Sheplak, Scott

From: Harman, Alice [Harman@epchc.org]
Sent: Monday, January 09, 2006 1:14 PM
To: Sheplak, Scott
Cc: Zhu, Roger
Subject: HCRR

Scott,

Attached are the comments on HCRR you request by today. Thank-you for allowing us to submit information. I will not forward a hard-copy.

Sincerely,
Alice

MEMORANDUM

DATE: January 6, 2006

TO: Scott Sheplak, P.E.

FROM: Roger Zhu **THRU**: Alice H. Harman, P.E.
Sterlin Woodard, P. E.

SUBJECT: **Co-review – Hillsborough County Resource Recovery (HCRR)**
Permit No.: 0570261-007-AC

After co-reviewing the HCRR construction permit application (0570261-007-AC) received on December 28, 2005, following comments are provided for FDEP review:

1. Volume III, Appendix C (AC application), Page 2, the facility marked that the application as an AC and a TV Revision. If so, the ARMS need to be updated so that there are two projects with two project numbers (-007-AC and -008-AV)? However, we recommend issuing the AC permit and the Title V revision (after compliance demonstration) separately with two public notice requirements in order to give the opportunities for the public to comment on.

2. According to the application, the new Unit No. 4 will have control equipment, such as SDA, FF, ACI and SNCR. However, it does not describe how they will be used. For example, will the semi-dry SDA scrubber be used in series with the fabric filter (the scrubber exhaust will feed into the fabric filter) or will the control devices be used independently. Please provide process flow diagram with detailed information about the control equipment.

3. The 40 CFR 60, Subpart Eb, was promulgated after November 15, 1990, therefore, the emission standards or limitations for any pollutant-specific emissions unit in the Subpart Eb are exempted from the CAM requirement. However, the Unit No. 4 is also subject to 40 CFR Subpart Db, which was first promulgated in Dec. 1987. Therefore, CAM should apply for the pollutants, such as SO_2, PM and NO_x. Also, two pollutants, SAM and HF, which are not covered by the Subpart Eb limitations and monitoring requirements shall be subject to the CAM requirement. A CAM plan shall be submitted with the permit application for the above pollutants.

4. Volume III, Page 3-1, indicates that the MWC has a nominal capacity of 660 tons per day. The AC Application, Page 16, indicates a maximum incineration rate of 600 ton/day. Please explain and clarify the differences between the "nominal" and "maximum" capacity. Furthermore, what is the new boiler steam flow rate in term of lb/hr and how does it correlate with the maximum incineration rate. Please provide calculation to show the quantity of steam/heat is generated by amount of waster incinerated with specified temperature and pressure.

5. Volume III, Pages 2-20, the applicant has requested that the VOC limit cited for the existing Unit Nos. 1, 2 and 3 be deleted from the Title V permit, and that no VOC limit be set for the proposed Unit No. 4. According to Volume III, Page 4-3, the equivalent annual VOC emissions rate for the Unit No. 4 is 12 TPY, which exceeded the permit threshold. Is the estimated 12 TPY a potential to emit (PTE) VOC for the new unit? We consider that a calculation for the PTE of VOC needs to be submitted and the VOC emissions for each unit and facility-wide should be limited.

6. Volume I, Pages 2-83, Noise Baseline Data Summary, the one-minute equivalent sound levels (Leq) are provided in comparison with the Hillsborough County Noise Criteria Sound Level Limit (dBA). Please be aware of that Sound Level Limits in the Rules of EPCHC, Chapter 1-10.03, are maximum allowable sound level limits on an instantaneous basis. Please provide noise level data in accordance with the sound level limits specified in the Rules of EPCHC under different categories, i.e., residential, commercial, or industrial.

7. The estimated NO_x emissions from the Unit No. 4 are 256.1 TPY, which is more than 6 times of the PSD significant emission rate of 40 TPY. The NO_x emissions are proposed to be controlled by using SNCR/FGR with a stack emission limit of 110 ppmdv. The BACT evaluation is based on the permit limits of Lee County MWC, which is identical to the HCRR-MWC. The proposed NSCR control efficiency is from 35 to 60%, however, the 110 ppmdv stack emission limit is determined based on 59% of NSCR control efficiency, which appeared to rely on a "best performance" of the SNCR. As indicated in the application, SCR has not been applied to MWCs in the U.S. The SCR control efficiency for NO_x has been ranged from 50 to 90%, and a stack NO_x emission limit can be decreased to 70 ppmdv. As indicated in the application after comparing with the SNCR and SCR control technologies, the SNCR will remove 324 TPY of NO_x, and SCR will remove 405 TPY of NO_x. We solely understand the economic and energy impact by using SCR as an alternative control technology, however, for the environmental impact, we highly recommend SCR with FGR as BACT for the Unit No. 4.

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