

Bay Area Air Quality Management District

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**Statement of Basis
for
MAJOR FACILITY REVIEW PERMIT
MINOR REVISION**

**for
Keller Canyon Landfill Company
Facility #A4618**

Facility Address:
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Pittsburg, CA 94565

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Application Engineer: Carol Allen
Site Engineer: Carol Allen

Application: 26271

October 2014

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STATEMENT of BASIS

Keller Canyon Landfill Company; SITE # A4618 APPLICATION # 26271

A. BACKGROUND

As discussed in previous Statements of Basis for the Major Facility Review (MFR) Permit for the Keller Canyon Landfill Company (Site # A4618), 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 major facility as defined by BAAQMD Regulation 2-6-212. This facility has the “potential to emit,” as defined by Regulation 2-6-218, more than 100 tons per year of a regulated air pollutant, specifically more than 100 tons per year of carbon monoxide. Therefore, this facility is required to have an MFR permit pursuant to Regulation 2-6-301.

This facility is also subject to the Title V operating permit requirements and Regulation 2, Rule 6, MFR permit requirements, because it is a designated facility as defined by Regulation 2-6-204. The Standards of Performance for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart WWW) require the owner or operator of a landfill that is subject to Subpart WWW and that has a design capacity of greater than or equal to 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³) to obtain an operating permit pursuant to Part 70. The landfill at this facility is subject to this NSPS because it commenced construction after May 30, 1991 and has design capacities that are larger than 2.5 million Mg and larger than 2.5 million m³. Therefore, this facility is required to have an MFR permit pursuant to Regulation 2-6-304.

The initial MFR Permit for this facility was issued on September 20, 2001. This MFR Permit was revised on: December 17, 2003; March 16, 2006; September 20, 2006; October 4, 2006; and March 2, 2007. This MFR Permit was renewed on January 3, 2008 and subsequently revised on: October 9, 2008 and January 11, 2012. This MFR Permit was renewed again on: June 12, 2014.

The main purpose of this current action is to update the landfill gas collection system description and incorporate gas collection system alterations that were approved by the District pursuant to District Application # 26269. The engineering evaluation for Application # 26269 and other reports describing related permit condition revisions that have been authorized by the District are included in Appendix A. These permit condition changes do not result in any emission increases and do not trigger any new applicable requirements.

Minor Revision: Updates to Landfill Gas Collection System Descriptions and Allowable Alterations

The attached proposed MFR permit shows all changes to the existing permit in strikeout/underline format. The permit will be formally re-issued after EPA's 45-day review period is complete.

Facility Description:

Keller Canyon Landfill Company (KCLC), a subsidiary of Allied Waste Industries, Inc., owns and operates the Keller Canyon Landfill Facility (Facility # A4618) in Pittsburg, CA. This facility includes: an active Class II MSW landfill (S-1, S-4, and S-5), yard and green waste stockpiles (S-3), and two enclosed flares (A-1 and A-2).

The maximum design capacity for this landfill is approximately 75 million cubic yard. The landfill is currently permitted to accept a maximum of 3500 tons/day of refuse and to dispose of a total of 38.4 million tons of decomposable materials. As of June 30, 2014, KCLC reported that the landfill contained 17.0 million tons of decomposable waste (about 44% of total capacity). The landfill is expected to remain active for at least 20 more years.

As required by District, state, and federal regulations, the Keller Canyon Landfill – Waste Decomposition Process (S-1) is equipped with landfill gas collection and control systems that are designed to reduce the emissions of methane, precursor organic compounds (POC), toxic air contaminants (TAC), and greenhouse gases (GHG) from the landfill. As of June 2014, this gas collection system was collecting an average of 3460 cfm of landfill gas.

The landfill gas control systems for this site include both on-site controls (A-1 and A-2 Enclosed Landfill Gas Flares) and off-site controls (Ameresco Keller Canyon LLC Landfill Gas to Energy Plant (Site # B7667). During 2014, an average of 2180 cfm of landfill gas or about 63% of the total gas collected was vented to the on-site flares for control. The remainder of the collected landfill gas (about 37% during 2014) is vented to the independently owned and operated landfill gas energy plant. Although the landfill gas energy plant is located on property owned by KCLC, it is owned and operated by an independent company: Ameresco Keller Canyon LLC (Site # B7667). Therefore, this energy plant is not part of this Title V permit for Keller Canyon Landfill Company. The landfill gas energy plant includes a landfill gas treatment system, two lean-burn IC engines that are primarily on treated landfill gas, and a small enclosed waste gas flare. This energy plant is discussed in detail in the proposed initial Title V permit for Site # B7667 (see Application # 17615).

Application # 26271:

At active MSW landfills, the landfill operator frequently makes improvements to the gas collection system to ensure that the system is properly balanced and is achieving the required emissions control in new waste areas. In the Bay Area, the description of the landfill gas collection system and any authorized alterations are maintained in Table II-A of the MFR Permit and in the permit conditions for the landfill.

For KCLC, the District approved a number of landfill gas collection system alterations in 2011 pursuant to Application # 23460. These alterations were completed during 2011-2014, and the District authorized additional landfill gas collection system alterations in August 2014 pursuant to Application # 26269. The gas collection system, alterations, and related operating requirements are described in Condition # 17309, Parts 18 and 19.

For this current Title V minor revision, the District is updating the gas collection system description in Table II-A and is revising the permit conditions for the landfill. The new gas collection system description includes all of the collection system revisions completed through August 2014. The revised permit conditions will also identify the remaining authorized gas collection alterations and updated operating requirements.

