ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

SENT 03-30-05

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 29, 2005

Mr. Richard Anderson
Modad Properties LLC
561 Fourth St., Oakland, CA 94607-3558

Mr. Stephen Boyd
137 Fiesta Circle
Orinda, CA 94563

Dear Messrs. Anderson and Boyd:

Subject: Fuel Leak Case RO0000411, 1009 66th Ave., Oakland, CA 94621

Alameda County Environmental Health has recently reviewed the case file for the subject and determined that additional information is necessary to progress your site towards closure. We are aware that the Department of Toxics Substances Control (DTSC) is also investigating the site in the interest of approving the site's development into a school. It is our agency's intention to work with and share technical information with DTSC so that both agencies goals can be met in a timely manner. We are concerned with the high levels of the gasoline oxygenate methyl tertiary butyl ether (MTBE) and the lack of sufficient data to appropriately characteriize your site. We request that you complete a three-dimensional soil and groundwater investigation provide a proposal for cleanup of soil and groundwater contamination. Please address the following technical comments and submit the technical reports requested below.

TECHNICAL COMMENTS

1. Regional Geologic and Hydrogeologic Study

The purpose of a regional geologic and hydrogeologic study is to identify the geologic and hydrogeologic setting in the vicinity of your site. This data is then used to develop your initial Site Conceptual Model (SCM) requested below, and determine the appropriate scope of investigation activities.

We request that you perform a study of the regional geologic and hydrogeologic setting of your site by reviewing the available technical literature for the area. Background information for your review includes but is not limited to regional geologic maps, United States Geological Survey (USGS) technical reports and documents, Department of Water Resources (DWR) Bulletins, Regional Water Quality Control Board reports on the groundwater basin, data from contaminant investigations in the area, etc.

Provide a narrative discussion of the regional geologic and hydrogeologic setting obtained from your background study. Use photocopies of regional geologic maps, groundwater contours, cross-sections, etc., to illustrate your results and include a list of technical references you reviewed. Report your results in as part of your SCM in the Work Plan requested below.

2. Preferential Pathway Study

The purpose of the preferential pathway study is to locate potential migration pathways and potential conduits and determine the probability of the plume encountering preferential pathways and conduits that could spread the contamination. Of particular concern is the identification of abandoned wells and improperly-destroyed wells that can act as conduits to deeper water bearing zones.

We request that you perform a conduit study that details the potential migration pathways and potential conduits (utilities, storm drains, etc.) that may be present in the vicinity of the site. Provide a map showing the location and depth of all utility lines and trenches including sewers and storm drains within and near the plume area.

The conduit study shall include a well survey of all wells (monitoring and production wells: active, inactive, standby, destroyed (sealed with concrete), abandoned (improperly destroyed); and dewatering, drainage, and cathodic protection wells) within a 1/2 mile radius of the subject site. As part of your detailed well survey, please perform a background study of the historical land uses of the site and properties in the vicinity of the site. Use the results of your background study to determine the existence of unrecorded/unknown (abandoned) wells, such as old deep agricultural wells, that can act as pathways for migration of contamination at and/or from your site. Please review historical maps such as Sanborn maps, aerial photos, etc., when performing the background study. Provide a map(s) showing the location of all wells identified in your study, use data tables to report the data collected as part of your survey.

Using the results of your conduit study and data from previous investigations at the site you are to develop the initial three-dimensional conceptual model of site conditions. You are to use this initial conceptual model to determine the appropriate configuration for sampling points in the Soil and Water Investigation phase of work at this site and propose these in your work plan requested below. Discuss your analysis and interpretation of the results of the conduit study and report your results in the Work Plan.

3. Soil and Groundwater Investigation/Contaminant Plume Definition

When the 2000 gallon gasoline UST was removed at this site in 3/95, impacted soil as well as groundwater with free product gasoline concentrations (290 mg/l) was detected. MTBE was not run on either soil or groundwater samples. The 4/95 geoprobe investigation detected soil contamination in the northeast and southwest directions from the former tank pit, however, it appears that only the southwest component of this plume was further investigated. It appears that the existing Parts warehouse to the west and the apartment dwellings to the immediate north limited the excavation and investigation in these directions. Please provide a clear figure indicating the location, depth and residual concentrations of contaminants of post-excavation samples in the work plan requested below. Upon the installation of MW-4 in 9/98, MTBE was detected at elevated levels in soil (15.5' at 3.8 ppm) and in groundwater, 26 mg/l (EPA Method 8020). Gasoline concentration in groundwater was detected at 170 mg/l, near free product levels. It is noted that MW-4, is screened from 15-25', across the highest MTBE impacted zone. This well

has historically had elevated TPHg, BTEX and MTBE concentrations in groundwater, while the other wells have had low levels of these contaminants. The last (2/26/2003) groundwater monitoring event indicates the presence of up to 63,000 ppb TPHg and 8100, 4400, 1900, 8200, 30,000 ppb benzene, toluene, ethyl benzene, xylenes and MTBE, respectively in this well. Results of investigation work performed at the site to date are insufficient to characterize the nature and extent of soil and groundwater contamination at the site and explain the observed site conditions. Investigation work to date lacks sufficient site coverage and depth discrete analytical results to evaluate your site. In addition, permeable strata could be preferred pathways for off site migration of dissolved contaminants.

The purpose of contaminant plume definition is to determine the three-dimensional extent of contamination in soil and groundwater from the release at your site, which is undefined.

MTBE is highly soluble and very mobile in groundwater and is not readily biodegradable. Conventional monitoring well networks currently installed at fuel leak sites are generally insufficient to properly locate and define the extent of MTBE plumes. Thus, the positioning of current monitoring well networks can miss the MTBE plume core, and the monitoring well's design can incorrectly reflect the severity of the release. Therefore, we request that you perform a detailed, expedited site assessment using depth discrete sampling techniques on borings installed along transects to define and quantify the full three-dimensional extent of MTBE, Total Petroleum Hydrocarbons, Benzene, and other contamination in groundwater.

A substantial part of your plume(s) should be defined with one mobilization by using expedited site assessment techniques at your site. The appropriately-qualified professionals performing field work at your site will be using the data obtained from the field work to refine the initial three-dimensional conceptual model of site conditions developed during the conduit study and review of background information. Using expedited site assessment techniques, the appropriately-qualified professionals are to analyze the field data as it is collected, refine the conceptual model as new data is produced and evaluated, and modify the sampling and analysis program as needed, filling data gaps and resolving anomalies prior to demobilization.

Expedited site assessment tools and methods are a scientifically valid and cost-effective approach to fully define the three-dimensional extent of the plume. Technical protocol for expedited site assessments are provided in the U.S. Environmental Protection Agency's (EPA) "Expedited Site Assessment Tools for Underground Storage Tank Sites: A Guide for Regulators" (EPA 510-B-97-001), dated March 1997.

Provide your proposal for performing this work in the work plan requested below. Report the results of your investigation in the Soil and Water Investigation (Results of Expedited Site Assessment) Report requested below.

Please note, we request that you immediately pursue any off-site access agreements that you may need to complete your investigation activities. Please notify our office if you have difficulty in obtaining off-site access.

4. Characterization of Local Hydrogeology and Groundwater Flow Conditions

The purpose of this characterization is to understand the physical and geochemical characteristics of the subsurface, which may affect groundwater flow, the breakdown (fate), migration (transport), and the distribution of contaminants through the subsurface. Additionally, factors such as water level fluctuations, gradient changes, local hydrogeology, groundwater extraction, and groundwater recharge activities (natural and artificial) can significantly alter groundwater flow conditions.

We request that you properly characterize the hydrogeology and groundwater flow conditions in the vicinity of your site. During SWI activities, we request that you gather detailed lithologic information using borings, cone penetrometer, etc. We recommend that you continuously core borings at this site and prepare detailed boring logs. We require that you prepare the following: detailed cross-section and rose diagrams for groundwater gradient. The rose diagram shall be plotted on groundwater contour maps and updated in all future reports submitted for your site. Include plots of the contaminant plumes on your maps, cross-sections, and diagrams.

Report your results in the Soil and Water Investigation (Results of Expedited Site Assessment) Report and the Soil and Water Investigation Completion Report requested below.

5) Project Approach and Investigation Reporting

We anticipate that characterization and remediation work in addition to what is requested in this letter will be necessary at and up-gradient from your site. Considerable cost savings can be realized if your consultant focuses on developing and refining a viable Site Conceptual Model (SCM) for the project. A SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely magnitude of potential impacts to receptors. The SCM is used to identify data gaps that are subsequently filled as the investigation proceeds. As the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened. Subsurface investigations continue until the SCM no longer changes as new data are collected. At this point, the SCM is said to be "validated." The validated SCM then forms the foundation for developing the most cost-effective corrective action plan to protect existing and potential receptors.

When performed properly, the process of developing, refining and ultimately validating the SCM effectively guides the scope of the entire site investigation. We have identified, based on our review of existing data, some initial key data gaps in this letter and have described several tasks that we believe will provide important new data to refine the SCM. **We request that your consultant develop a SCM for this site, identify data gaps, and propose specific supplemental tasks for future investigations.** There may need to be additional phases of investigations, each building on the results of the prior work, to validate the SCM. Characterizing the site in this way will improve the efficiency of the work and limit its overall cost.

The SCM approach is endorsed by both industry and the regulatory community. Technical guidance for developing SCMs is presented in API's Publication No. 4699 and EPA's Publication No. EPA 510-B-97-001 both referenced above; and "Guidelines for Investigation and Cleanup of

MTBE and Other Ether-Based Oxygenates, Appendix C," prepared by the State Water Resources Control Board, dated March 27, 2000.

