

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

ORDER NO. 95-006

**WASTE DISCHARGE REQUIREMENTS  
FOR  
UNITED STATES MARINE CORPS  
AIR GROUND COMBAT CENTER  
CLASS III LANDFILL  
Twentynine Palms - San Bernardino County**

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

1. The United States Marine Corps Air Ground Combat Center, (MCAGCC), (hereinafter referred to as the discharger) operates an existing non-hazardous solid waste management facility (WMF), (i.e. a Class III Landfill).
2. The MCAGCC is located in southcentral San Bernardino County, just north of the City of Twentynine Palms as shown on Attachment No. 1, appended hereto as part of this Board Order.
3. The Waste Management Facility (WMF) is located in the S1/2 of Section 8 and NE 1/4 of Section 17, T2N, R9E, SBB&M at the end of Landfill Road, about 1,000 feet north of Rifle Range Road and 3,500 feet northwest of Del Valle Road. The site is in a canyon in the Bullion Mountains as shown on Attachment No. 2, appended hereto as part of this Board Order.
4. The discharger reports that the landfill site is 30 acres while the landfill footprint is approximately 1,500 feet long by 500 feet wide (about 17.25 acres). An aerial photograph was submitted by the discharger to document the existing footprint of the landfill at 10:00 a.m. on the 6th of April, 1994.
5. The discharger reports that there is no plan for future lateral expansion of the landfill footprint beyond that depicted on the aforementioned aerial photograph.
6. The landfill was opened in 1972 and has received only wastes generated at the MCAGCC and the WMF is not open to the public. The discharger reports that the landfill operates five days a week.
7. The WMF presently receives about 142 cubic yards-per-day of non-hazardous solid waste, as defined in Chapter 15, Division 3, Title 23, California Code of Regulations, including domestic waste, and construction/demolition waste.
8. The total volume of materials disposed of at this site is about 1 million cubic yards. The WMF has a total remaining capacity of about 530,000 cubic yards and an estimated remaining life of 7 years.

SUPERSEDED BY  
BOARD ORDER NO. 00-046

9. Waste disposal at the site is by the trench method. Lifts were formed by covering trash with fill from the adjacent borrow area. The borrow area was eventually filled and a new borrow area formed downgradient. Since there is not going to be any lateral expansion of the landfill, the discharger intends to import daily cover material from an off-site location. The discharger reports that lifts are built up to approximately 50 feet. Daily cover consist of one to two feet of soil applied to the 150-foot working face.
10. Land within 1,000 feet of this site is natural desert.
11. The WMF lies on the southern boundary of the Mojave Desert in San Bernardino County and is considered part of the Mojave Desert Geomorphological Province. The site is bounded on the northeast by the northwest-trending Bullion Mountain Range, on the south by the Pinto and Little San Bernardino Mountains, on the west by the San Bernardino and San Gabriel Mountains, and on the north by numerous northwest-trending smaller ranges and faults. Elevation of the site is approximately 2,200 feet above mean sea level.
12. The geologic setting of the landfill is the contact between Mesozoic bedrock of granitic composition (quartz monzonite) of the Bullion Mountains, and dissected debris fan deposits of the low mountain pass in which the site is located. The WMF is underlain by basement rock with overlying Quarternary alluvial and playa deposits. The lithology of the site consist of highly to moderately permeable alluvial silty sands, and the crytalline quartz monzonite bedrock. The surface of the quartz monzonite, typical of that found in a canyon, forms a system of troughs leading to a primary valley trough.
13. The crystalline bedrock near the landfill appears to be fractured but unfaulted. There is a visible evidence of the north west-trending West Bullion Mountain fault south-southwest of the landfill.
14. The discharger reports that there are no Holocene faults within 200 feet of the existing landfill footprint.
15. The landfill lies within a steep-walled canyon which drains to the south onto a broad alluvial fan. The alluvial valley fill that overlies the crystalline bedrock is a major water-bearing unit in the area. These units yield water freely to wells when saturated. However, the discharger reports that groundwater has not been located within 2,800 feet of the landfill.
16. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993 and designates the beneficial uses of ground and surface waters in this Region.
17. The landfill is located in the Dale Hydrologic Unit. The beneficial uses of ground waters in the Dale Hydrologic Unit are:
  - a. Municipal supply (MUN)
  - b. Industrial supply (IND)
  - c. Agricultural supply (AGR)