B. EMISSIONS

As discussed in the Engineering Evaluation for Application #26296 (see Appendix A), gas collection system alterations do not result in any changes to maximum permitted emission levels for the landfill. Therefore, the permit condition changes described in this report do not result in any emission increases.

C. PERMIT CONTENT

Since a Statement of Basis was prepared for the most recent version of the MFR Permit for Site # A4618 (the June 12, 2014 renewal permit) that fully describes and explains the legal and factual basis for the current permit, this report will only address the proposed revisions to this current MFR Permit.

The definition of significant revision is discussed below to further explain why the current application does not constitute a significant MFR revision.

- Regulation 2-6-226.1 and 226.2: This action does not involve the incorporation of a change considered to be a major modification, or a modification under NSPS, NESHAPs, or Section 112 of the CAA.
- Regulation 2-6-226.3: This action does not involve the relaxation of any monitoring, record keeping or reporting requirements.
- Regulation 2-6-226.4: This action does not involve limits imposed to avoid an applicable requirement.
- Regulation 2-6-226.5 and 226.6: This action does not involve the establishment of or change to any case-by-case emission limits or standards or any facility-specific determinations.
- Regulation 2-6-226.7: This action does not involve the incorporation of any requirements promulgated by the EPA.

Since this action does not involve any of the above actions, it does not require a significant revision. This action will involve some MFR permit revisions other than

Minor Revision: Updates to Landfill Gas Collection System Descriptions and Allowable Alterations

those allowed under the definition of administrative amendment in Regulation 2-6-201. Therefore, this modification will be handled as a minor revision of the MFR Permit.

Changes to the permit sections are described below in the order that they are presented in the permit.

Section I:

This section contains administrative requirements and conditions that apply to all facilities.

Changes to Section I:

- The District is not making any changes to Section I.

Section II:

This section of the permit lists all permitted or significant sources and all abatement or control devices for these sources. Each source is identified by an S and a number (e.g., S-24). Each abatement device is identified by an A and a number (e.g., A-25).

Changes to Section II:

- In Table II-A, the District is updating the landfill gas collection system description for: S-1 Keller Canyon Landfill – Waste Decomposition Process.

Section III:

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit.

Changes to Section III:

- The District is updating the amendment date for BAAQMD Regulation 5 in Table III of the MFR permit.

Section IV:

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit.

Changes to Section IV:

- The District is not making any changes to Section IV.

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Section V:

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

- “409.10 A schedule of compliance containing the following elements:
- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
 - 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
 - 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.”

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit contains only sections 2-6-409.10.1 and 2-6-409.10.2.

Changes to Section V:

- The District is not making any changes to Section V.

Section VI:

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- Cumulative Increase: This term is used for a condition imposed by the APCO which limits a source’s operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.

All changes to existing permit conditions are clearly shown in “strike-out/underline” format in the proposed permit. When the permit is issued, all ‘strike-out’ language will be deleted and all “underline” language will be retained, subject to consideration of comments received.

Changes to Section VI:

- The District is revising Condition # 17309, Parts 18 and 19 to include the new gas collection system description and the remaining approved alterations.

Section VII:

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The District has reviewed all monitoring and has determined the existing monitoring is adequate.

Changes to Section VII:

- The District is not making any changes to Section VII.

Section VIII:

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section IV of the permit.

Changes to Section VIII:

- The District is not making any changes to Section VIII.

Section IX:

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting

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requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.

This facility has no permit shields.

Changes to Section IX:

- The District is not making any changes to Section IX.

Section X:

This section contains the details of issuance and revisions for each permit.

Changes to Section X:

- The District is adding the details of this minor revision to the end of Section X.

Section XI:

This section contains terms that may be unfamiliar to the general public or EPA.

Changes to Section XI:

- The District is not making any changes to Section XI.

D. ALTERNATIVE OPERATING SCENARIOS

No alternate operating scenarios have been requested.

E. COMPLIANCE STATUS

The responsible official for Keller Canyon Landfill Company submitted a signed Certification Statement form, dated January 22, 2014, with the recent Title V renewal permit application. On this form, the responsible official certified that the following statements are true:

Based on information and belief formed after reasonable inquiry, the source(s) identified in the Applicable Requirements and Compliance Summary form that is (are) in compliance will continue to comply with the applicable requirement(s);

Based on information and belief formed after reasonable inquiry, the source(s) identified in the Applicable Requirements and Compliance Summary form will comply with future-effective applicable requirement(s), on a timely basis;

Based on information and belief formed after reasonable inquiry, information on application forms, all accompanying reports, and other required certifications is true, accurate, and complete;

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Based on these statements, the District expects that source impacted by this minor revision permit, the S-1 Keller Canyon Landfill – Waste Decomposition Process and Landfill Gas Collection System, will continue to comply with all applicable requirements.

F. DIFFERENCES BETWEEN THE APPLICATION AND THE PROPOSED PERMIT

The application materials for the minor MFR revision to incorporate permit condition changes for the S-1 Keller Canyon Landfill – Waste Decomposition Process and Landfill Gas Collection are contained in Application # 26271. The Applicant did not submit forms to identify any specific applicable requirements or emissions information, but the Applicant did indicate in the cover letter that this minor revision would not result in any emission increases. As indicated in the District’s Statement of Basis report, this minor revision will not change any emission limits, applicable requirements, or monitoring requirements. The specific permit condition revisions are identified in the District’s proposed permit.

