Bay Area Air Quality Management District

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Statement of Basis
for
MAJOR FACILITY REVIEW PERMIT REOPENING AND SIGNIFICANT REVISION

for

Allied Waste Industries, Inc.
Facility #A4618

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Applications: 10393 and 11385

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STATEMENT OF BASIS

Allied Waste Industries, Inc.; PLANT # 4618

APPLICATIONS # 10393 and 11385

A. BACKGROUND

Site Description:

Allied Waste Industries, Inc. owns and operates the Keller Canyon Landfill Facility (Site # A4618) in Pittsburg, CA. This facility includes an active Class II MSW landfill (S-1). The landfill is currently permitted to accept a maximum 3500 tons/day of refuse and is permitted to dispose of 38.4 million tons of decomposable waste in the landfill. As of June 30, 2005, the landfill contained 7.28 million tons of decomposable waste. In addition to MSW, this site is allowed to accept designated wastes including petroleum-contaminated soils.

Keller Canyon Landfill is equipped with an active landfill gas collection system. All collected landfill gas is routed to the A-1 Landfill Gas Flare for abatement. This flare has maximum permitted capacities of 1744.8 MM BTU/day and 636,852 MM BTU/year and can process about 2438 scfm of landfill gas. For July 2004 through June 2005, A-1 burned an average of 1087 scfm of landfill gas.

This facility also includes a Wipe Cleaning Operation (S-2) that is permitted to use up to 100 gallons/year of mineral spirits and a Yard and Green Waste Stockpile (S-3) that is permitted to accept up to 70,200 tons/year of waste material for recycling.

Reopening (Application # 10393):

EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste (MSW) Landfills (40 CFR 63, Subpart AAAA) on January 16, 2003. Any landfills that are subject to the landfill gas collection and control requirements of the MSW Landfill New Source Performance Standards (NSPS) or Emission Guidelines (EG) are also subject to this NESHAP. The NESHAP did not add any new control requirements. However, it did require the preparation of a Startup, Shutdown, Malfunction (SSM) Plan, and it added new semi-annual reporting requirements.

Regulation 2, Rule 6 requires that the MFR Permit for Site # A4618 be reopened in order to add these NESHAP requirements, because the expiration date for the Site # A4618 MFR Permit (August 31, 2006) is more than three years from the date of promulgation of the standard (January 16, 2003). Consequently, the District initiated Application # 10393 for the required reopening of this permit. The District is proposing to add the NESHAP requirements to Tables IV-A and VII-A and to amend Condition # 17309 by adding Part 38 to describe the new semi-annual reporting requirements.

Significant Revision (Application # 11385):

On December 8, 2004, Allied Waste Industries submitted Application # 11386 to request an Authority to Construct and Permit to Operate for a second Landfill Gas Flare (A-2). Initially, the A-2 Landfill Gas Flare will provide back-up control capacity for the existing A-1 Landfill Gas Flare. However, the landfill gas generation rate at this site is expected to exceed the control capacity of A-1 within about five years. When this occurs, both flares will be operated simultaneously in order to ensure that sufficient landfill gas is collected to prevent surface emission leaks from the Keller Canyon Landfill. In addition to revising Permit Condition # 17309 to add the required limits for the proposed A-2 Landfill Gas Flare, Allied Waste Industries requested to increase the concentration limits listed in Part 32 for several toxic air contaminants, requested to reduce the total reduced sulfur compound limit listed in Part 34, and requested to modify the POC limit and calculation procedures listed in Part 33 based on source test data and other new information for this facility.

On April 8, 2005, the District issued an Authority to Construct for the A-2 Landfill Gas Flare and approved numerous revisions to Condition # 17309 that will incorporate A-2, reflect recent source test data, correct errors, and clarify requirements. The District's Engineering Evaluation for Application # 11386 is attached in Appendix A.

On March 21, 2005, Allied Waste Industries submitted Application # 12155 to request an expansion of the landfill gas collection system that is necessary to collect landfill gas in recently filled areas. The District issued an Authority to Construct for a landfill gas collection system expansion and related permit condition revisions on June 9, 2005. The District's Engineering Evaluation for Application # 12155 is attached in Appendix B.

On December 8, 2004, Allied Waste Industries submitted Application # 11385 to request a significant revision of the MFR Permit for Site # A4618 in order to add the A-2 Landfill Gas Flare and to modify Condition # 17309 for the S-1 Keller Canyon Landfill. The District is now proposing to modify the MFR Permit for Site # A4618 by adding A-2 and incorporating the permit condition revisions discussed in the Engineering Evaluation for Application # 11386. The District is also proposing to update the landfill gas collection system description and to incorporate permit condition revisions discussed in the Engineering Evaluation for Application # 12155.

B. EMISSIONS

The Application # 10393 Reopening of the MFR Permit for Site # A4618 does not authorize any new or modified sources or impact emission limits. Therefore, this application will not result in any emission changes for this facility.

Pursuant to Application # 11385, the District is proposing to add the A-2 Landfill Gas Flare, to increase the number of landfill gas collection wells, and to modify several existing permit limits. The maximum permitted facility wide emission rates and emission increases for this proposal are summarized in Table 1 below. The attached Engineering Evaluation for Application # 11386 contains detailed discussions of the calculation procedures, source test data, and other assumptions that were used to derive these proposed emission rates and emission increases. Application # 12155 did not result in any changes in maximum permitted emission rates.

Table 1. Facility-Wide Emissions and Emission Increases for Application # 11385

	Proposed Maximum Permitted Emissions	Emission Increases
Criteria Pollutants	Tons/Year	Tons/Year
CO	162.104	66.576
SO_2	65.082	33.263
POC	50.000	3.582
NO_x	39.078	19.973
PM_{10}	25.146	11.164
Hazardous Air Pollutants	Pounds/Year	Pounds/Year
Acrylonitrile	45	34
Benzene	1317	885
Carbon Tetrachloride	26	0
Chloroform	20	0
Ethylene Dibromide	29	0
Ethylene Dichloride	67	0
Formaldehyde	472	472
Hydrogen Chloride	10961	10961
Hydrogen Fluoride	678	678
Methylene Chloride	3953	0
Perchloroethylene	1007	0
Trichloroethylene	510	0
Vinyl Chloride	169	0
Other TACs	Pounds/Year	Pounds/Year
Hydrogen Bromide	9878	9878
Hydrogen Sulfide	17238	0

C. PROPOSED MFR PERMIT MODIFICATIONS

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 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 this part and that has a design capacity of greater than or equal to 2.5 million megagrams and 2.5 million cubic meters to obtain an operating permit pursuant to Part 70. This facility is subject to this NSPS because it commenced construction after May 30, 1991 and has design capacities that are both larger 2.5 million Mg and 2.5 million m^3. Therefore, this facility is required to have an MFR permit pursuant to Regulation 2-6-304.

With the addition of the A-2 Landfill Gas Flare, the maximum permitted carbon monoxide (CO) emissions from this facility will now exceed 100 tons per year. Therefore, this facility is now a major facility as defined in Regulation 2-6-212.1, and it is also required to have an MFR permit pursuant Regulation 2-6-301.

The initial MFR Permit for this facility was issued on September 20, 2001 and was revised on December 17, 2003. On April 2, 2004, the District notified the facility of the District's plans to reopen this MFR Permit in order to add the MSW Landfill NESHAP requirements. This reopening was later assigned Application # 10393. Subsequently on December 8, 2004, the facility submitted Application # 11385 to request a significant revision of the MFR Permit to include the A-2 Landfill Gas Flare and several permit condition changes. Since the reopening and the requested revisions both concern the S-1 Keller Canyon Landfill, the District is proposing to combined these two applications in a single action.

In accordance with Regulation 2-6-415, this action requires a 30-day public comment period in addition to the standard 45-day EPA review period. The District is proposing to conduct these review periods simultaneously. The proposed MFR permit revisions related to this action are described below.

Section I:

No changes are proposed to this section.

Section II:

In order to simplify this permit and make it more consistent with other similar permits, Table IV-A for the S-1 Keller Canyon Landfill and Table IV-D for the A-1 Landfill Gas Flare will be combined into a single Table IV-A for the landfill and flares. Likewise, the District is proposing to combine Tables VII-A and VII-D into a single Table VII-A. The District is proposing to correct these table references for A-1 in Table II-B. The District is also proposing to correct the minimum temperature for A-1 (see discussion below for Condition # 17309, Part 23).

Table II-B will be modified as shown below by adding the A-2 Landfill Gas Flare.

Table II B – Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-1	Enclosed Ground Flare, burning propane (during start-up only) and landfill gas, 72.7 MM~~Btu~~ BTU/hour	S-1	BAAQMD 8-34-301.3, See also Table IV-~~D~~A	Minimum combustion zone temperature of: ~~1550~~ 1504 °F (3-hour average), See also Table VII-~~D~~A	Either 98% destruction of NMOC or < 30 ppmv of NMOC, as CH_4, at 3% O_2, dry, See also Table VII-~~D~~A
A-2	Enclosed Ground Flare, burning propane (during start-up only) and landfill gas, 76 MM BTU/hour (not constructed yet)	S-1	BAAQMD 8-34-301.3, See also Table IV-A	Minimum combustion zone temperature of: 1400 °F (3-hour average), See also Table VII-A	Either 98% destruction of NMOC or < 30 ppmv of NMOC, as CH_4, at 3% O_2, dry, See also Table VII-A

Section III:

No changes are proposed to this section.

Section IV:

As discussed above in Section A, EPA adopted a NESHAP for MSW Landfills (40 CFR, Part 63, Subpart AAAA) on January 16, 2003. These requirements and the NESHAP General Provisions (40 CFR, Part 63, Subpart A) became effective on January 16, 2004 for the S-1 Keller Canyon Landfill and the associated landfill gas collection and control systems. The District is proposing to add these new federal requirements to Table IV-A.

As mentioned in Section C.II, the District is proposing to combine Table IV-A for the S-1 Keller Canyon Landfill and Table IV-D for the A-1 Landfill Gas Flare into a single Table IV-A for the landfill and flares, in order to simplify this permit and make it more consistent with other similar landfill Title V permits. Similarly, the District is proposing to combine Tables VII-A and VII-D into a single Table VII-A. The two flares will be added to the titles of Tables IV-A and VII-A. All requirements for A-1 that are listed in Tables IV-D and VII-D will be moved to Tables IV-A and VII-A. Tables IV-D and VII-D will be deleted. Requirements that apply only to specific equipment or operations will be clearly identified.

The District is also proposing to make several corrections and updates to Table IV-A:

- The District is proposing to delete an erroneous citation for SIP Regulation 1.
- The District is proposing to update the amendment date for Regulation 8, Rule 34. This rule was amended on June 15, 2005 to include references to the District's new NSR rule for TACs (Regulation 2, Rule 5). Since this amendment did not change any of the applicable requirements in Tables IV-A, all requirements will continue to be federally enforceable.
- The District is proposing to delete Regulation 11, Rule 1, Lead from Table IV-A. This rule only applies to the landfill on rare occasions, such as during the acceptance and disposal of lead contaminated soil. Therefore, this rule is more appropriately characterized as a generally applicable requirement. Regulation 11, Rule 1 is already listed in Table III.
- The District is proposing to delete Regulation 11, Rule 3, Beryllium from Table IV-A. This rule applies only to facilities that incinerate or process specific types of materials containing beryllium or beryllium wastes. The landfill does not incinerate any wastes, and it is not expected to process any beryllium containing wastes.
- The District is also proposing to update several amendment dates for federal requirements.

As discussed in Section VI below for Condition # 17309, the District is proposing to delete Parts 26 and 29. This District is also proposing to modify the bases for Parts 19, 24, 27, 30, 31, 34, and 35. These revisions will be reflected in Table IV-A.

The proposed revisions for Tables IV-A and IV-D are shown below.

Table IV – A
Source-s<u>S</u>pecific Applicable Requirements
S-1 KELLER CANYON LANDFILL<u>,</u>
<u>A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE</u>

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	**General Provisions and Definitions (5/2/01)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y[1]	
1-523.3	Reports of Violations	Y[1]	
~~1-523.5~~	~~Maintenance and calibration~~	~~Y~~[1]	
BAAQMD Regulation 6	**Particulate Matter and Visible Emissions (12/19/90)**		

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation (applies to flares only)	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 8, Rule 2	**Organic Compounds – Miscellaneous Operations (6/15/94)**		
8-2-301	Miscellaneous Operations	Y	
BAAQMD Regulation 8, Rule 34	**Organic Compounds – Solid Waste Disposal Sites (~~10/6/99~~ 6/15/05)**		
8-34-113	Limited Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	Y	
8-34-113.3	Recordkeeping Requirement	Y	
8-34-116	Limited Exemption, Well Raising	Y	
8-34-116.1	New Fill	Y	
8-34-116.2	Limits on Number of Wells Shutdown	Y	
8-34-116.3	Shutdown Duration Limit	Y	
8-34-116.4	Capping Well Extensions	Y	
8-34-116.5	Well Disconnection Records	Y	
8-34-117	Limited Exemption, Gas Collection System Components	Y	
8-34-117.1	Necessity of Existing Component Repairs/Adjustments	Y	
8-34-117.2	New Components are Described in Collection and Control System Design Plan	Y	
8-34-117.3	Meets Section 8-34-118 Requirements	Y	
8-34-117.4	Limits on Number of Wells Shutdown	Y	
8-34-117.5	Shutdown Duration Limit	Y	
8-34-117.6	Well Disconnection Records	Y	
8-34-118	Limited Exemption, Construction Activities	Y	
8-34-118.1	Construction Plan	Y	
8-34-118.2	Activity is Required to Maintain Compliance with this Rule	Y	
8-34-118.3	Required or Approved by Other Enforcement Agencies	Y	
8-34-118.4	Emission Minimization Requirement	Y	
8-34-118.5	Excavated Refuse Requirements	Y	
8-34-118.6	Covering Requirements for Exposed Refuse	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-118.7	Installation Time Limit	Y	
8-34-118.8	Capping Required for New Components	Y	
8-34-118.9	Construction Activity Records	Y	
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Continuous Operation	Y	
8-34-301.2	Collection and Control Systems Leak Limitations	Y	
8-34-301.3	Limits for Enclosed Flares (applies to flares only)	Y	
8-34-303	Landfill Surface Requirements	Y	
8-34-304	Gas Collection System Installation Requirements	Y	
8-34-304.1	Based on Waste Age For Inactive or Closed Areas	Y	
8-34-304.2	Based on Waste Age For Active Areas	Y	
8-34-304.3	Based on Amount of Decomposable Waste Accepted	Y	
8-34-304.4	Based on NMOC Emission Rate	Y	
8-34-305	Wellhead Requirements	Y	
8-34-305.1	Operate Under Vacuum	Y	
8-34-305.2	Temperature < 55 °C	Y	
8-34-305.3	Nitrogen < 20% or	Y	
8-34-305.4	Oxygen < 5%	Y	
8-34-405	Design Capacity Reports	Y	
8-34-408	Collection and Control System Design Plan	Y	
8-34-408.2	Sites With Existing Collection and Control Systems	Y	
8-34-411	Annual Report	Y	
8-34-412	Compliance Demonstration Tests	Y	
8-34-413	Performance Test Report	Y	
8-34-414	Repair Schedule for Wellhead Excesses	Y	
8-34-414.1	Records of Excesses	Y	
8-34-414.2	Corrective Action	Y	
8-34-414.3	Collection System Expansion	Y	
8-34-414.4	Operational Due Date for Expansion	Y	
8-34-415	Repair Schedule for Surface Leak Excesses	Y	
8-34-415.1	Records of Excesses	Y	
8-34-415.2	Corrective Action	Y	
8-34-415.3	Re-monitor Excess Location Within 10 Days	Y	
8-34-415.4	Re-monitor Excess Location Within 1 Month	Y	
8-34-415.5	If No More Excesses, No Further Re-Monitoring	Y	
8-34-415.6	Additional Corrective Action	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-415.7	Re-monitor Second Excess Within 10 days	Y	
8-34-415.8	Re-monitor Second Excess Within 1 Month	Y	
8-34-415.9	If No More Excesses, No Further Re-monitoring	Y	
8-34-415.10	Collection System Expansion for Third Excess in a Quarter	Y	
8-34-415.11	Operational Due Date for Expansion	Y	
8-34-416	Cover Repairs	Y	
8-34-501	Operating Records	Y	
8-34-501.1	Collection System Downtime	Y	
8-34-501.2	Emission Control System Downtime (applies to flares only)	Y	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors (applies to flares only)	Y	
8-34-501.4	Testing	Y	
8-34-501.6	Leak Discovery and Repair Records	Y	
8-34-501.7	Waste Acceptance Records	Y	
8-34-501.8	Non-decomposable Waste Records	Y	
8-34-501.9	Wellhead Excesses and Repair Records	Y	
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-505	Well Head Monitoring	Y	
8-34-506	Landfill Surface Monitoring	Y	
8-34-507	Continuous Temperature Monitor and Recorded (applies to flares only)	Y	
8-34-508	Gas Flow Meter	Y	
8-34-510	Cover Integrity Monitoring	Y	
BAAQMD Regulation 8, Rule 40	**Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (12/15/99)**		
8-40-110	Exemption, Storage Pile	Y	
8-40-112	Exemption, Sampling	Y	
8-40-113	Exemption, Non-Volatile Hydrocarbons	Y	
8-40-116	Exemption, Small Volume	Y	
8-40-116.1	Volume does not exceed 1 cubic yard	Y	
8-40-116.2	Volume does not exceed 8 cubic yards, organic content does not exceed 500 ppmw, may be used only once per quarter	Y	
8-40-117	Exemption, Accidental Spills	Y	

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Source-~~s~~Specific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-40-118	Exemption, Aeration Projects of Limited Impact	Y	
8-40-301	Uncontrolled Contaminated Soil Aeration	Y	
8-40-304	Active Storage Piles	Y	
8-40-305	Inactive Storage Piles	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations (applies to flares only)	Y	
9-1-302	General Emission Limitations (applies to flares only)	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
~~**BAAQMD Regulation 11, Rule 1**~~	~~**Hazardous Pollutants – Lead (3/17/82)**~~		
~~11-1-302~~	~~Ground Level Concentration Limit Without Background~~	~~Y~~	
~~**BAAQMD Regulation 11, Rule 3**~~	~~**Hazardous Pollutants – Beryllium (3/17/82)**~~		
~~11-3-301~~	~~Emission Limitation~~	~~N~~	
~~11-3-303~~	~~Ambient Concentration Limits~~	~~N~~	
BAAQMD Regulation 11, Rule 14	**Hazardous Pollutants – Asbestos-Containing Serpentine (7/17/91)**		
11-14-301	Prohibition of Use for Surfacing Operations	N	
11-14-501	Maintenance of Records	N	
40 CFR Part 60, Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (~~5/4/98~~ 8/27/01)**		
60.4(b)	Requires Submission of Requests, Reports, Applications, and Other Correspondence to the Administrator	Y	
60.7	Notification and Record Keeping	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	

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Source-~~s~~Specific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.11(d)	Control devices operated using good air pollution control practice	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.13(a)	Applies to all continuous monitoring systems	Y	
60.13(b)	Monitors shall be installed and operational before performing performance tests	Y	
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Multiple monitors are required for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	
60.19	General Notification and Reporting Requirements	Y	
40 CFR Part 60, Subpart WWW	**Standards of Performance for New Stationary Sources – Standards of Performance for Municipal Solid Waste Landfills (~~2/24/99~~ 10/17/00)**		
60.752	Standards for Air Emissions from Municipal Solid Waste Landfills	Y	
60.752(b)	Requirements for MSW Landfills with Design Capacity equal to or greater than 2.5 million Mg **and** 2.5 million m^3 (Large Designated Facilities)	Y	
60.752(b)(2)	Comply with all requirements in sections (b)(2)(i through iv)	Y	
60.752 (b)(2)(i)	Submit a Collection and Control System Design Plan	Y	
60.752 (b)(2)(i)(A)	The collection and control system in the Design Plan shall comply with 60.752(b)(2)(ii)	Y	
60.752 (b)(2)(i)(B)	Design Plan shall include all proposed alternatives to 60.753 through 60.758	Y	
60.752 (b)(2)(i)(C)	Design Plan shall conform to 60.759 (active collection system) or demonstrate sufficiency of proposed alternatives	Y	
60.752 (b)(2)(ii)	Install a collection and control system	Y	
60.752 (b)(2)(iii)	Route collected gases to a control system.	Y	

