

## Bull, Robert

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**From:** Koerner, Jeff  
**Sent:** Wednesday, February 22, 2006 3:40 PM  
**To:** Lim, Meng  
**Cc:** Patterson, April; Kirts, Christopher; Bull, Robert  
**Subject:** RE: Dixie Waste

Meng,

Here's my quick review of the additional information provided:

1. Response to comment 2. It sounds like they think each combustion cell is considered a combustion unit. The way i understand the definition is that their combustion unit has 3 cells. Therefore, the capacity of their municipal waste combustion unit is 150 tpd (proposed) instead of 50 tpd each. Please confirm that is the correct understanding. (I tried to contact EPA personal to discuss with this issue, never able to get in touch with him, never call me back(Mr. Majumder, supposedly an expert in Subpart AAAAA).

Response: As you mentioned during your initial review, the full-sized site plan seems to indicate plans for future expansion of three new cells adjacent to the three planned cells. I would ask the applicant regarding future expansion and the design - I don't believe your original question was fully answered. I also recommend that you send a copy of this site plan to EPA Region 4. Describe the project and ask for their opinion regarding applicability of Subpart AAAAA. If Mr. Majumder will not return your calls, ask for Mr. Jim Little or Ms. Katy Forney. They will usually provide a well-reasoned and rapid response. EPA Region 4 interprets this federal rule. I recommend that you speak directly with PEA Region 4 - just keep trying.

I remembered you talk about if the capacity of the municipal waste incinerators is over 250 tpd, then it is 1 of the 28 major categories. The capacity is based on physical design capacity, they cannot establish maximum operating capacity of 150 tpd to avoid the classification, am i understand it right?

Response: Rule 62-210.200(164)(a)1, F.A.C. defines "Major Stationary Source" as " ... Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any PSD pollutant: ... *municipal incinerators capable of charging more than 250 tons of refuse per day ...*" That is a facility-wide capacity of 250 tons/day. For the PSD, it is possible to establish permit limits on "capacity" to avoid PSD preconstruction review. The limitations must be practicable and enforceable. However, a later relaxation of these limits would impose Rule 62-212.400, F.A.C., which states:

"(12) 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."

You would put this entire rule in the permit for such a case.

Later on in the response the comment 10, they stated that since the applicant requested for 150 max capacity, therefore, the method shown in 40 CFR 60, Subpart AAAAA does not apply. Basically the method in NSPS is to determine the physical

capacity, still consistent with my understanding so far. It sounds like they try to avoid that. Please comment.

Response: I agree, I'm not sure the applicant answered your question. 40 CFR 60.1460(e) states, "Capacity of a batch municipal waste combustion unit. Calculate the capacity of a batch municipal waste combustion unit as the maximum design amount of municipal solid waste they can charge per batch multiplied by the maximum number of batches they can process in 24 hours. Calculate this maximum number of batches by dividing 24 by the number of hours needed to process one batch. Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the municipal waste combustion unit can combust 24/16, or 1.5 batches, in 24 hours." I believe they must use this calculation. They're response is confusing. I'm not sure whether they can/will only process one batch per cell per day. According to their response, they will gasify waste in 8-10 hours and need 2-4 hours for a cool down. So the fastest they could process a "batch" would be 10 hours. Based on the above definition:  $(24 \text{ hours/day}) / (10 \text{ hours/batch}) = 2.4 \text{ batches per day}$ . If each batch is 50 tons/cell, this would be:  $(50 \text{ tons/batch}) (2.4 \text{ batch/day}) = 120 \text{ tons/day}$  for one cell, which is 360 tons/day for the proposed plant. You definitely need to ask for clarification.

2. In terms of establishing emissions cap for NO<sub>x</sub>, they are proposing emissions limiting standard of 102 ppmvd and 249 tpy of emissions to avoid PSD classification. Do I need to establish the max volumetric flow rate in the permit to satisfy the definition of "allowable emissions" in F.A.C. Rule?

Response: For NO<sub>x</sub>, they've proposed a short-term limit and a 12-month rolling mass emissions rate cap. The monitor measures concentration (ppmvd), so they would need to install a flow meter in the stack to convert to a mass emission rate.

Also, it looks like they want to establish lower emissions limiting standards for other air pollutants. Since emissions factor used is different from pollutant to pollutant, some are in lb/MMBtu, some in ppmvd, and maybe more....and they might have worst case (depending on type of waste burned) for different pollutant, is that mean that all the air pollutants each has to show different tested capacity or under different burning scenario when they conduct the test to show compliance? that sounds too complicated of a permit to construct to me.

Response: We discussed this before and I mentioned that it looked like they were really requesting lower emission emissions limits. You need to check the "potential emissions" for each pollutant and find the basis of the calculations. In the response, Table 2-6 is titled "Comparison of Maximum Hourly Emission Rates to NSPS Emission Limits". In the table, it appears that maximum "project emissions" are provided in the same units as the NSPS. These look like the requested limits. You could ask them to concur.

3. Response to comment 27, it is my understanding that the transfer station may be the "support facility" even if they are stand alone enterprise. This is based on the fact that they are adjacent, and all the waste from the transfer station are sending to the site for destruction. They are supporting partner for each other operations. If this prove to be the case, fugitive emissions from the transfer station shall be included in the PTE. However, their PM and VOC (which are 2 potential fugitive that I can think of) are low, do we want to make a case on this issue and ask them to include the transfer station as support facility and estimate the fugitive emissions?

Response: I don't think fugitives is the issue. Does the County hold an air permit for the transfer station or any other nearby/adjacent facilities? If so, what are the emissions?

They didn't really answer a lot of things that we requested. I will address that again.

Response: I agree.

I have been told by the solid waste program that the facility has to sort the waste on site, therefore their answer to the potential odor problem is questionable (see comment 25).

Response: I understand their response to be that all sorting will be done at the transfer station. Only pre-sorted waste will be brought to the incinerator site. The pre-sorted waste will be discharged directly into a cell for disposal. There is no waste storage on site.

Here's some other items to think about:

We can't permit just a "black box". We need reasonable assurance that what they propose will comply with the regulations. Their answers to Question #15 (process flow diagram) and Question #17 (scrubber) are not sufficient. I would ask for the preliminary design information again. Is the P.E. of record designing this equipment? What is his basis for certifying that the proposed equipment (which has not been selected or designed yet) can achieve the applicable standards?

The large plans sure make it look like they will add 3 cells in the near future and connect to a common manifold for the thermal oxidizer and scrubber. I would ask about their plans.

For the NSPS regulations, capacity is generally based on the "physical capacity" of equipment to operate. This is not as clear for these batch units. Again, contact EPA Region 4.

Again, mercury emissions look very high for this "small municipal waste combustor".

For the NSPS Subpart AAAAA "pre-construction" requirements, it sure seems like they need to address all of these before they get a permit. If that's the case, make sure they understand that now. Check with EPA Region 4 if you have any doubts.

Meng, I'm going to give the application to Bobby Bull (Tallahassee) to give you another opinion. He works a lot on NSPS/NESHAP projects and updates the "standardized" conditions for these rules. He may be able to help interpret some of the NSPS Subpart AAAAA requirements.

When we get a chance, Al Linero and I plan to call Chris to discuss this project.

Good luck!

Jeff Koerner, BAR - Air Permitting North  
Florida Department of Environmental Protection  
850/921-9536

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**From:** Lim, Meng  
**Sent:** Tuesday, February 21, 2006 1:18 PM  
**To:** Koerner, Jeff  
**Cc:** Patterson, April  
**Subject:** Dixie Waste

Hi Jeff,

I would like to confirm a few things with you before i finalized the second RAI.

1. Response to comment 2. It sounds like they think each combustion cell is considered a combustion unit. The way i understand the definition is that their combustion unit has 3 cells. Therefore, the capacity of their municipal waste combustion unit is 150 tpd (proposed) instead of 50 tpd each. Please confirm that is the correct understanding. (I tried to contact EPA personal to discuss with this issue, never able to get in touch with him, never call me back(Mr. Majumder, supposedly an expert in Subpart AAAAA)).

