REACT ENVIRONMENTAL SERVICES CORPORATION

October 3, 1994

Ms. Eva Chu
Alameda County Health Agency
Division of Hazardous Materials
1131 Harbor Bay Parkway, 2ND Floor
Alameda, CA 95402-6577

RE: VALLEY NISSAN
6015 SCARLETT CT., DUBLIN

Dear Ms. Chu:

Enclosed please find the UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE / CONTAMINATION SITE REPORT for Valley Nissan. It is my understanding that this will complete your records for this site and a recommendation for site closure will be forward to the Regional Board for final approval.

To complete our file on this case, I would appreciate any acknowledgement of site closure you could send after receiving approval from the Regional Board. Should you have any further questions or require any additional information, please contact me at (510) 833-0183.

Sincerely,

Bradd Stafley
Sr. Project Engineer

cc: Mr. Fred Stamey, President REACT
Mr. Jeff Qvale, Asian Pacific Industries, Inc.

1142 N. Snead Ave. • Eagle, Idaho 83616 • TEL. 1 (800) 851-6407 • FAX 1 (208) 939-1218

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY ☐ YES ☒ NO

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ YES ☒ NO

REPORT DATE: 10/03/94 CASE #:

FOR LOCAL AGENCY USE ONLY
I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.
SIGNED _____ DATE 10/28/94

REPORTED BY
NAME OF INDIVIDUAL FILING REPORT: BRADD STATLEY
PHONE: (510) 833-0183
SIGNATURE: _____
REPRESENTING ☒ OWNER/OPERATOR ☐ REGIONAL BOARD ☐ LOCAL AGENCY ☐ OTHER
COMPANY OR AGENCY NAME: REACT ENVIRONMENTAL SERVICES CORP.
ADDRESS (STREET): 1142 N. SNEAD AVE. CITY: EAGLE STATE: IDAHO ZIP: 83616

RESPONSIBLE PARTY
NAME: ASIAN PACIFIC INDUSTRIES, INC. ☐ UNKNOWN
CONTACT PERSON: M. JEFFREY QVALE
PHONE: (415) 776-7700
ADDRESS (STREET): 901 VAN NESS AVENUE CITY: SAN FRANCISCO STATE: CA ZIP: 94109

SITE LOCATION
FACILITY NAME (IF APPLICABLE): VALLEY NISSAN
OPERATOR: RON IMPERIALE
PHONE: (510) 829-0800
ADDRESS (STREET): 6015 SCARLETT CT. CITY: DUBLIN COUNTY: ALAMEDA ZIP: 94568
CROSS STREET: DUBLIN BLVD.

IMPLEMENTING AGENCIES
LOCAL AGENCY / AGENCY NAME: ALAMEDA COUNTY ENVIR. HEALTH AGENCY
CONTACT PERSON: EVA CHU
PHONE: (510) 567-6700
REGIONAL BOARD: ALAMEDA COUNTY WATER DISTRICT ZONE 7
PHONE: (415) 484-2600

SUBSTANCES INVOLVED
(1) NAME: PETROLEUM HYDROCARBONS - DIESEL QUANTITY LOST (GALLONS): _____ ☒ UNKNOWN
(2) OIL _____ ☒ UNKNOWN

DISCOVERY/ABATEMENT
DATE DISCOVERED: 07/12/88
HOW DISCOVERED: ☐ TANK TEST ☐ INVENTORY CONTROL ☒ SUBSURFACE MONITORING ☐ NUISANCE CONDITIONS ☒ OTHER OIL PRESENT IN ANNULAR SPACE
DATE DISCHARGE BEGAN: ☒ UNKNOWN
HAS DISCHARGE BEEN STOPPED? ☒ YES ☐ NO IF YES, DATE 08/05/88
METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY): ☒ REMOVE CONTENTS ☒ CLOSE TANK & REMOVE ☐ REPAIR PIPING ☐ REPAIR TANK ☐ CLOSE TANK & FILL IN PLACE ☐ CHANGE PROCEDURE ☐ REPLACE TANK ☐ OTHER

SOURCE/CAUSE
SOURCE OF DISCHARGE: ☐ TANK LEAK ☒ UNKNOWN ☐ PIPING LEAK ☐ OTHER
CAUSE(S): ☐ OVERFILL ☐ RUPTURE/FAILURE ☐ SPILL ☐ CORROSION ☒ UNKNOWN ☐ OTHER

CASE TYPE
CHECK ONE ONLY: ☐ UNDETERMINED ☒ SOIL ONLY ☐ GROUNDWATER ☐ DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS
CHECK ONE ONLY: ☐ NO ACTION TAKEN ☐ PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED ☐ POLLUTION CHARACTERIZATION ☐ LEAK BEING CONFIRMED ☐ PRELIMINARY SITE ASSESSMENT UNDERWAY ☐ POST CLEANUP MONITORING IN PROGRESS ☐ REMEDIATION PLAN ☒ CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) ☐ CLEANUP UNDERWAY

REMEDIAL ACTION
CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS): ☒ EXCAVATE & DISPOSE (ED) ☐ REMOVE FREE PRODUCT (FP) ☐ ENHANCED BIO DEGRADATION (IT) ☐ CAP SITE (CD) ☐ EXCAVATE & TREAT (ET) ☐ PUMP & TREAT GROUNDWATER (GT) ☐ REPLACE SUPPLY (RS) ☐ CONTAINMENT BARRIER (CB) ☐ NO ACTION REQUIRED (NA) ☐ TREATMENT AT HOOKUP (HU) ☐ VENT SOIL (VS) ☐ VACUUM EXTRACT (VE) ☐ OTHER (OT)

COMMENTS
SUBSURFACE INVESTIGATION ON 7-12-88 DID NOT DETECT RELEASE INTO SOIL OR GROUNDWATER. RELEASE INTO ANNULAR SPACE OF TANK WAS INDICATED IN REPORT. CONTAMINATION IN TANK PIT OBSERVED AFTER TANKS WERE REMOVED 8-5-88. CONTAMINATED SOIL WAS EXCAVATED AND TANK PIT EXCAVATION SAMPLED. RESULTS SUBMITTED TO ALAMEDA COUNTY HEALTH AGENCY.

ALAMEDA COUNTY - ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS DIVISION

MEMORANDUM

DATE: June 15, 1993

TO: Haz Mat Staff, support staff

FROM: UST Team

SUBJ: Semco, UST removal Contractor

Semco, a UST removal contractor, without express permission from this office, removed a UST last Friday in Oakland. There was no one in attendance from Al Co. Haz Mat. Ed Howell has directed us to look into the possibility of "charging" them treble. Any one who hears of, or is privy to **any** inappropriate actions by the part of Semco Inc., 1741 Leslie St., San Mateo, CA 94402, should inform Ed or the UST Team. There have been other "instances" of activities not consistent with those of a professional contractor in the past. In this case an independant third party was contracted to do the sampling, indicating contamination in the pit.

