

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**CLEANUP AND ABATEMENT ORDER NO. R9-2006-0016  
UNITED STATES MARINE CORPS  
MARINE CORPS BASE CAMP PENDLETON  
LAS PULGAS LANDFILL  
SAN DIEGO COUNTY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

*JURISDICTION*

1. **WASTE DISCHARGE:** From 1980 until the present, the United State Marine Corps (USMC) has owned and operated the Las Pulgas Sanitary Landfill, located within the boundaries of USMC Base Camp Pendleton in San Diego County, approximately 0.2 miles north of Basilone Road in Area 43, Sections 28 and 29, T9S, R5W, SBB&M. Past discharges of waste into the Las Pulgas Landfill have resulted in a release of waste constituents, creating an existing condition of pollution in groundwater resources located within the San Onofre Hydrologic subarea. The USMC has discharged solid wastes from Marine Corps Base Camp Pendleton into the Las Pulgas Landfill Phase 1 Expansion waste management unit (Unit) since approximately May 2000. The Phase 1 Expansion Unit is underlain by a defective composite liner system in violation of waste discharge requirements prescribed by the Regional Board. The USMC threatens to cause or permit the release of waste constituents from the Phase 1 Expansion Unit through the defective composite liner system to soils and ground water underlying the Las Pulgas Landfill, creating or exacerbating a condition of pollution in the ground water underlying the landfill by exceeding applicable water quality objectives. The USMC is also discharging leachate from the Las Pulgas Landfill and allowing it to pond in an uncontrolled manner in violation of waste discharge requirements prescribed by the Regional Board. The USMC threatens to cause or permit the release of the ponded leachate into Las Flores Creek and create a condition of pollution by exceeding applicable California Toxics Rule water quality criteria for pollutants in Los Flores Creek.
2. **PERSONS RESPONSIBLE:** The Department of the Navy owns the property encompassing the Las Pulgas Landfill. The USMC is the owner and operator of the Las Pulgas Landfill. The USMC is referred to as “Discharger” in this Cleanup and Abatement Order (CAO).

*REGULATORY AND FACTUAL BACKGROUND*

3. **ALTERNATIVE LINER DESIGN.** The Phase 1 Expansion Unit at the Las Pulgas Landfill employed an engineered alternative composite liner design as allowed by Title 40 Code of Federal Regulations (CFR Title 40), [section 258.40\(a\)\(1\) and \(c\)](#), [CCR](#)

[Title 27](#) section 20080(b), and State Water Resources Control Board (SWRCB) [Resolution No. 93-62](#). Construction on the Phase 1 Expansion Unit was completed on May 24, 1999 and the Unit began receiving wastes thereafter. The liner was not properly constructed in accordance with the requirements and performance specifications in [Order No. 2000-54](#): “*Waste Discharge Requirements for the U.S. Marine Corps, Marine Corps Base Camp Pendleton, Las Pulgas Landfill, San Diego County.*”

4. **WASTE DISCHARGE REQUIREMENTS.** The USMC is discharging waste into a waste management unit and discharging leachate in violation of the following performance standards prescribed in the Regional Board’s Order No. 2000-54 “*Waste Discharge Requirements for the U.S. Marine Corps, Marine Corps Base Camp Pendleton, Las Pulgas Landfill, San Diego County.*”
  - a. Discharge Specification B.22: “Materials used to construct liners shall have the appropriate physical and chemical properties to ensure containment of discharged wastes over the operating life, closure and post-closure maintenance period of the waste management unit.”
  - b. Discharge Specification B.29: “Class III landfill units and related containment structures shall be constructed and maintained to prevent, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping under a 100-year, 24-hour storm.”
  - c. Discharge Specification B.35: “All containment systems shall include a leachate collection and removal system (LCRS) which shall convey all leachate which reaches the liner to an appropriately lined sump or other appropriately lined collection area. The LCRS shall not rely upon unlined or clay-lined areas for such conveyance.”
5. **LEGAL AND REGULATORY AUTHORITY:** This Order is based on (1) section [13267](#) and Chapter 5, Enforcement and Implementation commencing with [section 13304](#), of the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with section 13000); (2) applicable state and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board and the [Water Quality Control Plan for the San Diego Basin](#) (Basin Plan) adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies, including State Water [Resolution No. 68-16](#) (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*) and [Resolution No. 92-49](#) (*Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*); (5) regulatory requirements found in California Code of Regulations, Title 27 ([CCR Title 27](#)) and Code of Federal Regulations, [Title 40](#), Part 258; and (6) relevant standards, criteria, and advisories adopted by other state and federal agencies.

