From:	Katie Hill Brandt
To:	Cordes, Richard M (MPCA); Sullivan, Jim (MPCA)
Subject:	Sanimax EBD Model Updates (Facility ID: 03700070)
Date:	Wednesday, March 18, 2015 1:37:55 PM
Attachments:	AQDM-08_EBD Form_Sanimax_2015.03.18.doc Sanimax Roads_2010 and 2015.xlsx Sanimax_StPaul_PM2.5_EBD_Mar17.zip AQDM-02_Protocol_Sanimax_2015.03.18.xls

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Dick and Jim,

I reviewed the Sanimax EBD modeling inputs and reran the model in light of our recent conversations. Below are my comments and updates:

SV001 - The correct PM2.5 emission rate is 3.3 lb/hr (0.416 g/sec), which is the PM2.5 permit limit. This is the value that was in the modeling. I have updated the AQDM-02 protocol form with the correct g/sec emission rate.

SV005 & SV014 - These stacks have a horizontal orientation. The actual flow rate from both stacks is 240 acfm, but typical modeling protocol dictates that an exit velocity of 0.001 m/s (correlating with a 0.025 acfm flow rate) be used to account for horizontal flow. That is why 0.025 acfm was used in the AQDM-02 protocol form instead of 240 acfm. [Note: As part of the facility's 2013 Operation Permit renewal application, the facility requested that the discharge direction for these stacks be changed to "horizontal" in MPCA's database.]

Haul Road Fugitives - The previously modeled haul road emissions are referenced in Appendix II of the current Sanimax permit (PM10 emissions only) and page 5 of the permit's Technical Support Document, where it says, "The paved and unpaved road PM10 emissions were based on modeled permitted limits. PM2.5 emissions were 25% of PM10 emissions for paved roads, and PM2.5 emissions were 10% of PM10 emissions for unpaved roads." I had erroneously modeled the permitted PM10 haul road emissions in my original PM2.5 EBD modeling analysis. I have updated the negative (past) haul road emission rates for sources "FUG1" and "FUG2" to the PM2.5 values referenced in the Technical Support Document. I have used these emission rates since it is the intent of the EBD modeling to use the emission rates from the most recent modeling analysis as negative values in the EBD model.

The revised modeling protocol forms, supporting document, and modeling files are attached. Let me know if you have any questions regarding this information.

Regards,
Katie

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