



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

August 26, 2004

Mr. Richard W. McClure
Olin Corporation
Environmental Remediation Group
P.O. Box 248
Charleston, TN 37310-0248

Mr. Jay McLaughlin
President and CEO
Standard Fusee Corporation
P.O. Box 1047
Easton, MD 21601

Dear Messrs. McClure and McLaughlin:

SLIC: 425 TENNANT AVENUE, MORGAN HILL; COMMENTS ON THE SECOND QUARTER 2004 ON-SITE GROUNDWATER CONTAINMENT & PERCHLORATE REMOVAL SYSTEM PERFORMANCE AND DISCHARGE MONITORING REPORT

Regional Board staff have reviewed GeoSyntec Consultants' *Second Quarter 2004 On-Site Groundwater Containment & Perchlorate Removal System Performance and Discharge Monitoring Report* (Report) prepared and submitted on behalf of Olin Corporation (Olin). The system is designed to extract perchlorate-contaminated groundwater migrating off-site and treat the extracted groundwater with an ion-exchange treatment system prior to disposal in the Butterfield retention pond. Following an initial startup period, the containment system has operated continuously since April 7, 2004.

Olin has implemented a performance-monitoring program to assess hydraulic containment and performance of the treatment system to comply with the Regional Board's Monitoring and Reporting Program No. R3-2003-0168. The Report includes performance-monitoring data collected between April and June 2004 and a list of work to be performed in the upcoming third quarter. We have received and considered comments from _____. Based on our review, the Report is acceptable. However, please review and provide a response to the comments listed below:

- Monitoring and Reporting Program No R3-2003-0168 requires analysis of chlorate at the influent and effluent of the lead ion exchange vessel, and effluent from the lag ion-exchange vessel. **(Is this data really useful to the RB?—shall we not include this?)**
- The Report indicates that the proposed groundwater extraction system will provide hydraulic containment of two upper water-bearing zones on-site, designated as the A Zone and the B1 Zone, based on MACTEC's groundwater model. Further detail of the model is included in the
- Two D or Three dimensional maps showing capture at the site
- Page ii Remediation objective for perchlorate remediation 6 ug/L. General Waiver states 4 ppb or any revised or adopted federal or regulatory standard.
- Page 6 half a foot only demonstrate measurable drawdown

California Environmental Protection Agency



Recycled Paper

- As described in the August 17, 2004 letter, you shall carefully monitor the containment system for signs of adverse effects if the City of Morgan Hill pumps the Tennant well. Results of this monitoring shall be included in future on-site quarterly reports.

If results of the performance monitoring program indicate that the extraction well network does not provide full hydraulic containment, pumping rates or the number of extraction wells will be modified.

This letter confirms our verbal authorization for Olin to immediately implement the proposed groundwater containment and perchlorate treatment system provided our comments (which incorporate comments provided by Santa Clara Valley Water District (District) and by Komex on behalf of the cities of Morgan Hill and Gilroy) are considered in its implementation. Our comments are presented below.

- The A Zone aquifer test indicated confined conditions in the A Zone (page 8), which appears to be valid based on the nearly instantaneous response to pumping observed in Monitoring Well MWSW0011SA1, which is located over 700 feet away from the pumping well. If the A Zone is confined under current low water table conditions, then the presence of a relatively impermeable unit across the site above the current water table is implied. This means that high water table conditions in the winter and spring would likely be due to the presence of a seasonal perched aquifer above the A Zone. Groundwater in a seasonal perched aquifer would not be extracted and treated by the proposed system, and any water infiltrated at the surface of the site would tend to spread laterally due to the presence of the underlying confining layer. This could cause offsite migration of shallow perchlorate-impacted groundwater in high water table conditions.
- The ability of the Butterfield Retention Pond to accept 250 gpm (360,000 gallons per day) of
- There is no discussion of how pumping of the Tennant well will influence the containment system. The groundwater model should account for the operation of Tennant Well pumping full-time at 470 gpm.

If you have any questions, please contact

Sincerely,

California Environmental Protection Agency



Recycled Paper

Roger W. Briggs
Executive Officer

ajm/s/icb/cru/johnm/olin../rick mcclure comments 90% design report 3nov03

cc:

