From:	Katie Hill Brandt
To:	Cordes, Richard M (MPCA)
Cc:	ben.bertram@sanimax.com
Subject:	Fw: Today"s call - Sanimax Follow-up Information
Date:	Monday, July 13, 2015 5:01:22 PM
Attachments:	Sanimax RAFVO Analyses_Fat as Fuel Project.pdf Published Information on Non-Traditional Fuels.docx RAFVO - Yellow Grease - GB Results.pdf RAFVO - Tallow - GB Results.pdf

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Hi Dick,

Here is some more information related to our conversation this morning and your 7/2/15 email.

- Please see the attached stack test results from the Green Bay Sanimax (formerly Anamax) facility, RAFVO analysis results provided by Sanimax, and links to some published information on the combustion and make-up of various non-traditional fuels.

- We are gathering some additional information regarding the use of non-traditional fuels in the boilers, particularly as they relate to the definitions of "solid waste" and "non-hazardous secondary materials" in 40 CFR Part 241 and "contaminants" in Clean Air Act sections 112(b) and 129(a)(4).

- For the "true-up" permit application forms, it looks like we could classify the application on form SCP-01 as a "replacement" permit application. That way, we can take credit for the $7,125 (25 points) major amendment application fee that was submitted in May 2013 and submit $7,125 fee at this time with the "true-up" application, for a total permit application fee of $14,250 (50 points total). Let me know if this is incorrect. As we discussed, we do want to make sure the application fee is correct so that the application is not sent back to us.

Thank you,
Katie

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----- Forwarded by Katie Hill Brandt/seh on 07/09/2015 10:21 AM -----

From: Katie Hill Brandt/seh
To: "Cordes, Richard M (MPCA)" <richard.cordes@state.mn.us>,
Cc: "ben.bertram@sanimax.com" <ben.bertram@sanimax.com>
Date: 07/06/2015 05:03 PM
Subject: Re: Today's call

Hi Dick,

Please see our comments below on your questions regarding the combustion units at Sanimax. We should have additional information ready within the next week or so.

I will plan to follow up with you tomorrow with a couple questions of my own. Thanks!

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From: "Cordes, Richard M (MPCA)" <richard.cordes@state.mn.us>
To: Katie Hill Brandt <khillbrandt@sehinc.com>,
Cc: "ben.bertram@sanimax.com" <ben.bertram@sanimax.com>
Date: 07/02/2015 10:53 AM
Subject: Today's call

Katie –

I wanted to summarize a few things from our phone call today.

The change from a Part 70 permit to an "initial state permit" requires a permit application. I'm okay with the permit application being one that combines the appropriate portions of the Part 70 renewal, the administrative amendment, and the major amendment (as well as the modeling submittal). This can be the "true-up" application that I've discussed before. However, there is a significant fee (50 points) for an initial state permit. There's also a fee for 10 "additional points" because a condition is needed to keep the facility minor for Part 70.

The calculations indicate a few changes from the previous permit application:

- The current calculations indicate a move away from the previously-proposed 15 ppm sulfur limit for liquid fuels. The permit will include sulfur content limits of 0.05 percent by weight for No. 2 fuel oil and 0.10 percent by weight for refined animal fat/vegetable oil (RAFVO) and other possible fuels (glycerin, biodiesel).
  - The permit will require a supplier certification (or similar) for the sulfur content of the fuel oil. This is fine.
  - The permit also needs to provide assurance that the sulfur content of RAFVO and other alternative fuels is below the level in the calculations. Do you have a suggestion for the compliance demonstration? Sanimax has obtained analyses of various RAFVO samples which verify that the 0.10 % by weight sulfur content used in our calculations is acceptable. Copies of the analyses and compliance demonstration are forthcoming.

Other alternative fuels (biodiesel and glycerin) were not accounted for in the calculations because the permit requires a stack test for these fuels to determine emission factors.

- It would be helpful for me to know more about RAFVO. The definition of liquid fuel does not clearly include RAFVO (I'm thinking specifically of the animal fat), which makes me wonder if it's a solid fuel. If it's meant to always be a liquid fuel, can you have a suggest an appropriate method to demonstrate that? The Sanimax boilers and dryer can burn liquid or gas fuels only. The fuel handling system transferring fuel to the boilers and dryer will heat the RAFVO to ensure that the fuel is properly liquefied. A method of demonstration will be provided in a separate email.
  - If RAFVO can be a solid, please review the applicability of 40 CFR 63 Subpart JJJJJJ for RAFVO. Are there any

changes to the applicable conditions since RAFVO is proposed to be used? At this time I do not see any changes that need to be made to the rule applicability, since RAFVO is not considered a solid fuel as-fired.

- There are specific conditions in GP 001 for the combustion of glycerin and biodiesel fuels. Does it make sense to treat RAFVO in roughly the same way? It would make sense to apply some of the same GP001 requirements as glycerin and biodiesel to RAFVO (i.e., fuel use recordkeeping requirements). However, the biodiesel/glycerin stack testing requirement should not apply to RAFVO. Stack testing has been conducted on RAFVO at another Sanimax facility, so test data is already available.
- Does Sanimax plan to continue to have the option to burn glycerin and biodiesel in the Ring/Blood Dryer/Oven (EU 002) and in Boiler No. 2 (EU 006)? Are these fuels that the company derives on-site or are they purchased from a supplier? If they are purchased, are fuel specifications (such as sulfur content) available? Sanimax does plan to have the option to burn glycerin and biodiesel in dryer (EU002) and boiler no. 2 (EU006). These fuels generally will be derived on-site or at other Sanimax facilities. Test burns will be conducted for glycerin and biodiesel if/when fired, according to the current permit's requirements (page A-6 of the permit).

Thank you for today's chat.

Richard Cordes, P.E.

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