

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



SENT  
9-10-06

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

September 19, 2006

Manwel and Samira Shuwayhat  
54 Wolfe Canyon Road  
Kentfield, CA 94904

Subject: Fuel Leak Case No. RO0000324, Livermore Gas and Mini-mart, 160 Holmes Street, Livermore, CA

Dear Mr. and Ms. Shuwayhat:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site and the documents entitled, "Work Plan for Source Area Investigation Report for Fuel Leak Case No. RO0000324," dated September 12, 2006, and "Third Quarter 2006 Groundwater Monitoring Report," dated August 30, 2006. The Work Plan proposes soil and groundwater sampling from 19 direct push borings at the site. In order to address the items discussed in the technical comments below, we request that you submit a revised Work Plan by **October 31, 2006**.

We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

**TECHNICAL COMMENTS**

1. **Proposed Boring Locations.** The proposed locations for the source area investigation boreholes are acceptable.
2. **Proposed Sample Collection.** We concur with the proposed continuous soil sample collection for logging and screening. Soil samples are to be submitted for laboratory analyses from all depths where staining, odor, or elevated photoionization readings are observed. If no staining, odor, or elevated photoionization readings are observed, we request that the soil samples collected from depths of 8, 24, and 28 feet bgs be analyzed from each soil boring regardless of screening results. We do not concur with the proposal to only analyze soil samples collected from depths of 24 and 28 feet bgs if elevated concentrations of petroleum hydrocarbons are detected in the soil sample collected at 20 feet bgs. This request is based upon review of data from previous soil borings, which indicate that results from the soil sample collected at 20 feet bgs may not provide an indication of soil contamination below 20 feet bgs. As shown on Table 1, TPHg was frequently not detected in soil samples collected from 20 feet bgs but was detected in the same boring in soil samples collected at depths of 24 and 28 feet bgs. As an example, the soil sample collected at 20 feet bgs from boring MB-3 did not contain detectable concentrations of TPHg but the soil sample collected from 28 feet bgs in boring MB-3 contained 1,400 milligrams per kilogram of TPHg.

3. **Proposed Laboratory Analyses for Soil and Groundwater Samples.** The proposed laboratory analyses for soil and groundwater samples are acceptable.
4. **Soil Vapor Sampling.** In order to help assess whether soil vapor extraction we request that one or more soil vapor samples be collected from each soil boring. The proposed depths of the soil vapor samples may be based upon results from continuous logging and screening. Please present plans for soil vapor sampling from each of the proposed soil borings in the revised Work Plan requested below.
5. **Grab Groundwater Sampling.** Please provide additional information in the revised Work Plan requested below on the depth interval and method for collection of a groundwater sample from each soil boring.
6. **Quarterly Monitoring.** Please continue the quarterly groundwater monitoring program for the site. Results from interim groundwater extraction are also to be reported in the quarterly monitoring reports requested below.

#### **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **October 31, 2006 – Revised Work Plan for Source Area Investigation**
- **45 days following the end of each quarter - Quarterly Monitoring Report**

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request. ACEH notes the discussion of UST Cleanup Fund cost pre-approval in your December 23, 2005 correspondence.

#### **ELECTRONIC SUBMITTAL OF REPORTS**

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed

locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/cleanup/electronic\\_reporting](http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting)).

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH 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.

#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an 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

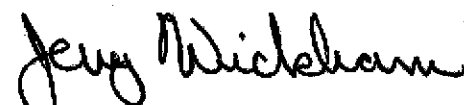
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

#### AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham  
Hazardous Materials Specialist

Manwel and Samira Shuwayhat  
September 19, 2006  
Page 4

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Colleen Winey, QIC 80201, Zone 7 Water Agency, 100 North Canyons Parkway  
Livermore, CA 94551

Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street  
Pleasanton, CA 94566

Sunil Ramdass, SWRCB Cleanup Fund, 1001 I Street, 17<sup>th</sup> floor, Sacramento, CA 95814-  
2828

James Allen, Allterra Environmental, Inc., 849 Almar Avenue, Suite C, No. 281  
Santa Cruz, CA 95060

Donna Drogos, ACEH  
Jerry Wickham, ACEH  
File

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



SENT  
04-03-06

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

April 3, 2006

Manwel and Samira Shuwayhat  
54 Wolfe Canyon Road  
Kentfield, CA 94904

Subject: Fuel Leak Case No. RO0000324, Livermore Gas and Mini-mart, 160 Holmes Street,  
Livermore, CA – Work Plan Addendum Approval

Dear Mr. and Ms. Shuwayhat:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site and the document entitled, "Addendum to the Interim Remediation Action Plan for Fuel Leak Case No. RO0000324," dated March 31, 2006. The addendum proposed modifications to the dual-phase extraction (DPE) testing for the site. DPE testing will be conducted using recently installed wells EW-1 and EW-2. We concur with the proposed modifications and request that you perform the proposed work, and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org)) prior to the start of field activities.

**TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **May 2, 2006** – Soil and Groundwater Investigation Report
- **June 9, 2006** – Results of DPE Pilot Test
- **August 15, 2006** - Quarterly Monitoring Report for the Second Quarter 2006

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request. ACEH notes the discussion of UST Cleanup Fund cost pre-approval in your December 23, 2005 correspondence.

**ELECTRONIC SUBMITTAL OF REPORTS**

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In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org).

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH 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.

#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an 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

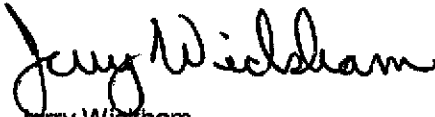
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

**AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham  
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Matt Katen, QIC 80201  
Zone 7 Water Agency  
100 North Canyons Parkway  
Livermore, CA 94551

Danielle Stefani  
Livermore-Pleasanton Fire Department  
3560 Nevada Street  
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James Allen  
Alterra Environmental, Inc.  
849 Almar Avenue, Suite C, No. 281  
Santa Cruz, CA 95060

Donna Drogos, ACEH  
Jerry Wickham, ACEH  
File

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



out  
12-29-05

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

December 28, 2005

Manwel and Samira Shuwayhat  
54 Wolfe Canyon Road  
Kentfield, CA 94904

Subject: Fuel Leak Case No. RO0000324, Livermore Gas and Mini-mart, 160 Holmes Street, Livermore, CA

Dear Mr. and Ms. Shuwayhat:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site and the correspondence entitled, "Response to Alameda County Environmental Health's Technical Comments Regarding Soil and Groundwater Investigation Activities for 160 Holmes Street, Livermore, California," dated December 23, 2005. The December 23, 2005 correspondence presents responses to technical comments contained in ACEH correspondence dated December 16, 2005. We concur with the proposed scope of work with the exceptions discussed in the technical comments below. Please implement the proposed field investigation provided that the modifications to the field investigation requested in the technical comments below are incorporated.

We request that you address the following technical comments, perform the proposed work, and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org)) prior to the start of field activities.

**TECHNICAL COMMENTS**

1. **Proposed Well Cluster MW-1 (ACEH Technical Comment 5).** The response to ACEH's technical comment on the proposed well cluster MW-1 proposes the collection of soil samples at 5-foot intervals from 50 feet below ground surface (bgs) to total boring depth to identify the top of the clay aquitard. This proposal is not acceptable because continuous sampling is needed to accurately locate the 5-foot long well screen within coarse-grained soils above the top of the clay aquitard. If samples are collected at five-foot intervals, the lack of information over the three or more foot interval between samples does not allow sufficient accuracy for well screen placement. In addition, continuous sampling is needed to confirm that the regional aquitard has been encountered rather than a thin fine-grained layer. Data from the continuously logged boring at MW-7 can be used to project where the top of the regional aquifer will be encountered at well cluster MW-1. We request that soils be continuously sampled and logged from a minimum of 10 feet above the projected top of the aquitard at well cluster MW-1 until the top of the aquitard is encountered and confirmed at the total depth of the boring.
2. **Evaluation of Well MW-5 (ACEH Technical Comment 6).** The response to ACEH's technical comment on the decommissioning of well MW-5 and the installation of well cluster MW-5 proposes the collection of soil samples at 5-foot intervals from ground surface to the



total depth of the boring during installation of well MW-5C. As discussed in comment 1 above, sampling and logging at 5-foot intervals is not sufficient to select the depth intervals for the proposed 5-foot long well screens. Continuous sampling and logging is required to accurately locate coarse-grained soils above the top of the clay aquitard for well installation. Soil samples may be collected at 5-foot intervals from ground surface to 40 feet bgs for logging purposes. However, continuous logging of the MW-5C boring from 40 feet bgs to the total depth of the boring is required to select the depth intervals where wells MW-5B and MW-5C will be installed.

### **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **February 15, 2006** – Quarterly Monitoring Report for the Fourth Quarter 2005
- **April 11, 2006** – Results of DPE Pilot Test
- **May 2, 2006** – Soil and Groundwater Investigation Report
- **May 15, 2006** - Quarterly Monitoring Report for the First Quarter 2006

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request. ACEH notes the discussion of UST Cleanup Fund cost pre-approval in your December 23, 2005 correspondence.

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In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org).

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#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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#### 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.

