

Bay Area Air Quality Management District

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Permit Evaluation and Statement of Basis

MAJOR FACILITY REVIEW PERMIT MINOR REVISION

for
**Potrero Hills Landfill
Facility #A2039**

Facility Address:

3675 Potrero Hills Lane
Suisun, CA

Mailing Address:

3260 Blume Drive, Suite 200
Richmond, CA 94806

Application #: 11205

January 2006

Application Engineer: Ted Hull

Title V – Minor Revision

A. Background

The Potrero Hills Landfill is an active Class III solid waste disposal site consisting of 401 total acres located southeast of Fairfield, CA in Solano County. The landfill accepts non-hazardous residential, commercial, industrial, and inert wastes. The Potrero Hills Landfill is equipped with an active gas collection system (a system of pipes and blowers) that includes horizontal collectors and vertical extraction wells. The wells are perforated sections of the pipes that are buried in the refuse at various locations. The blowers collect landfill gas by creating a vacuum in the buried refuse that draws landfill gas into the perforated pipes. The blowers vent the collected landfill gas to the Landfill Gas Flare (A-2). The facility began accepting waste in 1986.

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a designated facility as defined by BAAQMD Regulation 2-6-204. The Emission Guidelines for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart Cc) requires the owner or operator of a landfill that is subject to this part and that has a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters to obtain an operating permit pursuant to Part 70. As discussed in more detail below in Section C.IV of this report, this facility is a designated facility, because it meets the criteria listed in 40 CFR § 60.32c(c).

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility number that consists of a letter and a 4-digit number. This facility number is also considered to be the identifier for the permit.

The Potrero Hills Landfill was issued an initial Title V permit on August 15, 2003 and an Administrative Amendment to that permit on January 5, 2004. This application is for a Minor Permit Revision.

B. Requested Changes to the Permit

Minor Permit Revision

In order to adequately manage the landfill gas generated at the site, the facility has applied for modifications to their permit to operate as follows:

Installation of up to (36) New Vertical Gas Extraction Wells and (14) Horizontal Gas Collectors; and Decommissioning of up to (9) Existing Horizontal Gas Collectors

Potrero Hills was issued an Authority to Construct for these modifications on 12/23/04 under Application #11204. Upon completion of all the intended modifications, the gas collection system will consist of (54) vertical gas extraction wells and (33) horizontal gas collectors.

Administrative Permit Amendments

The Wood Grinder S-10 and the Wood Grinder Diesel IC Engine S-11 have been taken out of service (archived by the District on 1/21/05) and are being removed from the Title V permit at this time.

At the request of the facility, the responsible official is being changed from Larry Burch to William B. Terry. The facility contact will be Dave Meyer.

In addition, the District has made various other amendments to the permit to update requirements, add clarity, and standardize text.

C. Emissions Discussion

The proposed modifications are intended to improve the efficiency of the landfill gas collection system, so it is therefore assumed that more gas will be collected. Based on the EPA Landfill Gas Generation Model (LandGEM) the current rate of landfill gas generation at the Potrero Hills Landfill is 1,256 cfm. Assuming 75% collection efficiency, the estimated amount entering the collection system will be 942 cfm. The Landfill Gas Flare A-2 has a capacity of 45 MMBTU/hr (equivalent to 1,500 cfm of landfill gas at 50% methane content). Therefore, the flare has sufficient capacity at this time to handle any incremental gas that is collected by the proposed well improvements.

The emissions from the flare have already been fully accounted for, so there is no increase of emissions for this application.

D. Monitoring Analysis

The existing monitoring for the facility is adequate to demonstrate compliance with all applicable emissions limits. The proposed modifications to the Title V permit will not change the current monitoring requirements, except where equipment has been removed.

