

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

REVISED WASTE DISCHARGE REQUIREMENTS ORDER NO. R3-2004-0151

Waste Discharger Identification No. 3 420306001

For

**VANDENBERG AIR FORCE BASE CLASS III LANDFILL
SANTA BARBARA COUNTY**

The California Regional Water Quality Control Board, Central Coast Region (hereafter Regional Board), finds that:

SITE OWNER AND LOCATION

1. The United States Air Force (hereafter "Discharger") owns the Vandenberg Air Force Base (AFB) Class III Landfill (hereafter "Landfill"). The Landfill is operated by the 30th Civil Engineer Squadron (30 CES).
2. The Vandenberg AFB occupies 99,100 acres along the south-central coast of California and is located approximately 50 miles north of Santa Barbara. The Santa Ynez River bisects the base into North Vandenberg AFB and South Vandenberg AFB. The Landfill site is situated within North Vandenberg AFB; southeast of the intersection of Washington and Utah Avenues, southwest of Pine Canyon Road, as shown on **Figures 1 and 3**. The Landfill is located in section T7N, R34W, San Bernardino Base and Meridian (SBB&M), Surf Quad, Santa Barbara County. The site latitude and longitude are 34° 44' North, and 120° 35' West, respectively.
3. The "Permitted Landfill Boundary" covers 172 acres. The "Subtitle D Footprint" (the area occupied by landfill waste as of October 9, 1993, pursuant to 40 Code of Federal Regulations Part [CFR] 258) is 46 acres. The six (6) pre-Title 27 landfill cells (refuse cells outside the "Subtitle D Footprint" that were closed, abandoned or became inactive prior to the promulgation of Title 27 requirements (November 27, 1984)) cover approximately 9.9 acres. **Figure 3** depicts the Permitted Landfill Boundary (172 Acres), the "Subtitle D Footprint" (46-Acres), and the six pre-Title 27 Landfill cells (9.9 acres).

PURPOSE OF ORDER

4. The purpose of Waste Discharge Requirements Order No. R3-2004-0151 (Hereafter "Order" or "Order No. R3-2004-0151") is to revise, update and replace Waste Discharge Requirements Order No. 94-26, adopted by the Regional Board on June 3, 1994.
5. The Discharger submitted a report of waste discharge (ROWD) at the request of the Central Coast Regional Water Quality Control Board, to facilitate the review and revision of Order No. 94-26. The ROWD includes the following documents:
 - *Revised Report of Waste Discharge, Vandenberg Air Force Base Landfill (Joint Technical Document Addendum 1)*, dated August 5, 2002.
 - *Waste Discharge Requirements Order No. 94-26 Revisions, Vandenberg Air Force Base Landfill*, dated September 15, 2003.
 - *Assessment of the Extent of Buried Refuse Outside of the Subtitle D Footprint, Vandenberg Air Force Base Sanitary Landfill, Vandenberg Air Force Base, California*, dated March 16, 2004.
 - *Report of Waste Discharge, Addendum 1, Vandenberg AFB Landfill, dated June 30, 2004.*
 - *Preliminary Closure and Post-Closure Maintenance Plan, Vandenberg Air Force Base Landfill, Vandenberg Air Force Base, California*, dated July 23, 2004
 - *Joint Technical Document for Sanitary Landfill Operations, Vandenberg Air Force Base, California*, dated July 24, 2004.

6. Order No. R3-2004-0151 includes the following key elements:
 - a. A detailed review of the entire 172-acre Landfill site.
 - b. A revised Monitoring and Reporting Program, which includes groundwater and surface water monitoring.
 - c. Language that brings the Landfill into compliance with California Code of Regulations Title 27, Solid Waste, effective July 18, 1997 (CCR Title 27); and, 40 CFR Parts 257 and 258 Solid Waste Facility Disposal Criteria, Final Rule, as promulgated October 9, 1991 (40CFR 257 and 258).
9. Land use designations within 1,000 feet of the Landfill are as follows:
 - a. Military Industrial Facilities.
 - b. Open Space.
10. The Discharger reserves areas at the Landfill site for specific waste disposal. These areas include:
 - a. Animal Cemetery.
 - b. Non-Friable Asbestos Disposal.
 - c. Closed Grease Pit.
 - d. Wood Waste and Green Waste Chipping Operation.
 - e. Concrete and Demolition debris staging area.

LANDFILL SITE DESCRIPTION AND HISTORY

7. The Landfill originally served as an Army tank and artillery training area for the U.S. Army's Camp Cook and was operated by the U.S. Army from 1941 to 1958. The Air Force acquired Camp Cook in 1957, established Vandenberg AFB and assumed the operation of the Landfill in 1958. The Regional Board has regulated the Landfill since April 14, 1978. In 1985, an Installation Restoration Program (IRP) was initiated at the military site to investigate and cleanup contamination resulting from past military operations.
8. The Landfill site will be developed in ten phases, beginning in the northeast portion of the Landfill. The Landfill is constructed using the area fill method. Refuse is added to the Landfill in cells measuring approximately 30 feet long by 30 feet wide by 4 feet high. Refuse is spread by heavy equipment on the working face in layers approximately 2 feet thick. The refuse is then compacted to a field density of 1,000 pounds per cubic yard (lbs/yd) by special equipment traveling up and down the working face. A working face slope is maintained as closely as possible to 3 horizontal to 1 vertical to minimize exposed municipal solid waste surface area while not affecting compaction of the wastes. The active face is covered daily with an alternative daily cover (ADC).
11. Intermediate cover consists of 12 inches of compacted onsite soils and is placed on solid waste disposal areas where additional waste will not be deposited within 180 days.
12. Post-closure use of the Landfill is anticipated to be non-irrigated open space.
13. The Discharger identified six locations where buried refuse exists within the Permitted Landfill Boundary, but outside of the Subtitle D Footprint. The areas where buried refuse was identified outside of the Landfill Subtitle D Footprint encompass an aggregate area of approximately 9.9 acres. Based on historical records, refuse placement occurred between the 1940s and 1980s. These six refuse cells were missed during the establishment of the Subtitle D Footprint in 1993.
14. Pursuant to Title 27, Section 20080 (g), landfill areas, which were closed, abandoned, or became inactive on or before November 27, 1984, are not specifically required to be closed in accordance with current Title 27 requirements (§20950 et seq.). However, the requirements of Title 27 are minimum requirements. The Regional Board may impose more stringent requirements if necessary to accommodate regional or site-specific conditions (Title 27, §20080(a)(1)).

Further, the Discharger responsible for such discharges may be required to develop and implement a detection-monitoring program in accordance with Division 2, Subdivision 1, Chapter 3, Article 1, Subchapter 3 of Title 27 (§20380 et seq.). If water quality impairment is found, the Discharger may be required to develop and implement a corrective action program under that article. Appropriate corrective action measures may include, but are not limited to, construction of a final cover system and/or implementation of necessary post-closure maintenance measures.

