



P.O. BOX 248, 1186 LOWER RIVER ROAD, NW
CHARLESTON, TN 37310-0248

VIA: E-MAIL and US MAIL

August 10, 2006

Mr. Hector Hernandez
California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

**Subject: Progress Report #48
July 1 through 31, 2006
Morgan Hill, California**

Dear Mr. Hernandez:

Pursuant to the November 18, 2002, California Regional Water Quality Control Board, Central Coast Region (Water Board) letter, this report summarizes Olin's progress related to the Cleanup and Abatement Orders (CAOs) and the Monitoring and Reporting Program (MPR) associated with the Olin/Standard Fusee site located at 425 Tennant Avenue, Morgan Hill, California. Progress Report #48 is for July 1 through 31, 2006.

CAO R3-2004-0101 – Replacement Water Provisions and Ion Exchange System Installation

Replacement Water:

Olin continues to provide bottled drinking water to well owners and tenants in accordance with Water Board CAO No. R4-2004-0101, as revised by the State Water Resources Control Board in its Order No. WQO 2005-0007 (State Board Order), adopted on May 19, 2005. Quarterly sampling of domestic wells is proceeding as directed and is further described under MRP 2001-161 and Attachment A of the State Board Order.

In accordance with State Board Order, during July Olin continued a phased bottled water termination for those wells that have had four prospective quarters of groundwater sampling with perchlorate results of 6 ppb or less. For each phase of bottled water termination, Olin provided the laboratory results to the Water Board (via e-mail).

Ion Exchange (IX) System Installation:

Based on the revised Order (WQ 2005-0007) and current perchlorate data as of Second Quarter 2006, 80 wells may be candidates for alternative water supply as described in the *Revised Alternative Water Supply Implementation Work Plan* (MACTEC, Sept 2005). As of July 31, 2006 Olin has or is implementing IX systems on 16 wells; there are 14 IX units installed and operating as designed, system installation remains on hold at one well, and preliminary design activities are in progress on the other well. In addition, Olin continues to sample and analyze concentration trends in the remaining 62 wells that have had a 6 ppb detection during the past 4 quarters.

Item No. 4 Attachment No. 1
September 7-8, 2006 Meeting
Perchlorate Cases

CAO R3-2005-0014 – Llagas Subbasin Characterization and Remediation

Llagas Subbasin Monitoring Plan:

Full Water Board approval of the Monitoring Plan remains pending.

Llagas Subbasin Characterization Report

Water Board acceptance of the Llagas Subbasin Characterization Report was received by Olin in a letter dated June 19th, 2006.

As recommended in the Characterization Report, Olin completed installation and sampling of dedicated monitoring wells at 4 locations within approximately one mile south of the site. Based on the information obtained from the installation and sampling of these 4 monitoring wells, Olin completed the installation of two additional monitoring wells at locations west and east of the site. Olin has also completed the CPT investigation at twenty-eight locations east and south of 425 Tenant Avenue. Following data evaluation, Olin will provide the Water Board with an update of the investigation results with the 3rd Quarter 2006 Groundwater Monitoring Report.

Llagas Subbasin Plume Migration Assessment Control Report

On June 30, 2006, Olin submitted the *Plume Migration Assessment Control Addendum* for Area 1 as part of the *Llagas Subbasin Cleanup Feasibility Study* (Llagas Feasibility Study). Water Board acceptance of the addendum for Area 1 is pending.

Llagas Subbasin Cleanup Level Report

Site characterization and feasibility study activities are in progress.

Llagas Subbasin Cleanup Feasibility Study Report

Water Board acceptance of the Llagas Feasibility Study is pending.

MRP 2001-161 Reporting – Onsite and Offsite Well Sampling Activities

On August 2, Olin provided a letter to the Water Board requesting further actions toward completing the necessary revisions to the Consolidated MRP. Until then, Olin is continuing to perform monitoring pursuant to our understanding that the Water Board's intent was consolidation of MRP 2003-0168 and MRP 2001-161 (August 31, 2005 revision). Water Board review of the proposed revisions to the Consolidated MRP and Olin's August 2nd request letter remain pending.

On July 24th, 2006, the Water Board provided comments on the First Quarter 2006 Monitoring Report. Specifically, the Water Board focused their review and comments on Appendix E – Northeast Groundwater Flow Assessment – Update of the report.

