

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

ORDER NO. R9-2006-0036

SLOPE STABILITY MONITORING AND REPORTING  
FOR THE PHASE A2 WASTE MANAGEMENT UNIT AT THE  
PRIMA DESHECHA LANDFILL  
ORANGE COUNTY

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

1. On November 12, 2003, the Regional Board issued Order No. R9-2003-0306 to the County of Orange. Order No. R9-2003-0306 contains requirements for management and disposal of municipal solid wastes (MSW) at their Prima Deshecha Landfill located in San Juan Capistrano, California.
2. The Prima Deshecha Landfill is located in an area that contains numerous landslides and surface evidence of slope failures. These conditions qualify the facility for consideration as being located in an area characterized by “rapid geologic change” (under the meaning of CCR Title 27, § 20260) or as an “unstable area” (under the meaning of CFR Title 40, § 258.15). Because of the unstable nature of the local geology in proximity to the Prima Deshecha Landfill, the Regional Board adopted slope stability monitoring requirements in Monitoring and Reporting Program R9-2003-0306, (section E. SLOPE STABILITY MONITORING) for the Prima Deshecha Landfill.
3. In February 2005 the County of Orange submitted a Joint Technical Document (“JTD”) including a Report of Waste Discharge (“ROWD”) to the Regional Board for review and comment. The JTD includes proposed development plans for Zone1, Phase A2 waste management unit (WMU) at the Prima Deshecha Landfill.
4. On September 27, 2005, the Regional Board received a technical report entitled “*Technical Memorandum Prima Deshecha Sanitary Landfill, Orange County: Phase A2 Geotechnical Investigation*”, dated September 22, 2005. That technical report contained an analysis of an “*upper shear zone*”, located at an elevation above and in proximity to the Phase A2 WMU. The upper shear zone was characterized by a static factor of safety (FS) between 1.11 and 1.27, which is less than the minimum prescribed in the applicable regulations [California Code of Regulations, Title 27, section 21750(f)] requiring a static FS equal to or greater than 1.5.
5. In October 2005, the RWQCB received the final Construction Quality Assurance plan for the Phase B1 Expansion waste management unit (WMU). In response to

comments from the Regional Board, the County of Orange provided subsequent technical reports containing further evaluations of geotechnical data:

*“Response to Odermatt Correspondence 2/1/2006 Regarding Phase A2, Prima Deshecha Landfill, Orange County”*, dated February 9, 2006.

*“Response to Odermatt Correspondence 2/1/2006 and 2/21/2006, Regarding Phase A2, Prima Deshecha Landfill, Orange County”*, dated February 9, 2006 and Revised March 2, 2006.

6. All of the cited technical analyses for the upper shear zone rely upon computer models to estimate the stability of the upper shear zone located in proximity to the Phase A2 WMU. At the Prima Deshecha Landfill, the stability of engineered slopes depends upon the interaction of a number of complex site-specific subsurface and surface conditions. Computer models necessarily include simplifying assumptions in order to simulate site-specific soil conditions and predictions from such computer models may be subject to significant levels of uncertainty. Therefore, it is desirable for the Regional Board to obtain results from monitoring of field conditions for purposes of validating model predictions.
7. A slope failure on the upper shear zone could cause significant damage to the foundation of the WMU, compromise the integrity of the waste containment structures, or to the structures controlling leachate, surface drainage, erosion or landfill gas in the Phase A2 WMU. In view of the potential threats to water quality from the failure of waste containment systems, it is reasonable and cost-effective for the Regional Board to request that the Discharger collect and report site-specific slope stability data from the Prima Deshecha Landfill.

**IT IS HEREBY ORDERED**, that pursuant to authority under section 13267 of the California Water Code:

The County of Orange (hereinafter the “*Discharger*”) shall provide the Regional Board with the following information:

**A. REQUIRED INFORMATION**

1. The County shall establish, maintain, monitor, and report data from at least one inclinometer established in an appropriate location to monitor potential movement along the upper shear zone located in proximity to the Phase A2 WMU.
2. The County shall provide the Regional Board with a letter report identifying a preferred contingency remedial alternative in the event of failure of the upper shear zone, located above the Phase A2 unit. The letter must include:
  - a. A decision flow chart specifying the failure criteria, based upon field observations and inclinometer data, to be used in determining that the

contingency remedial alternative must be implemented to stabilize the upper shear zone.