#### AGENCY OVERSIGHT

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If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham  
Hazardous Materials Specialist

Manwel and Samira Shuwayhat  
December 28, 2005  
Page 4

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Matt Katen, QIC 80201  
Zone 7 Water Agency  
100 North Canyons Parkway  
Livermore, CA 94551

Danielle Stefani  
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3560 Nevada Street  
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James Allen  
Allterra Environmental, Inc.  
849 Almar Avenue, Suite C, No. 281  
Santa Cruz, CA 95060

Donna Drogos, ACEH  
Jerry Wickham, ACEH  
File

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



SGWT  
12-19-05

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

December 16, 2005

Manwel and Samira Shuwayhat  
54 Wolfe Canyon Road  
Kentfield CA 94904

Subject: Fuel Leak Case No. RO0000324, Livermore Gas and Mini-mart, 160 Holmes Street, Livermore, CA

Dear Mr. and Ms. Shuwayhat:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site and the report entitled, "Preliminary Soil and Groundwater Data Submittal and Proposed Boring and Monitoring Well Locations," dated December 9, 2005 and prepared on your behalf by Allterra Environmental, Inc. The report presents preliminary results from direct push soil borings advanced at the site in November 2005. Based on these results, several hypotheses are discussed and field activities to address remaining data gaps for site characterization are proposed. In addition, the report also recommends conducting a pilot test to evaluate dual-phase extraction in the source area.

We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

**TECHNICAL COMMENTS**

- 1. Decreasing Concentrations with Depth.** The concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg) and methyl-tert butyl ether (MTBE) in groundwater generally decrease with depth as indicated by the depth-discrete data; however, the increasing concentration of tert-butyl alcohol with depth in boring MB-3 is notable.
- 2. Screen Intervals.** The December 9, 2005 report concludes that the screen intervals for monitoring wells MW-4, MW-5, and MW-6 (20 to 50 feet bgs) appear to be appropriately constructed and do not extend through multiple water-bearing zones. Although there does not appear to be a continuous aquiclude within the upper 50 feet, there is a potential for ambient flow in the wells to affect groundwater monitoring results. The depth-discrete groundwater sample results from boring MB-1 indicate large differences in chemical concentrations over the well screen interval from 20 to 50 feet bgs. MTBE was detected in groundwater at an estimated concentration of 100,000 micrograms per liter ( $\mu\text{g/L}$ ) at a depth of 28 feet bgs but was detected at a concentration of 1,500  $\mu\text{g/L}$  at a depth of 50 feet in boring MB-1. It is not known whether groundwater samples collected from monitoring wells MW-3, MW-4, and MW-5 are more representative of concentrations in the upper or lower portion of the 20 to 50-foot bgs interval or whether they represent an average over the entire interval. The large differences in groundwater concentrations over the 30-foot screen interval along with the potential for ambient flow limit the effectiveness of these wells to provide accurate monitoring results. Therefore, we request that wells MW-4 and MW-5 be

- decommissioned and replaced with wells that are of similar construction to that proposed for well MW-7A. Based on the grab groundwater sampling results directly upgradient of well MW-6 replacement of well MW-6 may not be necessary. Please install, develop, and sample the replacement wells for MW-4 and MW-5 and present the results in the Soil and Groundwater Investigation Report requested below.
3. **Depth of Regional Aquitard.** The report hypothesizes that Hydropunch borings may have encountered the top of a clay aquitard at a depth of 70 feet bgs. The report also indicates that this hypothesis will be tested during future drilling that includes advancement of a deep monitoring well. However, the proposed scope of work does not describe methods that would confirm the presence of a clay aquitard at approximately 70 feet bgs. Therefore, we have requested in comments 4 and 5 that borings be advanced to locate the aquitard.
  4. **Proposed Well Cluster MW-7.** ACEH concurs with the proposed installation of groundwater monitoring wells with depth-discrete screen intervals near boring MB-3 but requests further information regarding the stratigraphy at this location prior to installation of deeper wells. Boring MB-3 was only logged to a depth of 32 feet bgs. Prior to installation of wells MW-7B and MW-7C, we request that a boring be advanced and continuously sampled from the base of the logged interval at 32 feet bgs to the top of the clay aquitard. If the clay aquitard is encountered at a depth of 70 feet bgs and the interval from 65 to 70 feet bgs is a water-bearing layer, installation of well MW-7C with a screen zone from 65 to 70 feet bgs is acceptable. The screen interval should be adjusted as necessary to sample groundwater above the top of the clay aquitard. Installation of well MW-7B with a screen interval from 45 to 50 feet bgs is acceptable if the continuously sampled deep soil boring confirms that the well will be screened across coarse-grained soils that represent a water-bearing unit rather than an aquiclude. Please present the results in the Soil and Groundwater Investigation Report requested below.
  5. **Proposed Well Cluster MW-1.** Installation of proposed well MW-1B with a screen interval from 45 to 50 feet bgs is acceptable based on the boring log for MB-1 (logged to a depth of 50 feet bgs). Prior to installation of proposed well MW-1C, we request that a boring be advanced and continuously sampled from the base of the former logged interval at 50 feet bgs to the top of the clay aquitard. If the clay aquitard is encountered at a depth of 70 feet bgs and the interval from 65 to 70 feet bgs is a coarse-grained layer, installation of well MW-1C with a screen zone from 65 to 70 feet bgs is acceptable. The screen interval should be adjusted as necessary to sample groundwater above the top of the clay aquitard. Please present the results in the Soil and Groundwater Investigation Report requested below.
  6. **Evaluation of Well MW-5.** As previously discussed in comment 2, ACEH requests that well MW-5 be decommissioned and replaced with a well of similar construction (MW-5A) to that proposed for well MW-7A. Due to the elevated concentration of TBA detected in groundwater at 50 and 70 feet bgs in boring MB-3, we request that wells also be installed at deeper intervals (MW-5B and MW-5C), similar to the proposed MW-7 well cluster. Prior to installation of wells MW-5B and MW-5C, we request that a boring be advanced and continuously sampled to the top of the clay aquitard. If the clay aquitard is encountered at a depth of 70 feet bgs and the interval from 65 to 70 feet bgs is a water-bearing layer, installation of well MW-5C with a screen zone from 65 to 70 feet bgs is acceptable. The screen interval should be adjusted as necessary to sample groundwater above the top of the clay aquitard. Installation of well MW-5B with a screen interval from 45 to 50 feet bgs is

- acceptable if the continuously sampled deep soil boring confirms that the well will be screened across coarse-grained soils that represent a water-bearing unit rather than an aquiclude. Please present the results in the Soil and Groundwater Investigation Report requested below.
7. **Borings in Retail Area along Transect with Well MW-5.** The "Soil and Groundwater Investigation Work Plan," dated June 30, 2005 and the Revised Map received in response to ACEH comments on the Work Plan included proposed borings B-4 and DB-6 in addition to boring MB-5 in the retail area east of First Street. These borings were not advanced during the most recent phase of work and plans to advance the borings are not discussed in the report. Please complete these borings and present the results in the Soil and Groundwater Investigation Report requested below or provide correspondence describing the rationale as to why these borings are no longer needed prior to implementation of field activities.
  8. **Interim Remediation.** ACEH concurs with the proposed installation of two extraction wells and performance of dual-phase extraction (DPE) tests using the new wells. Please implement the DPE pilot test and present the results in the Pilot Test Report requested below.
  9. **Hypothesis 4 and Sampling Second Aquifer.** Allterra hypothesizes in the December 9, 2005 report that the hydrocarbon plume has not been impacted and recommends monitoring groundwater quality in the lower portion of aquifer 1. If groundwater monitoring results from well MW-7 confirm the detection of elevated TBA in grab groundwater sample MB-3-C, installation of a well in the second aquifer will be required. Based on groundwater sampling results from the wells installed at approximately 70 feet bgs, please present a recommendation in the Soil and Groundwater Investigation report requested below regarding the need for installation of a well in the second aquifer.
  10. **Groundwater Analyses.** In addition to the analyses conducted for groundwater samples during the previous phase of work, please include methanol and ethanol as analytes for groundwater samples collected during the proposed investigation and quarterly groundwater monitoring. Please continue quarterly groundwater monitoring and present your results in the quarterly monitoring reports requested below.

#### **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **February 15, 2006** – Quarterly Monitoring Report for the Fourth Quarter 2005
- **April 11, 2006** – Results of DPE Pilot Test
- **May 2, 2006** – Soil and Groundwater Investigation Report
- **May 15, 2006** - Quarterly Monitoring Report for the First Quarter 2006

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### ELECTRONIC SUBMITTAL OF REPORTS

Effective January 31, 2006, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/cleanup/electronic\\_reporting](http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting)).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org).

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH 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.