STATE OF CALIFORNIA
STATE AND CONSUMER SERVICES AGENCY CONTRACTORS STATE LICENSE BOARD
DEPARTMENT OF Consumer Affairs

Building Quality

HAZARDOUS SUBSTANCES REMOVAL AND REMEDIAL ACTIONS CERTIFICATION

Pursuant to the provisions of Section 7058.7 of the Business and Professions Code, the Registrar of Contractors does hereby certify that the following qualifying person has successfully completed the hazardous substances removal and remedial actions examination.

DEPARTMENT OF CONSUMER AFFAIRS
REGISTRAR OF CONTRACTORS
STATE OF CALIFORNIA

Qualifier: DAVID ALAN MIDDLETON

License No.: 507442

Namestyle: LINDSAY AND WILSON ENVIRONMENTAL SERVICES INC.

WITNESS *my hand and official seal this*
25 *day of* JULY, 1988

Registrar of Contractors

13L-36 (1/88)

This certification is the property of the Registrar of Contractors, is not transferable, and shall be returned to the Registrar upon demand when suspended, revoked, or invalidated for any reason.

A1545

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

StID 2045

March 12, 1993

Mr. Ron Imperiale
Valley Auto Center
6015 Scarlett Court
Dublin, CA 94568

Subject: Case Closure Report for 6015 Scarlett Ct., Dublin 94568

Dear Mr. Imperiale:

This office has completed review of the file for the above referenced site. In a recent conversation with your consultant from Clayton Environmental, Mr. Dariush Dastmalchi, he inquired if site closure can be recommended at this time. Attached please find a copy of the RWQCB outline showing the appropriate format and topics for the preparation of a final report summarizing the outcome of the site investigation.

As you are likely aware, site "closure" ultimately requires approval from the RWQCB. You are encouraged to evaluate the data generated to date in this project to identify any data gaps which may prevent this agency and the RWQCB from concurring with your bid for site closure. One concern is whether the monitoring well onsite is in the verified downgradient direction from the former waste oil tank pit.

Please contact me if you have any questions.

Sincerely,

Eva Chu
Hazardous Materials Specialist

enclosure

cc: Rich Hiett, RWQCB
Tom Hathcox, Dougherty Regional Fire Authority
Dariush Dastmalchi, Clayton Environmental, P.O.Box 9019, Pleasanton, CA 94566
Edgar Howell/files

vnissan2

LOP - RECORD CHANGE REQUEST FORM

printed: 11/28/94

Mark Out What Needs Changing and Hand to LOP Data Entry
(Name/Address changes go to Annual Programs Data Entry)

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 12035
StID : 2045
SITE NAME: Valley Nissan Volvo DATE REPORTED : 08/22/88
ADDRESS : 6015 Scarlett Ct DATE CONFIRMED:
CITY/ZIP : Dublin 94568 MULTIPLE RPs : N

SITE STATUS

CASE TYPE: S CONTRACT STATUS: 4 PRIOR CODE:2A4 EMERGENCY RESP:
RP SEARCH: S DATE COMPLETED: 03/23/92
PRELIMINARY ASMNT: C DATE UNDERWAY: 11/10/89 DATE COMPLETED: 12/17/92
REM INVESTIGATION: DATE UNDERWAY: DATE COMPLETED:
REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:
POST REMED ACT MON: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/23/92
LUFT FIELD MANUAL CONSID: 2HSCA
CASE CLOSED: Y DATE CASE CLOSED: 11/28/94
DATE EXCAVATION STARTED : 08/05/88 REMEDIAL ACTIONS TAKEN: UK

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME: Bruce Qvale
COMPANY NAME: Dublin Properties
ADDRESS: 901 Van Ness Ave
CITY/STATE: San Francisco, C A 94109

INSPECTOR VERIFICATION:

NAME _____ SIGNATURE _____ DATE _____

DATA ENTRY INPUT:

Name/Address Changes Only

ANNPGMS _____ LOP ____ DATE _____

Case Progress Changes

LOP _____ DATE _____

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

StID 2045

October 15, 1992

Ron Imperiale
Valley Nissan
6015 Scarlett Ct.
Dublin, CA 94568

Subject: Additional Groundwater Sampling at Valley Nissan, 6015 Scarlett Ct., Dublin 94568

Dear Mr. Imperiale:

This office has reviewed the case file for the above referenced site. When two waste oil underground storage tanks (USTs) were removed in August 1988, soil analyses exhibited up to 3,200 parts per million (ppm) total petroleum hydrocarbons as diesel (TPH-D) and 150 ppm total oil and grease (TOG) confirming an unauthorized release of petroleum hydrocarbons had occurred at the site. The UST pit was over-excavated and the bottom pit soil sample taken had up to 895 ppm TOG. This last soil sample was not analyzed for TPH-D, which was found in the initial soil samples.

A groundwater monitoring well, (MW-1), was installed in December 1989. The initial water sample was analyzed and detected no TPH-G (as gasoline), TPH-D, BTEX (benzene, toluene, ethylbenzene, xylene), or TOG. In March 1990, groundwater was analyzed and detected no chlorinated hydrocarbons or TOG. Subsequent water sampling periods (July 1990 and October 1990) only analyzed the water for TOG.

The recommended minimum verification analyses for waste oil UST leaks include TPH-G, TPH-D, BTEX, chlorinated hydrocarbons, metals (Cd, Cr, Pb, Zn, Ni), and semi-volatiles (Method 8270).

At this time you are requested to perform another groundwater analysis of MW-1. The water should be analyzed for all of the of the above constituents. Upon review of the laboratory results, a determination will be made if additional work is required.

If you have any questions about the content of this letter, please contact me at (510) 271-4530.

Sincerely,

Eva Chu
Hazardous Materials Specialist

Ron Imperiale
6015 Scarlett Ct., Dublin
October 15, 1992

cc: Rich Hiett, RWQCB
Tom Hathcox, Dougherty Regional Fire District
Edgar Howell/files

vnissan

DATE: 3/2/92

TO : Local Oversight Program

FROM: JKH

SUBJ: Transfer of Elligible Oversight Case

Site name: Valley Nissan Dodge

Address: 6015 Scarlett Ct. City Dublin Zip 94568

Closure plan attached? (Y) N DepRef remaining $ 2865

DepRef Project # 253 STID #(if any) ? 2045

Number of Tanks: 2 removed? Y N Date of removal _____

Leak Report filed? Y (N) Date of Discovery 8/22/88

Samples received? (Y) N Contamination: YES

Petroleum (Y) N Types: Avgas Jet ~~leaded~~ unleaded Diesel
fuel oil (waste oil) kerosene solvents

Monitoring wells on site 1 Monitoring schedule? (Y) N

Briefly describe the following:

Preliminary Assessment _____

Remedial Action _____

Post Remedial Action Monitoring _____

Enforcement Action _____

Comments: 8/22/88 - Two Soil Samples For o.l + Grease = 895 + 135 mg/kg. DIESEL Samples Ranged from 130 ppm to 2400 million ppm or 24%. As of 2/91, this site has had "N.D" Readings. See last 2 letters dated 1/3/91 and 2/14/91. This case appears Ready for closure

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

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

February 14, 1991

Mr. Chris Regalia
Valley Nissan/Volvo
6015 Scarlett Ct.
Dublin, CA 94568

Re: **Clayton Environmental Consultants' request for monitoring well closure at Valley Nissan site, 6015 Scarlett Ct.**

Dear Mr. Regalia:

Thank you for submitting four quarters of monitoring well data from MW-1 at the Valley Nissan site. We have reviewed these reports, which all indicate "ND" levels of oil & grease in the groundwater, although other compounds were only tested for on one occasion. There is some question as to whether this well is sufficently downgradient of the former waste oil pit to ensure that the former tanks have not in fact contaminated groundwater. Perhaps your consultant can address this concern. In any case, only the Regional Water Quality Control Board (RWQCB) has the authority to sign off sites in which monitoring wells have been installed. Our office can only recommend to the RWQCB that a site be considered for signoff, if we feel such a recommendation if warranted.