I remembered you talk about if the capacity of the municipal waste incinerators is over 250 tpd, then it is 1 of the 28 major categories.

The capacity is based on physical design capacity, they cannot establish maximum operating capacity of 150 tpd to avoid the classification, am i understand it right?

Later on in the response the comment 10, they stated that since the applicant requested for 150 max capacity, therefore, the method shown in 40 CFR 60, Subpart AAAAA does not apply.

Basically the method in NSPS is to determine the physical capacity, still consistent with my understanding so far. It sounds like they try to avoid that. Please comment.

2. In terms of establishing emissions cap for NOx, they are proposing emissions limiting standard of 102 ppmvd and 249 tpy of emissions to avoid psd classification. Do i need to establish the max volumetric flowrate in the permit to satisfy the definition of "allowable emissions" in F.A.C. Rule?

Also, it looks like they want to establish lower emissions limiting standards for other air pollutants. Since emissions factor used is different from pollutant to pollutant, some are in lb/MMbtu, some in ppmvd, and maybe more.....and they might have worst case (depending on type of waste burned) for different pollutant, is that mean that all the air pollutants each has to show different tested capacity or under different burning scenario when they conduct the test to show compliance? that sounds too complicated of a permit to construct to me.

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sending to the site for destruction. They are supporting partner for each other operations. If this prove the be the case, fugitive emissions from the transfer station shall be included in the PTE. However, their PM and VOC (which are 2 potential fugitive that i can think of) are low, do we want to make a case on this issue and ask them to include the transfer station as support facility and estimate the fugitive emissions?

They didn't really answer a lot of things that we requested. I will address that again. I have been told by the solid waste program that the facility has to sort the waste on site, therefore their answer to the potential odor problem is questionable (see comment 25). I will send the second RAI to you sometime this week before they go out.  
Thank you for your help.

Meng

**Bull, Robert**

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**From:** Koerner, Jeff  
**Sent:** Wednesday, February 22, 2006 3:47 PM  
**To:** Lim, Meng  
**Cc:** Patterson, April; Kirts, Christopher; Bull, Robert  
**Subject:** NSPS Subpart AAAA

**Attachments:** 40 CFR 60 - NSPS Subpart AAAA.doc

Meng,

I meant to attach this document, just in case you didn't have it yet. From a quick glance, it looks like there are two "Classes" of these small MWC as follows:

**§ 60.1045 Are there different subcategories of small municipal waste combustion units within this subpart?**

(a) Yes. This subpart subcategorizes small municipal waste combustion units into two groups based on the aggregate capacity of the municipal waste combustion plant and the type of municipal waste combustion unit as follows:

(1) Class I Units. These are small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity of more than 250 tons per day of municipal solid waste. (See the definition of "municipal waste combustion plant capacity" in § 60.1465 for specification of which units at a plant are included in the aggregate capacity calculation.)

(2) Class II Units. These are small municipal waste combustion units that are located at municipal waste combustion plants with an aggregate plant combustion capacity no more than 250 tons per day of municipal solid waste. (See the definition of "municipal waste combustion plant capacity" in § 60.1465 for specification of which units at a plant are included in the aggregate capacity calculation.)

(b) The requirements for Class I and Class II units are identical except for two items:

(1) Class I units have a nitrogen oxide emission limit. Class II units do not have a nitrogen oxide emission limit (see table 1 of this subpart). Additionally, Class I units have continuous emission monitoring, recordkeeping, and reporting requirements for nitrogen oxides.

(2) Class II units are eligible for the reduced testing option provided in § 60.1305.

Based on their application, they want to be the smaller class. This does set up the possibility that an expansion project would subject them to more stringent standards and testing.

Thanks!

