Title V Air Operation Permit Revision
Permit No. 1050298-008-AV

APPLICANT

The applicant for this project is Polk County Board of County Commissioners. The applicant's responsible official and mailing address are: Ms. Ana Wood, Director Polk County Waste Resource Management Division, Polk County Board of County Commissioners, Polk County North Central Landfill, 10 Environmental Loop South, Winter Haven Florida 33880-1069.

FACILITY DESCRIPTION

The applicant operates the Polk County North Central Landfill, which is located at 7425 Highway 540, Winter Haven, Florida.

This facility is engaged in municipal solid waste landfill operations. The North Central Landfill began accepting waste in 1977 in the now closed four unlined Class I areas (EU No. 006) located on the southern portion of the site (Unlined Class I Landfill Cell Nos. 1-4). Waste was collected in these areas from 1977 through 1985. Solar ignited flares were constructed on Unlined Class I cell Nos. 2, 3, and 4 in 2008. Waste filling (Class I waste) in the Class I/III landfill began in 1986. In addition to the above closed unlined Class I cells, the landfill includes an active unlined Class III area, a closed unlined Class I/III area, a closed unlined Class III area and three (3) active lined Class I areas (EU No. 001 - single liner Phase I & double liner Phase II, and EU No. 011 - double liner Phase III) all located in the northern portion of the landfill approximately mid way between the north and south limits of the property. This facility also includes a portable 1000 horsepower maximum diesel engine powered yard waste grinder (EU No. 004) operated by a different owner. The design capacity of the landfill is greater than 2.5 million megagrams (MG) and the non-methane organic compounds (NMOC) emission rate exceeds 50 Mg per year. The landfill is subject to the requirements of 40 CFR 60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills, and 40 CFR 63 Subpart AAAA - National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills.

Three emission units (EU Nos. 008-010) were added to Title V Permit No. 1050298-007-AV for reciprocating internal combustion engines that are subject to 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

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

PROJECT DESCRIPTION

The purpose of this permitting project is to revise the existing Title V permit to incorporate Air Construction Permit No. 1050298-006-AC. The construction permit established a flow rate cap of landfill gas (LFG) to the Phase I &II flare (EU No. 001) and authorized the construction of a LFG candlestick flare at the Class I, Phase III area of the landfill (EU No. 011). A field study was conducted at the Closed Unlined Landfill Cell Nos. 2, 3 & 4 (EU No. 006) in March 2013. The study was to determine if the passive solar flares in these cells could be shut down in accordance with 40 CFR 60.759(a)(3)(ii), due to their contribution, in combination with currently excluded Cell No. 1, of less than one percent of the total NMOC emissions from the facility. This study confirmed that the combined contribution from Cell Nos. 1 through 4 toward the total NMOC emissions from the facility is less than one percent. Therefore this emission unit can be excluded from the Subpart WWW LFG collection and control requirements. This emission unit (EU No. 006) will be removed from Section III the permit and listed in Appendix I – Insignificant Emission Units and/or Activities.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Air Construction Permit No. 1050298-006-AC issued March 8, 2011
Title V Air Operation Permit Renewal No. 1050208-007-AV issued July 5, 2012
Application for a Title V Air Operation Permit Revision received February 28, 2013

Notice of Intent to Issue Air Permit issued *TBD*
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. (EU Nos. 001 and 011 are subject to NSPS 40 CFR 60 Subpart WWW for Municipal Solid Waste Landfills.)

NESHAP: The facility does operate emissions units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63. (EU Nos. 001 and 011 are subject to NESHAP 40 CFR 63 Subpart AAAA for Municipal Solid Waste Landfills, and EU Nos. 008 – 010 are subject to NESHAP 40 CFR 63, Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines.)

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.

PROJECT REVIEW

Following are changes made as a part of this renewal:

Added Emission Unit No. 011 - Municipal Solid Waste Landfill (Phase III) with Open Candlestick Flare. This Phase III flare was included in EU No. 001 in the construction permit. Because Wheelabrator Ridge Energy, Inc. will not operate this flare, it was given a separate emission unit number.

Added a Specific Condition (A.2.) to restrict the flow rate to the Phase I & II flare by allowing operation of only one blower at a time to provide the gas extraction from the landfill to the gas treatment skid.

Added clarification that some specific conditions apply only to EU No. 001 because of previous addendums or alternate procedures.

Corrected the blower speed for one of the Root blowers which are part of the LFG treatment system.

Removed Emission Unit No. 006 (Section III, Subsection C.) and listed the activities in Appendix I – Insignificant Emission Units and/or Activities.

Added the applicable portions of Section III, Subsection D to Subsection A and removed Subsection D.

Updated the Federal Register date for EU Nos. 008-010 and corrected a rule reference.

Added Cell No. 1 of the closed unlined landfill to the list in Appendix I.

Added the Solid Waste Organics Recycling Facility to Appendix I.

CONCLUSION

This project revises Title V Air Operation Permit No. 1050298-007-AV, which was issued on July 5, 2012. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.