#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an 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**

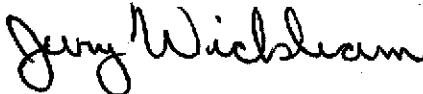
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

**AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham  
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Colleen Winey, QIC 80201  
Zone 7 Water Agency  
100 North Canyons Parkway  
Livermore, CA 94551

Danielle Stefani  
Livermore-Pleasanton Fire Department  
3560 Nevada Street  
Pleasanton, CA 94566

Nathaniel Allen  
Allterra Environmental, Inc.  
849 Almar Avenue, Suite C, No. 281  
Santa Cruz, CA 95060

Donna Drogos, ACEH  
Jerry Wickham, ACEH  
File



ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



SENT  
03-31-05

March 29, 2005

Manwell Shuwayhat  
Livermore Gas and Mini Mart  
160 Holmes St.  
Livermore, CA 94550

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

Subject: Fuel Leak Case No. RO0000324, Livermore Gas and Mini Mart, 160 Holmes St.  
Livermore, California – Workplan Request

Dear Mr. Shuwayhat:

Alameda County Environmental Health (ACEH) has reviewed the case file for the above-referenced site. ACEH is very concerned by the high methyl tert-butyl ether (MTBE) and petroleum hydrocarbon concentrations detected at your site. Your site overlies a sensitive drinking water aquifer, and public water well 3S/2E-08P01 (State Well No. 0110003-006, owned by the California Water Service, is located within 1,500 ft of the site, in the apparent downgradient direction. Groundwater monitoring performed on March 10, 2004, detected up to 260,000 ug/L MTBE, 72,000 ug/L TPHg, and 6,000 ug/L benzene in onsite well MW-1. Offsite monitoring well MW-5, screened from 20 to 50 ft bgs and located 220 ft northwest of the site, exhibited 1,100 ug/L MTBE and 57 ug/L TPHg on March 10, 2004. Up to 1,400 ug/L MTBE has been detected downgradient of your site and appears to be the result of your release. This letter presents a request for three-dimensional site characterization and interim cleanup of soil and groundwater contamination from the unauthorized release(s) at your site. Please review the following technical comments and submit the requested reports following the schedule below.

#### TECHNICAL COMMENTS

To date, limited progress has been made toward delineating or mitigating the petroleum hydrocarbon and MTBE release. The lateral and vertical extent of subsurface contamination is undefined. Furthermore, the site lithology and hydrogeology remain largely uncharacterized. Based on the location of your site in a sensitive use area, and on the persistently high MTBE concentrations in onsite and offsite monitoring wells, site characterization and active remediation appear necessary to protect groundwater resources and sensitive receptors. ACEH has the following requests.

##### 1) Hydrogeologic Characterization and Site Investigation

The data collected to date indicate that offsite contaminants have migrated to the northwest of your site, crossgradient to your consultant's calculated groundwater flow direction. In addition, MTBE concentrations have historically been higher in well MW-5 than in the more proximal well MW-4. These inconsistencies appear to suggest that multiple water bearing zones are present beneath the site and that the existing monitoring well array is insufficient. Because the screen intervals of the site monitoring wells range from 15 to 30 ft and span multiple water bearing zones, the calculated potentiometric surface elevation is suspect. Boring logs and driller's reports for the existing monitoring wells suggest that the site lithology is vertically heterogeneous. Supplemental hydrogeologic characterization is necessary, and groundwater monitoring is required in all identified water bearing zones at and downgradient from your site. We request that you 1) compile all existing hydrogeologic and contaminant concentration data,

2) identify data gaps, and 3) propose necessary additional sampling locations in the Soil and Water Investigation Workplan requested below. Specific issues to be addressed in your workplan include:

- A. Source Area - During UST removal activities in 1999, petroleum hydrocarbons and MTBE were detected beneath the east dispenser island and beneath the east end of the USTs. Soil sample MW-1-19, collected in the apparent downgradient direction from the dispenser islands contained 800 mg/kg TPHg and 21 mg/kg MTBE. Geo Environmental Technology's July 2003 Soil Vapor Extraction Feasibility Study failed to provide any cross-sections or other comprehensive depictions of the extent of soil and groundwater contamination. Additional investigation appears necessary. Please propose sufficient borings in appropriate locations to fully define the lateral and vertical extent of the source area.
- B. Downgradient Concentration Trends - MTBE at 1,100 ug/L was recently detected in downgradient monitoring well MW-5. The hydrogeology of your site and the downgradient area needs to be characterized, including identification of all potentially impacted water bearing zones. The downgradient extent of MTBE needs to be characterized in each identified zone. We recommend that you propose depth-discrete grab groundwater sampling to accomplish these objectives.
- C. Vertical Concentration Trends - Contamination has been reported in the gravels encountered at greater than 30 ft bgs in wells MW-4 through MW-6 and in well EX-1. Deeper hydrogeology beneath the site needs to be assessed. The vertical extent of contamination needs to be characterized and monitored. We recommend that you propose depth-discrete grab groundwater sampling to accomplish these objectives.
- D. Monitoring Wells - Your current monitoring wells appear to inappropriately screen multiple water-bearing zones. At your site, we require multi-level groundwater monitoring. Monitoring devices, such as well clusters or multi-level wells are recommended. We recommend that you install at least some of the replacement monitoring wells as part of your efforts to define source area, vertical and downgradient contaminant concentrations. Evaluation of horizontal and vertical hydraulic gradients from the initial replacement wells may be used to guide your downgradient and vertical grab groundwater sampling. We recommend that you site and determine appropriate screen intervals for the remainder of your future monitoring wells based on the results of a grab sampling investigation.
- E. Hydraulic Conditions - As part of your assessment of the site, we require that you determine groundwater flow gradients within and between identified water bearing zones. We are concerned that past evaluations of horizontal groundwater flow may have relied on faulty data from inappropriately screened monitoring wells. To date, no evaluation of vertical gradients has been performed.
- F. Report - Your report needs to include an update of the Site Conceptual Model outlined under Comment #6, below.

We request that you immediately pursue any off site access agreements or encroachment permits that you may need to complete your investigation activities. Further, we request that you send us a list of all likely offsite property owners from whom an access agreement may be necessary following the schedule noted below. As necessary, ACEH will send an access request letter to owners of the properties where you propose to perform investigation activities.

We also recommend that your investigation incorporate expedited site assessment techniques. 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), March 1997; ASTM E 1912-98 *Standard Guide for Accelerated Site Characterization for Confirmed or Suspected Petroleum Releases*; and ITRC *Technical and Regulatory Guidance for the Triad Approach: A New Paradigm for Environmental Project Management*, December 2003.

## 2) Conduit Study

We request that you perform a conduit study that details the potential migration pathways and potential conduits (wells, utilities, pipelines, etc.) for horizontal and vertical migration that may be present in the vicinity of the site. The purpose of the conduit study is to locate and determine the probability of the dissolved plume encountering preferential pathways and conduits that could spread contamination. Of particular concern is the identification of abandoned wells and improperly destroyed wells that can act as vertical conduits to deeper water bearing zones in the vicinity of your site. Discuss your analysis and interpretation of the results of the conduit study and report your results in the Soil and Water Investigation Workplan requested below.

- A. Well Survey - ACEH requests that you locate all wells (monitoring and production wells: active, inactive, standby, decommissioned, abandoned and dewatering, drainage and cathodic protection wells) within 2,000 ft of the subject site. We recommend that you obtain well information from both Zone 7 Water Agency and the State of California Department of Water Resources, at a minimum. 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, which can act as pathways for migration of contamination at and/or from your site. Please review historical sources such as Sanborn maps, aerial photos, etc., when performing the background study. Include appropriate photographic prints, in stereo pairs, of historic aerial photos used as part of your study. We also request that you list by date all aerial photographs available for the site from the aerial survey company or library you use during your study. Please refer to the Regional Board's guidance for identification, location, and evaluation of potential deep well conduits (Attachment A) when conducting your preferential pathway study.
- B. Utility Survey - An evaluation of all utility lines and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site and plume area is required as part of your study. Your conduit study needs to contain all information required by 23 CCR 2654(b).
- C. Report - Submittal of map(s) and cross-section(s) showing the study area and the horizontal and vertical locations of all wells, utility lines and trenches identified in your study, and the use of tables to report the data collected as part of your survey are required. Include an evaluation of the probability of the dissolved phase plumes for all constituents of concern encountering preferential pathways and conduits that could spread the contamination, particularly in the vertical direction, to deeper drinking water aquifers.

### 3) Evaluation of Potential Impacts to Water Supply Wells

Please perform an analysis to determine if your plume is within the capture zone of any water supply wells in the area. In performing your analysis consider the regional stratigraphy, water supply well construction and pumping rate over time, groundwater recharge, etc. Please refer to the following documents during your analysis: US Environmental Protection Agency, "State Methods for Delineating Source Water Protection Areas for Surface Water Supplied Sources of Drinking Water," EPA 816-R-97-008, August 1997; US Environmental Protection Agency, "State Source Water Assessment and Protection Programs Guidance," Final Guidance, Office of Water, EPA 816-R-97-009, August 1997; and California Department of Health Services, Drinking Water Source Assessment and Protection (DWSAP) Program Document, January 1999.

We request that you make a preliminary estimate of the mass discharge of contaminants of concern emanating from your site. Mass discharge estimates can, in some cases, be used to predict potential impacts of dissolved contaminants to water supply wells. We recommend that you refer to the following document during your calculations: ChevronTexaco, "Mass Flux Estimates to Assist Decision-Making, Technical Bulletin," June 2002, included as Attachment B. We recognize that this estimate may need to be refined in the future as additional data are collected. Report the results of your evaluation in the Soil and Groundwater Assessment Workplan requested below.