Jeff



40 CFR 60 -  
PS Subpart AAAA

**Bull, Robert**

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**From:** Koerner, Jeff  
**Sent:** Wednesday, February 22, 2006 4:24 PM  
**To:** Bull, Robert  
**Subject:** Dixie Waste Services

**Attachments:** Dixie Waste; RE: Concentrations to Mass Rates; Concentrations to Mass Rates; RE: Dixie; Dixie Waste Inquiry from Senator Argenziano's Office; FW: Notice of Application; Notice of Application; Request for Additional Information; RE: Dixie; RE: Dixie; RE: Dixie; RE: Dixie; RE: Dixie; RE: Dixie; Dixie; RE: Dixie; RE: Dixie Waste Services; RE: Dixie Waste Services; RE: Dixie Waste Services; RE: Dixie Waste Services; RE: Dixie; Dixie; RE: Dixie Waste Services; Dixie Waste Services; RE: Dixie Waste; Dixie Waste; RE: Dixie Waste Services; RE: Dixie Waste Services; RE: Dixie Waste Services; Dixie Waste Services; Small municipal waster combustion Unit































Bobby,

This project needs a caretaker. The NED looks nervous. I've tried to help, but can't devote full time. I'd like you to help them out, but remember - IT'S THEIR PROJECT. When you get a chance, read the application, additional information, and associated emails. Then we'll talk.

Thanks!

Jeff

P.S. You can drop these attached emails into a folder so they're not hidden in this email.

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Dixie Waste      RE: Concentrations to Mass Rates      Concentrations to Mass Rates      RE: Dixie      Dixie Waste Inquiry from Senat      FW: Notice of Application      Notice of Application
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Request for Additional Informa      RE: Dixie      RE: Dixie      RE: Dixie      RE: Dixie      RE: Dixie      RE: Dixie
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Dixie Waste Services      Small municipal waster combust..



# Department of Environmental Protection

**Jeb Bush**  
Governor

Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, Florida 32256-7590

**Colleen Castille**  
Secretary

March 1, 2006

Mr. Anthony Fraccalvieri  
Dixie Waste Services, LLC.  
Post Office Box 850  
Cross City, Florida 32628

Dear Mr. Fraccalvieri:

Dixie County – Air Permitting  
Dixie Waste Service Waste Gasification/Thermal Oxidizer  
AIRS ID Number: 0290016  
Request for Additional Information

In accordance with Section 62-4.055(1), Florida Administrative Code (F.A.C.), and Chapter 120, Florida Statutes, (F.S.), the Department has reviewed the additional information response received on December 12, 2005, and has determined that the following information and questions need to be answered before the application can be further processed. Please provide all calculations, assumptions, and any reference material that may be used to address the questions identified below.

1. Response to comment 1. The response received did not address the applicability of F.A.C. Rule 62-296.401 (4) - Biological Waste Incineration Facilities to the proposed unit. Please provide the complete information as requested.
2. Response to comment 2. The response received did not clarify whether the facility “will” increase the capacity in the future. Please provide the complete information as requested. Also, please note that it is the physical design capacity of the municipal waste combustion units that shall be used to determine if the facility is one of the 28 major source categories, not the capacity of the municipal waste combustion unit.
3. Response to comment 3. Please submit the following five items as required by 40 CFR 60.1090. Please note that the Department will not deem the application complete without these items submitted.
  - a) Your draft materials separation plan.
  - b) Your revised materials separation plan.
  - c) Your notice of public meeting for your draft materials separation plan.
  - d) A transcript of the public meeting on your draft materials separation plan.
  - e) The document that summarizes your responses to the public comments you received during the public comment period on your draft materials separation plan.
4. Response to comment 5. Please note that since the facility requests to limit the fuel feed stream to 10 percent or less by weight of medical waste, the applicant shall revise the potential emissions estimation based on this assumption. Please provide all detail calculations, assumptions, and any reference material.

