

ENCLOSURE 2

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

**MONITORING AND REPORTING PROGRAM
NO. R6V-2007-[PROP]
WDID NO. 6B150303011**

FOR

**KERN COUNTY WASTE MANAGEMENT DEPARTMENT
MOJAVE-ROSAMOND CLASS III LANDFILL**

Kern County

I. GENERAL

A Discharger who owns or operates a waste management facility, or landfill, is required to comply with the provisions of Chapter 3, Subchapter 3, Article 1, Title 27, California Code of Regulations (CCR) for the purpose of detecting, characterizing, and responding to releases to the ground water. Section 13267 of the California Water Code gives the Water Board authority to require monitoring program reports for discharges that could affect the quality of waters within its region. State Water Resources Control Board Resolution No. 93-062 requires the Water Board to implement federal Municipal Solid Waste Regulations (Title 40 Code of Federal Regulations, Parts 257 and 258).

This Monitoring and Reporting Program (MRP) for the Mojave-Rosamond Class III Landfill (Landfill) requires the Discharger to continue Evaluation Program Monitoring (EMP) to further evaluate the extent and nature of the release and to develop a Corrective Action Program meeting the requirements of section 20430, Title 27, CCR. The EMP will also be capable of detecting any new release at the Landfill. The EMP must effectively produce data to delineate the vertical and lateral extent of the contaminant plume.

The Discharger has requested to reduce the monitoring frequency to a semi-annual schedule. The Discharger makes this recommendation based on the demonstrated long-term, historical stability of trace to low level volatile organic concentrations detected in the ground water at the Landfill. Staff accepts the Discharger's request provided ground water elevations continue to be monitored on a quarterly basis as presented in Table 1 of the MRP. All other monitoring shall be conducted on a semi-annual schedule as presented in Table 1 of this MRP.

II. WATER QUALITY PROTECTION STANDARD

A. Water Quality Protection Standard (WQPS)

A WQPS is required by Title 27, CCR to assure the earliest possible detection of a release from the Landfill to the underlying soil and/or ground water. On behalf of Kern County, the Kern County Waste Management Department (KCWMD) submitted an updated WQPS Report in July 2004. A WQPS is necessary during the EMP to determine if any new releases occur. For this Landfill, the WQPS shall consist of all constituents of concern, the concentration limit for each constituent of concern, the point of compliance, and all water quality monitoring points.

The Executive Officer shall review and accept the WQPS, or any modification thereto, for each monitored medium. The report must:

1. Identify all distinct ground water bodies that could be affected in the event of a release from the Landfill Unit or portion of the Landfill.
2. Include a map showing the monitoring points and background monitoring points for the surface water monitoring program, groundwater monitoring program, groundwater monitoring program, and the unsaturated zone monitoring program. The map shall include the point of compliance in accordance with section 20405, Title 27, CCR.
3. Evaluate the perennial direction(s) of ground water movement within the uppermost ground water zone(s).

If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to waste management activities at the site, the Discharger may request modification to the WQPS.

B. Ground Water

Constituents of Concern (COC): The COCs include all the waste constituents, their reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the Landfill. The constituents of concern for the Landfill are those listed in Tables 1 and 2 of the MRP. The Discharger shall monitor all COCs every five years, or more frequently as required in accordance with the EMP.

Monitoring Parameters: Monitoring parameters are constituents of concern that are the waste constituents, reaction products, hazardous constituents, and physical parameters that provide a reliable indication of a release from the Landfill. The monitoring parameters for the Landfill are those listed in Tables 1 and 2.

Concentration Limits (CLs): CLs are intended to reflect background water quality conditions. In accordance with the options identified in Title 27, several methodologies were considered for determining CLs. These methodologies included inter-well comparisons, intra-well comparisons, and non-statistical methods.

For a naturally occurring constituents of concern, the concentration limit shall be determined as follows:

1. By calculation in accordance with a statistical method pursuant to section 20415, Title 27, CCR; or
2. By an alternate statistical method acceptable to the Executive Officer in accordance with section 20415, Title 27, CCR.
3. Site specific concentration limits have been established for the Landfill and are as follows:

Inorganic Constituents: The Discharger has developed concentration limits for naturally occurring inorganic constituents (e.g., chloride, sulfate, total dissolved metals) using the data analysis methods allowed pursuant to section 20415, Title 27, CCR. The Discharger's 2004 WQPS report proposes concentration limits for sulfate and nitrate that have been exceeded as indicated by the Discharger's self monitoring reports. The Discharger's July 2007 self monitoring report indicates that sulfate has been detected in the evaluation ground water monitoring well MR2-01 and nitrate has been detected in ground water monitoring compliance well MR1-08 above the concentration limits presented in the 2004 WQPS. Board Order No. R6V-2007-[TEMP] contains a Time Schedule requiring the Discharger to submit a technical report that evaluates whether these inorganic constituents are part of the release. If necessary, the technical report must also contain a schedule for submitting revised concentration limits (contained in an updated WQPS) as appropriate for the site. (See Board Order No. R6V-2007-[PROP], section [] - Time Schedule.)

Organic Constituents: Concentration limits for organic constituents, or non-naturally occurring constituents, are based on background condition, which are non-detectable (ND). Therefore the concentration limits for these constituents are the laboratory method detection limit (MDL) for each compound.

In order to provide the best assurance of the earliest possible detection of a release of non-naturally occurring waste constituents from a Unit, this Order specifies a non-statistical method for the evaluation of monitoring data.

The specified non-statistical method for evaluation of monitoring data provides two criteria (or triggers) for making the determination that there has been a

release of non-naturally occurring waste constituents from the Landfill. The presence of two non-naturally occurring waste constituents above their respective method detection limits (MDLs), or one non-naturally occurring waste constituent detected above its practical quantitation limit (PQL), indicates that a release of waste from the Landfill has occurred. Following an indication of a release, verification testing will be conducted to determine whether there has been a release from the Landfill, if there is a source of the detected constituents other than the Landfill, or if the detection was a false detection. Although the detection of one non-naturally occurring waste constituent above the MDL is sufficient to provide for the earliest possible detection of a release, the detection of two non-naturally occurring waste constituents above the MDL as a trigger is appropriate due to the higher risk of false-positive analytical results and the corresponding increase in sampling and analytical expenses from the use of one non-naturally occurring waste constituent above its MDL as a trigger.

Point of Compliance: The Point of Compliance for this Landfill is the vertical surface located at the hydraulically down-gradient limit of the Landfill that extends through the uppermost aquifer underlying the Landfill.

Compliance Period: The compliance period for the Landfill shall be the number of years equal to the active life of the Landfill plus the closure period. The compliance period is the minimum period during which the Discharger shall conduct a water quality monitoring program subsequent to a release for the Landfill. The compliance period shall begin anew each time the Discharger initiates an evaluation monitoring program.

III. MONITORING

A. Landfill Discharge

The following shall be reported semi-annually:

1. The volume of solid waste (in-place compacted volume in cubic yards) discharge to the disposal site for the monitoring period.
2. The percent of the total landfill volume used for solid waste disposal, including waste disposed during this monitoring period.
3. Comments describing the effectiveness of the load checking program.
4. A summary of inspection of the integrity of the cover material, drainage structures, potential erosion areas, and the monitoring system. Any problem areas, special occurrences, or corrective action taken should be included in the quarterly report.

B. Evaluation Monitoring Program

The Discharger has developed and implemented an EMP to determine the extent of the release, and to develop corrective action measures. The 1996 Lahontan Water Board-accepted EMP, which includes non-statistical data analysis for non-naturally occurring organics (i.e., VOCs), shall be implemented until the Discharger either revises the EMP or initiates a Corrective Action Program.

The monitoring parameters for the existing EMP are the metal surrogates, chloride, sulfate, nitrate as nitrogen, total dissolved solids, and volatile organic constituents as defined by Appendix I of 40 CFR, Part 258, (Table 1 of this MRP), and other parameters listed in Table 1. The constituents of concern are the monitoring parameters and the constituents listed in Appendix II of 40 CFR, Part 258.

The monitoring associated with the EMP is described as follows:

1. Ground Water

Monitoring Points: The following ground water well samples shall be collected from the following wells on a semi-annual basis:

- i. One background monitoring well (MR1-06)
- ii. Two compliance wells (MR1-07 and MR1-08); and
- iii. One EMP well (MR2-01).

Ground water wells shall be analyzed for the monitoring parameters and constituents of concern listed in Tables 1 and 2 of this MRP. The locations of the existing ground water monitoring wells are illustrated in the Site Map provided in Attachment B of Board Order No. R6V-2007-[PROP].

Monitoring Parameters and Constituents of Concern: The monitoring parameters are the metal surrogates, chloride, sulfate, nitrate as nitrogen, sulfate, and total dissolved solids and the volatile organic constituents as defined by Appendix I of 40 CFR, Part 258, as shown on Table 1. The constituents of concern are those constituents listed in Appendix II of 40 CFR, Part 258.

Concentration Limits: The Discharger has collected background water quality data for the monitoring parameters contained in this MRP. The concentration limits are outlined in the WQPS (dated July 2004). These concentration limits were established pursuant to section 20400, Title 27, CCR.

2. Unsaturated Zone

The current vadose zone monitoring being implemented by the Discharger and represented in this MRP involves the testing of five suction lysimeters and one moisture block; there are no soil gas probes at the site. No liquid samples have ever been recovered from these lysimeters and the moisture block has not indicated the presence of soil pore liquids. At this time, the EMP does not include a gas monitoring program. As such the existing monitoring of the unsaturated zone provides limited information about the quality of the vadose zone.

To improve the existing vadose zone monitoring program and the overall EMP, Board Order R6V-2007-[PROP], section V. - Time Schedule requires the Discharger to submit a Soil-Gas Probe Installation Work Plan and revised EMP. The Discharger, however, will continue to monitor the existing lysimeters and the moisture block on a semi-annual basis until a more robust vadose zone monitoring system is implemented as part of a revised EMP for the Landfill. Implementation of a Revised EMP is expected by the fall of 2008.

Monitoring Points: The monitoring points of the unsaturated zone consist of the five suction lysimeters and the one moisture block located at the Landfill as shown on Site Map provided in Attachment B of Board Order No. R6V-2007-[PROP]. No soil-gas probes are included with this MRP, however, once the Lahontan Water Board accepts the Soil-Gas Probe Installation Work Plan and the Revised EMP Work Plan, MRP No. R6V-2007-[TENT] will be amended to reflect the revised monitoring program.

Monitoring Period: The unsaturated zone monitoring period shall coincide with the ground water monitoring period.

Monitoring Parameters and Constituents of Concern: If fluid samples can be recovered from the lysimeters, the samples shall be analyzed for the Monitoring Parameters and the Constituents of Concern presented in Table 1 of this MRP.

3. Aquifer Parameters

The parameters listed in Table 1 of this MRP shall be calculated and reported in graphic and tabular form. Include a figure illustrating the Aquifer Parameters listed in Table 1.

C. Detection of a New Release

To provide the best assurance of the detection of any new releases at the Landfill, the Discharger will apply the Data Evaluation Methods specified in section IV of this MRP. Evaluation of data will be conducted using statistical and non-statistical methods.

IV. SAMPLING AND ANALYSIS

A. Method Selection

The methods of analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., trace) in historical data for that medium, the SW-846 analytical method having the lowest Method Detection Limit (MDL) shall be selected from among those methods which would provide valid results in light of any matrix effects involved.

A matrix effect is any increase in the MDL or Practical Quantitation Limit (PQL) for a given constituent as a result of the presence of other constituents, either of natural origin or introduced through a release, that are present in the sample being analyzed.

B. Trace Results

Results falling between the MDL and the PQL shall be reported as "trace," and shall be accompanied by both the (nominal or estimated) MDL and PQL values for that analytical run. The PQL is the lowest acceptable calibration standard (acceptable as defined for a linear response or by actual curve fitting) times the sample extract dilution factor times any additional factors to account for Matrix Effect. The PQL shall reflect the quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. PQLs reported by the laboratory shall not simply be re-stated from USEPA analytical method manuals. Laboratory derived PQLs are expected to closely agree with published USEPA estimated quantitation limits (EQLs).

C. Estimated MDL and PQL

The MDL and PQL shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the lab. If the lab suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived

MDL/PQL values, the results shall be flagged accordingly and an estimate of the detection limit and/or quantitation limit actually achieved shall be included.

D. Quality Assurance/Quality Control (QA/QC) Data

All QA/QC data shall be reported along with the sample result to which it applies. Sample results shall be reported unadjusted for blank results or spike recovery. The QA/QC data submittal shall include the following information:

1. Method, equipment, and analytical detection limits;
2. Recovery rates and an explanation for any recovery rate that is outside the USEPA specified recovery rate;
3. Results of equipment and method blanks;
4. Results of spiked or surrogate samples;
5. Frequency of quality control analysis;
6. Chain of custody logs; and
7. Name and qualifications of the person(s) performing the analysis.

E. Laboratory Records

Water quality records shall be maintained by the Discharger, and retained for a minimum period of 30 years. The period of retention shall be extended during the course of any unresolved litigation or when requested by the Executive Officer. Such records shall show the following for each sample:

1. Identity of sample and of the actual monitoring point designation from which it was taken, along with the identity of the individual who obtained the sample.
2. Date and time of sampling.
3. Date and time of analysis were started and completed, and the name of personnel performing each analysis.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
5. Chromatographs and calculation of results.
6. A complete chain of custody logs.
7. Results of analysis, and the MDL and PQL for each analysis.