Enclosed is a format for presenting a case closure request to our office, which we can then take to the RWQCB. In order for the Board to sign off a case, all of the information in this recommended format needs to be summarized. Again, our principal concern is that MW-1 may not be in a position to intercept the groundwater flowing from the former tank pit, since its location was based on regional, rather than site-specific, groundwater levels.

If you have any questions about this letter, please contact me at 271-4320.

Sincerely,

Gil Wistar
Hazardous Materials Specialist

encl.

cc: Richard Silva, Clayton Environmental (1252 Quarry Ln., Pleasanton, CA 94566) **w/enclosure**
Lester Feldman, RWQCB
Rafat A. Shahid, Asst. Agency Director, Environmental Health
files

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

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

November 21, 1989

Mr. Frederick G. Moss, P.E.
Clayton Environmental Consultants
P.O. Box 9019
Pleasanton, CA 94566

Re: Work plan for Valley Nissan site, 6015 Scarlett Ct., Dublin

Dear Mr. Moss:

The Alameda County Department of Environmental Health, Hazardous Materials Division, has reviewed your work plan for the above site. Generally, the plan appears adequate to address the Division's concerns about possible contamination resulting from the removal of two waste oil tanks in 1988. However, the location of the proposed monitoring well is not downgradient from the former underground tanks, according to the Zone 7 groundwater contour map, which was apparently used in the preparation of the work plan. The contour map indicates a southeasterly subsurface flow, rather than towards the south-southwest. If only one well is installed, it must be directly downgradient from, and within 10 feet of, the former tank pit. If this is not possible, then three wells will have to be installed, with one well on the south side of the service shop directly downgradient from the tank pit.

A modified work plan to indicate this change will not be required; this office is interested in work beginning at this site as soon as possible. If you have any questions about this letter, please contact the undersigned at 271-4320.

Sincerely,

Gilbert M. Wistar

Gil Wistar
Hazardous Materials Specialist

c: Ron Imperiale, Valley Nissan/Volvo
Margaret Ong, Deputy District Attorney, Alameda County
Consumer and Environmental Protection Division
Rafat A. Shahid, Asst. Agency Director, Environmental Health
files

Clayton Environmental Consultants, Inc.

P.O. Box 9019 • 1252 Quarry Lane • Pleasanton, CA 94566 • (415) 426-2600

89 NOV 20 AM 10:57

November 17, 1989

Clayton Project No: 26389.00

Mr. Gil Wistar
Alameda County Department of Environmental Health
Hazardous Material Program
80 Swan Way, Room 200
Oakland, CA 94621

Dear Mr. Wistar:

Following our telephone conversation on November 17,1989 regarding proposed monitoring well for Valley Nissan in Dublin, I am inclosing a copy of the zone 7 groundwater conture map.

If I can be of any assistance to you, please contact me at (415) 426-2609.

Sincerely,

Dariush Dastmalchi

Dariush Dastmalchi
Geologist

DD
Enclosure

26389-1.ltr (mr4)

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

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

Certified Mailer # P 833 981 489

July 20, 1989

Mr. Ron Imperiale
Valley Nissan/Volvo
6015 Scarlett Ct.
Dublin, CA 94568

NOTICE OF VIOLATION

Dear Mr. Imperiale:

The Alameda County Department of Environmental Health, Hazardous Materials Division, witnessed an underground tank removal at your facility in August, 1988. This removal involved two 550-gallon waste oil tanks, and soil samples were taken beneath each tank following their removal. The closure plan specified that sample results be sent to this office, along with chain-of-custody sheets and any waste manifests, within 60 days. So far, after several requests from and at least three unreturned telephone calls to Mr. George Wilson of L & W Environmental, no results have been forwarded to this office.

We are requesting that you take action to remedy this situation immediately. Please submit original signed laboratory reports on samples taken during tank removal, chain-of-custody forms, and signed waste manifests documenting the disposal of tanks and any other waste material to this office no later than **August 3, 1989.** When we receive and review this material, we will determine whether any remedial work is necessary at the site. If the results indicate that no further work is warranted, then we will refund the balance of your tank removal deposit.

Failure to comply with this request could result in substantial penalties. For example, Section 25299 of the California Health and Safety Code authorizes a fine of up to $5,000 per day for improper closure of an underground storage tank; improper closure includes in its definition the failure to provide sampling results to the local implementing agency following tank removal. In addition, Section 25188 permits penalties of up to $25,000 per day to be levied for noncompliance of the provisions of Section 25187, which requires facility operators to take action to address contaminated or potentially contaminated sites.

If you have any questions concerning the information in this letter, please contact Gil Wistar, Hazardous Materials Specialist, at 271-4320.

Sincerely,

Rafat A. Shahid

Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:GW:gw

cc: Dwight Hoenig, DOHS
Gil Jensen, Alameda County District Attorney, Consumer and Environmental Protection Agency

WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY - UST CLEANUP PROGRAM
SITE SPECIFIC QUARTERLY REPORT
01/01/92 THROUGH 03/31/92

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 12035
StID : 2045
SITE NAME: Valley Nissan Volvo DATE REPORTED : 08/22/88
ADDRESS : 6015 Scarlett Ct. DATE CONFIRMED:
CITY/ZIP : Dublin 94568 MULTIPLE RPs : N

SITE STATUS

CASE TYPE: S CONTRACT STATUS: 3 EMERGENCY RESP:
RP SEARCH: S DATE COMPLETED: 03/23/92
PRELIMINARY ASMNT: U DATE UNDERWAY: 11/10/89 DATE COMPLETED:
REM INVESTIGATION: DATE UNDERWAY: DATE COMPLETED:
REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:
POST REMED ACT MON: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/23/92
LUFT FIELD MANUAL CONSID: 2,H,S,C,A
CASE CLOSED: DATE CASE CLOSED:
DATE EXCAVATION STARTED : 08/05/88 REMEDIAL ACTIONS TAKEN: UK

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME: Bruce Qvale
COMPANY NAME: Dublin Properties
ADDRESS: 901 Van Ness Ave
CITY/STATE: San Francisco, C A 94109

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
470 - 27TH ST., RM. 322
OAKLAND, CA 94612
PHONE NO. 415/874-7237

Project # U524553

Fee Paid $450.00

Date 7/26/88

ACCEPTED

DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction.

