

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 91-028

WASTE DISCHARGE REQUIREMENTS
FOR
COUNTY OF SAN BERNARDINO
LANDERS WASTE MANAGEMENT FACILITY
CLASS III LANDFILL
CLASS II SURFACE IMPOUNDMENTS
Northwest of Joshua Tree - San Bernardino County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. The County of San Bernardino (hereinafter also referred to as the discharger), 621 E. Carnegie Drive, Suite 270, San Bernardino, CA 92415, submitted a Report of Waste Discharge dated November 13, 1990, containing current information to update the waste discharge requirements for this existing Waste Management Facility (WMF).
2. The disposal facility is in the SE $\frac{1}{4}$ of Section 20, SW $\frac{1}{4}$ of Section 21, NW $\frac{1}{4}$ of Section 28 and NE $\frac{1}{4}$ of Section 29, T2N, R6E, SBB&M as shown in Attachments A and B incorporated herein and made a part of this Board Order. This property is owned by the United States Government, with administration by the Bureau of Land Management (hereinafter also referred to as the discharger), 1695 Spruce Street, Riverside, CA 92507.
3. This facility has been subject to waste discharge requirements adopted by the Regional Board on May 12, 1988 (Board Order No. 88-071). These waste discharge requirements are being updated to comply with Section 13263 of the California Water Code, and to incorporate the applicable provisions of Chapter 15, Division 3, Title 23 of the California Code of Regulations (hereinafter also referred to as Chapter 15).
4. The discharger submitted a Solid Waste Assessment Test (SWAT) report dated July 5, 1990, as required by Section 13273 of the California Water Code.
5. The SWAT report contains technical information describing the site hydrogeology, topography, disposal operations and waste classification. In view of the technical information that has become available, it is appropriate that the Regional Board adopt revised waste discharge requirements for the Landers Waste Management Facility to include more stringent requirements to protect the quality of ground water in the vicinity of the site.
6. The discharger installed six ground water monitoring wells in compliance with the provisions of Chapter 15.
7. The discharger operates the site as a Class III landfill. Separate unlined waste management units have been constructed to receive septage liquid wastes away from the landfilling area.

9-15-93
Adopted
amended
order
93-071

Superseded by
Ed. Ord. # 98-003
1/8/98

8. The site presently receives:
 - a) Residential, commercial, demolitions and agricultural wastes that are non-hazardous, solid and inert.
 - b) Septage sludges, chemical toilets, and grease trap pumpage.
9. The discharger reports that the site receives approximately 90 tons of non-hazardous solid waste per day.
10. The discharger reports that the WMF area is 638 acres. Within the 638-acre area, is a 31-acre area currently being used for land filling operations. The total capacity of the active portion of the site is 850,000 tons, with a remaining capacity of 600,000 tons. The estimated life expectancy of the active portion of the landfill is 18 years.
11. Elevations at the site range from approximately 3,200 to 3,600 feet above mean sea level.
12. Surface water is diverted to engineered drainage structures. Consequently, precipitation does not affect the landfill to a significant degree. However, under conditions of heavy and/or continuous precipitation, surface water may breach the current diversion features or cover material.
13. The geologic material immediately underlying the landfill consists of fine-grained silty sand to coarse-grained gravelly sand and fractured bedrock. Sediments beneath the site are often cemented and have low to medium permeability.
14. Ground water depth beneath the site ranges from 463 to 573 feet below ground surface. Ground water flow is generally restricted to fractures within bedrock. These fractures appear to be hydraulically connected.
15. The discharger reports that the ground water divide occurs beneath the site and trends approximately east-west between the active and inactive landfills. Ground water beneath the inactive landfill appears to flow in a south to southwesterly direction. Ground water beneath the septage waste management units appears to flow in a northeasterly direction.
16. Analyses of ground water samples collected from the monitoring wells at the WMF in January 1991 indicate that the total dissolved solids content ranges from 395 mg/l to 560 mg/l.
17. The Water Quality Control Plan for the Colorado River Basin Region of California designates the beneficial uses of ground and surface waters in this Region.
18. The beneficial uses of ground waters in the Emerson Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Agricultural supply (AGR)
19. The Board has notified the discharger and all known interested agencies and persons of its intent to update waste discharge requirements for this discharge.

20. The Board in a public meeting heard and considered all comments pertaining to this discharge.
21. In accordance with Section 15301, Chapter 3, Title 14, of the California Code of Regulations, the issuance of these waste discharge requirements, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.).
22. Land within one mile of the landfill is zoned as rural living and rural conservation areas.

