

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

TECHNICAL CHANGE ORDER No. 1  
TO  
MONITORING AND REPORTING PROGRAM No. 88-53

MISSION AVENUE LANDFILL  
SAN DIEGO COUNTY

This Technical Change Order (TCO) supersedes and replaces the requirements specified by the Monitoring and Reporting Program for Order No. 88-53 adopted on August 29, 1988 for the subject landfill. The objective of this TCO is to update the monitoring and reporting requirements.

**A. SAMPLING AND ANALYTICAL METHODS, GENERAL PROVISIONS:**

1. Samples and measurements taken shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this TCO and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification and the approval of the Executive Officer.
2. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this TCO.
3. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.
4. If the discharger monitors any pollutants more frequently than required by this Order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.

5. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
6. A composite sample is defined as a combination of at least 8 sample aliquot of at least 100 milliliters, collected at periodic intervals during the operating hours of the landfill. For volatile pollutants, aliquot must be combined in the laboratory immediately before analysis.
7. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

**B. RECORDS, REPORTING AND DATA ANALYSIS:**

1. The discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this TCO, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.
2. The following records of monitoring information shall be retained:
  - a. Date, exact place, and time of sampling or measurements;
  - b. Individual(s) who performed the sampling and field measurements;
  - c. Date(s) analyses were performed;
  - d. Analytical techniques or method used;
  - e. Results of such analyses;
  - f. Detection limit for each parameter measured; and
  - g. Laboratory quality assurance results (e.g. percent recovery, response factor, etc.).
3. In the annual report, the discharger shall provide a statistical analysis of the results in accordance with

Appendix II of 23 CCR 15 or equivalent statistical method. The statistical analysis shall incorporate the previous and the most recent results (cumulative analysis). The discharger shall identify whether a significant difference was found above the cumulative background values for each parameter.

4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Executive Officer or in this Order.
5. The discharger shall include in the annual report the following information:
  - a. Field monitoring parameters, samples identifications, and the chain-of-custody sheets;
  - b. The method detection limit (MDL);
  - c. The measured concentrations found in the current sampling event as report by the laboratory;
  - d. Whether a significant difference was found above the background value of each parameter; and
  - e. The laboratory quality assurance and quality control data sheet.

The measured concentrations shall be reported with a "<" symbol only if the value listed after the symbol is the MDL.

6. The discharger shall provide a graphical description of the direction of groundwater flow in and around the subject landfill.
7. Prior to pumping monitoring wells for sampling, the static water level shall be measured in each well.
8. Prior to sampling monitoring wells, the presence of a floating immiscible layer in all wells shall be determined at the beginning of each sampling event. This shall be done prior to any other activity which may disturb the surface of the water in a well, e.g. water level measurements. If an immiscible layer is found, it must be sampled, analyzed and reported.
9. Prior to sampling monitoring wells, the water standing in the casing shall be purged until the water chemistry has stabilized with respect to pH and specific conductance. Integrity of the samples should be considered in selecting sampling equipment.

10. Field logs used during well purging shall be included in the monitoring reports. The information contained in these logs shall include: the method of monitoring the field parameters, calibration of the field equipment, method of purging (if a pump is used, include pump placement and pumping rate), date each well was purged, well recovery time, method of disposal of the purged water, an estimate of volume of water purged from each well, the results of all field analyses, well number, date, depth to groundwater, method of measuring the water level, and field personnel signatures.

C. SITE MONITORING:

The discharger shall submit an annual report describing the maintenance work performed on the final cover including grading, compaction, and measures taken to control erosion of the final cover (vegetation, geonet, etc.).

D. GROUND WATER MONITORING:

1. As shown in Attachment # A, the points of compliance (monitoring well locations) to this TCO consists of a background monitoring well number MW-5 and two downgradient wells number MW-4 and MW-6.
2. Samples from the monitoring wells MW-4, MW-5 and MW-6 shall be collected and analyzed for the following parameters at the frequency and reported at the interval shown in Table #1

E. GAS CONDENSATE MONITORING

The total volume of gas condensate discharged to the landfill from the gas extraction operation shall be reported annually.

Table #1

Constituent	Units	Sampling Frequency	Reporting Frequency
Chloride	mg/L	Semiannually	Semiannually
Fluoride	mg/L	Semiannually	Semiannually
Manganese	mg/L	Semiannually	Semiannually
Nitrate (as NO <sub>3</sub> )	mg/L	Semiannually	Semiannually
Sulfate	mg/L	Semiannually	Semiannually
Total Dissolved Solids	mg/L	Semiannually	Semiannually
Total Phosphate	mg/L	Semiannually	Semiannually
Turbidity	NTU	Semiannually	Semiannually
Semi-volatile Organics	ug/L	Annually	Annually
Volatile Organics	ug/L	Annually	Annually
Arsenic	mg/L	Semiannually	Semiannually
Boron	mg/L	Semiannually	Semiannually
Cadmium	mg/L	Semiannually	Semiannually
Chromium	mg/L	Semiannually	Semiannually
Copper	mg/L	Semiannually	Semiannually
Iron	mg/L	Semiannually	Semiannually
Lead	mg/L	Semiannually	Semiannually
Mercury	mg/L	Semiannually	Semiannually
Silver	mg/L	Semiannually	Semiannually

Note: mg/L = milligrams/liter and ug/L = micrograms/liter

**F. WATER QUALITY PROTECTION STANDARDS**

The following water quality protection standards (WQPS) are intended to reflect water quality unaffected by the subject landfill and will be used to determine whether water quality degradation has occurred at the site. The following WQPS are established for ground water beneath the site:

Parameter	Protection Standards	Units
Chloride	500	mg/L
Fluoride	1.0	mg/L
Manganese	0.15	mg/L
Nitrate (as NO <sub>3</sub> )	45	mg/L
Sulfate	500	mg/L
Total Dissolved Solids	1500	mg/L
Turbidity	5	NTU
Semi-volatile organics	None	N/A
Volatile organics	None	N/A
Arsenic	0.05	mg/L
Barium	1.00	mg/L
Cadmium	0.01	mg/L
Chromium	0.05	mg/L
Copper	1.00	mg/L
Iron	0.85	mg/L
Lead	0.05	mg/L
Mercury	0.002	mg/L
Silver	0.05	mg/L

Note: mg/L = milligram per liter

**G. REPORTING SCHEDULE:**

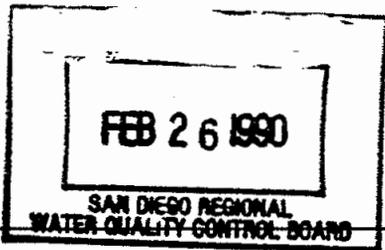
The monitoring requirements for site, ground water, and gas condensate shall be submitted in one report to the Executive Officer in accordance with the following schedule:

Mission Avenue Landfill

Order No. 88-53, TCO No. 1

<u>Reporting</u>	<u>Monitoring Period</u>	<u>Report Due Date</u>
Semiannual	January - June July - December	July 30 January 30
Annual	January - December	January 30

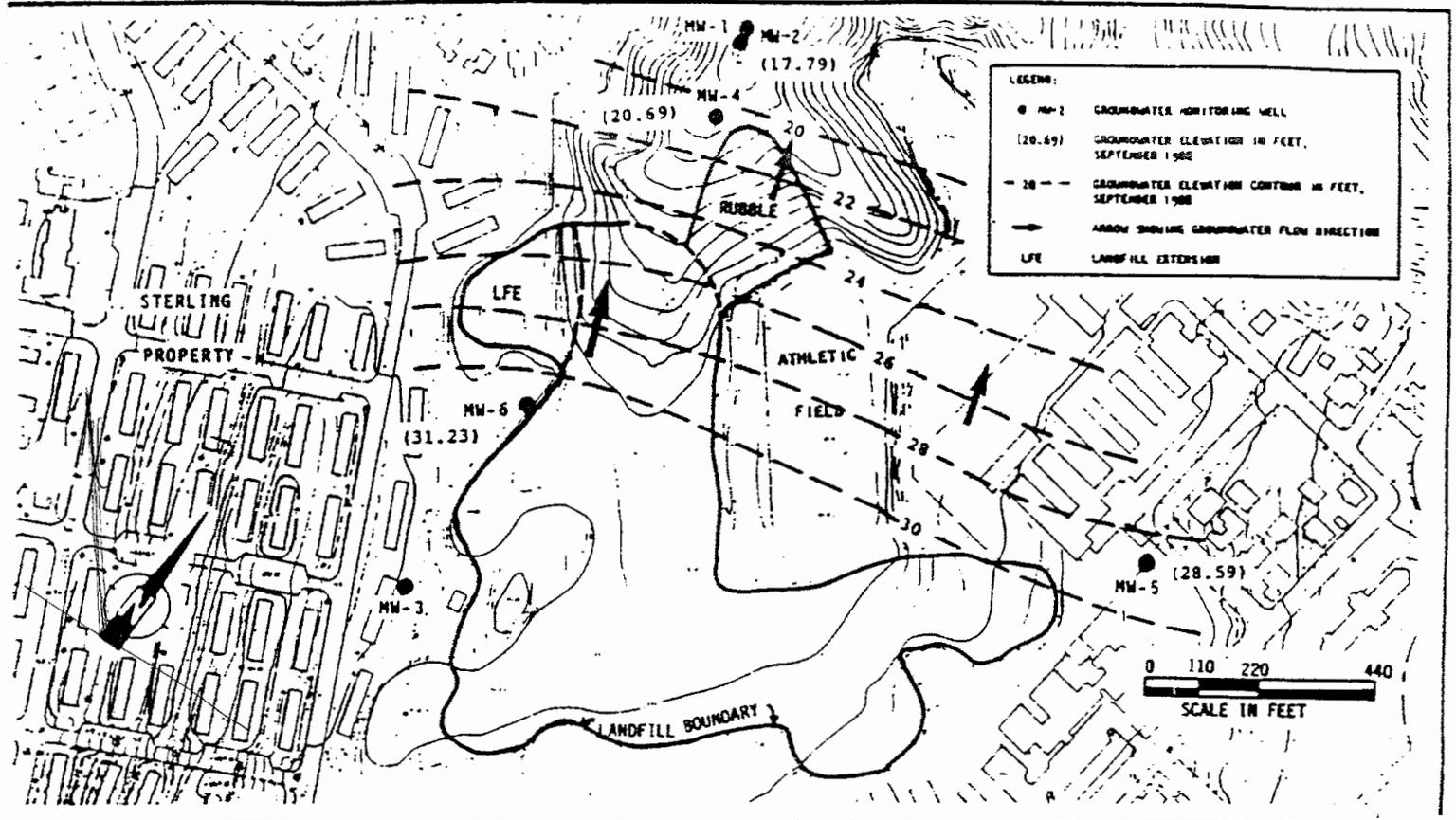
*Ladin H. Delaney*  
Ladin H. Delaney  
Executive Officer



Date:

SAN DIEGO REGIONAL  
WATER QUALITY CONTROL BOARD

Attachment A: Compliance Points Location Map



Attachment A

Mission Avenue Landfill