One copy of these accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws.

Notify this Department at least 48 hours prior to the following required inspections:

Removal of Tank and Piping

Sampling

Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

ORIGINAL

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name VALLEY NISSAN

   Business Owner ASIAN PACIFIC INDUSTRIES, INC.

2. Site Address 6015 SCARLETT COURT

   City DUBLIN Zip 94568 Phone (415) 829-0800

3. Mailing Address 6015 SCARLETT COURT

   City DUBLIN Zip 94568 Phone (415) 829-0800

4. Land Owner BRUCE AND JEFF QVALE

   Address 901 VAN NESS AVENUE City, State SAN FRANCISCO, CA Zip 94109

5. EPA I.D. No. CAD981658610

6. Contractor L & W ENVIRONMENTAL SERVICES, INC.

   Address 2111 JENNINGS STREET

   City SAN FRANCISCO Phone (415) 822-4555

   License Type A ID# 507442

7. Other (Specify) _____

   Address _____

   City _____ Phone _____

8. Contact Person for Investigation

Name GEORGE WILSON Title VICE PRESIDENT - L & W

Phone (415) 822-4555 ENVIRONMENTAL SERVICES, INC.

9. Total No. of Tanks at facility TWO

10. Have permit applications for all tanks been submitted to this office? Yes [XX] No [ ]

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name ERICKSON EPA I.D. No. CAD009466392 ORIGINAL

Address 255 PARR BOULEVARD

City RICHMOND State CA Zip 94801

b) Rinsate Transporter

Name ERICKSON EPA I.D. No. CAD009466392

Address 255 PARR BOULEVARD

City RICHMOND State CA Zip 94801

c) Tank Transporter

Name ERICKSON EPA I.D. No. CAD009466392

Address 255 PARR BOULEVARD

City RICHMOND State CA Zip 94801

d) Contaminated Soil Transporter

Name ERICKSON EPA I.D. No. CAD009466392

Address 255 PARR BOULEVARD

City RICHMOND State CA Zip 94801

12. Sample Collector

Name DAVID PICHETTE - CHEMIST

Company PRECISION ANALYTICAL LABORATORY, INC.

Address 2111 JENNINGS STREET

City SAN FRANCISCO State CA Zip 94124 Phone (415) 822-9649

13. **Sampling Information for each tank or area**

Tank or Area NORTH CORNER OF SERVICE DEPARTMENT		Material sampled	Location & Depth
Capacity TWO 550 gallons WASTE OIL TANKS	**Historic Contents (past 5 years)** WASTE OIL TANKS INSTALED 1984 DOUBLE WALL CONSTRUCTION	YES	9' - NINE FEET

ORIGINAL

14. **Have tanks or pipes leaked in the past?** Yes [ ] No [XX]

If yes, describe. _____

15. **NFPA methods used for rendering tank inert?** Yes [XX] No [ ]

If yes, describe. HYDROBLASTING TANKS - DRY ICE PURGE

16. **Laboratories**

Name PRECISION ANALYTICAL LABORATORY, INC.

Address 2111 JENNINGS STREET

City SAN FRANCISCO **State** CA **Zip** 94124

State Certification No. 211

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
SOIL SAMPLES WATER SAMPLES - IF NECESSARY	SW846	8015 TOTAL PETROLEUM HYDROCARBONS VOC EPA 8240 TOTAL OIL AND GREASE 8010 - HALOGENATED 8020 - B.T.X.

ORIGINAL

18. Site Safety Plan submitted? Yes [XX] No [ ]

19. Workman's Compensation: Yes [XX] No [ ]

Copy of Certificate enclosed? Yes [X] No [ ]

Name of Insurer SCOTTSDALE INSURANCE AND REPUBLIC INDEMNITY

20. Plot Plan submitted? Yes [X] No [ ]

21. Deposit enclosed? Yes [XX] No [ ]

22. Please forward to this office the following information within 60 days after receipt of sample results.

a) Chain of Custody Sheets

b) Original Signed Laboratory Reports

c) TSD to Generator copies of wastes shipped and received

d) Attachment A summarizing laboratory results

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true. I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I will notify the Department of Environmental Health at least two (2) working days (48 hours) in advance to schedule any required inspections. I understand that site and worker safety are soley the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Signature of Contractor

ORIGINAL

Name (please type) GEORGE J. WILSON

Signature [signature]

Date 7/26/88

Signature of Site Owner or Operator

Name (please type) BRUCE and/or JEFF QVALE

Signature [signature]

Date 7/26/88

NOTES:

1. Any changes in this document must be approved by this Department.
2. Any leaks discovered must be submitted to this office on an underground storage tank unauthorized leak/contamination site report form within 5 days of its discovery.
3. Three (3) copies of this plan must be submitted to this Department. One copy must be at the construction site at all times.
4. A copy of your approved plan must be sent to the landowner.

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

ATTACHMENT A

SAMPLING RESULTS

Tank or Area	Contaminant	Location & Depth	Results (specify units)

INSTRUCTIONS

2. SITE ADDRESS
Address at which closure or modification is taking place.

5. EPA I.D. NO.
This number may be obtained from the State Department of Health Services, 916/324-1781.

6. CONTRACTOR
Prime contractor for the project.

7. OTHER
List professional consultants here.

12. SAMPLE COLLECTOR
Persons who are collecting samples.

13. SAMPLING INFORMATION
Historic contents - the principal product(s) used in the last 5 years.

Material sampled - i.e., water, oil, sludge, soil, etc.

16. LABORATORIES
Laboratories used for chemical and geotechnical analyses.

17. CHEMICAL METHODS:
All sample collection methods and analyses should conform to EPA or DHS methods.

Contaminant - Specify the chemical to be analyzed.

Sample Preparation Method Number - The means used to prepare the sample prior to analyses - i.e., digestion techniques, solvent extraction, etc. Specify number of method and reference if not an EPA or DHS method.

Analysis Method Number - The means used to analyze the sample - i.e., GC, GC-MS, AA, etc. Specify number of method and reference if not a DHS or EPA method.

NOTE:
Method Numbers are available from certified laboratories.

18. SITE SAFETY PLAN
A plan outlining protective equipment and additional specialized personnel in the event that significant amount of hazardous materials are found. The plan should consider the availability of respirators, respirator cartridges, self-contained breathing apparatus (SCBA) and industrial hygienists.

19. ATTACH COPY OF WORKMAN'S COMPENSATION

20. PLOT PLAN

The plan should consists of a scaled view of the facility at which the tank(s) are located and should include the following information:

a) Scale

b) North Arrow

c) Property Line

d) Location of all Structures

e) Location of all relevant existing equipment including tanks and piping to be removed

f) Streets

g) Underground conduits, sewers, water lines, utilities

h) Existing wells (drinking, monitoring, etc.)

i) Depth to ground water

j) All existing tanks in addition to the ones being pulled

1/88

A C O R D CERTIFICATE OF INSURANCE Date 07/26/88

PRODUCER Oper. ID SA
Cook, Disharoon & Greathouse
P.O. Box 12909
Oakland CA 94604-

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policies below.