The SCM for this project shall incorporate, but not be limited to, the following:

a) A concise narrative discussion of the regional geologic and hydrogeologic setting obtained from your background study. Include a list of technical references you reviewed, and copies (photocopies are sufficient) of regional geologic maps, groundwater contours, cross-sections, etc.

b) A concise discussion of the on-site and off-site geology, hydrogeology, release history, source zone, plume development and migration, attenuation mechanisms, preferential pathways, and potential threat to downgradient and above-ground receptors. Be sure to include the vapor pathway in your analysis. Maximize the use of large-scale graphics (e.g., maps, cross-sections, contour maps, etc.) and conceptual diagrams to illustrate key points. Include structural contour maps (top of unit) and isopach maps to describe the geology at your site.

c) Identification and listing of specific data gaps that require further investigation during subsequent phases of work.

d) Proposed activities to investigate and fill data gaps identified above.

e) The SCM shall include an analysis of the hydraulic flow system at and downgradient from the site. Include rose diagrams for groundwater gradients. The rose diagram shall be plotted on groundwater contour maps and updated in all future reports submitted for your site. Include an analysis of vertical hydraulic gradients. Note that these likely change due to seasonal precipitation and pumping.

f) Temporal changes in the plume location and concentrations are also a key element of the SCM. In addition to providing a measure of the magnitude of the problem, these data are often useful to confirm details of the flow system inferred from the hydraulic head measurements. Include plots of the contaminant plumes on your maps, cross-sections, and diagrams.

Report the information discussed above in your initial SCM and include it in the Work Plan requested below. Include updates to your SCM in the Soil and Water Investigation (Results of Expedited Site Assessment) Report requested below.

6) Interim Remediation

This section requests that you initiate interim remediation at your site. Please note that additional remediation may be required in the future based upon the results of additional investigation work at and near your site.

Source Removal
The purpose of interim source removal is to immediately remove the ongoing source that is continuing to add mass to the plume and immediately begin removal of contaminant mass in the source area.

Interim cleanup is necessary to prevent dissolved phase MTBE and petroleum hydrocarbon pollution from impacting or continuing to impact water supply aquifers, reduce the ultimate impact of the unauthorized release on the resource, limit continued migration and growth of the MTBE and petroleum hydrocarbon plumes, and reduce overall cleanup costs. We request that you initiate interim source cleanup activities at your site. Report the results of your source characterization work, source area contaminant mass estimates, and outline your proposal for source removal in the Soil and Water Investigation (Results of Expedited Site Assessment) Report requested below. Please document source removal progress in the Quarterly Reports requested below.

7. Date of Unauthorized Release of MTBE

The purpose of dating the unauthorized release is to assist in the determination of the rate of transport of MTBE in groundwater.

Please determine (1) the approximate time frame of the MTBE release first occurring at your site, (2) the use history of MTBE at your site, and (3) the history of all unauthorized releases and spills at your site. Report your findings in the Soil and Water Investigation (Results of Expedited Site Assessment) Report requested below.

Additionally, if you have any MTBE data previously or newly collected at your site that has not been submitted to ACEH, please submit this data immediately and update cumulative data tables accordingly.

8. Estimation of MTBE Contaminant Mass Flux

The purpose of estimating contaminant mass flux is to determine the contaminant mass that is moving through the subsurface over time relative to a known transect (e.g., a property boundary). This can provide an approximate estimate of the potential volume of groundwater impacted by the plume, the potential threat or nuisance to a receptor, and possible attenuation (degradation) of the plume.

We request that you consider approaches to estimating MTBE contaminant mass flux across plume transects or fences located perpendicular to the MTBE plume. We recommend the use of expedited site assessment tools and/or appropriately-screened monitoring wells to provide data for these estimates. Please report your results in the Soil and Water Investigation (Results of Expedited Site Assessment) Report requested below.

9. Groundwater Contaminant Plume Monitoring

The purpose of groundwater contaminant plume monitoring is to determine the three-dimensional movement of the plume, the rate of plume growth, and the effectiveness of cleanup activities.

Once the extent of the plume is defined, we request that you install permanent monitoring wells and/or monitoring well clusters (screened at appropriate discrete depths with appropriate length of screen) and piezometers to monitor the three-dimensional movement of the plume. We request that you use the detailed cross-sections, structural contours, isopachs, and rose diagrams for groundwater gradient developed during Task 3 above, to determine the appropriate locations and designs for monitoring wells/well clusters and piezometers that are needed to appropriately monitor the three-dimensional movement of the plume. To appropriately evaluate your site, your monitoring wells/well clusters will need to be screened in the permeable zones with screen lengths that match the stratigraphic sequence. Generally, these screened intervals will not be greater than 10 feet in length. The number of piezometer/wells should be sufficient to evaluate all permeable zones. Include your proposal for the installation of wells/piezometers in the work plan requested below.

We request that you monitor the groundwater contaminant plumes on a quarterly basis. Additional wells may be required to define the extent of the plume. Discuss the results of your plume monitoring in the Quarterly Reports requested below. We request that Quarterly Reports contain all of the following: a discussion of the results of your plume monitoring, an evaluation of the stability of your plume and recommendations for the installation of additional wells if your evaluation indicates your plume is migrating.

10. Corrective Action Plan

The purpose of the CAP is to use the information obtained during investigation activities to propose cost-effective final cleanup objectives for the entire contaminant plume and remedial alternatives for soil and groundwater that will adequately protect human health and safety, the environment, eliminate nuisance conditions, and protect water resources.

A CAP for the final cleanup of contamination (MTBE, petroleum products, and associated blending compounds and additives) in soil and groundwater caused by an unauthorized release at your site will be requested upon completion of your Soil and Water Investigation in accordance with the schedule specified below. The CAP shall address at least two technically and economically feasible methods to restore and protect beneficial uses of water and to meet the cleanup objectives for each contaminant established in the CAP. The CAP must propose verification monitoring to confirm completion of corrective actions and evaluate CAP implementation effectiveness.

TECHNICAL REPORT REQUEST

Please submit technical reports to our office, according to the following schedule:

- **45 days from date of this letter** - Work Plan for completion of Soil and Water Investigation with results of completed preferential pathway study with detailed well survey

- **110 days from Work Plan Approval** – Soil and Water Investigation (Results of Expedited Site Assessment) Report.
- **180 days from submittal of Soil and Water Investigation (Results of Expedited Site Assessment) Report** - Soil and Water Investigation Completion Report
- **90 days after submittal of Soil and Water Investigation Completion Report** - Corrective Action Plan
- **April 15, 2005** - Quarterly Report for the First Quarter 2005
- **July 15, 2005** - Quarterly Report for the Second Quarter 2005
- **October 15, 2005** - Quarterly Report for the Third Quarter 2005
- **January 15, 2006**- Quarterly Report for the Fourth Quarter 2005

We request that all required work be performed in a prompt and timely manner. We have proposed a schedule for the submittal of the SWI Report and the CAP. Revisions to the proposed schedule shall be requested in writing with appropriate justification for anticipated delays.

PERJURY STATEMENT AND PROFESSIONAL CERTIFICATION

All work plans, technical reports, or technical documents submitted to this office must be accompanied by a cover letter from the responsible party that states, at a minimum, the following:

"I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge."

This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

Additionally, to be considered a valid technical report you are to present site specific data, data interpretations, and recommendations prepared by the appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

RO 411
1009 66th Ave., Oakland, 94621

Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: files, D. Drogos, A. Levi
Ms. S. Blanco, Cal/EPA, DTSC School Property Evaluation and Cleanup Division Cypress Office, 5796 Corporate Avenue, Cypress, CA 90630
Ken Chiang,Cal/EPA, DTSC, 1011 North Grandview Ave.,Glendale, CA 91201
3_26_05 1009 66thAve

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

10-4-02

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
FAX (510) 337-9335

October 3, 2002

Mr. Steve Boyd
137 Fiesta Circle
Orinda, CA 94563

Mr. Rand Perry
129 Natalie Drive
Moraga, CA 94556-2422

Dear Messrs. Boyd and Perry:

Subject: Fuel Leak Case RO # 000411, 1009 66th Ave., Oakland, CA 94621

This letter serves to confirm our office's requirement to meet the conditions of AB2886, ie electronic data filing for the following data:

- Lab sample results
- Sample location (x,y)
- Monitoring well elevation data (z)
- Groundwater well data (depth to water)

As you are aware, more clarification can be obtained in the Geotracker website, http://geotracker.swrcb.ca.gov/.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

1009 66th AB2886

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

8012-82

ENVIRONMENTAL HEALTH SERVICES
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August 9, 2002

Mr. Steve Boyd
137 Fiesta Circle
Orinda, CA 94563

Mr. Rand Perry
129 Natalie Drive
Moraga, CA 94556-2422

Dear Messrs. Boyd and Perry:

Subject: Fuel Leak Case RO # 000411, 1009 66th Ave., Oakland, CA 94621

This letter clarifies the groundwater monitoring which should be performed at the referenced site subsequent to the recent excavation and remediation activities. It is anticipated that a minimum of four (4) quarterly groundwater monitoring events will be required to determine equilibrium conditions. All wells, MW-1 through MW-4, plus the extraction well should be analyzed for the compounds: TPHg, and by EPA Method 8260 for BTEX, MTBE, TAME, ETBE, DIPE, TBA, EDB and EDC. Should there be no chemicals other than TPHg, BTEX and MTBE detected initially, you may eliminate the other compounds in the subsequent monitoring. To monitor the effect of the ORC addition, please also include the measurement of dissolved oxygen when monitoring.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. S. Ramdass, SWRCB Cleanup Fund, 1001 I St.,P.O. Box 944212, Sacramento, CA 94244
Mr. W. Mast, PES Inc., 1682 Novato Blvd., Suite 100, Novato, CA 94947

Mon1009 66thAve

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

8-2-02

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
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August 1, 2002

Mr. Steve Boyd
137 Fiesta Circle
Orinda, CA 94563

Mr. Rand Perry
129 Natalie Drive
Moraga, CA 94556-2422

Dear Messrs. Boyd and Perry:

Subject: Fuel Leak Case RO # 000411, 1009 66th Ave., Oakland, CA 94601

Alameda County Environmental Health, Local Oversight Program (LOP), has received and reviewed the July 9, 2002 Remediation Project Report prepared by Decon Environmental Services detailing the excavation and remediation at the referenced site. It appears that the majority of petroleum affected soils and a large amount of impacted groundwater has been removed during these activities. The oxygen releasing compound (ORC) added within the excavation pit and in the borings will likely enhance bio-degradation. ORC socks were also added to wells MW-1 and WAC-1. Our office has the following technical comments to be addressed.