G. SUMMARY OF PROPOSED ACTIONS

The District recommends approval of a proposed minor revision of the MFR Permit for Site # A4618 that will:

- Revise the landfill gas collection system description in Table II-A.
- Revise Condition # 17309, Parts 18 and 19 by including the updated collection system description and remaining authorized collection system alterations.

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APPENDIX A

REPORTS FOR PERMIT CONDITION CHANGES

(APPLICATIONS # 23460 and # 26269)

PERMIT CONDITION UPDATES

Keller Canyon Landfill Company; Site # A4618

APPLICATION # 23460

A. BACKGROUND

On March 11, 2014, the District issued a Change of Conditions for the S-1 Keller Canyon Landfill that updated the landfill gas collection system description by incorporating all of the well alterations completed as of 2/28/14. Since then, Keller Canyon Landfill Company (KCLC) has submitted two additional startup/decommission notifications and has installed 35 vertical wells, decommissioned 15 vertical wells, and connected 1 leachate cleanout riser to the gas collection system, as authorized under Application # 23460. The following gas collection system alterations have been made since 2/28/14.

Table 1. Landfill Gas Collection System Component Alterations from 3-1-14 to 5-13-14

A023R	E008R	M010	R004P	EW-01	EW-23	EW-43	EW-63	EW-83	HC-2
	E012R	M011	R006P	EW-02	EW-24	EW-44	EW-64	EW-84	HC-3
	E019R	M012	R007P	EW-03	EW-25	EW-45	EW-65	EW-85	LCRS-1
	E024R			EW-05	EW-26	EW-46	EW-66	EW-86	LCRS-2
B001	E027R			EW-06	EW-27	EW-47	EW-67	EW-87	
B002				EW-08	EW-28	EW-49	EW-68	EW-88	
B003		Q001R	R1	EW-09	EW-29	EW-50	EW-69	EW-89	
B004		Q003R	R3	EW-10	EW-30	EW-51	EW-70		
B005	K013R	Q004R		EW-11	EW-31	EW-52	EW-71	EW-04A	
B006	K015R	Q005R		EW-12	EW-32	EW-53	EW-72	EW-09A	
	K018R	Q006R		EW-13	EW-33	EW-54	EW-74	EW-12A	
	K022R	Q007R	S001	EW-14	EW-34	EW-55	EW-75	EW-14A	
		Q009R	S002	EW-15	EW-35	EW-56	EW-75	EW-25A	
D001			S003	EW-16	EW-36	EW-57	EW-76	EW-28A	
				EW-17	EW-37	EW-58	EW-77	EW-32A	
	L040R			EW-18	EW-38	EW-59	EW-78	EW-48A	
				EW-19	EW-39	EW-60	EW-79		
				EW-20	EW-40	EW-61	EW-80		
				EW-21	EW-41	EW-62	EW-81		
				EW-22	EW-42		EW-82		
<u>87</u>	<u>406</u>	<u>409</u>	<u>85</u>	<u>2017</u>	<u>2017</u>	19	<u>20</u>	<u>15</u>	<u>34</u>

For well stations A-S, there are now 27 vertical wells remaining. For the recently installed wells (identified with “EW”), there are 88 vertical wells. As of 5/13/14, the main gas collection system includes a total of 115 vertical wells and 1 horizontal collector. The other horizontal collector and the 2 leachate cleanout risers are connected to the vacuum system as needed to prevent gas migration.

The remaining authorized well alterations under Application # 23460 are:

- Install up to 3 vertical gas collection wells.
- Permanently decommission up to 0 vertical wells.

Keller Canyon Landfill has submitted Application # 26269 to request additional gas collection system alterations. Any future gas collection system changes will be handled pursuant to this new application. The changes identified in Table 1 are the final changes for Application # 23460.

B. PERMIT CONDITION REVISIONS

The District is proposing to modify Condition # 17309, Parts 18 and 19, as indicated below to update the description of the main landfill gas collection system based on the alteration notifications submitted through May 13, 2014. These alterations are will be added to the Title V permit pursuant to Application # 26271.

Condition # 17309

For S-1 KELLER CANYON LANDFILL, A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE:

(no changes to Parts 1-18)

18. Landfill Gas Collection System Design and Alteration Requirements:

The Permit Holder shall have a properly operated and properly maintained active landfill gas collection system at the S-1 Keller Canyon Landfill that complies with the design and alteration requirements listed below. (Basis: Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, 40 CFR 60.755(a) and 60.759)

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 #23460. The authorized number of landfill gas collection system components is the baseline count listed below plus any components installed and minus any components permanently decommissioned pursuant to Part 18b, as evidenced by start-up and decommissioning notification letters submitted to the District.

i. The following components constitute the main landfill gas collection system.

Well Station	Vertical Wells
A-S	3627
EW	5988
ID	Horizontal Collectors
HC-2	1

ii. The following components have been installed to prevent or control landfill gas migration and are not part of the main landfill gas collection and control system.

	Horizontal Collectors
HC-3	1
	Other Components
LCRS-1	1
LCRS-2	1

b. The Permit Holder has been authorized to conduct the landfill gas collection system alterations listed below pursuant to Application #23460. All collection system alterations shall comply with subparts i-vii below. Components installed or decommissioned pursuant to Part 18b shall be added to or removed from Part 18a(i) in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415.

i. The authorized collection system alterations are:

- Install up to [383](#) vertical gas collection wells.
- Permanently decommission up to [150](#) vertical wells.