6. **CEQA EXEMPTION:** This enforcement action is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with section 15321 (Enforcement Actions by Regulatory Agencies), Chapter 3, [Title 14](#) of the California Code of Regulations.

*ORDER DIRECTIVES*

**IT IS HEREBY ORDERED** that, pursuant to sections [13267](#) and [13304](#) of the California Water Code, the U.S. Marine Corps (hereinafter the Discharger), shall comply with the following directives:

**A. PROHIBITIONS**

1. The discharge of municipal solid waste into the Phase 1 waste management unit (WMU)<sup>1</sup> shall be terminated forthwith until such time as all deficiencies in the liner systems (basal and sideslope liners), leachate collection and removal system (LCRS)<sup>2</sup>, and foundation/subgrade construction deficiencies have been corrected or resolved to the satisfaction of the Regional Board. The Discharger shall post and maintain a clearly visible sign at the entrance to the Phase 1 WMU prohibiting further discharges of waste into the Phase 1 WMU at the Las Pulgas Landfill.
2. Management of wastes from the Phase 1 WMU shall not create, contribute to, or exacerbate a condition of pollution or nuisance, as defined by the California Water Code section [13050](#).

**B. CORRECTIVE ACTION PLAN**

1. By **December 31, 2006**, the Discharger shall prepare and submit to the Regional Board a Corrective Action Plan (CAP) for the Phase 1 WMU to either:
  - a. Undertake corrective construction of the Phase 1 WMU to achieve compliance with all applicable requirements of CCR Title 27 and Order No. 2000-54 “*Waste Discharge Requirements for the U.S. Marine Corps, Marine Corps Base Camp Pendleton, Las Pulgas Landfill, San Diego County*” and addenda thereto. The CAP shall contain the information described in Directive B.2; or alternatively

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<sup>1</sup> **Waste management Unit or Unit** means an area of land, or a portion of a waste management facility, at which waste is discharged. The term includes containment features and ancillary features for precipitation and drainage control and for monitoring (CCR Title 27 §20164).

<sup>2</sup> **LCRS – Leachate Collection and Removal System** means that portion of the waste management unit’s containment system that is designed and constructed (pursuant to §20340) to collect all leachate that reaches it, and convey such leachate to a designated collection area to minimize the buildup of leachate head on any underlying liner. The term does not include systems that are designed to collect groundwater outside the Unit’s liner, if any, including groundwater that has been polluted by leachate (CCR Title 27 §20164).

- b. Undertake clean closure of the Phase 1 WMU pursuant to [CCR Title 27](#), section 21090(f), by physically removing all waste and contaminated materials from the Phase 1 WMU and from its underlying and surrounding environs, such that the waste in the Phase 1 WMU no longer poses a threat to water quality. The CAP shall contain the information described in Directive B.3; or alternatively
  - c. Undertake an alternative remedial action that affords equivalent protection against water quality impairment, as compared to Directives 1.a. or 1.b. of this Order, and that will result in compliance with all applicable requirements of CCR Title 27 and Order 2000-54 to the satisfaction of the Regional Board. The CAP shall contain the information described in Directive B.4.
2. **Corrective Action Plan to Undertake Corrective Construction of the Phase 1 WMU.** If the Discharger elects to undertake corrective construction for the Phase 1 WMU pursuant to Directive B.1.a., the CAP shall contain the following information:
- a. ***Identify and Repair all Defects in Existing Foundation/Subgrade, Composite Liner and Operations Layer.*** The CAP shall describe a plan for a comprehensive field investigation to identify, and repair or replace, all defective portions of the waste containment structure<sup>3</sup> /liner system, and foundation/subgrade for the Phase 1 WMU that fail to comply with the performance requirements of [CCR Title 27](#) section 20240(d), requirements of Order No. 2000-54, and the original design construction specifications (EMCON, 1997) for the Phase 1 WMU.