### 4) Interim Remedial Action

ACEH requests that you initiate interim remediation at your site. The purpose of migration control is to prevent continued creation of a dissolved contaminant plume. Due to the high levels of petroleum hydrocarbons and oxygenates detected at your site, the large volume of groundwater contaminated by your site, and the presence of a water supply well immediately downgradient of your plumes, we request that you immediately implement migration control. GET's December 2002 *Pump Test* report stated "a small scale, low intensity, interim source removal system may be utilized." Please outline your proposal for migration control in the Interim Remediation Workplan requested below. We request that you collect sufficient hydraulic and concentration data during interim remediation to evaluate and clearly understand subsurface conditions, evaluate plume control efficacy, and document mass removal. Please document migration control progress in the Monthly Reports requested below. Please note that additional remediation of the distal end of your plume will be required in the future.

### 5) Destroy Inappropriately Screened Monitoring Wells

All existing monitoring wells appear to be screened across multiple water bearing zones and may act as conduits for vertical migration of contaminants. We request that you further evaluate this potential risk and destroy any wells that may act as vertical conduits for contaminant migration. Please propose the necessary well destructions in the Soil and Water Investigation Workplan requested below.

### 6) 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 downgradient 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 is no longer likely to change 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.

Technical guidance for developing SCMs is presented in *Strategies for Characterizing Subsurface Releases of Gasoline Containing MTBE*, American Petroleum Institute Publication No. 4699, dated February 2000; "Expedited Site Assessment Tools for Underground Storage Tank Sites: A Guide for Regulators" (EPA 510-B-97-001), prepared by the U.S. Environmental Protection Agency (EPA), dated March 1997; 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 is to incorporate, but not be limited to, the following:

- A. A concise narrative discussion of the regional geologic and hydrogeologic setting. Include a list of technical references you reviewed.
- B. A concise discussion of the on-site and off-site geology, hydrogeology, release source and history, secondary source areas, remediation status, risk assessment, plume migration, attenuation mechanisms, preferential pathways, and potential threat to downgradient receptors. The SCM shall include an analysis of the hydraulic flow system at and downgradient from the site, including potential vertical hydraulic gradients.
- C. Local and regional maps showing location of sources, extent of soil and groundwater contamination for appropriate depth intervals (i.e., an interpretive drawings and isoconcentration maps—not a plot of laboratory results), rose diagram of recent and historical groundwater gradients, and locations of receptors. "Receptors" include, but are not limited to, all supply wells and surface water bodies within 2,000 feet of the source area, and all potentially impacted schools, hospitals, daycare facilities, residences, and other areas of heightened concern for vapor impact.
- D. Geologic cross-sections (parallel and perpendicular to the contaminant plume axis) which include subsurface geologic features, depth to groundwater, man-made conduits, soil boring and sampling locations, monitoring well construction, and an interpretive drawing of the vertical extent of soil and groundwater contamination (i.e., an interpretive drawing—not a plot of laboratory results).
- E. 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.
- F. Exposure evaluation flowchart (similar to Figure 2 in ASTM's *Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites*) and/or a graphical SCM (similar to Figure 1 in the Central Valley Regional Water Quality Control Board's *Appendix A – Reports, Tri - Regional Board Staff Recommendations For Preliminary Investigation And Evaluation Of Underground Tank Sites*, 16 April 2004).

- G. Plots of chemical concentrations vs. time and vs. distance from the source. Plots should be shown for each monitoring well which has had detectable levels of contaminants.
- H. Summary tables of chemical concentrations in each historically sampled media (including soil, groundwater and soil vapor).
- I. Boring and well logs (including construction/screening), and a summary table indicating construction specifications for each monitoring and extraction well.
- J. Identification and listing of specific data gaps that require further investigation during subsequent phases of work.
- K. Proposed activities to investigate and fill data gaps identified above.

#### 7) Quarterly Groundwater Monitoring

Monitoring of all wells associated with your site on a quarterly basis is required. We request that you analyze groundwater samples from all monitoring wells for TPHg, BTEX, fuel oxygenates (MTBE, TAME, ETBE, DIPE, TBA, EtOH), and additives (EDB, and 1,2-DCA). Quarterly status reports (required under 23 CCR §2652(d)) are to include the following minimum information:

- A. A description of the groundwater sampling event, including field logs. Field logs shall contain depth to water, method of purging, water quality parameters, volume of water purged, site conditions, and any changes noted in the condition of the well and/or water quality data.
- B. A table(s) listing all monitoring well details including: well number, date installed, casing diameter, casing material, slot size, surveyed elevation, reference elevation, screen interval, filter pack interval, and aquifer zone.
- C. Cumulative data tables containing all soil and groundwater analytical results, reporting limits, depth to groundwater, groundwater elevations and Analytical Laboratory.
- D. Groundwater elevation maps for appropriate water bearing units, as applicable. If the site is in remediation with groundwater pump and treat operations, define the zone of capture for any extraction well(s) on the contour map.
- E. A groundwater flow diagram showing historical flow directions and gradients (Rose Diagrams).
- F. Isoconcentration contour maps for petroleum products and constituents in appropriate water bearing units, as applicable.
- G. A copy of the laboratory analytical data report.
- H. Status and timelines of investigation and cleanup activities including the results of all investigations implemented or proposed to date.
- I. If applicable, the status of any ongoing remediation, including operational data on the mass of contaminant removed from the subsurface, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system.
- J. Method of disposal of any contaminated soil or water, and manifests for transport of all hazardous substances.

- K. Applicable conclusions and recommendations. For example, if the existing monitoring well network does not define the lateral and vertical extent of groundwater degradation, the discharger is to submit a proposal and workplan to complete additional work as needed to define the extent. We request that Quarterly Reports contain a discussion of the results of your plume monitoring, in particular whether the results are consistent with the SCM. Be sure to point out any anomalies in the data, and include recommended activities to investigate and resolve those data anomalies.

## **REPORT REQUESTS**

Please submit technical reports to Alameda County Environmental Health according to the following schedule:

- June 30, 2005 – Soil and Water Investigation Workplan
- July 30, 2005 – List of off-site property owners for access request
- 90 days after Workplan Approval – Soil and Water Investigation Report
- August 15, 2005 – Interim Remedial Action Plan
- 90 days after Interim Remediation Workplan Approval – Interim Remediation Startup Report
- End of First Month of Each Quarter - Quarterly Monitoring Report covering the previous quarter's groundwater monitoring

ACEH makes this request pursuant to California Health & Safety Code Section 25296.10. 23 CCR sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to a reportable unauthorized release from a petroleum UST system, and require your compliance with this request.

### Professional Certification and Conclusions/Recommendations

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that workplans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an 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.

### Perjury Statement

All workplans, technical reports, or technical documents submitted to ACEH 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.

## **GEOTRACKER ELECTRONIC SUBMITTALS**

Our review of the State Water Resources Control Board's (SWRCB) GeoTracker website indicates that you have not uploaded electronic copies of all required analytical data to the State database. Pursuant to 23 CCR 2729 and 2729.1, beginning September 1, 2001, all analytical data (soil, groundwater and soil vapor) submitted in a report to a regulatory agency as part of the LUFT program, must be transmitted electronically to the SWRCB Geographic Information Management System database ("GeoTracker") system. Further, beginning January 1, 2002, the locations and elevations (top of casing) of all monitoring wells must be surveyed and uploaded to the GeoTracker database. Elevation must be surveyed to mean sea level, and latitude and longitude must be accurate to within one meter, using NAD 83. In order to remain in regulatory compliance, please upload all analytical data (collected on or after September 1, 2001), to the GeoTracker database and submit verification to ACEH by June 30, 2005.

## **UNDERGROUND STORAGE TANK CLEANUP FUND**

Please note that delays in investigation, late reports or enforcement actions by ACEH may result in your becoming ineligible to receive cleanup cost reimbursement from the State's Underground Storage Tank Cleanup Fund (senate Bill 2004).

## **AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested we will consider referring your case to the County District Attorney or other appropriate agency, for enforcement. California Health and Safety Code, Section 25299.76 authorizes ACEH enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Please call me at (510) 567-6719 or contact me via email at [robert.schultz@acgov.org](mailto:robert.schultz@acgov.org) with any questions regarding this case.

Sincerely,



Robert W. Schultz, P.G.  
Hazardous Materials Specialist

Attachments: A, B

cc: Manwell Shuwayhat, 202 S. Main St., Ripon, CA 95366 (w/enc)  
Matt Katen, Zone 7 Water District, QIC 80201 (w/o enc)  
Donna Drogos, ACEH (w/o enc)



ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



*out  
8-22-05*

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

August 19, 2005

Manwel and Samira Shuwayhat  
54 Wolfe Canyon Road  
Kentfield CA 94904

Subject: Fuel Leak Case No. RO0000324, Livermore Gas and Mini-mart, 160 Holmes Street, Livermore, CA – Work Plan Approval

Dear Mr. and Ms. Shuwayhat:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site, a Soil and Groundwater Investigation Work Plan, dated June 30, 2005, and an Interim Remedial Action Plan, dated August 10, 2005. The work plans were prepared on your behalf by Allterra Environmental, Inc. The Soil and Groundwater Investigation Work Plan describes a scope of work to characterize the on-site and off-site extent of petroleum hydrocarbons, destroy existing monitoring wells with screen intervals that connect separate water-bearing zones, reinstall groundwater monitoring wells with appropriate screen intervals, and perform a conduit study. ACEH concurs with the Soil and Groundwater Investigation Work Plan provided that the technical comments below are addressed. The technical comments request that a revised boring location map be submitted prior to implementation of the proposed soil and groundwater investigation.