INSURED

L & W ENVIRONMENTAL SERVICES
2111 JENNINGS STREET
SAN FRANCISCO CA 94124

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A: SCOTTSDALE INSURANCE
COMPANY LETTER B: REPUBLIC INDEMNITY
COMPANY LETTER C:
COMPANY LETTER D:
COMPANY LETTER E:

COVERAGES

This is to certify that policies of insurance listed below have been issued to the insured named above for the policy period indicated, notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions, and conditions of such policies.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	EFF DATE	EXP DATE	ALL LIMITS IN THOUSANDS	
	GENERAL LIABILITY				GENERAL AGGREGATE	1000
A	[X]COMMERCIAL GENERAL LIABILITY	GLS 135245	09/23/87	09/23/88	PRODUCTS-COMP/OPS AGGREGATE	1000
	[X][ ]CLAIMS MADE [X]OCCURRENCE		/ /	/ /	PERSONAL&ADVERTISING INJURY	1000
	[ ]OWNER'S & CONTR. PROTECTIVE		/ /	/ /	EACH OCCURRENCE	1000
	[X]BFCGL		/ /	/ /	FIRE DAMAGE(ANY ONE FIRE)	
	[ ]		/ /	/ /	MED EXPENSE(ANY ONE PERSON)	
	AUTOMOBILE LIABILITY					
	[ ]ANY AUTO		/ /	/ /		
	[ ]ALL OWNED AUTOS		/ /	/ /	CSL	
	[ ]SCHEDULED AUTOS		/ /	/ /	BODILY INJURY(PER PERSON)	
	[ ]HIRED AUTOS		/ /	/ /	BODILY INJURY(PER ACCIDENT)	
	[ ]NON-OWNED AUTOS		/ /	/ /	PROPERTY DAMAGE	
	[ ]GARAGE LIABILITY		/ /	/ /		
	[ ]		/ /	/ /		
	EXCESS LIABILITY					
	[ ]UMBRELLA FORM		/ /	/ /	EACH OCCURRENCE	
	[ ]OTHER THAN UMBRELLA FORM		/ /	/ /	AGGREGATE	
					STATUTORY	
	WORKER'S COMPENSATION				1000 (EACH ACCIDENT)	
B	AND	PC 988445	01/08/88	01/08/89	1000 (DISEASE-POLICY LIMIT)	
	EMPLOYER'S LIABILITY		/ /	/ /	1000 (DISEASE-EACH EMPLOYER)	
	OTHER					
			/ /	/ /		
			/ /	/ /		

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/RESTRICTIONS/SPECIAL ITEMS

ALL CALIFORNIA LOCATIONS
CERTIFICATE HOLDER IS NAMED AS ADDITIONAL INSURED

CERTIFICATE HOLDER

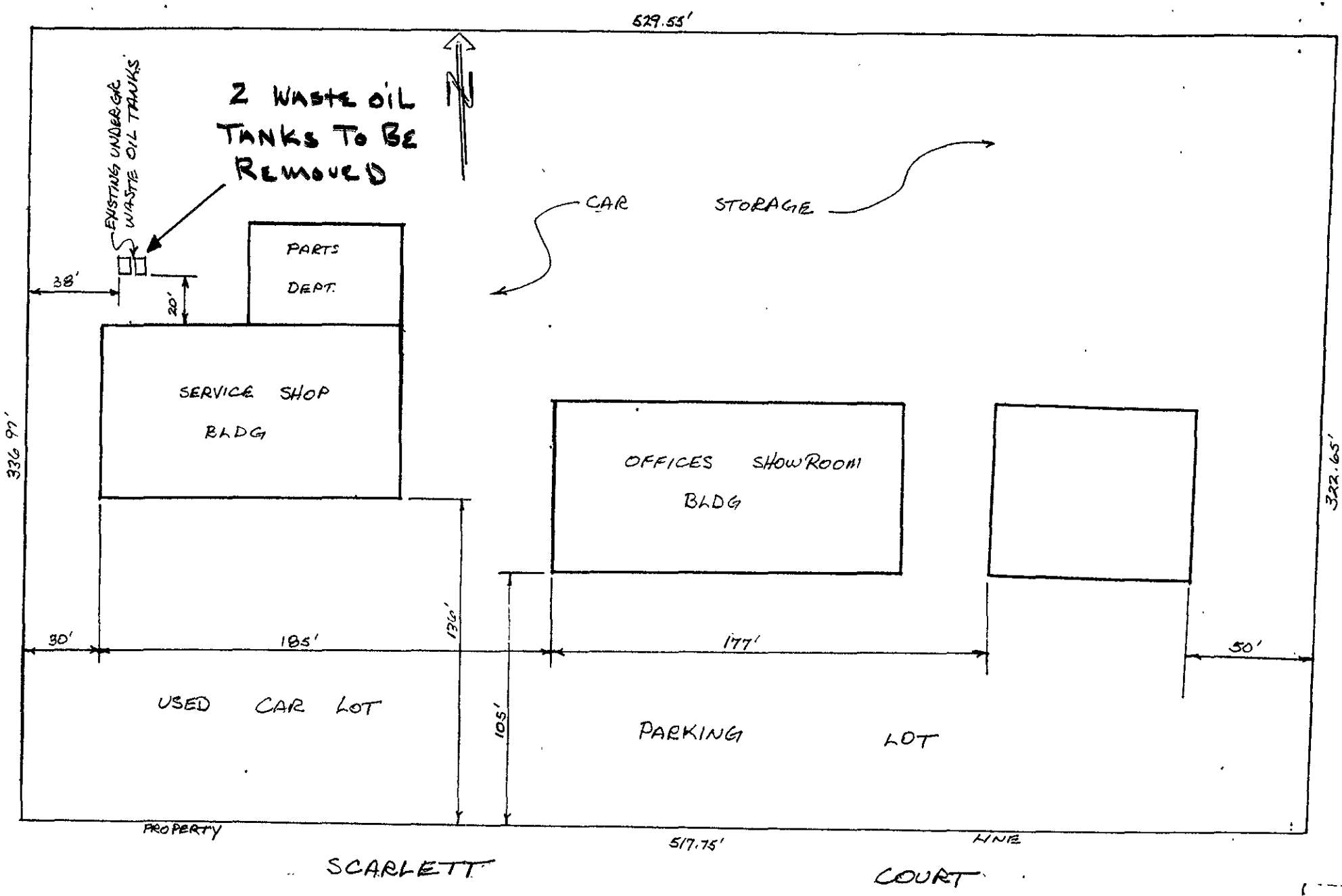
ASIAN PACIFIC INDUSTRIES INC.
AND JEFF & BRUCE QVALE
901 VAN NESS AVE.
SAN FRANCISCO CA 94109

CANCELLATION

Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 10 days written notice to the certificate holder named to the left, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives.

AUTHORIZED REPRESENTATIVE

ACORD 25-S(11/85)



EXISTING TANK LOCATION PLAN

Environmental Services, Inc.