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

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.752 (b)(2)(iii)(B)	Reduce NMOC emissions by 98% by weight or reduce NMOC outlet concentration to less than 20 ppmv as hexane at 3% O2, dry basis, as demonstrated by initial performance test within 180 days of start-up. (applies to flares only)	Y	
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	
60.752(c)	Title V Operating Permit Requirements	Y	
60.752(c)(1)	Subject date is June 10, 1996 for Landfills new or modified between May 30, 1991 and March 12, 1996	Y	
60.753	Operational Standards for Collection and Control Systems	Y	
60.753(a)	Operate a Collection System in each area or cell in which:	Y	
60.753(a)(1)	Active Cell – solid waste in place for 5 years or more	Y	
60.753(a)(2)	Closed/Final Grade – solid waste in place for 2 years or more	Y	
60.753(b)	Operate each wellhead under negative pressure unless:	Y	
60.753(b)(1)	Fire or increased well temperature or to prevent fire	Y	
60.753(b)(2)	Use of geomembrane or synthetic cover (subject to alternative pressure limits)	Y	
60.753(b)(3)	Decommissioned well after approval received for shut-down	Y	
60.753(c)	Operate each wellhead at < 55 °C, and either < 20% N_2 or < than 5% O_2 (or other approved alternative levels)	Y	
60.753(c)(1)	N_2 determined by Method 3C	Y	
60.753(c)(2)	O_2 determined by 3A and as described in (2)(i-v)	Y	
60.753(d)	Surface Leak Limit is less than 500 ppm methane above background at landfill surface. This section also describes some surface monitoring procedures.	Y	
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii). If collection or control system inoperable, shut down gas mover and close all vents within 1 hour	Y	
60.753(f)	Operate the control system at all times when collected gas is routed to the control system (applies to flares only)	Y	
60.753(g)	If monitoring demonstrates that 60.753(b), (c), or (d) are not being met, corrective action must be taken	Y	
60.754	Test Methods and Procedures	Y	
60.754(a)	NMOC Calculation Procedures for NMOC Emission Rate Reports and Comparison to 50 Mg/Year Standard	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.754(a)(1)	Calculate NMOC Emission Rate using either or both of the equations in 60.754(a)(1)(i-ii) with the listed default values	Y	
60.754 (a)(1)(i)	Equation for known year-to-year waste acceptance rate	Y	
60.754 (a)(1)(ii)	Equation for unknown year-to-year waste acceptance rate	Y	
60.754(a)(2)	Tier 1 - compare calculated NMOC emission rate to 50 Mg/year	Y	
60.754 (a)(2)(ii)	If NMOC Emission Rate ≥ 50 Mg/year, comply with 60.752(b)(2) or determine a site-specific NMOC concentration and follow 60.754(a)(3).	Y	
60.754(c)	For PSD, NMOC emissions shall be calculated using AP-42	Y	
60.754(d)	Test Methods for Performance Test (Method 18 or 25C)	Y	
60.755	Compliance Provisions	Y	
60.755(a)	For Gas Collection Systems	Y	
60.755(a)(1)	Calculation procedures for maximum expected gas generation flow rate	Y	
60.755 (a)(1)(i)	Equation for unknown year-to-year waste acceptance rate	Y	
60.755 (a)(1)(ii)	Equation for known year-to-year waste acceptance rate	Y	
60.755(a)(2)	Vertical wells and horizontal collectors shall be of sufficient density to meet all performance specifications	Y	
60.755(a)(3)	Measure wellhead pressure monthly. If pressure is positive, take corrective action (final corrective action = expand system within 120 days of initial positive pressure reading)	Y	
60.755(a)(4)	Expansion not required during first 180 days after startup.	Y	
60.755(a)(5)	Monitor wellheads monthly for temperature and either nitrogen or oxygen. If readings exceed limits, take corrective action up to expanding system within 120 days of first excess.	Y	
60.755(b)	Wells shall be placed in cells as described in Design Plan and no later than 60 days after:	Y	
60.755(b)(1)	Five years after initial waste placement in cell, for active cells	Y	
60.755(b)(2)	Two years after initial waste placement in cell, for closed/final grade cells.	Y	
60.755(c)	Procedures for complying with surface methane standard	Y	
60.755(c)(1)	Quarterly monitoring of surface and perimeter	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.755(c)(2)	Procedure for determining background concentration	Y	
60.755(c)(3)	Method 21 except probe inlet placed 5-10 cm above ground	Y	
60.755(c)(4)	Excess is any reading of 500 ppmv or more. Take corrective action indicated below (i-v).	Y	
60.755 (c)(4)(i)	Mark and record location of excess	Y	
60.755 (c)(4)(ii)	Repair cover or adjust vacuum. Re-monitor within 10 calendar days.	Y	
60.755 (c)(4)(iii)	If still exceeding 500 ppmv, take additional corrective action. Re-monitor within 10 calendar days of 2nd excess.	Y	
60.755 (c)(4)(iv)	Re-monitor within 1 month of initial excess.	Y	
60.755 (c)(4)(v)	For any location with 3 monitored excesses in a quarter, additional collectors (or other approved collection system repairs) shall be operational within 120 days of 1st excess.	Y	
60.755(c)(5)	Monitor cover integrity monthly and repair as needed.	Y	
60.755(d)	Instrumentation and procedures for complying with 60.755(c).	Y	
60.755(d)(1)	Portable analyzer meeting Method 21	Y	
60.755(d)(2)	Calibrated with methane diluted to 500 ppmv in air	Y	
60.755(d)(3)	Use Method 21, Section 4.4 instrument evaluation procedures	Y	
60.755(d)(4)	Calibrate per Method 21, Section 4.2 immediately before monitoring.	Y	
60.755(e)	Provisions apply at all times except during startup, shutdown, or malfunction, provided the duration of these shall not exceed 5 days for collection systems or 1 hour for control systems.	Y	
60.756	Monitoring of Operations	Y	
60.756(a)	For active collection systems, install wellhead sampling port	Y	
60.756(a)(1)	Measure gauge pressure in wellhead on a monthly basis	Y	
60.756(a)(2)	Measure nitrogen or oxygen concentration in wellhead gas on a monthly basis.	Y	
60.756(a)(3)	Measure temperature of wellhead gas on a monthly basis.	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	
60.756(b)(1)	Temperature monitor and continuous recorder (not required for boilers and process heaters with capacity > 44 MW)	Y	
60.756(b)(2)	Device that records flow to or bypass of the control device (i or ii below)	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.756 (b)(2)(i)	Install, calibrate, and maintain a device that records flow to the control device at least every 15 minutes.	Y	
60.756(e)	Procedures for requesting alternative monitoring parameters	Y	
60.756(f)	Monitor surface on a quarterly basis.	Y	
60.757	Reporting Requirements	Y	
60.757(a)	Submit an Initial Design Capacity Report	Y	
60.757(a)(3)	Amended Design Capacity Report required within 90 days of receiving a permitted increase in design capacity or within 90 days of an annual density calculation that results in a design capacity over the thresholds.	Y	
60.757(b)	Submit Initial and Annual NMOC Emission Rate Report	Y	
60.757(b)(3)	Sites with collection and control systems operating in compliance with this subpart are exempt from (b)(1) and (b)(2) above.	Y	
60.757(c)	Submit a Collection and Control System Design Plan within 1 year of first NMOC emission rate report showing NMOC > 50 MG/year, except as follows	Y	
60.757(f)	Submit Annual Reports containing information required by (f)(1) through (f)(6)	Y	
60.757(f)(1)	Value and length of time for exceedance of parameters monitored per 60.756(a), (b) or (d)	Y	
60.757(f)(2)	Description and duration of all periods when gas is diverted from the control device by a by-pass line	Y	
60.757(f)(3)	Description and duration of all periods when control device was not operating for more than 1 hour	Y	
60.757(f)(4)	All periods when collection system was not operating for more than 5 days.	Y	
60.757(f)(5)	Location of each surface emission excess and all re-monitoring dates and concentrations.	Y	
60.757(f)(6)	Location and installation dates for any wells or collectors added as a result of corrective action for a monitored excess.	Y	
60.757(g)	Initial Performance Test Report Requirements (g)(1-6)	Y	
60.757(g)(1)	Diagram of collection system showing positions of all existing collectors, proposed positions for future collectors, and areas to be excluded from control.	Y	
60.757(g)(2)	Basis for collector positioning to meet sufficient density req.	Y	
60.757(g)(3)	Documentation supporting percentage of asbestos or non-degradable material claims for areas without a collection system.	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.757(g)(4)	For areas excluded from collection due to non-productivity, calculations and gas generation rates for each non-productive area and the sum for all nonproductive areas.	Y	
60.757(g)(5)	Provisions for increasing gas mover equipment if current system is inadequate to handle maximum projected gas flow rate.	Y	
60.757(g)(6)	Provisions for control of off-site migration	Y	
60.758	Recordkeeping Requirements	Y	
60.758(a)	Design Capacity and Waste Acceptance Records (retain 5 years)	Y	
60.758(b)	Collection and Control Equipment Records (retain for life of control equipment except 5 years for monitoring data)	Y	
60.758(b)(1)	Collection System Records	Y	
60.758 (b)(1)(i)	Maximum expected gas generation flow rate.	Y	
60.758 (b)(1)(ii)	Density of wells and collectors	Y	
60.758(b)(2)	Control System Records - enclosed combustors other than boilers or process heaters with heat input > 44 MW (applies to flares only)	Y	
60.758 (b)(2)(i)	Combustion temperature measured every 15 minutes and averaged over the same time period as the performance test (applies to flares only)	Y	
60.758 (b)(2)(ii)	Percent NMOC reduction achieved by the control device (applies to flares only)	Y	
60.758(c)	Records of parameters monitored pursuant to 60.756 and periods of operation when boundaries are exceeded (retain for 5 years).	Y	
60.758(c)(1)	Exceedances subject to record keeping are	Y	
60.758 (c)(1)(i)	All 3-hour periods when average combustion temperature was more than 28 C below the average combustion temperature during the most recent complying performance test (applies to flares only)	Y	
60.758(c)(2)	Records of continuous flow to control device or monthly inspection records if seal and lock for bypass valves	Y	
60.758(d)	Plot map showing location of all existing and planned collectors with a unique label for each collector (retain for life of collection system)	Y	
60.758(d)(1)	Installation date and location of all newly installed collectors	Y	
60.758(d)(2)	Records of nature, deposition date, amount, and location of asbestos or non-degradable waste excluded from control	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.758(e)	Records of any exceedance of 60.753, location of exceedance and re-monitoring dates and data (for wellheads and surface). Retain for 5 years.	Y	
60.759	Specifications for Active Collection Systems	Y	
60.759(a)	Active wells and collectors shall be at sufficient density	Y	
60.759(a)(1)	Collection System in refuse shall be certified by PE to achieve comprehensive control of surface gas emissions	Y	
60.759(a)(2)	Collection Systems (active or passive) outside of refuse shall address migration control	Y	
60.759(a)(3)	All gas producing areas shall be controlled except as described below (i-iii).	Y	
60.759 (a)(3)(i)	Any segregated area of asbestos or non-degradable material only may be excluded, if documented adequately per 60.758(d).	Y	
60.759 (a)(3)(ii)	Any non-productive areas may be excluded from control, provided total NMOC emissions from all excluded areas is < 1% of total NMOC emissions from landfill. Document amount, location, and age of waste and all calculations for each excluded area.	Y	
60.759 (a)(3)(iii)	For calculating NMOC emissions, values for k and concentration of NMOC that have been previously approved shall be used or defaults if no values were approved. All non-degradable wastes that are being subtracted from total wastes for NMOC calculations must be documented adequately.	Y	
60.759(b)	Gas Collection System Components	Y	
60.759(b)(1)	Must be constructed of PVC, HDPE, fiberglass, stainless steel, or other approved material and of suitable dimensions to convey projected gas amounts and withstand settling, traffic, etc.	Y	
60.759(b)(2)	Collectors shall not endanger liner, shall manage condensate and leachate, and shall prevent air intrusion and surface leaks.	Y	
60.759(b)(3)	Header connection assemblies shall include positive closing throttle valve, seals and couplings to prevent leaks, at least one sampling port, and shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other approved materials.	Y	
60.759(c)	Gas Mover Equipment shall be sized to handle maximum expected gas generation rate over the intended period of use.	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.759(c)(1)	For existing systems, flow data shall be used to project maximum flow rate.	Y	
60.759(c)(2)	For new systems, gas generation rate shall be calculated per 60.755(a)(1)	Y	
40 CFR Part 63, Subpart A	**National Emission Standards for Hazardous Air Pollutants: General Provisions (10/12/05)**		
63.4	Prohibited activities and circumvention	Y	
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	Y	
63.6(e)	Operation and maintenance requirements and SSM Plan	Y	
63.6(f)	Compliance with non-opacity emission standards	Y	
63.10(b)(2)(i-v)	Records for startup, shutdown, malfunction, and maintenance	Y	
63.10(d)(5)	Startup, Shutdown, and Malfunction (SSM) Reports	Y	
40 CFR Part 63, Subpart AAAA	**National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (1/16/03)**		
63.1955	What requirements must I meet?	Y	
63.1955(a)(1)	Comply with 40 CFR Part 60, Subpart WWW	Y	
63.1955(a)(2)	Comply with State Plan that implements 40 CFR Part 60, Subpart Cc	Y	
63.1955(b)	Comply with 63.1960-63.1985, if a collection and control system is required by 40 CFR Part 60, Subpart WWW or a State Plan implementing 40 CFR Part 60, Subpart Cc	Y	
63.1955(c)	Comply with all approved alternatives to standards for collection and control systems plus all SSM requirements and 6 month compliance reporting requirements	Y	
63.1960	How is compliance determined?	Y	
63.1965	What is a deviation?	Y	
63.1975	How do I calculate the 3-hour block average used to demonstrate compliance?	Y	
63.1980	What records and reports must I keep and submit?	Y	
63.1980(a)	Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart WWW or the State Plan implementing 40 CFR Part 60, Subpart Cc, except that the annual report required by 40 CFR 60.757(f) must be submitted every 6 months	Y	
63.1980(b)	Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart A and 40 CFR Part 63, Subpart A, including SSM Plans and Reports	Y	

Table IV – A
Source-~~s~~Specific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition #17309			
Part 1	Operating Time Restrictions (Cumulative Increase)	Y	
Part 2	Waste Acceptance Rate Limits (Cumulative Increase and Regulation 2-1-301)	Y	
Part 3~~, subparts a-d~~	Daily Cover Requirements and Limitations (Regulation 1-301 and Cumulative Increase)	Y	
Part 4	Road Surfacing Requirements for Parking and Maintenance Areas (Cumulative Increase)	Y	
Part 5~~, subparts a-d~~	Road Surfacing Requirements for On-Site Road Ways (Cumulative Increase)	Y	
Part 6	Speed Limits for Unpaved Roads (Cumulative Increase)	Y	
Part 7	Road Surfacing Requirements for Unpaved Roads (Cumulative Increase)	Y	
Part 8~~, subparts a-d~~	Minimum Water and Dust Suppressant Application Rates for Unpaved Roads (Cumulative Increase)	Y	
Part 9	Water Truck Requirements (Cumulative Increase)	Y	
Part 10	Watering Requirements for Paved and Aggregate Based Road Ways (Cumulative Increase)	Y	
Part 11~~, subparts a-d~~	Traffic Volume Limitations (Cumulative Increase)	Y	
Part 12~~, subparts a-c~~	Trip Length Limitations for Heavy Duty Vehicles (Cumulative Increase)	Y	
Part 13	Watering Requirements for Active Face, Cover Soil Areas, and Off-Road Soil Areas (Cumulative Increase)	Y	
Part 14	Vegetation Requirements for Inactive Cover Soil Stockpiles (CEQA, Dust Mitigation Measures)	N	
Part 15	Vegetation Requirements for Completed Landfill Phases (CEQA, Dust Mitigation Measures)	N	
Part 16~~, subpartsa-l~~	Record Keeping Requirements (Cumulative Increase and Regulation 2-6-501)	Y	
Part 17	Control Requirements for Collected Landfill Gas (Regulations 8-34-301 and 8-34-303 and 40 CFR 60.752(b)(2)(iii), 60.753(e) and 60.755(e))	Y	
Part 18	Continuous Operating Requirement for Landfill Gas Collection System (Regulation 8-34-301 and 40 CFR 60.753(b and c) and 60.755(e))	Y	

Table IV – A
Source-sSpecific Applicable Requirements
S-1 KELLER CANYON LANDFILL,
A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 19	~~Annual Report on Waste Placement in Uncontrolled Areas~~ Reporting Periods and Report Submittal Due Dates for the Regulation 8, Rule 34 and NESHAP Reports (Regulations~~ 8-34-301, 8-34-303, and 8-34-304~~ 8-34-411 and 40 CFR 63.1980(a))	Y	
Part 20~~, subparts a-b~~	Well Installation and Design Parameters (Regulations 8-34-303, 8-34-304, and 8-34-305 and 40 CFR 60.755(a) and 60.759)	Y	
Part 21	Continuous Operation Requirement (Regulation 8-34-301 and 40 CFR 60.752(b)(2)(iii), 60.753(e), and 60.755(e))	Y	
Part 22	Temperature Monitoring and Recording Requirements for Flares (Regulations 2-6-501 and 8-34-501 and 40 CFR 60.756(b))	Y	
Part 23	Minimum Temperature Requirement for Flares (RACT, Toxic Risk Management Policy, Regulation 8-34-301, and 40 CFR 60.758(c)(1)(i))	Y	
Part 24	Nitrogen Oxide Emission Limit for Flares (RACT)	Y	
Part 25	Carbon Monoxide Emission Limit for Flares (RACT)	Y	
Part 26	[deleted]		
Part 27	Gas Flow Meter Requirement (Regulation 8-34-508 and 40 CFR 60.756(b))	Y	
Part 28	Alarm and Automated Control Requirements for Flares (Regulation 8-34-301)	Y	
Part 29	[deleted]		
Part 30	Annual Source Testing Requirement (RACT, Regulation 8-34-301.3, and 40 CFR 60.752(b)(2)(iii))	Y	
Part 31	Annual Landfill Gas Characterization Test (Toxic Risk Management Policy, Regulations 8-34-301 and 9-1-302, and NSPS)	Y	
Part 32	Limits on Toxic Air Contaminants in Landfill Gas (Toxic Risk Management Policy)	N	
Part 33~~, subparts a-h~~	Precursor Organic Compound Emission Limit and Calculation Procedures (Offsets)	Y	
Part 34	Landfill Gas Sulfur Content Limit and Testing Procedures (Cumulative Increase and Regulations 9-1-302 and 2-6-503)	Y	
Part 35	Heat Input Limits for Flares (Offsets, Cumulative Increases, and Regulation 2-1-301)	Y	
Part 36~~, subparts a-c~~	Contaminated Soil Throughput Limit and Records (Regulation 8-2-301)	Y	
Part 37~~, subparts a-m~~	Handling Procedures for Soil Containing Volatile Organic Compounds (Regulations 2-1-403, 8-40-301, 8-40-304, and 8-40-305)	Y	

1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

~~Table IV – D~~
~~Source-specific Applicable Requirements~~
~~A1 – LANDFILL GAS FLARE~~

~~Applicable Requirement~~	~~Regulation Title or Description of Requirement~~	~~Federally Enforceable (Y/N)~~	~~Future Effective Date~~
~~**BAAQMD Regulation 1**~~	~~**General Provisions and Definitions (5/2/01)**~~		
~~1-523~~	~~Parametric Monitoring and Recordkeeping Procedures~~	~~N~~	
~~1-523.1~~	~~Reporting requirement for periods of inoperation > 24 hours~~	~~Y~~	
~~1-523.2~~	~~Limit on duration of inoperation~~	~~Y~~	
~~1-523.3~~	~~Reporting requirement for violations of any applicable limits~~	~~N~~	
~~1-523.4~~	~~Records of inoperation, tests, calibrations, adjustments, & maintenance~~	~~Y~~	
~~1-523.5~~	~~Maintenance and calibration~~	~~N~~	
~~**SIP Regulation 1**~~	~~**General Provisions and Definitions (6/28/1999)**~~		
~~1-523~~	~~Parametric Monitoring and Recordkeeping Procedures~~	~~Y~~[1]	
~~1-523.3~~	~~Reports of Violations~~	~~Y~~[1]	
~~1-523.5~~	~~Maintenance and Calibration~~	~~Y~~[1]	
~~**BAAQMD Regulation 6**~~	~~**Particulate Matter and Visible Emissions (12/19/90)**~~		
~~6-301~~	~~Ringelmann No. 1 Limitation~~	~~Y~~	
~~6-305~~	~~Visible Particles~~	~~Y~~	
~~6-310~~	~~Particulate Weight Limitation~~	~~Y~~	
~~6-401~~	~~Appearance of Emissions~~	~~Y~~	
~~**BAAQMD Regulation 8, Rule 34**~~	~~**Organic Compounds - Solid Waste Disposal Sites (10/6/99)**~~		
~~8-34-113~~	~~Limited Exemption, Inspection and Maintenance~~	~~Y~~	
~~8-34-113.1~~	~~Emission Minimization Requirement~~	~~Y~~	
~~8-34-113.2~~	~~Shutdown Time Limitation~~	~~Y~~	
~~8-34-113.3~~	~~Recordkeeping Requirement~~	~~Y~~	
~~8-34-301~~	~~Landfill Gas Collection and Emission Control System Requirements~~	~~Y~~	
~~8-34-301.1~~	~~Continuous Operation~~	~~Y~~	
~~8-34-301.2~~	~~Collection and Control Systems Leak Limitations~~	~~Y~~	
~~8-34-301.3~~	~~Limits for Enclosed Flares~~	~~Y~~	
~~8-34-408~~	~~Collection and Control System Design Plans~~	~~Y~~	
~~8-34-408.2~~	~~Sites With Existing Collection and Control Systems~~	~~Y~~	
~~8-34-411~~	~~Annual Report~~	~~Y~~	
~~8-34-412~~	~~Compliance Demonstration Tests~~	~~Y~~	
~~8-34-413~~	~~Performance Test Report~~	~~Y~~	

