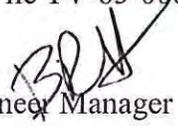


COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
Southwest Regional Office
April 29, 2010

SUBJECT: Review of Title V Renewal Operating Permit Application
USA valley Facility, Inc.
Valley Landfill
Penn Township, Westmoreland County

TO: Air Quality Permit File TV-65-00693

THROUGH: Barbara Hatch, P.E. 
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BACKGROUND

Valley Landfill (Valley) is a 257.4-acre municipal solid waste (MSW) landfill, located in Penn Township, Westmoreland County, Pennsylvania. Valley's solid waste permit (SW #100280) was modified significantly on April 9, 1989 to incorporate the new solid waste regulations requiring lined cells, leachate management, etc., and again on May 5, 1992 to increase the permitted area of the landfill. According to the Initial Design Capacity and NMOC Emission Estimate Report submitted by Valley to the Department on June 7, 1996, Valley's design capacity is estimated to be 5.5 million tons of MSW. 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 WWW. Per 40 CFR 60.752(a), this landfill is subject to Part 70 permitting requirements.

The initial Title V Operating Permit for Valley Landfill was issued on January 2, 2002 with an expiration date of January 2, 2007. A Title V renewal application was received by the Department on December 8, 2005, and was determined to be administratively complete.

EQUIPMENT AND EMISSIONS

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).

Summary of Potential Emissions (tons/yr)

ID#	Source	SO _x	NO _x	CO	VOC	PM ₁₀
102	Paved and unpaved roads					77.58
103	Soil Processing Plant	1.28	18.83	4.07	1.53	2.76
104	Diesel Emergency Generators	0.11	1.55	0.34	0.13	0.11
CO1	2500 CFM Enclosed Flare (Primary)		23.26	11.63	0.15	7.24
CO2	Landfill Gas collection system		7.07	3.53	0.29	2.20
CO3	4500 CFM Enclosed Flare (Backup)					
Z02	Fugitive Landfill Gas				7.02	
Z03	Fugitive Landfill Emissions					81.25
	Degreasing Tank				0.33	
Total		1.38	43.65	16.04	9.16	168.94

The applicant used the EPA Landfill Air Emissions Estimation model to calculate VOC emissions from the landfill. This model requires that the user supply input values for certain parameters. The applicant used values for k and L_0 obtained from AP-42, and a C_{NMOC} value determined during a stack test. A 75% collection efficiency was assumed, and uncollected VOC emissions are attributed to the landfill itself.

A 98% destruction efficiency for the flare was shown during last stack test. VOC emissions which are collected but undestroyed, and emissions of other pollutants (products of combustion) resulting from the operation of the flare are attributed to the landfill gas collection system.

The Soil Processing System consists of a diesel engine, a screen, a crusher, conveyors and various earthmovers. The NSPS Subpart OOO for nonmetallic mineral processing applies to this affected facility. The gasoline and diesel storage tanks have a capacities varies from 10,000 - 50 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.

BWM's standard dust conditions and quarterly dust fall monitoring requirements have been copied from the BWM permit and included in air quality operating permit.

REGULATORY ANALYSIS

All of the conditions derive from Title 25 of the Pennsylvania Code in the original Title V permit have been included in this renewal. 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. Per 40 CFR Part 60, Section 60.750 Municipal Solid Waste Landfills that commence construction or modification after May 30, 1991 are subject to the New Source Performance Standards Subpart W. The applicable requirements of Subpart W have been exhaustively included in this Title V renewal permit.

Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP):
Title 25 PA Code Section 127.35(b), Part 63 NESHAP for Source Categories are incorporated by reference into the Department's permitting program. Per 40 CFR Part 63 Section 63.1955, the applicable requirements of 40 CFR Part 63 Subpart AAAAA have been included in this Title V renewal permit.

The mandatory greenhouse gas reporting requirements for Municipal Waste Landfills were promulgated on October 30, 2009 at 40 CFR 98, Subpart HH- Municipal Solid Waste Landfills. A condition has been included requiring permittee to comply with the greenhouse gas reporting requirements of 40 CFR 98.342.