2111 Jennings Street, San Francisco, California 94124-3224, Phone (415) 822-4555

VALLEY NISSAN

JOB # 9007
DWG # 9007.D1
DATE 7-26-88

HAZARDOUS WASTE TESTING LABORATORY CERTIFICATION LIST

Hazardous Materials Laboratory Section, California Department of Health Services, 2151 Berkeley Way, Berkeley, CA 94704

Precision Analytical Laboratory, Inc
2111 Jennings Street
San Francisco, CA 94107

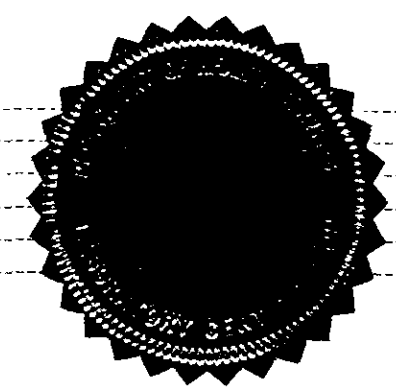
PHONE (415)822-9645

LABORATORY CATEGORY: Commercial
CERTIFICATE NUMBER: 211

METHOD NUMBER (DATE CERTIFIED)	(Y = CERTIFIED; N = NOT CERTIFIED)
1.1 Halogenated Volatile Organics	8010(03-02-88) Y
1.2 Non-Halogenated Volatile Organics	N
1.3 Aromatic Volatile Organics	8020(07-20-87) Y
1.4 Acrolein, Acrylonitrile, Acetonitrile	N
1.5 Phenols	N
1.6 Phthalate Esters	N
1.7 Organochlorine Pesticides	N
1.8 Polychlorinated Biphenyls (PCBs)	8080(12-14-87) Y
1.9 Nitroaromatics and Cyclic Ketones	N
1.10 Polynuclear Aromatic Hydrocarbons	N
1.11 Chlorinated Hydrocarbons	N
1.12 Organophosporus Pesticides	N
1.13 Chlorinated Herbicides	N
1.14 Carbamates	N
1.15 GC/MS Method for Volatile Organics	N
1.16 GC/MS Method for Semivolatile Organics	N

INORGANIC CHEMICAL TESTING	METHOD NUMBER (DATE CERTIFIED)	(Y = CERTIFIED, N = NOT CERTIFIED)
2.1 Antimony	6010(03-25-88)	Y
2.2 Arsenic		N
2.3 Barium	6010(03-25-88)	Y
2.4 Beryllium	6010(03-25-88)	Y
2.5 Cadmium	6010(03-25-88)	Y
2.6 Chromium(VI)	7196(12-14-87)	Y
2.7 Chromium(total)	6010(03-25-88)	Y
2.8 Cobalt	6010(03-25-88)	Y
2.9 Copper	6010(03-25-88)	Y
2.10 Lead	6010(03-25-88)	Y
2.11 Mercury		N
2.12 Molybdenum	6010(03-25-88)	Y
2.13 Nickel	6010(03-25-88)	Y
2.14 Selenium		N
2.15 Silver	6010(03-25-88)	Y
2.16 Thallium	6010(03-25-88)	Y
2.17 Vanadium	6010(03-25-88)	Y
2.18 Zinc	6010(03-25-88)	Y
2.19 Cyanide	9010(12-14-87)	Y
2.20 Fluoride		N
2.21 Sulfide	9030(12-14-87)	Y

OTHER		
3.0 California Waste Extraction Test		N
4.0 Physical Property Testing	(12-14-87)	Y
5.0 Aquatic Toxicity Testing		N
6.0 Bulk Asbestos Testing		N
7.0 Total Organic Lead		N
8.0 Total Petroleum Hydrocarbons	(06-20-88)	Y



SITE SAFETY PLAN
FLAMMABLE LIQUID STORAGE TANK REMOVAL

ADMINISTRATIVE INFORMATION

Project No. 9009 Date of Issue 7/26/88

Project Name Valley Nissan

Project Manager Gary Aguiar P.E. Business Unit L&W Environmental Services

SSO Jim Tracy HSO Gary Aguiar

SITE INFORMATION

Location: 6015 Scarlett Court

Pertinent History: Two 550 gallon waste oil storage tanks.

Material(s) Spilled: No spills. Double-wall tanks, 4 years old.

FIELD ACTIVITIES

Tanks exposed to top - ready for removal. Dougherty Regional Fire Authority Permit for removal obtained. Scheduled for August 5, 1988, removal - soil sampling.

EMERGENCY TELEPHONE NUMBERS

Fire Dept. DRFA 829-2333 Project Mgr. (415) 822-4555

Ambulance Diablo Medical 828-6962 HSO (415) 237-5202

Hospital (415) 830-0770

HOSPITAL NAME, ADDRESS & ROUTE

Name: San Ramon Valley Intercommunity Hospital Address: 2680 Bishp Drive

Route:

AUTHORIZED FIELD PERSONNEL

Jim Tracy - Superintendent Gary Aguiar, Reg. P.E. - Project Manager

Dave Pichett - Soil Chemist (Precision Analytical Laboratory)

Dan Tawzer - Operations Manager

NAME OF SUBCONTRACTORS (Field Work)

Name: Erickson Telephone No. (415) 235-1393

Address: 255 Parr Boulevard Richmond, CA.

Authorized Representative: Larry

Name: Telephone No.

Address:

Authorized Representative:

APPROVALS

Project Manager 7 26 88
Date

HSO 7/26/88
Date

CHSO 7/26/88
Date

OPERATING PROCEDURES

508.0 HEALTH AND SAFETY PROCEDURES FOR FIELD INVESTIGATIONS OF UNDERGROUND SPILLS OF MOTOR OIL AND PETROLEUM DISTILLATE FUEL

508.1 PURPOSE

This operating procedure established minimum procedures for protecting personnel against the hazardous properties of motor oil and petroleum distillate fuels during the performance of field investigations of known and suspected underground releases of such materials. The procedure was developed to enable health and safety personnel and project managers to quickly prepare and issue site safety plans for investigations of such releases.

Whenever this procedure is used a Site Safety Plan form must be completed and attached; together, the completed form and this operating procedure shall comprise a site safety plan. Safety procedures for drilling, trenching, and other construction operations should be attached. Rules governing approval, distribution, acknowledgement of receipt of standard site safety plans are applicable whenever this procedure is used.

508.2 APPLICABILITY

This procedure is applicable to field investigations of underground releases of the substances listed below and involving one or more of the activities listed below.

Substances

Motor oil (used and unused)
Leaded and unleaded gasoline
No. 1 Fuel oil (kerosene, JP-1)
No. 1-D Fuel oil (light diesel)
No. 2 Fuel oil (home heating oil)
No. 2-D Fuel oil (medium diesel)
No. 4 Fuel oil (residual fuel oil)
No. 5 Fuel oil (residual fuel oil)
No. 6 Fuel oil (Bunker C fuel oil)
JP-3, 4 & 5 (jet fuels)
Gasahol

Activities

Collection of samples of subsurface soil with aid of truck-mounted drill rig, hand-held power auger or hand auger.

Construction, completion and testing of groundwater monitoring wells.

Collection of groundwater samples from new and existing wells.

Observing removal of underground fuel pipes and storage tanks.