15. A Preliminary Closure and Post-Closure Maintenance Plan (Closure Plan) for the Vandenberg Air Force Sanitary Landfill was last updated on July 24, 2004. The Closure Plan has been submitted for approval to the California Integrated Waste Management Board (CIWMB). This Closure Plan addresses waste disposal areas within the Subtitle D Footprint and meets the requirements of Title 27 Section 21750 (i) including a closure cost estimate.

WASTE TYPE & CLASSIFICATION

16. The Landfill's Solid Waste Facility Permit is administered on behalf of the CIWMB by Santa Barbara County Environmental Health Services Division, which serves as the Local Enforcement Agency (LEA). The LEA updated and issued Solid Waste Facility Permit (SWFP) No. 42-AA-012 on January 10, 2000, with concurrence from the CIWMB.
17. The Landfill is not open to the public and receives non-hazardous solid waste from Vandenberg AFB, the nearby U.S. Penitentiary, and the Lompoc Correctional Facility only. The waste received at the Landfill consists of residential, commercial, and industrial waste. Special wastes, such as those outlined in Finding No. 10, are also disposed at the site. The facility also accepts used tires for recycling at an off-site location and wood waste within the Permitted Landfill Boundary. Concrete and asphalt are also accepted, and staged and processed on site. The LEA has approved the use of shredded green waste and construction and demolition debris, and a "Tarpomatic

System" tarp as alternative daily cover material.

18. The SWFP permits the unlined Landfill to accept up to 400 tons of waste per day: 374 of general non-hazardous waste, 18 tons of separated or commingled recyclables, and eight (8) tons of miscellaneous non-hazardous waste. The present total waste in place is approximately 3.3 million cubic yards. The Landfill has an estimated remaining capacity of 2.5 million cubic yards. According to the Fill Sequencing Program, the estimated closure date for the Landfill is year 2082 if the disposal rate remains consistent with 1999-2002 average rates. Approximately 7,761 tons of waste was buried in 2003. Presently, an average of 9,041 tons of waste is landfilled yearly.
19. Wastes received are classified as non-hazardous solid wastes or inert wastes using the criteria set forth in California Code of Regulations, Title 27 (CCR Title 27). Approximate percentages of materials received for disposal according to 2002 data are:
- 49 % Lompoc Federal Correctional Institute/U.S. Penitentiary.
 - 26 % Vandenberg AFB Military Housing.
 - 22 % Vandenberg AFB Industrial/Commercial.
 - 3% Self-Haul.
20. Wastes containing greater than one percent (>1%) friable asbestos are classified as hazardous under CCR, Title 22. Since such wastes do not pose a threat to water quality, Section 25143.7 of the Health and Safety Code permits its disposal in any landfill, providing waste discharge requirements specifically permit the discharge and the wastes are handled and disposed of in accordance with other applicable State and Federal statutes and regulations.
21. The currently permitted disposal areas are not equipped with liner systems and do not meet CCR Title 27, Section 20260 (b)(1) siting criteria with regard to "geologic setting". Considering the size of the permitted disposal area (Permitted Landfill Boundary),

permeability and transmissivity of underlying soils, depth to groundwater, background quality of groundwater, current and anticipated use of groundwater, and annual precipitation, the native underlying soils do not ensure protection of groundwater or surface water quality.

GEOLOGY

22. Geologic units underlying and adjacent to the Landfill include the Monterey Shale, Sisquoc Diatomite, Orcutt Sand, and younger alluvial deposits. The upper unit of the middle to late Miocene marine Monterey Shale is the primary lithologic unit in the area, and is used for daily cover within the Landfill. This unit is a hard, platy to brittle, cherty siliceous shale that weathers to a white color. It is diatomaceous, and contains organic matter in the form of hydrocarbons and bituminous material. The Monterey Shale averages slightly less than 2,000 feet in thickness on Burton Mesa.
23. The Landfill is primarily underlain by alluvial deposits and sand with silty sand, clayey sand, clayey gravel and clay interlaced in depositional bedding planes. The depth, through the alluvium, to the Shale formation ranges between ten to forty feet.
24. **Topography** - Vandenberg AFB is located in the Santa Maria Basin, a wedge-shaped lowland area bounded on the northeast by the Southern Coast Ranges (San Rafael Mountains), on the south by the Transverse Ranges (Santa Ynez Mountains), and on the west by the Pacific Ocean. The Landfill is in a natural erosion-formed canyon, a tributary of Oak Canyon, at the southeastern edge of Burton Mesa. The elevation of Oak Canyon, at the southernmost extent of the Landfill, is 290 feet above mean sea level (MSL). Oak Canyon is a minor, north-south trending watershed that drains south into the Santa Ynez River, approximately 6 miles from the Pacific Ocean. Burton Mesa surrounds the Landfill, with elevations ranging from 420 feet to 450 feet above MSL. The active portion of the Landfill is situated just below the headwaters of Oak Canyon. Site topography has been altered due to historic Landfill operations. The steep slopes along the northern, northwestern, and southwestern site boundaries, comprised of indurated shale, chert, and diatomite, have been cut back to provide cover material for the Landfill.
25. **Faulting/Seismicity** - Active or potentially active faults located within 60 miles of the site include the Lions Head, Hosgri, Santa Ynez, Los Alamos, More Ranch, Mission San Cayetano, Big Pine, Pitas Point-Ventura, Oak Ridge, Anacapa-Santa Cruz Island, and San Andreas Fault Zones. The acceleration from the Maximum Probable Earthquake is estimated to be 0.49 - 0.53 g's developed from an earthquake at either the Lions Head or Hosgri faults. Active faults in the vicinity of the Landfill include the Lion's Head fault, approximately 2.5 miles northeast of the site; the Los Alamos-Baseline fault, approximately 10 miles northeast; the Casmalia fault, approximately 12.5 miles north-northwest; the Hosgri fault, approximately 12.5 miles northwest; the San Luis Range fault (south margin), approximately 16 miles northeast; and the Santa Ynez fault (west segment), approximately 17 miles southeast. All of these faults are considered Holocene faults. They are considered Type B active faults (defined as faults with slip rates between 2 and 5 millimeters per year and with a maximum moment magnitudes (Mmax) ranging from 6.5 to 7.0) (ICBO 1998).

GROUNDWATER/SURFACE WATER

26. The Landfill is located within the Oak Canyon watershed, approximately three miles from the boundaries of the Lompoc Valley groundwater system. Upgradient of the Landfill toe, the Oak Canyon watershed area covers approximately 300 acres. The Lompoc Valley groundwater system is comprised of three distinct, but hydraulically connected, basins. These basins, the Lompoc Terrace, Lompoc Plain and Lompoc Upland, are located in the Santa Ynez River watershed. They are bordered on the north by the Purisima Hills, on the east by the Santa Rita Hills, on the south by the Lompoc Hills, and on the west by the Pacific Ocean.
27. Groundwater beneath the Landfill consists of an

alluvial aquifer and a bedrock aquifer. The water-bearing unit in the Oak Canyon alluvial fill underlies the bottom of landfilled materials at 5 to 30 feet below ground surface (bgs). The hydraulic conductivity of the alluvium was measured at 0.0036 cm/sec (Reference: Engineering Science 1993 "Draft Report of Waste Discharge"). Groundwater flow in this unit generally appears to follow the canyon contours and is likely affected by localized topography of the bedrock.