The CAP shall also describe a comprehensive plan for completing the following tasks:

- i. A comprehensive field investigation to identify, and repair or replace all defects within the existing basal and side-slope composite liner systems<sup>4</sup>, including any defects in the geosynthetic<sup>5</sup> clay liner (GCL), the flexible membrane liner (HDPE), and geotextile.

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<sup>3</sup> **Containment Structure** – means an artificial feature designed and installed to contain waste constituents, including waste constituents mobilized as a component of leachate or landfill gas (CCR Title 27, §20164).

<sup>4</sup> **Liner System** – means the entire sequence of individual liners, composite liners, and leachate collection system(s), which prevent or minimize releases from the waste management unit (CCR Title 27 §20164).

<sup>5</sup> **Geosynthetic(s)** – means flexible materials in planar form manufactured to meet specific engineering purposes. The term includes, but is not limited to: **geomembrane**, an essentially impenetrable membrane used as a barrier to waste solids and fluids, and synonymous with **synthetic liner** and **flexible membrane liner** (FML); **geocomposite liner** (GCL), a manufactured material including geotextiles, geogrids, geonets, and/or geomembranes in laminated or composite form; **geotextile** (including geonet), any permeable textile used with foundation, soil, rock, earth or any other geotechnical engineering –related material as an integral part of a constructed project, structure or system (CCR Title 27 §20164).

- ii. Repair or replacement of all defective components of the liner system that are determined to be damaged or out of compliance with the requirements of Order No. 2000-54, performance requirements of [CCR Title 27](#), sections 20310(c) and 20330(a), and/or the original construction specifications (EMCON, 1997).
- iii. Repair or replacement of all defective areas of the foundation/ subgrade that are determined to be damaged or out of compliance with the requirements of Order No. 2000-54, and/or the original construction specifications (EMCON, 1997).
- b. ***Removal and Management of Wastes.*** The CAP shall describe a plan for the removal and management of wastes (including contaminated soils) from the defective areas of the Phase 1 WMU. The plan shall provide for the management of removed wastes in accordance with all applicable Federal, State and local requirements. The plan shall include a detailed description of all field methodologies, sampling locations, test methods, plot plans identifying the location(s) of waste staging area(s), alternate waste disposal location(s), and plans for implementation of best management practices to prevent the creation of conditions of pollution or nuisance.
- c. ***Liner System and Foundation/Subgrade Removal and Repair.*** The CAP shall describe a plan for implementation of comprehensive actions including field methodologies, sampling locations, and test methods as necessary to repair and/or replace all defective portions of the composite liner system (including basal and sideslope liners) and foundation/subgrade of the Phase 1 WMU.
- d. ***Construction Quality Assurance (CQA).*** The CAP shall include a Construction Quality Assurance (CQA) plan to satisfy the requirements of [CCR Title 27](#), section 20323.
- e. ***Daily Field Reports.*** The CAP shall provide for daily field reports to be compiled and completed by the CQA inspector and submitted to the Regional Board on a weekly basis throughout the duration of fieldwork to complete repairs/replacement of the defective components of the waste containment, LCRS, and foundation/subgrade for the Phase 1 WMU. Photographs shall be included in daily field reports to support statements or observations made in the field reports.
- f. ***Monthly Schedule Updates.*** The CAP shall provide for submission of monthly written updates to the Regional Board describing all activities associated with the Discharger's work to comply with this Cleanup and Abatement Order.
- g. ***Regional Board Notification.*** The CAP shall provide for Regional Board notification at least two weeks before the start of fieldwork.

h. **Time Schedule.** The CAP shall include a proposed schedule for the completion of all activities necessary to implement the Corrective Action Plan (CAP) and submit the *Cleanup and Abatement Completion Report* required under Directive D.1 of this Order.

