

Bay Area Air Quality Management District

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Permit Evaluation and Statement of Basis

MAJOR FACILITY REVIEW PERMIT MINOR REVISION

for
**Kirby Canyon Landfill
Facility #A1812**

Facility Address:
910 Coyote Creek Golf Drive
Morgan Hill, CA

Mailing Address:
P.O. Box 1870
Morgan Hill, CA 95038

Application #: 11729

January 2006

Application Engineer: Robert Hull

Title V – Minor Revision

A. Background

The Kirby Canyon Landfill (S-1) is an active 311-acre Class III landfill located approximately 15 miles south of downtown San Jose, adjacent to U.S. Highway 101. The facility accepts non-hazardous residential, commercial, industrial, and inert wastes. The landfill has an estimated closure date of June 2018. This landfill is equipped with an active gas collection system (a system of pipes and blowers) that includes approximately 36 vertical gas collection 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 an enclosed flare (A-11).

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.

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 facility number for the Kirby Canyon Landfill is A1812.

The Kirby Canyon Landfill was issued an initial Title V permit on July 10, 2003 and a Minor Permit Revision on January 12, 2005. 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:

- **Replacement of up to (10) Existing Vertical Gas Extraction Wells, Installation of up to (20) New Vertical Gas Extraction Wells, Decommissioning of up to (15) Existing Vertical Gas Extraction Wells, and Connection of (1) Additional Leachate Cleanout Riser**

Kirby Canyon was issued an Authority to Construct for these modifications on 03/18/05 under Application #11730.

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

C. Emissions Discussion

The gas collection and control system at the Kirby Canyon Landfill currently collects and processes approximately 1,120 standard cubic feet per minute (scfm) of landfill gas. It is estimated that each of the (20) new gas collection wells will eventually increase the flow into the system by 25 scfm (i.e. an additional 500 scfm). No net reduction of flow into the system is anticipated from the decommissioning of existing wells because only non-performing wells will be decommissioned.

All collected gas is currently processed at the Enclosed Landfill Gas Flare A-11, which has a landfill gas capacity of 1,480 scfm, sufficient to process the entire gas flow from the landfill. In addition, Kirby Canyon has been issued an Authority to Construct (#009220) for (3) Landfill Gas Fired IC Engines, each capable of combusting up to 345.3 scfm of landfill gas. The proposed and existing components of the landfill gas collection and control system are sufficient to meet the needs of the landfill for the next two years.

The emissions from the flare and proposed IC engines 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 # 1437, 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 #11730, 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 described in Parts 6a-b below. 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.

- a. 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 Applications #2232 and #7835.

Current

Total Number of Gas Wells:

3436

- b. The Permit Holder ~~has been~~ was issued an Authority to Construct for the additional landfill gas collection system components as listed below. ~~Specific well locations, depths, and lengths of associated piping are as described in detail in Permit Application #785311730. After receiving a written start-up notification for any wells or collectors that have been installed, the APCO will revise the number of wells listed in Parts 6a and 6b.~~ Additional wells installed under this Authority will be added to the Title V permit using the minor permit amendment procedures identified in Regulation 2-6-414.

Proposed

Additional Number of Gas Wells:

2

(basis: Regulations 2-1-301, 8-34-301.1, 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:

Section II: Equipment

- The number of Vertical Gas Collection Wells given in Table IIA will be updated from 34 to 36 wells.

Section III: Generally Applicable Requirements

- 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.

Section VI: Permit Conditions

- Condition #1437, Part 6 will be changed as shown above to facilitate the additions and removal of equipment as specified in Authority to Construct #11730.

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.

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 Kirby Canyon Landfill as shown in the Proposed Major Facility Review Permit and described in this evaluation.

By: _____

Ted Hull
Senior Air Quality Engineer