Table IV – D
Source-specific Applicable Requirements
A1 – Landfill Gas Flare

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-501	Operating Records	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	Y	
8-34-501.4	Testing	Y	
8-34-501.6	Leak Discovery and Repair Records	Y	
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-507	Continuous Temperature Monitor and Recorded	Y	
8-34-508	Gas Flow Meter	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
40 CFR Part 60, Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (5/4/98)**		
60.4(b)	Requires Submission of Requests, Reports, Applications, and Other Correspondence to the Administrator	Y	
60.7	Notification and Record Keeping	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	
60.11(d)	Control devices operated using good air pollution control practice	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.13(a)	Applies to all continuous monitoring systems	Y	
60.13(b)	Monitors shall be installed and operational before performing performance tests	Y	
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Requires multiple monitors for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	

Table IV – D
Source-specific Applicable Requirements
A1 – Landfill Gas Flare

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.19	General Notification and Reporting Requirements	Y	
40 CFR Part 60, Subpart WWW	**Standards of Performance for New Stationary Sources – Standards of Performance for Municipal Solid Waste Landfills (2/24/99)**		
60.752	Standards for Air Emissions from Municipal Solid Waste Landfills	Y	
60.752(b)	Requirements for MSW Landfills with Design Capacity equal to or greater than 2.5 million Mg **and** 2.5 million m^3 (Large Designated Facilities)	Y	
60.752(b)(2)	Comply with all requirements in sections (b)(2)(i through iv)	Y	
60.752 (b)(2)(i)	Submit a Collection and Control System Design Plan	Y	
60.752 (b)(2)(i)(A)	The collection and control system in the Design Plan shall comply with 60.752(b)(2)(ii)	Y	
60.752 (b)(2)(i)(B)	Design Plan shall include all proposed alternatives to 60.753 through 60.758	Y	
60.752 (b)(2)(ii)	Install a collection and control system	Y	
60.752 (b)(2)(iii)	Route collected gases to a control system meeting the following requirements	Y	
60.752 (b)(2)(iii)(B)	Reduce NMOC emissions by 98% by weight or reduce NMOC outlet concentration to less than 20 ppmv as hexane at 3% O2, dry basis, as demonstrated by initial performance test within 180 days of start-up.	Y	
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	
60.753	Operational Standards for Collection and Control Systems	Y	
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii). If collection or control system inoperable, shut down gas mover and close all vents within 1 hour	Y	
60.753(f)	Operate the control system at all times when collected gas is routed to the control system	Y	
60.754	Test Methods and Procedures	Y	
60.754(d)	Test Methods for Performance Test (Method 18 or 25C)	Y	
60.755	Compliance Provisions	Y	
60.755(e)	Provisions apply at all times except during startup, shutdown, or malfunction, provided the duration of these shall not exceed 5 days for collection systems or 1 hour for control systems.	Y	
60.756	Monitoring of Operations	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	

Table IV – D
Source-specific Applicable Requirements
A1 – Landfill Gas Flare

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.756(b)(1)	Temperature monitor and continuous recorder (not required for boilers and process heaters with capacity > 44 MW)	Y	
60.756(b)(2)	Device that records flow to or bypass of the control device (i or ii below)	Y	
60.756 (b)(2)(i)	Install, calibrate, and maintain a device that records flow to the control device at least every 15 minutes.	Y	
60.756(e)	Procedures for requesting alternative monitoring parameters	Y	
60.757	Reporting Requirements	Y	
60.757(f)	Submit Annual Reports containing information required by (f)(1) through (f)(6)	Y	
60.757(f)(1)	Value and length of time for exceedance of parameters monitored per 60.756(a), (b) or (d)	Y	
60.757(f)(2)	Description and duration of all periods when gas is diverted from the control device by a by-pass line	Y	
60.757(f)(3)	Description and duration of all periods when control device was not operating for more than 1 hour	Y	
60.757(g)	Initial Performance Test Report Requirements (g)(1-6)	Y	
60.758	Recordkeeping Requirements	Y	
60.758(b)	Collection and Control Equipment Records (retain for life of control equipment except 5 years for monitoring data)	Y	
60.758(b)(2)	Control System Records – enclosed combustors other than boilers or process heaters with heat input > 44 MW	Y	
60.758 (b)(2)(i)	Combustion temperature measured every 15 minutes and averaged over the same time period as the performance test	Y	
60.758 (b)(2)(ii)	Percent NMOC reduction achieved by the control device	Y	
60.758(c)	Records of parameters monitored pursuant to 60.756 and periods of operation when boundaries are exceeded (retain for 5 years).	Y	
60.758(c)(1)	Exceedances subject to record keeping are	Y	
60.758 (c)(1)(i)	All 3-hour periods when average combustion temperature was more than 28 C below the average combustion temperature during the most recent complying performance test	Y	
60.758(c)(2)	Records of continuous flow to control device or monthly inspection records of seal and lock for bypass valves	Y	
60.758(e)	Records of any exceedance of 60.753(e) or (f)	Y	
BAAQMD Condition #17309			
Part 21	Continuous Operation Requirement (Regulation 8-34-301 and 40 CFR 60.752(b)(2)(iii), 60.753(e), and 60.755(e))	Y	

Table IV – D
Source-specific Applicable Requirements
A1 – LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 22	Temperature Monitoring and Recording Requirements (Regulations 2-6-501 and 8-34-501 and 40 CFR 60.756(b))	Y	
Part 23	Minimum Temperature Requirement (RACT, Toxic Risk Management Policy, Regulation 8-34-301, and 40 CFR 60.758(c)(1)(i))	Y	
Part 24	Nitrogen Oxide Emission Limit (RACT and Cumulative Increase)	Y	
Part 25	Carbon Monoxide Emission Limit (RACT)	Y	
Part 26	Precursor Organic Compound Emission Limit for Flare (Cumulative Increase)	Y	
Part 27	Gas Flow Meter Requirement (Cumulative Increase and 40 CFR 60.756(b))	Y	
Part 28	Alarm and Automated Control Requirements (Regulation 8-34-301)	Y	
Part 29, subparts a-e	Total Hydrocarbon and Total Non-Methane Organic Compound Destruction Efficiency Requirements (Regulation 8-34-301.3, SIP 8-34-301.2 and 40 CFR 60.752(b)(2)(iii)(B))	Y	
Part 30	Annual Source Testing Requirement (RACT, Regulation 8-34-301, and 40 CFR 60.752(b)(2)(iii))	Y	
Part 31	Annual Landfill Gas Characterization Test (Toxic Risk Management Policy, Regulation 8-34-301, and NSPS)	Y	
Part 32	Limits on Toxic Air Contaminants in Landfill Gas (Toxic Risk Management Policy)	N	
Part 33, subparts a-h	Precursor Organic Compound Emission Limit and Calculation Procedures (Offsets)	Y	
Part 34	Landfill Gas Sulfur Content Limit and Testing Procedures (Regulations 9-1-302 and 2-6-503)	Y	
Part 35	Heat Input Limits for A-1 Flare (Regulation 2-1-301)	Y	
Part 38	Conditions under which non-federally enforceable portions of Regulation 8, Rules 34 and 40 will become federally enforceable (2-6-207)	Y	

1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

Section V:

No changes are proposed to this section.

Section VI:

The District is proposing to modify Condition # 17309 in order to incorporate new equipment, to update limits based on source test data, to delete obsolete requirements, to correct errors, and to clarify monitoring, testing, and reporting requirements. The proposed revisions to each part are explained below. No revisions are proposed for Parts 1, 4-7, 9-15, 36, or 37. The text of the proposed revisions follows the explanations.

Part 2: The Applicant requested that the District clarify the applicability of New Source Review (NSR) requirements for the S-1 Keller Canyon Landfill with respect to the waste acceptance and disposal limits listed in Part 2. The District is proposing to add NSR clarification language, which is similar to the NSR clarification language that has been added to other Title V permits for landfills. Since the S-1 Keller Canyon Landfill was permitted and constructed after the initial applicability date of the District's permitting and NSR review requirements (after March 7, 1979), all landfill operations were initially subject to NSR, and no landfill operations are "grandfathered". The limits in part 2 describe the maximum permitted capacities and operating rates for the landfill, and these limits were used to derive the maximum permitted emission rates for the landfill. Any increases in the volumetric design capacity (subpart c) or the maximum daily waste acceptance rate (subpart a) will require a permit application and NSR review. The decomposable waste in place limit in subpart b is a calculated value that is used to determine the fugitive POC emission limit in Part 33. An increase above the subpart b limit requires District review, but this change would only be subject to NSR if the proposed change will result in an increase of the Part 33 limit.

Part 3: As with part 2, part 3 describes a landfill operation (the daily waste covering activity) that was taken into consideration when the landfill was permitted pursuant to NSR review. Subparts a-c describe cover materials and cover practices that have been approved for use after District review. Subpart d describes a streamlined procedure to follow for obtaining District approval for the use of new cover materials or alternative cover practices, provided that the proposed change does not result in any emission increases above the previously permitted levels for daily waste covering activities. At the Applicant's request, the District is proposing to clarify the subpart d procedures. The District is also proposing to clarify the basis for this part.

Part 8: Part 8 describes dust control measures that were taken into consideration when the landfill was last modified pursuant to NSR review. Subpart d describes a streamlined procedure to follow for obtaining District approval for the use alternative dust suppressants, provided that the proposed change does not result in any emission increases above the previously permitted levels for dust control and dust suppressant use. At the Applicant's request, the District is proposing to clarify the subpart d procedures.

Part 16: Part 16 describes record keeping procedures that are necessary to demonstrate compliance with the limits in Parts 1-15. At the Applicant's request, the District is adding language to subparts j-l that will clarify record keeping procedures for dust control activities.

Part 17: The District is proposing to include a reference to the new flare, A-2, and to clarify the basis for this part.

Part 18: The District is proposing to clarify the basis for this part.

Part 19: The District is proposing to delete the current Part 19 reporting requirement and to replace it with text that is intended to (a) satisfy a NESHAP requirement to submit semi-annual reports and (b) simplify the many overlapping reporting requirements

for this facility. The reasons for these changes are explained further below.

Part 19 currently requires the Permit Holder to submit an annual report that describes waste placement in uncontrolled landfill areas. However, Regulation 8-34-411 also requires that the facility report waste acceptance data to the District on an annual basis. In addition to Regulation 8, Rule 34, this facility is subject to the MSW Landfill NSPS (40 CFR, Part 60, Subpart WWW), which contains another annual reporting requirement. All of the information required by this NSPS reporting requirement would be contained within the Regulation 8-34-411 annual report. Since the facility is required to submit reports on the same information pursuant to Regulation 8-34-411 and 40 CFR 60.757(f), the current Part 19 reporting requirement is not necessary.

As of January 16, 2004, the NESHAP for MSW Landfills (40 CFR Part 63, Subpart AAAA) has required that the NSPS report described above be submitted semi-annually instead of annually. In addition, Section I.F of the MFR Permit requires the submittal of semi-annual compliance and monitoring reports. These Title V reports require much of the same information that the NSPS and 8-34-411 reports require. In order to implement the NESHAP requirement to submit the NSPS report on a semi-annual basis and to simplify these duplicative reporting requirements, the District is proposing to add new language to Part 19. This proposed language will allow the facility to satisfy all of the above reporting requirements by submitting a single document or set of documents on a semi-annual basis (in accordance with the already established reporting periods and due dates for the Title V reports), provided that all information required by each of the above reporting requirements is included in this single semi-annual report. In addition to reporting on the status of all required monitoring of landfill gas collection and control system parameters (which is required by Title V reports), the 8-34-411 and NSPS reports require data on waste acceptance and placement, collection and control system down time, dates and locations when surface monitoring found more than the limit, and dates and locations of landfill gas collection well installations. In the event of a shutdown or other situation that result in an excess, the NESHAP report requires additional information, including whether or not the SSM Plan procedures were followed, the cause of an excess, and the measures being taken to prevent future excesses.

Part 20: Regulation 8-34-301.1 and Part 18 require continuous operation of the gas collection system, where continuous operation is defined in Regulation 8-34-219 as having all "existing" gas wells under vacuum while maintaining gas flow. Part 20a specifically describes the "existing" gas wells that must be operated continuously. However, active landfills must continually expand the gas collection system in order to ensure adequate gas collection in newly filled areas. In addition, operators of active landfills often need to modify the gas collection system locations, types of collectors, and monitoring points in order to optimize gas collection and to accommodate waste filling needs. Such collection system changes generally require District approval in the form of an Authority to Construct. In the case of this landfill, the District is proposing to add subpart b to describe the landfill gas collection system modifications that were approved pursuant to Application # 12155. These collection system changes may take place in small increments over a one to two year period. While the District plans to update the subpart a collection system description as new wells are installed pursuant to subpart b, there may be a time lag of six months or more between the time a well becomes operational and the time that the MFR Permit change is finalized. Therefore, the District is also proposing to add language to address this interim period. This language clarifies the date on which a component installed pursuant to subpart b becomes an "existing" gas well that is subject to the Regulation 8-34-301.1 and Part 18 continuous operation provisions.

Part 21: The District is proposing to clarify that this part applies to each flare rather than to just A-1 and is proposing to standardize the basis for this part.

Part 22: The District is proposing to clarify that this part applies to each flare rather than to just A-1 and is proposing to standardize the basis for this part.

Part 23: This part describes the minimum combustion temperature that is required to be maintained in order to demonstrate on-going compliance with the Regulation 8-34-301.3 NMOC destruction efficiency or outlet concentration limit for enclosed flares. At the Applicant's request, the District has reviewed the average combustion zone temperatures that were measured at A-1 during several recent source tests. The lowest average combustion zone temperature was 1554 °F, which was measured during the 10/13/04 source test and where A-1 was found to be meeting all applicable limits. In accordance with the criteria listed in Part 23, the minimum combustion zone temperature for A-1 should be: (1554 – 50) = 1504 °F. Therefore, the District is proposing to change the minimum temperature limit for A-1 to 1504 °F. In addition, the District is proposing to add a minimum temperature limit for the new flare, A-2, which will apply upon start-up of A-2 until a source test can be conducted on A-2.

Regulation 2, Rule 6 no longer allows administrative amendment procedures to be used to modify a temperature limit. Temperature limit modifications must now be made pursuant to the procedures for minor or significant permit revisions or permit reopenings. The District is proposing to correct this part by deleting references to administrative procedures and adding the citations for the appropriate procedures.

Part 24: The District is proposing to add the NOx limit for the new flare, make a minor correction to the NOx limit for the existing flare, and to clarify the basis for this part.

Part 25: The District is proposing to add the CO limit for the new flare to this part.

Part 26: The Part 26 POC emission limit for the flare was superceded by the more stringent Regulation 8-34-301.3 NMOC limit when this limit became effective on July 1, 2002. The part is now obsolete, and the District is proposing to delete it.

Part 27: The District is proposing to clarify that this part applies to each flare rather than to just one flare and is proposing to correct the basis for this part.

Part 28: The District is proposing to clarify that this part applies to each flare rather than to just one flare and is proposing to standardize the basis for this part.

Part 29: Similar to Part 26, the limits in Part 29 were replaced by Regulation 8-34-301.3 as of July 1, 2002. The part is now obsolete, and the District is proposing to delete it.

Part 30: For Part 30, the District is proposing to:
- add the new flare to this annual source testing requirement,
- reference the correct applicable limits for this test,
- replace the existing notification and reporting requirements with standardized language,
- clarify the testing requirements, and
- correct the basis for this part.

Part 31: For Part 31, the District is proposing to:
- replace the existing testing and reporting requirements with standardized language for landfill gas characterization tests,
- list the specific organic compounds that must be tested for,
- add testing and calculation requirements for sulfur compounds that will be used in conjunction with Part 34 calculation procedures to demonstrate compliance with the revised Part 34 landfill gas sulfur content limit, and
- correct the basis for this part.

Part 32: Toxic air contaminant emissions from the S-1 Keller Canyon Landfill and A-1 Flare were initially based on assumed concentrations levels for various landfill gas constituents (the most significant compounds were listed in Part 32), an assumed landfill gas collection system efficiency, and an assumed flare destruction efficiency. During the evaluation of Application # 11386, the District used site-specific landfill gas characterization data, CARB emission factors, and updated AP-42 calculation procedures to develop improved TAC emission factors for S-1, A-1, and A-2. The Engineering Evaluation for Application # 11386 contains a detailed discussion of the TAC emissions factors, calculation procedures, and maximum permitted TAC emissions for this facility. The more recent site-specific landfill gas characterization data revealed that the concentration levels for acrylonitrile, benzene, and ethylene dichloride that were listed in Part 32 were too low. The District is proposing to increase the concentration levels for these three compounds up to the concentration levels that were used to determine maximum permitted TAC emission levels for Application # 11386.

Part 33: At the time that Application # 11386 was evaluated, facility wide POC emissions

from Site # A4618 had to remain below 50.0 tons/year, in order for this facility to qualify for District's small facility banking account (SFBA). Note that the District has provided at least 50 tons/year of POC emission offsets from the SFBA on behalf of this facility. The District is proposing to revise the POC emission limit in Part 33 to ensure that facility wide POC emissions will not exceed this SFBA qualifying criteria. The revised POC emission limit in Part 33 now applies to ALL fugitive POC emission sources at the S-1 Keller Canyon Landfill. The derivation of the Part 33 calculation procedures is explained further below.

Part 33 previously described the POC emission limit for the S-1 Landfill and A-1 Flare and the calculation procedures that should be used to demonstrate compliance with this limit. During the evaluation of Application # 11386, the District used updated calculation procedures to determine maximum permitted POC emissions from the flares and expected fugitive POC emissions from the landfill. Maximum permitted flare emissions are now based on the Regulation 8-34-301.3 NMOC outlet concentration limit of 30 ppmv of NMOC as methane at 3% oxygen and the maximum permitted heat input limit to each flare (Condition # 17309, Part 35) rather than an assumed inlet NMOC concentration and an assumed flare destruction efficiency. Since maximum permitted flare POC emissions will not vary with the inlet NMOC content, the District is proposing to delete the A-1 Flare from the Part 33 limit and calculation procedures.

POC emissions from the S-2 Wipe Cleaning Operation are limited by the throughput limit in Condition # 9527. The S-3 Yard and Green Waste Stockpiles are not permitted to have any POC emissions.

The only remaining POC emission source at this facility is the S-1 Keller Canyon Landfill. All POC emissions from S-1 (that are not limited by other permit conditions) will be fugitive in nature. The bulk of these fugitive POC emissions are expected to occur due to the waste decomposition process (from landfill gas leaking through the surface of the landfill and from landfill gas collection system component leaks). The assumptions and calculation procedures that are used to determine fugitive waste decomposition emissions are described in detail in Part 33. These assumptions and procedures are described in more detail in the Engineering Evaluation for Application # 11386.

Although the majority of the fugitive POC emissions at S-1 are expected to be due to the waste decomposition process, fugitive POC emissions may also occur due to on-site handling and disposal of waste materials that contain volatile organic compounds (VOC) or due to VOC aeration emissions from cover materials, dust suppressants, stockpiles, leachate handling operations, or other landfill operations. Since the fugitive POC emission rates from these other landfill operations are expected to be very small compared to the fugitive POC emissions due to waste decomposition, the District did not proposed to add emission calculation procedures to Part 33 for these other potential sources of fugitive POC emissions at S-1. However, if the District determines that these other fugitive POC emission points for S-1 have significant POC emissions compared to the Part 33 limit and the actual fugitive POC emissions due to waste decomposition (as calculated using the procedures listed in Part 33), then the District may need to reopen the permit to add calculation procedures to Part 33 for these other types of fugitive POC emissions. For comparison, the fugitive

waste decomposition emissions for 2004 were determined to be 23.6 tons/year compared to the Part 33 limit of 40.059 tons/year. It is important to reiterate that the Part 33 limit on fugitive POC emissions from S-1 is intended to apply to all fugitive POC emissions arising from landfill operations and not just to fugitive POC emissions arising from waste decomposition.

Part 34: Landfill gas flares are subject to Regulation 9-1-302, which limits the sulfur dioxide (SO_2) concentration in any exhaust point to 300 ppmv, dry basis. Assuming that all of the sulfur in landfill gas is converted to SO_2 during combustion, the outlet concentration limit of 300 ppmv SO_2 is equivalent to an inlet landfill gas concentration of about 1300 ppmv of total reduced sulfur (TRS) compounds, expressed as H_2S. The 1300 ppmv TRS limit in Part 34 was originally imposed to ensure compliance with the Regulation 9-1-302 limit.

During the evaluation of Application # 11386, the District found that the landfill gas sulfur content at this site was far below the Part 34 limit of 1300 ppmv. Maximum permitted sulfur dioxide emissions for the new flare, A-2, and the site were based on a more realistic landfill gas inlet concentration level of 300 ppmv of TRS, expressed as H_2S. Accordingly, the District is proposing to revise the Part 34 limit down to 300 ppmv of TRS and to add "Cumulative Increase" as the basis for this new limit. Since the new limit is lower than the current limit, the new limit will continue to ensure compliance with Regulation 9-1-302.

To demonstrate compliance with the Part 34 TRS limit, the District imposed a quarterly testing requirement using a Draeger tube method. However, the Draeger tube tests only for hydrogen sulfide and not total reduced sulfur compounds. The limited TRS data that has been collected for this site indicates that the ratio of TRS/H_2S is 1.19 or lower. The District is proposing to add a calculation procedure to convert H2S measured using the Draeger tube into TRS using a default ratio (R) of 1.2 (TRS = R*H_2S). This ratio, R, may be adjusted based on annual laboratory analysis data that will be collected (see Part 31) in addition to the quarterly Draeger tube analyses. The District is also proposing to allow this annual laboratory sulfur content analysis to substitute for one quarterly Draeger tube analysis per year.