The groundwater aquifer in the upper Monterey Formation underlies the Landfill at approximately 60 feet bgs. The absence of water-bearing units in the alluvium in the northeast portion of the Landfill area may indicate a recharge area for the bedrock aquifer. There is no evidence of hydraulic connection between the water-bearing unit in the alluvial sediments and the deeper aquifer in the upper Monterey Formation.

28. Groundwater flow is predominantly to the south in the area down gradient of the groundwater extraction system (GWES) at the toe of the Landfill, in Pine Canyon and in the upper Oak Canyon. The average linear groundwater velocities for 2002 in the upper Oak Canyon and the area down gradient of the GWES were approximately 141 feet per year and 369 feet per year, respectively.
29. **Wells** - There are no water supply, oil, or geothermal wells within one mile of the facility boundary. There are several installation restoration program (IRP) monitoring wells located directly up gradient of the Landfill. These wells were specifically installed to monitor groundwater entering the Landfill from up gradient IRP sites.
30. **Groundwater Separation** – During certain times of the year (recharge events), alluvial groundwater may rise to a level that contacts buried waste in portions of the active disposal area. California Code of Regulations Title 27, Section 20240(c), requires the Discharger to operate the Landfill to ensure that wastes will be a minimum of five feet above highest anticipated groundwater. This operation standard is intended to reduce leachate generation and ensure no impairment of beneficial uses. The Discharger is implementing leachate controls to dewater the saturated alluvium and lower the groundwater level far below buried waste levels. Ongoing implementation of appropriate leachate controls will effectively control groundwater and migration pathways, and ensure the five-foot separation requirement, pursuant to CCR Title 27, Section 20080(c), is maintained at all times. The implementation of these leachate controls is intended as an engineered alternative, as allowed by Title 27, Section 20080(b). The leachate controls are consistent with the performance goal and are expected to afford equivalent protection of groundwater quality. The leachate controls consist of a Groundwater Reclamation and Conditioning System (GWRCS), runoff source control and diversion project, and ongoing drainage and grading improvements. The leachate controls are described in Findings Nos. 34 and 38, below.
31. **Groundwater Quality** – Historically, volatile organic compounds (VOC) have been detected in Wells 3-MW-3, 3-MW-11, 3-MW-5, and PC-MW-1 since 1984. The most common constituents of concern detected are tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,2-dichloroethylene (1,2-DCE). The maximum contaminant level (MCL) for these three constituents is 5 parts per billion (ppb). The PCE concentrations detected have ranged from trace to slightly above the MCL. The TCE concentrations detected have ranged from trace to 113 ppb. The cis-1,2-DCE concentrations have ranged from trace to 63 ppb. Since these wells were specifically installed to monitor groundwater entering the Landfill from upgradient locations, the source of the VOC impacts is suspected to be Installation Restoration Program (IRP) Site 3 located northwest of the Landfill, on Burton Mesa. To date, no contamination has been detected in the Monterey Formation. Further, no evidence of groundwater contamination from the Landfill has been detected at any alluvial "Point of Compliance" groundwater monitoring wells at the Landfill toe south of the GWES (See **Figure 4**).

32. **Storm Water** – In addition to this Order, the Discharger is required to be covered under a Statewide General Storm Water Permit. On **March 17, 1992**, the Discharger submitted a “Notice of Intent” to comply with the General Permit to Discharge Storm Water Associated with Industrial Activity (WQ Order No. 91-13-DWQ).
33. The Landfill is approximately 250 feet higher in elevation than the Santa Ynez River Valley floodplain and is not located within a 100-year floodplain.
34. **Surface Water** - Surface water run-on at the Landfill is managed by a system of concrete lined ditches, channels, and culverts to convey surface water around the landfill and down into Oak Canyon. Additional grading and drainage improvements are continuously being implemented at the Landfill during normal operations.

In 2003, a major source control project was completed that is designed to intercept and divert 46.7 percent of the current watershed area runoff from approximately 175 acres to the north, east, and west of the landfill, and redirect the discharge around the Landfill and into Lake Canyon. The western canyon along Iceland Avenue is the only remaining area, which still allows a substantial volume of storm water run-on onto the Landfill area. Pending approval and availability of funds, the Discharger plans to evaluate the feasibility of diverting surface water run-on from the western canyon of the Landfill in 2005.

35. Based on precipitation data collected from a weather station at the Vandenberg AFB airfield from July 1958 to June 2002, the Landfill site receives a mean precipitation of 14.4 inches annually with November to May as the predominant wet months. The most precipitation recorded at the site occurred during the 1997-1998 weather year, when 35.99 inches of precipitation fell during El Nino-related storms. The greatest amount of precipitation recorded over a 24-hour period was 3.71 inches in March 1995.

MONITORING PROGRAMS

36. **Water Quality Monitoring** - Groundwater has been monitored continuously since July 1, 1989. Presently, there are ten (10) groundwater-monitoring points in place. Seven of these monitoring points monitor water quality conditions within the alluvial sediments. The remaining three (3) monitoring points monitor water quality conditions within the Monterey Formation. Provision E.26 requires the Discharger to submit a well installation plan addressing the installation of an appropriately located “background” groundwater monitoring point. The additional monitoring point must be located and designed to monitor background water quality conditions within the Monterey Formation. The additional monitoring point will be incorporated into the Monitoring and Reporting Program when accepted by the Regional Board Executive Officer. Groundwater monitoring requirements are specified in the attached Monitoring and Reporting Program (MRP). The groundwater monitoring points are depicted in **Figure 4**.
37. **Surface Water Monitoring** – Surface water is monitored at three locations around the Landfill. Additionally, storm water is monitored according to the State’s General NPDES storm water discharge general permit. Surface water monitoring requirements are specified in the attached MRP. The surface water monitoring points are shown in **Figure 4**.
38. **Groundwater/Leachate Management System** - The Landfill has been undergoing dewatering by groundwater extraction since the installation of an extraction trench in September 1983. In 1991, the extraction trench was replaced by a groundwater management system. The groundwater management system consists of a Groundwater Extraction System (GWES) and a Groundwater Reclamation and Conditioning System (GWRCS). The GWES includes a subsurface slurry wall, a subsurface groundwater extraction trench, up gradient of the slurry wall, and a vertically installed well casing with a submersible sump pump. The GWES intercepts Landfill groundwater (flow at

up to 120 gpm) at the Landfill's toe as it migrates down gradient into Oak Canyon. The groundwater is reclaimed via a submersible sump pump within the LCS-1 (leachate control system) well casing. The reclaimed water is then conditioned (treated) using chemical and filtration processes at the GWRCS. The GWRCS includes a groundwater conditioning unit, four aboveground storage tank (AST) with approximately 26,000 gallons of capacity, and an effluent distribution system (EDS). The conditioned water is pumped to an 11,340-gallon AST, and is then pumped to two 5,000-gallon ASTs on top of Burton Mesa. Water is also pumped from the 11,340-gallon tank to another 5,000-gallon tank located next to the GWRCS. This storage tank supports a fill stand that fills the water truck that is used for Landfill dust control. From the Burton Mesa storage tanks, the GWRCS effluent is pumped to the EDS, where the conditioned groundwater is discharged within Landfill boundaries for beneficial reuse, including dust suppression and irrigation of vegetative cover to limit erosion. All discharges of leachate/groundwater must comply with Specification C.9. The leachate/ground water management system and the monitoring wells located near the Landfill toe are shown on **Figures 3 and 4**.