- Install up to 2 wellhead stations that will provide flow rate control and monitoring points for recently installed wells.
- ii. The Permit Holder shall apply for and receive a Change of Conditions from the District before implementing any changes to the landfill gas collection system described in Part 18a, other than those authorized by Part 18b. Installing, decommissioning, and relocating vertical wells and horizontal collectors are alterations that are subject to this requirement, unless this change constitutes a replacement as defined in subpart iii below.
- iii. Replacement of landfill gas collection system components with identical or functionally equivalent components will not be deemed an alteration and will not be subject to the Authority to Construct requirement under the following circumstances. If a well or collector will be shut down and replaced by a new well or collector in essentially the same location as the old component and this decommission/installation will be accomplished in accordance with Regulations 8-34-117 and 8-34-118, then this activity shall be considered a component replacement that is not subject to an Authority to Construct or Change of Conditions requirement. For each individual well or collector replacement, this subpart authorizes a maximum vacuum disconnection time of five consecutive days for compliance with Regulation 8-34-117.5. The disconnected component and the new component shall not be counted toward the Part 18b(i) component alteration limits; the numbers of replacement wells and replacement collectors are not limited. Alterations, repairs, or replacements of non-perforated piping sections (such as risers, laterals, or header pipes), piping connectors, or valves are not subject to the Authority to Construct requirement.
- iv. At least three days prior to initiating operation of a well or collector installed pursuant to Part 18b, the Permit Holder shall submit a start-up notice to the District that contains the component ID number for each new well or collector and the anticipated initial start-up date for each new component.
- v. For each well or collector that is permanently decommissioned after April 16, 2007, the Permit Holder shall submit a decommissioning notice to the District within no later than three working days after the component was disconnected from vacuum system. This decommissioning notice shall contain the component ID for each well or collector that was decommissioned, the date and time that each component was disconnected from the vacuum system, and the reason the component was decommissioned.
- vi. Within six months of installing a new component or permanently decommissioning an existing component, the Permit Holder shall prepare an updated map of the landfill gas collection system that identifies the ID numbers and locations of all operable wells and collectors. On this map or in accompanying documentation, the Permit Holder shall summarize all component changes that were made since the last map was prepared. The previous collection system map, the updated collection system map, and the component change summary shall be provided to District staff upon request.

- E027R, ~~R004(P), R006(P), R007(P)~~
- ii. The Permit Holder shall demonstrate compliance with the alternative wellhead oxygen limit in subpart i by monitoring each wellhead for oxygen on a monthly basis, in accordance with the provisions of Regulations 8-34-505 and 8-34-604.
 - iii. All test dates, wellhead oxygen concentration data, any deviations from the subpart i limit, repair actions, repair dates, re-monitoring dates and results, and compliance restoration dates shall be recorded in a District approved log and made available to District staff upon request in accordance with Regulations 8-34-34-501.4, 8-34-501.9, and 8-34-414.
 - iv. To demonstrate that the alternative wellhead oxygen limit in subpart i will not cause surface emission leaks, the Permit Holder shall conduct additional surface emission monitoring within a 15 meter vicinity of each component listed in subpart i at the specific locations discussed below. For each component in subpart i, the Permit Holder shall maintain a map showing the location of the buried collection component and identifying the approximate radius of influence for the component. For each component in subpart i, the Permit Holder shall monitor for landfill surface emissions – in accordance with Regulations 8-34-506 and 8-34-607 – at three representative points on the landfill surface that are within the radius of influence of the component and that are not more than 15 meters from the surface location of the component. This additional surface emission monitoring shall be conducted on a monthly basis for a period of at least six consecutive months.
 - v. If no excesses of the Regulation 8-34-303 surface emission limit are detected within a 15 meter vicinity of a component for six consecutive months, the Permit Holder may discontinue the additional monthly surface emission monitoring in the vicinity of that component and shall continue with the routine quarterly surface emission monitoring requirements for that component.
 - vi. If one or more excesses of the Regulation 8-34-303 surface emission limit are detected within a 15 meter vicinity of a component during a six consecutive month period, the Permit Holder shall follow all applicable requirements for recording and reporting the excess and shall follow the Regulation 8-34-415 repair schedule for landfill surface leak excesses. The additional monthly surface emission monitoring in the vicinity of that component shall continue until either the no surface excess requirements of subpart v have been achieved or the repair and compliance restoration requirements of subpart vii have been satisfied.
 - vii. If excesses of the Regulation 8-34-303 surface emission limit are detected within a 15 meter vicinity of a component for three or more monitoring events during a six consecutive month period, the subpart i alternative wellhead oxygen limit shall be revoked for that component. The Permit Holder shall conduct all necessary repairs to the landfill gas collection well, to any piping associated with the well or the remote wellhead monitoring system, to valves, flanges, or other connectors, and to any test ports or other openings that are necessary to eliminate air intrusion into the well or the monitoring point, to prevent impairment of vacuum application or vacuum adjustment at the collection well, and to restore the collection well and associated monitoring point to proper

