

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 90-020

WASTE DISCHARGE REQUIREMENTS
FOR
COUNTY OF SAN BERNARDINO
TWENTYNINE PALMS CLASS III WASTE MANAGEMENT FACILITY
East of Twentynine Palms - 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), 825 East Third Street, San Bernardino, California 92415, submitted a report of waste discharge on May 5, 1988 and current information to update the waste discharge requirements for an existing Class III landfill east of Twentynine Palms.
2. The Twentynine Palms Waste Management Facility (WMF) is located in a portion of the NW¹/₄ of unsurveyed future Section 5, T1S, R10E, SBB&M approximately 5 miles east of Twentynine Palms and about 1 mile south of Highway 62, as shown in Attachment "A" which is incorporated herein and made part of this Board Order.
3. The Twentynine Palms WMF is operated by the County of San Bernardino Solid Waste Management Division and the property is owned by the U.S. Department of Interior, Bureau of Land Management.
4. This facility has been subject to waste discharge requirements adopted by the Regional Board on September 19, 1984 (Board Order No. 84-096). These waste discharge requirements are being updated to comply with Section 13263 of the California Water Code, and to incorporate the applicable provisions of Subchapter 15, Chapter 3, Title 23 of the California Code of Regulations.
5. The discharger submitted a Solid Waste Assessment Testing (SWAT) report on June 30, 1988 and Five-Year Periodic Site Review and Report of Disposal Site Information reports on February 1, 1989. The reports contain most of the information required in said Subchapter 15.
6. The Regional Board will reclassify the WMF in accordance with the criteria set forth in said Subchapter 15 for Class III landfills, and will determine, based on the technical data contained in the SWAT report and other relevant information, whether a liner with a leachate collection and removal system in the new landfill areas within the waste management facility.

*Adopted
9-15-93
amended
w/50#
93071*

7. It will be necessary to determine background water quality of the ground water in the proximate area of the WMF from a minimum of one year's sampling, after which the Regional Board may revise this Board Order to set numerical limitations on water quality constituents for protection of the ground water from the effects of the WMF. The revised Board Order will also include the detection and verification monitoring programs and possibly the corrective action program required in Section 2551 of said Subchapter 15.
8. The site was originally used as a burn site from 1954 to 1972, after which the burning of refuse was no longer permitted. Since 1972, the WMF has been operated utilizing the area-and-trench method of waste disposal. The active landfill area is approximately 33 acres and the total area of the site is 70 acres, as shown in Attachment "B" incorporated herein and made a part of this Board Order. The maximum depth of refuse is 50 feet.
9. The discharger reports that the site presently receives 225 cubic yards per day of non-hazardous and inert solid wastes, as defined in said Subchapter 15. The site has an estimated total capacity of 860,000 cubic yards. It is estimated that the landfill currently contains 360,000 cubic yards of solid wastes. It is anticipated that the maximum capacity will be reached by the year 2010.
10. The site presently receives residential refuse, commercial refuse, construction/demolition wastes, agricultural wastes and septage sludge.
11. The site has a septage drying area which is located in the southwestern corner of the site, as shown in Attachment "B". The septage drying area consists of 3 contiguous, nearly-rectangular evaporation ponds. The septage wastes include septic tank pumpings, chemical toilet wastes, and grease trap pumpings. The septage drying area receives approximately 450,000 gallons of said wastes annually.
12. The site is located just north of Twentynine Palms Mountain in the Pinto Mountains Range. The WMF is located on the northern flank of the alluvial fan at the base of the mountain. The surface beneath the WMF slopes gently northeastward toward Dale Valley at a gradient of 2 to 5 percent. Elevations range from 1940 feet above mean sea level (msl) at the northeast corner of the site to 2145 feet msl at the southwest corner of the site.
13. The WMF is underlain by Quaternary Older Alluvium derived from the eroding mountains to the south. The Older Alluvium consists of unconsolidated sands and gravels with some interbedded silts. The alluvium is underlain by Terrace Deposits which are slightly more consolidated than the Older Alluvium and composed of gravelly sands and silty clays. The thickness of the alluvial sediments in the vicinity of the landfill is greater than 615 feet.
14. The WMF is located in an area that is generally seismically active. The closest fault to the site is the Pinto Mountain Fault at a distance of less than one mile from the site.
15. Surface water drainage from the Twentynine Palms Mountain watershed is toward the northeast. The Lost Dog Wash is the main drainage course and it cuts the southeast corner of the site. Storm flow in the vicinity of the site is intermittent.