Onsite Well Sampling Activities:

The monthly onsite monitoring program was conducted during July 2006. Water-level measurements and groundwater samples were collected from 20 onsite monitoring wells and 26 nested BarCad® wells at 8 locations on the Site. The results will be included in the Third Quarter 2006 monitoring report to be submitted to the Water Board by October, 30, 2006.

Offsite Well Sampling:

The collection of offsite samples was initiated for the Third Quarter 2006 monitoring event and Phase 6 of Bottled Water Termination. Between July 1 through 31, 2006, groundwater samples were collected from 365 wells. The results will be included in the Third Quarter 2006 monitoring report to be submitted to the Water Board by October 30, 2006.

Groundwater Containment System Operations:

Groundwater treatment system (GWTS) operations continued in July 2006. Continuous operation of the GWTS was interrupted towards the end of the month as diagnostics and maintenance of the variable frequency drive controlling the feed water pump were performed. During July, the system extracted and removed perchlorate from approximately 6.1 million gallons of groundwater. To date, perchlorate has been removed from over 121 million gallons of water. Data from the treatment system operations will be presented in the Third Quarter 2006 On-Site Remediation Performance Monitoring Report and submitted to the Water Board by October 30, 2006.

Soil In Situ Bioremediation (ISB) System Operations:

The successful completion of soil remediation at the Site was documented in the *Soil In Situ Bioremediation Closure Report* submitted to the Water Board on 18 July 2006. Pending Water Board review and concurrence with the results presented in the Closure Report, Olin intends to decommission the soil remediation system. In addition, the Closure Report requested that the Water Board appropriately modify MRP No. 2001-161 by eliminating the soil remediation monitoring requirements as presented in Table 2 of the MRP.

On-Site Recharge System:

Operation of the Recharge System continued in July 2006 with all three injection wells active. Continuous operation was interrupted towards the end of the month as replacement diagnostics and maintenance of the variable frequency drive controlling the feed water pump were performed. In July, approximately 6.1 million gallons of GWTS effluent were injected to the subsurface via the three injection wells. Monitoring data collected for the On-Site Recharge system will be presented in the Third Quarter 2006 On-Site Remediation Performance Monitoring Report and submitted to the Water Board by October 30, 2006.

Northeast Groundwater Flow Assessment

A quarterly evaluation of the groundwater level and sampling data in the Northeast Groundwater Flow Assessment was provided as Appendix E the Second Quarter 2006 Groundwater Monitoring Report submitted on July 30, 2006. In a letter dated July 24, the Water Board requested continued quarterly monitoring of the four piezometer locations located northeast of the site. The Water Board also requested a discussion of the investigations performed to date north and east of the site that would be included in a work plan to be submitted to the Water Board on September 29th, 2006.

Upcoming Reports

Due Date

- Monitoring and Reporting Program 2001-161:
 - 3rd Quarter 2006 Groundwater Monitoring Report 10/30/06
 - 3rd Quarter 2006 Performance Monitoring Report 10/30/06
 - 4th Quarter 2006 Groundwater Monitoring Report 1/30/07

Mr. Hector Hernandez
Olin Progress Report #48
August 10, 2006

- | | |
|--|--------------------------------|
| 4 th Quarter 2006 Performance Monitoring Report | 1/30/07 |
| • <u>Monthly Progress Reports</u> | 10 th of each month |
| • <u>CPT/Monitoring Work Plan</u> | 9/29/06 |
| • <u>Final Groundwater Flow Assessment Report</u> | |
| Appendix E of 3rd Quarter 2006 Monitoring Report | 10/30/06 |
| • <u>Llagas Subbasin Characterization and Remediation CAO:</u> | |
| 2007 Llagas Subbasin Characterization Report | 1/30/07 |

Olin will continue providing monthly progress reports of our activities related to the CAOs and MRPs. If you have any questions, please call me.

Sincerely,
OLIN CORPORATION



Richard W. McClure, P.G., REM
Environmental Remediation Group

cc (via e-mail):

Mr. Jim Ashcraft, City of Morgan Hill
Mr. Eric Gobler, Water Board – Central Coast Region
Ms. Leslie Griffin, P.E., GeoSyntec
Ms. Sylvia Hamilton, PCAG Chair
Mr. Thomas Mohr, Santa Clara Valley Water District
Mr. Dave Share, Olin
Mr. Donald Smallbeck, MACTEC
Mr. Curt Richards, Olin