18. The discharger submitted a draft third quarter monitoring report on August 3, 1994. Monitoring wells at the landfill site were reported dry. However, wells located about half-mile downgradient of the landfill were sampled. The average depth-to-ground water at these monitoring wells was 404 feet. Total dissolved solids concentration ranged from 1,200 to 1,500 mg/L in these wells. The downgradient concentration of total organic carbon, purgeable halocarbon and purgeable aromatics were below detection levels.
19. The average annual precipitation has been reported at 4.11 inches with an average annual evaporation rate of 120 inches.
20. The Federal Solid Waste Disposal Act (SWDA), as amended by the Resource Conservation and Recovery Act (42USC§6901, et seq. hereinafter referred to as RCRA Subtitle D), authorizes the development of nationwide standards for disposal sites for municipal solid waste (MSW), including criteria for sanitary landfills (SWDA, §1007, §4004, 42USC, §6907, §6944).
21. On October 9, 1991, the United States Environmental Protection Agency (USEPA) promulgated regulations that apply in California, to dischargers who own or operated Class II or Class III Landfills at which municipal solid waste is discharged (MSW Landfills), regardless of whether or not a permit was issued (Title 40, Code of Federal Regulations (CFR), parts 257 and 458). The majority of the federal MSW regulations became effective on October 9, 1993.
22. On June 17, 1993, the State Board adopted Resolution No. 93-062, entitled Policy for Regulation of Discharge of Municipal Solid Waste as State Policy for Water Quality Control (Policy), under Section 13140 et. seq. of the California Water Code (WC §13140 et. seq). The policy directs each Regional Board to revise the waste discharge requirements of each MSW landfill in its respective region to comply with the Federal MSW regulations.
23. On September 15, 1993, the Regional Board adopted Board Order No. 93-071 to implement the State Board Resolution No. 93-062.
24. Virtually all MSW Landfills produce several volatile organic compounds (VOCs). VOCs exist in detectable concentrations in the gas and leachate produced by the landfill, and very little attenuation occurs after being released from such a landfill; therefore, the Federal MSW regulations require the use of VOCs as monitoring parameters.
25. Statistical data-comparison methods typically used to detect the migration of wastes from a waste management unit cannot be used in cases where the constituent to be monitored has a background concentration which does not exceed the constituents detection limit in at least ten percent of the background samples. In such cases, an alternative non-statistical testing methodology which is sensitive, reliable and not prone to falsely identifying a release, is necessary.
26. The WMF has been subject to waste discharge requirements under Board Order No. 92-013 which was adopted by the Regional Board on January 22, 1992. The waste discharge requirements are being updated to comply with Section 13263 of the California Water Code.
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.).
28. The Regional Board has notified the discharger and all known interested agencies and persons of its intent to update waste discharge requirements for this waste management facility.

29. A hearing was held before the Regional Board at its meeting on May 24, 1995 and all comments were considered.

IT IS HEREBY ORDERED, that Board Order No. 92-013 is rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Prohibitions

1. The discharge or deposit of hazardous or designated wastes as defined in Chapter 15, Division 3, Title 23, California Code of Regulations (hereinafter referred to as Chapter 15) at this facility is prohibited.
2. The discharge or deposit of designated waste as defined in said 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 waste management 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 water is prohibited.
5. The discharge or deposit of waste to land not owned or controlled by the discharger is prohibited.
6. The co-disposal of incompatible wastes is prohibited.

B. Specifications

1. The discharger shall establish and implement pursuant to California Water Code Sections 13225 (a), 13267 (b), and 13387 (b) a monitoring and reporting program in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the WMF.
2. The discharger shall not expand the landfill footprint laterally beyond the existing footprint as it was on 10:00 a.m. on the 6th of April, 1994.
3. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.
4. Waste material shall be confined to the waste management facility as described in Attachment No. 2.
5. Waste material shall not be discharged on any ground surface which is less than five feet above the highest anticipated ground water level.
6. This discharge shall not cause degradation of any water supply.
7. 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.
8. 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.