Part 35: The District is proposing to add the daily and annual heat input limits for the new A-2 Flare to Part 35. The District is also proposing to correct the heat input limits for A-1 by changing the "or" between the daily and annual limits to "and", because both daily and annual heat input limits should apply to both flares. These daily and annual heat input limits are used in conjunction with NOx, CO, NMOC, and TRS limits and a PM10 emission factor to establish the maximum permitted daily and annual NOx, CO, POC, SO2, and PM10 emission rates for the flares. Therefore, "Cumulative Increase" is being added to the basis for this part. Since NOx and POC emissions from the flares are subject to offset requirements, "Offsets" is also being added to the basis.

Condition # 17309
For S-1 KELLER CANYON LANDFILL, ~~AND~~ A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE:

(no changes to Part 1)

2. The Permit Holder shall apply for and receive written authorization from the District (in the form of an MFR Permit Revision and either a District Authority to Construct or Change of Permit Conditions) prior to exceeding any of the waste acceptance or waste disposal limits listed in subparts a-c below, unless the subpart below specifically states otherwise. Any changes in waste acceptance rates, types of waste accepted, or other practices that will result in emissions increases above the maximum permitted emission rates at the Keller Canyon Landfill (S-1) or the Landfill Gas Flares (A-1 and A-2) shall be considered a modification of S-1, A-1, or A-2 as defined in Regulation 2-1-234. (Basis: Cumulative Increase and Regulation 2-1-301)
   a. Total waste accepted and placed at the landfill shall not exceed 3,500 tons in any single day (except during temporary emergency situations approved by the Local Enforcement Agency).
   b. The total cumulative amount of all wastes placed in the landfill shall not exceed 38.4 million tons. However, an exceedance of this amount is not a violation of the permit and does not trigger the requirement to obtain an NSR permit, if the Permit Holder provides documentation to the District, within 30 days of the date of discovery of the exceedance, that demonstrates to the satisfaction of the APCO that the higher cumulative tonnage in place will not result in an increase of the Part 33 emission limit.
   c. The maximum design capacity of the landfill (total volume of all wastes and cover materials placed in the landfill, excluding final cover) shall not exceed 75 million cubic yards. ~~[Basis: Cumulative Increase and Regulation 2-1-301]~~

3. All waste shall be covered on a daily basis with suitable cover material meeting the requirements of the California Integrated Waste Management Board (CIWMB). This cover frequency shall be increased as necessary for the control of odors and litter. Approved daily cover materials for this site include:
   a. Clean soil compacted to a depth of least 6 inches,
   b. Green waste compacted to a depth of at least 6 inches, but not exceeding an average depth of 12 inches, and
   c. Geosynthetic blankets, provided that the working face is covered with clean soil at least once a week.
   d. Upon receiving written approval from the District (in the form of a letter or email concurring that no permit revisions are required), the owner/operator of S-1 may use other Alternative Daily Cover

(ADC) materials that have been approved by CIWMB, provided that the use of these ADC materials do not result in odors, emission increases of any pollutant, the emission of any new pollutants, or contribute to a public nuisance. The owner/operator of S-1 shall apply for and receive an Authority to Construct before using any ADC materials that may result in odors, emission increases, the emission of any new pollutants, or that could contribute to a public nuisance.

(Basis: Regulation 1-301~~,~~ and Cumulative Increase)

(no changes to Parts 4-7)

8. Operator shall control dust emissions from all unpaved roads, excluding the fire access road, by applying water as necessary and chemical dust suppressants at the following frequency and intensity:
   a. Except as provided below, all applications of dust suppressant shall consist of 0.5 gallons per square yard of 10% MgCl2 applied along the entire length of all unpaved roads.
   b. Beginning May 1st and ending November 1st, dust suppressants shall be applied every 30 days.
   c. From November 1 through May 1, dust suppressants shall be applied following any 30 consecutive dry days. For the purposes of this permit, a dry operating day shall be defined as any 24-hour period, midnight to midnight, with less than 0.09 inches of rain.
   d. Upon written request of the operator, the above dust suppression program may be modified to allow for the use of dust suppressants other than MgCl2 provided an 85% control efficiency for TSP can be demonstrated to the satisfaction of the APCO. All such changes must be approved by the APCO in writing (in the form of a letter or email concurring that no permit revisions are required) prior to implementation.

   (Basis: Cumulative Increase)

(no changes to Parts 9-15)

16. In order to demonstrate compliance with the above parts, the owner/operator of S-1 shall maintain the following records:
   a. Daily records of the quantity of waste accepted and placed in the landfill.
   b. Summarize the daily waste acceptance records for each calendar month.
   c. Summarize monthly waste acceptance records for each preceding 12-month period.
   d. For each area or cell that is not controlled by a landfill gas collection system, maintain a record of the date that waste was initially placed in the area or cell.

e. Record the cumulative amount of waste placed in each uncontrolled area or cell on a monthly basis.

f. If the Permit Holder plans to exclude an uncontrolled area or cell from the collection system requirement, the Permit Holder shall also record the types and amounts of all non-decomposable waste placed in the area and the percentage (if any) of decomposable waste placed in the area.

g. Record the initial operation date for each new landfill gas well and collector.

h. Maintain an accurate map of the landfill, which indicates the locations of all refuse boundaries and the locations of all wells and collectors (using unique identifiers) that are required to be operating continuously pursuant to Part 20a. Any areas containing only non-decomposable waste shall be clearly identified. This map shall be updated at least every six months to indicate changes in refuse boundaries and to include any newly installed wells and collectors.

i. Daily records of the number of site trips made by heavy-duty vehicles by type of vehicle (transfer trucks, leachate trucks, scrapers, etc.)

j. Daily records of the number of water truck rinses on paved and unpaved roads. Alternatively, the Permit Holder may maintain daily checklists instead of the records required by this subpart, provided the Permit Holder has received written approval from the District for the site's dust control plan, checklists, and implementation procedures.

k. Records of all chemical dust suppressant applications including the date of treatment, length of roads treated, and amount of dust suppressant applied. Alternatively, the Permit Holder may maintain daily checklists instead of the records required by this subpart, provided the Permit Holder has received written approval from the District for the site's dust control plan, checklists, and implementation procedures.

l. Daily records of all water applications to the working face, cover soil stockpiles, or other areas including the number of times that water was applied and the amount of water applied. Alternatively, the Permit Holder may maintain daily checklists instead of the records required by this subpart, provided the Permit Holder has received written approval from the District for the site's dust control plan, checklists, and implementation procedures.

All records required to be kept under the provisions of this permit must be maintained on site for a period of five years from the date of entry, and be available for inspection by District staff upon request. (Basis: Cumulative Increase~~,~~ and Regulation 2-6-501)

17. All landfill gas collected by the gas collection well system for S-1 shall be abated at all times by the enclosed flares, A-1 or A-2. 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: Regulations 8-34-301, 8-34-303, 40 CFR 60.752(b)(2)(iii), 60.753(e), and 60.755(e))

18. The landfill gas collection system described below in Part 20a shall be operated continuously. Wells shall not be shut off, disconnected, or removed from operation without prior written authorization from the District, unless the Permit Holder complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 116, 117, and 118. (Basis: Regulation 8-34-301, 40 CFR 60.753(b and c) and 60.755(e))

19. ~~Written annual reports, including drawings, shall be submitted to the District within 30 days after the permit anniversary date of the amount (in tons) of garbage placed in each uncontrolled portion of the landfill during the 12 months prior to the anniversary date. The report shall be submitted to the Permit Services Division, referenced to the above permit number, and shall include the increase (in feet) in refuse depth as well as square yardage and acreage of filled garbage in the previous 12 months. This information shall be used to re-evaluate the uncontrolled portion of the landfill for compliance with Regulation 8, Rule 34.~~ The annual report required by BAAQMD Regulation 8-34-411 shall be submitted in two semi-annual increments. The reporting periods and report submittal due dates for the semi-annual increments of the Regulation 8-34-411 report and the MSW Landfill NESHAP report shall be synchronized with the reporting periods and report submittal due dates for the semi-annual MFR Permit monitoring reports that are required by Section I.F of the MFR Permit for this site. A single report may be submitted to satisfy the requirements of Section I.F, Regulation 8-34-411, and 40 CFR Part 63.1980(a), provided that all items required by each applicable reporting requirement are included in the single report. (Basis: ~~8-34-301, 8-34-303, and 8-34-304~~ Regulation 8-34-411 and 40 CFR Part 63.1980(a))

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 subsection a 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~~ 12155. The authorized number of landfill gas collection system components is the baseline count listed below plus any components added pursuant to Part 1b as evidenced by start-up notification letters submitted to the District.

Well Station	Number of Wells
A	12
E	12
K	12
L	6
M	9
N	16
P	8

b. The Permit Holder has been issued an Authority to Construct to allow for the landfill gas collection system modifications described below as of June 9, 2005. Well and collector locations, depths, and lengths are as described in detail in Permit Application # 12155.
- Install a minimum of 15 up to a maximum of 20 vertical gas collection wells.
- Install 2 wellhead stations that will provide flow rate control and monitoring points for the above wells.

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

~~Conditions for A-1 Flare~~

21. Each ~~The A-1 F~~flare shall be operated continuously during ~~all~~ any time~~s~~ that landfill gas is being vented to the flare. (Basis: Regulation 8-34-301, 40 CFR 60.752(b)(2)(iii), 60.753(e), and 60.755(e))

22. A temperature monitor with readout display and continuous recorder shall be installed and maintained on ~~the~~ each flare. One or more thermocouples shall be placed in the primary combustion zone of the flare and shall accurately indicate flue gas temperature at all times. Temperature charts shall be retained for five years and made readily available to District Staff upon request. (Basis: Regulations 8-34-501~~,~~ and 2-6-501~~,~~ and 40 CFR 60.756(b))

23. The combustion zone temperature of the A-1 F~~f~~lare shall be maintained at a minimum temperature of ~~1550~~ 1504 degrees F, averaged over any 3-hour period. The combustion zone temperature of the A-2 Flare shall be maintained at a minimum temperature of 1400 degrees F, averaged over any 3-hour period. ~~This minimum temperature shall be adjusted via an~~

~~administrative permit amendment, i~~If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO may revise these minimum temperature requirements in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415 and the following criteria. The minimum combustion zone temperature for the flare shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50 degrees F, provided that the minimum combustion zone temperature is not less than 1400 degrees F. (Basis: Regulation 8-34-301, Toxic Risk Management Policy, RACT, 40 CFR 60.758(c)(1)(i))

24. NOx emissions from either the A-1 F~~f~~lare or the A-2 Flare shall not exceed ~~14~~ 15 ppmv of NO_x, expressed as NO_2 at 15% oxygen on a dry basis. (Basis: RACT~~, Cumulative Increase~~)

25. CO emissions from the A-1 F~~f~~lare shall not exceed 114 ppmv of CO at 15% oxygen on a dry basis. CO emissions from the A-2 Flare shall not exceed 81 ppmv of CO at 15% oxygen on a dry basis. (Basis: RACT)

26. [deleted] ~~POC emissions from the A-1 flare shall not exceed 49 ppmv of POC, expressed as methane at 3% oxygen on a dry basis. Effective July 1, 2002, this limit shall be replaced by the more stringent limit listed in Part 29c. [Basis: Cumulative Increase]~~

27. A flow meter to measure gas flow into ~~the~~ each flare shall be installed prior to operation and maintained in good working condition. (Basis: ~~Cumulative Increase,~~ Regulation 8-34-508 and 40 CFR 60.756(b))

28. Each ~~The~~ flare shall be equipped with both local and remote alarms, automatic combustion air control, and automatic start/restart system. (Basis: Regulation 8-34-301)

29. [deleted] ~~The A-1 Landfill Gas Flare shall meet all of the following requirements:~~

~~a. The flare destruction efficiency of total hydrocarbons shall not be less than 98% by weight. [Basis: 8-34-301.3 and SIP 8-34-301.2]~~

~~b. The flare destruction efficiency for total non-methane organic compounds (NMOC) shall not be less than 98% by weight unless the outlet NMOC concentration is less than 20 ppmv, expressed as hexane at 3% oxygen on a dry basis. [Basis: 40 CFR 60.752(b)(2)(iii)(B)]~~

~~c. Effective July 1, 2002, the flare destruction efficiency for total non-methane organic compounds (NMOC) shall not be less than 98% by weight unless the outlet NMOC concentration is less than 30 ppmv, expressed as methane at 3% oxygen on a dry basis. This subpart is not federally enforceable unless EPA approves the~~

~~October 6, 1999 version of Regulation 8, Rule 34 in the SIP. [Basis: 8-34-301.3]~~

30. In order to demonstrate compliance with Parts 24~~,~~ and 25~~, 26, and 29,~~ above, Regulations 8-34-301.3 and 8-34-412, 40 CFR 60.8, and 40 CFR 60.752(b)(2)(iii)(B), the owner/operator shall conduct a source test at ~~A-1~~ each flare once every year. The source tests shall be conducted no sooner than 9 months and no later than 12 months after the previous source test. The first source test for A-2 shall be conducted within 60 days of initial start-up of A-2. ~~The source test shall determine the flare outlet concentrations of oxygen, nitrogen oxides, carbon monoxide, total hydrocarbons, and non-methane hydrocarbons, and the destruction efficiencies achieved by the flare for total hydrocarbons and non-methane hydrocarbons. All test results shall be provided to the District within 45 days after testing has occurred. All source test methods used shall be subject to the prior approval of the Source Test Section of the District Technical Division. The applicant shall contact the District Source Test Section prior to performing the source test regarding the proper source test procedures and shall contact both the Source Test Section and Permit Services Division in writing 7 days prior to the source test date.~~ The Source Test Section of the District shall be contacted to obtain approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division and the Source Test Section within 60 days of the test date. Each annual source test shall determine the following:

a. landfill gas flow rate to the flare (dry basis);
b. concentrations (dry basis) of carbon dioxide (CO_2), nitrogen (N_2), oxygen (O_2), methane (CH_4), and total non-methane organic compounds (NMOC) in the landfill gas;
c. stack gas flow rate from the flare (dry basis);
d. concentrations (dry basis) of NO_x, CO, NMOC, and O_2 in the flare stack gas;
e. NMOC destruction efficiency achieved by the flare;
f. NO_x and CO emission rates from the flare in units of pounds per MM BTU,
g. average combustion zone temperature in the flare during the test period.

(Basis: Regulation 8-34-301.3, RACT, 40 CFR 60.752(b)(2)(iii))

31. ~~A characterization of the landfill gas shall be performed concurrent with the source test required by Part 30. The characterization shall be in accordance with California Air Resources Board testing guidelines for Calderon specified air contaminants, acrylonitrile, non-methane organic compounds (NMOC), methane, carbon dioxide, oxygen, and nitrogen.~~

~~The results of the characterization shall be submitted to the District within 45 days after testing has occurred. The gas sample(s) shall be drawn from the main landfill gas collection header and shall be drawn after the System has been balanced and the collection lines conditioned with landfill gas.~~ The Permit Holder shall conduct a characterization of the landfill gas concurrent with the annual source test required by Part 30 above. The landfill gas sample shall be drawn from the main landfill gas header. In addition to the compounds listed in Part 30b, the landfill gas shall be analyzed for the organic and sulfur compounds listed below. All concentrations shall be reported on a dry basis. The sulfur compound data collected pursuant to this part may be used to determine the total reduced sulfur compound concentration expressed as H2S (TRS) and the ratio (R) of total reduced sulfur content versus hydrogen sulfide content, where R=TRS/H2S. This ratio (R) may be used in Part 34 below (in place of the default value of R=1.2) to calculate TRS based on H2S measured by the Draeger tube method. The test report shall be submitted to the Compliance and Enforcement Division and the Source Test Section within 60 days of the test date. (Basis: Toxic Risk Management Policy, Regulations 8-34-301 and 9-1-302, and NSPS)

Organic Compounds	Sulfur Compounds
Acrylonitrile	Carbon Disulfide
Benzene	Carbonyl Sulfide
Carbon Tetrachloride	Dimethyl Sulfide
Chloroform	Ethyl Mercaptan
Ethylene Dibromide	Hydrogen Sulfide
Ethylene Dichloride	Methyl Mercaptan
Methylene Chloride	
Perchloroethylene	
Trichloroethylene	
Vinyl Chloride	

*32. If concentrations of toxic air contaminants (TACs) are above the levels listed below, an additional risk screen run at actual concentrations will be required. Depending on the results of such screen, additional permit conditions may be required if health risks are deemed unacceptable.

Compound	Concentration (ppbv)
Acrylonitrile	~~100~~500
Benzene	~~2700~~10,000
Carbon Tetrachloride	100
Chloroform	100
Ethylene Dibromide	100
Ethylene Dichloride	~~300~~400
Methylene Chloride	27,600
Perchloroethylene	3,600
Trichloroethylene	2,300

Vinyl Chloride 1,600
(Basis: Toxic Risk Management Policy)

33. The ~~combined~~ fugitive emissions of Precursor Organic Compounds (POC) from the S-1 Landfill ~~and the A-1 Flare~~ shall not exceed ~~46.092~~ 40.059 tons per year (expressed as ~~hexane~~ methane). Fugitive POC emissions from the landfill ~~and flare~~ shall be determined using the procedures and assumptions described in Parts 33a-~~h~~f 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 system, A-1 and A-2 Flares, is expanded, whichever is sooner.

a. The current methane generation rate and uncontrolled POC emissions from the S-1 Landfill shall be calculated using the equations described in the most recent revision of AP-42 Chapter 2.4.

b. The methane generation rate shall be based on the total amount of waste accepted at the landfill to date. The Permit Holder may use either average annual or year-to-year waste acceptance rates.

c. The Permit Holder shall use the AP-42 recommended default values for the methane generation potential and methane generation rate constant. As of ~~May 1, 2000~~ April 1, 2005, these default values were:
Lo = 100 m3 CH4/Mg and k = ~~0.04~~ 0.02 year^-1.

d. When calculating uncontrolled POC emissions (UEPOC, pounds/year of POC), the Permit Holder shall use site specific NMOC, NPOC, and methane concentrations (after correcting for air infiltration) and the site specific landfill gas temperature. The site specific values shall be the average of at least three previous years of data collected pursuant to Part 31 above.

e. Total non-methane organic compounds (NMOC) measured in the landfill gas pursuant to Part 31 may be assumed to be 100% POC, or a site specific POC concentration (CPOC) can be calculated using data from Part 33d above, where CPOC = NMOC – NPOC (all concentrations expressed as methane).

f. The fugitive POC emissions from the landfill (FEPOC, pounds/year of POC) shall be calculated using the equation below:
FEPOC = 0.25 * UEPOC

~~g. POC emissions from the A-1 Flare (CEPOC, pounds/year of POC) shall be calculated using the following equation where QFLFG is the actual amount of landfill gas delivered to the flare (ft3/year), CPOC is the site specific POC concentration in the landfill gas (ppmv, after correction for air infiltration), and T is the site specific landfill gas temperature (degrees F).~~

~~CEPOC = 2.36 E-6 * QFLFG * CPOC / (460+T)~~

~~h. The combined POC emissions from the S-1 Landfill and A-1 Flare (TEPOC, tons/year of POC) shall be calculated using the following equation: TEPOC = (FEPOC + CEPOC) / 2000~~

(Basis: Offsets)

34. Total reduced sulfur (TRS) compounds in the collected landfill gas shall be monitored as a surrogate for monitoring sulfur dioxide in control systems exhaust. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed ~~1300~~ 300 ppmv (dry). In order to demonstrate compliance with this part, the Permit Holder shall measure the ~~total sulfur~~ hydrogen sulfide (H2S) content in collected landfill gas on a quarterly basis using ~~a~~ the D~~d~~raeger tube method. The TRS content of the landfill gas shall be calculated according to the following equation: TRS = R * H2S measured by Draeger tube method, where R is either (a) the ratio of TRS/H2S that is determined from the sulfur compound data collected pursuant to Part 31 or (b) a default value of 1.2. The annual laboratory analysis for reduced sulfur compounds, which is required by Part 31 above, may be substituted for one quarterly Draeger tube analysis per year. The landfill gas sample shall be taken from the main landfill gas header. The Permit Holder shall follow the manufacturer's recommended procedures for using the D~~d~~raeger tube and interpreting the results. ~~The Permit Holder shall conduct the first draeger tube test no later than 3 months after the issue date of the MFR permit and quarterly thereafter.~~ (Basis: Cumulative Increase and Regulations 9-1-302 and 2-6-503)

35. The heat input to the flares ~~A-1 Flare~~ shall not exceed the following limits: (a) 1744.8 million BTU per day ~~or~~ and 636,852 million BTU per year for A-1 and (b) 1824 million BTU per day and 665,760 million BTU per year for A-2. In order to demonstrate compliance with this part, the Permit Holder shall calculate and record on a monthly basis the maximum daily and total monthly heat input to ~~the~~ each flare based on the landfill gas flow rate recorded pursuant to Part 27, the average methane concentration in the landfill gas based on the most recent source test, and a high heating value for methane of 1013 BTU/scf. The records shall be retained for five years and shall be made available to the District staff upon request. (Basis: Offsets, Cumulative Increase, and Regulation 2-1-301)

(no changes to Parts 36 or 37)

Section VII:

As mentioned above in Section IV, the District is proposing to combine Table VII-A for the S-1 Keller Canyon Landfill and Table VII-D for the A-1 Landfill Gas Flare into a single Table VII-A for the landfill and flares, in order to simplify this permit and make it more consistent with other

similar landfill Title V permits. All limits that are listed in Table VII-D will be moved to Table VII-A, and Table VII-D will be deleted.

