

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
Southwest Regional Office

TO AQ Case File TVOP-32-00266

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DATE December 22, 2016

RE Review of Title V Operating Permit Renewal Application
Evergreen Landfill, Inc.
Center and Brush Townships
Indiana County

APS 864121 AUTH 1061841 PF 516172

Background

Evergreen Landfill, Inc. owns and operates the Evergreen municipal solid waste landfill in Center and Brush Valley Townships, Indiana County, Pennsylvania. Evergreen Landfill, Inc. is a wholly owned subsidiary of Waste Management, Inc. The facility encompasses 191 acres. The Bureau of Waste Management (BWM) first issued a permit (No. 100434) on August 12, 1980 and in August of 1998 an Air Quality Plan Approval (PA-32-00266A) was issued for the Phase II expansion. Another Air Quality Plan approval (PA-32-00266B) was issued on September 18, 2007 for Phase III expansion. Evergreen estimates the maximum waste disposal rate at this landfill to be 1500 tons per day (1000 tons per day on average) and the design capacity of this facility is established at 7.3 million tons of municipal solid waste. The permitting date and Design Capacity of this facility make it subject to the Emission Guidelines and New Source Performance Standards for Municipal Solid Waste Landfills, found at 40 CFR 60, Subparts Cc and WWWW. Per 40 CFR 60.752(a), this landfill is subject to Part 70 permitting requirements.

The initial Title V Operating Permit for Evergreen Landfill was issued on December 31, 2001 with an expiration date of December 31, 2006. First Title V renewal application was issued on October 13, 2010 with an expiration date of October 13, 2015. This is the second Title V renewal

application received on February 17, 2015, and was determined to be administratively complete on March 15, 2015.

An RFD was reviewed on July 7, 2014. The landfill formerly had their own on-site crusher but decided to contract out crushing operations. Commonwealth Contracting, Inc. submitted an RFD for use of their portable crusher at several sites including Evergreen Landfill. The portable crusher is a Caterpillar Model C-13 DITA rated at 150 tpy powered by a 440 bhp diesel engine. It was exempted from Plan Approval requirements.

Sources and the control devices at this facility are:

- Landfill Waste Gas
- Operations and Roadway dust
- Soil Processing (portable)
- Diesel Generator
- Fugitive Landfill Gas
- LFG Ground Flare (Enclosed Flare)
- Backup Flare (candle)
- Water Truck

Other insignificant activities are listed at the end of the TVOP.

Regulatory Analysis

This source is defined as a Title V facility and is therefore subject to the Title V permitting requirements adopted in 25 Pa. Code, Chapter 127, Subchapter G.

All of the conditions derived from Title 25 of the Pennsylvania Code in the original Title V permit have been included in this renewal. The applicable emission limitations, monitoring, recordkeeping, reporting and work practice standard requirements of Pa. Code Title 25 Sections 123.1, 123.2, 123.13, 123.21, 123.31, 123.41, 123.42, 127.511, 127.513, 129.57 and 135.5 have been included in this in this renewal Title V permit.

The collection and control system is subject to the Department's Bureau of Air Quality Permit Manual, Section 7.10; Air Quality Permitting Criteria Including Best Available Technology (BAT) Criteria for Municipal Waste Landfills New Source Performance Standards (NSPS).

Title 25 PA Code Section 122.3 adopts in entirety the Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources promulgated in 40 CFR Part 60 Subpart www. The applicable requirements of Subpart WWW have been included in this Title V renewal permit.

Title 25 PA Code Section 127.35(b) and 40 CFR Part 63 NESHAP for Source Categories are incorporated by reference into the Department's permitting program. The applicable requirements of 40 CFR Part 63 Subpart AAAA- National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills has been included in this Title V permit.

The diesel engine for the emergency generator is subject to the NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE) found in 40 CFR Part 63 Subpart ZZZZ. Applicable requirements from this subpart have been placed in the permit.

There are several gasoline and diesel storage tanks that vary in size from 200 -10,000 gallons each. The 10,000 gallon diesel storage tank is not subject to Pa. Code Title 25 Section 129.57 since the vapor pressure from diesel storage tank is well below 1.5 psia. Other gasoline and diesel storage tanks have capacities that vary from 900 - 200 gallons each. There are no specific regulations governing this size of tank. These sources are included in the Miscellaneous Section of the permit for site inventory purposes only.

The Greenhouse Gases Tailoring and the Mandatory Greenhouse Gas Reporting rule of 40 CFR Subchapter C, Part 98 have been evaluated for applicability to this site. Requirements from these regulations may apply to certain facilities that have taken a NSR or PSD permitting action. This facility has not undertaken a NSR or PSD permitting action; consequently, the previously mentioned GHG rules do not apply. However, the Department has elected to require reporting of GHG emissions for new construction & modifications to existing sources. As this permitting does not involve new construction or modification, we are not including these requirements in this TVOP renewal.