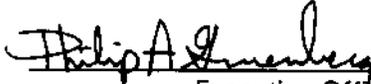
9. The exterior surfaces of the disposal area, including the intermediate and final landfill covers, shall be graded and maintained to promote lateral runoff of precipitation and to prevent ponding.
10. The discharger shall remove and relocate any wastes discharged at this site in violation of these requirements within 90 days of the date of discharge.
11. Water used for site maintenance shall be limited to amounts necessary for dust control.
12. The discharger shall obtain written approval from the Regional Board's Executive Officer prior to using any treated contaminated soil as daily cover material at the landfill.
13. The discharger shall provide a final cover for closure of the landfill units in conformance with the requirements of said Chapter 15 of the California Code of Regulations.
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 monitoring reports submitted in accordance with Provisions C.3 of this Order.
15. The discharger shall submit for consideration and approval by the Regional Board's Executive Officer, a closure and post-closure maintenance plan (or a suitable modification to a pre-existing plan) by October 9, 1995. The closure and post-closure maintenance plan shall comply with 40 CFR §258.60 and 258.61, and Article 8 of Chapter 15.
16. The discharger shall provide within 60 days of final closure proof to the Regional Board that the deed to the waste management facility property, or some other instrument that is normally examined in title search, has been modified to include, in perpetuity, a notation to any potential purchaser of the property stating that:
  1. The parcel has been used as an MSW landfill.
  2. Land use options for the parcel are restricted in accordance with the post-closure land use set forth in the post-closure plan.

#### C. Provisions

1. The discharger shall ensure that all site operating-personnel are familiar with the contents of this Board Order.
2. The discharger shall notify the Regional Board of any material change or proposed change in the characteristics and volume of the wastes discharged. 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.
3. The discharger shall comply with "Monitoring and Reporting Program No. 95-006", and future revisions thereto, as specified by the Regional Board's Executive Officer.
4. All reports required by the "Monitoring and Reporting Program No. 95-006" and future revisions thereto shall be certified by a California Registered Civil Engineer or Registered Geologist.
5. 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.

6. The discharger shall maintain visible monuments identifying the boundary limits of the entire waste management facility.
7. 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.
8. 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.
9. The discharger shall comply with all applicable provisions of said Chapter 15 and RCRA Subtitle D that are not specifically referred to in this Board Order.
10. All containment structures and erosion and drainage control systems shall be designed and constructed under direct supervision of a California Registered Civil Engineer or Certified Engineering Geologist, and shall be certified by the individual as meeting the prescriptive standards and performance goals of Chapter 15 and RCRA Subtitle D.
11. 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.
12. 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.
13. 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.

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 May 24, 1995.

  
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Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

**MONITORING AND REPORTING PROGRAM NO. 95-006  
FOR**

**UNITED STATES MARINE CORPS  
AIR GROUND COMBAT CENTER  
CLASS III LANDFILL**

**Twentynine Palms - San Bernardino County**

Location of Discharge: S 1/2, of Section 8, and NE 1/4 of Section 17, T2N, R9E, SBB&M

**A. GENERAL**

Reporting responsibilities of waste dischargers are specified in Section, 13267(b) of the California Water Code, and the State Water Resources Control Board's Resolution No. 93-062. The discharger is exempt from groundwater monitoring pursuant to 40 CFR 5258.50(b). This self-monitoring program is issued pursuant to 23 CCR 5 2550.7 (d) and Specification No. 1 of Regional Board Order No. 95-006.

**B. MONITORING**

1. The discharger shall establish vadose zone monitoring wells at locations approved by the Regional Board's Executive Officer.
2. The discharger shall sample the vadose zone monitoring wells and perform analysis according to the most recent version of standard US EPA Methods (U.S. EPA Publications SW 846 ).
3. The monitoring parameters for the landfill shall include methane gas, vinyl chloride, and any other constituents as may be directed by the Regional Boards' Executive Officer.
4. Ground water monitoring, pursuant to Article 5 of Chapter 15, shall be implemented if ground water is detected beneath the landfill in the future.