- function. The Permit Holder shall complete all of the above repairs and any necessary landfill surface repairs and shall restore compliance with the Regulation 8-34-303 surface emission limit (at each location where an excess of the surface limit was measured) and the Regulation 8-34-305.4 wellhead oxygen concentration limit by the earlier of the following dates: (a) within 120 days of the date that the first excess was discovered if the three excess events are discovered within a single quarterly period pursuant to the re-monitoring requirements of 8-34-415 or (b) within 60 days of detection of the third excess.
- c. The Permit Holder may temporarily disconnect individual wells or collectors listed in Part 18a(i) from the vacuum system, provided that all requirements of this subpart are satisfied. (Basis: Regulation 8-34-404)
- i. No more than five (5) landfill gas collection system components (wells or collectors) may be temporarily disconnected from the vacuum system at any one time pursuant to Part 19c.
 - ii. For each individual well or collector that is temporarily disconnected from the vacuum system pursuant to Part 19c, the total vacuum system disconnection time shall not exceed 120 days during any 12-month period.
 - iii. Collection system components that are disconnected from the vacuum system are not subject to wellhead limits (Regulation 8-34-305 or Part 19b) or to monthly wellhead monitoring requirements (Regulation 8-34-505) during this vacuum disconnection time.
 - iv. Wells or collectors that are temporarily disconnected from the vacuum system continue to be subject to the component leak limit (Regulation 8-34-301.2) and the quarterly leak testing requirement (Regulation 8-34-503) at all times. In addition, the Permit Holder shall conduct the following component leak monitoring at each component that has been disconnected from the vacuum system pursuant to Part 19c: test for component leaks using the procedures identified in Regulation 8-34-602 within 10 calendar days of disconnection from vacuum and again within 1 month of disconnection from vacuum. If a component leak is detected at the well, the Permit Holder shall take all steps necessary to reduce the leak below the applicable limit, including reconnecting the well to the vacuum system, if no other corrective action measures are successful within the time frames allowed by Rule 34.
 - v. For each temporary component disconnection event, the Permit Holder shall record each affected well ID number, all well disconnection dates and times, all well reconnection dates and times, all related monitoring dates and monitoring results in a District approved log. This log shall also include an explanation of why the temporary vacuum disconnection was necessary and shall describe all adjustments or repairs that were made in order to allow this well to operate continuously, to reduce leaks, or to achieve compliance with an applicable limit. All records shall be retained for a minimum of five years and shall be made available to District staff upon request.

Statement of Basis:
Application # 26271

Site A4618, Keller Canyon Landfill Company
901 Bailey Road, Pittsburg, CA 9456

Minor Revision: Updates to Landfill Gas Collection System Descriptions and Allowable Alterations

C. RECOMMENDATION

Issue an administrative Change of Permit Conditions for the following equipment:

S-1 Keller Canyon Landfill; abated by Flares (A-1 and A-2):

By: Signed by Carol S. Allen
Carol S. Allen
Supervising Air Quality Engineer

8/5/2014
Date

ENGINEERING EVALUATION

Keller Canyon Landfill Company; Site # A4618 APPLICATION # 26269

A. BACKGROUND

Under Applications # 23460 and # 23461, the District incorporated all of the landfill gas collection system alterations for Site # A4618 that had been completed as of March 1, 2014 into District permit conditions and into the Title V permit for this site. Since that date, Keller Canyon Landfill Company (KCLC) submitted two additional notifications about collection system alterations, which have been incorporated into District conditions but have not yet been incorporated in the Title V permit. As of May 13, 2014, KCLC had completed all of the vertical well shutdowns and all but 3 of the vertical well installations allowed pursuant to Application # 23460.

On April 30, 2014, KCLC submitted Application # 26269 to request District authorization for additional gas collection system alterations to support this active landfill and the gas collection system expansion necessary to ensure compliance with Regulation 8, Rule 34 and other applicable landfill regulations. KCLC also submitted Application # 26271 for a minor revision of the Title V permit for site # A4618 to incorporate any condition changes approved pursuant to Application # 26269 into this Title V permit. Specifically, KCLC is requesting District authorization for the following gas collection system alterations, which would be identified in Condition # 17309, Part 18:

- Install up to 100 vertical wells
- Install up to 20 horizontal collectors
- Decommission up to 50 vertical wells
- Decommission up to 10 horizontal collectors

B. EMISSIONS

Landfill gas collection system well alterations are intended to ensure that the landfill gas collection system is properly maintained and operated. These alterations are intended to expand the gas collection system into recently filled areas of the landfill, to optimize the performance of the landfill gas collection system, and to maintain or improve the overall capture efficiency of the gas collection system. Since these alterations will not result in gas collection rates that exceed the permitted capacity of the control systems for this site, these alterations will not result in any changes to the maximum permitted emissions from the landfill or the on-site flares.

C. STATEMENT OF COMPLIANCE

Regulation 2, Rule 1:

This action concerns a change of permit conditions at the S-1 Keller Canyon Landfill that could involve minor alterations of the landfill gas collection system, which is part of the overall emission control system for the landfill. However, these alterations and permit condition revisions will not allow any expansion of any operations beyond the currently permitted maximum operating rates and will not result

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in any emission increases at this facility. There is no possibility that the proposed permit condition revisions or collection system alterations could have any significant impact on the environment. Therefore, this proposed change of permit conditions is categorically exempt from CEQA review pursuant to Regulations 2-1-312.1, 2-1-312.2, and 2-1-312.6. No further CEQA review is required.

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.

Regulation 2, Rule 2:

Since this project will not result in any increases of maximum permitted emissions from S-1, this project is not subject to New Source Review or any requirements of Regulation 2, Rule 2.

Regulation 2, Rule 5:

Since this project will not result in any increases of maximum permitted emissions from S-1, this project is not subject to New Source Review for Toxic Air Contaminants or any requirements of Regulation 2, Rule 5.

Regulation 2, Rule 6:

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. In addition to being a designated facility, the maximum permitted CO emission rate for this site exceeds 100 tons/year of CO. Therefore, a Title V permit is required pursuant to Regulation 2-6-301 as well as Regulation 2-6-304.

This facility received its initial Title V permit on September 20, 2001. The Title V permit was last renewed on June 12, 2014.

These proposed permit condition revisions will require a minor revision of the MFR permit and will be discussed in detail in the Statement of Basis for Application # 26271.