IT IS HEREBY ORDERED, that the discharger shall comply with the following:

A. Discharge Specifications

1. New waste management units constructed after June 1, 1993 on top of virgin land (land which does not contain solid waste) must have adequate liner and leachate collection and removal systems as specified in Chapter 15.
2. Liquid waste discharged at this site after June 1, 1992 shall be discharged into a Class II surface impoundment designed and constructed in accordance with the criteria contained in Chapter 15.
3. Waste materials shall be confined to the waste management facility as described on the attached site maps.
4. Waste material shall not be discharged on any ground surface which is less than five feet above the highest anticipated ground water level.
5. This discharge shall not cause degradation of any water supply.
6. The waste management units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods having a predicted frequency of once in 100 years.
7. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through the wastes discharged at this site.
8. The exterior surfaces of the disposal area, including the intermediate and final landfill covers, shall be graded and maintained to promote lateral runoff of precipitation and to prevent ponding.
9. The discharger shall provide a final cover for closure of the landfill units in conformance with the requirements of Chapter 15.
10. Chemical toilet wastes discharged at this site shall not contain additives prohibited by Section 66883, Chapter 30, Title 22 of the California Code of Regulations.
11. There shall be no discharge of liquid wastes other than chemical toilet wastes and septic tank pumpings at this site unless approved by the Regional Board's Executive Officer.

12. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
13. A minimum depth of freeboard of two (2) feet shall be maintained at all times in the units containing liquid wastes.
14. The discharger shall maintain a hazardous waste load checking program at the WMF. The discharger shall report the findings of said program in the quarterly monitoring reports submitted in accordance with Provision C.7 of this Board Order.

B. Prohibitions

1. The discharge or deposit of hazardous waste (as defined in Chapter 15) at this site is prohibited.
2. The discharge or deposit of designated waste (as defined in Chapter 15) at this site is prohibited unless approved by the Regional Board's Executive Officer.
3. The discharge of liquid or semi-solid waste (i.e., waste containing less than 50 percent solids) to the landfill units is prohibited unless approved by the Regional Board's Executive Officer.
4. The discharge of wastes to surface waters, surface water drainage courses, or to ground waters is prohibited.
5. The discharge or deposit of waste to land not owned or controlled by the discharger is prohibited.
6. The codisposal of incompatible wastes is prohibited.

C. Provisions

1. The discharger shall maintain a copy of this Board Order at the site and make it available at all times to site operating personnel.
2. The discharger shall maintain legible records on the volume and type of each waste discharged at the site. These records shall be available for review by representatives of the Regional Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.
3. The discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
4. The discharger shall maintain visible monuments identifying the boundary limits of the entire waste management facility.
5. The discharger shall comply with all applicable provisions of Chapter 15 that are not specifically referred to in this Board Order.

6. Water used for site maintenance shall be limited to amounts necessary for dust control.
7. The discharger shall comply with "Monitoring and Reporting Program No. 91-028", and future revisions thereto, as specified by the Regional Board's Executive Officer.
8. Prior to any modifications in this facility which would result in material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the discharger shall report all pertinent information in writing to the Regional Board; and obtain revised requirements before any modifications are implemented.
9. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.
10. All containment structures and erosion and drainage control systems shall be designed and constructed under direct supervision of a California registered civil engineer and shall be certified by the individual as meeting the prescriptive standards and performance goals of Chapter 15.
11. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of wastes over the operating life, and the closure and post-closure maintenance period of the landfill.
12. In-place permeabilities of liners shall be determined in the field using techniques approved by the Executive Officer. Construction methods and quality assurance procedures shall be sufficient to ensure that all parts of the liners are adequate to contain landfill leachate.
13. Each disposal cell shall have a leachate collection and removal system. Leachate collection sumps shall be designed and operated to keep leachate levels at the minimum needed to ensure efficient pump operation.
14. Materials used to construct leachate collection and removal systems shall have appropriate physical and chemical properties to ensure the required transmission of leachate through the system over the operating life, closure and post-closure maintenance period of the landfill. Materials shall have sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials and equipment used on the landfill.

