



# California Regional Water Quality Control Board

## Central Coast Region



Terry Tamminen  
Secretary for  
Environmental  
Protection

Arnold Schwarzenegger  
Governor

Internet Address: <http://www.swrcb.ca.gov/rwqcb3>  
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401  
Phone (805) 549-3147 • FAX (805) 543-0397

December 22, 2004

Mr. Carl Hanes  
United Defense LP  
P.O. Box 58123  
Santa Clara, CA 95052

Dear Mr. Hanes:

### **SPILLS LEAKS INVESTIGATION CLEANUP: 900 JOHN SMITH ROAD, HOLLISTER (UNITED DEFENSE TEST FACILITY); PHASE III ENVIRONMENTAL INVESTIGATION COMMENTS**

Regional Board staff have reviewed the *Phase III Environmental Investigation Report (Report)* submitted September 30, 2004 by United Defense, L.P. (United Defense). Regional Board staff have also reviewed the *Phase III Environmental Investigation Report Addendum* submitted November 30, 2004. URS Corporation conducted the investigation at the United Defense Test Facility (Site). The Report provides supplemental information to the Initial Site Assessment and Phase II Environmental Investigation Reports. The Report and Report addendum were conducted to more fully assess the extent of chemicals of concern (COCs) in site soil, sediment, groundwater, and surface water.

Phase III field activities included sampling and analysis for perchlorate, nitrate + nitrite, energetics, and aluminum, and a review and analysis of regional and local geology and hydrogeology. The Report identifies various areas at the Site that are under investigation including: Santa Ana Creek sediment and surface water, Ranch Pond Dredge Area soil, Building No. 1 soil, Building No. 6, Munitions Test Arena 1, and Munitions Test Arena 2 soil and groundwater, and three onsite groundwater wells. Soil testing at Arena 1 found additional perchlorate detections at a maximum of 3.4 milligrams per kilogram (mg/kg) while Arena 2 had one soil detection of 2.7 mg/kg. To date, perchlorate has been detected at a maximum concentration of 2600 micrograms per liter ( $\mu\text{g/L}$ ) in groundwater, and was detected in two of three onsite wells at 15  $\mu\text{g/L}$  and 34  $\mu\text{g/L}$ .

Regional Board staff generally concur with the recommendations set forth in the Report. However, we have prepared the following comments to seek further clarification or request additional information to aid in evaluation of COC contamination. Pursuant to Section 13267 of the California Water Code, you shall submit a Phase IV Environmental Investigation Report by April 1, 2005, that incorporates the following comments and completes the additional scope of work recommended in the Report.

*California Environmental Protection Act*



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Item No. 13 Attachment No. 3  
February 11, 2005 Meeting  
Perchlorate Sites

**1. Section 3.2 Nearby Groundwater Wells.**

Perchlorate was detected in two of three onsite groundwater wells analyzed. Results for the Rancher's well and the Windmill well were 15 µg/L and 35 µg/L respectively. The Report states that surface runoff or groundwater transport from Arena 1 may be impacting the Rancher's well. We agree with the recommendation that additional investigative work be performed. Results of this investigation shall be included in the Phase IV Environmental Investigation. We also request that you resample the Windmill well to confirm that perchlorate is present. If perchlorate is confirmed to be present, the Discharger shall propose an investigation to determine the source and extent of perchlorate contamination.

**2. Section 3.3 Ranch Pond Dredge Area.**

The Report states that additional monitoring is not required in the Ranch Pond Dredge Area because the COCs analyzed are below the residential preliminary remediation goals (PRGs). Perchlorate was detected at 1.1 mg/kg in boring RP-1, which is below the residential PRG of 7.8 for perchlorate in soil. As described in comment 5 below, PRGs shall not be used as a basis for additional investigative work. Therefore, you shall continue to sample for perchlorate at the Ranch Pond Dredge Area to determine the extent of the perchlorate contamination.

In addition, nitrate + nitrite (as N) was detected in both soil borings at the Ranch Pond Dredge Area. Nitrate + nitrite are dismissed as a concern because, as stated in the Report, nitrate is typically present in agricultural areas. However, background samples of nitrate + nitrite (as N) have not been taken at the site nor has data been provided supporting the Report statement. Therefore, we request you continue to monitor and report nitrate + nitrite concentrations until further assessment is complete which demonstrates that the nitrate present is or is not from your operations.

**3. Section 3.5 Building 6.**

Energetics were detected in soil near Building 6. The energetics HMX, RDX and TNB generally increased in concentration with depth and all soil samples were less than the residential PRGs. Energetics were not detected in the two groundwater samples tested. Contrary to the recommendations in the Report, we request you continue to investigate at Building 6 to delineate the horizontal and vertical extent of energetics. Detections below the PRGs do not substantiate elimination of soil and groundwater monitoring. See comment 5 below for a detailed response. The Phase IV investigation shall address additional monitoring at Building 6 to determine both the vertical and lateral extent of energetic contamination.

**4. 3.7.2 Recommendations.**

We request you provide a copy of the storm water program work plan URS has completed and implemented for the 2004/2005 rainy season to assess Arena 1 runoff.