3. **Corrective Action Plan to Attain Clean Closure of Phase 1 WMU.** If the Discharger elects to undertake clean closure of the Phase 1 WMU pursuant to Directive B.1.b., the Corrective Action Plan (CAP) shall contain the following information:

a. **Removal of Wastes and Contaminated Media from Phase 1 WMU.** The CAP shall include a plan meeting the requirements of [CCR Title 27](#), section 21090(f) for the removal, management, and disposal of wastes from the Phase 1 WMU to attain clean closure. The plan shall provide for the management of all wastes in accordance with all applicable Federal, State and local requirements. The plan shall include, but not be limited to, a discussion of the (1) measures to mitigate nuisance conditions (*i.e.*, from release of vapors, creation of runoff, *etc.*), (2) field methodologies, (3) sampling locations, and (4) field and/or laboratory test methods that will be used while completing removal and management of solid wastes, contaminated containment waste, and contaminated soils/liquids from the Phase 1 WMU.

b. **Removal of Composite Liner and LCRS.** The CAP shall include a complete description of proposed actions including field methodologies, sampling locations and test methods that will be used during removal/demolition of the entire existing composite liner system (*i.e.*, GCL, HDPE, LCRS gravel and pipe system, geotextile, and operations layer) from the basal and sideslope areas of the Phase 1 WMU in compliance with the requirements of [CCR Title 27](#), section 21090(f) for clean-closure of a landfill. Demolition of the side-slope liner system shall include removal and proper disposal of the following components:

- i. Operations layer;
- ii. The geotextile;
- iii. The 60-mil geomembrane (HDPE); and
- iv. The geosynthetic clay liner (GCL).

c. **Daily Field Reports.** The CAP shall provide for daily field reports to be compiled and submitted to the Regional Board on a weekly basis throughout the Phase 1 WMU demolition and clean closure process. Photographs shall be included in daily field reports to support statements or observations made in the field reports.

d. **Monthly Schedule Updates.** The CAP shall provide for submission of monthly written updates to the Regional Board describing all activities associated with the Discharger's work to comply with this Cleanup and Abatement Order.

- e. **Regional Board Notification.** The CAP shall provide for Regional Board notification at least two weeks before the start of fieldwork.
  - f. **Time Schedule.** The CAP shall include a proposed schedule for the completion of all activities necessary to implement the Corrective Action Plan (CAP) and submit the *Cleanup and Abatement Completion Report* required under Directive D.1 of this Order.
4. **Corrective Action Plan to Implement Alternative Remedial Action for the Phase 1 WMU.** If the Discharger elects to undertake an alternative remedial action for the Phase 1 WMU, pursuant to Directive B.1.c. of this Order, the Corrective Action Plan (CAP) shall contain the following information:
- a. **Technical Feasibility.** The CAP shall establish to the satisfaction of the Regional Board that implementation of Directive B.1.a. or B.1.b. of this Order is not feasible by providing an acceptable demonstration that:
    - i. Compliance with Directives B.1.a. or B.1.b. is unreasonable and unnecessarily burdensome and will cost substantially more than the proposed remedial action(s); or
    - ii. Compliance with Directives B.1.a. or B.1.b. is impractical and will not promote attainment of the applicable requirements of CCR Title 27 and Order No. 2000-54 “*Waste Discharge Requirements for the U.S. Marine Corps, Marine Corps Base Camp Pendleton, Las Pulgas Landfill, San Diego County*” and addenda thereto.
- The CAP shall include an evaluation of all relevant technical and economic factors including, but not limited to, present and projected costs of compliance, potential costs for remedial action in the event that waste or leachate is released to the environment, and the extent to which groundwater resources could be affected.
- b. **Engineered Alternative.** The CAP shall contain sufficient information demonstrating, to the satisfaction of the Regional Board, that the proposed specific engineered alternative remedial action will:
    - i. Promote attainment of all the applicable requirements of CCR Title 27 and Order No. 2000-54 and addenda thereto; and
    - ii. Afford equivalent water quality protection as that provided under Directives B.1.a. or B.1.b.
  - c. **Construction Quality Assurance (CQA).** The CAP shall include a Construction Quality Assurance (CQA) plan to satisfy the requirements of [CCR Title 27](#),

section 20323.

- d. **Daily Field Reports.** The CAP shall provide for daily field reports to be compiled and submitted to the Regional Board on a weekly basis throughout the Phase 1 WMU demolition and clean closure process. Photographs shall be included in daily field reports to support statements or observations made in the field reports.
- e. **Monthly Schedule Updates.** The CAP shall provide for submission of monthly written updates to the Regional Board describing all activities associated with the Discharger's work to comply with this Cleanup and Abatement Order.
- f. **Regional Board Notification.** The CAP shall provide for Regional Board notification at least two weeks before the start of fieldwork.
- g. **Time Schedule.** The CAP shall include a proposed schedule for the completion of all activities necessary to implement the Corrective Action Plan (CAP) and submit the *Cleanup and Abatement Completion Report* required under Directive D.1 of this Order.