16. The discharger has installed five ground water monitoring wells in the vicinity of the WMF. The monitoring system complies with the requirements of Article 5 of the said Subchapter 15.
17. The SWAT report submitted by the discharger indicates that the soils underneath the WMF have low hydraulic conductivities ranging from 10^{-9} cm/s to 10^{-6} cm/s.
18. The ground water flow direction beneath the WMF is northwesterly (approximately N 35° W).
19. Ground water depth measured in April, 1988 in monitoring wells constructed as part of the SWAT program ranges from 437.48 feet to 557.73 feet below the land surface.
20. Analyses of ground water samples collected from the monitoring wells indicate that the total dissolved solids content ranges from 1280 mg/l to 1480 mg/l.
21. Land within 1000 feet of this site is being used for rural residential, rural conservation and public purposes.
22. The annual precipitation at the Twentynine Palms Station at the Joshua Tree National Park, which is 6 miles northwest of the WMF at approximately the same elevation of the WMF, has ranged from 1.9 inches to 4.9 inches, with an average of 4.2 inches. Typical evaporation rates in the vicinity of WMF are approximately 80 inches.
23. 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.
24. The beneficial uses of ground waters in the Dale Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
 - c. Agricultural supply (AGR)
25. The Board has notified the discharger, and all known interested agencies and persons of its intent to update waste discharge requirements for said discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
26. The Board in a public meeting heard and considered all comments pertaining to this discharge.
27. 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.).

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

A. Discharge Specifications

1. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Sections 13050(1) and 13050(m) of Division 7 of the California Water Code.
2. Waste materials shall be confined to the waste management facility as described on the attached site maps.
3. 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.
4. 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.
5. 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.
6. Waste material shall not be discharged on any ground surface which is less than five feet above the highest anticipated ground water level.
7. The discharger shall provide a final cover for closure of the landfill units in conformance with the requirements of said Subchapter 15.
8. 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.
9. A minimum freeboard of two feet shall be maintained in the waste management units containing septage waste.
10. Solids which accumulate in the septage ponds shall be periodically removed to maintain sufficient capacity for the discharge of wastes.
11. 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.
12. This discharge shall not cause degradation of any water supply.
13. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.

B. Discharge Prohibitions

1. The discharge or deposit of hazardous waste (as defined in said Subchapter 15) at this site is prohibited.
2. The discharge or deposit of designated waste (as defined in said Subchapter 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.

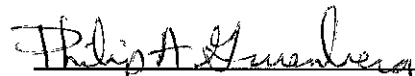
C. Provisions

1. The discharger shall maintain 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.
2. 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.
3. The discharger shall maintain visible monuments identifying the boundary limits of the entire waste management facility.
4. By September 15, 1990, the discharger shall submit a report to the Regional Board and to the State Department of Health Services for review and approval, describing a periodic load-checking program to be implemented by the discharger to ensure that wastes prohibited by this Board Order are not discharged to the disposal site.
5. One year prior to the anticipated closure of the facility or any unit (portion) thereof, the discharger shall submit to the Regional Board, for review and approval by the Executive Officer, a closure and post-closure maintenance plan in accordance with Section 2597 of said Subchapter 15.
6. The discharger shall comply with all applicable provisions of said Subchapter 15.
7. Water used for site maintenance shall be limited to amounts necessary for dust control.
8. The discharger shall maintain a copy of this Board Order at the site and make it available at all times to site operating personnel.
9. The discharger shall notify the Regional Board, in writing, of any proposed change in ownership or responsibility for construction or operation of the waste management facility.