Regulation 8, Rule 34:

Regulation 8, Rule 34 requires that this facility be equipped with a landfill gas collection that is properly maintained and properly operated. The District is proposing to authorize additional alterations to the collection system that are intended to fulfill these Regulation 8-34 requirements. Monitoring of wellhead parameters at the recently installed wells will demonstrate that new wells are functioning properly. Monitoring of existing wells and the landfill surface will demonstrate that decommissioning wells will not adversely impact gas capture efficiency for this site.

The District will require the owner/operator to notify the District of each gas collection system alteration event to ensure that these alterations continue to ensure compliance with this rule.

Three components (a horizontal collector (HC-3) and two leachate clean out risers (LCRS-1 and LCRS-2) were installed for landfill gas migration control purposes and are not part of the main landfill gas collection and control system. These components were installed to prevent the emission of landfill gas in the event that landfill gas escapes from the waste area and migrates into these piping systems. Since

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these components are not part of the main landfill gas collection system, they are not required to be operated continuously by Section 301.1.

Table 1. Landfill Gas Collection System Components Installed as of March 14, 2014

A023R	K018R	R1		EW-01	EW-21	EW-41	EW-61	EW-81	HC-2
	K022R	R3		EW-02	EW-22	EW-42	EW-62	EW-82	HC-3
				EW-03	EW-23	EW-43	EW-63	EW-83	LCRS-1
				EW-04A	EW-24	EW-44	EW-64	EW-84	LCRS-2
B001				EW-05	EW-25A	EW-45	EW-65	EW-85	
B002	M010	S001		EW-06	EW-26	EW-46	EW-66	EW-86	
B003	M011	S002			EW-27	EW-47	EW-67	EW-87	
B004	M012	S003		EW-08	EW-28A	EW-48A	EW-68	EW-88	
B005				EW-09A	EW-29	EW-49	EW-69	EW-89	
B006				EW-10	EW-30	EW-50	EW-70		
				EW-11	EW-31	EW-51	EW-71		
	Q001R			EW-12A	EW-32A	EW-52	EW-72		
	Q003R			EW-13	EW-33	EW-53	EW-74		
E008R	Q004R			EW-14A	EW-34	EW-54	EW-75		
E019R	Q005R			EW-15	EW-35	EW-55	EW-75		
E024R	Q006R			EW-16	EW-36	EW-56	EW-76		
E027R	Q009R			EW-17	EW-37	EW-57	EW-77		
				EW-18	EW-38	EW-58	EW-78		
				EW-19	EW-39	EW-59	EW-79		
				EW-20	EW-40	EW-60	EW-80		
11	11	5		19	20	20	20	9	4

The main gas collection system includes a total of 115 vertical wells (27 wells at stations A-S and 88 wells identified as “EW”) and 1 horizontal collector (HC-2). KCLC also operates 1 horizontal collector (HC-3) and 2 leachate clean-out risers (LCRS-1 and LCRS-2) on an intermittent basis to control unintended landfill gas migration into non-refuse areas or into piping used to collect and remove liquid leachate from the landfill. Less than continuous operation of these components was first authorized pursuant to Applications # 15304 and # 20205.

D. PERMIT CONDITION REVISIONS

The District is proposing to modify Condition # 17309, Part 18, as indicated below to authorize the proposed landfill gas collection system alterations.

Condition # 17309

For S-1 KELLER CANYON LANDFILL, A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE:

(no changes to Parts 1-17 or Parts 19-37)

18. Landfill Gas Collection System Design and Alteration Requirements:

The Permit Holder shall have a properly operated and properly maintained active landfill gas collection system at the S-1 Keller Canyon Landfill that complies with the design and alteration requirements listed below. (Basis: Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, 40 CFR 60.755(a) and 60.759)

- 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 #23460. The authorized number of landfill gas collection system components is the baseline count listed below plus any components installed and minus any components permanently decommissioned pursuant to Part 18b, as evidenced by start-up and decommissioning notification letters submitted to the District.

- i. The following components constitute the main landfill gas collection system.

Well Station	Vertical Wells
A-S	27
EW	88
ID	Horizontal Collectors
HC-2	1

- ii. The following components have been installed to prevent or control landfill gas migration and are not part of the main landfill gas collection and control system.

	Horizontal Collectors
HC-3	1
	Other Components
LCRS-1	1
LCRS-2	1

- b. The Permit Holder has been authorized to conduct the landfill gas collection system alterations listed below pursuant to Application #~~23460~~26269. All collection system alterations shall comply with subparts i-vii below. Components installed or decommissioned pursuant to Part 18b shall be added to or removed from Part 18a(i) in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415.

- i. The authorized collection system alterations are:
- Install up to 3100 vertical gas collection wells.
 - Install up to 20 horizontal collectors.
 - Permanently decommission up to 050 vertical wells.
 - Permanently decommission up to 10 horizontal collectors.
 - ~~Install up to 2 wellhead stations that will provide flow rate control and monitoring points for recently installed wells.~~

- ii. The Permit Holder shall apply for and receive a Change of Conditions from the District before implementing any changes to the landfill gas collection system described in Part 18a, other than those authorized by Part 18b. Installing, decommissioning, and relocating vertical wells and horizontal collectors are alterations that are subject to this requirement, unless this change constitutes a replacement as defined in subpart iii below.

