City of Tampa
McKay Bay Refuse to Energy Facility
Title V Air Operation Permit Renewal
Final Permit No. 0570127-006-AV

APPLICANT

The applicant for this project is City of Tampa. The applicant's responsible official and mailing address are: Mr. Steve W. Daignault, Administrator, Public Works and Utilities Services, City of Tampa, McKay Bay Refuse-to-Energy Facility, 306 East Jackson Street, Tampa, Florida 33602.

FACILITY DESCRIPTION

The applicant operates the existing McKay Bay Refuse-to-Energy Facility, which is located in Hillsborough County at 107 North 34th Street, Tampa, Florida.

The existing facility includes four mass burn, waterwall, municipal waste combustor (MWC) units, each of which has a nominal capacity of 250 tons per day (TPD) and a maximum rated capacity of 79,300 pounds per hour (lb/hr) of steam. The steam associated steam turbine-electric generator is rated at 22.5 megawatts. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

These emissions units are regulated under the 2006 version of 40 Code of Federal Regulations, Part 60 (40 CFR 60), subpart Cb, Emissions Guidelines and Compliance Times for Large MWC, adopted and incorporated by reference in Rule 62-204.800(9)(a) & (b), Florida Administrative Code (F.A.C.).

The facility was subjected to a 1982 Prevention of Significant Deterioration (PSD) review, a determination of best available control technology (BACT) and lowest achievable emission rate (LAER) for particulate matter (PM). The facility is also subject to Rules 62-296.401(2), F.A.C., Incinerators and 62-296.416, F.A.C., Waste-to-Energy Facilities.

The multi-pollutant control equipment includes good combustion practices, lime spray dryer-absorbers (SDA) for acid gas control, fabric filter baghouses for PM control, activated carbon injection (ACI) system for dioxin/furan and mercury (Hg) control and selective non-catalytic reduction (SNCR) for nitrogen oxides (NO_X) control.

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 on October 28, 2010.

Draft permit package distributed on August 4, 2011 (applicant did not publish notice).

Preliminary comments received from applicant on September 26, 2011.

Revised draft/proposed permit package distributed on November 28, 2011.

The applicant published notice in The Tampa Bay Times on January 23, 2012.

PRIMARY REGULATORY REQUIREMENTS

Title IV: The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).

Title V: The facility is a Title V major source of air pollution as defined in Rule 62-210.200, F.A.C. and in accordance with Chapter 62-213, F.A.C.

NSPS: The facility operates units subject to the applicable federal New Source Performance Standards (NSPS) of 40 CFR 60.

NESHAP: The facility is identified as a major source of hazardous air pollutants (HAP) and operates units subject to the National Emission Standards for HAP (NESHAP).

PSD: The facility is a PSD-major stationary source of air pollution as defined in Rule 62-210.200, F.A.C. and in accordance with Rule 62-212.400, F.A.C.

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.

CAM: The facility operates units subject to the General Applicability provisions of 40 CFR 64 – Compliance Assurance Monitoring (CAM), because the four MWC are required to obtain a facility Title V operation permit and:

1. Are subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph 40 CFR 64.2(b)(1);
2. Use control devices to achieve compliance with any such emission limitation or standard; and
3. Have potential pre-control (i.e. uncontrolled) device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

CAM ANALYSIS

The requirements of the 1995 version of NSPS, subpart Cb were incorporated in 1998 as enforceable requirements in a facility state implementation plan (SIP) permit (PSD-FL-086A) and subsequent Title V air operation permits. The 1995 subpart Cb requirements were more stringent than the BACT and LAER limits and monitoring requirements specified in the original construction permit (PSD-FL-086) issued in 1982. The final Title V air operation permit incorporates the even more stringent requirements of the 2006 NSPS, subpart Cb.

According to 40 CFR 64.2(b)(1), the requirements of CAM do not apply to the limitations or standards proposed by EPA after November 15, 1990 pursuant to section 111 or 112 of the Act. The 1995 and 2006 versions of NSPS, subpart Cb (post November 15, 1990) were established in section 111 of the Act in accordance with section 129 of CAA.

Arguably, because the 1995 NSPS subpart Cb requirements became SIP permit limits (independently applicable to the facility) through the 1998 air construction permit PSD-FL-086A, a CAM Plan might yet be required. Based on an inquiry made to EPA by the Integrated Waste Services Association in 1999 "*whether you can expect the same (NSPS subpart Cb or Eb) monitoring to be adequate to show compliance with similar existing emissions limitations and can avoid having to provide additional monitoring to satisfy periodic monitoring or CAM requirements"*. EPA responded: *"We expect that in most cases monitoring that complies with the requirements in subpart Eb will also provide the assurance of compliance required by part 70 or part 64 for other emissions limitations or standards for the same or similar pollutants. On the other hand, it is impossible for us to state definitively that monitoring that complies with subpart Eb requirements will provide adequate assurance of compliance for all other emissions limitations or standards."*[1]

The 2006 NSPS, subpart Cb (and implicit CAM) is at least as stringent as the previous facility SIP emissions limitations and standards. The Department concludes that CAM requirements for the SIP permit-based emission limitations and standards is satisfied by adherence to the 2006 NSPS, subpart Cb requirements for continuous emission monitoring systems (CEMS), continuous opacity monitoring systems (COMS) and other requirements as described in 40 CFR 60.58b - Compliance and Performance Testing.

BERYLLIUM APPLICABILITY REVIEW

Beryllium and its compounds constitute a HAP and was delisted as a federal PSD-pollutant pursuant to the 1990 CAA Amendments as adopted at Title 42, U.S. Code, part A, section 7412(b)(6), which states: *"The provisions of part C of this subchapter (PSD) shall not apply to pollutants (i.e. HAP) listed under this section."* Rule 62-210.200, F.A.C. was revised in 1999 to delete the significant emission rate (SER) applicable to beryllium.

Beryllium limits established in the original 1982 permit (PSD-FL-086) are considered obsolete and are not included in this final Title V air operation permit per Rule 62-210.300(1)(b), F.A.C.

When originally constructed, the MWC did not have the sophisticated equipment to control metal HAP that were subsequently installed pursuant to the 1995 and 2006 versions of NSPS, subpart Cb. The facility is now very well controlled and beryllium emissions are much less than the permitted limit. Furthermore, removal of the beryllium limit will not result in any increase in the emissions of this HAP.

CONCLUSION

This project renews Title V air operation permit No. 0570127-005-AV, which was effective on June 28, 2006. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-210, and 62-213, F.A.C.

[1] Letter. Hitte, S. of EPA to Zannes, M. of the Integrated Waste Services Association. Applicability of Maximum Achievable Control Technology Standard Monitoring to Satisfy Title V Periodic or Compliance Assurance Monitoring. July 7, 1999. www.epa.gov/region7/air/title5/t5memos/zannes.pdf