Hillsborough County
Hillsborough County Resource Recovery Facility

Final Permit No. 0570261-012-AV, Title V Air Operation Permit Revision

APPLICANT

The applicant for this project is Hillsborough County. The applicant's responsible official and mailing address are: Ms. Patricia V. Berry, Interim Manager, Hillsborough County, Solid Waste Management Group, 601 E. Kennedy Boulevard, Tampa, Florida 33602.

FACILITY DESCRIPTION

The Hillsborough County Resource Recovery Facility is located in Hillsborough County at 350 North Falkenburg Road, Tampa, Florida.

This existing facility consists of: four municipal solid waste combustors (Unit Nos. 1, 2, 3 and 4) with auxiliary burners; lime storage and processing facilities; ash storage and processing facilities; cooling towers; and, ancillary support equipment. Also included in this permit are miscellaneous insignificant emissions units and/or activities.

The total capacity of the Hillsborough County Resource Recovery Facility is 1,800 tons/day (TPD) of municipal solid waste fuel. The gross nominal electric generating capacity of the facility is 47 megawatts (MW).

The facility is owned by Hillsborough County and is currently operated by Covanta Hillsborough, Inc. a subsidiary of Covanta Energy Corporation.

PROJECT DESCRIPTION

The purpose of this project is for a revision, Permit No. 0570261-012-AV to incorporate the applicable specific terms and conditions from a previously issued air construction (AC) permit, Permit No. 0570261-010-AC/PSD-FL-369B, which authorized the construction of a nominal 600 tons per day (TPD) mass-burn municipal waste combustor (MWC) referred to as "Unit 4."

This permit is for the initial operation of Unit 4. Compliance with all of the terms and conditions of the AC permit was demonstrated. Initial testing demonstrated compliance with the emission standards and limitations specified in the AC permit. A complete summary of the initial compliance test results are provided in the permit application.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Revision received via Electronic Permit Submittal and Processing System (EPSAP) on June 9, 2010.
Request for Additional Information dated and sent via e-mail on July 6, 2010.
Additional Information Response from CDM (consultant) dated August 6, 2010 and received on August 9, 2010.
Request for Additional Information dated and sent via e-mail on September 7, 2010.
Request for extension to respond from CDM (consultant) dated and received via e-mail on November 8, 2010.
E-mail dated November 9, 2010 granting request to respond up to March 7, 2011.
Additional Information Response from CDM (consultant) dated and received via e-mail on March 7, 2011.
Application for Concurrent Air Construction/PSD Permit Revision from CDM dated May 9, 2011 and received on May 11, 2011.

Draft Air Construction Permit Revision clerked (issued) on August 3, 2011.
Draft Title V Air Operation Permit Revision posted onto web site on August 3, 2011.
Comments dated and received from CDM (on behalf of Applicant) on September 20, 2011.

Revised Draft Air Construction Permit Revision clerked (issued) on November 15, 2011.
Revised Draft/Proposed Title V Air Operation Permit Revision clerked (issued) on November 15, 2011.
Public Notice published on November 23, 2011.
Notification to U.S. EPA Region 4 of Publication of Public Notice on November 29, 2011.

PRIMARY REGULATORY REQUIREMENTS

Title III: This facility is a major source of hazardous air pollutants (HAP), based on the Title V air operation permit revision application.

NESHAP: This facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 Code of Federal Regulations (CFR) 63.

Title IV: This facility does not operate units subject to the acid rain provisions of the Clean Air Act.

Title V: This facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: This facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: This facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

CAIR: This facility does not operate units subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

Siting: This facility operates units subject to the power plant siting provisions of Chapter 62-17, F.A.C.

CAM: Emissions units at this facility are not subject to Compliance Assurance Monitoring (CAM) for one or more of the following reasons: they do not trigger the potential pre-air pollution control device major source emission thresholds; they demonstrate continuous compliance with a continuous emission monitoring system (CEMS); they are not equipped with air pollution control device(s); they are equipped with device(s) which are considered to be inherent to the process/operation; or, they satisfy CAM by meeting the post-1990 40 CFR 60 Subparts Cb/Eb federal monitoring requirements for the same or similar air pollutants.