The District is also proposing to make several corrections and updates to Table VII-A by:

- adding the two flares to the title of Table VII-A,
- adding all applicable limits for the new A-2 Landfill Gas Flare to Table VII-A,
- modifying the minimum temperature limit for A-1, as discussed in Section VI,
- revising the Part 33 POC limit, as discussed in Section VI,
- revising the Part 34 TRS limit, as discussed in Section VI,
- increasing landfill gas concentration limits for acrylonitrile, benzene, and ethylene dichloride as discussed in Section VI,
- deleting unnecessary or duplicative text,
- adding "≤", "≥", and descriptive text to clarify limits,
- deleting obsolete future effective dates
- replacing an obsolete reference to Table 2-1-316 with the correct citation (Table 2-5-1), and
- deleting source-specific limits for lead and beryllium, as discussed in Section IV,

The proposed revisions for Tables VII-A and VII-D are shown below.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installa-tion Dates	BAAQMD 8-34-304.1	Y		For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 17309, Part 16~~,~~ ~~subparts~~ d-h	P/E	Records
Collection System Installa-tion Dates	BAAQMD 8-34-304.2 and BAAQMD Condition # 17309, Part 20b	Y		For Active Areas: Collection system components must be installed and operating by 5 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 17309, Part 16~~,~~ ~~subparts~~ d-h	P/E	Records

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL; A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installa-tion Dates	BAAQMD 8-34-304.3 and BAAQMD Condition # 17309, Part 20b	Y		For Any Uncontrolled Areas or Cells: collection system components must be installed and operating within 60 days after the uncontrolled area or cell accumulates 1,000,000 tons of decomposable waste	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 17309, Part 16~~, subparts~~ d-h	P/E	Records
Collection System Installa-tion Dates	40 CFR 60.753 (a)(2) and 60.755 (b)(2)	Y		For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement	40 CFR 60.758(a), (d)(1) and (d)(2), and 60.759(a)(3)	P/E	Records
Collection System Installa-tion Dates	40 CFR 60.753 (a)(1) and 60.755 (b)(1)	Y		For Active Areas: Collection system components must be installed and operating by 5 years + 60 days after initial waste placement	40 CFR 60.758(a), (d)(1) and (d)(2)	P/E	Records
Gas Flow	BAAQMD 8-34-301 and 301.1 and BAAQMD Condition # 17309, Parts 17, ~~And~~ 18, 20, 21	Y		Landfill gas collection system shall operate continuously, ~~and~~ all collected gases shall be vented to a properly operating control system, and control system shall operate continuously	BAAQMD 8-34-501.10 and 508 and BAAQMD Condition # 17309, Parts 27 and 28	C	Gas Flow Meter and Recorder (every 15 minutes), Records and Alarms

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
~~Gas Flow~~	~~BAAQMD 8-34-301 and 301.1~~	~~Y~~		~~Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system~~	~~BAAQMD 8-34-501.10 and 508~~	~~C~~	~~Gas Flow Meter and Recorder (every 15 minutes)~~
Gas Flow	40 CFR 60.752 (b)(2)(iii) and 40 CFR 60.753(a) and (e)	Y		Operate a ~~C~~collection ~~S~~system in each area or cell~~,~~ ~~and~~ vent all collected gases to a properly operating control system, and operate control system at all times when gas is vented to it	40 CFR 60.756(b)(2) (i or ii) and 60.758(c)(2)	C or P/M	Gas Flow Meter and Recorder (every 15 minutes) or Monthly Inspection of Bypass Valve and Lock and Records
Collection and Control Systems Shutdown Time	BAAQMD 8-34-113.2	Y		For Collection and Control Systems: ≤ 240 hours/year ~~nor~~ and ≤ 5 consecutive days	BAAQMD 8-34-501.1 and 501.2	P/D	Operating Records (all occurrences and duration of each)
Collection and Control Systems Startup Shutdown or Malfunc-tion	40 CFR 60.755(e)	Y		For Collection System: ≤ 5 days per event and For Control System: ≤ 1 hour per event	40 CFR 60.7(b), 60.757(f)(2-4) ~~and (f)(4)~~	P/D	Operating Records (all occurrences and duration of each)
Startup Shutdown or Mal-function Pro-cedures	40 CFR 63.6(e)	Y	~~1/16/04~~	Minimize Emissions by Implementing SSM Plan	40 CFR 63.1980(a-b)	P/E	Records (all occurrences, duration of each, corrective actions)

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL; A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		≤ 15 consecutive days~~/~~ per incident and ≤ 30 calendar days~~/~~ per 12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors
Continuous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibrations, and required span adjustments	40 CFR 60.7(b)	P/D	Operating Records for All Continuous Monitors
Wellhead Pressure	BAAQMD 8-34-305.1	Y		< 0 psig	BAAQMD 8-34-414, 501.9 and 505.1	P/M	Monthly Inspection and Records
Wellhead Pressure	40 CFR 60.753(b)	Y		< 0 psig	40 CFR 60.755(a)(3), 60.756(a)(1), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Temperature of Gas at Wellhead	BAAQMD 8-34-305.2	Y		< 55 ^{o}C	BAAQMD 8-34-414, 501.9 and 505.2	P/M	Monthly Inspection and Records
Temperature of Gas at Wellhead	40 CFR 60.753(c)	Y		< 55 ^{o}C	40 CFR 60.755(a)(5), 60.756(a)(3), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Gas Concentrations at Wellhead	BAAQMD 8-34-305.3 or 305.4	Y		N_2 < 20% OR O_2 < 5%	BAAQMD 8-34-414, 501.9 and 505.3 or 505.4	P/M	Monthly Inspection and Records

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Concen-trations at Wellhead	40 CFR 60.753(c)	Y		N_2 < 20% OR O_2 < 5%	40 CFR 60.755(a)(5), 60.756(a)(2), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Well Shutdown Limits	BAAQMD 8-34-116.2	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-116.3	Y		≤ 24 hours per well	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-117.4	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-117.6 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-117.5	Y		≤ 24 hours per well	BAAQMD 8-34-117.6 and 501.1	P/D	Records
TOC (Total Organic Com-pounds Plus Methane)	BAAQMD 8-34-301.2	Y		Component Leak Limit: ≤ 1000 ppmv as methane ~~(component leak limit)~~	BAAQMD 8-34-501.6 and 503	P/Q	Quarterly Inspection of collection and control system components with OVA and Records

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TOC	BAAQMD 8-34-303	Y		Surface Leak Limit: ≤ 500 ppmv as methane at 2 inches above surface	BAAQMD 8-34-415, 416, 501.6, 506 and 510	P/M, Q, and E	Monthly Visual Inspection of Cover, Quarterly Inspection with OVA of Surface, Various Reinspection Times for Leaking Areas, and Records
TOC	40 CFR 60.753(d)	Y		Surface Leak Limit: ≤ 500 ppmv as methane at 5-10 cm from surface	40 CFR 60.755(c)(1), (4) and (5), 60.756(f), and 60.758(c) and (e)	P/M, Q and E	Monthly Visual Inspection of Cover, Quarterly Inspection with OVA of Surface, Various Reinspection Times for Leaking Areas, and Records
Non-Methane Organic Com-pounds (NMOC)	BAAQMD 8-34-301.3	Y		> 98% removal by weight OR < 30 ppmvd @ 3% O_2, expressed as methane	BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition # 17309, Parts 30 and 31	P/A	Initial and Annual Source Tests

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL; A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NMOC	40 CFR 60.752(b)(2)(iii)(B)	Y		> 98% removal by weight OR < 20 ppmvd @ 3% O_2, expressed as hexane	40 CFR 60.8 and 60.752(b)(2)(iii)(B) and 60.758 (b)(2)(ii)	P/E	Initial Source Test and Records
Temper-ature of Combus-tion Zone (CT)	BAAQMD Condition # 17309, Part 23	Y		For A-1 Flare: CT > 1504 °F (3-hour average) For A-2 Flare: CT > 1400 °F (3-hour average)	BAAQMD 8-34-501.3 and 507, and BAAQMD Condition # 17309, Part 22	C	Temperature Sensor and Recorder (continuous)
Temper-ature of Combus-tion Zone (CT)	40 CFR 60.758 (c)(1)(i)	Y		For A-1 Flare: CT > 1504 °F (3-hour average) from ($CT > CT_{PF} - 28$ °C), where CT_{PF} is the average combustion temperature during the most recent complying performance test, CT_{PF} was 1554 °F during 10/13/04 test For A-2 Flare: CT will be determined during initial performance test	40 CFR 60.756(b)(1) and 60.758 (b)(2)(i)	C	Temperature Sensor and Recorder (measured every 15 minutes and averaged over performance test time period and 3-hours)
POC	BAAQMD Condition # 17309, Part 33	Y		< ~~46.092~~40.059 tons per year (fugitive POC from all landfill ~~and flare combined~~ operations)	BAAQMD Condition # 17309, Part 33	P/E	Calculation Procedure (once every 5 years)

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Total Carbon	BAAQMD 8-2-301	Y		≤ 15 pounds/day or ≤ 300 ppm, dry basis only for aeration of or use as cover soil of soil containing ≤ 50 ppmw of volatile organic compounds	BAAQMD Condition # 17309, Part 36a-c	P/E	Records
Amount of Contami-nated Soil Aerated or Used as Cover	BAAQMD 8-40-116.1	Y		≤ 1 cubic yard per project	BAAQMD Condition # 17309, Parts 36a-c and 37m	P/E	Records
Amount of Contami-nated Soil Aerated or Used as Cover	BAAQMD 8-40-116.2	Y		≤ 8 cubic yards per project, provided organic content ≤ 500 ppmw and limited to 1 exempt project per 3 month period	BAAQMD 8-40-116.2 and BAAQMD Condition # 17309, Parts 36a-c and 37m	P/E	Records
Amount of Acci-dental Spillage	BAAQMD 8-40-117	Y		Soil Contaminated by Accidental Spillage of ≤ 5 gallons of Liquid Organic Compounds	None	N	NA
Total Aeration Project Emissions	BAAQMD 8-40-118	Y		≤ 150 pounds per project and toxic air contaminant emissions per year < BAAQMD Table ~~2-1-316~~ 2-5-1 limits	BAAQMD Condition # 17309, Part 37m	P/E	Records

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL; A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Amount of Contaminated Soil Aerated or Used as Cover	BAAQMD 8-40-301 and BAAQMD Condition # 17309, Part 37k	Y		Prohibited for Soil with Organic Content >50 ppmw unless exempt per BAAQMD 8-40-116, 117, or 118	BAAQMD Condition # 17309, Parts 36a-c and 37m	P/E	Records
Contaminated Soil Handling	BAAQMD Condition # 17309, Part 37e	Y		Limited to 2 on-site transfers per lot of contaminated soil	BAAQMD Condition # 17309, Part 37m	P/E	Records
Contaminated Soil On-Site Storage Time	BAAQMD Condition # 17309, Part 37f-g	Y		If organic content is: < 500 ppmw, storage time ≤ 90 days; If organic content is: ≥ 500 ppmw, storage time ≤ 45 days	BAAQMD Condition # 17309, Part 37m	P/E	Records
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits: < 0.5 ppm for 3 minutes, < 0.25 ppm for 60 minutes, and <0.05 ppm for 24 hours	None	N	NA
SO_2	BAAQMD 9-1-302	Y		For Flares: < 300 ppm (dry)	BAAQMD Condition # 17309, Parts 31 and 34	P/Q	Sulfur Analysis of Landfill Gas
H_2S	BAAQMD 9-2-301	N		Property Line Ground Level Limits: ≤ 0.06 ppm averaged over 3 minutes and ≤ 0.03 ppm averaged over 60 minutes	None	N	NA

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL; A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Total Reduced Sulfur (TRS) Com-pounds ~~Sulfur Content in Landfill Gas~~	BAAQMD Condition # 17309, Part 34	Y		~~Total Sulfur Content~~ Concentration in Landfill Gas: ≤ ~~1300~~ 300 ppmv (dry)	BAAQMD Condition # 17309, Parts 31 and 34	P/Q	Sulfur Analysis of Landfill Gas ~~only~~
Opacity	BAAQMD 6-301	Y		For Landfill Operations: ≤ Ringelmann No. 1 for 3 minutes in any hour	BAAQMD Condition # 17309, Part 16j-l	P/D	Records of Water and Dust Suppressant Application
Opacity	BAAQMD 6-301	Y		For Flares: ≤ Ringelmann No. 1 for 3 minutes in any hour	BAAQMD 8-34-501.3 and 507, and BAAQMD Condition # 17309, Part 22	C	Temperature Sensor and Recorder (continuous)
FP	BAAQMD 6-310	Y		For Flares: ≤ 0.15 grains/dscf	None	N	NA
~~Lead~~	~~BAAQMD 11-1-302~~	~~Y~~		~~Ground level concentration ≤ 1.0 µg/m^3 averaged over 24 hours~~	~~None~~	~~N~~	~~NA~~
~~Beryllium~~	~~BAAQMD 11-3-301 or 303~~	~~N~~		~~10 grams / 24 hours or 0.01 µg/m^3 averaged over 30 days~~	~~None~~	~~N~~	~~NA~~
Serpen-tine Material	BAAQMD 11-14-301	N		Surfacing Material: ≤ 5% asbestos	BAAQMD 11-14-501	P/D	Records of Testing and Receipts

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Operating Time	BAAQMD Condition # 17309, Part 1	Y		Monday through Friday	BAAQMD Condition # 17309, Parts 16a and 16i	P/D	Records of Waste Received and Truck Traffic
Waste Received	BAAQMD Condition # 17309, Part 2a	Y		≤ 3500 tons per day	BAAQMD Condition # 17309, Part 16a	P/D	Records of Waste Received
Cumula-tive Waste In-Place	BAAQMD Condition # 17309, Part 2b	Y		≤ 38.4 million tons (≤ 34.8 million Mg)	BAAQMD Condition # 17309, Part 16a	P/D	Records of Waste Placed in Landfill
Design Capacity	BAAQMD Condition # 17309, Part 2c	Y		≤ 75 million yd^3 (≤ 57.3 million m^3) of all wastes and cover materials (excluding final cover)	BAAQMD Condition # 17309, Parts 16a, 36a, and 37m	P/D	Records of Materials Placed in Landfill
Unpaved Road Length	BAAQMD Condition # 17309, Part 5a	Y		≤ 3000 feet from cover stockpile to working face midpoint	BAAQMD Condition # 17309, Part 12	P/E	Site Maps
Unpaved Road Length	BAAQMD Condition # 17309, Part 5b	Y		≤ 400 feet from end of main access road to working face midpoint	BAAQMD Condition # 17309, Part 12	P/E	Site Maps
Unpaved Road Length	BAAQMD Condition # 17309, Part 5c	Y		≤ 750 feet from end of paved road to end of main access road (this section must have 12 inches of gravel or crushed asphalt)	BAAQMD Condition # 17309, Part 12	P/E	Site Maps

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Unpaved Road Length	BAAQMD Condition # 17309, Part 5d	Y		≤ 1400 feet of fire access roads	BAAQMD Condition # 17309, Part 12	P/E	Site Maps
Vehicle Speed	BAAQMD Condition # 17309, Part 6	Y		≤ 10 mph on unpaved roads and ≤ 25 mph on fire access roads	BAAQMD Condition # 17309, Part 6	P/E	Posted Signs and Enforcement if Necessary
Dust Suppress-ant Applica-tion Rate for Unpaved Roads	BAAQMD Condition # 17309, Part 8a-c	Y		≥ 0.5 gallons per square yard of 10% magnesium chloride applied once every 30 days between May 1 and November 1 and once every 30 consecutive dry days between November 1 and May 1	BAAQMD Condition # 17309, Part 16k	P/D	Records
Water Applica-tion Rate for Roads	BAAQMD Condition # 17309, Parts 8 and 10	Y		Once every fifth heavy duty vehicle and more often as necessary	BAAQMD Condition # 17309, Part 16i-j	P/D	Records
Water Applicati on Rate for Active face and Soil Areas	BAAQMD Condition # 17309, Part 13	Y		≥ 0.5 gallons per square yard twice per day on all dry days	BAAQMD Condition # 17309, Part 16 l	P/D	Records
Truck Traffic Volume	BAAQMD Condition # 17309, Part 11a	Y		≤ 175 transfer truck trips per annual average day	BAAQMD Condition # 17309, Part 16i	P/D	Records

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Truck Traffic Volume	BAAQMD Condition # 17309, Part 11b	Y		≤ 4 leachate truck trips per annual average day	BAAQMD Condition # 17309, Part 16i	P/D	Records
Truck Traffic Volume	BAAQMD Condition # 17309, Part 11c	Y		≤ 45 scraper trips per annual average day	BAAQMD Condition # 17309, Part 16i	P/D	Records
Truck Traffic Trip Length	BAAQMD Condition # 17309, Part 12a	Y		≤ 7800 feet for transfer trucks	BAAQMD Condition # 17309, Part 12	P/E	Site Maps and Records
Truck Traffic Trip Length	BAAQMD Condition # 17309, Part 12b	Y		≤ 3600 feet for leachate trucks	BAAQMD Condition # 17309, Part 12	P/E	Site Maps and Records
Truck Traffic Trip Length	BAAQMD Condition # 17309, Part 12c	Y		≤ 3000 feet for scrapers	BAAQMD Condition # 17309, Part 12	P/E	Site Maps and Records
NO_x	BAAQMD Condition # 17309, Part 24	Y		For both A-1 Flare and A-2 Flare: 15 ppmv of NO_x, expressed as NO_2 at 15% O_2, dry	BAAQMD Condition # 17309, Part 30	P/A	Annual Source Test
CO	BAAQMD Condition # 17309, Part 25	Y		For A-1 Flare: 114 ppmv of CO at 15% O_2, dry For A-2 Flare: 81 ppmv of CO at 15% O_2, dry	BAAQMD Condition # 17309, Part 30	P/A	Annual Source Test
Acrylo-nitrile	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ ~~100~~ 500 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Benzene	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ ~~2,700~~ 10,000 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis
Carbon Tetra-chloride	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ 100 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis
Chloro-form	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ 100 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis
Ethylene Di-bromide	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ 100 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis
Ethylene Di-chloride	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ ~~300~~ 400 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis
Methyl-ene Chloride	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ 27,600 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis
Perchloro -ethylene	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ 3,600 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis
Trichloro-ethylene	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ 2,300 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis
Vinyl Chloride	BAAQMD Condition # 17309, Part 32	N		Concentration in Landfill Gas: ≤ 1,600 ppbv	BAAQMD Condition # 17309, Part 31	P/A	Annual ~~Source Test~~ Laboratory Analysis

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 KELLER ~~C~~CANYON LANDFILL;
A-1 LANDFILL GAS FLARE; AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Heat Input	BAAQMD Condition # 17309, Part 35	Y		For A-1 Flare: < 1744.8 MM BTU per day and < 636,852 MM BTU per year For A-2 Flare: < 1824 MM BTU per day and < 665,760 MM BTU per year	BAAQMD Condition # 17309, Part 35	P/M	Records

~~Table VII – D~~
~~Applicable Limits and Compliance Monitoring Requirements~~
~~A1 – LANDFILL GAS FLARE~~

~~Type of Limit~~	~~Citation of Limit~~	~~FE Y/N~~	~~Future Effective Date~~	~~Limit~~	~~Monitoring Requirement Citation~~	~~Monitoring Frequency (P/C/N)~~	~~Monitoring Type~~
~~Heat Input~~	~~BAAQMD Condition # 17309, Part 35~~	~~Y~~		~~< 1744.8 MM BTU per day and < 636,852 MM BTU per year~~	~~BAAQMD Condition # 17309, Part 35~~	~~P/M~~	~~Records~~
~~Gas Flow~~	~~BAAQMD 8-34-301, 301.1, and 301.3 and BAAQMD Condition # 17309, Parts 17 and 21~~	~~Y~~		~~Vent all collected gases to a properly operating control system and operate control system continuously.~~	~~BAAQMD Condition # 17309, Parts 27 And 28~~	~~C~~	~~Gas Flow Meter and Alarms~~

~~Table VII – D~~
~~Applicable Limits and Compliance Monitoring Requirements~~
~~A1 – LANDFILL GAS FLARE~~