## C. CORRECTIVE ACTION PLAN IMPLEMENTATION

1. **CAP Implementation.** In the interest of minimizing environmental contamination and promoting prompt compliance with this cleanup and abatement order, the Discharger may begin implementation of the Corrective Action Plan (CAP), sixty (60) calendar days after submittal to the Regional Board, unless otherwise directed in writing by the Regional Board. Before beginning CAP implementation activities, the Discharger shall:
  - a. Notify the Regional Board of its intention to begin CAP implementation activities;
  - b. Notify the Regional Board at least two weeks before the start of fieldwork; and
  - c. Comply with any conditions set by the Regional Board, including mitigation of adverse consequences from cleanup activities.
2. **Implementation Schedule.** Implementation of the CAP shall be completed on a schedule to be established by the Regional Board in a subsequent amendment to this CAO.
3. **Monitoring and Evaluation.** The Discharger shall monitor, evaluate, and report the results of implementation of the CAP on a schedule to be established by the Regional Board in a subsequent amendment to this CAO.
4. **Modify or Suspend Cleanup Activities.** The Discharger shall modify or suspend CAP implementation activities when directed to do so by the Regional Board.

#### D. CLEANUP AND ABATEMENT ORDER COMPLIANCE VERIFICATION

1. **Cleanup and Abatement Completion Report.** The Discharger shall submit a Cleanup and Abatement Completion Report containing sufficient information to verify completion of all Corrective Action Plan implementation activities and that compliance is attained with Discharge Specifications B.22, B.29 and B.35 of Order No. 2000-54, *Waste Discharge Requirements for the U.S. Marine Corps, Marine Corps Base Camp Pendleton, Las Pulgas Landfill, San Diego County*, and addenda thereto. The Cleanup and Abatement Completion Report shall be completed and submitted on a schedule to be established by the Regional Board in a subsequent amendment to this Order.
  - a. If the Discharger elects to undertake corrective construction of the Phase 1 WMU, pursuant to Directive B.1.a., the verification report shall also contain the following elements:
    - i. **Final CQA Report.** The report shall contain a final Construction Quality Assurance (CQA) Report for all work performed to repair or replace defective areas of the waste containment system, LCRS, and foundation/subgrade of the Phase 1 WMU. The CQA Report shall contain the information necessary to satisfy the requirements of [CCR Title 27](#), section 20324 *et seq.* The final CQA Report shall also contain field observations and results from field/laboratory tests performed to assess the integrity of the entire waste containment system (including the composite liner and LCRS) and compliance of the foundation/subgrade with the original engineering construction specifications (EMCON, 1997) for the Phase 1 WMU.
    - ii. **Operations Layer Certification.** The report shall contain sufficient technical information to demonstrate that the that the entire Operations Layer complies with the performance requirements for conveyance of leachate through the LCRS as required by Order No. 2000-54, and the original construction specifications (EMCON, 1997).
    - iii. **Foundation Layer/Subgrade Certification.** The report shall contain sufficient technical information to demonstrate that the foundation layer/subgrade, underlying the entire composite liner system, complies with the performance requirements of [CCR Title 27](#), section 20240(d), and the original construction specifications (EMCON, 1997).
  - b. If the Discharger elects to undertake clean closure of the Phase 1 WMU, pursuant to Directive B.1.b., the verification report shall also contain a final *Clean Closure Completion section*, summarizing the demolition and clean closure activities, and results from all field and laboratory testing and analyses, copies of the inspector's original field notes and photos.

- c. If the Discharger elects to undertake an alternative remedial action for the Phase 1 WMU pursuant to Directive B.1.c., the verification report shall contain a final Construction Quality Assurance (CQA) Report for all work performed to repair or replace all defective areas of the waste containment system, LCRS, and foundation/subgrade of the Phase 1 WMU. The CQA Report shall contain the information necessary to satisfy the requirements of [CCR Title 27](#), section 20324 *et seq.* The final CQA Report shall also contain field observations and results from field/laboratory tests performed to assess the integrity of the entire waste containment system (including the composite liner and LCRS) and compliance of the foundation/subgrade.
2. **Regional Board Concurrence.** Upon concurrence with the findings of the *Cleanup and Abatement Completion Report* that remedial actions are complete, and that compliance with this cleanup and abatement order is achieved, the Regional Board will inform the Discharger and other interested persons in writing that no further remedial work is required, based on available information. This written notice shall constitute Regional Board concurrence with the completed remedial actions.