F. Release Indication and Re-Test Procedure

An exceeded concentration limit is an indication of release. In cases where the MDL is the concentration limit, at least two MDLs or a single PQL excursion at a single monitoring point indicates a release. If a release is indicated, the Re-Test Procedure shall immediately be carried out as follows:

1. In the event the Discharger concludes that a release has been tentatively indicated, the Discharger shall carry out the appropriate reporting requirements and, within 30 days of receipt of analytical results, collect two new sets of samples for the indicated Monitoring Parameter(s) at each indicating Monitoring Point.
2. Analyze each of the two suites of re-test analytical results using the same statistical method (or non-statistical comparison) that provided the tentative indication of a release. If the test results of either (or both) of the re-tested data suites confirm the original indication, the Discharger shall conclude that a release has been discovered and shall carry out the appropriate requirements.
3. Re-tests shall be carried out only for the Monitoring Point(s) for which a release is tentatively indicated, and only for the Monitoring Parameter(s) which triggered the indication. When a VOC analyte is re-tested the results of the entire VOC test method analyzed shall be reported.

V. DATA EVALUATION METHODS

In order to determine if any new releases have occurred from the Landfill, evaluation of data will be conducted using statistical and non-statistical methods.

A. Performance Standards

All data analysis methods (statistical or nonstatistical) shall meet the requirements of Section 20415(e)(9) Title 27, CCR.

B. Retest Is Part Of The Method

In the event that an approved data analysis method provides a preliminary indication that a given Monitoring Parameter has exhibited a measurably significant increase at a given well, the Discharger shall conduct a verification procedure in the form of a discrete retest, in accordance with Section 20415(e)(8)(E) Title 27, CCR. The retest is part of the data analysis method; therefore, a measurably significant increase exists only if either or both of the retest samples validates the preliminary indication.

C. Limited Retest Scope

For any given ground water monitoring point, the Discharger shall perform the verification procedure only for those Monitoring Parameters that have shown a preliminary indication at that well during that reporting period.

D. Non-statistical analysis:

1. Physical Evidence

Physical evidence can include vegetation loss, soil discoloration, unexplained volumetric changes in the Landfill, or ground water mounding. Each semi-annual report shall comment on these physical elements.

2. Time Series Plots

Each semi-annual report shall include a time series plot for each constituent analyzed for and detected. Evidence of a release may include trends of increasing concentrations of one or more constituents over time.

VI. REPORTING REQUIREMENTS

A. Scheduled Reports To Be Filed With The Water Board

The following periodic reports shall be submitted to the Water Board as specified below:

1. Semi-Annual Monitoring Reports

Monitoring reports shall be submitted to the Lahontan Water Board on a semi-annual basis as described in section V. E. of this MRP. Reports shall be submitted to the Lahontan Water Board by **45 days** following the end of the period for which the monitoring was performed. The reports will include, but not be limited to, the following:

- a. Tabulated water level and ground water chemistry data, including current monitoring events;
- b. A map illustrating all of the monitoring points, ground water contours and flow direction;
- c. Results of sampling and laboratory analysis of ground water, soil pore liquids and the moisture block;
- d. Field monitoring sheets and well sampling data sheets;
- e. Information associated with monitoring of the Landfill Discharger (See section III. A.)

- f. A letter summarizing the essential points in each report shall accompany each report. The letter shall include a discussion of any requirement violations found since the last report was submitted, and shall describe actions taken or planned for correcting those violations; and
- g. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting this schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the letter of transmittal.
- h. An evaluation of the effectiveness of the runoff/run-on control facilities.

2. Annual Monitoring Reports

Annual Monitoring Reports shall be submitted to the Lantoran Water Board. Annual Reports shall be submitted to the Lantoran Water Board by **March 30 of each year**. The reports shall include the following:

- a. Time series data plots of the past three years of analytical data.
- b. An evaluation of the EMP and propose any modifications necessary to improve the EMP.
- c. An update concerning the adequacy of financial assurance. This financial assurance document shall summarize the amount of money available in the fund for Closure, Post-Closure and for each activity in the fund. The Discharger shall demonstrate in the annual report that the amount of financial assurance is adequate, or increase the amount of financial assurance.
- d. The Discharger shall review the Preliminary Closure and Post-Closure Maintenance Plan annually to determine if significant changes in the operation of the Landfill warrant an update of the plan.

3. Five-Year Constituent of Concern Monitoring Program

Pursuant to section 20420(g), Title 27, CCR, every five years the Discharger shall sample for COCs in accordance with Part II.C.1.d, with successive direct monitoring efforts being carried out alternately during January 1 through June 30 of one five-year sampling event and July 1 through December 31 of the next five-year sampling event, and every fifth year, thereafter. The first five-year COC sampling event shall take place during January – June 30th of 2012. The Five-Year COC Report shall be submitted no later than **45 days** following the monitoring period.

B. Unscheduled Reports To Be Filed With The Water Board

The following reports shall be submitted to the Water Board as specified below:

1. Notice of Tentative Release

Should the statistical or non-statistical data analysis indicate, for a given constituent of concern, that a new release is tentatively identified, the Discharger shall:

- a. Immediately notify the Water Board verbally as to the monitoring point(s) and constituent(s) or parameter(s) involved.
- b. Provide written notification by certified mail within seven days of such determination (Section 20420, Title 27, CCR). The notification should indicate the Discharger's intent to conduct verification sampling, initiate evaluation monitoring procedures, or demonstrate that a source other than the Landfill is responsible for the release. The notification should include a map showing the location(s) of release, an estimate of the flow rate (if available), a description of the nature of the discharge (e.g., all-pertinent observations and analyses), and corrective measures underway or proposed.
- c. If the Discharger chooses to attempt to demonstrate that a source other than the Landfill is responsible for the new release, the Discharger shall submit a supporting technical report within 90 days of detection of the new release.

2. Evaluation Monitoring

The Discharger shall, within 90 days of verifying a new release, submit a technical report pursuant to Section 13267(b) of the California Water Code proposing a revised EMP. If the Discharger decides not to conduct verification procedures, or decides not to make a demonstration that a source other than the Landfill is responsible for the new release, the new release will be considered verified.

3. Engineering Feasibility Study Report

The Discharger shall, within 180 days of verifying a new release, submit a Preliminary Engineering Feasibility Study (Section 20420, Title 27, CCR) to preliminarily propose methods for corrective action.

4. Ground Water Monitoring Logs

Pursuant to Section 20415(e)(2), Title 27, CCR, all monitoring wells and all other borings (including but not limited to gas monitoring wells) drilled to satisfy the requirements of this Monitoring and Reporting Program shall be drilled by a licensed drilling contractor (or by a drilling crew under the direct supervision of the design engineer or engineering geologist), and shall be logged during drilling under the direct supervision of a person who is a California registered geologist or licensed civil engineer, who has expertise in stratigraphic well logging.

5. Significant Earthquake Event

After a significant or greater earthquake event¹, or upon request by the Lahontan Water Board, the Discharger shall notify the Water Board within 48 hours, and within 45 days submit to the Water Board a detailed written post-earthquake report describing any physical damages to the containment features, ground water monitoring or landfill gas monitoring wells. The Discharger shall closely examine the Landfill cover, vegetative cover, slope conditions, drainage control system, and surface grading for signs of cracking or depressed/settled areas, following a major earthquake. If cracking or depressed areas of the cover is identified, the Discharger shall repair the cover, depressed area, or damaged areas within 30 days from the earthquake date.