10. The discharger shall notify the Regional Board of any material change or proposed change in the character, location, or volume of the wastes discharged and of any proposed expansion plans. This notification shall be accompanied by an amended report of waste discharge and any additional information as may be required by the Regional Board's Executive Officer.
11. The discharger shall comply with "Monitoring and Reporting Program No. 90-020", and future revisions thereto, as specified by the Regional Board's Executive Officer.
12. The discharger shall develop background water quality data of the ground water at the site, as specified by Section 2595 (g)(7) in said Subchapter 15. Samples shall be collected quarterly from the upgradient and downgradient monitoring wells and analyzed for each of the parameters and constituents listed in "Monitoring and Reporting Program No. 90-020".
13. In the event of any change in ownership of the disposal site, the discharger shall notify the succeeding owner or operator in writing of the existence of this Board Order. A copy of that notification shall be sent to the Regional Board.
14. The discharger shall comply with all applicable provisions of said Subchapter 15 that are not specifically referred to in this Board Order.

IT IS FURTHER ORDERED that Board Order No. 84-096 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 March 14, 1990.



Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 90-020
FOR
COUNTY OF SAN BERNARDINO
TWENTYNINE PALMS CLASS III WASTE MANAGEMENT FACILITY
East of Twentynine Palms - San Bernardino County

Location of Discharge: Portion of NW $\frac{1}{4}$ of Unsurveyed Future Section 5, T1S, R10E, SBB&M

WASTE MONITORING

A. The discharger shall monitor all wastes discharged to the disposal site and report to the Regional Board the following:

<u>Item</u>	<u>Unit</u>	<u>Reporting Frequency</u>
1. Solid Waste Discharged	Cubic Yards	Quarterly
2. Septic Tank Pumpings and Chemical Toilet Wastes	Gallons	Quarterly
3. Type and source(s) of Materials Discharged	-	Quarterly
4. Minimum Freeboard	Feet & Tenths	Quarterly
5. Remaining Capacity of Waste Management Unit	Cubic Yards	Annually
6. Any Discharge of Wastes Other Than Those Allowed by this Board Order	Type, Volume and Location	Immediately upon becoming aware that the waste has been discharged together with action for immediate correction and prevention of recurrence.

GROUND WATER MONITORING

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

<u>Parameters and Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
1. pH	-	Grab	Quarterly
2. TDS	mg/l	Grab	Quarterly
3. Specific Conductance	micromhos/cm	Grab	Quarterly
4. Temperature	°C	Grab	Quarterly
5. COD	mg/l	Grab	Quarterly
6. Ground Water Elevations	Feet USGS Datum	Measurement	Quarterly
7. Calcium	mg/l	Grab	Quarterly
8. Magnesium	mg/l	Grab	Quarterly
9. Sulphate	mg/l	Grab	Quarterly
10. Sodium	mg/l	Grab	Quarterly
11. Nitrate	mg/l	Grab	Quarterly
12. Volatile Organics (EPA Methods 601, 602)	µg/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. Annual monitoring reports shall be submitted by January 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:


Executive Officer

March 14, 1990

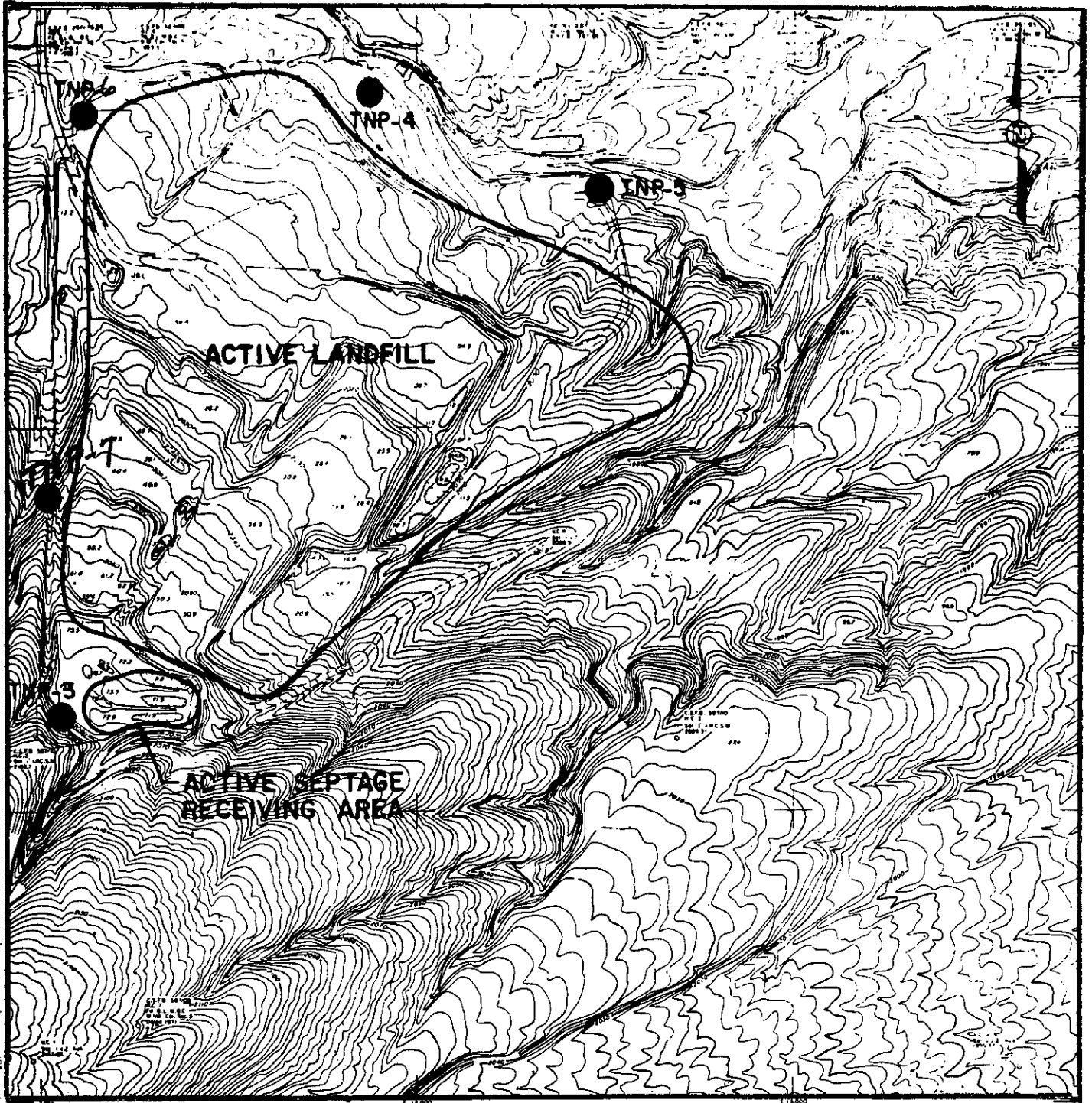
Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD-7

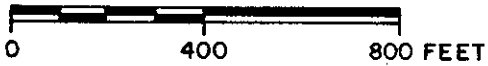


ATTACHMENT "A"

COUNTY OF SAN BERNARDINO
 TWENTYNINE PALMS CLASS III WASTE MANAGEMENT FACILITY
 Portion of the NW 1/4 of Unsurveyed Future Section 5, T1S, R10E, SBB&M
 USGS 15 min. Topographic Map, Valley Mountain Quadrangle



SCALE



ATTACHMENT "B"

COUNTY OF SAN BERNARDINO
TWENTYNINE PALMS CLASS III WASTE MANAGEMENT FACILITY
Location of Monitoring Wells

Board Order No. 90-020