing. Please make this change to be consistent with PSD-FL-121(B) and our requests above.

We greatly appreciate your favorable consideration of these comments on the DRAFT Initial Title V Air Operation Permit for the Hillsborough County Solid Waste Energy Recovery Facility. We would appreciate the opportunity to meet with you to discuss these at your earliest convenience. In the meantime, please feel free to call me at (813) 281-2900 if you need any clarification, or would like to arrange a meeting to discuss our comments.

We also wish to review the next draft of the permit subsequent to its revision pursuant to our comments.

Very truly yours,

CAMP DRESSER & MCKEE INC.



Daniel E. Strobridge, QEP
Associate

813 917-4175

- c: T. Smith, Hillsborough County
- J. Campbell, Hillsborough County EPC
- D. Elias, RTP
- C. Hibbard, CDM
- J. Burbridge, OMSH

Attachment No. 1

STATEMENT OF BASIS

Hillsborough County
Hillsborough County Resource Recovery Facility
Facility ID No.: 0570261
Hillsborough County

Initial Title V Air Operation Permit
DRAFT Permit No.: 0570261-001-AV

This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-213. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Construction of this facility began in 1985 and was completed in 1987. It was originally granted air construction permit PSD-FL-104. The facility's air construction permit was later modified to PSD-FL-121 and later PSD-FL-121 (A). The Final Construction Permit Modification Number PSD-FL-121 (B) was issued on June 29, 1998; this permit updated and clarifies a variety of permitting topics, most specifically, the replacement and improvement of the air pollution control system.

The three incinerator emission units at Hillsborough were each equipped originally with an American Air Filter, three field electrostatic precipitator; details of the retrofit process are detailed herein. The incinerator emission units produce steam which drives a turbine which is connected to an electric generator that can produce 32.5 MW at a Power Factor of 0.85. Units 1, 2 and 3 exhaust through a 220 feet high multi-flue stack with each unit having its own flue.

The promulgation of 40 CFR 60, Subpart Cb, *Emission Guidelines and Compliance Times for Large Municipal Waste Combustors that are constructed on or before September 20, 1994* required the facility to make physical and operational changes to its MWC emission units for the primary purpose of complying with this subpart. Hillsborough County entered into a schedule of enforceable increments of progress as defined in 40 CFR 60, Subpart B - a schedule which is outlined in the State of Florida 111(d) Plan - and is presented in the body of this permit.

The necessary physical and operational changes to each incinerator emission unit needed to satisfy the requirements of 40 CFR 60, Subpart Cb, will either be completed prior to December 10, 2000 or be completed consistent with Hillsborough County's closure agreement. As part of these operational changes each incinerator emission unit (municipal waste combustor) will undergo a retrofit which replaces the original ESP with new air pollution control equipment.

The new air pollution control equipment on the retrofit units will consist of a spray dryer absorber, a fabric filter, and an activated carbon injection system. A selective non-catalytic reduction system (SNCR) will be utilized to control emissions of oxides of nitrogen. The new air

pollution control devices required the facility to install a lime storage silo and an activated carbon storage silo.

During the interim period between the present time (January 2000) and the end of the compliance schedule stipulated in Florida's 111(d) Plan (December 10, 2000 or concurrent with the closure agreement), each of the MWC emission units will be in various phases of the transition from the original ESPs to the installation of the new air pollution control devices. Since this transition is an ongoing process, the different stages of the transition process will not be detailed in this Statement of Basis since much of the information contained herein will become outdated as of December 10, 2000.

These MWC emissions units are regulated under NSPS – 40 CFR 60, Subpart E, Standards of Performance for Incinerators, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); Rule 62-212.500, F.A.C., Preconstruction Review for Nonattainment Areas; Rule 62-296.401(2), F.A.C., Incinerators; Rule 62-296.416, F.A.C., Waste-to-Energy Facilities; and NESHAP – 40 CFR 61, Subpart C, NESHAP for Beryllium, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C. These emissions units are subject to the requirements of NSPS – 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference, subject to provisions, in Rule 62-204.800(8)(b), F.A.C., no later than December 10, 2000, applicable to Units 1, 2 and 3.

Fly ash is collected by screw conveyors along the flue gas path and transported to the proprietary Martin ash discharger where it is combined with the bottom ash. The ash discharger quenches and moistens the combined ash. The combined ash is then conveyed to the residue storage building where it is transferred to a truck for disposal. The ash handling system is completely covered to decrease the potential for fugitive emissions; the moistened ash minimizes potential for fugitive emissions as well. A baghouse is located on the ash handling building as an added precaution for fugitive emissions. The emissions unit on the ash handling building is regulated under Preconstruction Review for Nonattainment Areas; and, Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) – Materials Handling, Sizing, Screening, Crushing and Grinding Operations.

Once the facility becomes compliant with the requirements of 40 CFR 60, Subpart Cb, the facility will consist of the following emissions units:

Each of the three municipal waste combustors (MWCs) shall have a nominal design rated capacity each having a nominal design rate capacity of:

- 400 tons MSW per day
- 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with the MSW having a heating value of 4,500 Btu per pound.

The “operating window” of 115 percent (%) over the nominal design rate of 150 MMBTU heat input corresponds to 172.5 MMBtu/hr heat input and 102,200 lbs steam/hour per each boiler [4 hour block average].

By letter dated March 17, 1998, D.B. Riley, Inc. (boilers' manufacturer) indicated that it performed an evaluation of each boiler's ability to operate at the proposed steam flow of 102,000

lbs steam/hr and concluded that each boiler can safely operate at an increased continuous steam generation rate of 103,700 lbs steam/hr. Short-term processing capacity is limited by limiting steam production (102,000 lbs/hr - 4 hour block average), which effectively limits heat input.

Lime used in the spray dryer absorbers for each municipal waste combustor is stored in a silo. Emissions from the silo are controlled by a baghouse. Carbon used in the mercury control system is stored in a silo; emissions are controlled by a baghouse. These emissions units are regulated under Rule 62-296.711, F.A.C, Reasonably Available Control Technology (RACT) – Materials Handling, Sizing, Screening, Crushing and Grinding Operations.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the initial Title V permit application received June 17, 1996, this facility is a major source of hazardous air pollutants (HAPs).