C. General Provisions

The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached (Attachment B) to and made part of this Monitoring and Reporting Program.

D. Financial Assurance

Included with the Annual Report on or before **March 30** every year the Discharger shall submit an annual financial assurance report to the Water Board. This report shall summarize the amount of money available in the fund for Closure, Post Closure and Corrective Action Monitoring. This report should also provide a demonstration that the amount of financial assurance is adequate, or the need to increase the amount of financial assurance based on inflation or other factors. The report must reference the most recent plans that form the basis of cost estimates. A detailed evaluation of those costs must be made. A

¹ For purposes of this Order, a significant earthquake is a seismic event classified according to the USGS Earthquake Hazard Program as a moderate earthquake measuring between 5 and 5.9 on the Richter scale.

signed statement must be provided, under perjury, by an official of the agency that the costs are adequate.

E. Summary of Reporting Frequency

Report Designation	Period	Report Submittal Date
First Semi-Annual Monitoring Report	Dec 1, 2007 – Jun 30, 2008	Aug 15
Second Semi-Annual Monitoring Report	Jul 1 – Dec 31	Feb 15
Annual Report	Jan 1- Dec 31	March 30
Five-Year Corrective Action Program Report	Jan 1- Dec 31	March 30, 2012
Financial Assurance Report (included with the Annual Report)	Jan 1 – Dec 31	March 30

Ordered by: _____

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: Attachment A – Tables
Attachment B – General Provisions for Monitoring and Reporting

MFV-Mojave-Rosamond MRP, Board Order No. [R6V-2007-[PROP]]

Proposed

ATTACHMENT A

ATTACHMENT A

Table 1: Ground Water Monitoring Program

Parameters	Units	EPA Method²	Sampling Frequency³	Reporting Frequency⁴
Field Aquifer Parameters				
Slope of Ground Water Gradient	Percent	Not Applicable	Semi-annual	Semi-annual
Direction of Ground Water Gradient	Degrees	NA	Semi-annual	Semi-annual
Velocity of Ground Water Flow	feet/1000 feet	NA	Semi-annual	Semi-annual
Depth to Ground Water	feet bgs	NA	Quarterly	Semi-annual
Static Water Level	feet above mean sea level	NA	Semi-annual	Semi-annual
Electric Conductivity	micromhos/cm	120.1	Semi-annual	Semi-annual
pH	pH Units	150.1	Semi-annual	Semi-annual
Temperature	degrees F or C	170.1	Semi-annual	Semi-annual
Turbidity	NTUs	180.1	Semi-annual	Semi-annual
Monitoring Parameters				
Total Dissolved Solids	milligrams/liter	E160.1	Semi-annual	Semi-annual
Anions - Chloride, sulfate, bicarbonate, carbonate, nitrate	milligrams/liter		Semi-annual	Semi-annual
Cations - Calcium, Potassium, Magnesium, Sodium	milligrams/liter	SW8260/E300/A2320/A4500F-C	Semi-annual	Semi-annual
Hardness	milligrams/liter	SM-2340B	Semi-annual	Semi-annual
Volatile Organic Compounds ⁵ (+ oxygenates)	micrograms/liter	8260B	Semi-annual	Semi-annual
Constituents of Concern				
Inorganic (dissolved) see Table 2	micrograms/liter		5 year	5 year
Volatile Organic Compounds (+ oxygenates extended list)	micrograms/liter	8260	5 year	5 year
Semivolatile Organic Compounds ⁶	micrograms/liter	8270	5 year	5 year
PCBs and Pesticides ³	micrograms/liter	8082/8081	5 year	5 year
Chlorinated Herbicides ³	micrograms/liter	8151	5 year	5 year
Organophosphorus Pesticides ³	micrograms/liter	8141	5 year	5 year

² The Discharger shall analyze for all constituents using the United States Environmental Protection Agency (USEPA) analytical methods indicated or the most recently approved SW-846 USEPA method or other equivalent USEPA method.

³ Monitoring Frequency shall be semi-annual unless otherwise noted.

⁴ Reporting Frequency shall be semi-annual. Reports are due February 15 (includes data collected Jul – Dec) and July 15 (Includes data collected Jan – Jun).

⁵ As defined in Appendix I, 40 CFR, part 258.

⁶ As defined in Appendix II, 40 CFR, part 258.

ATTACHMENT A**Table 2: Inorganic Constituents of Concern**

Parameter	USEPA Method⁷	Units
Antimony	7062	milligrams/liter
Arsenic	7062	milligrams/liter
Barium	6010	milligrams/liter
Beryllium	6010	milligrams/liter
Cadmium	7131	milligrams/liter
Cobalt	6010	milligrams/liter
Chromium	6010	milligrams/liter
Copper	6010	milligrams/liter
Cyanide	9010	milligrams/liter
Lead	7421	milligrams/liter
Mercury	7471	milligrams/liter
Nickel	7521	milligrams/liter
Selenium	7742	milligrams/liter
Silver	6010	milligrams/liter
Sulfide	9030	milligrams/liter
Thallium	7841	milligrams/liter
Tin	6010	milligrams/liter
Vandium	6010	milligrams/liter

⁷ The Discharger shall analyze for all constituents using the United States Environmental Protection Agency (USEPA) analytical methods indicated or the most recently approved SW-846 USEPA method or other equivalent USEPA method.

ATTACHMENT B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. **SAMPLING AND ANALYSIS**

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
 - i. Standard Methods for the Examination of Water and Wastewater
 - ii. Methods for Chemical Analysis of Water and Wastes. EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.
- d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b. below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

- a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.
- b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.
- d. Monitoring reports shall be signed by:
 - i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;
 - ii. In the case of a partnership, by a general partner;
 - iii. In the case of a sole proprietorship, by the proprietor; or

- iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- e. Monitoring reports are to include the following:
 - i. Name and telephone number of individual who can answer questions about the report.
 - ii. The Monitoring and Reporting Program Number.
 - iii. WDID Number.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation under Section 13268 of the Water Code.

x:PROVISIONS WDRS

file: general pro mmp

ENCLOSURE 3

16-0053

Mary Fiore-Wagner - FW: Comments on Revised Waste Discharge Requirements for Mojave-Rosamond Class III Landfill

From: "Dhaliwal, Jesse (CDPH-SCDWFOB)" <Jesse.Dhaliwal@cdph.ca.gov>
To: <mfwagner@waterboards.ca.gov>
Date: 10/15/2007 4:04 PM
Subject: FW: Comments on Revised Waste Discharge Requirements for Mojave-Rosamond Class III Landfill

Another try.