- b. Identify the preferred remedial alternative to be implemented in the event that the upper shear zone fails the criteria/tolerances established in section A.2(a) of this Order.
3. The Discharger shall submit a work plan for design, implementation and reporting of results from a slope stability-monitoring program. The work plan shall incorporate a combination of inclinometers and permanent surface monuments (as necessary) for measuring the displacement/slope movement of the upper shear zone located in proximity to the A2 WMU. The Discharger shall provide the Regional Board with revisions to their slope stability monitoring work plan as warranted by changing conditions at the facility.
4. The Discharger shall continue to monitor/measure the displacement along engineered final slopes by use of inclinometers and/or permanent surface monuments **monthly** for the first year and **quarterly** thereafter. An evaluation of results of the slope-stability monitoring shall be submitted to the Regional Board **quarterly** for the first year (after adoption of this Order) and **semi-annually** thereafter. The first technical report for the Phase A2 Unit is due on **October 30, 2006**.

## **B. SIGNATURE REQUIREMENTS FOR TECHNICAL REPORTS**

1. **Signature on reports.** All reports submitted to the Regional Board in compliance with this Order shall be signed by either a principal executive officer or ranking elected official; or his/her duly authorized representative with overall responsibility for environmental matters at the facility.
2. **Authorized representative.** The written report required by the Regional Board shall be signed by a person designated in Section B.1 of this Order, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
  - a) The authorization has been or is made in writing by a person described in Section B.1 of this Order;
  - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated solid waste facilities or waste management activity;
  - c) The written authorization is submitted to the Regional Board; and
  - d) 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 report or information to be signed by an authorized representative.

3. **Certification statement.** Any person signing a document under Sections B.1 or B.2 above 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.”*

4. **Report Submittals.** All technical reports required under this 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

5. **Identify Documents Using Code Number.** In order to assist the Regional Board in the processing of correspondence and reports submitted in compliance with this 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: 06-0261.02**

6. **Electronic and Paper Media Reporting Requirements.** Beginning **January 1, 2005**, all reports submitted to the Regional Board by the Discharger, pursuant to section 13267 of the California Water Code, must be submitted in an electronic format. This includes all work plans, 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.

- 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.

### C. REPORTING

Technical reports shall be submitted in accordance with the following:

Type	Frequency	Period	Due
Slope Stability Reports <sup>1</sup>	Quarterly	Monthly	April 30 July 30 October 30 January 30
Slope Stability Reports <sup>2</sup>	Semiannual	January – March April – June July – September October - December	October 30 and April 30

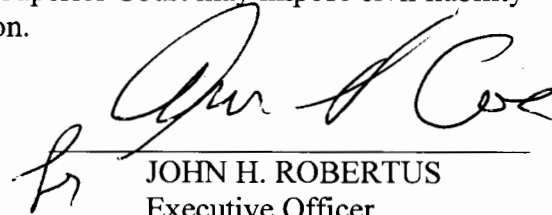
<sup>1</sup>Slope stability monitoring shall be performed monthly for the first year following adoption of Order R9-2006-0036. Results from monthly slope stability monitoring shall be reported quarterly to the Regional Board.

<sup>2</sup>Slope stability monitoring shall be performed quarterly upon completion of the first year of monthly monitoring. Results from quarterly slope stability monitoring shall be reported semi-annually to the Regional Board.

### D. NOTIFICATIONS

- Relation to Waste Discharge Requirements.** The Directives in this Order do not modify, suspend, or supercede any requirements of Order No. R9-2003-0306, "*Waste Discharge Requirements, for the Prima Deshecha Landfill, Orange County.*"
- 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 Order.

3. **Enforcement Notification.** Failure to comply with this request may result in further enforcement actions being taken against your agency, including a civil liability being administratively implemented by the Regional Board under authority of section 13268 of the California Water Code (CWC). Section 13268 of the CWC provides that any person failing or refusing to furnish technical or monitoring program reports required under Section 13267(b) may be subject to administrative civil liability up to \$1,000 dollars per day of the violation. The Superior Court may impose civil liability of up to \$5,000 dollars per day of the violation.

  
JOHN H. ROBERTUS  
Executive Officer  
March 14, 2006