- iii. Replacement of landfill gas collection system components with identical or functionally equivalent components will not be deemed an alteration and will not be subject to the Authority to Construct requirement under the following circumstances. If a well or collector will be shut down and replaced by a new well or collector in essentially the same location as the old component and this decommission/installation will be accomplished in accordance with Regulations 8-34-117 and 8-34-118,

- then this activity shall be considered a component replacement that is not subject to an Authority to Construct or Change of Conditions requirement. For each individual well or collector replacement, this subpart authorizes a maximum vacuum disconnection time of five consecutive days for compliance with Regulation 8-34-117.5. The disconnected component and the new component shall not be counted toward the Part 18b(i) component alteration limits; the numbers of replacement wells and replacement collectors are not limited. Alterations, repairs, or replacements of non-perforated piping sections (such as risers, laterals, or header pipes), piping connectors, or valves are not subject to the Authority to Construct requirement.
- iv. At least three days prior to initiating operation of a well or collector installed pursuant to Part 18b, the Permit Holder shall submit a start-up notice to the District that contains the component ID number for each new well or collector and the anticipated initial start-up date for each new component.
 - v. For each well or collector that is permanently decommissioned after April 16, 2007, the Permit Holder shall submit a decommissioning notice to the District within no later than three working days after the component was disconnected from vacuum system. This decommissioning notice shall contain the component ID for each well or collector that was decommissioned, the date and time that each component was disconnected from the vacuum system, and the reason the component was decommissioned.
 - vi. Within six months of installing a new component or permanently decommissioning an existing component, the Permit Holder shall prepare an updated map of the landfill gas collection system that identifies the ID numbers and locations of all operable wells and collectors. On this map or in accompanying documentation, the Permit Holder shall summarize all component changes that were made since the last map was prepared. The previous collection system map, the updated collection system map, and the component change summary shall be provided to District staff upon request.
 - vii. If the Permit Holder has a net reduction (number of decommissioned components minus the number of installed components) of more than five components within a 120-day period, the Permit Holder shall submit a more comprehensive decommissioning notice to the District. In addition to the information required by subpart v, this comprehensive decommissioning notice shall include the maps and documentation required by subpart vi, shall identify all component changes that have occurred but that are not included on the most recently updated map, shall identify any components that are temporarily disconnected from vacuum pursuant to Part 19c, shall provide estimated vacuum reconnection dates for these components, shall include a list of all well installations that are expected to occur within the next 120 days, and shall discuss the reasons why this reduction in gas collection components is not expected to result in surface emission leaks. Upon request, the Permit Holder shall provide wellhead monitoring data, surface leak monitoring data, records of repair attempts made to date, and other information to support the need for a net component reduction

of more than five wells. The District may require additional surface monitoring to verify that this net component reduction is not causing landfill surface leaks. The District will notify the Permit Holder in writing of any additional surface monitoring that is required pursuant to this subpart.

E. RECOMMENDATION

Issue a Change of Permit Conditions for the following equipment, subject to Condition # 17309:

S-1 Keller Canyon Landfill; abated by Flares (A-1 and A-2):

By: Signed by Carol S. Allen
Carol S. Allen
Supervising Air Quality Engineer

8/5/2014
Date

Administrative Condition Changes

Keller Canyon Landfill Company; Site # A4618

APPLICATION # 26269

A. BACKGROUND

Under Application #26269, the District approved permit condition changes that authorized Keller Canyon Landfill to make the following landfill gas collection system alterations:

- Install up to 100 vertical wells
- Install up to 20 horizontal collectors
- Decommission up to 50 vertical wells
- Decommission up to 10 horizontal collectors

Keller Canyon Landfill notified the District that 1 vertical well (EW-59) was decommissioned on 8/28/2014. This report updates the current landfill gas collection system description.

Table 1. Landfill Gas Collection System Components Installed as of August 29, 2014

A023R	K018R	R1		EW-01	EW-21	EW-41	EW-61	EW-81	HC-2
	K022R	R3		EW-02	EW-22	EW-42	EW-62	EW-82	HC-3
				EW-03	EW-23	EW-43	EW-63	EW-83	LCRS-1
				EW-04A	EW-24	EW-44	EW-64	EW-84	LCRS-2
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B002	M010	S001		EW-06	EW-26	EW-46	EW-66	EW-86	
B003	M011	S002			EW-27	EW-47	EW-67	EW-87	
B004	M012	S003		EW-08	EW-28A	EW-48A	EW-68	EW-88	
B005				EW-09A	EW-29	EW-49	EW-69	EW-89	
B006				EW-10	EW-30	EW-50	EW-70		
				EW-11	EW-31	EW-51	EW-71		
	Q001R			EW-12A	EW-32A	EW-52	EW-72		
	Q003R			EW-13	EW-33	EW-53	EW-74		
E008R	Q004R			EW-14A	EW-34	EW-54	EW-75		
E019R	Q005R			EW-15	EW-35	EW-55	EW-75		
E024R	Q006R			EW-16	EW-36	EW-56	EW-76		
E027R	Q009R			EW-17	EW-37	EW-57	EW-77		
				EW-18	EW-38	EW-58	EW-78		
				EW-19	EW-39	EW-59	EW-79		
				EW-20	EW-40	EW-60	EW-80		
11	11	5		19	20	2019	20	9	4

The main gas collection system now includes a total of 114 vertical wells (27 wells at stations A-S and 87 wells identified as “EW”) and 1 horizontal collector (HC-2). KCLC also operates 1 horizontal collector (HC-3) and 2 leachate clean-out risers (LCRS-1 and LCRS-2) on an intermittent basis to control unintended landfill gas migration into non-refuse areas or into piping used to collect and remove liquid leachate from the landfill. Less than continuous operation of these components was first authorized pursuant to Applications # 15304 and # 20205.