~~Type of Limit~~	~~Citation of Limit~~	~~FE Y/N~~	~~Future Effective Date~~	~~Limit~~	~~Monitoring Requirement Citation~~	~~Monitoring Frequency (P/C/N)~~	~~Monitoring Type~~
~~Gas Flow~~	~~BAAQMD 8-34-301, 301.1, and 301.3 and BAAQMD Condition # 17309, Parts 17 And 21~~	~~Y~~		~~Vent all collected gases to a properly operating control system and operate control system continuously.~~	~~BAAQMD 8-34-501.10 and 508 and BAAQMD Condition # 17309, Parts 27 and 28~~	~~C~~	~~Gas Flow Meter and Recorder (every 15 minutes), Records and Alarms~~
~~Gas Flow~~	~~40 CFR 60.752 (b)(2)(iii) and 60.753(e) and (f)~~	~~Y~~		~~Vent all collected gases to a properly operating control system and operate control system at all times when gas is vented to it~~	~~40 CFR 60.756(b)(2) (i or ii) and 60.758(c)(2)~~	~~C or P/M~~	~~Gas Flow Meter and Recorder (every 15 minutes) or Monthly Inspection of Bypass Valve and Lock and Records~~
~~Collection and Control Systems Shutdown Time~~	~~BAAQMD 8-34-113.2~~	~~Y~~		~~240 hours/year~~	~~BAAQMD 8-34-501.2~~	~~P/D~~	~~Operating Records~~
~~Control System Startup Shutdown or Mal-function~~	~~40 CFR 60.755(e)~~	~~Y~~		~~1 hour per event~~	~~40 CFR 60.7(b), 60.757(f)(2) and (f)(3)~~	~~P/D~~	~~Operating Records (all occurrences and duration of each)~~
~~Startup Shutdown or Mal-function Pro-cedures~~	~~40 CFR 63.6(e)~~	~~Y~~	~~1/16/04~~	~~Minimize Emissions by Implementing SSM Plan~~	~~40 CFR 63.1980(a-b)~~	~~P/E~~	~~Records (all occurrences, duration of each, corrective actions)~~

~~Table VII – D~~
~~Applicable Limits and Compliance Monitoring Requirements~~
~~A1 – LANDFILL GAS FLARE~~

~~Type of Limit~~	~~Citation of Limit~~	~~FE Y/N~~	~~Future Effective Date~~	~~Limit~~	~~Monitoring Requirement Citation~~	~~Monitoring Frequency (P/C/N)~~	~~Monitoring Type~~
~~Non-Methane Organic Compounds (NMOC)~~	~~BAAQMD 8-34-301.3 and BAAQMD Condition # 17309, Part 29c~~	~~Y~~		~~98% removal by weight OR < 30 ppmv dry @ 3% O_2, expressed as methane~~	~~BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition # 17309, Parts 30 And 31~~	~~P/A~~	~~Initial and Annual Source Tests~~
~~NMOC~~	~~40 CFR 60.752(b)(2)(iii)(B) and BAAQMD Condition # 17309, Part 29b~~	~~Y~~		~~98% removal by weight OR < 20 ppmv dry @ 3% O_2, expressed as hexane~~	~~40 CFR 60.8 and 60.752(b)(2)(iii)(B) and 60.758 (b)(2)(ii)~~	~~P/E~~	~~Initial Source Test and Records~~
~~POC~~	~~BAAQMD Condition # 17309, Part 26~~	~~Y~~	~~Expired 7/1/02~~	~~49 ppmv of NO_x, expressed as NO_2 at 15% O_2, dry~~	~~BAAQMD Condition # 17309, Part 30~~	~~P/A~~	~~Annual Source Test~~
~~POC~~	~~BAAQMD Condition # 17309, Part 33~~	~~Y~~		~~46.092 tons per year (from landfill and flare combined)~~	~~BAAQMD Condition # 17309, Part 33~~	~~P/E~~	~~Calculation Procedure (once every 5 years)~~
~~Temperature of Combustion Zone (CT)~~	~~BAAQMD Condition # 17309, Part 23~~	~~Y~~		~~CT $\geq$ 1550 °F (3-hour average)~~	~~BAAQMD 8-34-501.3 and 507, and BAAQMD Condition # 17309, Part 22~~	~~C~~	~~Temperature Sensor and Recorder (continuous)~~

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
A1 – Landfill Gas Flare

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Temperature of Combustion Zone (CT)	40 CFR 60.758 (c)(1)(i)	Y		CT ≥ 1550 °F (3-hour average) from (CT ≥ CT_{Pt} – 28 °C), where CT_{Pt} is the average combustion temperature during the most recent complying performance test, CT_{Pt} was 1600 °F on 10/30/02	40 CFR 60.756(b)(1) and 60.758 (b)(2)(i)	C	Temperature Sensor and Recorder (measured every 15 minutes and averaged over performance test time period and 3 hours)
TOC (Total Organic Compounds Plus Methane)	BAAQMD 8-34-301.2	Y		1000 ppmv as methane (component leak limit)	BAAQMD 8-34-501.6 and 503	P/Q	Quarterly Inspection of collection and control system components with OVA and Records
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1	BAAQMD 8-34-501.3 and 507, and BAAQMD Condition # 17309, Part 22	C	Temperature Sensor and Recorder (continuous)
FP	BAAQMD 6-310	Y		0.15 grains/dscf		N	
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits ≤ 0.5 ppm for 3 minutes, ≤ 0.25 ppm for 60 minutes, and ≤0.05 ppm for 24 hours		N	
SO_2	BAAQMD 9-1-302	Y		≤ 300 ppm (dry)	BAAQMD Condition # 17309, Part 34	P/Q	Sulfur Analysis of landfill gas only

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
A1 – Landfill Gas Flare

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
H_2S	BAAQMD 9-2-301	N		Property Line ground level limits ≤ 0.06 ppm Averaged over 3 minutes and ≤ 0.03 ppm Averaged over 60 minutes		N	
Total Sulfur Content in Land-fill Gas	BAAQMD Condition # 17309, Part 34	Y		Total Sulfur Content ≤ 1300 ppmv (dry)	BAAQMD Condition # 17309, Part 34	P/Q	Sulfur Analysis of landfill gas only
NO_x	BAAQMD Condition # 17309, Part 24	Y		14 ppmv of NO_x, expressed as NO_2 at 15% O_2, dry	BAAQMD Condition # 17309, Part 30	P/A	Annual Source Test
CO	BAAQMD Condition # 17309, Part 25	Y		114 ppmv of CO at 15% O_2, dry	BAAQMD Condition # 17309, Part 30	P/A	Annual Source Test
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors
Continuous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibration, and span adjustments	40 CFR 60.7(b)	P/D	Operating Records for All Continuous Monitors

Section VIII:

As discussed in Sections IV and VI, the District is proposing to delete Regulation 11, Rules 1 and 3 and Condition # 17309, Parts 26 and 29 from the applicable requirements for S-1, A-1, and A-2. Accordingly, the District is proposing to delete the test method references for these requirements

from Table VIII. The District also is proposing changes to Table VIII to reflect the addition of the A-2 Flare and to reflect the proposed changes to Condition # 17309, Parts 33 and 34 that were discussed in detail in Section VI.

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulate; or EPA Reference Method 5 Determination of Particulate Matter Emissions from Stationary Sources for combustion sources
BAAQMD 8-2-301	Miscellaneous Operations	Manual of Procedures, Volume IV, ST-7, Organic Compounds; or EPA Reference Method 25 or 25A
BAAQMD 8-34-301.2	Collection and Control System Leak Limitations	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-301.3	Limits for Flares	Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; orEPA Reference Method 18, 25, 25A, or 25C
BAAQMD 8-34-303	Landfill Surface Requirements	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-305.1	Wellhead Gauge Pressure	APCO Approved Device
BAAQMD 8-34-305.2	Wellhead Temperature	APCO Approved Device
BAAQMD 8-34-305.3	Wellhead Nitrogen	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD 8-34-305.4	Wellhead Oxygen	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD 8-34-412	Compliance Demonstration Test	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
BAAQMD 8-40-116.2	Organic Content Limit for Small Volume Exemption	BAAQMD 8-40-601 and EPA Reference Methods 8015B and 8021B
BAAQMD 8-40-301	Limits on Uncontrolled Aeration of Contaminated Soil	BAAQMD 8-40-601 and EPA Reference Methods 8015B and 8021B; or EPA Reference Method 21
BAAQMD 9-1-301	Limitations on Ground Level Concentrations (SO_2)	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 9-1-302	General Emission Limitation (SO_2)	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling
BAAQMD 9-2-301	Limitations on Hydrogen Sulfide	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide
~~BAAQMD 11-1-302~~	~~Ground Level Concentration Limit Without Background (lead)~~	~~Manual of Procedures, Volume VI, Part 2, Atmospheric Sampling of Ground Level Lead Concentrations, Sections 2.1 General and 2.2 Mass Emission Limitations~~
~~BAAQMD 11-3-301~~	~~Emission Limitation (beryllium)~~	~~Test waste in accordance with EPA SW-846 and calculate emissions in accordance with EPA AP-42~~
BAAQMD 11-14-301	Prohibition of Use for Surfacing Operations (asbestos serpentine)	ARB Test Method 435, Determination of Asbestos Content of Serpentine Aggregate
40 CFR 60.8	Performance Tests	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
40 CFR 60.752 (b)(2)(iii)(B)	NMOC Outlet Concentration and Destruction Efficiency Limits	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
40 CFR 60.753(b)	Wellhead Pressure	APCO Approved Device
40 CFR 60.753(c)	Temperature, N_2, and O_2 concentration in wellhead gas	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
40 CFR 60.753(d)	Methane Limit at Landfill Surface	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD Condition # 17309, Part 23	~~Flare~~ Combustion Temperature Limits for Flares	APCO Approved Device
BAAQMD Condition # 17309, Part 24	NO_x Limit for Flares	Manual of Procedures, Volume IV, Oxides of Nitrogen, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 20
BAAQMD Condition # 17309, Part 25	CO Limit for Flares	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 10

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
~~BAAQMD Condition # 17309, Part 26~~	~~POC Limit~~	~~Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling, and either Manual of Procedures, Volume IV, ST-7, Organic Compounds; or EPA Reference Method 18, 25, 25A, or 25C~~
~~BAAQMD Condition # 17309, Part 29a~~	~~Total Hydrocarbon Destruction Efficiency Limit~~	~~Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C~~
~~BAAQMD Condition # 17309, Part 29b-c~~	~~NMOC Destruction Efficiency Limit and NMOC Outlet Concentration Limit~~	~~Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C~~
BAAQMD Condition # 17309, Part 32	Limits for Specified Toxic Air Contaminants (Acylonitrile, Benzene, Carbon Tetrachloride, Ethylene Dibromide, Ethylene Dichloride, Methylene Chloride, Perchloroethylene, Trichloro-ethylene, and Vinyl Chloride) in Landfill Gas	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
BAAQMD Condition # 17309, Part 33	Fugitive POC Emission~~s~~ Limit for Landfill ~~and Flare~~	Calculation Procedure Described in BAAQMD Condition # 17309, Part 33~~a-h~~
BAAQMD Condition # 17309, Part 34	Limit for Total Reduced Sulfur Compounds in Landfill Gas	Draeger Tube Method for H_2S.~~:~~ used in accordance with manufacturer's recommended procedures~~.~~, and calculation procedures described in BAAQMD, Condition # 17309, Part 34; OR Manual of Procedures, Volume III, Method 5 Determination of Total Mercaptans in Effluents and Method 25 Determination of Hydrogen Sulfide in Effluents, or Method 44 Determination of Reduced Sulfur Gases and Sulfur Dioxide in Effluent Samples by Gas Chromatographic Methods
BAAQMD Condition # 17309, Part 35	Heat Input Limits for Flares	APCO approved calculation procedure as described in BAAQMD Condition # 17309, Part 35

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD Condition # 17309, Part 36	Total Carbon Emission Limit for Use or Disposal of Soil Containing VOCs	VOC Content as determined by EPA Reference Methods 8015B, 8021B (or any method determined to be equivalent by the US EPA and approved by the APCO) and converted to Total Carbon as defined in BAAQMD Regulation 8-2-202. Total Carbon Emissions determined by APCO approved equation described in BAAQMD Condition #17309, Part 36c
BAAQMD Condition # 17309, Part 37~~, subparts a-m~~	Handling Procedures for Soil Containing Volatile Organic Compounds	EPA Reference Methods 8015B, 8021B, or any method determined to be equivalent by the US EPA and approved by the APCO

Section IX:

No changes are proposed to this section.

Section X:

The proposed revisions presented above will be summarized in the revision history section, as shown below.

X. REVISION HISTORY

~~**Initial Proposal: February 21, 2001**~~

Title V Permit Issuance (Application # 17348): September 20, 2001

Minor Revision (Application # 7939): December 17, 2003

- Add and revise text in Section I, III, IV and VII to conform to current standard text.
- Correct and update regulatory dates in Sections I. and III. Include additional applicable requirement citations in Section III.
- Update Table II A to reflect expansion of the landfill gas collection system.
- Update Table II B to conform to data presented for other landfill flares.
- Update minimum combustion zone temperature, in Tables II-B and VII-D, and Condition #17309 Part

23, to reflect the calculated minimum based on the most recent complying performance test (October 30, 2002).

- Updates Tables IV-A, IV-B, IV-D, VII-A, VII-B, VII-D, and VIII and delete Condition # 17309, Part 38 to reflect EPA's adoption of BAAQMD Regulation 8, Rules 34, and 40 into the SIP and BAAQMD's subsequent adoption of amendments to Regulation 1-523 and Regulation 8, Rule 16.
- Update Tables IV-A to include applicable NSPS subsections of 60.754, 60.756 and 60.759.
- Update Tables IV-D to include applicable NSPS subsections of 60.752.
- Revise Condition # 16462 to reflect minor wording changes made to Part 1 under application #2379.
- Revise Condition # 17309, Part 11 to update the number of transfer truck and scraper trips as modified in under application #2379
- Delete references in Condition # 17309, Parts 17 and 33 to proposed IC engines that will not be installed,
- Revise Condition # 17309, Part 20 to reflect expansion of the landfill gas collection system.
- Correct test methods referenced in Table VIII by adding optional methods and deleting obsolete methods.
- Add new terms to Section XI.
- SIP rules available on EPA's website
- Changed Responsible Official

Reopening (Application # 10393): [insert approval data]

- Add the NESHAP General Provisions (40 CFR, Part 63, Subpart A) and the NESHAP for MSW Landfills (40 CFR, Part 63, Subpart AAAA) to Table IV-A.
- Combine Table IV-A for the S-1 Keller Canyon Landfill and Table IV-D for the A-1 Landfill Gas Flare into a single Table IV-A for S-1 and A-1, and delete Table IV-D.
- Delete an erroneous citation for SIP Regulation 1 from Table IV-A.
- Update the Regulation 8, Rule 34 amendment date in Table IV-A and correct a related citation reference in Table VII-A.

- Delete Regulation 11, Rules 1 and 3 from Tables IV-A, VII-A, and VIII.
- Update amendment dates for federal requirements in Table IV-A.
- In Condition # 17309, Part 2, clarify the NSR applicability requirements for the waste acceptance limits.
- Clarify notification procedures in Condition # 17309, Parts 3 and 8.
- Clarify record keeping procedures in Condition # 17309, Part 16.
- Clarify the basis for Condition # 17309, Part 18.
- Revise the Condition # 17309, Part 19 reporting requirement and revise the basis for Part 19 in Table IV-A.
- Revise the minimum combustion zone temperature limit for A-1 in Table II-B, Condition # 17309, Part 23, and Table VII-A, and correct the temperature revision procedures in Part 23.
- Correct the NO_x limit for A-1 in Condition # 17309, Part 24 and Table VII-A. Clarify the basis for this limit in Part 24 and in Table IV-A.
- Delete the obsolete POC and NMOC limits listed in Condition # 17309, Parts 26 and 29, and delete the associated references to these limits in Part 30 and Tables IV-A, VII-A, and VIII.
- For the annual source test in Condition # 17309, Part 30, correct the citations of applicable limits, replace the existing notification and reporting requirements with the new standard language, clarify the testing requirements, and correct the basis.
- For the annual landfill gas characterization test in Condition # 17309, Part 31, replace the testing and reporting requirements with the new standard language, which includes a list of the specific organic compounds that the gas needs to be analyzed for.
- Combine Table VII-A for S-1 and Table VII-D for A-1 into a single Table VII-A for S-1 and A-1, and delete Table VII-D.
- For Table VII-A, delete unnecessary or duplicative limits, add symbols and text to clarify limits, and delete an obsolete future effective date.
- Update the Revision History in Section X.

- Add several terms to the Glossary in Section XI.
- Correct the web site address for SIP requirements in Section XII.

Significant Revision (Application # 11385): [insert approval data]

- Add the new A-2 Landfill Gas Flare and associated requirements, limits, and test methods to Tables II-B, IV-A, VII-A, and VIII.
- In Condition # 17309, Part 17, 21, 22, 27, and 28, add a reference to the new A-2 Flare and clarify the bases for these parts.
- In Condition # 17309, Part 20, add subpart b that describes landfill gas collection equipment that is under constructions and clarify other Part 20 provisions.
- Add the minimum combustion zone temperature limit for A-2 to Condition # 17309, Part 23.
- Add the NOx, CO, and heat input limits for A-2 to Condition # 17309, Parts 24, 25, and 35, respectively. Correct the basis for Parts 24 and 35.
- Add an initial compliance demonstration test for A-2 to Condition # 17309, Part 30.
- In Condition # 17309, Part 31 and Table VIII, add a laboratory analysis for six sulfur compounds to the annual landfill gas characterization test, and add a calculation procedure for the TRS/H2S ratio that will be used in conjunction with the revised TRS calculation procedure listed in Part 34.
- In Condition # 17309, Part 32 and Table VII-A, increase the concentration limits for acrylonitrile, benzene, and ethylene dichloride.
- In Condition # 17309, Part 33 and Table VII-A, delete the A-1 Flare from the combined POC emission limit for S-1 and A-1 in Condition # 17309, Part 33, and revised the POC limit and calculation procedures for fugitive POC emissions from S-1.
- In Condition # 17309, Part 34 and Table VII-A, revise the limit on total reduced sulfur compounds in landfill gas, and correct the basis accordingly in Part 34 and Table IV-A. Clarify that the Draeger tube analysis method measures hydrogen sulfide (H_2S), and add a TRS calculation method to Part 34.

Section XI:

The District is proposing to add the terms listed below to the Glossary in Section XI.

AP-42
An EPA Document "Compilation of Air Pollution Emission Factors" that is used to estimate emissions from numerous source types. It is available electronically from EPA's web site at: http://www.epa.gov/ttn/chief/ap42/index.html

ASTM
American Society for Testing and Materials

ATC
Authority to Construct

ATCM
Airborne Toxic Control Measure

LHV
Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60 °F.

RWQCB
Regional Water Quality Control Board

S
Sulfur

The District is proposing to make the corrections indicated below to terms in the Glossary.

CO2 or CO_2
Carbon Dioxide

N2 or N_2
Nitrogen

NOx or NO_x
Oxides of nitrogen.

VMT
Vehicle Miles Traveled

VOC
Volatile Organic Compounds

~~**VMT**~~
~~Vehicle Miles Traveled~~

Units of Measure:

m^3	=	cubic meters
~~max~~	~~=~~	~~maximum~~
min	=	minute

Section XII:

The District is proposing to update the website address for the BAAQMD SIP regulations as shown below.

XII. APPLICABLE STATE IMPLEMENTATION PLAN

The Bay Area Air Quality Management District's portion of the State Implementation Plan can be found at EPA Region 9's website. The address is:

~~http://yosemite1.epa.gov/r9/r9sips.nsf/California?ReadForm&Start=1&Count=30&Expand=3.1~~
http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions

D. SUMMARY OF PROPOSED ACTIONS

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

- Add the NESHAPs General Provisions and MSW Landfill NESHAPs to Table IV-A and make related corrections throughput the permit.
- Combine Tables IV-A and IV-D into Table IV-A, and delete Table IV-D.
- Combine Tables VII-A and VII-D into Table VII-A, and delete Table VII-D.
- Add the new A-2 Landfill Gas Flare to Tables II-B, IV-A, VII-A and Condition # 17309 and make related revisions throughput the permit.
- Correct the minimum temperature limit and outlet NO_x concentration limit for A-1.
- Revise limits and calculation procedures for fugitive POC from S-1 and total reduced sulfur compounds in landfill gas.
- Increase concentration limits for acrylonitrile, benzene, and ethylene dichloride in landfill gas.
- Update and clarify annual source testing and annual landfill gas characterization requirements.
- Make numerous corrections, updates, and clarifications to Tables IV-A, VII-A, and VIII and Sections VI, X, XI, and XII.

APPENDIX A

ENGINEERING EVALUATION

APPLICATION # 11386

ENGINEERING EVALUATION

Keller Canyon Landfill Company; PLANT # A4618

APPLICATION # 11386

A. BACKGROUND

Site Description:

Keller Canyon Landfill Company, 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), which is equipped with a landfill gas collection system. The landfill is currently permitted to accept a maximum 3500 tons/day of refuse and is permitted to dispose of 38.4 million tons of decomposable waste in the landfill. As of June 30, 2004, the landfill contained 6.15 MM tons of decomposable waste. In addition to MSW, this site is allowed to accept designated wastes including petroleum contaminated soils. From July 2003-June 2004, Keller reported accepting 25,396 tons of contaminated soil. All collected landfill gas is currently abated by the A-1 Landfill Gas Flare. This flare has maximum permitted capacities of 1744.8 MM BTU/day and 636,852 MM BTU/year and can process about 2438 scfm of landfill gas. For July 2003-June 2004, Keller reported that A-1 burned an average of 881 scfm of landfill gas.

This facility also includes a Wipe Cleaning Operation (S-2) that is permitted to use up to 100 gallons/year of mineral spirits and a Yard and Green Waste Stockpile (S-3) that is permitted to accept up to 70,200 of waste material for recycling. Last year, actual throughput rates were 0 gallons/year of mineral spirits at S-2 and 35,073 tons/year of yard waste materials at S-3.

