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VIA: E-MAIL and US MAIL

April 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 #44
March 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 (Regional 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 property located at 425 Tennant Avenue, Morgan Hill, California. Progress Report #44 is for March 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 Regional Board CAO No. R4-2004-0101, as revised by the State Water Resources Control Board in its Order No. WQO 2005-0007, adopted on May 19, 2005. Quarterly sampling of domestic wells is proceeding as directed and is further described under MRP 2001-161.

Ion Exchange (IX) System Installation:

Based on the revised Order (WQ 2005-0007) and current perchlorate data as of Fourth Quarter 2005, 31 wells are candidates for alternative water supply as described in the *Revised Alternative Water Supply Implementation Work Plan* (MACTEC, Sept 2005). As of March 31, 2005 Olin has or is implementing IX systems on 16 wells. There are 11 IX units installed and operating as designed, systems are being installed at 4 wells, and access remains pending at 1 well. Installation is not currently scheduled for one candidate well located on vacant property and another well not being used as a potable source. In addition, Olin continues to sample and analyze concentration trends in an additional 20 wells that have had a 6 ppb detection during the past 4 quarters.

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

Llagas Subbasin Monitoring Plan:

Item No. 9 Attachment No. 1
May 11-12, 2006 Meeting
Perchlorate Cases

The *Llagas Subbasin Monitoring Plan* submitted April 9, 2005 was granted partial approval on June 16, 2005. Additional information requested in the Regional Board's letter was submitted via e-mail to on June 17th, 2005 and in the report titled *Preliminary Groundwater Flow Assessment for the City of Gilroy* (MACTEC, Nov 2005). Full RWQCB approval of the Monitoring Plan remains pending.

Monitoring Well Installation and Characterization Work Plan:

The *Llagas Subbasin Monitoring Well Installation Work Plan* was submitted on July 5, 2005 and approved by the RWQCB on August 3, 2005. Olin submitted the *Llagas Subbasin Monitoring Well Installation Report* on January 16, 2006 and the RWQCB provided acceptance of the installation report as final on March 21, 2006.

The *Llagas Subbasin Characterization Work Plan* was submitted on August 12, 2005. The Regional Board provided comments in a letter dated September 23, 2005. On October 24, 2005, Olin submitted the *Revised Llagas Subbasin Characterization Work Plan* (Revised Work Plan) which included our responses to RWQCB. On December 20, 2005 the RWQCB provide conditional approval of the Revised Work Plan and requested that Olin provide additional information and another revision of the Revised Work Plan. On February 3, 2006 Olin provided the RWQCB with a revised *Final Llagas Subbasin Characterization Work Plan* (Final Work Plan), the additional information requested, and Olin's response to comments. RWQCB approval of the *Final Llagas Subbasin Characterization Work Plan* was provided in their letter dated March 21st 2006. With this letter, the RWQCB acknowledged that Olin had successfully achieved compliance with Tasks B and C of the CAO.

In March, Olin initiated well and encroachment permit activities for the installation of monitoring wells at 4 locations within approximately one mile south of the site.

Llagas Subbasin Cleanup Level Report

The *Llagas Subbasin Cleanup Level Report* was submitted to the RWQCB on January 31, 2006. In a March 7, 2006 letter, the RWQCB stated that they will consider the establishment of a groundwater cleanup level for perchlorate after all necessary site characterization activities and the feasibility study are complete.

Llagas Subbasin Plume Migration Assessment Control Report

The *Llagas Subbasin Plume Migration Assessment Control* report was submitted to the RWQCB on March 3, 2006. RWQCB review and approval of the Plume Migration Assessment Control report is pending.

Llagas Subbasin Characterization Report

The *Llagas Subbasin Characterization Report* was submitted to the RWQCB on March 30, 2006. RWQCB review and approval of the Characterization report is pending.

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

In an effort to consolidate multiple documents that comprise the On-Site and Off-Site monitoring requirements, on November 2, 2005 the RWQCB issued a revised and combined MRP 2001-161 (Consolidated MRP) and subsequently rescinded MRP 2003-168. Following discussions with RWQCB staff on December 20, 2005 regarding the various issues present in the Consolidated MRP, Olin provided the RWQCB with a revised Consolidated MRP on January 10, 2006 for review. Olin is continuing to perform monitoring pursuant to

our understanding that the RWQCB's intent was consolidation of MRP 2003-0168 and MRP 2001-161 (August 31, 2005 revision). RWQCB review of the proposed revisions to the Consolidated MRP is pending.

Onsite Well Sampling Activities:

The monthly onsite monitoring program was conducted during March 2006. The water-level measurements included 20 onsite monitoring wells and 26 nested BarCad® wells at 8 locations on the Site. The results will be included in the First Quarter 2006 monitoring report to be submitted to the Regional Board by April 30, 2006.