This procedure must not be used for confined space entry (including trench entry) or for installing or operating pilot and full-scale fuel recovery systems.

No safety plans needed for non-intrusive geophysical surveys, reconnaissance surveys and collection of surface soil, surface water and biota.

508.3 RESPONSIBILITY AND AUTHORITY

Personnel responsible for project safety are the Business Unit Health and Safety Officer (HSO), the Project Manager (PM) and the Site Safety Officer (SSO).

The HSO is responsible for reviewing and approving site safety plans and any addenda and for advising both PM and SSO on health and safety matters. The HSO has the authority to audit compliance with the provisions of site safety plans. suspend work or modify work practices for safety reasons, and to dismiss from the site any individual whose conduct on site endangers the health and safety of others.

The PM is responsible for having site safety plans prepared and distributing them to all L&W field personnel and to an authorized representative of each firm contracted to assist with on-site work. The PM is also responsible for ensuring that the provisions of safety plans and their addenda are carried out. This includes ensuring that all L&W field personnel have met L&W's medical examination requirements and received adequate training, an adequate supply of safety equipment is available, and the required safety reports are submitted to the HSO. The authority of the PM in matters of safety is the same as that of the HSO.

The SSO is responsible for assisting the PM with on site implementation of site safety plans. Responsibilities include:

1. Maintaining safety equipment supplies.

2. Performing or supervising air quality measurements.

3. Directing decontamination operations and emergency response operations.

4. Setting up work zone markers and signs if such zones are specified in the site safety plan.

5. Reporting all accidents, incidents and infractions of safety rules and requirements.

6. Directing other personnel to wear protective equipment when use conditions described in Section 508.5.3 are met.

The SSO may suspend work anytime he/she determines that the provisions of the site safety plan are inadequate to ensure worker safety and inform the PM and HSO of individuals who on-site behavior jeopardizes their health and safety or the health and safety of others.

508.5 HAZARD EVALUATION

Motor oil and petroleum distillate fuels are mixtures of aliphatic and aromatic hydrocarbons. The predominant classes of compounds in motor oil, gasoline, kerosene and jet fuels are the paraffins (e.g., benzene, toluene). Gasoline contains about 80 percent paraffins, 6 percent naphthenes, and 14 percent aromatic. Kerosene and jet fuels contain 42-48 percent paraffins, 36-38 percent naphthenes, and 16-20 percent aromatic. Diesel fuels and heating oils contain less than 10 percent paraffins, 14-23 percent naphthenes, and 68-78 percent non-volatile aromatic. These heavier fuels contain almost no volatile aromatic compounds. Chemicals are usually added to automotive and aviation fuels to improve their burning properties. Examples are tetraethyl-lead and ethylene dibromide. Most additives are proprietary materials.

Flammability

Crude oil and petroleum distillate fuels possess two intrinsic hazardous properties, namely, flammability and toxicity. The flammable property of the oil and fuels presents a far greater hazard to field personnel than toxicity because it is difficult to protect against and can result in catastrophic consequences. Being

flammable, the vapors of volatile components of crude oil and the fuels can be explosive when confined.

The lower flammable or explosive limits (LFL or LEL) of the fuels listed in SEction 508.2 range from 0.6 percent for JP-5 to 1.4 percent for gasolines. LFL and LEL are synonyms. Flash points range from -36°F for gasoline to greater than 150°F for No. 6 fuel oil. JP-5 has a flash point of 140°F. Although it has a lower LEL than gasoline, it can be considered less hazardous because its vapors must be heated to a higher temperature to ignite.

Crude oil and petroleum distillate fuels will not burn in the liquid form; only the vapors will burn and only if the vapor concentration is between the upper and lower flammable limits, sufficient oxygen is present, and an ignition source is present. If these conditions occur in a confined area an explosion may result.

The probability of fire and explosion can be minimized by eliminating any one of the three factors needed to produce combustion. Two of the factors -- ignition source and vapor concentration -- can be controlled in many cases. Ignition can be controlled by prohibiting open fires and smoking on site, installing spark arrestors on drill rig engines, and turning the engines off when LELs are approached. Vapor concentrations can be reduced by using fans. In fuel tanks, vapor concentrations in the head space can be reduced by introducing dry ice (solid carbon dioxide) into the tank; the carbon dioxide gas will displace the combustible vapors.

Toxicity

Crude oil and petroleum distillate fuels exhibit relatively low acute inhalation and dermal toxicity. Concentrations of 160 to 270 ppm gasoline vapor have been reported to cause eye, nose and throat irritation after several hours of exposure. Levels of 500 to 900 ppm can cause irritation and dizziness in one hour, and 2000 ppm produces mile anesthesia in 30 minutes. Headaches have been reported with exposure to 25 ppm or more of gasoline vapors measured with a photoionization meter. Most fuels, particularly gasoline, kerosene and jet fuels are capable of causing skin irritation after several hours contact with the skin.

Petroleum fuels exhibit moderate oral toxicity. The lethal dose of gasoline in children has been reported to be as low as 10-15 grams (2-3 teaspoons). In adults, ingestion of 20-50 grams of gasoline may produce severe symptoms of poisoning. If liquid fuel aspirated (passed in to the lungs) gasoline and other petroleum distillate fuels may cause secondary pneumonia.

Some of the additives to gasoline, such as ethylene dichloride, ethylene dibromide, and tetraethyl and tetramethyl lead, are highly toxic; however, they are present in such low concentrations that their contribution to the overall toxicity of gasoline and other fuels is negligible in most instances.

OSHA has not developed permissible workplace exposure limits for crude oil and petroleum distillate fuels. It recommends using permissible exposure limits for individual components, such as benzene. ACGIH has established a permissible exposure limit of 300 ppm for gasoline. The limit took into consideration the average concentration of benzene in gasoline (one percent) as well as its common additives. Exposure limits established by other countries range from 250 to 500 ppm. Chemical data sheets, prepared for the U.S. Coast Guard's Chemical Hazard Information System (CHRIS), list 200 ppm as the permissible exposure limit for kerosene and jet fuels. This limit was not developed by NIOSH/OSHA or ACGIH.

508.5 HEALTH AND SAFETY DIRECTIVES

508.5.1 Personnel Clearance

L&W employees assigned to field operations must

1. Be certified by a L&W-approved physician as being physically fit to wear respiratory protective devices and to perform their assigned field work.

2. Be certified by a L&W Corporate Health and Safety Officer as having successfully completed, as a minimum, L&W's basic safety training course (Level C) for field personnel or the equivalent.

508.5.2 Site-Specific Safety Briefing

Before field work beings, all field personnel, including subcontractor employees, must be briefed on their work assignments and safety procedures contained in this document. Each must be provided with a copy of this document and submit a signed safety compliance agreement to the project manager before commencing work. Individuals refusing to sign the agreement will be prohibited from working.

508.5.3 Personnel Protective Equipment

Required Equipment

Each member of the L&W field team must be provided with the equipment listed below.