**C. 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. All monitoring reports shall be certified by a California Registered Civil Engineer or Registered Geologist

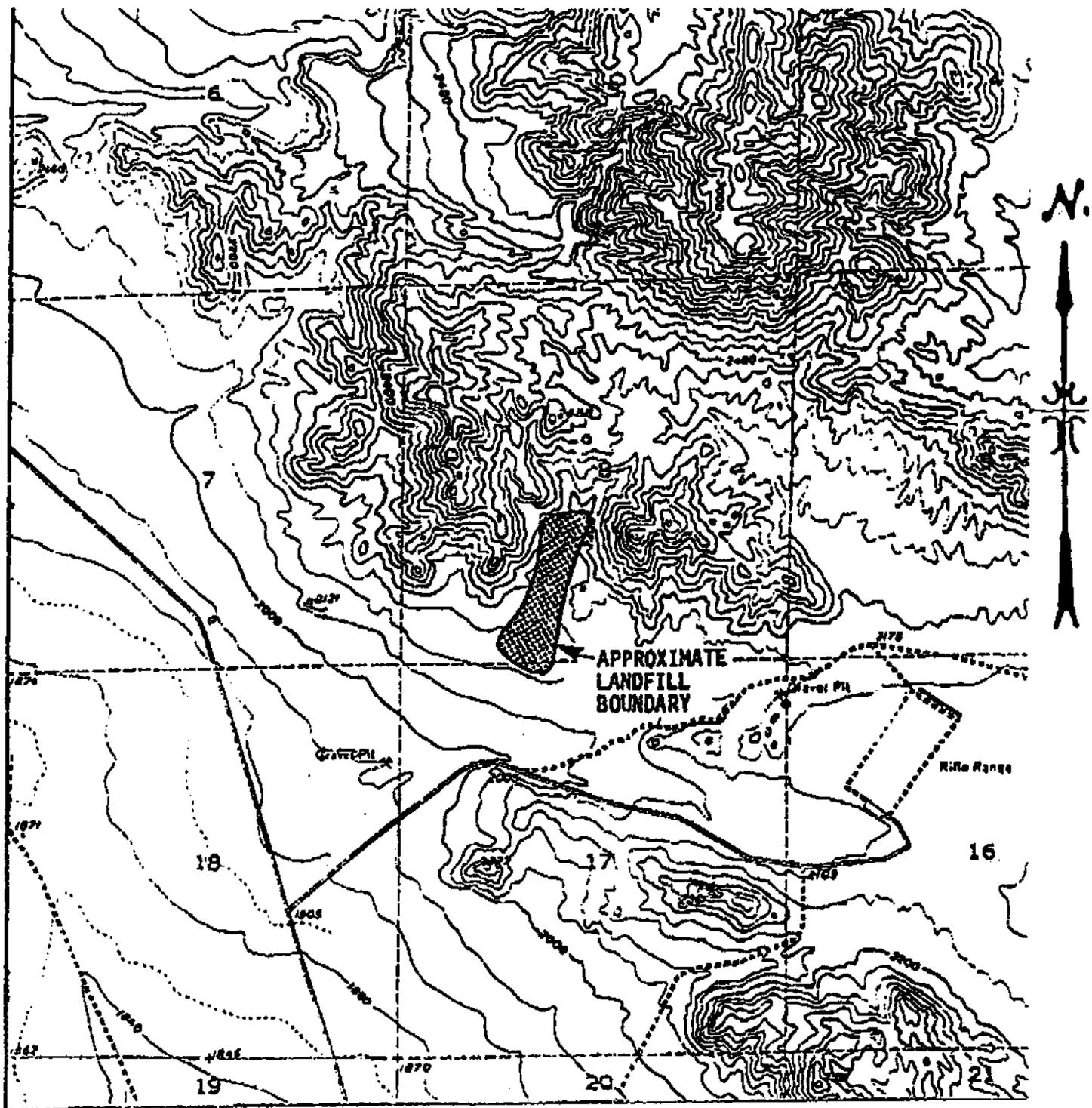
Submit monitoring reports to:

California Regional Water Quality Control Board  
Colorado River Basin Region  
73-720 Fred Waring Drive, Suite 100  
Palm Desert, CA 92260