E. Modified Permit Conditions

The Permit Condition # 1948, Part 6 lists the required well components of the landfill gas collection system for this site. In order to provide flexibility in the installation and removal of collection system components in accordance with Authority to Construct #11204, it is recommended that the existing condition be modified as follows:

6. The Permit Holder shall apply for and receive an Authority to Construct before modifying the landfill gas collection system. Increasing or decreasing the number of wells or collectors, changing the length of collectors, or changing the locations of wells or collectors are all considered to be modifications that are subject to the Authority to Construct requirement. Adding or modifying risers, laterals, or header pipes are not subject to this Authority to Construct requirement.

a. The Permit Holder has been issued a Permit to Operate for the landfill gas collection system components listed below. The authorized number of landfill gas collection system components is the baseline count listed below plus any components added and minus any components decommissioned pursuant to Part 2b as evidenced by start-up/shut-down notification letters submitted to the District.

Vertical Wells:	18
Horizontal Collectors:	28

~~The Permit Holder has been issued a Permit to Operate for the landfill gas collection system components listed below. Well and collector locations, depths, and lengths are as described in detail in Permit Application #16418.~~

	Current
Total Number of Vertical Wells:	18

b. The Permit Holder has been issued an Authority to Construct (Application #11204) for the landfill gas collection system modifications described below.

- Installation of up to 36 new vertical wells
 - Installation of up to 14 horizontal trench collectors
 - Decommissioning of up to 9 horizontal trench collectors
- (basis: Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, 8-34-305)

F. Summary of Proposed Changes to the Permit

Changes to the Title V permit are shown in strikeout/underline format in the proposed version of the permit. In summary, the following changes will be made to the permit:

Title Page:

- The Responsible Official will be changed from Larry Burch to Dave Meyer The Facility Contact will be Dave Meyer.

Section II: Equipment

- The number of Vertical Gas Collection Wells given in Table IIA will be updated from 18 to 54 wells.
- The Wood Grinder S-10, the Diesel IC Engine for the Wood Grinder, S-11, and the Water Spray System for the Wood Grinder, A-11 will be removed from Tables IIA and IIB. This equipment is no longer located at the facility.

Section III: Generally Applicable Requirements

- Language will be added to Section III to clarify that this section contains requirements that may apply to temporary sources. This provision allows contractors that have "portable" equipment permits that require them to comply with all applicable requirements to work at the facility on a temporary basis, even if the permit does not specifically list the temporary source. Examples are temporary sand-blasting or soil-vapor extraction equipment.
- Section III will be modified to say that SIP standards are now found on EPA's website and are not included as part of the permit. The web address will be added to the permit.

Section IV: Source-Specific Applicable Requirements

- Section IV will be modified to say that SIP standards are now found on EPA's website and are not included as part of the permit. The web address will be added to the permit.
- SIP Regulation 1-523.5 "Maintenance and Calibration" will be deleted. BAAQMD Regulation 1-523.5 is now SIP approved and federally enforceable.
- The future effective dates for 40 CFR Part 63 have passed and will therefore be removed from the permit.
- Tables IV-B and IV-C will be removed because the Wood Grinder S-10 and the Diesel IC Engine for the Wood Grinder, S-11 are no longer located at the facility. The letter designations of the remaining tables will be changed accordingly.

Section VI: Permit Conditions

- Condition #1948, Part 6 will be changed as shown above to facilitate the additions and removal of equipment as specified in Authority to Construct #11204.
- Conditions #20044 and #20046 will be deleted because the Wood Grinder S-11 and the Diesel IC Engine for the Wood Grinder, S-11 have been removed.

Section VII: Applicable Limits & Compliance Monitoring Requirements

- A note will be added to the standard text to state that Sections I-VI take precedence if there is a conflict with the VII Tables.
- Tables VII-B and VII-C will be removed because the Wood Grinder S-10 and the Diesel IC Engine for the Wood Grinder, S-11 are no longer located at the facility. The letter designations of the remaining tables will be changed accordingly.

Section VIII: Test Methods

- The test methods for requirements pertaining to S-10 and S-11 will be removed from Table VIII.

Section XII: Applicable State Implementation Plan

- This section will no longer be included in Title V permits issued by the District. The applicable SIP standards will now be found on EPA's website at:

<http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>

Section IX: Revision History

- This section will be updated to account for the Minor and Administrative Revisions discussed herein.

G. Recommendation

Issue a Minor Permit Revision to the Title V permit for Potrero Hills Landfill as shown in the Proposed Major Facility Review Permit and described in this evaluation.

By: _____

Ted Hull
Senior Air Quality Engineer