From: Dhaliwal, Jesse (CDPH-SCDWFOB)
Sent: Monday, October 15, 2007 4:00 PM
To: Fiore, Mary@WRCB
Subject: Comments on Revised Waste Discharge Requirements for Mojave-Rosamond Class III Landfill

Greetings Mary,

I am in receipt of the tentative waste discharge (WDID No. 6B150303011) requirements for Mojave-Rosamond Class III Landfill and have following comments:

On pages 11-12 of the document, under Section **Discharge Specifications**, reference is made to various section of Title 22 California Code of Regulations as they relate to primary and secondary drinking water standards. Some of these section numbers are not current and some tables have been eliminated. E.g. Table 64431-B for fluoride is no longer there since now there is only one MCL (2.0 mg/L) for natural occurring fluoride. In addition, section number for radiochemical regulations has changed from 64443 to 64442 for ground water. We adopted changes in radiochemical regulations in 2006. Also instead of Table 4 of Section 64443, now we have Table 64442 under Section 64442. The Department also adopted changes in secondary MCLs under Section 64449.

We request that reference to Title 22, California Code of Regulations on pages 11 and 12 be reviewed again and corrections made to show reference to current Title 22 sections and tables in the waste discharge order.

Following is a link to our Department's web site where you may download a current copy of Title 22 regulations.

<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Lawbook.aspx>

If you have any questions, please contact me. Thanks

Jesse Dhaliwal, P.E.
 Senior Sanitary Engineer
 Tehachapi District
 California Department of Public Health (CDPH)
 Drinking Water Field Operations
 Southern California Branch
 1200 Discovery Drive, Suite 100
 Bakersfield, CA 93309
 (661) 335-7318; Fax: (661) 335-7316
 Email: jesse.dhaliwal@cdph.ca.gov

Please note that effective July 1, 2007, our Department's name has changed to California Department of Public Health (CDPH) and also please make a note of my new email address.

Conserve energy and water. Visit Drinking Water Program's new website at:

<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx>

16-0054

ENCLOSURE 4

16-0055

Mary Fiore-Wagner - Re: FW: Comments on Revised Waste Discharge Requirements for Mojave-Rosamond Class III Landfill

From: Mary Fiore-Wagner
To: Dhaliwal, Jesse
Date: 10/24/2007 1:27 PM
Subject: Re: FW: Comments on Revised Waste Discharge Requirements for Mojave-Rosamond Class III Landfill

Jesse,
Thank you for reviewing the tentative WDRs and providing comments. I will see that the appropriate changes are made to any outdated/revised references to MCLs on pages 11 and 12. Thank you. --

Mary Fiore-Wagner
Environmental Scientist
CRWQCB-Lahontan Region
phone (530) 542-5425
fax (530) 544-2271
email: mfwagner@waterboards.ca.gov

16-0056

ENCLOSURE 5

16-0057

....NOTICE....

Submittal of Written Material for Regional Board Consideration

In order to ensure that the Regional Board has the opportunity to fully study and consider written material, it is necessary to submit it at least ten (10) days before the meeting. This will allow distribution of material to the Board Members in advance of the meeting. Pursuant to Title 23 California Code of Regulations Section 648.4, the Regional Board may refuse to admit written testimony into evidence unless the proponent can demonstrate why he or she was unable to submit the material on time or that compliance with the deadline would otherwise create a hardship. If any other party demonstrates prejudice resulting from admission of the written testimony, the Regional Board may refuse to admit it.

A copy of the procedures governing Regional Water Board meetings may be found at Title 23, California Code of Regulations, Section 647 et seq., and is available upon request. Hearings before the Regional Board are not conducted pursuant to Government Code Section 11500 et seq.

Complete Form and Return

TO: California Regional Water Quality Control Board, Lahontan Region

SUBJECT: Comments on Waste Discharge Requirements for Mojave-Rosamond Class III Landfill

- We concur with proposed requirements
- We concur; comments attached
- We do not concur; comments attached

Michael J. Finn
 _____ (Sign)
 PUBLIC WORKS DIRECTOR (Type or print name)
 CITY OF CALIFORNIA CITY (Organization)
 21000 HACIENDA BLVD (Address)
 CALIFORNIA CITY CA 93505 (City and State)
 760-373-7297 (Telephone)

ENCLOSURE 6

16-0059



KERN COUNTY WASTE MANAGEMENT DEPARTMENT

Daphne B. Harley, Director
2700 "M" Street, Suite 500
Bakersfield, CA 93301-2372
(661) 862-8900
(800) 552-KERN (option 6)
Fax: (661) 862-8905
<http://www.co.kern.ca.us/wmd/>

November 2, 2007

"Via Facsimile and U.S. Mail"

Ms. Mary Fiore-Wagner, Environmental Scientist
California Regional Water Quality
Control Board - Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

Dear Ms. Fiore-Wagner:

**SUBJECT: Mojave-Rosamond Class III Sanitary Landfill, Kern County, California
WDID No. 6B150303011 - Comments regarding Tentative Revised
Waste Discharge Requirements, Board Order No. R6V-2007-[TENT]**

The Kern County Waste Management Department (KCWMD) appreciates the opportunity to comment on Tentative Revised Waste Discharge Requirements (WDRs) for the Mojave-Rosamond Sanitary Landfill (SLF), dated October 10, 2007.

KCWMD's specific comments regarding the tentative document are presented below. For ease of RWQCB review, the specific language in the tentative document is displayed in *italics*, followed by comments from the KCWMD.

REVISED WASTE DISCHARGE REQUIREMENTS

4. Enforcement History

The Lahontan Water Board issued Cleanup and Abatement Order (CAO) No. R6T-2002-0057 to the Discharger on October 15, 2002.

In order to inform all parties who may review the WDRs that this CAO was not issued specifically to the Mojave-Rosamond SLF, KCWMD requests the following text be added to the section:

This CAO was sent to all Class III facilities in the region.

5. Reason for Action – Paragraph 3

The Discharger presented the Lahontan Water Board with an EMP report in 1998, and an Engineering Feasibility Study in 2003.

In order to provide a more complete history, KCWMD requests the following text be added to the section:

In accordance with a RWQCB-approved workplan, KCWMD prepared and submitted a Landfill Gas Investigation and Feasibility Study using headspace gas analytical data collected from groundwater monitoring wells and lysimeters in September 2002. The updated EFS was submitted to RWQCB for review in March 2003. During an August 18, 2004 meeting with KCWMD, RWQCB requested an additional gas sampling event to evaluate the stability of vadose zone gas concentrations since the time of the September 2002 sampling event. KCWMD collected an additional set of headspace gas samples during December 2004/January 2005 and retained Shaw Environmental (Shaw) to independently evaluate the collective LFG data. Shaw prepared a Proposed Corrective Action Program report that was submitted to RWQCB for review in March 2005.

The Lahontan Water Board has determined that a site conceptual model and additional information more fully delineating the contaminant plume are needed before appropriate corrective actions can be proposed to abate the groundwater degradation.

For additional clarification in this section, KCWMD requests the insertion of text, "due to a recent change in the apparent groundwater hydraulic gradient," before *site conceptual model*.

6. Time Schedules – Paragraph 2

... Evidence of a release from the landfill required the Discharger to develop and initiate an EMP as required by CCR, Title 27, section 20385. As such, the Discharger never implemented the work plan to modify the DMP specified in Board Order No. 6-95-117, so the soil gas monitoring wells were never installed.