B. PERMIT CONDITION REVISIONS

The District is proposing to modify Condition # 17309, Part 18, as indicated below to authorize the proposed landfill gas collection system alterations.

Condition # 17309

For S-1 KELLER CANYON LANDFILL, A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE:

(no changes to Parts 1-17 or Parts 19-37)

18. Landfill Gas Collection System Design and Alteration Requirements:

The Permit Holder shall have a properly operated and properly maintained active landfill gas collection system at the S-1 Keller Canyon Landfill that complies with the design and alteration requirements listed below. (Basis: Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, 40 CFR 60.755(a) and 60.759)

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 #~~23460~~26269. The authorized number of landfill gas collection system components is the baseline count listed below plus any components installed and minus any components permanently decommissioned pursuant to Part 18b, as evidenced by start-up and decommissioning notification letters submitted to the District.

i. The following components constitute the main landfill gas collection system as of 8/28/14.

Well Station	Vertical Wells
A-S	27
EW	<u>8887</u>
ID	Horizontal Collectors
HC-2	1

ii. The following components have been installed to prevent or control landfill gas migration and are not part of the main landfill gas collection and control system.

	Horizontal Collectors
HC-3	1
	Other Components
LCRS-1	1
LCRS-2	1

b. The Permit Holder has been authorized to conduct the landfill gas collection system alterations listed below pursuant to Application #26269. All collection system alterations shall comply with subparts i-vii below. Components installed or decommissioned pursuant to Part 18b shall be added to or removed from Part 18a(i) in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415.

i. The authorized collection system alterations are:

- Install up to 100 vertical gas collection wells.
- Install up to 20 horizontal collectors.
- Permanently decommission up to 50-49 vertical wells.

- Permanently decommission up to 10 horizontal collectors.
- ii. The Permit Holder shall apply for and receive a Change of Conditions from the District before implementing any changes to the landfill gas collection system described in Part 18a, other than those authorized by Part 18b. Installing, decommissioning, and relocating vertical wells and horizontal collectors are alterations that are subject to this requirement, unless this change constitutes a replacement as defined in subpart iii below.
- iii. Replacement of landfill gas collection system components with identical or functionally equivalent components will not be deemed an alteration and will not be subject to the Authority to Construct requirement under the following circumstances. If a well or collector will be shut down and replaced by a new well or collector in essentially the same location as the old component and this decommission/installation will be accomplished in accordance with Regulations 8-34-117 and 8-34-118, then this activity shall be considered a component replacement that is not subject to an Authority to Construct or Change of Conditions requirement. For each individual well or collector replacement, this subpart authorizes a maximum vacuum disconnection time of five consecutive days for compliance with Regulation 8-34-117.5. The disconnected component and the new component shall not be counted toward the Part 18b(i) component alteration limits; the numbers of replacement wells and replacement collectors are not limited. Alterations, repairs, or replacements of non-perforated piping sections (such as risers, laterals, or header pipes), piping connectors, or valves are not subject to the Authority to Construct requirement.
- iv. At least three days prior to initiating operation of a well or collector installed pursuant to Part 18b, the Permit Holder shall submit a start-up notice to the District that contains the component ID number for each new well or collector and the anticipated initial start-up date for each new component.
- v. For each well or collector that is permanently decommissioned after April 16, 2007, the Permit Holder shall submit a decommissioning notice to the District within no later than three working days after the component was disconnected from vacuum system. This decommissioning notice shall contain the component ID for each well or collector that was decommissioned, the date and time that each component was disconnected from the vacuum system, and the reason the component was decommissioned.
- vi. Within six months of installing a new component or permanently decommissioning an existing component, the Permit Holder shall prepare an updated map of the landfill gas collection system that identifies the ID numbers and locations of all operable wells and collectors. On this map or in accompanying documentation, the Permit Holder shall summarize all component changes that were made since the last map was prepared. The previous collection system map, the updated collection system map, and the component change summary shall be provided to District staff upon request.
- vii. If the Permit Holder has a net reduction (number of decommissioned components minus the number of installed components) of more than

five components within a 120-day period, the Permit Holder shall submit a more comprehensive decommissioning notice to the District. In addition to the information required by subpart v, this comprehensive decommissioning notice shall include the maps and documentation required by subpart vi, shall identify all component changes that have occurred but that are not included on the most recently updated map, shall identify any components that are temporarily disconnected from vacuum pursuant to Part 19c, shall provide estimated vacuum reconnection dates for these components, shall include a list of all well installations that are expected to occur within the next 120 days, and shall discuss the reasons why this reduction in gas collection components is not expected to result in surface emission leaks. Upon request, the Permit Holder shall provide wellhead monitoring data, surface leak monitoring data, records of repair attempts made to date, and other information to support the need for a net component reduction of more than five wells. The District may require additional surface monitoring to verify that this net component reduction is not causing landfill surface leaks. The District will notify the Permit Holder in writing of any additional surface monitoring that is required pursuant to this subpart.

C. RECOMMENDATION

Issue an administrative Change of Permit Conditions for the following equipment, subject to Condition # 17309:

S-1 Keller Canyon Landfill; abated by Flares (A-1 and A-2):

By:	<u>Signed by Carol S. Allen</u>	<u>9/12/2014</u>
	Carol S. Allen	Date
	Supervising Air Quality Engineer	

Statement of Basis:
Application # 26271

Site A4618, Keller Canyon Landfill Company
901 Bailey Road, Pittsburg, CA 9456

Minor Revision: Updates to Landfill Gas Collection System Descriptions and Allowable Alterations