Technical Comments

- Please provide a to scale figure showing the final limits of the excavation, the location of soil samples taken after excavation, the location of the ORC borings and extraction casing and all existing buildings and monitoring wells.
- Please describe the construction of the casing installed within the excavation.
- Please amend the analytical result table to reflect the total xylenes concentration not just the o-xylene concentration as reported.
- Please sample and analyze groundwater from the extraction casing along with the existing wells in your future monitoring events.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. J. Gulbransen, Decon Environmental Services, 23490 Connecticut St., Hayward, CA 94545
Mr. W. Mast, PES Inc., 1682 Novato Blvd., Suite 100, Novato, CA 94947

ExcCom1009 66th

04-26-02

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
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1131 Harbor Bay Parkway, Suite 250
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April 26, 2002
RO0000411

Mr. Stephen Boyd
Pacific Electric Motor
137 Fiesta Circle
Orinda, CA 94563

Re: Soil Excavation and Groundwater Extraction at 1009 66th Ave., Oakland CA 94621

Dear Mr. Boyd:

Our office has received and reviewed preliminary analytical results from soil and groundwater samples taken subsequent to recent excavation at the referenced underground tank leak site. We have the following observations:

- Soil excavation has removed significant hydrocarbon impacted soils. Two areas identified as the southeast and eastsouth ends of the excavation remain impacted at elevated TPHg, BTEX and MTBE levels, up to 2200 ppm, 12 ppm (benzene) and 36 ppm, respectively, which warrant additional excavation.
- The segregation of "clean" and "dirty" stockpiles was documented by the analytical results. The "clean" stockpile may be used as backfill.
- Groundwater removed from the excavation is significantly impacted, up to 9100, 1800, 2100, 2100, 1700 ppb, TPHg, BTX and MTBE, respectively, being found. Additional groundwater removal, prior to ORC compound addition and backfilling, is warranted.

Our office approves the proposed limited additional over-excavation by Decon Environmental in the two residually impacted areas. The estimated 160 additional cubic yards of soil (70 cy "clean" and 90cy "dirty") is reasonable. Our office also recommends the installation of a large diameter extraction casing in the east pit area prior to backfilling for future sampling, treatment or extraction. Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. S. Ramdass, SWRCB, 1001 I St., P.O. Box 944212, Sacramento, CA 94244
Mr. J. Gulbransen, Decon Environmental, 23490 Connecticut St., Hayward, CA 94545
Mr. Gary Norton (e mail)

Exc1009 66th Ave

8-22-01

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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August 23, 2001
StID # 565/ RO0000411

Mr. Rand Perry
129 Natalie Dr.
Moraga, CA 94556-2422

Re: Request for Technical Information by SWRCB Clean-up Fund for 1009 66th Ave., Oakland CA 94601

Dear Mr. Perry:

Our office has been asked by the SWRCB Clean-up Fund to clarify specific tasks in the previously approved work plan for soil and groundwater remediation at Pacific Electric Motor. The Fund would like estimates for the amount of soil proposed for excavation and the amount of groundwater to be removed from the excavation pit. You are reminded, our office also requested a copy of the spread sheet calculations for the estimation of the amount of oxygen releasing compound (ORC) that will be added to the bottom of the excavation. The Fund might also want a copy of this calculation.

You are also requested to submit a copy of the County's April 5, 2001 work plan approval letter and the March 22, 2001 PES Environmental work plan.

Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. Will Mast, PES Environmental, 1682 Novato Blvd., Suite 100, Novato, CA 94947
Mr. S. Ramdass, SWRCB, 1001 I St., 17th Floor, Sacramento, CA 95814-2828

2wpap1009 66th

04-06-01

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

P0411

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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April 5, 2001
StID #565

Mr. Rand Perry
129 Natalie Dr.
Moraga, CA 94556-2422

Re: Workplan Soil and Groundwater Remediation, Pacific Electric Motor Company, 1009 66th Ave., Oakland CA 94621

Dear Mr. Perry:

Our office has received and reviewed the referenced March 22, 2001 work plan prepared by PES Environmental, Inc., your consultant. As you will recall, this work plan was requested because of the consistent elevated TPH as gasoline, BTEX and MTBE encountered in monitoring well MW-4. These levels have not declined significantly over the past several years and would need to be reduced before site closure could be recommended.

This work plan proposes to remediate both soil and groundwater in the area around this well. Soil excavation, groundwater removal and addition of oxygen releasing compound into the excavation pit is proposed. I have also spoken with Mr. Will Mast and Saul Germanis of PES to clarify specific details of the work plan. Based upon our conversation, our office approves the work plan with the following comments/conditions:

- After the excavation of petroleum affected area, (based on past analytical results), groundwater will be evacuated for disposal. At least two volumes of groundwater from the excavation will be removed and a confirmation sample will be taken for analysis after the second groundwater removal. TPHg, BTEX and MTBE should be analyzed.
- The excavated soil will be segregated to determine that which can be reused and that which should be disposed. The soil reuse levels discussed with your consultant were 100 ppm for TPH as gasoline and 1 ppm total BTEX. Originally, 1 ppm benzene was proposed. In addition, you should also use 1 ppm MTBE as another requirement. This level is based upon the Water Board's Risk-Based Screening Levels for surface soils where groundwater is not considered a drinking water source.
- Oxygen releasing compound (ORC) will be added to the bottom of the excavation as well as be injected as a slurry into the saturated zone within the affected area. ORC socks will also be added to the up-gradient wells, MW-1 and WAC-1. Your consultant will provide our office with the spread sheet calculations for the estimation of the amount of ORC necessary to treat the contamination along with case histories of several site where this remediation approach has been successful.
- Please notify our office prior to the field work.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. W. Mast, PES Inc., 1682 Novato Blvd., Suite 100, Novato, CA 94947
Mr. M. Owens, SWRCB, 1001 I St., 17th Floor, Sacramento, CA 95814-2828

Wpap1009 66th

10-20-00

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

Ro#411

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October 19, 2000
StID #565

Mr. Rand Perry
129 Natalie Drive
Moraga, CA 94556-2422

Re: Remediation Work Plan for Pacific Electric Motor, 1009 66th Ave., Oakland CA 94621

Dear Mr. Perry:

This letter confirms the receipt and approves your request for a 30 day extension for the submission of your remediation work plan for the above referenced site. **Please submit your work plan by November 16, 2000.** You are correct that the Clean-up Fund offices have moved. Their new address is:

1001 I Street, 17th Floor
P.O. Box 944212
Sacramento, CA 94244-2120

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. W. Mast, PES Environmental, 1682 Novato Blvd., Suite 100, Novato, CA 94947
Mr. M. Owens, SWRCB, 1001 I St., 17th Floor, P.O. Box 944212, Sacramento 94244-2120

Ext-apr1009 66th

SENT
8-30-2000

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

August 29, 2000
StID # 565

Mr. Rand Perry
129 Natalie Dr.
Moraga, CA 94556-2422

Re: Pacific Electric Motor, 1009 66th Ave., Oakland CA 94621

Dear Mr. Perry:

Our office has received and reviewed the **August 22, 2000 Groundwater First Quarter 2000 Monitoring Report** for the above referenced site as prepared by PES Environmental (PES), your consultant. This report gives the analytical results of the March 24, 2000 groundwater monitoring event. In addition, a feasibility study, ie an examination of remediation alternatives, is provided in the Appendix A of the report.

The groundwater sampling results are fairly consistent with the past results. Near monitoring well MW-4 is a localized plume of elevated concentrations of TPH as gasoline, BTEX and MTBE. This concentration of benzene in groundwater has been shown to pose a potential human health risk in your prior risk assessment. Although the concentration of MTBE may not pose a risk to human health, **the Final Draft of the State Water Resources Control Board's Guidelines for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates** recommends source area remediation as an interim remedial action for sites with persistent concentrations of MTBE over 10,000 ppb. Such is the case at this site.

I have reviewed **Appendix A of the report, the Evaluation of Groundwater Remediation Options**. The groundwater remedial actions considered are groundwater extraction and treatment, air sparging, monitored natural attenuation, enhanced in-situ bioremediation and in-situ oxidation. Your consultant recommends and our office concurs that in-situ oxidation is the most reasonable approach for the site. Several oxidizing chemicals are considered such as ozone, potassium permanganate, however, hydrogen peroxide or hydrogen peroxide with an iron catalyst (Fenton's reagent) are the chemicals of choice. Your consultant suggests that pilot tests would be beneficial in selecting the most effective and appropriate oxidant for the site. Our office suggests that a search of existing technical papers be performed to understand the current status of this treatment method. It is assumed that this method has been done may times previously and therefore, an actual pilot study is not necessary. Based on historical case and study review, please provide a work plan for the treatment of the petroleum and MTBE impacted soil and groundwater. Your work plan should include those papers used as reference and your rationale for the amount, location and type of the chemical oxidant treatment.