Current Project:

Keller Canyon Landfill Company, or "Keller", submitted Application # 11386 to request an Authority to Construct for a second Landfill Gas Flare (A-2) and to request several permit condition revisions. This permit application was deemed complete on December 8, 2004. Since this application was deemed complete prior to adoption of the December 21, 2004 adoption of amendments to Regulation 2, Rule 2, this application is subject to the older version of Regulation 2, Rule 2. Consequently, POC offsets are required if maximum permitted emissions exceed 15 tons/year of POC facility-wide, and any required offsets may be provided from the small facility banking account if facility wide emissions are less than 50 tons/year.

Keller is proposing to install a 76 MM BTU/hour enclosed flare (A-2) that will burn about 2500 cfm of landfill gas. This flare will serve as a back up control device for the current flare (A-1) and will eventually be necessary to supplement A-1 when the landfill gas generation rate exceeds the capacity of A-1.

Keller also requested changes to Condition # 17309. Condition # 17309, Part 33 limits landfill and flare emissions to a total of 46.092 tons/year of POC and describes emission calculation procedures for demonstrating compliance with this limit. These procedures were based on the AP-42 landfill gas generation rate emission model using input variables of: L_0=100 m^3 CH_4/Mg and k = 0.04 $(year)^{-1}$, actual and projected waste acceptance rates, and a landfill gas NMOC

concentration of 595 ppmv of NMOC expressed as hexane. Since these conditions were established, Keller has increased the amount of waste accepted per day, which has changed the projected closure date from 2060 to 2035. Keller has requested to use the k value for arid areas (k = 0.02) and to use a landfill gas NMOC concentration of 411 ppmv of NMOC expressed hexane. Keller is requesting these changes in order to keep facility-wide POC emissions below 50 tons/year so that this facility can continue to use the small facility banking account for the required POC offsets.

Condition # 17309, Part 34 limits the concentration of total reduced sulfur compounds in the landfill gas to 1300 ppmv (as H_2S) in order to ensure compliance with the Regulation 9-1-302 sulfur dioxide emission limit of 300 ppmv of SO_2 in any exhaust point. Keller has requested to change this TRS limit to 300 ppmv (as H_2S) in order correctly reflect the maximum sulfur content of the landfill gas at this site and to reduce maximum potential SO_2 emissions from this facility.

B. EMISSIONS

Emissions from New Flare:

For the new Landfill Gas Flare (A-2), maximum permitted emissions of NO_x, CO, and PM_{10} are based on the manufacturer's guaranteed emission rates: 0.06 lbs NO_x/MM BTU, 0.20 lbs CO/MM BTU, 0.001 lbs PM_{10}/hour/scf of LFG. Sulfur dioxide emission rates are based on the proposed permit limit of 300 ppmv of total reduced sulfur compounds (expressed as H_2S) in the landfill gas. Pursuant to Regulation 8-34-301.3, flares are required to meet either a destruction efficiency of 98% NMOC by weight or an outlet concentration of 30 ppmv of NMOC expressed as methane at 3% O_2. For inlet NMOC concentrations less than 1400 ppmv as hexane, the outlet concentration limit results in a higher emission factor. Therefore, organic emissions from A-2 will be based on the NMOC outlet concentration limit. POC emissions are assumed to be 100% of the NMOC emissions. Based on site landfill gas analyses, NPOC emissions are expected to be no more than 5% of the total NMOC emissions. The emission factors for A-2 and the equivalent outlet concentration limits are summarized in Table 1 below.

Table 1. Emission Factors and Equivalent Outlet Concentration Limits for A-2

	Basis for Emission Limit	lbs/MM BTU	lbs/M scf	Outlet Concen., ppmv 3% 0_2	15% O_2
NOx	mfg guarantee: 0.06 lbs/MM BTU	**0.060**	2.98E-02	45	15
CO	mfg guarantee: 0.20 lbs/MM BTU	**0.200**	9.94E-02	246	81
SO2	permit limit: 300 ppmv TRS in LFG	0.100	**4.97E-02**	54	18
POC	Reg. 8-34-301.3: 30 ppmv NMOC as CH_4 at 3% O_2	0.014	6.93E-03	**30**	10
NPOC	site test data: 5% of POC	0.001	**3.47E-04**	2	0
				grains/dscf	
PM10	mfg guarantee: 0.001 lbs/hr/scfm LFG	0.034	**1.67E-02**	0.0244	

The A-2 Landfill Gas Flare will be permitted to operate at full capacity of 76 MM BTU/hour, 1824 MM BTU/day, and 665760 MM BTU/year. The maximum daily and maximum annual emissions from A-2 are summarized below.

Table 2. Maximum Permitted Emission Rates from A-2

	lbs/day	tons/year
NOx	109.44	19.973
CO	364.80	66.576
SO2	182.26	33.263
POC	25.44	4.643
NPOC	1.27	0.232
PM10	61.17	11.164

New Facility Wide Emissions:

As discussed earlier S-1 and A-1 were limited to 46.092 tons/year of POC emissions to prevent facility-wide emissions from exceeding 50 tons/year, because offsets were supplied from the small facility banking account. This emission limit will be adjusted in order to more clearly attribute emissions to each permitted device. The maximum permitted emission rates for each permitted source and abatement device are summarized below in Table 3. The new POC limit for the landfill was calculated by subtracting the other permitted POC emission rates from 50 tons/year. Similarly, the maximum proposed NPOC emissions from the landfill were determined by subtracting the current expected NPOC emissions from the flares from the previous maximum permitted emission rate for the landfill (24.577 tons/year of NPOC). Detailed emission calculations are attached.

Table 3. Facility Wide Maximum Permitted Emissions

	Emissions (tons/year)					
Device Number and Description	NOx	CO	POC	NPOC	PM10	SO2
S-1 Keller Canyon Landfill (1)			40.590	24.123	8.410	
S-2 Wipe Cleaning Operation (2)			0.326			
S-3 Yard and Green Waste Stockpiles (3)					0.125	
A-1 Landfill Gas Flare (4)	19.106	95.528	4.441	0.222	5.447	31.819
A-2 Landfill Gas Flare	19.973	66.576	4.643	0.232	11.164	33.263
Facility Wide Permitted Emissions	39.078	162.104	50.000	24.577	25.146	65.082

(1) Maximum permitted NPOC emissions from the landfill and flare (24.577 tons/year of NPOC) were established pursuant to Application # 758 based on AP-42 concentration data for ethane, acetone, and chlorofluorocarbons. Site data indicates that NPOC concentrations in the landfill gas are much lower than the AP-42 concentrations. Facility wide NPOC emissions are now expected to be only 5.0 tons/year. Maximum permitted PM10 emissions from the landfill were established pursuant to Application # 2379.

(2) See Permit Application # 10780.

(3) See Permit Application # 21312.

(4) For Application # 758 the POC emissions from the A-1 Landfill Gas Flare were calculated based on AP-42 concentration data for the landfill gas and 98% control of inlet POCs. However, the Regulation 8-34-301.3 limit allows either 98% NMOC destruction or an outlet concentration limit of 30 ppmv of NMOC at 3% O_2. Since the outlet concentration limit allows a higher emission rate for this site, calculations of maximum permitted POC from A-1 for this application are based on the emission factor for the concentration limit (the same factor that is used for A-2). Secondary combustion emissions from the A-1 Landfill Gas Flare were never charged to the Plant Cumulative Increase due to an exemption (Regulation 1-115) that is no longer valid. NOx and CO emissions are based on the current permit condition limits for NOx and CO, which are equivalent to 0.06 lbs NOx/MM BTU and

0.3 lbs CO/MM BTU. PM10 emissions were determined based on the AP-42 emission factor of 17 lbs PM10/MM scf methane. NPOC and SO2 emission factors were determined as described above for the A-2 Landfill Gas Flare.

Plant Cumulative Increase Emissions:

For this application, the S-1 Keller Canyon Landfill and A-2 Landfill Gas Flare are new or modified sources of emissions and are subject to new source review. From Application # 758 and Condition # 17309, Part 33, maximum permitted emissions from the landfill (S-1) and flare (A-1) are 46.092 tons/year of POC and 24.577 tons/year of NPOC. The total proposed emissions for the landfill and two flares combined are 49.674 tons/year of POC emissions and 24.577 tons/year of NPOC. For precursor and non-precursor organic compounds, the cumulative emission increases are equal to the differences between the proposed and current permitted emission rates: (49.674 – 46.092) = 3.582 tons/year of POC increases and (24.577 – 24.577) = 0.000 tons/year of NPOC increases. All secondary pollutant emissions from the A-2 Landfill Gas Flare will be added to the plant cumulative increase. All emission increases occurring since April 5, 1991 are summarized below.

Table 4. Plant Cumulative Emission Increases

	Current Balance tons/year	Emission Increases tons/year	Offsets tons/year	New Balance tons/year
NOx	0.000	19.973	19.973	0.000
CO	0.000	66.576		66.576
SO2	0.000	33.263		33.263
POC	0.000	3.582	3.582	0.000
NPOC	19.838	0.000		19.838
PM10	3.695	11.164		14.859

Toxic Emissions:

Since the S-1 Keller Canyon Landfill was initially permitted after January 1, 1987, all emissions from the landfill and any associated landfill gas control equipment are subject to the Risk Management Policy. A risk screening analysis for the landfill and existing flare (A-1) was conducted pursuant to Application # 758 based on a landfill gas generation rate of 4637 cfm (the highest 70-year average of annual landfill gas generation rates), the landfill gas concentration limits listed in Condition # 17309, Part 32, a landfill gas collection system efficiency of 75%, and control system efficiency of 85% for any individual compound. The control systems were assumed to include the existing on-site flare (controlling 44% of the collected landfill gas) and off-site engines (controlling the remainder of the collected landfill gas). The cancer risk for the landfill and flare (this project excluded the off-site engines) was determined to be 2.84 in a million. Baseline emissions are listed in Table 5 below.

Table 5. Baseline Project Emissions (S-1 Landfill and A-1 Flare)

	Fugitive LFG Emissions pounds/year	A-1 Flare Emissions pounds/year	Total of S-1 + A-1 pounds/year
Acrylonitrile	8.3	2.6	10.9
Benzene	327.9	104.2	432.1
Carbon Tetrachloride	23.9	7.6	31.5
Chloroform	18.6	5.9	24.5
Ethylene Dibromide	27.0	8.6	35.6
Ethylene Dichloride	46.2	14.7	60.8
Methylene Chloride	3645.4	1158.1	4803.4
Perchloroethylene	928.3	294.9	1223.2
Trichloroethylene	469.9	149.3	619.2
Vinyl Chloride	155.5	49.4	204.9

For Application # 11386, the annual landfill gas generation rates were recalculated using EPA's LANDGEM program based on updated waste placement data supplied by the applicant and the revised closure date of 2035. The District reviewed rainfall data for the Pittsburg area and determined that the average rainfall was less than 25 inches per year. Therefore, the methane generation rate constant for arid areas (k = 0.02) is appropriate. As with previous generation rate calculations for this site, the default methane generation potential (L_0 = 100) was used in the LANDGEM program. The maximum projected landfill gas generation was determined to be 6706 scfm occurring in year 2035.

Due to the unique emissions versus time profile for landfills (a rapid increase of emissions during the active years, a single year of peak emissions near the closure year, and a gradual decline of emissions over the 50-100 years after closure), using the single year peak emission rate to evaluate health risks would over estimate the amount of emissions that a person living nearby would be exposed to during his 70 year life time. When determining the health impacts from landfills, fugitive emissions of toxic air contaminants are typically based on a 70-year average of the annual gas generation rates rather than the peak gas generation rate. Using the new waste placement rates and k value for this site, the highest 70-year average gas generation rate was determined to be 4568 scfm (occurring in 2080). As with criteria pollutant calculations, the amount of fugitive landfill gas is assumed to be 25% of this 70-year average gas generation rate. Fugitive emissions of toxic air contaminants are calculated based of this fugitive gas flow rate (1142 scfm of fugitive landfill gas) and the proposed concentrations of TACs that will be listed in Condition # 17309, Part 32. Based on recent site test data, the concentration limits for several compounds are being increased as follows: from 100 ppbv to 500 ppbv for acrylonitrile, from 2700 ppbv to 10,000 ppbv for benzene, from 300 ppbv to 400 ppbv for ethylene dichloride. Hydrogen sulfide emissions are calculated based on the proposed limit of 300 ppmv of total reduced sulfur (all TRS is assumed to be H_2S).

All collected landfill gas will now be controlled by on-site equipment (two landfill gas flares: A-1 and A-2) instead of one on-site flare and three off-site engines. Maximum TAC emissions from the flares are based on the maximum permitted capacity of each device and the TAC concentrations discussed above. The control efficiency for each individual compound is assumed to be 98% based on AP-42 recommendations. Note that for A-1, the control efficiency was previously assumed to be 85%. In addition, the District has included emission rates for secondary

toxic pollutants from the flares (formaldehyde and acid gases) that were not evaluated before. Proposed TAC emission rates for this project are summarized in Table 6 below.

Table 6. Proposed Project Emissions (S-1 Landfill, A-1 Flare, and A-2 Flare)

	Fugitive LFG Emissions pounds/year	A-1 Flare Emissions pounds/year	A-2 Flare Emissions pounds/year	Total Project Emissions pounds/year
Acrylonitrile	41.1	1.8	1.8	44.7
Benzene	1211.3	51.7	54.1	1317.2
Carbon Tetrachloride	23.9	1.0	1.1	25.9
Chloroform	18.5	0.8	0.8	20.1
Ethylene Dibromide	27.0	1.2	1.2	29.3
Ethylene Dichloride	61.4	2.6	2.7	66.7
Hydrogen Sulfide	15853.6	677.0	707.8	17238.4
Methylene Chloride	3635.6	155.3	162.3	3953.2
Perchloroethylene	925.8	39.5	41.3	1006.7
Trichloroethylene	468.7	20.0	20.9	509.6
Vinyl Chloride	155.1	6.6	6.9	168.6
Formaldehyde	0.0	230.7	241.1	471.8
Hydrogen Bromide	0.0	4829.5	5048.7	9878.2
Hydrogen Chloride	0.0	5358.7	5601.9	10960.6
Hydrogen Fluoride	0.0	331.2	346.3	677.5

The proposed project will result in emission increases above the baseline emission rates for acrylonitrile, benzene, and ethylene dichloride. These emission increases will exceed the risk screen trigger levels. In addition, this project includes new TACs that were not previously evaluated. For these new TACs, the emissions of formaldehyde, hydrogen bromide, and hydrogen chloride will exceed the risk screen trigger levels. Therefore, a new risk screening analysis is required for the entire project (the S-1 Landfill, A-1 Flare, and A-2 Flare).

C. STATEMENT OF COMPLIANCE

Regulation 2, Rule 1:

This application involves the permitting of a new abatement device (A-2 Landfill Gas Flare). In addition, this project involves a change of permit conditions at the S-1 Keller Canyon Landfill that modifies the maximum permitted POC, SO_2, and TAC emissions for the landfill and existing flare. This application will result in some emission increases of criteria pollutants and TACs. As discussed in more detail below, this project will comply with NSR requirements and the District's Risk Management Policy. NO_x and POC offsets will be supplied from the District's small facility banking account. Based on a risk screening analysis, health impacts from the landfill and flares will not exceed a cancer risk of 10 in a million or a chronic hazard index of 1. This project will have no possibility of any significant adverse environmental impacts other than air quality. Since this project will satisfy the requirements of Regulations 2-1-312.2 and 2-1-312.11, it is categorically exempt from CEQA review.

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:

BACT:

Maximum permitted emissions for the landfill and flares will be 49.674 tons/year POC and 24.577 tons/year of NPOC (including uncollected fugitive emissions and emissions from the flares). These emission rates are equal to 272.2 pounds/day of POC and 134.7 pounds/day of NPOC. Since this application will result in POC emission increases and POC emissions will exceed 10 pounds/day, the S-1 Keller Canyon Landfill is subject to BACT for POC emissions. The landfill will comply with BACT by having an active landfill gas collection system meeting the requirements of Regulation 8, Rule 34 and by venting all collected gas to control devices that are meeting the requirements of Regulation 8-34-301.3 or 8-34-301.4. The flares will comply with Regulation 8-34-301.3 and will satisfy the BACT requirements for this landfill.

Although this application will not result in any increases of maximum permitted NPOC emissions, the landfill will also comply with BACT for NPOC emissions, because the BACT requirements for NPOC emissions are the same as those for POC emissions. The landfill will also emit fugitive PM_{10} emissions from disposal and cover operations, vehicle traffic on on-site roads, and wind erosion. BACT requirements for PM_{10} emissions were discussed in Application # 21312. A new BACT review for PM_{10} emissions is not necessary, because this application does not result in any PM_{10} increases for S-1.

Secondary emissions (NO_x, CO, PM_{10}, and SO_2) from the new A-2 Landfill Gas Flare are exempt from BACT requirements pursuant to Regulation 2-2-112, provided these abatement devices comply with RACT for these pollutants. The proposed emission rates of 0.06 lbs NO_x/MM BTU and 0.20 lbs CO/MM BTU are the current RACT limits for landfill gas flares. The A-2 Flare will comply with RACT for PM_{10} by having a fuel pretreatment system that filters out particles and condensable liquids prior to combustion. Sulfur removal processes for gaseous fuels are generally not cost effective for gases containing less than 500 ppmv of sulfur. Since the sulfur content of this landfill gas is less than 500 ppmv, a sulfur removal system is not required. Therefore, the proposed A-2 Landfill Gas Flare will comply with RACT requirements for all secondary pollutants.

Offsets:

The proposed condition revisions will increase the maximum permitted POC emission rate for the landfill and flares combined from 46.092 tons/year to 49.674 tons/year. This 3.582 tons/year emission increase is subject to offset requirements. Since this application was deemed complete prior to the December 2004 revision of Regulation 2, Rule 2, it is subject to the previous version of Rule 2. Since maximum permitted facility wide emissions of POC will not exceed 50 tons/year and this site has no banked emission credits, it qualifies for the small facility banking account for the required 3.582 tons/year of POC offsets.

The NO_x emission increases for this application will be 19.973 tons/year. Facility-wide maximum permitted NO_x emissions will be 39.078 tons/year. Since maximum permitted facility wide emissions of NO_x will not exceed 50 tons/year and this site has no banked emission credits, it qualifies for the small facility banking account for the required 19.973 tons/year of NO_x offsets.

PSD:

This facility will be a Title V major facility for CO emissions, because CO emissions will exceed 100 tons/year. However, Regulation 2-2-305.1 does not apply because landfills are not one of the 28 PSD source categories that are subject to the lower PSD threshold of 100 tons/year and CO emissions will not exceed the PSD major facility threshold of 250 tons/year. Regulation 2-2-305.2 does not apply because this application will not result in more than 100 tons/year of CO emission increases. Therefore, the modeling analysis of Regulation 2-2-414 is not required. Although this analysis was not required, CO emissions were modeled using the same procedures as the HRSA. The maximum CO concentration was determined to be 160 $\mu g/m^3$ (1-hour maximum), which is far below the significance thresholds of 2000 $\mu g/m^3$ for a 1-hour maximum and 500 $\mu g/m^3$ for an 8-hour maximum in Regulation 2-2-233.

For major facilities, Regulation 2-2-306 limits the emission increases to: 3 tons/year and 16 pounds/day of fluorides, 10 tons/year and 55 pounds/day of hydrogen sulfide and total reduced sulfur compounds. As shown in Table 6, HF emissions from the landfill and flares will be 677.5 pounds/year (0.34 tons/year and 1.9 pounds/day) and H_2S emissions from the landfill and flares will be 17238.4 pounds/year (8.6 tons/year and 47.2 pounds/day). Since total emissions will not exceed the emission increase thresholds, this project will comply with Regulation 2-2-306.

New Source Review for Toxic Air Contaminants:

As discussed in the emissions section, this application results in emission increases that exceed the risk screen trigger levels for several TACs. Therefore, a risk screen is required. Since this landfill was initially permitted after 1/1/87, all emissions from the landfill and flares are part of the project. A risk screening analysis was conducted using ISCST3 (rural option) with SCREEN3 met data. Simple and complex terrain was considered. The flares were modeled as point sources, and the landfill was modeled as an area source. The risk screening analysis indicated that the maximum health impacts from this project are a cancer risk of 9.8 in a million and a chronic hazard index of 0.2. Since the cancer risk exceeds 1 in a million, TBACT is required. The TBACT requirements for landfills are the same as the BACT requirements discussed above for Regulation 2, Rule 2. Therefore, this landfill will comply with TBACT. Since the health impacts for this project will not exceed a cancer risk of 10 in a million and will not exceed a chronic hazard index of 1.0, this project will comply with the District's Risk Management Policy.

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. The NSPS for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart WWW) requires the owner or operator of a landfill that is subject to this part and that has a design capacity of 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 in Application # 11385, this facility is subject to this NSPS and meets the designated facility criteria listed in 40 CFR § 60.32c(c). Therefore, a Title V permit is required pursuant to Regulation 2-6-304.

With the permitting of the A-2 Landfill Gas Flare, maximum permitted CO emissions will increase from 95.5 tons/year of CO to 162.1 tons/year of CO. This site will be a Title V major

facility for CO emissions (Regulation 2-6-212), because facility-wide maximum permitted CO emissions will now exceed 100 tons/year. Therefore, a Title V permit is required pursuant to Regulation 2-6-301 as well as Regulation 2-6-304.