This text implies that KCWMD neglected the requirements of Board Order No. 6-95-117. KCWMD requests additional text to be added as a clarification:

In accordance with an agreement formalized in correspondence from RWQCB to KCWMD on February 23, 1998, the Boron Sanitary Landfill was selected as appropriate for pilot studies of soil-gas conditions for Kern County's desert regional landfills. Based on similar environmental conditions in Ridgecrest, Boron, and Mojave, RWQCB agreed that information gained from these pilot studies could be applied to the Mojave facility. As part of the 1998 EMP, KCWMD installed a hydraulically downgradient well (MR2-01). This well has never indicated statistically significant evidence of the migration of volatile organic compounds (VOCs) to the well location. Additionally, KCWMD has performed two independent soil-gas studies utilizing lysimeters and groundwater monitoring wells to collect gas samples for VOC analyses. Results of these studies were presented to RWQCB for review in the March 2005 Proposed Corrective Action Program report prepared by Shaw.

KCWMD intends to install a series of permanent multi-level gas probes around the facility. These new probes will serve as dual-purpose monitoring points by providing (a) methane monitoring coverage in compliance with new CCR Title 27 gas

monitoring regulations and (b) non-methane organic compounds (NMOC) data representative of subsurface vadose-zone conditions.

Additionally, the site specific Statistical Methods report required by the Time Schedule was never submitted since DMP implementation was postponed indefinitely.

KCWMD requests this language to be added:

Statistical Methods reporting required by the Time Schedule was satisfied by the submittal of a Water Quality Protection Standards (WQPS) report prepared by EMCON and submitted to RWQCB for review in December 1996. KCWMD updated the 1996 WQPS report using Sanitas™ statistical analysis software to propose revised concentration limits for naturally-occurring inorganic constituents based on more recent groundwater analyses. The updated WQPS report was submitted to RWQCB for review in August 2004.

21. Discharge of Monitoring Well Purge Water

As part of regularly scheduled ground water sampling events, ground water monitoring wells are purged of several volumes of water to assure collection of a representative sample.

KCWMD would like to omit the reference to *several volumes of water to assure collection of a representative sample* from this section. For the past several years, KCWMD has begun adopting low-flow purge and sample techniques in accordance with procedures documented in EPA Region I Low Stress (low flow) Purging and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells (July 30, 1996). In general, low-flow techniques have been adopted as KCWMD's high-volume electric submersible pumps originally installed during previous DMP and EMP programs have failed and required replacement. Low-flow purging and sampling techniques, also known as "minimal drawdown", are consistent with current industry-standard practices and are designed to minimize the disturbance of the groundwater during sampling. A secondary benefit of low-flow sampling is a significant reduction in the fluid volumes generated as result of purging prior to collecting samples.

...Common practice is to discharge purge water at the landfill, which may include use of the water for dust control. Because VOCs have degraded the aquifer beneath the Landfill, the purge water also contains these constituents at trace concentrations. The best practicable treatment technology can remove VOCs from water to non-detectable concentrations. This Order prohibits the discharge of purge water containing detectable concentrations of VOCs at the Landfill.

KCWMD respectfully disagrees and requests this prohibition be removed for the following reasons:

- The overall volume of purge water containing detectable VOCs is low.
- No VOCs have ever been detected in concentrations exceeding or even approaching Maximum Contaminant Levels (MCLs) established as safe drinking water standards by the State of California Department of Health Services. Dichlorodifluoromethane, also known as Freon-12, is the only VOC that has shown consistent detections above trace concentrations since the implementation of the EMP in 1996. There is no MCL drinking water standard established for Freon-12. The Action Level (AL) for this constituent has been established as 1,000 µg/L, more than 250 times greater than the highest concentration of Freon-12 ever detected in groundwater at this facility (3.9 µg/L in 1994). Based on these very low and demonstrably stable VOC concentrations, the discharge of purge water at the Mojave landfill poses no increased threat to groundwater, human health, or to the environment. On this basis, KCWMD believes the economic and human resources required for transporting purge water to a water treatment facility is not warranted.
- Surface discharge of purge water at this facility had been approved by previous RWQCB staff.
- No special handling requirements are specified regarding purged groundwater containing non-designated or non-hazardous concentrations of VOCs in CFR Title 40 or CCR Title 27 regulations.

In the event there are continuing RWQCB concerns regarding surface discharge of the monitoring well purge water, KCWMD would agree to equip each well that has indicated previous VOC detections with an open-top storage drum. The purged water would be discharged into the drum and subsequently allowed to evaporate. If future analytical results identify additional wells with VOC detections, the practice will be extended to include these wells.

IV. Provisions – F. Modifications to the Landfill

If the discharger intends to expand the capacity of the Landfill, a report shall be filed no later than 90 days after the total quantity of waste discharged at this site equals 75 percent of the reported capacity of the site. The report shall contain a detailed plan for site expansion.

KCWMD respectfully requests this section be deleted from the WDRs. On the basis of CCR Title 27, §21710(4), KCWMD is not aware of a regulatory statute requiring notification "no later than 90 days after the total quantity of waste equals 75 percent of the reported capacity", only that changes be reported "a reasonable time before changes are made or become effective".

CCR Title 27, §21710(4) states: **Notification of Change** The discharger shall notify the RWQCB of changes in information submitted under the applicable SWRCB-promulgated requirements of this division, including any material change in: the types, quantities, or

concentrations of wastes discharged; site operations and features; or proposed closure procedures, including changes in cost estimates. The discharger shall notify the RWQCB a reasonable time before the changes are made or become effective. No changes shall be made without RWQCB approval following authorization for closure pursuant to the site closure notice required by &(c)(5).

However, KCWMD has retained Shaw Environmental to assist in the development of a Master Development Plan for the expansion of the Mojave-Rosamond Landfill into a regional Class III solid waste disposal facility on County-owned property north of Silver Queen Road. The Master Development Plan is in the final stages of the compilation process at the present time and will be submitted to RWQCB for review under separate cover.

V. Time Schedule

- A. *By January 15, 2008, submit to the Water Board office a technical report that 1) explains why sulfate and nitrate levels exceed their 2004 concentration limits, and 2) presents the basis for your determination that these contaminants are associated with a release from the Landfill. If you believe the sulfate and nitrate levels that exist on site are caused by a source other than the Landfill, the technical report shall include an Optional Demonstration (that the Unit is not the cause. Pursuant to Section 20420, Title 27, the optional demonstration must demonstrate that a source other than the landfill (e.g., error in sampling or statistical evaluation, natural variation in ground water) caused the release of sulfate and nitrate in the ground water. If necessary, the technical report should also contain a schedule for submitting revised concentration limits (contained in an updated WQPS) as appropriate for the Landfill.*

KCWMD believes it would be reasonable to extend the January 15, 2008 reporting schedule until at least March 31, 2008. KCWMD is currently in the contract negotiation process and needs to finalize an Agreement with a qualified consultant before work can begin on a technical evaluation of sulfate and nitrate concentrations. Specified Time Schedules for the Soil Gas Probe Installation Workplan and the Conceptual Site Model and Revised EMP Workplan are reasonable. Additional Time Schedules requiring significant resources are already established for March 30 and March 31, 2008 at several other Kern County facilities located in the Lahontan Region.