39. **Vadose Zone Monitoring** – The Discharger is no longer required to perform vadose zone monitoring. In 1996, the Discharger was authorized to abandon a lysimeter because of the lack of useful data collected from it and due to its interference with fill operations.
40. **Landfill Gas Monitoring** – One soil gas monitoring point, SG-1, is used to monitor soil gas in a zone immediately down gradient of the Subtitle D footprint. It is located between the Landfill toe and the GWRCS at approximately 5 feet bgs. Currently, all landfill gas sampling at the Landfill meets the requirements of Title 27 CCR §20919.5. Implementation of Subtitle D regulations pursuant to 40 CFR, Part 258, §258.23, requires landfill owners and operators to monitor for methane at all landfill structures located on site and at the Landfill facility boundary. The Discharger has not installed a gas collection system at the Landfill due to the

relatively low methane levels generated. Landfill gas monitoring requirements are specified in the attached MRP. The gas monitoring points/locations are shown in **Figure 4**.

BASIN PLAN

41. The Water Quality Control Plan, Central Coast Basin (Basin Plan), was adopted by the Regional Board on September 8, 1994, and approved by the State Water Resources Control Board on November 17, 1994. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State Waters. This Order implements the water quality objectives of the Basin Plan.
42. Present and anticipated beneficial uses of groundwater in the vicinity of the Landfill include:
- Domestic Supply.
 - Municipal supply.
 - Industrial supply.
 - Agricultural supply.
43. Present and anticipated beneficial uses of surface waters, including the Santa Ynez River, in the vicinity of the Landfill include:
- Warm freshwater habitat.
 - Water contact recreation.
 - Wildlife habitat.
 - Municipal and domestic supply.
 - Agricultural supply.
 - Ground water recharge.
 - Non-contact water recreation.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

44. This project involves an update of Waste Discharge Requirements initiated by the Regional Board. These waste discharge requirements contain prohibitions, discharge specifications, water quality protection standards, and provisions intended to protect the environment by mitigating or avoiding impacts of the project on water quality. These

Waste Discharge Requirements are for an existing facility and as such are exempt from provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15301.

GENERAL FINDINGS

45. The Landfill currently meets all Title 27 criteria for classification as a Class III Landfill suitable to receive non-hazardous solid wastes.
46. The Landfill operates under the following Orders, Permits and conditions:
 - a. Waste Discharge Requirements Order No.94-26.
 - b. Waste Discharge Requirements Order No. 93-84 (Landfill Super Order).
 - c. Region wide Cleanup and Abatement Order No. R3-2002-0130.
 - d. State Water Resources Control Board Water Quality Order No. 97-03 DWQ (General Industrial Storm Water Permit).
 - e. Solid Waste Facilities Permit No. 42-AA-012, issued on January 10, 2000 by the Santa Barbara County Environmental Health Services Community Health Division, which serves as the Local Enforcement Agency (LEA), with concurrence from the California Integrated Waste Management Board.
47. This Order implements the prescriptive standards and performance goals of CCR Title 27, as promulgated on July 18, 1997.
48. On **September 13, 2004**, the Regional Board notified the Discharger and interested agencies and persons of its intention to update the Landfill Waste Discharge Requirements and has provided them with a copy of the proposed Order and an opportunity to submit views and comments.
49. After considering all comments pertaining to this discharge during a public hearing on **November 19, 2004**, this Order was found consistent with the above findings.

IT IS HEREBY ORDERED pursuant to authority in Section 13263 of the California Water Code, the United States Air force, its agents, successors, and assigns may discharge wastes at the Vandenberg AFB Class III Landfill, providing compliance is maintained with the following:

A. COMPLIANCE WITH OTHER REGULATIONS, ORDERS AND STANDARD PROVISIONS

1. Discharge of waste shall comply with all applicable requirements contained in the California Code of Regulations Title 27, Division 2, Solid Waste (CCR Title 27) and Title 40 CFR Parts 257 and 258 (40 CFR) Solid Waste Facility Disposal Criteria. If any applicable regulation requirements overlap or conflict in any manner, the most water quality protective requirement shall govern in all cases, unless specifically stated otherwise in this Order, or as directed by the Executive Officer.
2. This Landfill is no longer subject to this Regional Board's Order No. 93-84 "Waste Discharge Requirements (WDR) Amendment for All Municipal Solid Waste Landfills in the Central Coast Region" (Super Order). The Super Order updated all Region 3 landfill WDRs to comply with the updated federal landfill regulations, 40 CFR Parts 257 and 258. Through compliance with CCR Title 27 and 40 CFR Parts 257 and 258 as required above in A.1, the Discharger will satisfy requirements identical to those within Order No. 93-84.
3. The Discharger shall monitor potential releases from the Landfill related to storm water runoff by complying with all requirements contained in the "State Water Resources Control Board Water Quality Order No. 97-03-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 Waste Discharge Requirements for Discharge of Storm Water Associated with Industrial Activities Excluding Construction Activities".
4. Discharge of waste is a privilege, not a right, and authorization to discharge waste is

conditioned upon the discharge complying with provisions of Division 7 of the California Water Code and with any more stringent limitations necessary to implement the Basin Plan, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should assure conditions are met and mitigate any potential changes in water quality due to the project.

B. PROHIBITIONS

1. Discharge of waste to areas outside the Permitted Landfill Boundary, described in Finding No. 3 and identified in **Figure 3** is prohibited.
2. Discharge of waste to areas within the Permitted Landfill Boundary that have **not** previously received waste is prohibited unless a composite liner system, as described in **Specification C. 22**, is installed and accepted by the Executive Officer.
3. Discharge of the following types of wastes is **prohibited**:
 - a. Radioactive wastes.
 - b. Designated waste.
 - c. Hazardous waste, except for waste that is hazardous due only to its asbestos content.
 - d. Wastes that have the potential to reduce or impair the integrity of containment structures or which, if commingled with other wastes in the unit, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products.
 - e. Wastes that require a higher level of containment than provided by the Landfill.
 - f. Liquid or semi-solid waste containing less than 50 percent solids by weight. This includes de-watered sewage or water treatment sludge, landfill leachate and gas condensate, except as allowed by **Provision E.15**, and **Specification C.25**.
4. Discharge of solid or liquid waste or leachate to surface waters, ponded water from any source, surface water drainage courses, or groundwater, is prohibited.

5. Discharge of waste within 50 feet of the property line or within 100 feet of surface waters or domestic supply wells is prohibited.
6. Disposal of wastes within five (5) feet of the highest anticipated elevation of underlying groundwater, including the capillary fringe, is prohibited.