The Interim Remedial Action Plan proposes to conduct a dual phase extraction (DPE) pilot test in well MW-1. ACEH concurs with the proposal to conduct a DPE pilot test in well MW-1 prior to conducting the soil and groundwater investigation.

ACEH requests that you address the following technical comments, perform the proposed work, and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to [jerry.wickham@accgov.org](mailto:jerry.wickham@accgov.org)) prior to the start of field activities.

**TECHNICAL COMMENTS**

- 1. Soil Borings.** The Soil and Groundwater Investigation Work Plan proposes the use of three sampling strategies for soil borings: "standard," "continuous-core," and "multi-point" soil borings. The use of "standard borings" to investigate vadose zone contamination within the source area and the proposed on-site boring locations are acceptable. The purpose of the "continuous-core" soil borings in the downgradient location is not clear. ACEH requests that the proposed downgradient borings be "multi-point" soil borings located within transects that are approximately perpendicular to the estimated direction of groundwater flow in order to define both the lateral and vertical extent of contamination along the groundwater flow path. Each transect is to consist of a minimum of three borings. Please submit a revised boring location map for ACEH approval prior to field activities.

2. **Soil Samples.** The Soil and Groundwater Investigation Work Plan indicates that soil samples may be collected at 4', 8', and 12' from the "standard soil borings." Soil samples in the "standard" borings are to be collected down to first-encountered groundwater and at all depths where staining, odor, or elevated photoionization readings are observed. Since the depth to groundwater in well MW-1 was more than 18 feet during the May 2005 monitoring event, soil samples for laboratory analyses will be required at depths greater than 12 feet below ground surface. For the "continuous-core" and "multi-point" soil borings, soil samples are to be collected for laboratory analyses at all depths where staining, odor, or elevated photoionization readings are observed.
3. **Backfilling of Soil Borings.** All borings are to be backfilled from the bottom up with a neat cement and bentonite mixture.
4. **Groundwater Samples.** The proposed depth-discrete groundwater samples are to be collected using methods, such as a "dual-tube" sampling system, that prevent downhole contamination of the lower groundwater samples by groundwater from shallower intervals.
5. **Well EX-1.** Well EX-1 is within the source area and has a filter pack that extends from approximately 29 to 55 feet bgs. The well is reported to be screened in permeable sands and gravels. However, the well is six inches in diameter but yielded only 30 gallons of water during a 30 minute pumping test. A "multi-point" soil boring is currently proposed immediately adjacent to existing extraction well EX-1. If the "multi-point" soil boring indicates that the filter pack and screen interval for well EX-1 connects separate water-bearing zones, ACEH requests that well EW-1 be destroyed. As discussed in the Interim Remediation Action Plan, well EX-1 should not be used for interim remediation.
6. **Monitoring Well Destruction.** ACEH concurs with the plan to destroy existing monitoring wells MW-4 through MW-6 because these wells appear to be screened across separate water-bearing layers. Please evaluate further the need to destroy existing monitoring wells MW-1 through MW-3 based upon the results of soil borings to be completed in the area of wells MW-1 through MW-3.
7. **Monitoring Well Installation.** ACEH concurs with the proposed installation of multiple chamber monitoring wells. As discussed in the Soil and Groundwater Investigation Work Plan, optimal locations for the monitoring wells are to be selected based upon the soil boring results.
8. **Laboratory Analyses.** Soil and groundwater samples are to be analyzed for TPHg, TPHd, BTEX, fuel oxygenates (MTBE, TAME, ETBE, DIPE, TBA, EtOH), and additives (EDB and 1,2-DCA).
9. **Site Conceptual Model.** As discussed during the August 11, 2005 meeting between Donna Drogos and Jerry Wickham of ACEH and Greg Nolen and Michael Killoran of Allterra, ACEH encourages application of an electronic site conceptual model format for reporting. The use of this format, which was provided on CD to Allterra Environmental, Inc., during the August 11, 2005 meeting, is encouraged but not mandatory.

10. **Incorporation of Results from Nearby Sites.** Please incorporate results from investigations conducted at nearby sites into the characterization for 160 Holmes, as appropriate.
11. **Technical References.** The Soil and Groundwater Investigation Work Plan incorporates several elements of interactive and expedited site assessments. ACEH encourages the use of interactive and expedited site assessment methods. We suggest the following documents be consulted as technical references: 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), March 1997; ASTM E 1912-98 *Standard Guide for Accelerated Site Characterization for Confirmed or Suspected Petroleum Releases*; ITRC *Technical and Regulatory Guidance for the Triad Approach: A New Paradigm for Environmental Project Management*, December 2003; and *A Guideline for Dynamic Workplan and Field Analytics: The Key to Cost-Effective Site Characterization and Cleanup* (Robbat 1997).

#### **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **October 25, 2005** - Quarterly Report for the Third Quarter 2005
- **December 21, 2005** - Soil and Groundwater Investigation Report
- **February 28, 2006** - Quarterly Report for the Fourth Quarter 2005

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### **ELECTRONIC SUBMITTAL OF REPORTS**

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) now request submission of reports in electronic form. The electronic copy is intended to replace the need for a paper copy and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all reports is required in Geotracker (in PDF format). Please visit the State Water Resources Control Board for more information on these requirements ([http://www.swrcb.ca.gov/ust/cleanup/electronic\\_reporting](http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting)).

**PERJURY STATEMENT**

All work plans, technical reports, or technical documents submitted to ACEH 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.

**PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS**

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an 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.

**AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham  
Hazardous Materials Specialist

Manwel and Samira Shuwayhat  
August 19, 2005  
Page 5

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Colleen Winey, QIC 80201  
Zone 7 Water Agency  
100 North Canyons Parkway  
Livermore, CA 94551

Danielle Stefani  
Livermore-Pleasanton Fire Department  
3560 Nevada Street  
Pleasanton, CA 94566

Greg Nolen  
Allterra Environmental, Inc.  
849 Almar Avenue, Suite C, No. 281  
Santa Cruz, CA 95060

Donna Drogos, ACEH  
Jerry Wickham, ACEH

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



07-18-02

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

July 17, 2002

Mr. Reed Rinehart  
Rinehart Distribution, Inc.  
P.O. Box 725  
Ukiah, CA 95482

Dear Mr. Rinehart:

Subject: Fuel Leak Site No. RO0000234, Oakland Truck Stop, 1107 5<sup>th</sup> St., Oakland 94607

Alameda County Environmental Health, Local Oversight Program (LOP), has received and reviewed the June 28, 2002 Subsurface Conduit Investigation Work Plan prepared by W. A. Craig, Inc., your consultant. The work plan identifies the sanitary sewer line adjacent to this site as the most likely impacted utility based upon its depth and location. As part of characterizing the extent of the petroleum release from the underground tanks at this site, it is necessary to determine if the nearby utilities act as conduits for contaminant migration. This work plan, on Figure 2, indicates eight borings adjacent to the sanitary sewer line. Both soil and groundwater samples would be collected for chemical analysis. The work plan states that up to six borings will be advanced, however, it appears that the actual number of borings could be up to eight. The work plan is approved, with the condition that one of the borings be advanced near the corner of Adeline and 5<sup>th</sup> Streets. This would indicate the probability of contamination migrating down Adeline St. instead of Chestnut St. One of the borings along Chestnut St. could be exchanged for this boring without loss of information and without increasing the number of borings. I understand that this work is scheduled for July 18, 2002.

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. T. Cook, W. A. Craig, Inc., 6940 Tremont Rd., Dixon, CA 95620-9603

Conduitswp1107 5thSt

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



02-2502

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

RO0000324

February 22, 2002

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
160 Holmes Street  
Livermore, CA 94550

RE: **Aquifer Pump Test and MTBE Treatment Study for 160 Holmes Street, Livermore, CA**

Dear Mr. Shuwyahat:

I have completed review of Geo Environmental Technologies' (GET) February 2002 *Offsite Assessment and Installation of Groundwater Monitoring Wells* report prepared for the above referenced site. Three off-site groundwater monitoring wells and one on-site extraction well were installed. Surprisingly, groundwater from the new off-site wells did not contain TPHg, BTEX and MTBE at the magnitude expected. Rather, low levels were detected. The on-site extraction well contained 13,000ppb TPHg, 180ppb benzene and 2,200ppb MTBE. On-site wells MW-1 through MW-3 were not monitored since they remain dry.

GET recommended to proceed with an aquifer pump test and MTBE treatment study. GET also recommended to perform a soil vapor extraction test, while the shallow wells remain dry. This office concurs with the recommendations. The aquifer pump test and soil vapor test and MTBE treatment study should be commence within 60 days of the date of this letter, or by April 25, 2002.