#### E. REPORTING REQUIREMENTS

1. **Military Installation Signatory Requirements.** All reports required under this Order shall be signed and certified by the base commander or the person with overall responsibility for environmental matters in that branch of the military.
  - a. **Changes to Authorization.** If an authorized signer is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this provision must be submitted to the Regional Board prior to or together with any reports or information to be signed by an authorized representative.
  - b. **Certification Statement.** Any person signing a document under this provision shall make the following certification:

“I certify under penalty of perjury under the laws of the State of California, that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”
2. **Report Submittals.** All monitoring and technical reports required under this Cleanup and Abatement Order shall be submitted to:

Executive Officer  
California Regional Water Quality Control Board San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123  
Attn: Supervisor, Land Discharge Unit

3. **Identify Documents Using Code Number.** In order to assist the Regional Board in the processing of correspondence and reports submitted in compliance with this Cleanup and Abatement Order, the Discharger shall include the following code number in the header or subject line portion of all correspondence or reports submitted to the Regional Board:

**LDU: 06-0013.05**

4. **Electronic and Paper Media Reporting Requirements.** Beginning **January 27, 2006**, all reports submitted to the Regional Board by the Discharger, pursuant to sections [13267](#) and [13304](#) of the California Water Code, must be submitted in an electronic format. This includes all workplans, technical reports, and monitoring reports. The Discharger shall comply with electronic reporting requirements of [CCR Title 23](#), Division 3, section 3893, including the provision that complete copies of all reports be submitted in PDF format, and include the signed transmittal letter and professional certification. In addition to these requirements, the Discharger shall submit paper copies of all reports, including a properly signed transmittal letter, to the Regional Board. The Discharger shall submit both electronic and paper copies of all reports required under this Order.

**F. PROVISIONS**

1. **Duty to Comply.** The Discharger(s) shall properly handle, store, treat, and dispose of contaminated soils and ground water in accordance with applicable federal, state, and local laws and regulations. The handling, storage, treatment, or disposal of soil, sediment, and groundwater containing waste constituents shall not create conditions of pollution, contamination, or nuisance as defined in California Water Code section [13050](#). The Discharger(s) shall, as required by the Regional Board, obtain, or apply for coverage under, waste discharge requirements or a conditional waiver of waste discharge requirements, for the removal of waste from the immediate place of release and for any discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the state.
2. **Request to Provide Information.** The Discharger may present characterization data, preliminary interpretations and conclusions as they become available, rather than waiting until a final report is prepared. This type of on-going reporting can facilitate a consensus being reached between the Discharger and the Regional Board and may result in overall reduction of the time necessary for regulatory review.

3. **Laboratory Analysis.** Unless otherwise permitted by the Regional Board, all chemical analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. Specific methods of analysis must be identified. If the Discharger proposes to use methods or test procedures other than those included in the most current version of [“Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846”](#) (U.S. Environmental Protection Agency) or 40 CFR 136 *“Guidelines Establishing Test Procedures for the Analysis of Pollutants; Procedures for Detection and Quantification,”* the exact methodology must be submitted for review and must be approved by the Regional Board prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports submitted to the Regional Board.

For geotechnical laboratory analyses, the Discharger shall use applicable methods referenced in [CCR Title 27](#) or other commonly used and applicable testing standards (e.g., American Society of Testing Materials – ASTM). All test procedures shall be explicitly identified in the text and/or appendices of technical reports and workplan provided to the Regional Board.

4. **Duty to Use Registered Professionals.** The Discharger shall provide documentation that plans and reports required under this Order are prepared under the direction of appropriately qualified professionals. [CCR Title 27](#), sections 20324(b) and 21090(b)(1)(C); and California Business and Professions code sections [6735](#), [7835](#) and [7835.1](#) all require that engineering and geologic evaluations and judgments be performed by or under the direction of registered professionals. A statement of qualifications and registration numbers of the responsible lead professionals shall be included in all plans and reports submitted by the Discharger. The lead professional shall sign and affix their registration stamp to the report, plan or document.