C. SPECIFICATIONS

General Specifications

1. All technical and monitoring reports submitted pursuant to this Order are required pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order, attachments to this Order, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code. The Regional Board will base all enforcement actions on the date of Order adoption.
2. The Discharger shall implement the attached Monitoring and Reporting Program No. R3-2004-0151 in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents, or any unreasonable beneficial use impairment associated with and or caused by the discharge of waste.
3. The discharge shall neither cause nor contribute to any surface water contamination, pollution, or nuisance, including, but not limited to:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam.
 - b. Increases in bottom deposits or aquatic growth.
 - c. An adverse change in temperature turbidity, or apparent color beyond natural background levels.
 - d. The creation or contribution of visible, floating, suspended, or deposited oil or other products of petroleum origin.
 - e. The introduction or increase in concentration of toxic or other pollutants/contaminants resulting in

- unreasonable impairment of beneficial uses of waters of the State.
4. The discharge shall not cause an increase in concentration of waste constituents in soil-pore gas, soil-pore liquid, perched water, groundwater or geologic materials outside of the Point of Compliance (as defined by CCR Title 27).
 5. The Discharger shall conduct intake load checking as specified by this Order including the attached monitoring and reporting program, and shall monitor for radioactive materials in the incoming waste.
 6. The Discharger shall remove and relocate any wastes discharged in violation of these requirements.
 7. Refuse shall be covered daily by at least six inches of soil cover material or an Executive Officer-accepted alternative daily cover. Daily cover shall promote lateral runoff of rainfall away from the active disposal area.
 8. Water used over areas underlined by waste within unlined Landfill areas shall be limited to the minimum amount necessary for dust control and construction.
 9. Water collected in any storm water catchment basin or a site water treatment facility may be used in minimum amounts necessary for dust-control, compaction, or irrigation of cover vegetation provided:
 - a. The water does not infiltrate past the vegetation root zones or past a depth where effective evaporation can occur.
 - b. The water does not contain or carry waste constituents.
 10. Surface drainage from tributary areas and internal site drainage from non-landfill surface or subsurface sources shall not contact or percolate through wastes.
 11. To prevent erosion and percolation through the waste, drainage ditches crossing over Landfill areas shall be lined with either a synthetic liner or at least an one-foot-thick layer of soil having an in-place hydraulic conductivity of 1×10^{-6} cm/sec or less.
 12. The Discharger shall monitor potential releases from the site related to surface water runoff by complying with all National Pollutant Discharge Elimination System (NPDES) Stormwater Monitoring Program requirements.
 13. Regional Board staff shall be notified within 24 hours by phone, with a written report to follow within seven days, of any slope failure or leachate seep occurring at the Landfill. Any leachate seep or any failure, which threatens the integrity of containment features or the Landfill, shall be promptly corrected and the methods shall be so stated in the written report.
- Wet Weather**
14. **By October 1 of each year**, all necessary runoff diversion and erosion prevention measures shall be implemented. All necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding of the Landfill and to prevent surface drainage from contacting or percolating through wastes.
 15. **Throughout the rainy season of each year**, a compacted intermediate soil cover designed and constructed to minimize percolation of precipitation through wastes, shall be maintained over all waste disposal areas containing buried waste. The soil cover shall be in-place by **October 1 of each year**. The thickness and permeability of the intermediate cover shall be based primarily on site specific conditions including, but not limited to: length of exposure time; volume of underlying material; permeability, thickness and composition of existing cover; amount of yearly rainfall; depth to groundwater; beneficial uses of underlying groundwater; site specific geologic and hydrogeologic conditions; existing groundwater impacts and effectiveness of existing monitoring system. The only exception to this specification is the working face. The working face shall be confined to the smallest area practicable based on the anticipated quantity of waste discharged and

required Landfill facility operations. Landfill areas, which have been provided with an Executive Officer-approved vegetative layer, shall not be required to satisfy this requirement. Based on site-specific conditions, the Executive Officer may require a thicker soil cover for any portion of the Landfill prior to the rainy season.

16. By **October 1 of each year**, vegetation shall be planted and maintained as necessary to minimize erosion on interim cover slopes and on slopes at final elevation. Vegetation shall be selected to require a minimum of irrigation and maintenance. Upon written Executive Officer approval, non-hazardous sewage sludge may be utilized as a soil amendment to promote vegetation. Soil amendments and fertilizers (including wastewater sludge) used to establish vegetation shall not exceed the vegetation's agronomic rates (i.e., annual nutrient needs), unless approved by the Executive Officer.
17. All Landfill surfaces and working faces shall be graded and operated to minimize rainfall infiltration into wastes, to prevent ponding of water, and to resist erosion.
18. Drainage facilities shall be designed, constructed, and maintained to accommodate anticipated precipitation and peak surface runoff flows from a 100-year, 24-hour rainstorm event.
19. Storage facilities associated with precipitation and drainage control systems shall be emptied immediately following each storm, or otherwise managed, to maintain the design capacity of the system. A minimum of two feet of freeboard shall be maintained in all storm water/sediment containment ponds.

Design Criteria

20. All waste disposal areas, containment structures and drainage facilities shall be designed and constructed under the direct supervision of a California Registered Civil Engineer or a Certified Engineering Geologist, and shall be certified by that individual as meeting the prescriptive standards and performance goals of all state and federal landfill regulations

including, but not limited to, CCR Title 27 and 40 CFR parts 257 and 258. For containment structures (liners), certification of standards shall be made prior to waste discharge.

21. Wastes shall not be discharged to new areas (i.e., areas which have not previously received wastes) unless equipped with a containment system, which meets either a. or b. below:
 - a. A composite liner and a leachate collection and removal system consisting of the following components:
 - A well-prepared subgrade, engineered to support the Landfill and associated structures.
 - Lower Component: a minimum two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.
 - Upper Component: a minimum 60-mils high-density polyethylene (HDPE). The upper component must be installed in direct and uniform contact with the lower component.
 - A Leachate Collection and Removal System (LCRS), designed such that leachate gravity drains to a collection point/sump and is removed through gravity or pumping to a holding tank or sanitary sewer for volume measurement, testing and disposal.
 - A protective soil layer or operations layer shall be placed above the LCRS and liner system. This layer shall be a minimum of 12 inches thick; or
 - b. An engineered alternative liner design, approved by the Executive Officer. Engineered alternative designs must satisfy the performance criteria in 40 CFR Section 258.40(a)(1) and (c), and satisfy the criteria for an engineered alternative to the above Prescriptive Design, as provided by CCR Title 27 Section 20080(b). Performance of the alternative composite liners' components, in combination, shall equal or exceed the waste containment capability of the Prescriptive Design, outlined above.