Mr. Anthony Fraccalvieri  
Dixie Waste Services, LLC.  
March 1, 2006  
Page 2

5. Response to Comment 6. It is realized that the potential NO<sub>x</sub> emissions is calculated to be 305.7 tons/year based on 8760 hours of operation and 69.8 lbs/hour of emissions in stead of 249.4 tons/year as indicated in the application. Please explain.
6. Response to comment 7. Mercury is a powerful neurotoxin that can cause adverse health effects in humans, including negative effects on brain development and nervous systems. It is critical for the facility to take step to provide a detail plan to ensure the Department that the facility is committed to minimize the mercury emissions to the lowest level that it possibly can. The plan to minimize the mercury emissions can be included in the material separation plan or being proposed in separate document.
7. Response to comment 10. The applicant is required to estimate the capacity of the proposed unit based on method shown in 40 CFR 60.1460. The capacity estimated will be used to determined the classification of the combustion unit to either Class I Units or Class II Units according to 40 CFR 60.1045. The applicant cannot avoid the classification by establishing maximum federally enforceable throughput rate. Please provide complete information as requested.
8. Response to comment 15. Please note that the Department cannot deem the application complete without the final design information and specification submitted. Please submit the complete information as requested.
9. Response to comment 17. Please note that the Department cannot deem the application complete without the final control unit design information and specification submitted. Please submit the complete information as requested.
10. Response to comment 18. Please note that the Department cannot deem the application complete without the final control unit design information and specification submitted. Please submit the complete information as requested.
11. Response to comment 20. Please note that the Department cannot deem the application complete without the final detail project area diagram submitted. Please submit the complete information as requested.
12. Response to comment 25. It is realized that the facility will have to sort the waste onsite due to solid waste program requirement. Please address how the facility plans to minimize the potential odor problem if the facility has to sort the waste on site.
13. The responses to Comment Nos. 25, 27, 29, 30 and/or 31 indicate that waste will be pre-sorted at the County's transfer station and therefore can be deposited directly into the combustion cells without being sorted or stored onsite. Furthermore, the response to Comment No. 27 indicates that the facility is independent of the County. Please note, however, that FAC Rule 62-701.710(4)(a)2 requires the inspection of wastes received by the facility. Therefore, all waste will have to be dumped, spread, sorted and (at least briefly) stored prior to being placed into the combustion cells.
14. The response to Comment No. 31 appears to say that, since the waste will be deposited directly into the combustion cells, litter control devices and visual screenings will not be provided. Please note that FAC Rule 62-701.710(3)(a) requires that these items be provided regardless of the operational methods and, since waste will have to be dumped, spread, sorted and stored prior to being placed into the combustion cells, the litter control devices and visual screenings are very important.



Mr. Anthony Fraccalvieri  
Dixie Waste Services, LLC.  
March 1, 2006  
Page 3

15. The response to Comment No. 32 appears to imply that a leachate control system will not be necessary due to the design of the combustion cells and the nature of the operation. Please note that, even if the waste was deposited directly into the combustion cells (which, as indicated above, is not allowed), the trucks that haul it to the facility sometimes leak and when that leakage is concentrated at one spot over a long period of time, groundwater quality can be impacted. For this reason, FAC Rule 62-701.710(3)(b) requires the facility to have a leachate control system regardless of its method of operation and both that Rule and FAC Rule 62-701.710(8) prohibit the mixing of leachate with stormwater. Therefore, please provide for a leachate control system that will prevent the discharge of leachate, will minimize the mixing of leachate with stormwater and will minimize the presence of standing water.

The subject application for permit cannot be processed until the above requested information is provided or corrected. In accordance with Rule 62-4.055(1), F.A.C., the response to this requested information is due within 90 (ninety) days from receipt of this letter, unless you (the applicant) request additional time. All information requested must be submitted by the applicant and certified by the professional engineer named in the application.

If you have any questions, please call MengChiu Lim at (904) 807-3238.

Sincerely,

Christopher L. Kirts, P.E.  
District Air Program Administrator

CLK:mcl  
Enclosures

Cc: Robert Bull, DARM  
Bernardo Susi, P.E., Golder Associates, Inc.