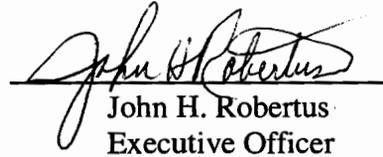
## G. NOTIFICATIONS

1. **Relation to Waste Discharge Requirements.** The Directives in this Cleanup and Abatement Order do not modify, suspend, or supercede any requirements of Order No. 2000-54, *Waste Discharge Requirements for the U.S. Marine Corps, Marine Corps Base Camp Pendleton, Las Pulgas Landfill, San Diego County*, and addenda thereto.
2. **Cost Recovery.** Pursuant to California Water Code section 13304(c), the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Board to investigate unauthorized discharges of wastes and to oversee cleanup of such wastes, abatement of the affects thereof, or other remedial action, as required by this Order.

3. **Enforcement Discretion.** The Regional Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this Cleanup and Abatement Order.
  
4. **Enforcement Notification.** The Porter-Cologne Water Quality Control Act commencing with Chapter 5, Enforcement and Implementation, section [13308](#), provides that if there is a threatened or continuing violation of a cleanup and abatement order, the Regional Board may issue a Time Schedule Order prescribing a civil penalty in an amount not to exceed \$10,000 per day for each day compliance is not achieved in accordance with that time schedule. Section [13350](#) provides that any person may be assessed administrative civil liability by the Regional Board for violating a cleanup and abatement order in an amount not to exceed \$5,000 for each day the violation occurs, or on a per gallon basis, not to exceed \$10 for each gallon of waste discharged. Alternatively the court may impose civil liability in an amount not to exceed \$15,000 for each day the violation occurs, or on a per gallon basis, not to exceed \$20 for each gallon of waste discharged. Section [13383](#) provides that any person may be assessed administrative civil liability by the Regional Board for violating a cleanup and abatement order for an activity subject to regulation under Division 7, Chapter 5.5 of the California Water Code, in an amount not to exceed the sum of both of the following: (1) \$10,000 for each day in which the violation occurs and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed \$10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. Alternatively the civil liability may be imposed by the court in an amount not to exceed the sum of both of the following: (1) \$25,000 for each day in which the violation occurs; and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed \$25 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.
  
5. **Replacement of Prior Cleanup and Abatement Order.** This Cleanup and Abatement Order replaces the version of Cleanup and Abatement Order No. R9-2006-0016, issued on January 27, 2006, in order to re-establish the compliance date at December 31, 2006 for the Discharger to submit a Corrective Action Plan to the Regional Board. Except as contradicted or superceded by the findings and directives set forth in this Cleanup and Abatement Order, all of the previous findings and directives of Cleanup and Abatement Order No. R9-2006-0016, issued on January 27, 2006, are incorporated into this Cleanup and Abatement Order.

6. **Availability of Technical Report.** The Regional Board has prepared Technical Report for Cleanup And Abatement Order No. R9-2006-0016, United States Marine Corps, Marine Corps Base Camp Pendleton, Las Pulgas Landfill, San Diego County, January 27, 2006, providing the rationale and factual information supporting the findings and directives of this Order.

I, John H. Robertus, Executive Officer, do hereby certify the forgoing is a full, true and correct copy of a Cleanup and Abatement Order, issued on January 27, 2006 and revised on February 24, 2006.

  
John H. Robertus  
Executive Officer

**TABLE 1:**  
SUMMARY OF COMPLIANCE DATES  
CLEANUP AND ABATEMENT ORDER NO. R9-2006-0016  
UNITED STATES MARINE CORPS  
LAS PULGAS LANDFILL

<b>DIRECTIVE NO(s).</b>	<b>SUBMITTAL TO RWQCB</b>	<b>DUE DATE</b>
<b>A.1</b>	Prohibit discharges of waste into the Phase 1 waste management unit	<b>January 27, 2006</b>
<b>B.1</b>	Submit a Corrective Action Plan (CAP)	<b>December 31, 2006</b>
<b>E.4</b>	Electronic Reporting to the Regional Board	<b>January 27, 2006 and any reports submitted thereafter</b>