Title V Air Operation Permit Revision
Permit No. 0330246-006-AV

APPLICANT

The applicant for this project is the Escambia County Board of County Commissioners, Perdido Landfill. The applicant's responsible official and mailing address are: Patrick Johnson, Lead Division Manager - Department of Solid Waste, Escambia County - Neighborhoods/Community Services Bureau, Perdido Landfill, 13009 Beulah Road, Cantonment, Florida 32533-8801.

FACILITY DESCRIPTION

The applicant operates Perdido Landfill, located at the above address.

This existing landfill is an open Class I and Class III municipal solid waste (MSW) landfill in west-central Escambia County. The total facility encompasses approximately 320 acres of which the active and closed MSW disposal areas currently occupy approximately 110 acres. Solid waste was initially accepted in July 1981. The landfill does not contain a bioreactor. The landfill is an active asbestos waste disposal site, and is subject to 40 CFR 61.154, Standard for active waste disposal sites, which is part of 40 CFR 61 Subpart M. The landfill's maximum design capacity of 6.37 million megagrams exceeds the NSPS Title V criteria of 2.5 million megagrams. Therefore, the facility is subject to 40 CFR 60 (NSPS) Subpart WWW, which requires the operation of a landfill gas collection and control system (LGCCS), since the Tier 1 potential estimates of non-methane organic compounds (NMOC) emissions are greater than 50 megagrams per year. The facility is also subject to 40 CFR 63 Subpart AAAA - National Emission Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills. Collected landfill gas is sent to the blower flare station (BFS) using a non-assisted open utility flare, and then to a third party landfill gas to energy (LGTE) facility and/or to the flare for combustion. A visible emissions test using EPA Method 22 is conducted every federal fiscal year on the non-assisted open utility flare.

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 for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Renewed Title V Air Operation Permit issued January 1, 2009
Application for a Title V Air Operation Permit Revision [EPSAP 2842-1] received March 30, 2011
Additional Information Request dated May 4, 2011
Additional Information Response received September 8, 2011

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

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63 and 40 CFR 61.

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 units at the facility because the facility is subject to NSPS and NESHAP regulations.

PROJECT REVIEW

This is a revision to Title V permit 0330246-003-AV, effective January 1, 2009. Permit 0330246-004-AC for the mining of the existing closed portion of the landfill, issued April 19, 2010, and permit 0330246-005-AC for the expansion of the landfill gas collection and control system, issued August 2, 2010, are incorporated into this revision.

Changes being made during this revision include the addition of 38 vertical gas extraction wells and new blower flare station (BFS), and the removal of the existing BFS and 22 horizontal gas collection wells (permit 0330246-005-AC). Also, in January and March of 2011, an alternate operating procedure was requested and approved for some of the interior wellheads to operate with a landfill gas temperature less than 66°C (rather than 55°C) and landfill gas well oxygen level greater than 5 %. In this revision application, emissions were also corrected for Particulate Matter (PM) from permit 0330246-005-AC. The emission factor was based on methane, which is estimated to be 50% of landfill gas that resulted in PM emissions from the flare being decreased by half (17.34 tons per year to 9.86 tons per year of PM).

This permit also includes Combined Requirements with the Gulf Power Company's Perdido Landfill Gas-to-Energy Facility because both contiguous facilities are considered one facility for purposes of determining applicability of the Prevention of Significant Deterioration requirements.

CONCLUSION

This project revises Title V air operation permit No. 0330246-003-AV, which was issued on January 1, 2009. 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.