Please provide your work plan to our office within 45 days or no later than October 16, 2000.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. W. Mast, PES Environmental, Inc., 1682 Novato Blvd., Suite 100, Novato, CA 94947-7021

2FS1009 66th

Sent 1/26/00
Including cc's

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

p0411

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9432

January 24, 2000
StID # 565

Mr. Rand Perry
129 Natalie Dr.
Moraga, CA 94556-2422

Re: Pacific Electric Motor, 1009 66th Ave., Oakland CA 94621

Dear Mr. Perry:

As you are aware, our office has requested you submit a modified Corrective Action Plan (CAP) for the above site, one, which would address the elevated MTBE concentration in groundwater. However, there has been some concern by your consultant that because of the anticipated forthcoming MTBE policy from the local Water Board, the requested CAP may not be adequate to satisfy these recommendations. Therefore, a request has been made to hold off submitting the CAP and performing any site remediation until the Water Board issues their opinion. This is a reasonable request, however, our office still requires quarterly groundwater monitoring and a feasibility study to evaluate the available options for MTBE remediation.

Therefore, you should submit a feasibility study along with your first quarter 2000 groundwater monitoring report. Please let me know when the Site Conceptual Model (SCM) and CAP can be prepared and delivered.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. Steve Boyd, Pacific Electric Motor Co., 137 Fiesta Circle, Orinda, CA 94563
Mr. G. Norton, 368 Avondale Lane, Livermore, CA 94550
Mr. W. Mast, PES Environmental, 1682 Novato Blvd., Suite 100, Novato, CA 94947
Mr. M. Owens, SWRCB, 2014 T St., Sacramento, CA 95814

Mon/FS1009 66th

Sent 12/29/99
Including cc's

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

P0411

~~December 28, 1999~~
StID # 565

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. Rand Perry
Pacific Electric Motor Company
129 Natalie Drive
Moraga, CA 94556-2422

Re: Corrective Action Plan for Pacific Electric Motor Company, 1009 66th Ave., Oakland CA 94621

Dear Mr. Perry:

Our office has received and reviewed the December 20, 1999 Corrective Action Plan (CAP) for the above site as prepared by PES Environmental. The report also includes a conservative Tier 1 and Tier Risk Based Corrective Action (RBCA) evaluation for the site based upon the highest residual soil and groundwater concentrations. The conclusion of the RBCA evaluation was that potential human health risk existed through exposure of volatilization of groundwater into indoor air. Therefore, active remediation would be required.

After a review of a number of remediation options, your consultant concluded that the best alternative would be enhanced in-situ bio-remediation of groundwater. This would be accomplished using either hydrogen peroxide or oxygen releasing compound (ORC) injections. I have spoken with Mr. Will Mast of PES and expressed my concerns regarding the anticipated affect of this type of remediation. The fact is that although TPH may be reduced using this remediation approach, there is no guarantee that the MTBE contamination would be significantly reduced. Because of this, I recommended that he consider alternative treatment, which may be more effective on MTBE. Perhaps a pilot study would be helpful to demonstrate the potential of the treatment method. The use of Fenton's reagent, an iron sulfate, acidic peroxide solution, which is a strong oxidant was discussed.

It was pointed out that the regulatory policy on MTBE is not clear, however, the Regional Water Board is leaning toward one similar to the Draft State Water Resources Control Board policy. In that event, the high MTBE concentrations at this site (greater than 60 ppm) will require active remediation. In addition, the site must have a Site Conceptual Model (SCM). The SCM is an assemblage of information regarding the distribution of the chemicals at the site and its hydrologic setting. I have included a draft of the contents of a SCM report (see Appendix C). Of importance is the prioritization of site based upon the concentration of MTBE and the distance to the nearest water well or sensitive receptor. **Please review the SCM contents and provide your SCM along with your first quarter 2000 monitoring report.**

In addition, prior to site closure, to prevent exposure to residual soil contamination, you should include a risk management plan calling for an appropriate health and safety plan and other precautions for any future work near the contaminated areas.

Please provide a modified Corrective Action Plan (CAP) to our office within 45 days or no later than February 15, 2000.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

Enclosure (all parties)
C: B. Chan, files
Mr. Steve Boyd, Pacific Electric Motor Co., 137 Fiesta Circle, Orinda, CA 94563
Mr. W. Mast, PES Environmental, 1682 Novato Blvd., Suite 100, Novato, CA 94947
Mr. G. Norton, Serrano & Cone, Inc., 2092 Omega Rd., Suite F, San Ramon, CA 94583
Mr. M. Owens, SWRCB, 2014 T St., Sacramento, CA 95814
CAP1009 66

Appendix C

Site Conceptual Model Reports

The Site Conceptual Model (SCM) is a written representation of the release scenario and the likely distribution of chemicals at the site. It links potential sources to potential receptors through transport of chemicals in air, soil, and water. It also provides a framework for the entire project and a communication tool for regulators, responsible parties, and other stakeholders. The goals of the conceptual model are listed below:

- Identify potential current and future receptors
- Identify the distribution of chemicals in space and time
- Identify how the distribution of chemicals is changing in space and time
- Identify environmental issues that need to be investigated

Reporting

Reports submitted to regulatory agencies are by necessity specific to the type of information they are presenting. They may contain a summary of activities, backup data to support conclusions, etc. A report that attempts to convey a representation of a SCM needs to meet the goals listed above. To meet these goals, investigation reports usually, at a minimum, contain the following elements:

Text

1. Site Description, Land Use, and Water Use
2. Chronology of Events
3. Site Stratigraphy and Hydrogeology
4. Well and Conduit Study
5. Source Removal Activites
6. Remediation Activities

Figures

1. Site Location Map
2. Site Vicinity Map with Receptor Wells
3. Site Map with Groundwater Gradients and Cross Section Lines
4. Site Map with Isoconcentration Contours
5. Cross Section - long axis of plume
6. Cross Section - short axis of plume
7. Cross Section of Regional Geology (optional)
8. Concentration vs. Time Plots for Each Well
9. Concentration vs. Distance (optional)

Tables

1. Groundwater Elevation Data
2. Groundwater Analytical Data
3. Soil Analytical Data

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0411

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
(510) 337-9335 (FAX)

September 2, 1999
StID # 565

Mr. Rand Perry
129 Natalie Dr.
Moraga, CA 94556-2422

Re: Pacific Electric Motor, 1009 66th Ave., Oakland CA 94621

Dear Mr. Perry:

This letter acknowledges receipt and approves of your consultant's request for an extension for the requested Corrective Action Plan (CAP). In accordance to the request from Mr. Gary Norton, the CAP shall now be due by **October 15, 1999**.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B.Chan, files
Mr. G. Norton (by fax only)
Mr. W. Mast, PES, 1682 Novato Blvd., Suite 100, Novato, CA 94947
Mr. M. Owens, SWRCB, 2014 T St., Sacramento, CA 95814

Wpext1009 66

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0411

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
(510) 337-9335 (FAX)

July 14, 1999
StID # 565

Mr. Rand Perry
129 Natalie Dr.
Moraga, CA 94556-2422

Mr. Steve Boyd
137 Fiesta Circle
Orinda, CA 94563

Re: Pacific Electric Motor Co., 1009 66th Ave., Oakland CA 94621

Dear Messrs. Perry and Boyd:

Our office has received and reviewed the **June 17, 1999 Second Quarter 1999** monitoring report for the above site as prepared by PES Environmental, Inc. (PES). Recall, after the last monitoring report, there was an indication that groundwater concentrations may be decreasing, however, this quarter's results are the same magnitude of order as the initial results in September 1998. As suspected, the petroleum plume appears to be migrating west-southwesterly from the former underground tank. Indication of this was initially seen in W. A. Craig attempt to delineate and excavate contaminated soil in this direction from the former underground tank.

It is clear that a significant amount of petroleum hydrocarbon remains in soil and/or groundwater. The previously submitted Risk Evaluation from PES was premature, as it did not include the recent data. The concentration of gasoline detected in MW-4 is nearly that of a saturated sample ie there is a likelihood that free product may exist on groundwater in this area. The concentration of MTBE is also very high. Because of its high solubility in water, MTBE has a tendency to be at the leading edge of a contaminant plume. For the first time, MTBE was detected in one of the down-gradient wells, MW-3. PES concludes that petroleum hydrocarbons appear to be migrating toward the property boundary. Because of the high concentrations of benzene and MTBE and its presence near the property boundary nearly 175' from the former underground tank, our office requests that a corrective action plan (CAP) be submitted to reduce these concentrations and stop their migration. I have discussed various options with Mr. Gary Norton and he has been informed of the County's request. Along with the CAP, I have requested that a feasibility study be provided, which discusses remediation options and the rationale in deciding on the proposed method.

Please submit the requested report to our office **within 45 days or by September 1, 1999.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. W. Mast, PES Environmental, 1682 Novato Blvd., Suite 100, Novato CA 94947
Mr. G. Norton, 368 Avondale Lane, Livermore, CA 94550 **CAP1009**

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0411

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December 1, 1998
StID # 565

Mr. Rand Perry
Pacific Electric Motor Co.
129 Natalie Dr.
Moraga, CA 94556-2422

Re: Additional Soil and Groundwater Investigation Report, 1009 66th Ave., Oakland 94621

Dear Mr. Perry:

Our office has received and reviewed the November 11, 1998 report referenced above prepared by PES Environmental. As you may recall, this work was performed to obtain additional soil and groundwater data in addition to verifying the groundwater gradient at this site. This data was lacking and therefore, the submitted Risk Assessment could not yet be evaluated. The on-site work consisted of two soil borings within the former tank excavation pit and one additional monitoring well down-gradient of the tank pit. The following observations were noted upon review of the report:

- The shallow soil samples from the borings within the tank pit indicate that backfill material exists in at least these two locations which are down-gradient of the former tank and piping run.
- In the area immediately beyond the former tank pit excavation significant groundwater impact is prevalent in MW-4. Elevated gasoline, BTEX and MTBE was exhibited in the groundwater sample from MW-4.
- The groundwater gradient determined during the September 98 sampling event was very shallow and towards the west.