22. All Landfill facilities shall be designed and constructed to prevent damage during the maximum probable earthquake.
23. A preferential leachate pathway layer shall be installed between the existing unlined areas and new cells. This layer shall be constructed so that leachate generated in new waste placed over unlined areas flows to the lined portion of the Landfill for collection and disposal.
24. The leachate collection and removal system shall:
 - a. Be designed and constructed to prevent more than 12 inches of static hydraulic head on the liner.
 - b. Convey to a sump, or other appropriate collection area, all leachate, which reaches the liner. The depth of fluid in any collection sump shall be kept at the minimum needed to ensure efficient pump operation.
 - c. Be designed so that short and long term system performance can be monitored and evaluated [CCR Title 27, Section 20340 (d)].
 - d. Storage facilities shall have a secondary containment system sized to hold 110 percent of the primary containment system capacity.
 - e. Be constructed with double lined sump with leak detection capability.
25. Discharge of condensate or leachate shall comply with the following:
 - a. Liquids shall be returned to **only** a waste management unit equipped with a containment system that meets or exceeds the performance standards of CCR Title 27, 40 CFR, Part 258.40(a)(2), or in this Order, whichever is more protective of water quality.
 - b. Liquids shall be measured by volume and recorded on a monthly basis. These monthly volumes shall be included as a part of monitoring submittals as required in MRP R3- 2004-0151.
 - c. No discharge of leachate within 48 hours of

any forecasted rain event, during any rain event, or 48-hours after any rain event, unless a site specific Leachate Application Plan acceptable to the Executive Officer, is submitted and approved.

- d. Have an approved alternate method of leachate disposal (e.g., wastewater treatment plant) that is acceptable to the Executive Officer.

Closure

26. All Landfill waste disposal areas which have not reached final fill elevation, but will remain inactive over one-year, must be provided with an Executive Officer-approved long-term intermediate cover. The thickness and permeability of the long-term intermediate cover shall be based primarily on site-specific conditions including, but not limited to length of exposure time; volume of underlying material, permeability, thickness and composition of existing cover; amount of yearly rainfall; depth to groundwater; beneficial uses of underlying groundwater; site-specific geologic and hydrogeologic conditions; and effectiveness of existing monitoring system.
27. All Landfill waste disposal areas at final elevations shall receive final cover pursuant to Title 27, Section 21090, which meets either a. or b. below:
 - a.
 - Minimum two-foot foundation layer placed over waste, compacted to maximum density obtainable at optimum moisture conditions (CCR Title 27, Section 21090 (a)(1)).
 - For units that have not been equipped with a Subtitle D composite liner system, a low hydraulic conductivity layer, consisting of compacted clay with a hydraulic conductivity of 1×10^{-6} cm/sec. Compacted clay will not be considered for sites with VOC detections in point of compliance wells. In such cases a geosynthetic clay layer or geomembrane will be proposed.
 - For units that have been equipped with a Subtitle D composite liner system, a

- low hydraulic conductivity layer equal to or less than the hydraulic conductivity of the bottom liner system.
- At least one foot of soil capable of supporting vegetation, resisting erosion, and protecting the underlying low hydraulic conductivity layer.
- b. An engineered alternative design, approved by the Executive Officer, will be considered for final cover areas. Engineered alternative designs must satisfy the performance criteria in 40 CFR Parts 257 and 258, and satisfy the criteria for an engineered alternative to the above Prescriptive Design, as provided by CCR Title 27. Performance of the alternative composite cover's components, in combination, shall equal or exceed the waste containment capability of the prescriptive design, outlined above.

WATER QUALITY PROTECTION STANDARDS

1. Discharge of waste shall not cause the concentration of any Constituents of Concern (COC) or Monitoring Parameter to exceed its respective background value in any monitored media (i.e., soil, or groundwater) at any Monitoring Point pursuant to MRP No. R3-2004-0151.
2. Constituents of Concern and Monitoring Parameters for groundwater and surface water are listed in MRP No. R3-2004-0151. Monitoring points and background monitoring points for Detection monitoring shall be those specified in MRP No. R3-2004-0151.
3. The discharge of waste shall not cause a statistically significant difference in water quality over background concentrations or Concentration Limit for each COC or Monitoring Parameter (per MRP No. R3-2004-0151) at the Point of Compliance. The Concentration Limits shall be maintained for as long as the waste poses a threat to water quality. Discharge of waste shall not adversely impact the quality of State waters.

4. Discharge of waste shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board.
5. Discharge of waste shall not cause concentrations of chemicals and radio nuclides in groundwater down-gradient of the point of compliance to exceed the State Department of Health Services latest recommended Drinking Water Action Levels or Maximum Contaminant Levels of the California Code of Regulations Title 22, Division 4, Chapter 15, Article 5.5.
6. The Regional Board considers the Discharger to have a continuing responsibility for waste containment, monitoring, and correcting any problems, which may arise in the future as a result of this waste discharge. This responsibility continues as long as the waste poses a threat to water quality.
7. The Point of Compliance (POC) is as defined in CCR Title 27. For the purposes of this Landfill, the POC follows the edge of the Landfill's "Subtitle D Footprint", except near the Landfill's toe where the POC extends out and across the "Slurry Wall" and extends vertically down through the uppermost aquifer.
8. Monitoring results are subject to the most appropriate statistical or non-statistical test, as required by the attached Monitoring and Reporting Program.
9. The Discharger shall, in a timely fashion, install any additional groundwater, soil pore liquid, soil pore gas, surface water, and leachate monitoring devices as required by the Executive Officer

E. PROVISIONS

General Provisions

1. Order No. 94-26, Waste Discharge Requirements for Vandenberg Landfill Vandenberg Air Force Base, adopted by the Regional Board on June 3, 1994, is hereby rescinded.
2. The Discharger shall comply with "Monitoring

and Reporting Program No. R3-2004-0151", or as specified by the Executive Officer.

3. A Construction Quality Assurance Plan, acceptable to the Executive Officer, must be implemented by a third party (e.g., unrelated to the Discharger, Landfill operator, project designer, contractor) prior to initiating construction of the Landfill's final cover system or constructing a new waste management unit.
4. Prior to beginning discharge of waste into any newly constructed waste management unit, the Discharger must receive a final site inspection, submit a final construction Quality Assurance report, and receive written permission from the Executive Officer [CCR Title 27, Section 20324(d)(1)(C).]
5. The Discharger shall maintain a copy of this Order at the facility and make it available at all times to regulatory agency personnel and to facility operating personnel (who shall be familiar with its contents).
6. The Discharger shall maintain legible records of the volume and type of each waste discharged at each Unit and the manner and location of discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Regional Board and of the State Water Resources Control 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.
7. The Discharger shall be responsible for accurate waste characterization, including determinations of whether or not wastes will be compatible with containment features or other wastes and whether or not wastes are required to be managed as hazardous wastes.
8. A list of the general types of the more widely used names of hazardous-type wastes prohibited at this site shall be posted on a legible roadway sign at the Landfill's entrance. The sign shall also state the locations of the nearest hazardous waste disposal sites and shall list penalties for illegal dumping. A specific list of hazardous wastes and other types of materials prohibited at this Landfill shall be provided to commercial waste haulers that use this Landfill and shall be available to all other site users upon request.
9. The Discharger shall report all changes in usage of daily cover and performance standards within 10 days following the change.
10. The Discharger shall comply with all other applicable provisions of CCR Title 27 and 40 CFR Parts 257 and 258 that are not specifically referred to in this Order. If any applicable requirements overlap or conflict in any manner, the requirement most protective of water quality shall govern in all cases, unless specifically stated otherwise in this Order, or as directed by the Executive Officer.
11. The Discharger shall have a continuing responsibility to assure protection of usable waters, from discharged wastes and from gases and leachate generated by discharged waste, during the Landfill's active life, closure, and post-closure maintenance periods and during subsequent use of the property for other purposes.
12. The Discharger shall maintain waste containment facilities and precipitation and drainage controls, and shall continue to monitor, as appropriate, groundwater, vadose zone, liquid and gas, surface waters, and leachate from waste management units throughout the post-closure monitoring and maintenance period.
13. Methane and other landfill gases, generated as a result of waste disposal, shall be adequately vented, removed from the Landfill, or otherwise controlled to prevent the danger of explosion, adverse health effects, nuisance conditions, and the degradation of water quality.
14. The Regional Board will review this Order periodically and will revise these requirements when necessary.

