

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

Certified Mail #P 062 128 169

October 12, 1990

10/12/90

Mr. J. Lawrence David
7042 El Fuerte Street
Carlsbad, CA 92009

Subject: Unauthorized Release
Underground Fuel Tank Removals
106 & 110 Hegenberger
Oakland, CA 94621

Dear Mr. David:

Thank you for submitting part of the results for analysis of subsurface soil samples taken in response to the underground tank removal from the above shown facility. Because of the degree of contamination found, this facility is considered to have experienced a confirmed release of petroleum hydrocarbons that has impacted subsurface soil and possibly ground water. The extent of this contamination must be assessed and remediated.

Our office will be the lead agency overseeing both the soil and groundwater remediation of this site. The Regional Water Quality Control Board (RWQCB) is currently unable to oversee the large number of contamination cases within Alameda County and has delegated the handling of this case to our Division. We will be in contact with the RWQCB in order to provide you with guidance concerning the RWQCB's remediation requirements. However, please be aware that you are responsible for diligent actions to protect waters of the State.

The RWQCB have, in Guidance Documents, defined the reporting requirements that must be met for eventual site sign off. Complete site work documentation must address all the following points.

I. Introduction

- A. Statement of scope of work
- B. Site map showing location of existing and past underground storage tanks
- C. Site History
 - provide historical site use and ownership information. Include a description of types and locations of hazardous materials used on site.

II. Site Description

- A. Vicinity description including hydrogeologic setting
- B. Initial soil contamination and excavation results
 - provide sampling procedures used
 - indicate depth to ground water
 - describe soil strata encountered
 - provide soil sampling results, chain of custody forms, identity of sampler
 - describe methods for storing and disposal of all soils

III. Plan for determining extent of soil contamination on site

- A. Describe approach to determine extent of lateral and vertical contamination
 - identify subcontractors, if any
 - identify methods or techniques used. As examples:
 - a) if a soil gas study is conducted include information on probe depths and slotting length, performance standards, & quality control measures including state certified lab analysis of samples.
 - b) if soil borings are conducted, provide information on boring placement, soil sample analysis, and boring logs.
 - c. if contamination is chased following an excavating step out procedure, provide field readings, if available, of side wall soil contamination.
 - provide sampling maps showing all lines of excavation and sampling points
 - provide chain of custody forms, lab analysis results, all receipts and manifests, identity of sampler
- B. Describe method and criteria for screening clean versus contaminated soils. Describe sampling procedure that confirms the "clean" soil is uncontaminated.

C. Describe security measures

IV. Disposition of Stockpiled Soils

Several alternatives exist for properly disposing of excavated soils impacted by leaking underground tanks. Depending on the concentration of TPH g or d or TOG or heavy metals within the waste, land disposal to a Class I, II, or III facility may be allowed. On site treatment of petroleum contaminated soils can occur, with proper permitting by the correct regulatory agencies (SDHS, BAAQMD, RWQCB) with the concentration of petroleum waste being the factor that determines what permits will be required. Onsite reuse of petroleum contaminated soils is also allowed under a strict set of conditions. In general, onsite reuse of petroleum contaminated soils requires the submittal of a Report of Waste Discharge pursuant to Section 13260 (a) of the California Water Code, and the application for a Waste Discharge Requirements (WDR). The SFRWQCB can waive the WDR provided site specific conditions allow it, and the disposal is consistent with 23CCR, Subchapter 15 requirements. For stockpiled soils with a TPH or TOG concentration of ND to 10ppm, though, the SFRWQCB may allow on site disposal with out the need for a WDR or Subchapter 15 considerations. Verification of stockpile concentration of ND to 10ppm must be conducted by discrete sampling at the rate of one sample per 20 cubic yards. The proposed disposition of all stockpiles must be addressed in a workplan.

A. If contaminated stockpile soil aeration or bioremediation is to be utilized, then provide a work plan that includes:

- volume and rate of aeration/turning
- method of containment and cover
- confirmatory sampling procedure to verify acceptable levels of TPH or TOG for intended method of disposal.
- permits obtained

V. Plan for determining ground water contamination

- Construction and placement of wells should adhere to the requirements of the "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks". Provide a description of placement and rationale for the location of monitoring wells including a map to scale.
- The placement and number of wells must be able to determine the extent and magnitude of the free product and dissolved product plumes.

A. Drilling method for construction of monitoring wells

- expected depth and diameter of monitoring wells
- date of expected drilling
- casing type, diameter, screen interval, and pack and slot sizing techniques
- depth and type of seal
- development method and criteria for adequacy of development
- plans for cuttings and development water

B. Ground water sampling plan

- method for free product measurement, observation of sheen
- well purging procedures
- sample collection procedures
- chain of custody procedures
- procedures for determining ground water gradient

D. Sampling schedule

- measure free product weekly for first month following well installation
- measure free product and dissolved constituents monthly for first three months.
- after first three months monitor quarterly.
- monitoring must occur a minimum of one year.

VI. Provide a site safety plan

VII Development of a Remediation Plan.

A. The remediation plan is to include a time schedule for remediation, and, at minimum, must address the following issues:

- removal of all free product. Manual bailing is not acceptable as a recovery system. Actual amount of free product removed must be monitored and tabulated.
- remediation of contaminated soils and dissolved constituents must follow RWQCB's resolution No. 68-16.
- soils containing 1,000+ ppm of hydrocarbons must be remediated. Soils containing between 100 and 1,000 ppm must be remediated unless sufficient evidence is provided which indicates no adverse effects on groundwater will occur. Clean up of soils to 100 ppm is strongly recommended.
- design of remedial action system should be based on a review of hydrogeologic and water quality data and on an evaluation of mitigation alternatives. The determination of probable capture zone(s) of extraction system(s) should be based on aquifer characteristics as determined by aquifer test data.

VIII Reporting

- A. Technical reports should be submitted with a cover letter from yourself or other responsible party.
- B. Monthly reports must be submitted for the next three months with the first report due 90 days from the above letter date.
- C. Quarterly reports must be submitted with the first report due 90 days after the final monthly report. These reports should describe the status of the investigation and cleanup.
- D. All reports and proposals must be signed by a California-Certified Engineering Geologist, California Registered Geologist or a California-Registered Civil Engineer (see page 2, 2 June 1988 RWQCB document).

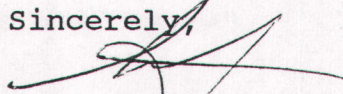
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A statement of qualifications should be included in all reports. Initial tank removal and soil sampling does not require such expertise; however, borehole and monitoring well installation and logging, and impact assessments do require such a professional.

All proposals, reports and analytical results pertaining to this investigation and remediation must be sent to our office and RWQCB. You should be aware that this Division is working in conjunction with the RWQCB and that this is a formal request for technical reports pursuant to California Water Code Section 13267 (b).

Should you have any questions concerning the contents of this letter or the status of this case please feel free to contact me.

Sincerely,



Ariu Levi, Senior Hazardous Materials Specialist
Alameda County Environmental Health Department

cc: Gil Jensen, Alameda County District Attorney, Consumer
Environmental Protection
Rafat Shahid, Assistant Agency Director
Lester Feldman, SFRWQCB
Howard Hatayama, DOHS
Inspector Halyard, OFD
Mike Gingrass, CHASE
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