USA Valley Landfill is not subject to the requirements of the Compliance Assurance Monitoring (CAM) rule because the facility is currently regulated under NSPS/NESHAP regulations.

ALTERNATE OPERATING SCENARIOS

Valley requests the option of diverting some or all of the landfill gas to a nearby landfill gas processing facility, which is owned by a separate, unrelated company. Processing facility will convert landfill gas to pipeline quality natural gas. When landfill gas is not being flared by Valley, alternate recordkeeping and work practice standards will be required – continuous recording of flare temperature will not be required, flare will be tested weekly for continued operability, and volumes of gas sent to processing facility will be recorded. Gas from the landfill's perimeter or declining wells, which is of an unacceptable quality for the gas processing facility, and off-gas generated by the gas processing operation will be returned to the 2500 CFM primary flare.

AMENDMENTS

The Title V permit was amended on April 13, 2004 to incorporate the relevant conditions of Plan Approval PA-65-00693A. Another amendment was issued on January 27, 2006 to incorporate the names of new responsible official, permit contact and change of address. At the same time, through a permit modification the Department has revised the permit to incorporate specific alternatives to the collection and control system operation.

PREVIOUS OPERATING PERMITS AND PLAN APPROVALS

Air Quality Plan Approval 56-322-001 was issued to Valley on June 26, 1989 to allow the construction of a temporary candle flare. Plan Approval 56-322-001A was issued on July 9, 1991, superseding the

previous Plan Approval, to allow the construction of a permanent enclosed flare. The enclosed flare was originally tested at 900 cfm. Plan Approval included a condition indicating the possibility that a repeat of the testing may be required should flow rate to the flare ever increase. Stack testing was repeated in November of 1991, with favorable results at a flow rate of 2100 cfm.

On March 12, 1996, New Source Performance Standards (NSPS) for certain new (constructed after May 30, 1991) and Emission Guidelines (EG) for existing (constructed before May 30, 1991) landfills were published in the Federal Register. The new regulations apply to landfills with design capacities of 2.75 million tons or more. The regulations have very specific operational, testing, monitoring, recordkeeping, and reporting requirements. The design capacity and solid waste permitting date of Valley puts this site in the "existing" landfill category, making them subject to the EG requirements.

Pursuant to 40 CFR 60.23(a), Pennsylvania Department of Environmental Protection (DEP) was required to submit to the EPA a State Plan to implement and enforce the EG requirements. According to the State Plan submitted by DEP to the EPA on July 1, 1997, DEP revised Operating Permit 56-322-001A to incorporate the EG requirements on 12/19/97.

Air Quality Plan Approval 65-399-019 was issued on July 23, 1991 to allow the construction of Mobile Screening Plants #1 and #2, for the processing of soil. Plan Approval 65-399-019A was issued on September 30, 1992, superseding previous Plan Approval, to allow the replacement of a jaw crusher in Mobile Screening Plant #1.

Valley has been involved with an off-site landfill gas treatment facility. The option of exporting their gas disappeared for a while, and Valley's 2500 CFM enclosed flare was no longer able to accommodate all of this material. Valley, therefore, applied and received Plan approval PA-65-00693A to install a new backup enclosed flare, rated at 4500 CFM on June 24, 2003. However, a new ownership took over the off-site landfill gas treatment facility and currently is in operation. The 4500 CFM flare is in use as backup flare in the landfill.

Conditions from all previous Plan Approval and Operating Permits have been included in the Title V Renewal Operating Permit.

STREAMLINING

Pennsylvania implemented a BAT policy for landfills in 1990. Some of the BAT requirements are more stringent than the 40 CFR 60, Subparts Cc and WWW requirements. Most notably, BAT requires that landfill gas is collected and destroyed/processed when the volume of landfill waste in place reaches 1,000,000 tons. This is generally much earlier than the control timetables prescribed by the NSPS/EG.

CONCLUSIONS AND RECOMMENDATIONS

Valley has met the regulatory requirements associated with this application submittal. The attached draft permit reflects the applicable regulatory requirements associated with this facility. I recommend that the proposed Title V Renewal Operating Permit be issued for this site.