15. Sewage sludge or water treatment sludge with greater than 50 percent moisture content may be discharged to the waste management unit **only** if **all** the following criteria are met:
- Sludge shall be discharged only to lined modules that have a LCRS, designed such that leachate gravity drains to a collection point/sump and is removed through gravity or pumping to a holding tank or sanitary sewer for volume measurement, testing and disposal.
 - A daily minimum solids-to-sludge ratio of 5 to 1, based on weight, shall be maintained when co-disposing sludge with solid waste.
 - Primary and mixtures of primary and secondary sewage sludge shall contain at least 20 percent solids by weight.
 - Secondary sewage sludge and water treatment sludge shall contain at least 15 percent solids by weight.

Reporting Provisions

16. All technical and monitoring reports submitted pursuant to this Order are being requested pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or attachments to this Order, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.
17. Discharger shall notify Regional Board staff, within 24 hours by telephone and within seven days in writing, of any noncompliance potentially or actually endangering health or the environment. Any noncompliance that threatens the Landfill's containment integrity shall be promptly corrected. Correction schedules are subject to the approval of the Executive Officer, except when delays will threaten the environment and/or the Landfill's integrity (i.e., emergency corrective measures). Corrections initiated prior to Executive Officer approval shall be so stated in the written report. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times or anticipated duration; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. This provision includes, but is not limited to:
- Violation of a discharge prohibition.
 - Violation of any Water Quality Protection Standard.
 - Slope failure.
 - Leachate seep(s) occurring on, or in proximity to, the Landfill.
18. Reports of compliance or noncompliance, or any progress reports on interim and final requirements contained in any compliance schedule, shall be submitted within 14 days following each scheduled date unless otherwise specified within the Order. A report shall be submitted within 14 days of achieving full compliance.
19. Design reports shall be submitted 180 days in advance of any planned changes in the permitted facility or any activity, which could potentially or actually result in noncompliance.
20. The Discharger shall implement all necessary wet weather preparedness measures to ensure discharges to surface waters or groundwater do not occur during the impending rainy season, and ensure all other relevant CCR Title 27 and 40 CFR criteria have been implemented. To ensure the appropriate wet weather measures have been implemented, the Discharger shall submit a report of Wet Weather Preparedness. The report shall detail all preparedness actions taken to comply with this requirement. **REPORT DUE DATE: October 1st** of each year.
21. The Discharger shall obtain and maintain Financial Assurance Instruments (Instruments), which comply with CCR Title 27 and 40 CFR parts 257 and 258. The Discharger shall re-evaluate periodically the cost of Financial Assurance to cover the estimated costs of the "worse case" reasonably foreseeable release. The Discharger shall submit a report every five years that either validates the instrument's ongoing viability or proposes and substantiates any needed changes [e.g., a documented increase in the monitoring systems' ability to

provide reliable early detection of a release can cause a decrease in the Instrument's financial coverage]. **REPORT DUE DATE: June 30, 2005**, and every five years thereafter.

22. For the protection of water quality, the Executive Officer may require partial and or final closure of any Waste Management Unit and/or Landfill area regardless of whether the unit/area has reached final capacity. Such a requirement will be requested in writing and in accordance with CCR Title 27, Section 22190.
23. The Discharger shall submit a Joint Technical Document (JTD) pursuant to CCR Title 27, Section 21710, to the Executive Officer. The JTD shall contain, but is not limited to, the following:
 - a. Information on waste characteristics, geologic and climatologic characteristics of the Landfill and the surrounding region, installed features, operation plans for waste containment, precipitation and drainage controls, and closure and post closure maintenance plans, in accordance with CCR Title 27 Sections 21740, 21750, 21760, and 21769.
 - b. A completed SWRCB JTD Index, in accordance with CCR Title 27, Section 21585(b), with your JTD addendum.
 - c. A Discussion of whether, in the Discharger's opinion, there is any portion of this Order that is incorrect, obsolete, or otherwise in need of revision.
 - d. Any technical documents needed to demonstrate continued compliance with this Order and all pertinent State and Federal requirements.
 - e. Detailed information regarding regulatory considerations; design, construction and operating provisions; environmental monitoring; and closure and post-closure.
 - f. A Fill Sequencing Plan that includes detailed maps. The Fill Sequencing Plan should describe in detail the overall development of the entire Landfill.
 - g. A detailed description of the lateral and vertical extent of refuse within all existing Landfill Units. It must include an accurate estimate of waste volumes within each existing Landfill fill area (i.e., phases) and an approximation of the remaining volume and years of capacity for each existing phase and all new proposed fill area within currently "Permitted Landfill Boundary". It must also describe all existing available space within currently permitted Landfill areas (i.e., areas where refuse has been placed in the past, but have not reached final permitted elevation and Landfill Units or portions of Landfill Units where refuse has never been placed).
- h. A discussion of any plans/proposals to close or partially close any Landfill Units or portions of Landfill Units, any proposed liner systems and respective design components, any proposed plans for long-term intermediate cover for Landfill areas which may remain inactive for long periods of time (over one year). **REPORT DUE DATE: November 19, 2009**, and every five years thereafter.
24. The Discharger shall submit to the Regional Board an updated closure and post-closure maintenance plan (Closure Plan). The Closure Plan shall describe the methods and controls to be used to assure protection of the quality of surface and groundwater during partial and final closure operations and during any proposed subsequent use of the land. The Closure Plan shall include:
 - a. A description of the final cover, designed in accordance with all applicable State and Federal regulations and the methods and procedures to be used to install the cover.
 - b. An estimate of the largest waste disposal area (Waste Management Unit) requiring a final cover at any time during the Landfill's active life.
 - c. An estimate of the maximum inventory of wastes on-site over the active life of the Landfill.
 - d. A schedule for completing all activities necessary to satisfy all closure criteria as required by CCR Title 27 and 40 CFR Parts 257 and 258 regulations.
 - e. An estimate of closure and post closure maintenance costs.