Offsite Well Sampling:

The collection of offsite samples continued for the First Quarter 2006 monitoring event. Between March 1 through 31, 2005, groundwater samples were collected from 108 wells. The results will be included in the First Quarter 2006 monitoring report to be submitted to the Regional Board by April 30, 2006.

Groundwater Containment System Operations:

Full-time groundwater treatment system (GWTS) operations continued in March 2006. During March, the system extracted and removed perchlorate from over 4 million gallons of groundwater. To date, perchlorate has been removed from over 102 million gallons of water. Data from the treatment system operations will be presented in the First Quarter 2006 Containment, Treatment, and In Situ Bioremediation Report and submitted to the RWQCB by April 30, 2006.

Soil In Situ Bioremediation (ISB) System Operations:

The ISB system operations continued in March 2006. Lysimeter and moisture sensor data were collected in early March. To date, over 5.8 million gallons of GWTS effluent, amended with citric acid, have been applied to the ISB infiltration unit. During March, approximately 1100 pounds of citric acid were applied to the ISB infiltration unit via four one-day dosing cycles on the 8th, 14th, 21st, and 27th of March. Soil remediation monitoring will be presented in the First Quarter 2006 Containment, Treatment, and In Situ Bioremediation Report and submitted to the RWQCB by April 30, 2006.

On-Site Recharge System:

Olin received written authorization from the RWQCB on February 28, 2006 to operate the On-Site Recharge System. Continuous operation of the Recharge System was initiated on March 3, 2006 with all three injection wells active. The balance of the treated water is being applied to the Soil ISB infiltration unit. Discharge to the Butterfield Flood Control Ditch ceased on 3 March 2006. In March, nearly 4 million gallons of GWTS effluent were injected to the subsurface via the three injection wells. A Recharge System Commissioning Report including As-Built Drawings was submitted to the RWQCB on 27 March 2006. Monitoring data collected for the On-Site Recharge system will be presented in the First Quarter 2006 Containment, Treatment, and In Situ Bioremediation Report and submitted to the RWQCB by April 30, 2006.

West San Martin Water Works Ion Exchange Systems

The West San Martin Water Works ion exchange systems installed on the County and Colony wells continued operations during March. At the County well, perchlorate was removed from 2.1 million gallons of water with 177 million gallons treated to date. At the Colony well, perchlorate was removed from 0.7 million gallons of water with 59 million

gallons treated to date. Since the August 2003 installation of the ion exchange systems, over 236 million gallons of potable water have been provided to over 450 homes in the San Martin community,

San Martin County Water District Ion Exchange System

The San Martin County Water District ion exchange system was operational during March. At the Camping World well, perchlorate was removed from 1.5 million gallons of water. Since the February 2004 installation of the ion exchange systems, over 89 million gallons of potable water have been provided to over 250 homes in the San Martin community.

Northeast Groundwater Flow Assessment

During March, manual depth to groundwater measurements were collected at the single screen wells and CMT piezometers and transducer data were downloaded. During the collection of groundwater levels, it was observed that MP-4 suffered water damage during recent rainfall events. Rehabilitation of the well and equipment is ongoing. Olin also coordinated groundwater level measurements with the collection of water levels from the City of Morgan Hill municipal wells.

Although not required by the RWQCB, Olin proactively collected an additional round of groundwater samples from wells northeast of the Site in March, 2006. Olin also coordinated with Dunbar Associates for the collection of groundwater samples for VOC analysis from the dedicated multi-level well located northeast of the site.

An evaluation of the groundwater level and sampling data in the Northeast Groundwater Flow Assessment will be provide as Appendix E the First Quarter 2006 Groundwater Monitoring Report.

As requested by the RWQCB, Olin provided additional well log information as well as nitrate and perchlorate data for evaluation as part of the NE Groundwater Flow Assessment.

Upcoming Reports

Due Date

- Monitoring and Reporting Program 2001-161:
 - 1st Quarter 2006 Groundwater Monitoring Report 4/30/06
 - 2nd Quarter 2006 Groundwater Monitoring Report 7/30/06
 - 3rd Quarter 2006 Groundwater Monitoring Report 10/30/06
 - 4th Quarter 2006 Groundwater Monitoring Report 1/30/07
- Monthly Progress Reports 10th of each month
- Northeast Groundwater Flow Assessment Updates:
 - Appendix E of 1st Quarter 2006 Monitoring Report 4/30/06
 - Appendix E of 2nd Quarter 2006 Monitoring Report 7/30/06
 - Appendix E of 3rd Quarter 2006 Monitoring Report 10/30/06
 - Groundwater Flow Assessment Report 11/15/06
- Llagas Subbasin Characterization and Remediation CAO:
 - Llagas Subbasin Cleanup Feasibility Study Report 6/30/06

Mr. Hector Hernandez
Olin Progress Report #44
April 10, 2006

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. Eric Gobler, Regional 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