PES believes that the elevated contaminant levels may be due to the analysis of contaminants absorbed on soil particles collected during the water sampling. They believe that after the groundwater equilibrates, the concentrations will decrease. Our office suggests taking turbidity, conductivity and total dissolved solids readings on the water samples to see if these results support this belief. Please comply with the prior request to confirm the highest MTBE groundwater results using either EPA Method 8240 or 8260.

Our office concurs with the PES recommendation to continue quarterly groundwater monitoring at this site for a total of four quarters. After this time, PES may make recommendations to discontinue monitoring and submit a revised Risk Assessment.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. W. Mast, PES Environmental, 1682 Novato Blvd., Suite 100, Novato CA 94947
Mr. G. Norton, 368 Avondale Lane, Livermore, CA 94550

Stat1009-66

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

July 9, 1998
StID # 565

Mr. Rand Perry
Pacific Electric Motor Company
1009 66th Ave.
Oakland CA 94601

Re: Work Plan for Additional Groundwater Investigation for Pacific Electric Motor Co., 1009 66th Ave., Oakland CA 94601

Dear Mr. Perry:

Our office has received and reviewed the July 7, 1998 work plan for additional site investigation for the above site. This work plan describes the additional work requested in my prior May 13, 1998 letter and discussed in our meeting at the County's office.

As stated in this work plan, one additional monitoring well (MW-4) shall be installed beyond the westernmost extent of the prior excavation and sampling points. In addition, two borings will be advanced within the general tank pit area in locations of prior noted contamination. Both soil and groundwater samples will be taken from the borings. Grab groundwater samples will be taken from the two tank pit borings and a water sample taken from the monitoring well after its installation and development. Groundwater gradient will be determined using the new well and the existing perimeter wells (MW-2 and MW-3). Upon review of the investigation report, our risk assessor will provide direction in how to evaluate this data in a future risk assessment.

This work plan is accepted with the following condition:

- Please note that the test method for benzene, toluene, ethyl benzene and xylenes (BTEX) and methyl tert-butyl ether (MTBE) should be EPA Method 8020. In addition, should MTBE be detected in appreciable concentration in groundwater, its detection must be verified using EPA Method 8260 or 8240.

Please contact me prior to this field work. You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. W. Mast, PES Environmental, 1682 Novato Blvd., Suite 100,. Novato, CA 94947

wpapPEM

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

May 13, 1998
StID # 565

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. Rand Perry
Pacific Electric Motor Company
1009 66th Ave.
Oakland CA 94601

Re: Evaluation of Residual Health Risks at Pacific Electric Motor Company, 1009 66th Ave., Oakland CA 94601

Dear Mr. Perry:

Our office has received and reviewed the above report prepared by PES Environmental, Inc. We have also received the Quarterly groundwater monitoring report for March 1998. Having reviewed both reports and through internal review and conversation with Mr. Will Mast of PES, we have concurred that additional site investigation is necessary prior to reviewing a human health risk assessment. Upon review of the historical data for the site, our office has the following observations and questions:

- The depth to groundwater currently reported (3/98) is at approximately 3' bgs and may be under confined or semi-confined conditions ie groundwater may exists below a fairly impermeable layer of soil and rises in a monitoring well installed through it.
- The extent of excavation performed by W. A. Craig within the area of former underground tank is unclear. It appears that some soils were excavated to a depth of 23'bgs. Therefore, within the area of over-excavation, fill material exists at different levels. This fact can affect the migration of contamination in both groundwater and vapors.
- Monitoring well MW-1, located near the north edge of the property, may not represent the highest concentration of contamination. High concentrations of gasoline and benzene still exist immediately down-gradient of MW-1 where no monitoring well currently exists. The down-gradient wells at the site are about 175' from MW-1.
- The groundwater elevation and groundwater gradient may be affected by the close proximity of fill material next to MW-1. The large distance between wells also may distort the actual groundwater gradient near the former underground tank.
- The screen interval of the three monitoring wells installed by Environ is inconsistent with either a confined or unconfined aquifer. These wells are screened from 5-25'. If water was encountered at 6-9' as stated in the well logs, why was the screen interval extended to entire depth of the well? It is noted that WAC-1, the well installed by WA Craig, was screened

from 19.6-27.6' indicative of encountering water at a deeper depth. If groundwater truly exists at 6-9'bgs, how were parts of this area excavated down to a depth of 23'?

- Depending on the site's actual groundwater depth and the "true" gradient, there may still be a need to determine the limits of contamination both up and down gradient of the former excavation. Clearly, soil samples taken within the limits of the final excavation exhibit high residual benzene concentration. In particular, the highest detected benzene soil concentrations were detected in the southwest direction from the former underground tank. Soil sample 11TB-6' exhibited 2,800 ppm TPHg and 18 ppm benzene and GP1-9.5-10' exhibited 1100 ppm TPHg and 13 ppm benzene.

In order to address the above items, it was agreed that the following additional investigation is required:

- Installation of one monitoring well immediately "down-gradient" of the area of known high residual benzene soil contamination.
- Advancement of two borings and the sampling of grab groundwater samples from points within the former excavation in areas of known high residual gasoline and benzene contamination.

After the results of this investigation are reviewed, your consultant should discuss with our offices the merits and specific elements of a revised human health risk assessment. At this point, the PES Risk Evaluation cannot be reviewed because of insufficient data.

Please submit a work plan to perform the requested site investigation and provide comment to the above items **within 30 days or by June 15, 1998.** You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. W. Mast, PES Environmental, 1682 Novato Blvd., Suite 100, Novato, CA 94947
Ms. M. Logan, ACEH

SolPRM

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

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ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
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August 19, 1997
StID # 565

Mr. Rand Perry
Pacific Electric Motor Co.
1009 66th Ave.
Oakland CA 94601

Re: Soil and Groundwater Investigation for Pacific Electric Motor Co., 1009-66th Ave., Oakland, CA 94601

Dear Mr. Perry:

This letter serves to summarize the 7/31/97 meeting at the County's office with yourself, Mr. John Schroeter, Mr. Gary Norton and myself in regards to the on-going subsurface investigation at the above site. This meeting addressed the items in my July 28, 1997 letter and attempted to clarify the requirements for eventual site closure.

At this meeting, I was given the July 17, 1997 Environ report which had been revised, stamped and signed. I was also given a summary table accounting for the removal of 2087 cubic yards of soil to BFI Landfill. No further information regarding soils disposal is required.

Offsite characterization was not required based upon a southwesterly groundwater gradient. It was assumed that offsite residential exposure could be conservatively estimated by using existing soil and groundwater data closer to the former tank pit. It was agreed that a human health risk assessment would be submitted after sufficient groundwater monitoring had occurred. Three additional monitoring events were requested to determine if groundwater concentrations have stabilized.

In regards to monitoring well WAC-1, installed by W.A. Craig, because of its uncertain construction, no additional monitoring will be required from this well, however, TPHg, BTEX and MTBE must be analyzed in the other three wells.

In order to verify that natural bioremediation is occurring in these wells, at least two wells, one within the plume and one downgradient, should be tested for the following indicator parameters:

*dissolved oxygen
*oxygen-reduction potential
*nitrates, sulfates
*iron +2

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Gary Norton, Serrano & Cone Inc., 2092 Omega Rd., Suite F
San Ramon, CA 94583
Mr. John Schroeter, Environ, 5820 Shellmound St., Suite 700,
Emeryville, CA 94608
B. Chan, files
2mon1009

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

ENVIRONMENTAL HEALTH SERVICES
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Alameda, CA 94502-6577
(510) 567-6700
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July 28, 1997
StID # 565

Mr. Rand Perry
Pacific Electric Motor Co.
1009 66th Ave.
Oakland CA 94601

Re: Soil and Groundwater Investigation Summary Report for Pacific Electric Motor Co., 1009-66th Ave., Oakland, CA 94601

Dear Mr. Perry:

Our office has received and reviewed the above referenced July 17, 1997 Environ report for this site. This report details the installation of three groundwater monitoring wells and the sampling of both soil and groundwater. Based upon these results, your consultant recommends that the County consider requiring no further investigation, monitoring or remediation at the site. Our office **does not concur** with this recommendation and offers the following items which still need to be addressed:

* It was noted that the July 17, 1997 report was not signed or stamped by a registered professional. Please have this done on all future documents providing a professional interpretation.

* Our office has not been provided documentation for the disposition of the approximate 1500 cubic yards of petroleum contaminated soil mentioned in this and past reports.

* Our office refers you to the requirements for recommendation of site closure for a "low risk soil and groundwater case" as described in the **SFRWQCB's January 5, 1996 Supplement to the State Water Board's Interim Guidance on Required Cleanup at Low Risk Sites.**

Definition 2 requires that the site be adequately characterized. The area offsite and upgradient of the former gasoline tank has not been characterized. Information in this area must be obtained to evaluate the risk to the residents in this area.

This one monitoring event cannot be considered representative of groundwater conditions for both contaminant concentration or groundwater gradient.