The U.S. EPA letter dated July 7, 1999 (attached to permit), supports the use of monitoring under the post-1990 40 CFR 60 Subparts Cb/Eb to satisfy CAM for the same air pollutants and mentions the use of surrogate pollutants for similar air pollutants. Air pollutants specifically regulated under 40 CFR 60 Subparts Cb/Eb for Municipal Waste Combustors (MWCs) are: total particulate matter (PM); metals and metal compounds (cadmium (Cd), mercury (Hg) and lead (Pb)); all acid gases (including, but not limited to, sulfur dioxide (SO_2) and hydrogen chloride (HCl) gases); organic compounds (includes dioxins/furans (D/F)); nitrogen oxides (NOx); and, carbon monoxide (CO). In addition to the air pollutant limits specified under 40 CFR 60 Subparts Cb/Eb for MWCs, some of the same air pollutants are regulated for other reasons i.e., PSD BACT, state implementation plan (SIP) standard, etc. A streamlined approach for multiple emission limits of the same air pollutant is preferred for simplified monitoring. As outlined in the U.S. EPA letter and described herein, monitoring under the post-1990 40 CFR 60 Subpart Cb/Eb for the MWC Units 1 - 4 is therefore, deemed to be adequate for the same air pollutants.

The baghouses on the material storage silos are considered to be inherent to the process/operation. The scrubber installed on the Ash Handling Building (AHB) was also installed for worker protection/safety. The baghouses and the scrubber are therefore exempt from CAM.

PROJECT REVIEW

This project review summarizes the changes made in this Title V air operation permit revision.

The changes made in the draft permit documents are specifically shown as follows: deletions are noted in ~~strikethrough~~ and additions are noted in double underline. All changes were emphasized with yellow highlight in the electronic document. The changes will not be shown in the final permit documents.

Permit

- MWC Unit 4 Inclusion. Incorporated the applicable specific terms and conditions from the previously issued air construction permit No. 0570261-010-AC/PSD-FL-369B for MWC Unit 4. New Subsections III.G., H. & I. were added to the permit.
- Hg CEMS Revisions. The applicant also requested the concurrent processing of an air construction permit revision to change air construction/PSD permit conditions related to the mercury (Hg) continuous emission monitoring system (CEMS) provisions for Unit 4 (Emissions Unit Identification number (E.U. ID No.) 107). See Permit No. 0570261-013-AC/PSD-FL-369C for the changes made. The Technical Evaluation and Preliminary Determination summarizes the requested changes, the Department's responses identify the changes made to the underlying air construction permit conditions. These changes have been reflected within the Title V air operation permit.

Department Initiated Changes to Permit

- The layout of the Title V air operation permit was changed; for example, new headers and footers were added.
- The address and telephone number for the Risk Management Plan (RMP) Reporting Center was updated in Facility-wide Specific Condition **II.4.a.** in Section II.
- Added the May 10, 2006, federal municipal waste combustor (MWC) regulation amendments to the permit. Specific condition **C.97. - C.100.** in Subsection III.C. of the permit which incorporates all of 40 CFR 60, Subpart Cb, as Appendix 40 CFR 60, Subpart Cb. The amendments apply to the MWC Nos. 1, 2 and 3 (Emissions Unit ID Nos. 001, 002 and 003). {Note: The body of Subsection III.C. of the permit contains text from the federal regulations that does not reflect the May 10, 2006 federal amendment language}. For convenience, an Appendix 40 CFR 60 Subpart 60 is also added within this incorporation.
- Added the May 10, 2006, federal municipal waste combustor (MWC) regulation amendments to the permit. Specific condition **G.33. - G.34.** in Subsection III.G. of the permit which incorporates all of 40 CFR 60, Subpart Eb, as Appendix 40 CFR 60 Subpart Eb. The amendments apply to the MWC No. 4 (Emissions Unit ID No. 107). {Note: The body of Subsection III.G. of the permit may contain text from the federal regulations that do not reflect the May 10, 2006 federal amendment language}. For convenience, an Appendix 40 CFR 60 Subpart A is also added within this incorporation.
- Added "Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004." This alternative test procedure had been previously granted by U.S. EPA and applies to the MWC units.

CONCLUSION

This project revises Title V air operation permit No. 0570261-006-AV, which was effective May 29, 2007. This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, Florida Administrative Code (F.A.C.).

Hillsborough County Resource Recovery Facility