15. In order to comply with Discharge Specification A.2, the discharger shall comply with the following time schedule:

<u>TASK</u>	<u>COMPLIANCE DATE</u>
a) Submit proposal for construction of the liner systems and leachate collection and removal systems for liquid waste management units;	December 30, 1991
b) Begin installation of liner and leachate collection and removal systems;	April 1, 1992
c) Complete Task b)	June 1, 1993

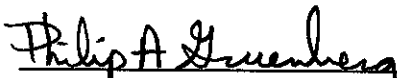
16. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

17. This Board Order is subject to Regional Board review and updating, as necessary, to comply with changing state or federal laws, regulations, policies or guidelines, or changes in the discharge characteristics, in three-year increments from the effective date of this Board Order.

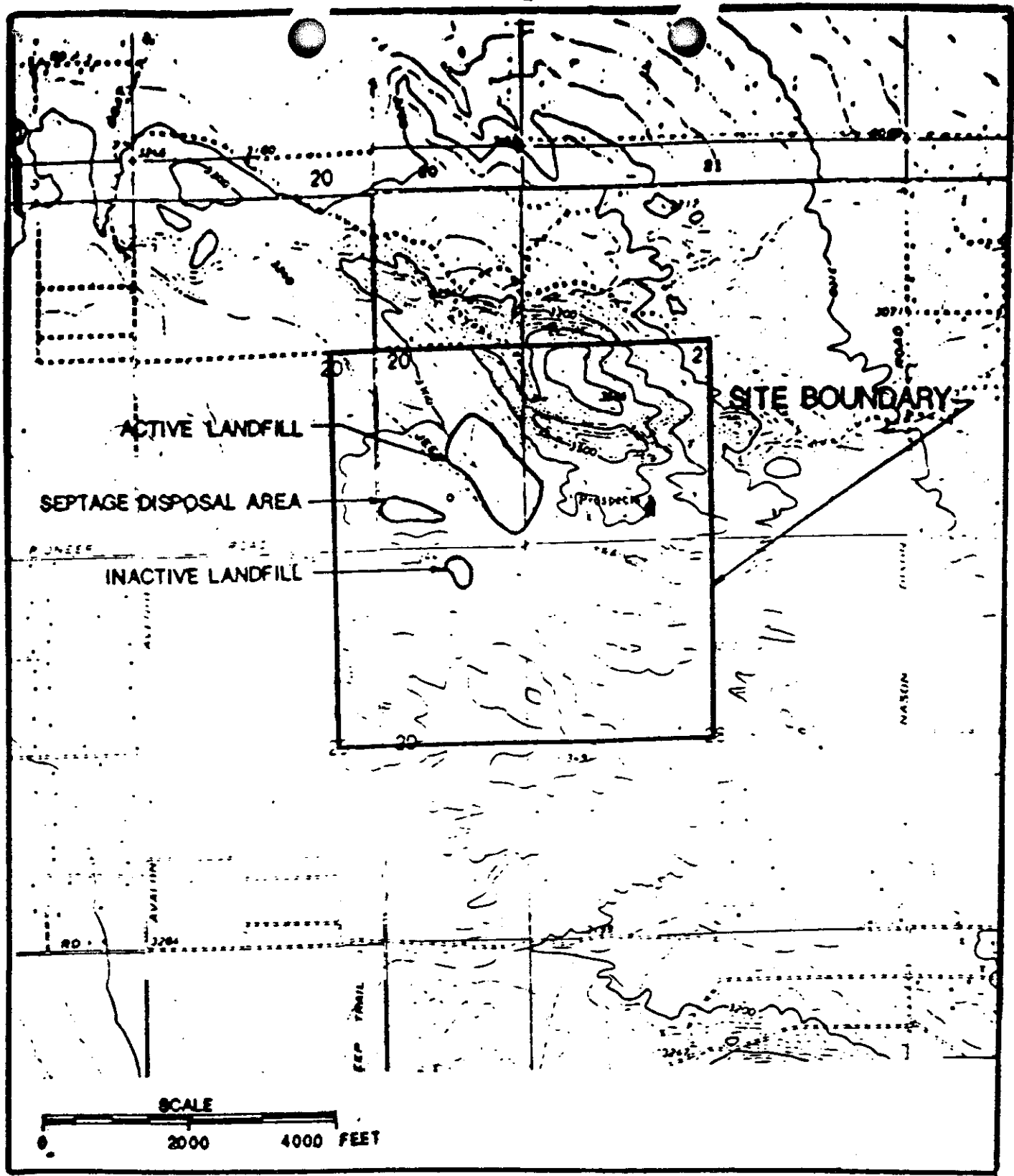
18. The Regional Board considers the property owner to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge.

