Title V Air Operation Permit Renewal
Permit No. 1030095-006-AV

APPLICANT

The applicant for this project is Bayfront Medical Center, Inc.. The applicant's responsible official and mailing address are: William A. Christie, Executive Director, Support Services, Bayfront Medical Center, Inc., Bayfront Medical Center Special Services, 701 6th Street South, St. Petersburg, FL 33701.

FACILITY DESCRIPTION

The applicant operates the Bayfront Medical Center Special Services, which is located at 750 5th Avenue South, St. Petersburg, FL.

This existing facility consists of a hospital/medical/infectious waste incinerator (HMIWI) (EU 002) with a rated capacity of 1,500 lb/hour. The unit includes primary and secondary combustion chambers and a waste heat boiler. Hospital/medical/infectious waste is weighed and then fed into the primary combustion chamber. Incineration of the waste occurs in the primary chamber at approximately 1,400º F where combustion is assisted by a 0.76 MMBtu/hour propane or natural gas fired burner. The hot gases from the primary chamber are routed through the secondary chamber where the temperature is maintained above 1,800º F for at least one second. This temperature is maintained by a 4.58 MMBtu/hour propane or natural gas fired burner. During malfunctions the gases from the secondary chamber are vented through the incinerator's dump (bypass) stack and waste feed to the incinerator will cease. During normal operation, startup and shutdown the gases exiting the secondary chamber flow through a boiler to capture waste heat in the combustion gases. Flue gas from the boiler passes through a Calvert Flux Force/Condensation Collision scrubber system where particulate matter and acid gas emissions are removed.

This emissions unit is subject to the Emission Guidelines of 40 CFR 60, Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators. The requirements of Subpart Ce are adopted by reference in Rule 62-204.800(9)(d), F.A.C., and are effective until June 1, 2012. The EPA revised Subpart Ce on October 6, 2009, and the revised regulations are incorporated in Rule 62-204.800(9)(g), F.A.C. The revised regulations shall become effective on June 1, 2012. As allowed by Rule 62-204.800(9)(g)9.d., F.A.C., this facility asked for and was granted an alternate compliance schedule for meeting the new emission standards set forth in the revised emission guidelines for the following pollutants: particulate matter, carbon monoxide, dioxins/furans, hydrogen chloride, sulfur dioxide, nitrogen oxides, lead, cadmium, mercury and visible emissions. The compliance date for the new emission standards is June 1, 2014. Some of the conditions in 40 CFR 60, Subpart Ce, are stipulated in 40 CFR 60, Subpart Ec - Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996, which is also referenced in Rule 62-204.800(9)(g), F.A.C.

The Cleaver Brooks boiler (EU 003) is fired by natural gas and has a maximum heat input rate of 12.6 MMBtu/hour. It is subject to 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units and a BACT determination dated March 2, 2012.

An emission unit (EU 004) was added for an emergency stationary reciprocating internal combustion engine that is subject to 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

This facility is also subject to a DEP/HRS (Department of Health and Rehabilitative Services) Interagency Agreement on Biomedical Waste dated October 31, 1996. This agreement requires DEP to act on applications for storage facility permits and incorporate them into existing air operation permits whenever possible. Rule 64E-16, F.A.C., Biomedical Waste, allows the waste to be held for up to 3 days at a facility without requiring a storage permit. This facility does not store waste for more than 3 days, therefore a storage permit at the HMIWI location is not required.

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

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility and to incorporate new regulatory requirements.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Renewed Title V Air Operation Permit issued March 15, 2007
Transfer of Title V Air Operation Permit issued October 2, 2009
Application for a Title V Air Operation Permit Renewal received June 1, 2011
Additional Information Request dated June 24, 2011
Additional Information received August 24, 2011 and December 8, 2011
Notice of Intent to Issue Air Permit issued March 6, 2012
Public Notice Published TBD

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).

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

PSD: The facility is not a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does operate emissions units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate emissions units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

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

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the emissions units at the facility. The NSPS, which requires continuous monitoring of operational parameters, is sufficient to meet Title V monitoring requirements.

PROJECT REVIEW

The current Title V permit, 1030095-004-AV, was written using a template developed by Tallahassee for Hospital/Medical/Infectious Waste Incinerators. This template is now obsolete. The following Specific Condition Nos. (from the current permit, 1030095-004-AV) were updated or put into a different format (e.g., table) - A.2.-A.6., A.8.-A.17., A.20., A.29.-A.35., A.37., A.39., A.44.-A.60., A.67.-A.68., A.70.-A.71.-A.72., A.80.-A.84., A.88. A.91.-A.92. By request of the Compliance Authority the semi-annual reporting periods were defined as January-June and July -December (Specific Condition Nos. A.36. and A. 38.). Specific Conditions duplicating 40 CFR 60, Subpart A were deleted since the subpart is attached to the permit (not included in the list above). All Specific Conditions prefaced by the symbol ++ were deleted (not included in the list above). The facility does not operate any CEMS. Specific Conditions previously provided by the Solid Waste Section were deleted. The Solid Waste Section did not request inclusion of any specific conditions in the renewal. The Compliance Authority does not inspect for or enforce Solid Waste rules. Specific Condition No. A.6. concerning hazardous waste was replaced by language from Rule 62-296.401(4)(c), F.A.C.

Changes to other parts of the permit are:

Removed the authorization for burning No. 2. fuel oil for EU 003 (boiler) as requested by the applicant.

Added a recordkeeping requirement for the monthly average natural gas consumption rate for EU 003 (boiler).

Added an emission unit (EU 004) for an existing emergency generator regulated under 40 CFR 63, Subpart ZZZZ.

Removed the laundry, ethylene oxide sterilizer and refrigeration system from the list of Insignificant Units and/or Activities because they are no longer at the facility.

CONCLUSION

This project renews Title V air operation permit No. 1030095-004-AV, which was issued on March 15, 2007. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.