- f. A proposal for a trust fund or equivalent financial arrangement to provide sufficient funding for closure and post-closure maintenance.
- g. The amount to be deposited in the trust fund or equivalent financial arrangement each year.

The Closure Plan shall be prepared by or under the supervision of a California Registered Civil Engineer or Certified Engineering Geologist. Updates of the plan are required whenever substantial changes occur or five years has elapsed since the last major revision. The method, identified for each WMU closure and protection of the quality of surface and groundwater, shall comply with this Order. The Closure Plan report shall be consistent with all applicable state and federal regulations, including CCR Title 27 and 40 CFR Parts 257 and 258. **REPORT DUE DATE: July 30, 2009**, and every five years thereafter.

- 25. The Discharger shall submit annual Corrective Action Plan (CAP) Reports that discuss the effectiveness of the corrective action measures taken to control offsite groundwater pollution sources and propose any necessary corrective actions and source control modifications and improvements. The CAP Reports shall also evaluate and discuss the effectiveness of all dewatering measures being implemented including, the GWRCS, all extraction and treatment systems, surface water run-off source control and diversion projects and Landfill drainage control measures. The CAP Reports shall include monitoring data trend analyses, operational summary for the year, an operations plan for the coming year, and a time schedule for any proposed CAP modification or improvement. **REPORT DUE DATE: January 31, 2005**, and yearly thereafter.
 - 26. The Discharger shall submit a well location and installation plan for Executive Officer review and approval. The plan shall address the installation of an appropriately located "background" groundwater monitoring point, designed to monitor background water quality conditions within the Monterey Formation. The plan shall include a specific installation and monitoring schedule. **REPORT DUE DATE: March 30, 2005.**
 - 27. The Regional Board considers the Discharger to have a continuing responsibility for correcting any problems, which may arise in the future as a result of this waste discharge. This responsibility continues as long as the waste poses a threat to water quality.
 - 28. The Discharger shall notify the Regional Board in writing of any proposed change in ownership or responsibility for construction or operation of the Landfill in accordance with CCR Title 27, Section 21710 (c)(1). Failure to submit the notice in writing shall be considered a violation of §13264 of the Water Code. The written notice shall be given at least 90-days prior to the effective date of change in ownership or responsibility and shall:
 - a. Be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with these Waste Discharge Requirements.
 - b. Contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Regional Board.
 - c. Contain a statement indicating that the new owner or operator assumes full responsibility for compliance with this Order.
- Request for change in ownership or responsibility may be approved or disapproved in writing by the Executive Officer. In the event of any change in ownership of this Landfill, the Discharger shall notify the succeeding owner or operator, in writing, of the existence of this Order. A copy of that notification shall be sent to the Executive Officer.
- 29. At any time, the Discharger may file a written request (including appropriate supporting documents) with the Regional Board Executive Officer, proposing appropriate modifications to the monitoring and reporting program. The

Executive Officer either shall reject the proposal for reasons listed, or shall incorporate it into a revised monitoring and reporting program. The Discharger shall implement any changes in the monitoring and reporting program proposed by the Executive Officer upon receipt of a revised monitoring and reporting program.

30. The Discharger shall notify the Executive Officer at least 180 days prior to beginning any partial or final Landfill closure activities. The notice shall include a statement that all closure activities will conform to the most recently approved Closure Plan and that the Plan provides for closure in compliance with all applicable State and Federal regulations. If there is no approved Closure Plan, the Discharger must submit a complete Closure Plan at least 240 days prior to beginning any Landfill closure activities.

31. The Regional Board shall be allowed, at any time and without prior notification:

- a. Entry upon the Landfill or where records must be kept under the conditions of this Order and MRP No. R3-2004-0151.
- b. Access to copy any records that must be kept under the conditions of this Order and MRP No. R3-2004-0151.
- c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order and MRP No. R3-2004-0151.
- d. To photograph, sample, and monitor for the purpose of showing compliance with this Order.

32. Except for data determined to be confidential under Section 13267 (b) of the California Water Code, all reports prepared in accordance with this Order are considered public record and shall be sent to the appropriate contact at the California Integrated Waste Management Board and Santa Barbara County Environmental Health Services Division. All reports shall be signed as follows:

- a. For a public agency - by either a principal

executive officer or ranking elected official*.

- b. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively*.
- c. For a corporation - by a principal executive officer of at least the level of vice president*.
- d. For engineering reports and monitoring reports- by a California Registered Civil Engineer or Certified Engineering Geologist.

*or their "duly authorized representative."

33. Any person signing a report makes the following certification, whether its expressed or implied:

"I certify under penalty of perjury I have personally examined and am familiar with the information submitted in this document and all attachments and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

34. Any person who violates Waste Discharge Requirements and/or who intentionally or negligently discharges waste or causes or permits waste to be deposited where it is discharged into waters of the State is liable for civil and/or criminal remedies, as appropriate, pursuant to Section 13350, 13385, and 13387 of the California Water Code.

35. Provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

36. This Order does not authorize commission of any act causing injury to the property of another, does not convey any property rights of any sort, does not remove liability under federal, state, or local laws, and does not guarantee a capacity right.

37. The Discharger must comply with all conditions

of these Waste Discharge Requirements. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these Waste Discharge Requirements by the Regional Board. [CWC Section 13261, 13263, 13265, 13267, 13268, 13300, 13301, 13304, 13340, 13350].

38. The Discharger shall comply with the following submittal and implementation schedule for all tasks and/or reports required by this Order:

REPORT AND TASK IMPLEMENTATION DATE SUMMARY

REPORT/TASK	IMPLEMENTATION DATE
Implement runoff diversion and erosion prevention measures [Specification C.14]	October 1, 2005 , and yearly thereafter
Provide intermediate soil cover to all waste disposal areas containing buried waste [Specification C.15]	October 1, 2005 , and yearly thereafter
Provide vegetation layer to all Landfill areas at final elevation [Specification C.16]	October 1, 2005 , and yearly thereafter
Wet Weather Preparedness Report [Provision E.20]	October 1, 2005 , and yearly thereafter
Financial Assurance Report [Provision E.21]	June 30, 2005 , and every five years thereafter
Joint Technical Document [Provision E.23]	November 19, 2009 , and every five years thereafter.
Closure Plan [Provision E.24]	July 30, 2009 , and every five years thereafter.
Corrective Action Plan Reports [Provision E.25]	January 31, 2005 , and yearly thereafter. This report shall be combined with the January Semiannual monitoring report
Well Installation Plan [Provision E.26]	March 30, 2005
Updated Sampling and Analysis Plan [MRP]	January 30, 2005
Monitoring for Constituents of Concern [MRP]	July 31, 2005 , and every five years thereafter

I, Roger W. Briggs, 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, Central Coast Region, on **November 19, 2004**.

Executive Officer

Figures:

- Figure 1 -** Site Location Map
- Figure 2 -** Landfill Site Features
- Figure 3 -** Landfill Site Boundaries
- Figure 4 -** Monitoring Points Location Map

Attachment: Monitoring and Reporting Program No. R3-2004-0151

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