Definition 5 requires that the site present no significant risk to human health. No attempt to perform a risk-based corrective action (RBCA) evaluation of this site has been done. You will need to evaluate all potential exposure pathways for both soil

and groundwater exposure. The obvious exposure pathways to be considered are soil and groundwater volatilization to indoor and outdoor air for both industrial and residential scenarios.

A cleanup level for MTBE (methyl tert-butyl ether) in groundwater has not been recommended to our office as yet, therefore, it is incorrect to assume that 430 ppb detected in well WAC-1 is within acceptable cleanup levels. Cleanup levels are site specific and must be based upon levels protective of human and/or environmental health.

At a minimum, our office will require three additional quarters of groundwater monitoring on the four existing wells. Please continue to analyze for TPHg, BTEX and MTBE. Either offsite data or extrapolated data must be provided. This data should be used along with all other data to evaluate human health risk under all existing and potential exposure scenarios.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Gary Norton, Serrano & Cone Inc., 2092 Omega Rd., Suite F
San Ramon, CA 94583
Mr. John Schroeter, Environ, 5820 Shellmound St., Suite 700,
Emeryville, CA 94608

mon1009

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

May 30, 1997
StID # 565

Mr. Rand Perry, Vice President
Pacific Electric Motor Co.
1009 66th Ave.
Oakland CA 94621

Re: Work Plan for Soil and Groundwater Investigation for Pacific Electric Motor Co., 1009 66th Ave., Oakland CA 94621

Dear Mr. Perry:

Our office has received and reviewed the May 27, 1997 work plan for soil and groundwater investigation as provided by Mr. John Schroeter of Environ. This work plan proposes the installation of three monitoring wells at this site; one upgradient and two in the assumed downgradient direction relative the former gasoline tank. Both soil and groundwater samples will be collected from the borings/ wells in addition to collecting a groundwater sample from the existing monitoring well.

This work plan is accepted with the following conditions:

1. On all future site plans, please indicate the location of the existing monitoring well. There was some uncertainty in its location and our office was never informed of its exact location.

2. Please provide a copy of the stockpile soil sampling report. At the time of our previous meeting, not all analytical results were available. Please keep our office updated on the disposition of these soils.

3. Please have Environ use its best professional judgement when determining the depth of borings and the slotting interval in the construction of the proposed wells. Using the same slotting interval as the adjacent Fire Station on 66th Ave. should occur only if site conditions dictate.

4. Please have your consultant field screen each boring within every five foot interval using either a PID or OVA instrument or equivalent. The soil samples with the highest values should be analyzed in the laboratory. Please keep in mind that our office may require additional chemical analysis based upon the complete results of the stockpile samples.

Quarterly groundwater sampling should be instituted after monitoring well installation.

Please notify me 72 working hours prior to your field work.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, files
Mr. J. Schroeter, Environ, 5820 Shellmound St., Suite 700, Emeryville, CA 94608
Mr. G. Norton, Serrano & Cone Inc., 2092 Omega Rd., Suite F, San Ramon, CA 94583
wpap1009

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 24, 1997
StID # 565

Mr. Rand Perry
Pacific Electric Motor Co.
1009 66th Ave.
Oakland CA 94621

Re: Work Plan for Soil Stockpile Characterization at Pacific Electric Motor Co., 1009 66th Ave., Oakland CA 94621

Dear Mr. Perry:

Our office has received and reviewed the April 23, 1997 Environ work plan for soil characterization for the soils stockpiled at the above site. Three of the four piles of soils will be sampled randomly for location and at four different depths within the largest pile, pile 1.

This work plan is accepted with the following conditions:

1. Please add the analyte TPH as motor oil to your list of proposed analytes: TPHg, BTEX and lead. In addition, the soil sample exhibiting the highest level of TPH as motor oil should also be run for TPHd, chlorinated solvents, the metals cadmium, chromium, nickel and zinc and semi-volatiles. These other parameters are required for waste oil releases. Note, should contaminants be detected above respective MCLs, you may be required to statistically verify adequate sampling size.

2. Please provide any additional final reports for prior site investigation.

3. Please provide a work plan for additional site characterization for both soil and groundwater **within 30 days or by May 27, 1997.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Gary Norton, Serrano & Cone Inc., 2092 Omega Rd., Suite F San Ramon, CA 94583
Mr. John Schroeter, Environ, 5820 Shellmound St., Suite 700, Emeryville, CA 94608

sam-1009

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 21, 1996
StID # 565

Mr. Terry Knox
Pacific Electric Motor
1099 66th Ave.
Oakland CA 94621-3535

NOTICE OF VIOLATION

Re: Request for Technical Reports for Subsurface Investigation at 1009 66th Ave., Oakland CA 94621

Dear Mr. Knox:

Our office last corresponded with you in my June 25, 1996 letter. Technical reports were requested to be delivered to our office by **July 26, 1996.** Enclosed please find a copy of this letter. As that letter stated, our office has not been adequately informed of the work and progress made at the above site in regards to the investigation of the petroleum hydrocarbon release from the former gasoline tank at this site.

After the underground tank removal in February of 1995, we were informed that trenches were extended both south and west of the original tank pit and then Geoprobe borings were advanced in three directions around the tank pit to further delineate the fuel release. W.A. Craig's May 16, 1995 report detailed this work. Significant soil and groundwater was generated from the tank removal and this additional investigation. The recommendation of this report was to excavate in stages the identified contaminated soil and pump any accumulated water. A groundwater investigation, with the installation of monitoring wells will also be required. No further information has been sent to our office beyond the May 16, 1995 W. A. Craig report.

Therefore, our office still requests the technical reports/ information stated in my June 25, letter **within 30 days or by December 23, 1996.**

This is a formal request pursuant to the Water Code section 13267 (b) and the Health and Safety Code section 25299.37 and 25299.78. Failure to provide the requested technical reports may subject Pacific Electric Motor to civil liability up to $5000/day per tank.

Please contact me at (510) 567-6765 if you have any questions regarding this letter.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

enclosure

c: L. Blazer, Alameda County District Attorney's Office
Mr. William Craig, W.A. Craig, Inc., P.O. Box 448, Napa, CA 94559-0448
B. Chan, files
NOV1009

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

June 25, 1996
StID # 565

Mr. Terry Knox
Pacific Electric Motor
1099 66th Ave.
Oakland CA 94621-3535

Re: Request for Technical Reports for Subsurface Investigation at 1009 66th Ave., Oakland CA 94621

Dear Mr. Knox:

Our office has not been adequately informed of the work and progress made at the above site in regards to the investigation of petroleum hydrocarbon release from the former gasoline tank at this site.

Our last correspondence was my July 19, 1995 letter which commented on a July 5, 1995 work plan submitted by W.A. Craig, Inc. This work plan proposed excavation of contaminated soils and the removal of contaminated water which may enter the excavation pit. Our office conditionally approved this work plan. Through several subsequent conversations with Mr. Frank Goldman of W. A. Craig, our office was informed that the work plan was implemented. We were informed that approximately 112,000 gallons of water was removed from the excavation and that a permit to discharge this water was obtained from the Regional Water Quality Control Board (RWQCB). The extent of excavation, however, was not reported to our office. I was to be notified at the completion of the excavation in order to witness confirmatory soil sampling, however, the presence of water and the unavailable storage space put the final excavation on hold.

Our office has not been contacted in 1996, therefore, we are requesting an update on site status. This update should include, at a minimum:

1. Records for the disposition of all groundwater and soil;

2. Status of excavation activities, including any soil sample results;

3. Status of any stockpiled soils or groundwater currently onsite;

4. A work plan for the installation of a minimum of three (3) monitoring wells;

5. An evaluation as to whether any additional site characterization is needed to determine the extent of soil and groundwater contamination; and

6. An evaluation of the potential risk associated with the residual soil and groundwater contamination. This information should be used to develop a corrective action plan (CAP). Part of your risk evaluation should be to determine if the site can be considered a "low risk groundwater site" where only verification monitoring is required.

Please submit the above technical reports/information to our office **within 30 days or by July 26, 1996.**

This is a formal request pursuant to the Water Code and the Health and Safety Code. Failure to provide the requested technical reports may subject Pacific Electric Motor to civil liability.

Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. William Craig, W.A. Craig, Inc., P.O. Box 448, Napa, CA 94559-0448
G. Coleman, files

rep1009

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#411

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

June 25, 1996
StID # 565

Mr. Terry Knox
Pacific Electric Motor
1099 66th Ave.
Oakland CA 94621-3535

Re: Request for Technical Reports for Subsurface Investigation at 1009 66th Ave., Oakland CA 94621

Dear Mr. Knox:

Our office has not been adequately informed of the work and progress made at the above site in regards to the investigation of petroleum hydrocarbon release from the former gasoline tank at this site.

Our last correspondence was my July 19, 1995 letter which commented on a July 5, 1995 work plan submitted by W.A. Craig, Inc. This work plan proposed excavation of contaminated soils and the removal of contaminated water which may enter the excavation pit. Our office conditionally approved this work plan. Through several subsequent conversations with Mr. Frank Goldman of W. A. Craig, our office was informed that the work plan was implemented. We were informed that approximately 112,000 gallons of water was removed from the excavation and that a permit to discharge this water was obtained from the Regional Water Quality Control Board (RWQCB). The extent of excavation, however, was not reported to our office. I was to be notified at the completion of the excavation in order to witness confirmatory soil sampling, however, the presence of water and the unavailable storage space put the final excavation on hold.

