



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 Hawthorne Street
San Francisco, California 94105**

January 30, 2015

Ms. Lynn Nakashima
Remedial Project Manager
Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, CA 94710

RE: Request for Proposed State Applicable or Relevant and Appropriate Requirements for AMCO Chemical Site Non-Time-Critical Removal Action (NTCRA)

Dr. Ms. Nakashima:

As you are aware, an engineering evaluation/cost analysis ("EE/CA") of a response actions for the contaminant source area at the AMCO Chemical Superfund Site (aka D.C. Metals) is underway and is projected for completion in March 2015. In order that EPA might reach a removal decision in a timely fashion, it is necessary that the State of California provide us with a list of proposed State Applicable or Relevant and Appropriate Requirements ("State ARARs") that it wishes EPA to consider for this Non-Time-Critical Removal Action (NTCRA). This letter requests such a list from you.

In accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at §300.525(d), the State must identify its proposed State ARARs to EPA in a timely manner if EPA is to consider the requirements for inclusion in the selected removal action. Your timely response to this letter is therefore urged and appreciated. EPA is directing this letter to DTSC as the lead agency for the State of California with respect to the AMCO Chemical Superfund Site. We anticipate that DTSC will forward it to other State agencies as necessary and assemble a final list on behalf of the State in response to EPA.

Please note that the contemplated groundwater response action is for the source area only and that not all aspects of the AMCO Chemical Site are addressed by this action. The NTCRA will address the VOCs in groundwater and soil that pose the highest health risk. The primary drivers identified in the draft EE/CA are trichloroethene (TCE) in soil, vinyl chloride in groundwater and cis-1,2-dichloroethene (cis-1,2-DCE) in soil. EPA will perform all activities in accordance with EPA guidance, including but not limited, to "Guidance on Conducting Non-Time Critical Removal Actions under CERCLA", EPA540-R-93-057 dated August 1993.

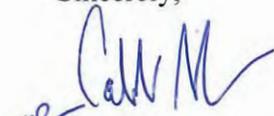
Please consider the following action-specific information to avoid identifying requirements which may have no relation to the actions being evaluated. Based on the results of the draft EE/CA, dated January, 2015, EPA is evaluating the following alternatives for addressing the VOCs in the source area at the Site:

- Excavation and Offsite Disposal – A total of about 11,600 cubic yards of soil would be removed and the excavation backfilled with clean imported fill material. Implementation of this alternative would require tenting the work area and treating vapors extracted from the tented area before discharging to the atmosphere.
- Multi-phase Extraction – Mobile LNAPL, groundwater and soil vapor would be extracted from multi-phase remediation wells. The LNAPL component would be recovered in a separator for offsite disposal and the groundwater effluent would be treated, then discharged to the East Bay Municipal Utility District sanitary sewer (pending approval). The vapor effluent would be routed to a cryogenic condensation vapor treatment system and the condensate pumped to a storage tank pending offsite disposal.
- In-Situ Thermal Electric Resistive Heating - This technology would heat the soil and groundwater to vaporize the VOC contaminants. The contaminant vapors and groundwater would be extracted and treated above ground with a system consisting of a product separator to recover LNAPL, bag filters to remove solids, and a treatment system composed of air stripping and liquid-phase granular activated carbon technologies to remove VOCs. Treated groundwater would be reinjected near the heating electrodes to maintain proper moisture levels in the soil, and any excess extracted groundwater would be treated and discharged to the EBMUD sanitary sewer. Product recovered by the vapor treatment system and product separator would be pumped into an above grade tank for temporary storage pending off site treatment and disposal.
- Enhanced In-Situ Bioremediation with Free Product Recovery – NAPL would be recovered from the subsurface with skimmers, and disposed offsite. Then electron donors (e.g., sodium lactate and emulsified vegetable oil substrate) would be injected into the groundwater to create reducing conditions necessary for bioremediation of chlorinated VOCs. This would continue for about 5 years, followed by injection of an electron acceptor (e.g., sulfate) for treatment of volatile petroleum hydrocarbons.
- Free Product Removal followed by Air Sparging Soil and Vapor Extraction – LNAPL would first be recovered by skimming. Then an AS/SVE system would be installed and operated to inject air into the contaminated aquifer. Contamination-laden air in the vadose zone would be captured and removed via the soil vapor extraction and treatment system.

Given our work with DTSC on this project, we assume that the State is already familiar with the contaminants found at this site and their concentrations in contaminated soil and groundwater. If you have any questions about these data, please let me know.

Thank you for your consideration of this request. We would like to receive the State's response to this request no later than March 2, 2015. If you have any questions, please contact me at (415) 972-3148.

Sincerely,



for Lynn Suer
Remedial Project Manager
Superfund Division (SFD7-1)