The RACT 2 Rule was published final in the Pennsylvania Bulletin on April 23, 2016. The RACT 2 Regulations (25 PA Code Section 129.96-129-100) are applicable to existing (existing before July 20, 2012) major sources of NO_x and VOC, therefore if a facility has a potential to emit (PTE) in excess of 100 tpy NO_x or 50 tpy VOC, it is subject to the RACT 2 requirements. Facilities that became major after July 20, 2012 are also potentially subject to the regulation. Evergreen landfill is not a major source of NO_x or VOC, and therefore not subject to the RACT 2 requirements.

Emissions and Controls:

Sources and emissions at this facility consist of the landfill itself (consisting of disposal areas being constructed, disposal areas actively accepting waste, and closed disposal areas, roads, and earthmoving equipment; emitting fugitive (uncollected) VOCs and PM₁₀), a landfill gas collection system (wells, manifolds, routed to a flare or gas processing facility; emitting undestroyed VOCs, NO_x, CO, PM₁₀), and a soil processing system (fugitive PM₁₀).

Landfill gas collection system has an estimated gas collection efficiency of 75% from the old Landfill and 90% for all lined and synthetically capped areas. The system exhausts into the enclosed ground flare. The remaining 25% of landfill gas is fugitive. The enclosed ground flare has a rated destruction efficiency of 98%. Emissions of other pollutants (products of combustion), resulting from the operation of the flare, are attributed to the landfill gas collection system. In Plan Approval PA-32-266B the proposed Collection and Control Plan has been reviewed for conformance with 40 CFR §60.752(b)(2)(ii). It met the requirements of the regulations, in that it was developed by a professional engineer, it is sufficient to handle the maximum expected gas flow over its intended use, it routes collected gas to an approved control device, and it is designed to minimize off-site migration of subsurface gas. The plan was found

to address issues of refuse depths, gas volume and flow characteristics, leachate cleanout and condensate management, all phases of monitoring, gas extraction well construction, and flare operation in a manner consistent with good engineering practices.

Landfill gas is currently captured by gas recovery wells installed in the portions of the Phase I/II landfill and is piped to an existing flare station. The Phase III gas recovery system has been designed to be inter-connected with the Phase I/II gas system. As the Phase III Area is constructed and incrementally capped, the Phase III gas wells and piping will be connected to and operated with the Phase I/II gas system in accordance with the landfill NSPS requirements (40 CFR Part 60, Subpart WWW).

The facility has a 4000 gallon water truck and a truck tire wash station to control fugitive emissions.

The gasoline and diesel storage tanks have a capacities varies from 200 -10,000 gallons each. There are no specific regulations governing this size of tank. These sources are included in the Miscellaneous Section of the permit for site inventory purposes only.

Summary of Potential Emissions (tons/yr) Evergreen Landfill

ID#	Source	SOx	NOx	CO	VOC	PM10	CO2e	Single HAP (HCl)	Total HAPs
101	Landfill Waste Gas								
102	Operations and Roadway Dust					13.06			
103	Soil Screening Unit	1.35	20.37	4.39	1.65	1.67	303.21		7.04E-03
104	Emergency Generator	0.02	0.24	0.05	0.02	0.02	3.58		8.30E-05
S01	Enclosed Flare Stack	1.05	3.63	12.10	0.04	1.13	14,292.76	0.54	0.87
Z101	Landfill Fugitive Emissions (Landfill Gas)				0.34		23,567.99		0.11
-	Landfill Fugitive Emissions (Material Handling)					9.31			
-	Combustion Heater/Furnace	0.64	0.18	0.04		0.02			
-	Parts Washer				0.33				
Total		3.05	24.42	16.59	2.38	25.21	38,167.54	0.54	0.99

Conclusions and Recommendations:

I have completed my review of the TVOP renewal application for Evergreen Landfill. Applicant has met the regulatory requirements associated with this application submittal. The attached permit reflects terms and conditions as described in permit application. The last Stack test on the flare was conducted on February 1, 2012. The most recent inspection was conducted on May 26, 2016. Reports indicate that facility is in compliance with all regulatory requirements. It is my recommendation to issue a Title V Operating Permit renewal for this facility as proposed upon completion of the public comment period. Notice of intent to issue this TVOP renewal will be published in Pa Bulletin and local newspaper. EPA, the company, Air Quality District Supervisor, and Air Quality inspector will be provided with this proposed TVOP renewal.