IT IS FURTHER ORDERED that Board Order No. 88-071 be superseded by this Board Order.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on June 26, 1991.



Executive Officer



ATTACHMENT A

COUNTY OF SAN BERNARDINO
 LANDERS WASTE MANAGEMENT FACILITY
 CLASS III LANDFILL
 CLASS II SURFACE IMPOUNDMENTS

Northwest of Joshua Tree - San Bernardino County
 SE¼ Section 20, SW¼ Section 21, NW¼ Section 28, NE¼ Section 29, T2N, R6E, SBB&M

REV 2 6-29-89
REV 1 4-15-88
DRAWN BY
CHECKED BY
3 0 8
2 15 RR
DRAWING NUMBER 240275-A197

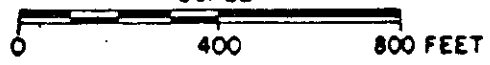


SEPTAGE DISPOSAL AREA

ACTIVE LANDFILL

E 10500 E 11000 E 11500 E 12000 E 12500

SCALE TO INACTIVE LANDFILL -



LEGEND

- L-3 ⊕ SWAT MONITORING WELL
- L-4 ⊕ EXPLORATORY BORING

ATTACHMENT B

COUNTY OF SAN BERNARDINO
 LANDERS WASTE MANAGEMENT FACILITY
 CLASS III LANDFILL
 CLASS II SURFACE IMPOUNDMENTS

Northwest of Joshua Tree - San Bernardino County
 SE¼ Section 20, SW¼ Section 21, NW¼ Section 28, NE¼ Section 29, T2N, R6E, SBB&M

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 91-028
FOR

COUNTY OF SAN BERNARDINO
LANDERS WASTE MANAGEMENT FACILITY
CLASS III LANDFILL
CLASS II SURFACE IMPOUNDMENTS
Northwest of Joshua Tree - San Bernardino County

Location of Discharge: SE $\frac{1}{4}$ of Section 20, SW $\frac{1}{4}$ of Section 21, NW $\frac{1}{4}$ of Section 28 and
NE $\frac{1}{4}$ of Section 29, T2N, R6E, SBB&M

The discharger shall monitor all wastes discharged to the waste management facility
and report to the Regional Board as follows:

WASTE MONITORING

<u>ITEM</u>	<u>UNIT</u>	<u>REPORTING FREQUENCY</u>
a. Solid waste discharged	Cubic Yards	Quarterly
b. Septic tank pumpings and chemical toilet wastes	Gallons	Quarterly
c. Remaining capacity of the waste management facility	Cubic Yards	Quarterly
d. Any wastes discharged other than those allowed in the requirements and in accordance with the hazardous waste load checking program	Type, Volume and Location	Immediately upon becoming aware that the waste has been discharged

GROUND WATER MONITORING

The ground water monitoring wells shall be sampled quarterly during March, June,
September and December. The samples shall be analyzed for the following:

<u>Parameters and Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Reporting Frequency</u>
a. pH	Number	Grab	Quarterly
b. TDS	mg/l	Grab	Quarterly
c. Specific Conductance	micromhos/ cm	Grab	Quarterly
d. Temperature	°C	Grab	Quarterly

<u>Parameters and Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
e. COD	mg/l	Grab	Quarterly
f. Ground Water Elevations	Feet (USGS Datum)	Measurement	Quarterly
g. Calcium	mg/l	Grab	Quarterly
h. Magnesium	mg/l	Grab	Quarterly
i. Sulphate	mg/l	Grab	Quarterly
j. Sodium	mg/l	Grab	Quarterly
k. Nitrate	mg/l	Grab	Quarterly
l. Organic Nitrogen	mg/l	Grab	Quarterly
m. Volatile Organics (EPA Method 524.2)	mg/l	Grab	Quarterly
n. Semi-Volatile Organics (EPA Method 525)	mg/l	Grab	Quarterly

The collection, preservation and holding times of all samples shall be in accordance with EPA-approved methods. All analyses shall be conducted by a laboratory certified by the State Department of Health Services to perform the required analyses.

REPORTING

1. Quarterly monitoring reports shall be submitted to the Regional Board by January 15, April 15, July 15, and October 15 of each year.
2. The discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the waste management unit is operating in compliance with waste discharge requirements.
3. Submit monitoring reports to:

California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260

ORDERED BY: Philip A. Guenberg
Executive Officer

June 26, 1991

Date