TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Santa Rosa County Board of County Commissioners
6495 Caroline Street, Suite M
Milton, Florida 32570

Santa Rosa Central Landfill
Facility ID No. 1130172

PROJECT

Project No. 1130172-005-AC
Application for Minor Source Air Construction Permit
Open Flare

COUNTY

Santa Rosa, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Section
Northwest District Office
160 W. Government Street, Suite 308
Pensacola, Florida 32502-5740

May 30, 2013

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

Santa Rosa County Board of County Commissioners has an existing MSW Landfill, which is categorized under Standard Industrial Classification Code No. 4953, Refuse Systems. The facility is located in Santa Rosa County at 6337 DaLisa Road in Milton, Florida. The UTM coordinates of the existing facility are Zone 16,494.3 km East, and 3382.7 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

This project is to construct an open flare for Santa Rosa Central Landfill. The landfill is not required to install a landfill gas collection and control system in accordance with the requirements in 40 CFR 60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills. The landfill owner is voluntarily installing an open flare. A landfill gas collection system is being installed under a separate permit from the solid waste permitting section.

Processing Schedule

November 19, 2011	Received the application for a minor source air pollution construction permit.
December 18, 2012	Requested additional information.
May 23, 2013	Received additional information; application complete.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO_2); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); volatile organic compounds (VOC); lead (Pb); fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

<u>PSD Applicability for Project</u>

The facility has an existing air curtain incinerator at the site. Its emissions are listed as the "Pre-Project Potential Emissions" in the PSD applicability table.

As provided in the application, the following table summarizes potential emissions and PSD applicability for the project.

Table A. Potential Emissions (Tons/Year) and PSD Applicability

Pollutant (TPY)	Pre-Project Potential Emissions	Contempo-raneous Emissions	Post Project Potential Emissions	Total Emissions Change	Significant Emissions Rate	Subject to PSD
CO	6.37	N.A.	42.97	36.60	100	NO
NO_X	24.08	N.A.	30.81	6.73	40	NO
PM/PM_{10}	9.27	N.A.	11.11	1.84	25/15	NO
SO_2	1.00	N.A.	2.51	1.51	40	NO
VOC	4.97	N.A.	5.07	0.10	40	NO
HAP	2.68	N.A.	2.75	0.07	N.A.	
NMOC	5.44	N.A.	5.67	0.23	N.A.	
HCl	0.00	N.A.	0.77	0.77	N.A.	

This facility is not a major stationary source for PSD because existing potential emissions do not exceed the 250 tons per year threshold of a regulated pollutant for this type of facility. The proposed project itself is not subject to PSD review because the potential emissions increases are less than the PSD major stationary source threshold of 250 TPY for this type of facility. Based on these facts, it is the Department's determination that the project is not subject to PSD preconstruction review.

3. APPLICATION REVIEW

Application Fee

AC1D - $2000 - source 25 tpy but less than 50 tpy.

Discussion of Emissions

Pre project potential emissions in Table A include landfill generated pollutants (from LandGEM 3.02) and landfill fugitive emissions, and ACI emissions from permit 1130172-004-AO.

State Requirements

Rules 62-296.320(2), 62-296.320(4)(b)1 & 4, and 62-296.320(4)(c), F.A.C.

Federal NSPS Provisions

40 CFR 60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills. The Initial Design Capacity Report dated October 5, 2006 estimated Tier 1 Non Methane Organic Compounds (NMOC) emissions rates using LandGem modeling greater than the 50 megagram per year threshold in 40 CFR 60.752(b)(1)(ii)(A). NMOC emissions greater than 50 megagrams per year require installation of a Landfill gas collection and control system (GCCS). Tier 2 testing can be performed every five years to further determine applicability of 40 CFR 60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills. Tier 2 testing was conducted on May 7-9, 2007. Estimated Tier 2 NMOC emissions were 14.6 megagrams per year in 2007 and 16.4 megagrams per year in 2012. Landfill GCCS was not required at that time. Five-year Tier 2 testing was again conducted on March 25 & 26, 2013 and April 29, 2013. The Tier 2 NMOC emissions are 19.20 megagrams per year in 2013 and projected to be 23.18 megagrams per year in 2018. Because the Tier 2 NMOC emission rate is below 50 megagrams per year, Santa Rosa County Board of County Commissioners is not required to install a landfill GCCS at the Santa Rosa Central Landfill at this time. [40 CFR 60.754(a)(2)(ii)] The landfill owner is voluntarily installing the open flare. A landfill gas collection system is being installed under a separate permit from the solid waste permitting section.

Federal NESHAP Provisions

N.A.

Other Draft Permit Requirements

N.A.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Rick Prusa is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at 850.595.0634 or rick.prusa@dep.state.fl.us.