Pinellas County Utilities Administration
Pinellas County Resource Recovery Facility

Final Permit No. 1030117-008-AV, Title V Air Operation Permit Renewal

APPLICANT

The applicant for this project is the Pinellas County Utilities Administration. The applicant's responsible official and mailing address are: Mr. Robert Hauser, Director, Pinellas County Department of Solid Waste Management, Pinellas County Utilities Administration, 3095 114th Avenue North, St. Petersburg, Florida 33716.

FACILITY DESCRIPTION

The Pinellas County Resource Recovery Facility is located in Pinellas County at 3001 110th Avenue North, St. Petersburg, Florida.

The Pinellas County Resource Recovery Facility consists of three municipal solid waste combustors (Unit Nos. 1, 2 and 3) with auxiliary burners, lime storage and processing facilities, an activated carbon storage facility, ash storage and processing facilities, a metals recovery system, a cooling tower, ancillary support equipment, and a contiguous municipal solid waste landfill. The gross nominal electric generating capacity of the facility is 75 megawatts (MW). The capacity of the Pinellas County Resource Recovery Facility is 3,000 tons/day (TPD) on a rolling 12-month average of solid waste fuel with a nominal higher heating value (HHV) of 5,000 Btu/lb. The facility is owned by Pinellas County and is currently operated by Veolia ES Pinellas, Inc.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the Title V air operation permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received via Electronic Permit Submittal and Processing System (EPSAP) on April 1, 2010.
Request for Additional Information dated May 24, 2010 and sent via e-mail on May 25, 2010.
Correspondence from CDM dated June 28, 2010.
Correspondence from CDM dated August 3, 2010.
Additional Information Response received via e-mail on August 24, 2010.
Request for Additional Information dated and sent via e-mail on September 20, 2010.
Additional Information Response received on December 16, 2010.
Requests for Additional Information dated and sent via e-mail on January 12 and 18, 2011.
Additional Information Responses received on January 20 and 31, 2011.

Draft/Proposed Title V Air Operation Permit Renewal posted onto web site on April 28, 2011.
Public Notice published on May 21, 2011.
Notification to U.S. EPA Region 4 of Publication of Public Notice on May 27, 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 renewal 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 1-3 is therefore, deemed to be adequate for the same air pollutants.

Fluoride (F) from MWC Unit 3 is the only air pollutant not otherwise directly limited under the post-1990 40 CFR 60 Subpart Cb/Eb. As stated in the final determination dated May 22, 1987 for PSD-FL-098, the fluoride limit was established based on uncontrolled emissions. CAM does not apply since an air pollution control device is not necessary to achieve the limit.

The baghouses on the material storage silos are considered to be inherent to the process/operation. The baghouse on the Residue Storage and Processing Building (RSPB) was installed for worker protection/safety. The scrubber installed on the Ash Conditioning Building (ACB) was also installed for worker protection/safety. The baghouses and the scrubber are therefore exempt from CAM.

PROJECT REVIEW

Changes were made in the format of this renewed Title V air operation permit.

Permit

- Facility Improvement Projects: The affected Emissions Unit ID Nos. are: 001 through 003 (Municipal Solid Waste Combustor Units 1, 2 and 3) and 005 (Metal Recovery System (MRS) now referred to as "Residue Storage and Processing Building (RSPB)"). The terms and conditions from Permit No. 1030117-007-AC (PSD-FL-011C & PSD-FL-098C) for the Facility Improvement Projects are included as part of this permit renewal project.

- May 10, 2006 Federal Regulation Amendments: The affected Emissions Units/E.U. ID Nos. are: 001 through 003 (Municipal Solid Waste Combustor Units 1, 2 and 3); 005 (Metal Recovery System (MRS) now referred to as "Residue Storage and Processing Building (RSPB)"); and, 008 (Ash Conditioning Building (ACB). The May 10, 2006 federal regulation amendments to 40 CFR 60 Subparts Cb (Emissions Guidelines) and Eb adopted and incorporated by reference in Rule 62-204.800, F.A.C. are now in the permit, specifically attached as Appendices 40 CFR 60 Subpart Cb and Eb. Select specific applicable requirements were included in the permit specific conditions. The U.S. EPA approved state plan provision/exceptions under the 40 CFR 60 Subpart Cb (Emissions Guidelines) are included in the specific conditions of the permit.
- Beryllium Emissions from MWC Unit 3: A Prevention of Significant Deterioration (PSD)/Best Available Control Technology (BACT) determination was performed in 1987. PSD-FL-098, Specific Condition l.a.(8), limits beryllium (Be) emissions from the MWC Unit 3. Rule 62-210.200 (Significant Emission Rates), F.A.C. no longer lists Be, therefore, Be was effectively "delisted" as a PSD pollutant in this rule change effective August 15, 1999. The Be limit is deemed to be obsolete in accordance with Rule 62-210.300(1)(b), F.A.C. The affected Emissions Unit/ E.U. ID No. is: 003 (Municipal Waste Combustor & Auxiliary Burners - Unit 3).
- The ambient monitoring requirements, specific conditions **B.104.** and **B.105.**, from Permit No. 1030117-006-AV, were deemed to be obsolete by the Bureau of Air Monitoring and Mobile Sources (BAMMS) of the Department of Environmental Protection (DEP); therefore, theses are not included in this permit renewal.
- Municipal Solid Waste Landfill: The affected Emissions Unit/ E.U. ID No. is 009 (Municipal Solid Waste Landfill). All provisions from 40 CFR 60 Subparts Cc and WWW in their entirety are attached to the permit in Appendices 40 CFR 60 Subpart Cc and WWW. Select specific applicable requirements were included in the permit specific conditions. The U.S. EPA approved state plan provision/exceptions under the Emissions Guidelines are included in the specific conditions of the permit.
- Engines: Engines in the previous permit, Permit No. 1030117-006-AV, were listed in Appendices U and I. The majority of these engines are now 'regulated' emissions units under recently promulgated federal regulations; specifically, 40 CFR 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). These engines are now included in this permit as 'regulated' emissions units within the body of the permit under a new Subsection D.

CONCLUSION

This project renews Title V air operation permit No. 1030117-006-AV, which was effective November 15, 2005.

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