MONITORING AND REPORTING PROGRAM

I. GENERAL – Paragraph 3

The Discharger has requested to reduce the monitoring frequency to a semi-annual schedule. The Discharger makes this recommendation based on the demonstrated long-term, historical stability of trace to low level volatile organic concentrations detected in ground water at the Landfill. Staff accepts the Discharger's request provided the following continue to be monitored on a quarterly basis as presented on Table 1 of the MRP: ground water elevations, electric conductivity, and total dissolved solids.

KCWMD respectfully requests that the quarterly electrical conductivity (EC) and total dissolved solids (TDS) requirements also be reduced to a semi-annual schedule coincident with the groundwater sampling program for the following reasons:

- KCWMD has accumulated numerous years of extensive quarterly groundwater chemistry including EC and TDS measurements, which have been documented and presented to RWQCB in historic Self-Monitoring Reports. Continuing these measurements on a quarterly basis in order to identify seasonal variation is no longer warranted. Additionally, Sanitas™ statistical analyses performed during the periodic review of WQPS concentration limits for the naturally-occurring inorganic constituents includes an evaluation of seasonality.
- Collection of quarterly EC and TDS information requires the operation of the pumping systems in the same manner as regular groundwater sampling. The purpose of reducing the monitoring frequency is to allow more efficient utilization of KCWMD's limited technician resources for other tasks. This efficiency would be lost if EC and TDS sampling continues to be required quarterly.
- Total dissolved solids analyses is a laboratory procedure that has special handling and transportation requirements, as well as additional outside analytical costs.
- Semi-annual sampling schedules have become an accepted industry standard for facilities that have an extensive history of groundwater monitoring data. Groundwater beneath the Mojave Landfill has been impacted with a small number of VOCs, primarily Freon-12. These constituents and their historic concentrations have been demonstrated to be stable at extremely low concentrations since the initial VOC release was indicated. Other Lahontan and Central Valley region landfills have been on a semi-annual monitoring schedule for many years, with groundwater elevation measurements performed during periods when no samples are collected.

KCWMD requests that the sampling frequency of electric conductivity and total dissolved solids listed in ATTACHMENT A Table 1: Ground Water Monitoring Program be modified to reflect semi-annual rather than quarterly sampling.

IV. SAMPLING AND ANALYSIS

E. Laboratory Records

Water Quality Records shall be maintained by the Discharger, and retained for a minimum period of 30 years. The period of retention shall be extended during the course of any unresolved litigation or when requested by the Executive Officer. Such records shall show the following for each sample:

3. *Date and time of analysis were started and completed. and the name of personnel performing each analysis...*
5. *Chromatographs and calculation of results.*

Laboratory personnel performing individual laboratory analyses of samples are identified by the laboratory, generally by initials. The laboratory reports are certified and signed by responsible parties employed by the contract laboratory. Except under extremely unusual circumstances, chromatographs and calculations used to derive specific concentration values are not provided by any of KCWMD's certified contract analytical laboratories. Therefore, KCWMD requests this requirement be modified accordingly.

F. Release Indication and Re-Test Procedure

3. *Re-tests shall be carried out only for the Monitoring Point(s) for which a release is tentatively indicated, and only for the Monitoring Parameter(s) which triggered the indication. When a VOC analyte is re-tested the results of the entire VOC test method analyzed shall be reported.*

The following text was incorporated into the July 2007 WDRs issued for the Bakersfield Metropolitan (Bena) Sanitary Landfill with regard to retest reporting: *"For any given compliance well retest sample, the Discharger shall include, in the retest analysis, only the laboratory analytical results for those constituents indicated in that well's original test."* Because of the potential that other false-positive VOCs could trigger an EMP unnecessarily, KCWMD believes it is appropriate for discrete retest reporting to include only the constituents identified in the original test results.

VI. REPORTING REQUIREMENTS (page 10 of MRP is labeled Section V in Tentatives)

A. Scheduled Reports To Be Filed With The Water Board

- 1 a. *Tabulated water level and ground water chemistry data, including historic and current monitoring events.*

KCWMD requests the deletion of "historic monitoring events" based on the current requirement that all SMR information and laboratory data be electronically uploaded to the State GeoTracker system upon submittal to RWQCB. KCWMD's Self-Monitoring Reports (SMRs) contain field data sheets with tabulated water level and ground water monitoring parameter information recorded at the time of sampling. Additionally, KCWMD includes graphical representations of water depths, water elevations relative to mean sea level, water temperatures, pH, electrical conductivity, and turbidity measurements in the SMRs.

- 2 c. *An update of the adequacy of financial assurance. This financial assurance document shall summarize the amount of money available in the fund for Closure...*

Specific details of the Financial Assurance requirements are contained within the Board Order text, page 16, Section E. KCWMD requests that the text contained in the MRP,

Sections A 2 Annual Monitoring Reports c. and D Financial Assurance be replaced with a reference to the Board Order for consistency.

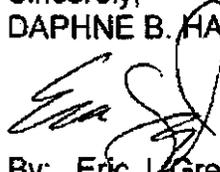
B. Unscheduled Reports To Be Filed With The Water Board

5. *After a significant earthquake event, the Discharger shall notify the Water Board within 48 hours, and within 45 days submit to the Water Board a detailed post-earthquake report describing any physical damages to the containment features, ground water monitoring or landfill gas monitoring wells.*

KCWMD does not have a clear understanding of the minimum seismic conditions which would constitute a "significant earthquake event" and trigger this unscheduled reporting requirement. In order to adequately comply, KCWMD requests more specific clarification of this term.

KCWMD appreciates the opportunity to comment on these tentative Waste Discharge Requirements Order for the Mojave-Rosamond Sanitary Landfill. If you have any questions concerning our comments, please contact me at (661) 862-8918.

Sincerely,
DAPHNE B. HARLEY, Director



By: Eric J. Greenwood, P.E., P.G, C.HG.
Supervising Engineer.

I:\CLERICAL\LETTERS\2007\07-273-DP_ys.doc
cc: Mack Hakakian, RWQCB, Victorville
William O'Rullivan, KCEHSD
Rick Kelley, CIWMB, Sacramento
MOJ L WQC

ENCLOSURE 7

16-0068



California Regional Water Quality Control Board

Lahontan Region



Linda S. Adams
Secretary for
Environmental Protection

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Arnold Schwarzenegger
Governor

NOV 13 2007

Daphne B. Harley, Director
c/o Eric J. Greenwood, Supervising Engineer
Kern County Waste Management Department
2700 "M" Street, Suite 500
Bakersfield, CA 93310

RESPONSE TO KERN COUNTY WASTE MANAGEMENT DEPARTMENT'S COMMENTS ON THE TENTATIVE REVISED WASTE DISCHARGE REQUIREMENTS FOR MOJAVE-ROSAMOND CLASS III LANDFILL, KERN COUNTY, W DID NO. 6B150303011

On November 2, 2007, the Lahontan Regional Water Quality Control Board staff received a facsimile and electronic mail copies of the Kern County Waste Management Department's (KCWMD) comment letter regarding the above-referenced tentative Waste Discharge Requirements (WDRs) that have been circulated for agency and public review.