Our office has not been contacted in 1996, therefore, we are requesting an update on site status. This update should include, at a minimum:

1. Records for the disposition of all groundwater and soil;

2. Status of excavation activities, including any soil sample results;

3. Status of any stockpiled soils or groundwater currently onsite;

4. A work plan for the installation of a minimum of three (3) monitoring wells;

5. An evaluation as to whether any additional site characterization is needed to determine the extent of soil and groundwater contamination; and

6. An evaluation of the potential risk associated with the residual soil and groundwater contamination. This information should be used to develop a corrective action plan (CAP). Part of your risk evaluation should be to determine if the site can be considered a "low risk groundwater site" where only verification monitoring is required.

Please submit the above technical reports/information to our office **within 30 days or by July 26, 1996.**

This is a formal request pursuant to the Water Code and the Health and Safety Code. Failure to provide the requested technical reports may subject Pacific Electric Motor to civil liability.

Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. William Craig, W.A. Craig, Inc., P.O. Box 448, Napa, CA 94559-0448
G. Coleman, files

rep1009

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0411

RAFAT A. SHAHID, Director
DEPARTMENT OF ENVIRONMENTAL HEALTH
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577
(510) 567-6700

July 19, 1995
StID # 565

Mr. Terry Knox
Pacific Electric Motors
1099 66th Ave.
Oakland CA 94621-3535

Re: Comment on July 5, 1995 Workplan for Additional Remediation of Soil and Groundwater at 1009 66th Ave., Oakland 94621

Dear Mr. Knox:

Thank you for the submission of the above referenced work plan as prepared by your consultant, W.A. Craig. Our office has completed its review and generally agrees with the plan's remedial approach. Recall, the plan calls for the excavation of soils and the removal of groundwater which might infiltrate the excavation. Soil and groundwater disposition is unclear.

Our office does have the following concerns and comments which should be addressed prior to initiating your field work:

1. The extent of excavation was shown on Drawing No. 1, however, please clarify what will be done within the building should contamination appear to extend to beneath it.

2. When the permit for the discharge of treated water is obtained, please notify our office of the method of disposal. Will the existing groundwater previously removed also be similarly treated for disposal?

3. Our office wishes to clarify the sampling requirements for confirmatory samples. Based on an excavation depth of 15 feet, you must take at least one discrete sidewall sample per every 20 linear feet. In addition, one sample should also be taken per every 20 feet of trench excavation. A water sample should be taken from each separate excavation encountering groundwater.

4. The work plan, did not clarify the analyses required for samples in this investigation. We require that Total Oil and Grease, TOG, (5520 E&F or 5520 B&F) be run in addition to TPHg and BTEX in order to verify the extent of the oil contamination. Recall, significant TOG was detected in piping sample TP6. Not all samples need be run for TOG if the extent of TOG can be determined with fewer samples.

5. Our office would like to distinguish between cleanup standards and effluent standards. These are not the same. The mentioned 21ppb benzene concentration in groundwater may be appropriate for the cleanup standard for this parameter but it is not likely the effluent cleanup standard. The effluent standard will be site specific and agreed upon by the Regional Water Quality Control Board (RWQCB). In addition, in order to recommend the 21ppb benzene cleanup standard, you will need to show that the groundwater at this site is not a drinking water source and also show that estuarine population is the potential target population. Please include Total Dissolved Solids (TDS) as an analyte for your water samples.

Although 50 ppb benzene may be an appropriate cleanup standard for soil, do not forget to evaluate all other detectable analytes and their appropriate cleanup levels. Our office acknowledges the use of a risk-based approach for determining clean-up levels.

6. Upon the conclusion of your remediation activities, you should provide a work plan for the installation of at least 3 monitoring wells to determine the impact to groundwater of this fuel release.

7. You are also requested to provide an estimate of your time schedule for the implementation of the work plan. At a minimum, you should initiate your work plan within 60 days of its submission. Please respond to the above concerns **within 30 days or by August 21, 1995.** Please notify our office **48 working hours prior to any field work.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

cc: Mr. F. Goldman, W. A. Craig, Inc., P.O. Box 448, Napa, CA 94559-0448
T. Peacock, files

wpap1099

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577
(510) 567-6700

R0411

July 5, 1995
StID # 565

Mr. Terry Knox
Pacific Electric Motor Co.
1009 66th Ave.
Oakland CA 94621-3535

NOTICE OF VIOLATION

Re: Request for Work Plan for Subsurface Investigation at 1009 66th Ave., Oakland CA 94621, Pacific Electric Motor Co.

Dear Mr. Knox:

Our office last correspondance with you was my April 20, 1995 letter. In this letter, I requested that you submit by May 22, 1995, a work plan for further investigation for the above site. To date, our office has not received the requested report. Informally, in a May 24, 1995 conversation with Mr. Frank Goldman of W. A. Craig, Inc., he stated that a work plan would be ready within 3-4 weeks. At this time, you are requested to submit a work plan to our office **within 30 days or by August 7, 1995.**

Your work plan should address, at a minimum, the following items:

1. Please identify the means of disposition for the soils and the groundwater generated from the tank removal and overexcavation activities.

2. As previously mentioned my April 20, 1995 letter, please insure that the stockpiled soils generated from the excavation are covered or that the exposed soil is being aerated according to BAAQMD requirements.

3. A minimum of three groundwater monitoring wells will need to be installed to determine the extent of contamination and groundwater gradient.

4. Although certain recommendations were made in the May 18, 1995 W.A. Craig report it is uncertain whether all, part or none of these recommendations are to be incorporated in your Remedial Action Plan (RAP). Thus, this is a formal request for your technical report. Recall, such actions as soil excavation, stockpiled soil treatment or disposal, vapor extraction and groundwater removal were mentioned as possibilities.

5. Along with your work plan please provide a timetable for the execution of each significant activity.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

cc: Mr. F. Goldman, W. A. Craig, Inc., P.O. Box 448, Napa, CA 94559-0448
J. Makishima, files

NOV1099

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, Assistant Agency Director

R0411

ALAMEDA COUNTY-ENV. HEALTH DEPT.
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577
(510)567-6700

April 20, 1995
StID # 565

Mr. Terry Knox
Pacific Electric Motor Co.
1009 66th Ave.
Oakland CA 94621-3535

Re: Request for Work Plan for Subsurface Investigation at 1009 66th Ave., Oakland CA 94621, Pacific Electric Motor Co.

Dear Mr. Knox:

Our office has received the March 14, 1995 tank closure report from W.A. Craig, Inc. which documents the removal of one 2000 gallon gasoline tank from the above site on February 16, 1995. As you are aware, significant gasoline release was observed within the excavation pit and considerable petroleum contamination was detected in soil samples from around the pit and along the underground piping run leading to the former dispenser island. W. A. Craig subsequently went back to the site and enlarged the initial tank pit in an attempt to overexcavate contaminated soils. This attempt was unsuccessful as petroleum contamination extended to the limits of the overexcavation. Next, trenching was done to determine the limits of gasoline contamination and again it appears that the extent of gasoline contamination was not able to be determined.

The information regarding the additional excavation and sampling was relayed verbally by Mr. Frank Goldman of W. A. Craig. Based on a recent site visit and the above information our office requests the following:

1. Please submit a brief status report as to the extent of overexcavation, a map of the sampling locations and copies of all additional analytical results beyond those which have been sent or faxxed.

2. Based on the results of a soil boring taken within the flammables storage shed please indicate whether you are considering removing this shed.

3. Please indicate your plan of disposal for the accumulated soil and water removed from the underground tank pit. Please provide verification that any soil aeration being done currently is within the requirements of the BAAQMD.

4. Based on the imminent threat to public health which your open pit poses to the neighboring residents, what will be done to relieve this ?

5. Please provide a work plan for the delineation of both soil and groundwater contamination. After this has been determined, your work plan should call for the installation of monitoring wells to verify any impact to groundwater. You should submit your work plan **within 30 days or by May 22, 1995.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan

Barney M. Chan
Hazardous Materials Specialist

cc: Mr. F. Goldman, W. A. Craig, Inc., P.O. Box 448, Napa, CA 94559-0448
A. Levi, files

wp109966

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0411

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

December 28, 1993

CERTIFIED MAILER #:P 422 218 203

Pacific Electric Motor Co.
1009 - 66th Ave.
Oakland, 94621
UGTID: 565

Re: FIVE-YEAR PERMITS FOR OPERATION OF UNDERGROUND STORAGE TANK(S)
1009 - 66th Ave. Oakland, 94621

Dear Owner/Operator:

According to our records your facility referenced above has not received a five-year permit to operate UST's. In order to obtain a permit you must complete the following items marked below and return them within 30 DAYS. The necessary forms are enclosed. You may complete a "Consolidated Underground Tank Management Plan" which will assist you in preparing a monitoring plan, site plot plan and spill response plan for your tank(s). If supplemental information or forms are required, please submit it to this office with the completed questionnaire and application forms:

____1. An accurate and complete plot plan.
____2. A written spill response plan. (enclosed)
____3. A written tank monitoring plan. (enclosed)
____4. Results of precision tank test(s), (initial and annual).
____5. Results of precision pipeline leak detector tests (initial and annual).
____6. Complete UST PERMIT FORM A-one per facility. (enclosed)
____7. Complete UST PERMIT FORM B-one per tank. (enclosed)
____8. Complete UST PERMIT FORM C-one per tank if information is available. (enclosed)
____9. Letter stating how the tank is to be maintained during one year closure.

Be advised that Title 23 of the California Code of Regulation prohibits the operation of "ANY" UST without a permit. If our records are in error, you must contact this office immediately TO AVOID POSSIBLE ENFORCEMENT ACTION. Please feel free to contact this office at (510) 271-4320; to answer any questions which may arise in completing the mandatory five-year permit process. Be prepared to provide your zip code to speak with the Hazmat Specialist handling your case.