If you have any questions, I can be reached at (510) 567-6762.

A handwritten signature in black ink, appearing to read 'eva chu'.

eva chu  
Hazardous Materials Specialist

email: Costas Orountiotis  
Danielle Stefani

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



9-27-01

RO0000324

Mr. Manwel Shuwyahat  
Livermore Gas and Mini Mart  
160 Holmes Street  
Livermore, CA 94550

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

**RE: Workplan Approval for 160 Holmes Street, Livermore, CA**

Dear Mr. Shuwyahat:

I have completed review of Geo Environmental Technologies' (GET) August 2001 *Workplan: Additional Investigation Extraction Well Installation*, a report prepared for the above referenced site. GET's proposal to install offsite groundwater monitoring wells and an onsite groundwater extraction well is acceptable. The offsite wells will help to delineate the extent of the contaminant plume. The extraction well will be used to perform an aquifer pump test and MTBE treatment study.

Be advised that as of January 2002, all monitoring wells need to be surveyed using latitude/longitude coordinants to sub-meter accuracy. In addition, all future laboratory analytical results need to be filed electronically with the State Water Resources Control Board. A hard copy of the lab results is still required by this office.

Field work should commence within 60 days of the date of this letter, or by **November 28, 2001**. Please provide at least 72 hours advance notice of field activities. If you have any questions, I can be reached at (510) 567-6762.

eva chu  
Hazardous Materials Specialist

email: Costas Orountiotis



ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



05-31-01

RO0000324

May 30, 2001

Mr. Manwel Shuwyahat  
Livermore Gas and Mini mart  
160 Holmes Street  
Livermore, CA 94550

RE: Workplan for 160 Holmes Street, Livermore, CA

Dear Mr. Shuwyahat:

I have completed review of Geo Environmental Technologies' (GET) May 2001 *Downgradient Investigation of Groundwater* report prepared for the above referenced site. Two onsite and three offsite borings were advanced to delineate the lateral extent of groundwater contamination. Based on the results of this investigation, GET recommended the installation of permanent offsite groundwater monitoring wells and one onsite extraction well.

GET's recommendations are appropriate at this time. Please provide a workplan for the installation of permanent groundwater monitoring wells. The workplan is due within 45 days of the date of this letter, or by **July 17, 2001**. If you have any questions, I can be reached at (510) 567-6762.

eva chu  
Hazardous Materials Specialist

email: Costas Orountiotis

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

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



01-29-01

20324

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

StID 4130

January 26, 2001

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
160 Holmes Street  
Livermore, CA 94550

**RE: Workplan Approval for 160 Holmes Street, Livermore, CA**

Dear Mr. Shuwayhat:

I have completed review of GET's January 22, 2001 *Workplan - Offsite Soil and Groundwater Investigation*, prepared for the above referenced site. GET proposed to advance seven to nine borings using direct push technology. Three of the borings are proposed on-site. Three or more borings are proposed off-site.

Upon review of the location of the proposed borings, I do not believe that proposed Boring B1 and B3 are necessary. Rather, I would like to see additional borings advanced further west/northwest of proposed Boring BZ and BY. It is hoped that these additional borings will help to delineate the extent of the MTBE plume and to help site permanent groundwater monitoring wells. It is also recommended that multiple depth discrete groundwater samples be collected from proposed Boring B5, B6, and BY.

The workplan is acceptable with the above recommended changes/additions. I understand that field work is scheduled for February 1, 2001. If the work schedule changes, please provide an update to this office. If you have any questions, I can be reached at (510) 567-6762.

A handwritten signature in black ink, appearing to read 'eva chu', written in a cursive style.

eva chu  
Hazardous Materials Specialist

email: Costas Orountiotis ([coetice@hotmail.com](mailto:coetice@hotmail.com))  
Danielle Stefani ([dstefani@lpfire.org](mailto:dstefani@lpfire.org))  
Matt Katen, Zone 7 (QIC 80201)

holmes7



01-17-01

20324

StID 4130

January 17, 2001

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
160 Holmes Street  
Livermore, CA 94550

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

### SECOND NOTICE OF VIOLATION

Dear Mr. Shuwayhat:

On October 16, 2000, the Alameda County Department of Environmental Health, Hazardous Materials Division, sent you a letter requesting a technical report for expedited site assessment to determine the extent of soil and water contamination on- and offsite due to the unauthorized release of fuel products at **160 Holmes Street, Livermore, CA**. As of the date of this letter, however, we have not received the required workplan. Therefore, this letter constitutes a **Second Notice** that you are in violation of specific laws and that the technical report is due.

According to Section 25298 of the California Health and Safety Code, underground storage tank closure is incomplete until the responsible party characterizes and remediates the contamination resulting from product discharge. Therefore, you, as the responsible party, are in violation of this section of the Code, for which Section 25299 specifies civil penalties of up to \$5,000, for each day of violation. Also, failure to furnish technical reports regarding documented or potential groundwater contamination violates Section 13267(b) of the California Water Code.

You are required to submit the technical report for the site to this office **within 15 days** from the date of this letter. Modification of required tasks or extensions of stated deadlines must be confirmed in writing by this agency.

Be advised that failure to be in compliance with corrective action directives may jeopardize your eligibility to remain in the UST Cleanup Fund. If you have any questions, I can be reached at (510) 567-6762.

eva chu  
Hazardous Materials Specialist

email: Costas Orountiotis ([coetic@hotmail.com](mailto:coetic@hotmail.com))

Danielle Stefani ([dstefani@lpfire.org](mailto:dstefani@lpfire.org))

Matt Katen, Zone 7 (QIC 80201)

Chuck Headlee ([cth@rb2.swrcb.ca.gov](mailto:cth@rb2.swrcb.ca.gov))

holmes6

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



10-17-00

RO# 324

StID 4130

October 16, 2000

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
160 Holmes Street  
Livermore, CA 94550

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

**RE: Expedited Site Assessment Work Plan for 160 Holmes Street, Livermore, CA**

Dear Mr. Shuwayhat:

I have completed review of ETIC's September 2000 *Preliminary Site Assessment* report prepared for the above referenced site. That report summarized findings during the installation and sampling of three groundwater monitoring wells at the site. Groundwater analytical results identified up to 170,000ppb TPHg, 57,000ppb TPHd, 6,400ppb benzene, and 320,000ppb MTBE in Well MW-1.

Clearly, there has been a fuel release at the site that could potentially impact water supply wells in the Livermore Valley. A California Water Services well is located approximately 1,000 feet downgradient of the site. For this reason, the cleanup priority determined for the site is Class A, a high priority case. In other words, expedited site assessment (ESA) should be conducted at the site. A workplan for continued site assessment on- and off-site is due within 45 days of the date of this letter, or by **December 1, 2000**. A flowchart depicting the EAS process is enclosed. The outcome of the ESA should demonstrate an understanding of the 3-dimensional distribution of contamination, define the geological/hydrogeological site conditions, and identify migration pathways and points of exposure. With this information, an appropriate corrective and/or remedial action plan can be prepared for the site.

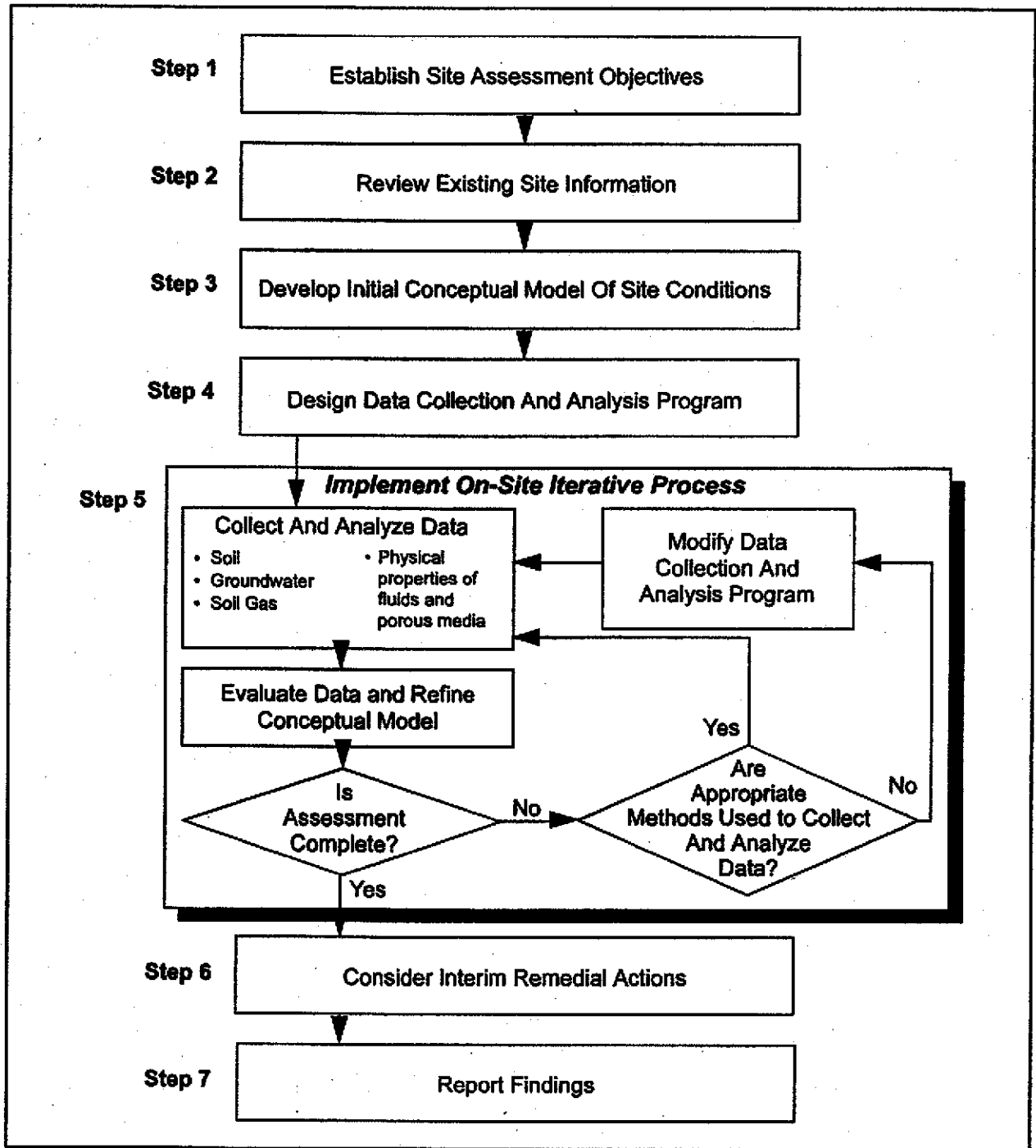
If you have any questions, I can be reached at (510) 567-6762.