Following are responses to KCWMD's comments and/or the revisions that were made to the Tentative WDRs and their respective Monitoring and Reporting Program.

Waste Discharge Requirements, Board Order No. R6V-2007-[PROP]

1. **Enforcement History, Finding No. 4.** The text in this finding was changed to reflect that CAO No. R6T-2002-0057 was issued to all Class III and unclassified waste management units in the Lahontan Region.
2. **Reason for Action, Finding No. 5.** This finding has been revised to focus mostly on future actions required of the Discharger before Kern County's Proposed Corrective Action Plan (CAP) can be revised as necessary, evaluated, accepted, and implemented. Similar to the Tentative Order, the Proposed Order identifies that the Lahontan Water Board is revising the current WDRs to (1) include the Discharger's existing Evaluation Monitoring Program (EMP), (2) provide updated site information, and (3) to include a Time Schedule that requires the Discharger to submit work plans necessary to update the EMP. This finding also refers to past Kern County investigations and technical reports in general terms.

The discussion of the EMP Work Plan focuses on the need for an updated EMP Work Plan, which shall include a Conceptual Site Plan. The information collected from the Updated EMP Work Plan and the Conceptual Site Plan should allow Kern County to address Lahontan Water Board staff's remaining issues and develop a CAP that will effectively address the release of VOCs to ground water.

3. **Time Schedules, Finding No.6.** This finding has been revised to introduce the requirements of the Time Schedule specific to this WDR update: 1) a Soil Gas Probe Installation Work Plan, 2) a Technical Report identifying the source and reason why sulfate and nitrate levels at the Landfill exceed their established concentration limits, and 3) a Conceptual Site Model and Updated EMP Work Plan are identified in this finding. A brief justification explaining the purpose of each report is also provided.
4. **Discharge of Monitoring Well Purge Water, Finding 21.** The text in this finding is consistent with other landfill WDRs that have been adopted by the Lahontan Water Board. A footnote has been added to this finding that states, "This prohibition does not preclude the Discharger from storing purge water on site in suitable containers from which purge water can evaporate."
5. **Modifications to the Landfill, Section IV. F.** The text in this section has been revised such that the Discharger must notify the Lahontan Water Board of any changes to the Landfill in accordance with Title 27, section 21710 (4).
6. **Time Schedule, Section V. A.** The compliance date for the relevant requirement has been changed to March 31, 2008, based on the KCWMD's justification that an earlier compliance date will not provide adequate time necessary to secure a contract, complete the technical evaluation, and submit the report on time.

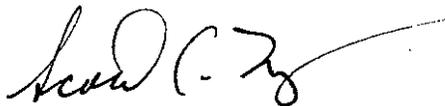
Monitoring and Reporting Program, Board Order No. R6V-2007-[PROP]

1. **General, Section 1.** Based on the justification provided by KCWMD in its November 2, 2007 comment letter and staff's review of historical data presented in self-monitoring reports, staff agrees that EC and TDS measurements have remained consistent over time. This section has been modified such that ground water elevation is the only parameter requiring quarterly monitoring. ATTACHMENT A Table 1 : Ground Water Monitoring Program has been modified to reflect that semi-annual **rather** than quarterly sampling is required for EC and TDS.
2. **Sampling and Analysis, Section IV. E., Laboratory Records.** The text in this section is consistent with recent landfill WDRs adopted by the Lahontan Water Board. As such the language remains unchanged. The Discharger should work with its contract laboratory to obtain the necessary lab data (e.g., chromatographs) required by this section. Note that if the laboratory provides initials in place of the first and last name of the personnel performing each analysis, initials will suffice in identifying the individual who has performed the laboratory analysis, provided that the laboratory can accurately link initials to full names.

3. **Release Indication and Re-Test Procedures, Section IV. F.** The text in this section is consistent with recent landfill WDRs adopted by the Lahontan Water Board, and is appropriate for the Mojave-Rosamond Landfill. Lahontan Water Board staff will address the potential for false positives with Kern County staff as necessary. The text remains unchanged.
4. **Scheduled Reports to Be Filed With the Water Board, Section VI. A.1.a.** Staff has determined that historical monitoring events do not need to be reported in semi-annual monitoring reports. As part of the Annual Monitoring Report requirements, the Discharger is required to submit time series data plots of the past three years of analytical data. Staff believes this requirement will suffice for evaluating past ground water elevation and chemistry trends.
5. **Scheduled Reports to be Filed with the Water Board, Section VI. A.2.c. and Unscheduled Reports to be Filed with the Water Board, Section VI. D.** The text in these sections pertaining to Financial Assurance is consistent with recent landfill WDRs adopted by the Lahontan Water Board. The existing text simply provides additional details regarding what constitutes adequate evidence as referenced in section IV. E. (Financial Assurance) of the Order. The text remains unchanged.
6. **Unscheduled Reports to be Filed with the Water Board, Section VI. B.5. (Significant Earthquake Event).** As requested, "Significant Earthquake Event" was clarified by adding a footnote to this section. The footnote indicates that for purposes of this Order, a significant earthquake is a seismic event classified according to the USGS Earthquake Hazard Program as a moderate earthquake measuring between 5 and 5.9 on the Richter scale.

Additionally, there have been other minor editorial changes that are reflected in the Proposed Order.

If you have any questions or comments regarding this matter, please direct them to Mary Fiore-Wagner at (530) 542-5425 or me at (530) 542-5432.



Scott C. Ferguson, P.E., Chief
Enforcement and Special Projects Unit

cc: Nancy Ewert/Kern County Waste Management Department
Dave Palmer/Kern County Waste Management Department
Scott Denney/Kern County Planning Department
Teri Wion/California Integrated Waste Management Board
Andre Amy/Department of Toxic Substance Control
Jesse Dhaliwal/Department of Public Health, Drinking Water Program
Robert Pierotti/Department of Water Resources

Julie Means/Department of Fish and Game-Central Region
Mojave Town Council
Rosamond Town Council
William Way/California City
Jason Caudle/City of Tehachapi
Joe Mello/State Water Resources Control Board, Division of Water Quality
David Coupe/State Water Resources Control Board, Office of Chief Counsel
Mike Plaziak/Lahontan Regional Water Quality Control Board
Mack Hakakian/ Lahontan Regional Water Quality Control Board

MFW/didT:/Agenda Items/2007/Nov07/MRSL: Mojave-Rosamond Landfill-Response to Cmnts-KCWMD-Nov 2007
[File Under: VVL File Room- Mojave Rosamond Sanitary Landfill- WDID NO. 6B150303011]