The initial MFR Permit for this facility was issued on September 20, 2001 and was revised on December 17, 2003. This application will require a revision of the current MFR permit. The proposed MFR permit revisions related to this application are described in the Statement of Basis for Application # 11385.

Regulation 6:

Regulation 6-310 limits the particulate emissions from any exhaust point to 0.15 grains/dscf. As shown in Table 1, the emission rates from the A-2 Flares will be 0.0244 grains/dscf. Therefore, A-2 will comply with Regulation 6.

Regulation 8, Rule 34:

The landfill will comply with Regulation 8-34-301 by collecting and venting emissions to flares. Each flare will comply with Regulation 8-34-301.3 by emitting less than 30 ppmv of NMOC as methane at 3% O_2. The A-2 flare will be equipped with a continuous gas flow meter and recorder and a continuous temperature monitor and recorder. Therefore, A-2 will comply with Regulation 8-34-501.3, 501.8, 507 and 508. Permit conditions will require an annual compliance demonstration test to ensure compliance with Regulation 8-34-301.3 and 8-34-412. The landfill is expected to continue to comply with all other applicable provisions of Regulation 8, Rule 34.

Regulation 9, Rule 1:

Regulation 9-1-302 limits the emissions from any exhaust point to 300 ppmv of SO_2. As shown in Table 1, the SO_2 emissions from A-2 will be no more than 54 ppmv of SO_2. Therefore, A-2 will comply with Regulation 9-1-302.

Federal Requirements:

NSPS for MSW Landfills: In the BAAQMD, Regulation 8, Rule 34 is at least as stringent as the NSPS for Municipal Solid Waste (MSW) Landfills (40 CFR Part 60, Subpart WWW). Therefore, compliance with Regulation 8, Rule 34 constitutes compliance with the EG and NSPS requirements.

NESHAPs for MSW Landfills: Any landfills that are subject to the landfill gas collection and control requirements of either the NSPS for MSW Landfills or the EG for MSW Landfills are also subject to the NESHAPs for MSW Landfills (40 CFR, Part 63, Subpart AAAA). This NESHAP requires that subject facilities prepare and implement startup, shutdown, malfunction plans (SSM Plans) and additional reporting requirements. The facility's SSM Plan will need to be updated to include the new abatement device. The revised SSM Plan should be on-site prior to initial operation of the new flare. All applicable requirements are either contained in the existing MFR permit or will be added to the MFR permit pursuant to Reopening Application # 10393. This facility is expected to continue to comply with these requirements.

D. PERMIT CONDITION REVISIONS

The District is proposing to make the following revisions to Condition # 17309.

Condition # 17309
For S-1 KELLER CANYON LANDFILL, ~~AND~~ A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE:

(no changes to Parts 1-16)

17. All landfill gas collected by the gas collection well system for S-1 shall be abated at all times by the enclosed flares, A-1 or A-2. 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)]

18. The landfill gas collection system described below in Part 20a shall be operated continuously. Wells shall not be shut off, disconnected, or removed from operation without prior written authorization from the District, unless the Permit Holder complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 116, 117, and 118. [Basis: 8-34-301, 40 CFR 60.753(b and c) and 60.755(e)]

19. Written annual reports, including drawings, shall be submitted to the District within 30 days after the permit anniversary date of the amount (in tons) of garbage placed in each uncontrolled portion of the landfill during the 12 months prior to the anniversary date. The report shall be submitted to the Permit Services Division, referenced to the above permit number, and shall include the increase (in feet) in refuse depth as well as square yardage and acreage of filled garbage in the previous 12 months. This information shall be used to re-evaluate the uncontrolled portion of the landfill for compliance with Regulation 8, Rule 34. [Basis: 8-34-301, 8-34-303, and 8-34-304]

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 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.

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	6
M	9
N	16
P	8

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

Conditions for A-1 and A-2 Flares

21. ~~The A-1~~ Each ~~F~~flare shall be operated continuously during ~~all~~ any time~~s~~ that landfill gas is being vented to the flare. [Basis: 8-34-301, 40 CFR 60.752(b)(2)(iii), 60.753(e), and 60.755(e)]

22. A temperature monitor with readout display and continuous recorder shall be installed and maintained on ~~the~~ each flare. One or more thermocouples shall be placed in the primary combustion zone of the flares and shall accurately indicate flue gas temperature at all times. Temperature charts shall be retained for five years and made readily available to District Staff upon request. [Basis: 8-34-501, 2-6-501, 40 CFR 60.756(b)]

23. The combustion zone temperature of the A-1 ~~f~~Flare shall be maintained at a minimum temperature of 1550 degrees F, averaged over any 3-hour period. The combustion zone temperature of the A-2 Flare shall be maintained at a minimum temperature of 1400 degrees F, averaged over any 3-hour period. ~~This minimum temperature shall be adjusted via an administrative permit amendment, i~~If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO may revise these minimum temperature requirements in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415 and the following criteria. The minimum combustion zone temperature for the flare shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50 degrees F, provided that the minimum combustion zone temperature is not less than 1400 degrees F. [Basis: 8-34-301, Toxic Risk Management Policy, RACT, 40 CFR 60.758(c)(1)(i)]

24. NO_x emissions from either the A-1 ~~f~~Flare or the A-2 Flare shall not exceed 1~~4~~5 ppmv of NO_x, expressed as NO_2 at 15% oxygen on a dry basis. [Basis: RACT~~, Cumulative Increase~~]

25. CO emissions from the A-1 ~~f~~Flare shall not exceed 114 ppmv of CO at 15% oxygen on a dry basis. CO emissions from the A-2 Flare shall not exceed 81 ppmv of CO at 15% oxygen on a dry basis. [Basis: RACT]

26. ~~POC emissions from the A-1 flare shall not exceed 49 ppmv of POC, expressed as methane at 3% oxygen on a dry basis. Effective July 1, 2002, this limit shall be replaced by the more stringent limit listed in Part 29c. [Basis: Cumulative Increase]~~[deleted]

27. A flow meter to measure gas flow into ~~the~~ each flare shall be installed prior to operation and maintained in good working condition. [Basis: ~~Cumulative Increase,~~Regulation 8-34-508 and 40 CFR 60.756(b)]

28. ~~The~~ Each flare shall be equipped with both local and remote alarms, automatic combustion air control, and automatic start/restart system. [Basis: 8-34-301]

29. [deleted]~~The A-1 Landfill Gas Flare shall meet all of the following requirements:~~

~~a. The flare destruction efficiency of total hydrocarbons shall not be less than 98% by weight. [Basis: 8-34-301.3 and SIP 8-34-301.2]~~

~~b. The flare destruction efficiency for total non-methane organic compounds (NMOC) shall not be less than 98% by weight unless the outlet NMOC concentration is less than 20 ppmv, expressed as hexane at 3% oxygen on a dry basis. [Basis: 40 CFR 60.752(b)(2)(iii)(B)]~~

~~c. Effective July 1, 2002, the flare destruction efficiency for total non-methane organic compounds (NMOC) shall not be less than 98% by weight unless the outlet NMOC concentration is less than 30 ppmv, expressed as methane at 3% oxygen on a dry basis. This subpart is not federally enforceable unless EPA approves the October 6, 1999 version of Regulation 8, Rule 34 in the SIP. [Basis: 8-34-301.3]~~

30. In order to demonstrate compliance with Parts 24, 25, 26 and 29, the owner/operator shall conduct a source test at ~~A-1~~ each flare once every year. The source tests shall be conducted no sooner than 9 months and no later than 12 months after the previous source test. The first source test for A-2 shall be conducted within 60 days of initial start-up of A-2. The source test shall determine the flares' outlet concentrations of oxygen, nitrogen oxides, carbon monoxide, ~~total hydrocarbons,~~ and non-methane hydrocarbons, and the destruction efficiencies achieved by the flares for ~~total hydrocarbons and~~ non-methane hydrocarbons. All test results shall be provided to the District within 45 days after testing has occurred. All

source test methods used shall be subject to the prior approval of the Source Test Section of the District Technical Division. The applicant shall contact the District Source Test Section prior to performing the source test regarding the proper source test procedures and shall contact both the Source Test Section and Permit Services Division in writing 7 days prior to the source test date. [Basis: 8-34-301.3, RACT, 40 CFR 60.752(b)(2)(iii)]

31. A characterization of the landfill gas shall be performed concurrent with the source test required by Part 30. The characterization shall be in accordance with California Air Resources Board testing guidelines for Calderon specified air contaminants, acrylonitrile, non-methane organic compounds (NMOC), total reduced sulfur compounds, methane, carbon dioxide, oxygen, and nitrogen. The results of the characterization shall be submitted to the District within 45 days after testing has occurred. The gas sample(s) shall be drawn from the main landfill gas collection header and shall be drawn after the ~~S~~system has been balanced and the collection lines conditioned with landfill gas. [Basis: Toxic Risk Management Policy, 8-34-301, NSPS, 9-1-302]

*32. If concentrations of toxic air contaminants (TACs) are above the levels listed below, an additional risk screen run at actual concentrations will be required. Depending on the results of such screen, additional permit conditions may be required if health risks are deemed unacceptable.

Compound	Concentration (ppbv)
Acrylonitrile	~~100~~500
Benzene	~~2700~~10,000
Carbon Tetrachloride	100
Chloroform	100
Ethylene Dibromide	100
Ethylene Dichloride	~~300~~400
Methylene Chloride	27600
Perchloroethylene	3600
Trichloroethylene	2300
Vinyl Chloride	1600

[Basis: Toxic Risk Management Policy]

33. The ~~combined~~ fugitive emissions of Precursor Organic Compounds (POC) from the S-1 Landfill ~~and the A-1 Flare~~ shall not exceed ~~46.092~~40.059 tons per year (expressed as ~~hexane~~methane). Fugitive 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 system, A-1 and A-2 Flares, is expanded, whichever is sooner.

a. The current methane generation rate and uncontrolled POC emissions from the S-1 Landfill shall be calculated using the equations described in the most recent revision of AP-42 Chapter 2.4.

b. The methane generation rate shall be based on the total amount of waste accepted at the landfill to date. The Permit Holder may use either average annual or year-to-year waste acceptance rates.

c. The Permit Holder shall use the AP-42 recommended default values for the methane generation potential and methane generation rate constant. As of ~~May 1, 2000~~April 1, 2005, these default values were:
Lo = 100 m3 CH4/Mg and k = 0.02~~4~~ year^-1.

d. When calculating uncontrolled POC emissions (UEPOC, pounds/year of POC), the Permit Holder shall use site specific NMOC, NPOC, and methane concentrations (after correcting for air infiltration) and the site specific landfill gas temperature. The site specific values shall be the average of at least three previous years of data collected pursuant to Part 31 above.

e. Total non-methane organic compounds (NMOC) measured in the landfill gas pursuant to Part 31 may be assumed to be 100% POC, or a site specific POC concentration (CPOC) can be calculated using data from Part 33d above, where CPOC = NMOC – NPOC (all concentrations expressed as methane).

f. The fugitive POC emissions from the landfill (FEPOC, pounds/year of POC) shall be calculated using the equation below:
FEPOC = 0.25 * UEPOC

~~g. POC emissions from the A-1 Flare (CEPOC, pounds/year of POC) shall be calculated using the following equation where QFLFG is the actual amount of landfill gas delivered to the flare (ft3/year), CPOC is the site specific POC concentration in the landfill gas (ppmv, after correction for air infiltration), and T is the site specific landfill gas temperature (degrees F).~~
~~CEPOC = 2.36 E-6 * QFLFG * CPOC / (460+T)~~

~~h. The combined POC emissions from the S-1 Landfill and A-1 Flare (TEPOC, tons/year of POC) shall be calculated using the following equation:~~
~~TEPOC = (FEPOC + CEPOC) / 2000~~

[Basis: Offsets]

34. Total reduced sulfur compounds in the collected landfill gas shall be monitored as a surrogate for monitoring sulfur dioxide in control systems exhaust. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed ~~1~~300 ppmv (dry). In order to demonstrate compliance with this part, the Permit Holder shall measure the total sulfur content in collected landfill gas on a quarterly basis using a draeger tube. The landfill gas sample shall be taken from the main landfill

gas header. The Permit Holder shall follow the manufacturer's recommended procedures for using the draeger tube and interpreting the results. The Permit Holder shall conduct the first draeger tube test no later than 3 months after the issue date of the MFR Permit and quarterly thereafter. [Basis: Regulations 9-1-302 and 2-6-503]

35. The heat input to the flares~~A-1 Flare~~ shall not exceed the following limits: (a) 1744.8 million BTU per day ~~or~~and 636,852 million BTU per year for A-1 and (b) 1824 million BTU per day and 665,760 million BTU per year for A-2. In order to demonstrate compliance with this part, the Permit Holder shall calculate and record on a monthly basis the maximum daily and total monthly heat input to ~~the~~ each flare based on the landfill gas flow rate recorded pursuant to Part 27, the average methane concentration in the landfill gas based on the most recent source test, and a high heating value for methane of 1013 BTU/scf. The records shall be retained for five years and shall be made available to the District staff upon request. [Basis: Regulation 2-1-301]

(no changes to Parts 36 or 37)

E. RECOMMENDATION

Issue a Change of Permit Conditions for the following equipment:

S-1 Keller Canyon Landfill; abated by A-1 Landfill Gas Flare and A-2 Landfill Gas Flare (future).

Issue an Authority to Construct for the following equipment:

A-2 Landfill Gas Flare, Perennial Energy, EGFS-83.6-2500, 76 MM BTU/hour, 2500 of landfill gas; abating S-1 Keller Canyon Landfill.

signed by Carol S. Allen — April 8, 2005

By: Carol S. Allen — Date

Senior Air Quality Engineer

APPENDIX B

ENGINEERING EVALUATION

APPLICATION # 12155

ENGINEERING EVALUATION

Allied Waste Industries, Inc.; Site # A4618

APPLICATION # 12155

A. BACKGROUND

Site 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), which is equipped with a landfill gas collection system. The landfill is currently permitted to accept a maximum 3500 tons/day of refuse and is permitted to dispose of 38.4 million tons of decomposable waste in the landfill. As of June 30, 2004, the landfill contained 6.15 MM tons of decomposable waste. In addition to MSW, this site is allowed to accept designated wastes including petroleum contaminated soils.

All collected landfill gas is currently abated by the A-1 Landfill Gas Flare. This flare has maximum permitted capacities of 1744.8 MM BTU/day and 636,852 MM BTU/year and can process about 2438 scfm of landfill gas. For July 2003-June 2004, KCLC reported that A-1 burned an average of 881 scfm of landfill gas. The District has issued an Authority to Construct for a second enclosed flare (A-2) with maximum capacities of 76 MM BTU/hour and 2500 cfm of landfill gas. This second flare is necessary to ensure that the landfill gas control system has adequate capacity to handle the maximum projected landfill gas generation rate for the next ten to fifteen years.

This facility also includes a Wipe Cleaning Operation (S-2) that is permitted to use up to 100 gallons/year of mineral spirits and a Yard and Green Waste Stockpile (S-3) that is permitted to accept up to 70,200 of waste material for recycling. Last year, actual throughput rates were 0 gallons/year of mineral spirits at S-2 and 35,073 tons/year of yard waste materials at S-3.

Current Project:

KCLC submitted Application # 12155 to request an Authority to Construct for additional landfill gas collection wells and wellhead monitoring stations. As waste filling progresses, the landfill gas collection systems needs to be expanded into the newly filled waste areas to ensure that sufficient landfill gas is collected to prevent surface leaks above the Regulation 8-34-303 limit. KCLC is requesting to install a minimum of 15 and a maximum of 20 additional vertical gas collection wells. The vacuum to these new wells will be controlled at two wellhead stations (one station will control at least 4 wells and the other station will control at least 11 wells). These wellhead stations are also the monitoring points for determining compliance with the Regulation 8-34-305 wellhead standards. After installation of the 15 proposed wells, KCLC will balance the well field and conduct surface and wellhead monitoring to determine if any additional wells will be necessary to ensure sufficient collection of landfill gas in the recently filled waste areas.

B. EMISSIONS

As discussed above, KCLC currently vents all of the collected landfill gas to the A-1 Landfill Gas Flare. This flare is currently collecting about 900 cfm of landfill gas and has a maximum capacity of at least 2400 cfm of landfill gas. The new collection system equipment is expected to increase the current landfill gas flow rate by no more than 500 scfm. The A-1 Landfill Gas Flare has sufficient capacity to handle this increased volume of landfill gas with no modifications. Therefore, this application will not result in any emission increases.

C. STATEMENT OF COMPLIANCE

Regulation 2, Rule 1:

This application is for a change of permit conditions at the S-1 Keller Canyon Landfill that will identify upgrades to the landfill gas collection system, which is part of the overall abatement system for the landfill. This condition change will not result in any emission increases at the facility. 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. In addition, this change of permit conditions is categorically exempt from CEQA review pursuant to Regulation 2-1-312.1 and 2-1-312.2. Therefore, 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 the requirements of Regulation 2, Rule 2.

New Source Review for Toxic Air Contaminants:

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.

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. The NSPS for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart WWW) requires the owner or operator of a landfill that is subject to this part and that has a design capacity of greater than or equal to 2.5 million megagrams and 2.5 million cubic meters to obtain an operating permit pursuant to Part 70. This facility is subject to this NSPS and meets the designated facility criteria listed in 40 CFR § 60.32c(c). Therefore, a Title V permit is required pursuant to Regulation 2-6-304.

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.

The initial MFR Permit for this facility was issued on September 20, 2001 and was revised on December 17, 2003. This application will require a revision of the current MFR permit to incorporate the proposed permit condition revisions. The proposed MFR permit revisions related to this application are discussed in the Statement of Basis for Application # 11385.

Regulation 8, Rule 34:

The proposed landfill gas collection system expansion is necessary to ensure compliance with the surface leak limit in Regulation 8-34-303 in newly filled waste areas. The proposed installation of 15 vertical wells is expected to provide sufficient gas collection in the surrounding areas. Since all landfill gas will be continuously collected and vented to approved control devices, the S-1 Keller Canyon Landfill will comply with Regulation 8-34-301 and 301.1. The existing flare has sufficient capacity to handle the expected increase in landfill gas flow rate due to the new vertical wells. Since this increased flow rate will not exceed the current capacity of the flare, this increased landfill gas flow rate will not impact the flare's ability to comply with the NMOC emission limits in Regulation 8-34-301.3. The proposed vertical wells, as monitored at two wellhead stations, are expected to comply with the wellhead limits in Regulation 8-34-305. KCLC will monitor the two new wellhead stations in accordance with Regulation 8-34-505. Any wellhead excesses that are discovered will be repaired in accordance with Regulation 8-34-414. This permit application constitutes a submittal of an amended Collection and Control System Design Plan for this facility, which is required pursuant to Regulation 8-34-408.

Federal Requirements:

NSPS for MSW Landfills: In the BAAQMD, compliance with Regulation 8, Rule 34 will ensure compliance with all applicable requirements of 40 CFR, Part 60, Subpart WWW. Specific applicable NSPS requirements are listed in the existing MFR Permit. The proposed installation of 15-20 vertical landfill gas collection wells is expected to ensure compliance with the NSPS surface leak limit. KCLC is expected to comply with all applicable NSPS monitoring requirements for these new wells.

NESHAPs for MSW Landfills: Any landfills that are subject to the landfill gas collection and control requirements of either the NSPS for MSW Landfills or the EG for MSW Landfills are also subject to the NESHAPs for MSW Landfills (40 CFR, Part 63, Subpart AAAA). This NESHAP requires that subject facilities prepare and implement startup, shutdown, malfunction plans (SSM Plans) and additional reporting requirements. The facility's SSM Plan will need to be updated to include the new gas collection system configuration. The revised SSM Plan should be on-site prior to initial operation of the new vertical wells. All applicable requirements are either contained in the existing MFR permit or will be added to the permit pursuant to the Reopening Application # 10393. This facility is expected to continue to comply with these requirements.

D. PERMIT CONDITION REVISIONS

The District is proposing to modify Condition # 17309 as indicated below.

Condition # 17309
For S-1 KELLER CANYON LANDFILL, A-1 LANDFILL GAS FLARE, AND A-2 LANDFILL GAS FLARE:

(no changes to Parts 1-19)

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 subsection a 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~~ 12155. The authorized number of landfill gas collection system components is the baseline count listed below plus any components added pursuant to Part 1b as evidenced by start-up notification letters submitted to the District.

Well Station	Number of Wells
A	12
E	12
K	12
L	6
M	9
N	16
P	8

b. The Permit Holder has been issued an Authority to Construct to allow for the landfill gas collection system modifications described below as of [insert approval date]. Well and collector locations, depths, and lengths are as described in detail in Permit Application # 12155.

- Install a minimum of 15 up to a maximum of 20 vertical gas collection wells.
- Install 2 wellhead stations that will provide flow rate control and monitoring points for the above wells.

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

(no changes to Parts 21-37)

E. RECOMMENDATION

Issue an Authority to Construct for the following equipment:

S-1 Keller Canyon Landfill; abated by Flares (A-1 and A-2): modification of the landfill gas collection system to install 15 to 20 vertical wells at 2 wellhead stations.

signed by Carol S. Allen — June 9, 2005

By: Carol S. Allen — Date

Senior Air Quality Engineer