eva chu  
Hazardous Materials Specialist

c: Shari Knieriem, UST Cleanup Fund (w/o)  
Matt Katen, Zone 7 (QIC 80201) (w/o)  
Sam Palermo, CWS, 195 South N Street, Livermore, CA 94550 (w/o)  
Chuck Headlee, SF-RWQCB (w/o)  
Danielle Stefani, Livermore-Pleasanton Fire Department (w/o)  
Costas Orountiotis, ETIC, 3275 Stevens Creek Blvd, #315, San Jose, CA 95117

holmes5

**Exhibit II-2  
Expedited Site Assessment Process**



Source: Modified from ASTM, 1995c.

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



FEB 08 2000  
cc's

20324

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

StID 4130

February 8, 2000

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
54 Wolfe Canyon Road  
Kentfield, CA 94904

**RE: Work Plan Approval for 160 Holmes Street, Livermore, CA**

Dear Mr. Shuwayhat:

I have completed review of ETIC's January 2000 *Workplan for PSA* prepared for the above referenced site. The proposal to install three groundwater monitoring wells is acceptable with the following changes/additions:

- A ten foot perforated screen length is proposed for each well. This office recommends that ten feet of screen length below and five feet of screen length above the water table surface be installed to accommodate seasonal groundwater fluctuation.
- Each boring should be properly logged.
- Groundwater monitoring wells should be surveyed to an established benchmark to 0.01 foot.
- Each well should be properly developed 72 hours prior to initial sampling.

The work plan should be implemented within 60 days of the date of this letter. Please notify this office at least 72 hours prior to the start of field work. If you have any questions, I can be reached at (510) 567-6762.

eva chu  
Hazardous Materials Specialist

email: Costas Orountiotis ([coetic@hotmail.com](mailto:coetic@hotmail.com))  
Shari Knieriem ([sknierie@cwpswrcb.ca.gov](mailto:sknierie@cwpswrcb.ca.gov))

holmes4

Sent 11-29-99

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY  
DAVID J. KEARS, Agency Director

20324

StID 4130

November 24, 1999

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
54 Wolfe Canyon road  
Kentfield, CA 94904

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

**SECOND NOTICE OF VIOLATION**

Dear Mr. Shuwayhat:

On July 26, 1999, the Alameda County Department of Environmental Health, Hazardous Materials Division, sent you a letter requesting a workplan detailing the work to be performed to determine the extent of soil and groundwater contamination at **160 Holmes Street, Livermore, CA**. As of the date of this letter, however, we have not received any communication from you on this matter. Therefore, this letter constitutes a **Second Notice** that you are in violation of specific laws and that the technical report is due.

According to Section 25298 of the California Health and Safety Code, underground storage tank closure is incomplete until the responsible party characterizes and remediates the contamination resulting from product discharge. Therefore, you, as the responsible party are in violation of this section of the Code, for which Section 25299 specifies civil penalties of up to \$5,000, for each day of violation, upon conviction. Also, failure to furnish technical reports regarding documented or potential groundwater contamination violates Section 13267(b) of the California Water Code. The Regional Water Quality Control Board (RWQCB) can impose civil penalties of up to \$1,000 per day that such a violation continues.

You are required to submit the technical report for the site to this office **within 30 days** from the date of this letter or by **December 27, 1999**. Failure to respond may result in referral of this case to the RWQCB or Alameda County District Attorney to consider for enforcement action. Modification of required tasks or extensions of stated deadlines must be confirmed in writing by either this agency or the RWQCB.

If you have any questions, I can be reached at (510) 567-6762.

eva chu  
Hazardous Materials Specialist

holmes3

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

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

R0324

StID 4130

July 26, 1999

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
54 Wolfe Canyon Road  
Kentfield, C A 94904

RE: PSA for 160 Holmes Street, Livermore, CA

Dear Mr. Shuwayhat:

I have completed review of ETIC's July 1999 reports documenting the removal of four underground storage tanks (in February 1999) at the above referenced address. Soil samples collected from the tank excavation contained up to 6,500 parts per million total petroleum hydrocarbons as gasoline (TPHg) and 110 ppm Methy-Tert-Butyl-Ether (MTBE). In addition, a grab water sample collected from a soil boring advanced next to the former USTs contained 100 ppm TPHg and 60ppm MTBE. Clearly an unauthorized release of fuel products has occurred at the site.

At this time, additional investigations are required to delineate the extent and severity of soil and groundwater contamination at the site. Such an investigation shall be in the form of a **Preliminary Site Assessment**, or PSA. The information gathered by the PSA will be used to determine an appropriate course of action to remediate the site, if deemed necessary. The PSA must be conducted in accordance with the RWQCB Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, and Article 11 of Title 23, California Code of Regulations. The major elements of such an investigation are summarized in the attached Appendix A.

In order to proceed with this site investigation, you should obtain the professional services of a reputable environmental consultant. Your responsibility is to have the consultant submit for review a proposal outlining planned activities for the delineation of soil and groundwater contamination at the site.

The PSA proposal is due **within 60 days** of the date of this letter, or by **September 27, 1999**. Once the proposal is approved, field work should commence within 60 days. A report must be submitted within 45 days after the completion of this phase of work at the site. Subsequent reports are to be submitted quarterly until this site qualifies for RWQCB "sign off." All reports and proposals must be submitted under seal of a California Registered Geologist, Certified Engineering Geologist, or Registered Civil Engineer.



Mr. Shuwayhat  
re: PSA for 160 Holmes St, Livermore  
July 26, 1999  
Page 2 of 2

**Please be advised that this is a formal request for technical reports pursuant to Title 23, CCR, Section 2722(c). Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by this agency.**

If you have any questions, I can be reached at (510) 567-6762.



eva chu  
Hazardous Materials Specialist

attachment

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

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

StID 4130

July 26, 1999

Mr. Manwel Shuwayhat  
Livermore Gas and Mini Mart  
54 Wolfe Canyon Road  
Kentfield, C A 94904

**SUBJECT: NEW LANDOWNER NOTIFICATION AND PARTICIPATION REQUIREMENTS  
FOR 160 HOLMES STREET, LIVERMORE, CA**

This letter is to inform you of new legislative requirements pertaining to cleanup and closure of sites where an unauthorized release of hazardous substance, including petroleum, has occurred from an underground storage tank (UST). Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code requires the primary or active responsible party to notify all current record owners of fee title to the site of: 1) a site cleanup proposal, 2) a site closure proposal, 3) a local agency intention to make a determination that no further action is required, and 4) a local agency intention to issue a closure letter. Section 25297.15(b) requires the local agency to take all reasonable steps to accommodate responsible landowners' participation in the cleanup or site closure process and to consider their input and recommendations.

For purposes of implementing these sections, you have been identified as the primary or active responsible party. Please provide to this agency, within twenty calendar days of receipt of this notice, a complete mailing list of all current record owners of fee title to the site. You may use the enclosed "list of landowners" form (sample letter 2) to comply with this requirement. If the list of current record owners of fee title to the site changes, you must notify the local agency of the change within 20 calendar days from when you are notified of the change.

If you are the sole landowner, please indicate that on the landowner list form. The following notice requirements do not apply to responsible parties who are the sole landowner for the site.

