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## Los Angeles Regional Water Quality Control Board

August 19, 2015

Mr. Steve Sacco  
Robertshaw Controls Company  
70 Mechanic Street, C41-32  
Foxboro, Massachusetts 02035

**APPROVAL OF MATERIAL CHANGE – FORMER ROBERTSHAW CONTROLS FACILITY,  
100 WEST VICTORIA STREET, LONG BEACH, CALIFORNIA (FILE NO. 15-051, ORDER  
NO. R4-2014-0187, SERIES NO. 031, CI-10157, GLOBAL ID. WDR 100023693)**

Dear Mr. Sacco,


On July 22, 2015, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) enrolled you under General Waste Discharge Requirements (WDR Order No. R4-2014-0187) with a Monitoring and Reporting Program (MRP) No. CI-10157 for injection of zero-valent iron (ZVI), guar, emulsified lecithin substrate (ELS), pH buffer (potassium bicarbonate), bioaugmentation culture, and anaerobic flush water for groundwater remediation of volatile organic compounds at the subject site. The December 2014 groundwater monitoring results indicated that cis-1,2-dichloroethylene and trichloroethylene were detected at concentrations up to 180 micrograms per liter ( $\mu\text{g/L}$ ) and 910  $\mu\text{g/L}$ , respectively.

On behalf of Robertshaw Controls Company, AECOM submitted the *Request for Change of Discharge Volume* (Request) dated August 13, 2015. The Request indicated that during substrate solution preparation, a combination of ZVI, guar, ELS, and pH buffer cannot be mixed adequately to effectively deliver into the formation. In order to provide effective distribution of injected solution into the formation, ZVI and guar will be mixed with potable water while ELS and pH buffer will be mixed with bioaugmentation culture, followed by additional anaerobic flush water. The Request proposed that a total of 36,000 gallons of substrate solution containing 57,201 pounds of ZVI and 3,204 pounds of guar, 950 gallons of ELS solution containing 836 pounds of pH buffer, 8 gallons of bioaugmentation culture, and 15,200 gallons of anaerobic flush water will be injected into 80 injection points at depths from approximately 35 to 55 feet below ground surface.

Based on the review of the information submitted, the material change to the WDR Order No. R4-2014-0187 with MRP No. CI-10157 is approved. The injection points are at the same locations as indicated in the subject WDR permit issued on July 22, 2015. Therefore, there is no modification needed for groundwater monitoring network. All requirements specified in the WDR Order No. R4-2014-0187 and MRP No. CI-10157 remain in effect.

If you have any questions, please contact the Project Manager, Dr. Ann Chang at (213) 620-6122 ([ann.chang@waterboards.ca.gov](mailto:ann.chang@waterboards.ca.gov)), or the Chief of Groundwater Permitting Unit, Dr. Eric Wu at (213) 576-6683 ([eric.wu@waterboards.ca.gov](mailto:eric.wu@waterboards.ca.gov)).

Sincerely,

  
Samuel Unger, P.E.  
Executive Officer

cc: Ms. Triss Chesney, Department of Toxic Substances Control  
Ms. Peggy Williams, Long Beach Unified School District  
Mr. Michael Haux, AECOM