Ordered By: Philip A. Gmelberg  
Executive Officer

May 25, 1995  
Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION



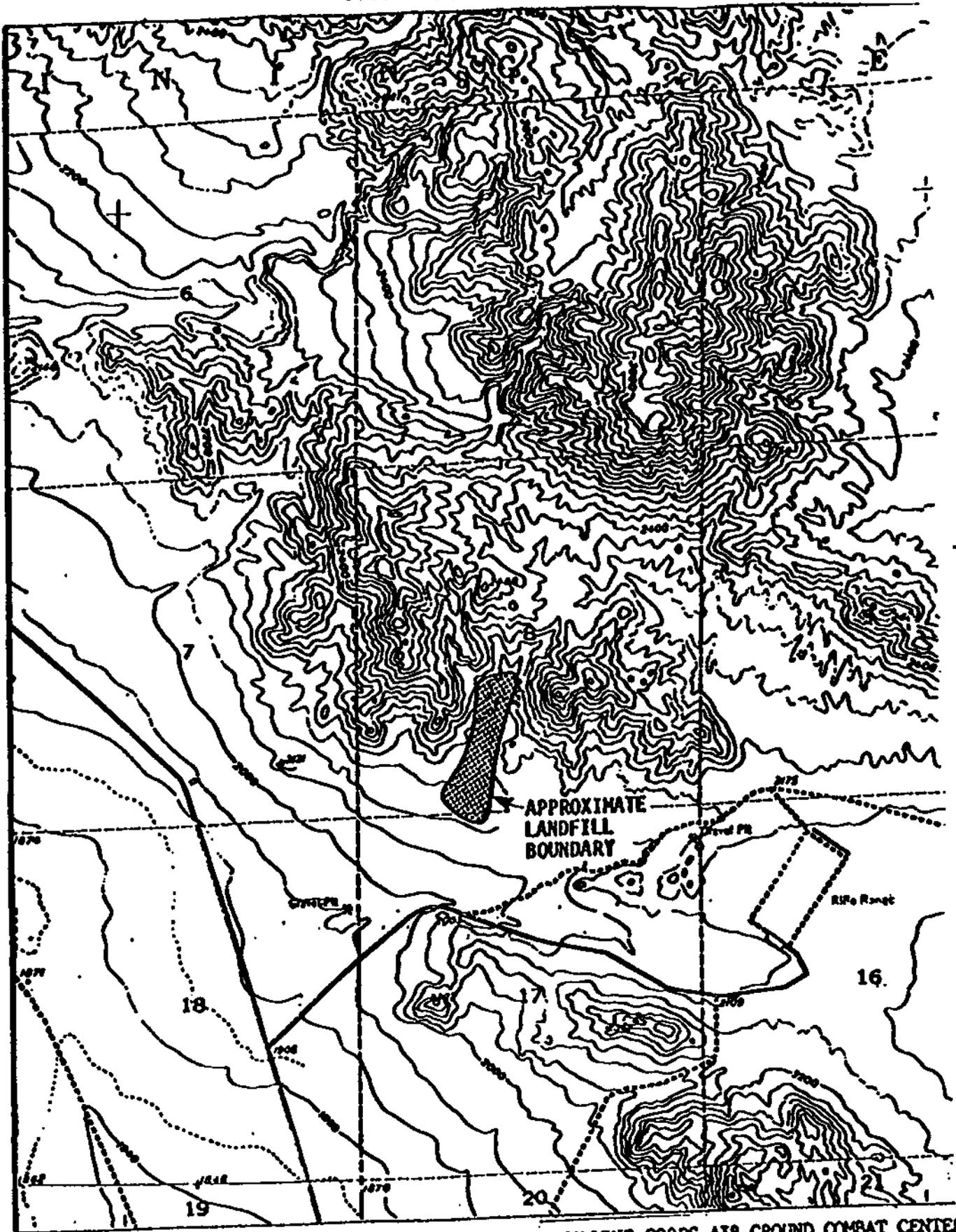
SITE MAP

UNITED STATES MARINE CORPS  
AIR GROUND COMBAT CENTER  
CLASS III LANDFILL  
Twentynine Palms - San Bernardino County  
S $\frac{1}{2}$ , Section 8, NE $\frac{1}{4}$ , Section 17, T2N, R9E, SBB&M

ORDER NO. 95-006



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION



MARINE CORPS AIR GROUND COMBAT CENTER  
LANDFILL #2