In accordance with Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code, you must certify to the local agency that all current record owners of fee title to the site have been informed of the proposed action before the local agency may do any of the following:

- 1) consider a cleanup proposal (corrective action plan)
- 2) consider a site closure proposal
- 3) make a determination that no further action is required
- 4) issue a closure letter

Mr. Shuwayhat  
re: PSA for 160 Holmes St, Livermore  
July 26, 1999  
Page 2 of 2

You may use the enclosed "notice of proposed action" form (sample letter 3) to comply with this requirement. Before approving a cleanup proposal or site closure proposal, determining that no further action is required, or issuing a closure letter, the local agency will take all reasonable steps necessary to accommodate responsible landowner participation in the cleanup and site closure process and will consider all input and recommendations from any responsible landowner.

If you have any questions, I can be reached at (510) 567-6762.



eva chu  
Hazardous Materials Specialist

**Attachments**

c: Chuck Headlee, RWQCB



September 25, 1995

DEPARTMENT OF ENVIRONMENTAL HEALTH

1131 Harbor Bay Parkway  
Alameda, CA 94502-6577  
(510) 567-6777

R. S. Parmar  
Manwell Shuwayhat  
734 Nevada Avenue  
San Mateo, CA 94402

**Subject: Failure to submit a written report of an unauthorized release of gasoline at Flying Ram, 160 Holmes Street, Livermore, CA 94550**

### Notice of Violation

Dear Messrs. Parmar and Shuwayhat:

This Notice of Violation is issued to you as the owners of the subject site. This Department is aware of a leaking pressurized gasoline pipeline at the station. The release of a gasoline product was reported by telephone for the purpose of determining the requirements for repairs of that pipeline. The leak was repaired on August 31, 1995 by your contractor, Petrotek, and you have resumed dispensing product.

However, this Department has not received your written report of the incident. You were mailed a blank unauthorized release report form for the purpose of formally reporting this situation. You are now in violation of California Code of Regulations, Title 23, section 2652(c).

Immediately submit the completed written report to this Department within five days of receipt of this letter. Failure to comply with the provisions of Title 23 could result in civil and/or criminal penalties.

If you have any questions related to this matter contact me at (510) 567-6781.

Sincerely,

Robert Weston  
Sr. Hazardous Materials Specialist

c: Bill Reynolds, East Team Manager, ACDEH  
eva chu, Local Oversight Program, ACDEH  
Gil Jensen, Alameda County District Attorney's Office

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



R0324

RAFAT A. SHAHID, Assistant Agency Director

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

October 16, 1992

Mr. Jeff Nelson  
District Manager  
Flying J  
P.O. Box 1706  
Vacaville, CA 95696

**Re: FIVE YEAR UNDERGROUND STORAGE TANK OPERATING PERMIT  
AT 160 HOLMES STREET, LIVERMORE.**

Dear Jeff:

Enclosed is your five year permit to operate a total of four underground petroleum storage tanks (UST's) at the above referenced facility. These UST's are single-walled steel tanks with trench-lined single-walled pressure-piping. To operate under a valid permit, Flying J is required to comply with conditions in Title 23 of the California Code of Regulations (CCR).

Consult the revised Title 23, CCR for additional requirements. To obtain a copy of the regulations, you may contact the State Water Resources Control Board at (916) 657-0917.

Please feel free to contact me with any questions at (510) 271-4320.

Sincerely,

Jeff Shapiro  
Hazardous Materials Specialist

c: Rafat A. Shahid, Assistant Director, Alameda County  
Environmental Health Department  
Files

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



R0324

RAFAT A. SHAHID, Assistant Agency Director

April 8, 1992

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

Mr. Jeff Nelson  
Flying J Gasoline  
P.O. Box 1706  
Vacaville, CA 95687

Re: FIVE-YEAR PERMIT FOR OPERATION OF FOUR  
UNDERGROUND STORAGE TANKS (UST'S) AT 160  
HOLMES STREET LIVERMORE

According to our records the above mentioned facility has not received a five-year permit to operate UST's. Please complete the following items marked below and return them to me within 10 days. The example plans enclosed, should be used only as guidelines and may not meet your requirements under Title 23.

- ✓ 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)

Title 23 of the California Code of Regulation prohibits the operation of ANY UST without a permit. Please feel free to contact Jeff Shapiro at (510) 271-4320, if you have any questions which may arise in completing the mandatory five-year permit process.

Sincerely,

Handwritten signature of Ravi Arulanantham in cursive.

Ravi Arulanantham  
Senior Hazardous Materials Specialist

c: Gil Jensen, Alameda County District Attorney,  
Rafat Shahid, Assistant Agency Director, Alameda  
County Department of Environmental Health  
Danielle Stefani, Hazardous Materials Specialist, City of  
Livermore Fire Department

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



RC324

DEPARTMENT OF ENVIRONMENTAL HEALTH (5)  
Hazardous Materials Program  
80 Swan Way, Rm. 200  
Oakland, CA 94621  
(415)

June 28, 1990

Mr. John Morrison  
Environmental Specialist  
Blymyer Engineers  
1829 Clement Ave.  
Alameda, CA 94501-1395

Dear Mr. Morrison:

In your letter dated May 23, 1990, you requested information on specific sites in Livermore. In response, the Hazardous Materials Division has reviewed its hazardous waste generator, Proposition 65, underground tank, and site mitigation files for a total of eight sites. Our file review yielded the following information.

1. 1122 E. Stanley Blvd.  
(Lead: RWGCB) This is a K-Mart auto repair facility, inspected last by our office March 29, 1990. A waste oil tank was removed from the facility sometime in the last year or two, but there is no information in our files regarding the removal.
2. 809 E. Stanley Blvd.  
(R02524) This is a Shell service station, inspected last on January 4, 1990. Our office issued a 5-year permit for the four tanks on-site in April 1990.
3. 1111 E. Stanley Blvd.  
(R0899) This is the site of Valley Memorial Hospital, which generates medical waste and used oil. Inspected last in March 1988, the facility has 4 underground tanks, 3 diesel, 1 gasoline, for which an interim permit was issued in September 1988.
4. 1332 Railroad Ave.  
This is the site of Paul's Sparkle Cleaners, a dry-cleaning facility inspected May 16, 1990. It generates perchloroethylene waste.
5. 1334 First St.  
(R0850) This is a Chevron service station that was inspected last on April 30, 1990. The four underground tanks at the facility were issued an interim permit in March 1988.
6. 1430 First St.  
This is Mike's One-Hour Cleaners, inspected January 4, 1990. The former owner at this facility is suspected of having disposed of waste solvent into a leaky sanitary sewer pipe; there is a groundwater investigation currently underway beneath the site. Perchloroethylene has been found in a well.

Mr. John Morrison  
June 28, 1990  
Page 2 of 2

7. 1485 First St.

(R0787) This is Ry-Nck Tire and Brake, a Goodyear auto-repair franchise which was inspected on April 25, 1990. The facility has one waste oil tank that has never been issued a permit.

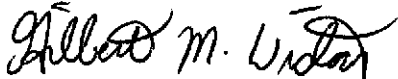
8. 160 Holmes St.

(R0324) This is Flying J Gasoline, which only pumps gas. The facility has four underground tanks that were issued interim permits in May 1988.

This letter contains information limited to files in this office, and does not reflect data that may be available from other agencies or parties. You will be billed for provision of this service at the rate of \$60 per hour; enclosed is a copy of the invoice sent to our Billing Department.

If you have any questions concerning this letter, please contact the undersigned at 271-4320.

Sincerely,



Gil Wistar  
Hazardous Materials Specialist

Enclosures

c: Rafat A. Shahid, Asst. Agency Director, Environmental Health files



ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



R0324

Mr. Jeff Nelson  
Flying J Gasoline  
P.O. Box 1706  
Vacaville, CA 95696

April 27, 1990

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

RE: Request for permit status at Flying J facility, 160 Holmes St.,  
Livermore

Dear Mr. Nelson:

As you requested, I am enclosing permit application forms for the above filling station; these include one Form "A" (site information), and four Form "B" sheets (specific tank information). Your firm must fill out and submit these forms in full, because application forms on file are out of date and do not designate leak monitoring alternatives. Additionally, the 6-month interim operating permit issued to Flying J in 1989 for this site has expired.

Typically, gas stations in Alameda County use monitoring alternative #5, which is described in Title 23, Chapter 3, Subchapter 16 of the California Code of Regulations (CCR). Employed for underground tanks installed before 1984, this alternative consists of annual precision testing of all tanks; daily inventory reconciliation; and operating pipeline leak detectors ("Red Jackets"). Record-keeping requirements associated with these monitoring techniques include reports of annual leak tests, quarterly inventory reconciliation summaries, and proof that pipeline leak detectors are operational. According to our files, Flying J has submitted none of these records/reports. Therefore, this facility is out of compliance with permit requirements and in violation of Title 23, Section 2712(c) of the CCR.

Please submit to this office within 30 days, i.e., no later than May 29, 1990, all documents related to the monitoring of the tanks at this facility for the past three years. Please also submit your completed permit application forms by this deadline. If you have any questions about this letter, please contact the undersigned at (415) 271-4320.

Sincerely,

*Gil Wistar*

Gil Wistar  
Hazardous Materials Specialist

c: Randy Griffith, Livermore Fire Dept.  
Howard Hatayama, DOHS  
Gil Jensen, Alameda County District Attorney, Consumer and  
Environmental Protection Division  
Rafat A. Shahid, Asst. Agency Director, Environmental Health  
files