**5. General Groundwater Comment: Preliminary Remediation Goal (PRG).**

The Report relies on residential and industrial soil PRGs for perchlorate and energetics to determine if additional investigative work is required. U.S. Environmental Protection Agency Region 9 established PRGs as tools for determining cleanup goals. They are

***California Environmental Protection Agency***



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generic, non-enforceable standards calculated without site-specific information. Soil PRGs do not consider impacts to groundwater. Regional Board staff agree they are helpful in establishing guidelines for cleanup and for evaluating remedial alternatives. However, these goals will not be used to determine final cleanup or additional site investigation.

State Water Resources Control Board Resolution No. 92-49 Policies and Procedures for Investigation and Cleanup and Abatement of Discharges requires dischargers to "clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." Water quality shall be restored to background conditions (i.e. the water quality that existed before the contaminant discharge). The natural background for perchlorate and energetics near the Site is zero. You have not demonstrated that cleanup levels above background are appropriate or that background levels cannot be restored. While the PRGs may be helpful when establishing cleanup goals, at this time they are inappropriately referenced. Therefore, during the environmental investigation, COC concentrations less than PRGs are not a basis for elimination of additional Site monitoring and analysis.

#### **6. General Groundwater Comment: Additional Monitoring.**

As proposed in your Report, we request that you sample the Rancher's well and Windmill well and installed monitoring wells for nitroaromatics, nitroamines, perchlorate and nitrate + nitrite (as N). Sampling shall be performed quarterly and the results shall be included in the Phase IV Environmental Investigation Report and reported quarterly thereafter. The Phase IV Report shall include the following information:

1. Monitoring well construction details (well ID, casing diameter, casing material, boring diameter, total depth, surveyed top of casing elevation, and screen interval);
2. Groundwater elevation and depth to groundwater of each well;
3. Field sampling data for each well sampled, such as volume of purge water, time of sample collection, temperature, conductivity, pH, turbidity, and DO;
4. Copies of certified analytical reports and chain of custody forms for all analyses;
5. Map showing location of monitoring wells, concentrations of all chemicals of concern, calculated potentiometric surfaces, and groundwater flow direction; and
6. An evaluation and interpretation of all available data.

You shall develop your own site-specific COC monitoring plan. Future monitoring reports shall include the information requested above and all applicable information for soil and sediment monitoring. You shall provide an outline of the monitoring plan in the Phase IV Environmental Investigation Report. Regional Board staff will implement a monitoring and reporting program for the Site based on the recommendations in your monitoring plan.



**7. General Groundwater Comment: Cleanup Levels and Remedial Options.**

We understand you will propose site-specific cleanup levels for perchlorate in soil at Arena 1. In addition to perchlorate, we request you establish risk based cleanup levels for energetics (HMX, RDX, TNB, and TNT) detected at Building 6 or provide adequate justification why the information cannot be supplied. Based on the timeline described in the Report addendum, this data will be provided on July 1, 2005.

We request you continue with the onsite environmental investigation as detailed in your recommendations with our comments incorporated and submit the results of your findings no later than **April 1, 2005**. In summary, the Phase IV Report shall include the following:

- a) Resample the Windmill well. If perchlorate is confirmed, propose an investigation to identify the source and extent of perchlorate contamination.
- b) Continue monitoring for perchlorate and nitrate + nitrite in the Ranch Pond Dredge area.
- c) Determine vertical and lateral extent of energetic contamination at Building 6.
- d) Provide a copy of the storm water program work plan at Arena 1.
- e) Begin quarterly sampling of the Rancher's well and Windmill well and installed monitoring wells for nitroaromatics, nitroamines, perchlorate and nitrate + nitrite (as N).
- f) Develop your own site-specific monitoring plan for monitoring of COCs.

Section 13267 of the California Water Code authorizes the Regional Board to require submittal of the above-requested (a-f) information. Failure to submit adequate or complete information may subject you to a Regional Board enforcement action. We require the Discharger to submit the information as the one who leases the property, and as the operator of a munitions testing facility that caused soil and groundwater perchlorate and energetic contamination at the Hollister Test Facility Site at 900 John Smith Road, Hollister.

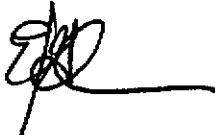
Any person affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The State Board must receive the petition within 30 days of the date of this order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

In addition, we request you propose clean up standards for perchlorate and energetics in soil. This should be provided by July 1, 2005. Failure to comply with these requirements will subject the discharger to enforcement action by the Regional Board, including issuance of an order under Water Code Sections 13267 and/or 13304, and potential administrative civil liabilities.



If you have any questions, please call David Athey at (805) 542-4644 or Eric Gobler at (805) 549-3467.

Sincerely,



*fol:* Roger W. Briggs  
Executive Officer

cc:

Fred Cardona  
PO Box 58123  
Santa Clara, CA 95050

Wayne Dittamn, R.G.  
55 South Market St., Suite 1500  
San Jose, CA 95113

Susie Vedantham  
55 South Market Street  
Suite 1500  
San Jose, CA 95113

George Muehleck, RG  
1333 Broakdway, Suite 800  
Oakland, CA 94612

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