



Yana Garcia
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
9211 Oakdale Avenue
Chatsworth, California 91311



Gavin Newsom
Governor

August 18, 2023

SENT VIA ELECTRONIC MAIL

Mr. David Thaete
Phibro-Tech, Inc
8851 Dice Road
Santa Fe Springs, California 90670
David.Thaute@pahc.com

APPROVAL OF INTERIM REMEDIAL MEASURES REPORT, PHIBRO-TECH, INC.,
8851 DICE ROAD, SANTA FE SPRINGS (SITE CODE: 300142)

Dear Mr. Thaete:

The Department of Toxic Substances Control (DTSC) has reviewed the Interim Remedial Measures Report (Report) (Terraphase Engineering, Inc., April 17, 2023) for the Phibro-Tech, Inc. facility located at 8851 Dice Road, Santa Fe Springs, California (Facility). The Report describes injection activities performed in late 2022 as part of the soil and alternate groundwater corrective action completed at the Facility.

The Facility is situated on approximately 4.8 acres in an industrialized section of the city. The Facility is essentially an inorganic chemical manufacturing plant using certain hazardous wastes as a primary raw material. The Facility is permitted to treat, store, and transfer both RCRA¹ and California hazardous wastes. Chemicals previously detected in onsite soil that are included as chemicals of potential concern (COPCs) are as follows: various volatile organic compounds (VOCs); Semi-Volatile Organic Compounds (SVOCs) (1,2,4-trichlorobenzene, 2-methylnaphthalene, pyrene), TPH (extractable fuel hydrocarbons [EFH] C23-C40], TPH-e, TPHd, TPH-g), Aroclor 1260, and metals including lead, cadmium, chromium, copper, and zinc. Chemicals previously detected in soil gas that are included as COPCs are as follows: chlorinated and aromatic VOCs, aliphatic and aromatic individual petroleum hydrocarbons, total petroleum hydrocarbons in the gasoline and diesel ranges, and limited polycyclic

¹ United States Environmental Protection Agency, Resource Conservation and Recovery Act

aromatic hydrocarbons (PAHs). Chemicals previously detected in groundwater include the following: various VOCs, arsenic, and specific metals (chromium, hexavalent chromium, copper, and cadmium).

Based on its review, DTSC approves the Report in accordance with the enclosed Geological Services Branch memorandum. If you have any questions regarding this letter, please contact me at (818) 717-6562 or by e-mail at Laura.Radke@dtsc.ca.gov.

Sincerely,



Laura Radke
Project Manager
Brownfields Restoration and School Evaluation Branch
Site Mitigation and Restoration Program

Enclosure

cc: (via e-mail)

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MEMORANDUM

TO: Laura Radke
Senior Environmental Scientist
Site Mitigation and Restoration Program

FROM: Christine Bucklin P.G.
Senior Engineering Geologist
Chatsworth Geological Services Unit

DATE: July 12, 2023

SUBJECT: Phibro-Tech, Inc. Facility
8851 Dice Road, Santa Fe Springs, California
Interim Remedial Measures Report



PCA: 22120 Site Code: 300142 Phase: 48 MPC: OTHrpt Log No: 20095270

As requested, DTSC Geological Services Unit (GSU) staff reviewed Interim Remedial Measures Report, Phibro-Tech, Inc., 8851 Dice Road, Santa Fe Springs, California 90670 dated April 17, 2023 (Report). The Report was submitted by Terraphase Engineering for Phibro-Tech, Inc. (PTI).

This Report describes additional injections of calcium polysulfide (CPS) solution performed as part of the soil and alternative groundwater corrective action, a continuation of previous interim remedial measures approved by DTSC in 2016. The injection activities were performed in the southwest portion of the facility in the vicinity of the 'F-Area' through high-pressure jetted injection into the unsaturated zone site soils.

Pre- and post-injection groundwater samples were collected in September and December 2022, respectively. The Report indicates that hexavalent chromium (Cr^{+6}) was not detected post-injection in groundwater monitoring wells located in the immediate vicinity or downgradient of the F-Area injections, indicating a successful remediation of Cr^{+6} in groundwater through the injection of CPS.

GSU finds that the Report, sampling, laboratory analysis and technical analysis meets the current state of the practice for the environmental industry. GSU has no objections to a final version of this document being accepted into the project files. However, the following comments are provided:

1. The Report concludes that any Cr^{+6} observed in upgradient or cross-gradient monitoring wells reflects background concentrations attributable to a regional Cr^{+6} groundwater plume. GSU does not necessarily concur with this evaluation. GSU acknowledges extensive efforts to attempt to remediate the on-site soils and notes that the effect has definitely lessened the threat to groundwater in the area. However, the F-Area is downgradient of the 'A' tanks and other sections of the site where it is unclear whether contamination has been fully characterized due to an inability to access the operational areas. There is likely residual contamination present in the soil that could impact underlying groundwater under changing groundwater conditions, as the basin has had very low water levels the last 20 years compared to historic higher levels. GSU believes long-term monitoring of groundwater is the best scenario to evaluate the potential impact to the aquifer.
2. With regard to unknown areas of the site where it may not be fully characterized, GSU has concerns about the former wastewater treatment system in the far southwest corner of the site. There is also an area north of the former wastewater area identified by soil borings RS 01 through RS 05, with reported Cr^{+6} and cadmium in the upper 10 feet of the soil column that does not appear to have been fully delineated. If site characterization was conducted in these areas, the data should be provided. If these areas have not historically been characterized, this issue should be addressed. It is critical that all source areas are adequately evaluated in order to ensure a minimal threat to the groundwater.
3. GSU concurs that the most recent implementation of injections achieved the goal of more widely distributing CPS solution to the vadose zone beneath the F-Area. The Report states that post-injection groundwater monitoring results demonstrate that Cr^{+6} is not migrating off-site in the vicinity of the treatment area. In this scenario, it would be beneficial to have off-site monitoring wells to demonstrate off-site migration is not occurring. A recent GSU memo dated July 11, 2023, identified concerns that historic releases of Cr^{+6} in deeper soils caused subsequent groundwater contamination. The memo requested a plan to install wells off-site.

Questions regarding this Memo can be directed to Christine.Bucklin@dtsc.ca.gov

Reviewed by: Todd Wallbom, P.G.
CC: John Naginis, P.G, C.E.G.