

**Engineering Evaluation
Allied Waste Industries (Keller Canyon Landfill Company), Plant #4618
Landfill Collection System Well Modifications, Application #7939
September 30, 2003**

I. Background: Keller Canyon Landfill Company is applying for an Authority to Construct and Permit to Operate for the following:

S1 Landfill with Gas Collection System: Modification to install 25 landfill gas extraction wells, two well stations (N & P), one trench horizontal collector, one leachate riser tie-in with associated piping

The map submitted with the application shows the locations of the proposed additions to the collection system in detail. The new vertical wells will begin landfill gas collection in recent fill areas that have been previously uncontrolled. The collection system modifications are necessary in order for Keller Canyon Landfill to remain in compliance with the Regulation 8, Rule 34, Section 303 surface leak limit.

The proposed modifications in this application do not require a significant permit revision, as defined in Regulation 2-6-226, to the Major Facility Review (Title V) Permit. Neither do the changes qualify for as administrative permit amendment, as defined in Regulation 2-6-201. As defined in Regulation 2-6-216, the proposed modification qualifies as a minor permit revision to the Major Facility Review (Title V) Permit.

II. Emission Calculations: Keller Canyon Landfill vents all of their collected landfill gas to the Landfill Gas Flare, A1. The 72.7 MMBTU/hour flare was permitted to burn 1744.8 MMBtu/day or approximately 2400 scfm of landfill gas. Keller Canyon Landfill recently reported that a total of 434,540,000 scf/year (827 scfm) of landfill gas was burned at the flare. The Landfill Gas Flare, A1, is expected to have sufficient capacity to combust the additional landfill gas that will be extracted from the expanded system. No change is proposed for the maximum design capacity or maximum waste acceptance rate at the landfill; therefore, this application will not result in any emission increases.

III. Plant Cumulative Increase: None.

Pollutant	Current, tons/yr	Increase, tons/yr	New Total, tons/yr
POC	0.000	0.000	0.000
NO _x	0.000	0.000	0.000
CO	0.000	0.000	0.000
PM ₁₀	3.315	0.000	3.315
SO ₂	0.000	0.000	0.000
NPOC	19.838	0.000	19.838

IV. Toxic Air Contaminants (TAC): There is no increase in emissions of toxic air pollutants; therefore, a risk screen analysis is not required (BAAQMD Toxic Risk Management Policy).

V. Monitoring Requirements: The current monitoring requirements also apply to the proposed modifications. No additional requirements or changes to the current monitoring requirements are needed.

VI. Statement of Compliance: The Keller Canyon Landfill's Active Landfill with Gas Collection System, S1, is expected to comply with Regulation 8 Rule 34 Section 301 by:

- (a) continuously operating the gas collection system and the flare,
- (b) having no leaks (exceeding 1000 ppmv) from the gas collection system, and
- (c) processing all collected gases in a flare achieving at least 98% destruction efficiency.

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VI. Statement of Compliance (continued):

The S1 Active Landfill is also subject to 8-34-303, which limits leaks on the surface of the landfill to less than 500 ppmv as methane. The collection system modifications requested in this application are intended to prevent surface leaks in the future.

The Engineering Evaluation for this application uses fixed standards and objective measurements and does not involve any element of discretion. In accordance with District Permit Handbook Chapter 8.1 "Landfills", this application is considered ministerial. No further CEQA review is required.

The Keller Canyon Landfill is subject to the NSPS for MSW Landfills (40 CFR, Part 60, Subpart WWW). The collection and control standards for this site became effective on December 10, 1998. The collection system modifications requested in this application are necessary to maintain compliance with the 500 ppmv as methane surface leak limit. This application does not trigger any new NSPS requirements.

The project is over 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

BACT, Offsets, PSD, and NESHAPS do not apply to this application.

VII. Permit Conditions: The permit conditions for S1, Part 20 will be modified as indicated below to include these new well stations and wells. Condition ID # 17309 also contains conditions for the proposed IC engines at Plant #12101 that were to become part of the landfill gas emission control system. Since the proposed IC engines will not be installed, all references to these engines in the Condition ID #17309, Parts 17 and 33 will be deleted.

20. Well Installation and Design Parameters:

The Permit Holder shall apply for and receive an Authority to Construct before modifying the landfill gas collection system described in Parts 20a and b below. Increasing or decreasing the number of wells or collectors or significantly changing the locations, depths or lengths 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 of associated piping are as described in detail in Permit Application # 758 and # 7939.

Well Station	Number of Wells
A	12
E	12
K	12
L	406
F	11
M	8

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VII. Permit Conditions (continued):

20. b. The Permit Holder has been issued an Authority to Construct for the additional landfill gas collection system components listed below. Specific well locations, depths and lengths of associated piping are as described in Permit Application #7939. Wells installed pursuant to Parts 20b shall be added to Part 20a in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415.

<u>Well Station</u>	<u>Number of Wells</u>
M	1
N	16
P	8

[Basis: 8-34-303, 8-34-304, 8-34-305, 40 CFR 60.755(a) and 60.759]

17. All landfill gas collected by the gas collection well system for S-1 shall be abated at all times by either the enclosed flare, A-1 or the IC Engines (S-1, S-2, or S-3) located at Plant #12101. Under no circumstances shall raw landfill gas be vented to the atmosphere. This limitation does not apply to unavoidable landfill gas emissions that occur during collection system installation, maintenance, or repair performed in compliance with Regulation 8, Rule 34 Sections 113, 116, 117, or 118 or to inadvertent component or surface leaks that do not exceed the limits specified in 8-34-301.2 or 8-34-303. [Basis: 8-34-301, 8-34-303, 40 CFR 60.752(b)(2)(iii), 60.753(e), and 60.755(e)]
33. The combined emissions of Precursor Organic Compounds (POC) from the S-1 Landfill and the A-1 Flare shall not exceed 46.092 tons per year (expressed as hexane). POC emissions from the landfill and flare shall be determined using the procedures and assumptions described in Parts 33a-h below. POC emissions from the landfill and flare shall be calculated at least once every five years or whenever the capacity of the landfill gas emissions control systems, (A-1 Flare, and S-1, S-2, and S-3 IC Engines at Plant #12101) are is expanded, whichever is sooner.

VIII. Recommendation: Issue an Authority to Construct with conditions for the following modification:

- S1 Landfill with Gas Collection System: Modification to install 25 landfill gas extraction wells, two well stations (N & P), one trench horizontal collector, one leachate riser tie-in with associated piping

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