



California Regional Water Quality Control Board Los Angeles Region



Linda S. Adams
Acting Secretary for
Environmental Protection

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Edmund G. Brown Jr.
Governor

May 13, 2011

Mr. Daniel S. Samorano
Raytheon Company
1151 East Hermans Road
TU, Bldg 845
Tucson, AZ 85706

SUBJECT: RESPONSE TO REQUEST FOR GROUNDWATER CLOSURE FOR TWO SOUTHERN PARCELS

SITE/CASE: RAYTHEON COMPANY (FORMER HUGHES MISSILE SYSTEMS COMPANY), 8433 FALLBROOK AVENUE, CANOGA PARK, CALIFORNIA (SCP NO. 0693, SITE ID NO. 2043T00)

Dear Mr. Samorano:

Los Angeles Regional Water Quality Control Board (Regional Board) staff reviewed the July 8, 2010, *Request for No Further Action Status for Southern Parcels* (Report), prepared by Oneida Total Integrated Enterprises, LLC (OTIE) for the reference site. Regional Board staff also reviewed the project files and recent submittals related to the source and extent of groundwater contamination beneath and in the vicinity of the two southern parcels. On May 3, 2011, Regional Board staff held a meeting with you and Mr. Jacques Marcillac of OTIE to discuss issues related to groundwater closure for two southern parcels of the site and data gaps that need to be addressed.

Based on the review of the Report and file documents and as discussed during the May 3, 2011 meeting, Regional Board staff have determined that groundwater closure for the southern parcels can not be granted at this time based on the following:

1. The lateral extent of the trichlorofluoromethane (Freon-11) plume in groundwater originating from the site and migrating through the southern parcels has not been adequately defined. During the groundwater sampling in June 1990, Freon-11 was detected at concentrations up to 360 micrograms per liter ($\mu\text{g/L}$) in monitoring well CM-10, which is located near the site boundary. This indicates that the Freon-11 groundwater plume originating from the site has migrated off site. To date, there have been no monitoring wells installed at appropriate locations cross- and down-gradient from monitoring well CM-10.
2. The vertical extent of the Freon-11 plume in groundwater has not been adequately defined. A review of the well construction details indicates that two monitoring wells, CM-10 and MW-31 that are located within the Freon-11 plume, have approximately the same screened interval lengths. These well screened lengths bottom are at approximately 10 to 25 feet below groundwater surface. To determine if multiple-depth groundwater monitoring wells are needed and to verify the vertical change trend of the Freon-11 plume in groundwater beneath the southern parcels and the vicinity of the site, discrete multiple-depth groundwater samples shall be

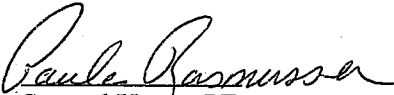
California Environmental Protection Agency

monitoring wells MW-31 (located near the identified source area) and CM-10 during the next scheduled site-wide groundwater monitoring event for the site.

3. The residual soil source of Freon-11 contamination has not been adequately addressed. It is our understanding that an active source of Freon-11 was removed from the site several decades ago. However, the magnitude and the lateral and vertical extent of Freon-11 soil contamination at the identified source area near the southern parcels has not been adequately characterized. The results of a 1995 shallow [(up to 5 feet below ground surface (bgs)] soil gas survey indicate that Freon-11 was detected at concentrations up to 1,300 $\mu\text{g/L}$ in vapor samples collected from the identified source area. To assess the potential for vapor intrusion and continuing source of groundwater contamination from residual Freon-11 soil contamination, multiple-depth soil and soil vapor samples shall be collected from approximately 5 feet bgs to the water table at the identified source area. If the detected concentrations of residual Freon-11 in soil and soil vapor are greater than its site-specific soil and soil vapor screening levels that are protective of both human health and groundwater resource at the southern parcels and vicinity, active soil remediation or other mitigation measures may be required.
4. To confirm if the lateral and vertical extent of Freon-11 soil and groundwater contamination from releases at the site near the two southern parcels are adequately defined, please submit a work plan for soil/soil vapor and groundwater investigations at the identified source area near the southern parcels, and cross- and down-gradient from existing well CM-10 to the Regional Board by **October 15, 2011**, for review and approval.

Thank you for your continued efforts in working with the Regional Board staff and moving this project forward. If you have any questions, please contact Dr. Ann Chang at (213) 620-6070 (achang@waterboards.ca.gov).

Sincerely,

for 
Samuel Unger, PE
Executive Officer

cc: Ms. Sutida Bergquist, California Department of Public Health
Mr. Chris Nagler, Watermaster, California Department of Water Resources
Mr. Bernard Franklin, Los Angeles County, Department of Public Health
Mr. Hoover Ng, Water Replenishment District- Southern California
Ms. Stephanie Lewis, Department of Toxic Substances Control
Mr. Jacques Marcillac, Oneida Total Integrated Enterprises
Mr. Kenneth Katich, Trammell Crow Company
Mr. William Preston Bowling, Aerospace Cancer Museum and Education
Ms. Christina Walsh, Cleanuprocketdyne.org
Ms. Bonnie Klea
Ms. Chris Rowe
Mr. Daniel Wiseman