Sincerely,

Paul M. Smith

PAUL SMITH
HazMat Specialist

c: Edgar Howell, Chief, Hazardous Materials Div. (files)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

R0411

November 24, 1993

Mr. Terry Knox
Pacific Electric Motor Co.
1009 66th Avenue
Oakland, CA 94621-3535

Re: Recommendation for Case Closure Status for Pacific Electric Motor Company Remediation Project at 1009 66th Ave., Oakland, CA 94621-3535

Dear Mr. Knox,

Alameda County Environmental Health Department, Hazardous Materials Division (ACEHD) has received and reviewed reports documenting the assessment and remediation of subsurface contamination from polychlorinated biphenyls (PCB) at the subject site.

Based upon the review of support documentation for the removal and disposal of contaminated soil, ACEHD concurs with the recommendation of No Further Action at the site. This recommendation is based on an understanding that the site has undergone thorough remediation with residual total PCB concentrations all below 1 ppm.

Please be advised that this recommendation is site specific based on the submitted information and could be revised if new information necessitating further review of the site becomes available.

Also, as discussed with you earlier this week, the deposit refund account established for the above project is currently in arrears. The current balance as of the completion of this letter is - $414.25. You are requested to remit this amount to the above address made payable to "Alameda County Treasurer".

If you have any questions please contact me at (510) 271-4320.

Sincerely,

Paul M. Smith
Senior Hazardous Materials Specialist

c:
Dan Ethridge, ARS, 7940 Capwell Dr., Oakland, CA 94621
Ed Howell-files

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

R0411

November 8, 1993

Mr. Terry Knox
Pacific Electric Motor Co.
1009 66th Avenue
Oakland, CA 94621-3535

Re: Review of Pacific Electric Motor Company, 1009 66th Ave., Oakland, CA 94621-3535

Dear Mr. Knox,

Alameda County Environmental Health Department, Hazardous Materials Division (ACEHD) has received the request for site closure. These documents and also all other support documentation, prepared by your Consultant Applied Remedial Services (ARS), have been reviewed regarding the PCB remediation activities which you have undertaken at the subject site.

Upon reviewing the reports the following issues were either omitted or require further clarification before a recommendation for sign off could be recommended from ACEHD:

1) Regarding the area which PCB containing soil was excavated, there was no discussion, in either tabular, narrative or graphic form, presented of the depths of the initial excavation at the site and of the depths which confirmatory samples were collected. For example, sample W-6 contained 0.83 ppm PCB contamination; however no sample depth has been indicated. Also, the depths of excavation of the Oakland Housing Authority property and depths of confirmation samples in this area have not been reported. You are required to specify the depths of excavation and of the confirmation sampling.

2) Initial PCB concentrations were detected as high as 80.2 ppm in B-6, 960 ppm in B-8 and 45,270 in B-13. You are requested to elaborate how soil material classified as hazardous was differentiated from soil which was not hazardous.

3) Laboratory reports for soil sampling performed on 9/25/92 were not provided in the October 20, 1992 ARS report. Pages 1,5,10,11 and 12 of the Quanteq Laboratories report were omitted. Please provide copies of these documents.

4) The October 20, 1992 final report indicates that soil containing greater than 50 ppm PCB was transported to a Class I hazardous waste facility in Grandview, Idaho. Soil material containing less than 50 ppm PCB was shipped to East Carbon, Utah. Manifests or records of receipt were not included, for any if the

soil materials shipped off site. You are requested to provide copies of manifests and bills of ladings which will document the disposition of these materials.

Finally, funds which have been previously submitted for this project have been depleted. Currently the account for this project is $ - 219.25. You are requested to remit an additional $ 500.00 to cover ACEHD expenses involved with the review and ultimately case closure of the above project. Any unused portion of these funds will be returned to you at the completion of this project.

If you have any questions please contact me at (510) 271-4320.

Sincerely,

Paul M. Smith
Senior Hazardous Materials Specialist

c:
Dan Ethridge, ARS, 7940 Capwell Dr., Oakland, CA 94621
Ed Howell-files

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO 411

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

August 9, 1993

Mr. Terry Knox
Pacific Electric Motor
1009 - 66th Avenue
Oakland, CA 94621

Re: PCB Contamination at 1009 - 66th Avenue, Oakland CA 94621

Dear Mr. Knox:

We have reviewed the Work Plan submitted on July 28, 1993 by Applied Remedial Services. This Work Plan is approved subject to the following conditions:

1) Three to five samples are to be collected after the soil is removed to verify that all PCB contamination greater than 1 mg/kg has been removed. The exact number and location will be determined in the field by your consultant in consultation with our office.

2) Disposal of the contaminated soil will be at an approved facility and documentation of proper disposal will be provided including, profiles and shipping manifests.

3) We are to be notified of the start of work as soon as it is scheduled but no later that 24 hours prior to the start of work.

Thank you for timely submittal of this Work Plan and please call me at (510) 271-4320 if you have any questions.

Sincerely,

Britt Johnson
Hazardous Materials Specialist

cc: Richard Hiett, Regional Water Quality Control Board
Michael Kara, Applied Remedial Services, 7940 Capwell Dr., Oakland CA 94621

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0411

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

July 21, 1993

Mr. Terry Knox
Pacific Electric Motor
1009 - 66th Avenue
Oakland, CA 94621

Re: PCB Contamination at 1009 - 66th Avenue, Oakland CA 94621

Dear Mr. Knox:

This is to confirm the understanding reached at our meeting of July 20, 1993. The near surface soil contaminated with PCB - 1260 will be removed from the Oakland Housing Authority property and properly disposed. Either one (1) "hydro-punch" or one (1) monitoring well will be installed in the area where the greatest PCB contamination was removed (in the Fall of 1992). The groundwater is to be analyzed for PCBs (Method 608) and TPH (to detect carrier oil in the PCBs). If the water sample(s) are "non-detect" or have contamination we consider insignificant no further sampling will be required.

After the removal of the soil we will require re-testing of the soil to verify the PCB levels are below 1.0 mg/kg. The locations to be re-tested are: SB-alley, SB-5 and SB-lawn. We also require that a work plan and acceptable documentation for all work and sampling be submitted to this office.

Once the above requirements are fulfilled the Alameda County Department of Environmental Health will provide a letter indicating that no further action will be required by this Department. This understanding is conditioned upon there having been no material misrepresentations made by you or your consultant(s) and is not for any other contamination (including PCB) which may exist on your facility that was not a part of this project.

Please contact me at (510) 271-4320 if you have any questions.

Sincerely,

Britt Johnson
Hazardous Materials Specialist

cc: Richard Hiett, Regional Water Quality Control Board
Ed Howell - files
Michael Kara, Applied Remedial Services, 7940 Capwell Dr., Oakland CA 94621

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

R0411

January 29, 1993

Mr. Terry Knox
Pacific Electric Motor
1009 - 66th Avenue
Oakland, CA 94621

Re: PCB Contamination at 1009 - 66th Avenue, Oakland CA 94621

Dear Mr. Knox:

We have reviewed the letter dated January 20, 1993, submitted by your consultant Michael Kara of Applied Remedial Services Inc. We concur with Mr. Kara's suggestion that we consider as separate issues the on-site and off-site contamination.

We believe that the on-site contamination issues that remain can be resolved through the installation of two monitoring wells and one piezometer (for the purpose of determining down gradient groundwater flow). We suggest that the two wells be installed along the eastern property line and the piezometer be installed west of these wells.

Please have your consultant prepare a Workplan detailing the specifics of the monitoring well installation and their location prior to undertaking this work.

Concerning the off-site investigation for the presence of PCBs in soil we suggest that samples be collected at two depths, the near surface - 2 to 4 inches below grade and the subsurface 10 to 12 inches below grade. We also suggest that there be a sampling point every 6 feet in a linear manner along east property line.

The off-site sampling should also be the subject on a Workplan submitted for our approval. The property owner, Oakland Housing Authority needs to be notified and involved in this process as well.

Please contact Britt Johnson at (510) 271-4320 if you have any questions.

Sincerely,

Britt Johnson
Hazardous Materials Specialist

Ravi Arulanantham, Ph.D.
Senior Hazardous Materials Specialist

cc: Richard Hiett, Regional Water Quality Control Board
Ed Howell - files
Michael Kara, Applied Remedial Services, 7940 Capwell Dr., Oakland CA 94621

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

R0411

September 24, 1992

Terry Knox
Pacific Electric Motor
1009 - 66th Avenue
Oakland, CA 94621

Re: Workplan to Remove PCB Contaminated Soils from 1009 - 66th Avenue, Oakland 94621

Dear Mr. Knox:

Britt Johnson, Hazardous Materials Specialist with our Division has reviewed the Workplan dated August 18, 1992, submitted by Applied Remedial Services Inc. This Workplan is approved subject to the following conditions:

1) A Health and Safety Plan must be submitted and approved by our Division prior to the start of site work. Please follow the attached guidelines which summarize the OSHA Health and Safety requirements.

3) A Deed Restriction suitable to the County must be prepared and recorded with the Alameda County Recorder. The Deed Restriction shall limit the use of the above referenced property to industrial purposes only. Any change from this use must be made subject to the approval of the County. (Note: This condition applies only if detectable (> 0.1 mg/kg) PCB contamination remains on site, or other site conditions warrant.)

4) Unless specifically waived by the San Francisco Bay Regional Water Quality Control Board (RWQCB) at least three (3) ground water monitoring wells must be installed in the area of the soil contamination. An additional Workplan for this work must be submitted to and approved by our Division.

If you have any questions concerning this matter please contact Britt Johnson at (510) 271-4320.

Sincerely,

Paul M. Smith

Paul M. Smith
Senior Hazardous Materials Specialist

Attachment
cc: Michael Kara, Applied Remedial Services
Rich Hiett, RWQCB
Ed Howell - files