- NIOSH-approved full or half-face respirator with organic vapor cartridges (color coded black)
- Saranex or polyethylene-coated Tyvek coveralls
- Splash-proof safety goggles
- Nitrile or neoprene gloves
- Neoprene or butyl boots, calf-length with steel toe and shank
- Hardhat

Equipment Usage

Chemical-resistant safety boots must be worn during the performance of work where surface soil is obviously contaminated with oil or fuel, when product quantities of oil or fuel are likely to be encountered, and within 10 feet of operating heavy equipment.

Respirators must be worn whenever total airborne hydrocarbons levels in the breathing zone of field personnel reach or exceed a 15-minute average of 25 ppm. If total airborne hydrocarbons in the breathing zone exceeds 100 ppm, work must be suspended, personnel directed to move a safe distance from the source, and the HSO or designee consulted.

Chemical resistant gloves must be worn whenever soil or water known or suspected of containing petroleum hydrocarbons is collected or otherwise handled.

Chemical resistant coveralls must be worn whenever product quantities of fuel are actually encountered and when oil or fuel-saturated soil is handled.

Safety goggles must be worn when working within 10 feet of any operating heavy equipment (e.g., drill rig, backhoe). Splash-proof goggles or face shields must be worn whenever product quantities of oil or fuel are encountered.

Hardhats must be worn when working within 10 feet of an operating drill rig, backhoe or other heavy equipment.

Operators of some facilities, such as refineries, often require all personnel working within facility boundaries to wear certain specified safety equipment. Such requirements shall be strictly observed by L&W personnel and its subcontractors.

508.5.4 Vapor Monitoring

Required Equipment

--- Organic vapor meter with flame or photoionization detector
--- Combustible gas meter

Monitoring Requirements and Guidelines

Vapor monitoring shall be performed as often as necessary and whenever necessary to protect field personnel from hazardous vapors. Monitoring must be performed by individuals trained in the use and care of the monitoring equipment.

During drilling operations, vapor emissions from boreholes must be measured whenever the auger is removed from the boring and whenever flights are added or removed from hollow-stem augers. This requirement does not apply to borings less than five feet deep and borings of any depth made to install monitoring wells in uncontaminated soils. Measurements should be made initially with an organic vapor meter, followed with a combustible gas meter if vapor levels exceed the highest concentration measurable with the organic vapor meter.

Initially measurements shall be made about 12 inches from the bore hole, both upwind and downwind positions. If the total hydrocarbon concentrations exceed the respirator use action level (See Section 508.5.2), measurements must be made in the breathing zone of the individual(s) working closest to the borehole. Decisions regarding respiratory protection should be made using vapor concentrations in the breathing zone.

Organic vapor meters capable of being operated continuously without attention may be operated in that fashion if desired. However, the instrument must be equipped with an alarm set to sound when vapor concentrations reach 25 ppm and must be protected against physical damage and soilage.

If total organic vapor concentrations within 12 inches of the borehole exceed the capacity of the organic vapor meter, a combustible gas meter (CGM) must be used to determine if explosive conditions exist. Operations must be suspended, the drill rig motor shut down, and corrective action taken if combustible gas concentrations reach 40 percent of LEL within a 12-inch radius of

the borehole or 10 percent of LEL at a distance greater than 24 inches from the borehole. This procedure must also be followed whenever the organic vapor meter goes offscale at its highest range and no CGM is available. If corrective action cannot be taken, field personnel and all other individuals in the vicinity of the borehole must be directed to move to a safe are and the local fire department and facility management must be alerted.

Organic vapor meters with flame ionization detectors (FID) are much more sensitive to paraffins, with the major component of gasoline, kerosene, and jet fuels, then are meters with 10.0 or 10.2 eV photoionization detectors. As the data in Table 1 show, an FID instrument, such as the Century Systems OVA (Foxboro Analytical), will detect 70-90 percent of actual paraffin concentrations, whereas PID instruments, such as the HNU Model PI-101, AID Model 580, and Photovac TIP with 10.0 to 10.2 eV lamp will detect only 17-25 percent of actual paraffin concentrations when calibrated with benzene and only 24-35 percent when calibrated with isobutylene. Both types of meters are equally sensitive to most aromatic, including benzene, toluene, xylene and ethylbenzene. For these compounds, meter readings equal or exceed 100 percent of actual concentrations. PIDs with 11.7 eV lamps are extremely sensitive to paraffins and aromatic. When calibrated to isobutylene, an 11.7 eV PID will register about twice actual paraffin concentrations and 100 percent or more of actual concentrations of benzene, toluene, and xylene.

An FID meter, recently calibrated with methane and in good working condition, can be expected to provide readings close enough to actual petroleum hydrocarbon concentrations to make corrections unnecessary. Value obtained with a PID must be corrected when measuring for paraffins. For 10.0 and 10.2 eV PIDs, the meter reading should be multiplied by 5 if the instrument is calibrated with benzene. If the instrument is calibrated with isobutylene, the meter readings should be multiplied by 3. If the instrument is equipped with an 11.7 eV probe and is calibrated with isobutylene, the meter reading should be divided by 2.

508.5.5 Area Control

Access to hazardous and potential hazardous areas of spill sites must be controlled to reduce the probability of occurrence of physical injury and chemical exposure of field personnel, visitors and the public. A hazardous or potentially hazardous area includes any area where

1. Field personnel are required to wear respirators.

2. Borings are being drilled with powered augers.

3. Excavating operations with heavy equipment are being performed.

The boundaries of hazardous and potentially hazardous areas must be identified by cordons, barricades, or emergency traffic cones or posts, depending on conditions. If such areas are left unattended, signs warning of the danger and forbidding entry must be placed around the perimeter if the areas are accessible to the public. Trenches and other large holes must be guarded with wooded or metal barricades spaced no further than 20 feet apart and connected with yellow or yellow and black nylon tape not less and 3/4-inches wide. The barricades must be placed no less than two feet from the edge of the excavation or hole.

Entry to hazardous areas shall be limited to individuals who must work in those areas. Unofficial visitors must not be permitted to enter hazardous areas while work in those areas is in progress. Official visitors should be discouraged from entering hazardous areas, but may be allowed to enter only if they agree to abide by the provisions of this document, follow orders issued by the site safety officer and are informed of the potential dangers that could be encountered in the areas.

508.5.6 Decontamination

Field decontamination of personnel and equipment is not required except when contamination is obvious (visually or by odor). Recommended decontamination procedures follow:

Personnel

Gasoline, kerosene, jet fuel, heating oil, gasahol and diesel oil should be removed from skin using a mild detergent and water. Hot water is more effective than cold. Liquid dishwashing detergent is more effective than hand soap. Motor oil and the heavier fuel oils (No. 4-6) can be removed with dishwashing detergent and hot ware also; however, if weathered to an asphaltic condition, mechanic's waterless hand cleaner is recommended for initial cleaning followed by detergent and water.

Equipment

Gloves, respirators, hardhats, boots and goggles should be cleaned as described under personnel; however, if boots do not become clean after washing with detergent and water, wash them with a strong solution of trisodium phosphate and hot water and, if this fails, clean them with diesel oil followed by detergent and water to remove diesel oil.

Sampling equipment, augers, vehicle undercarriages and tires should be steam cleaned. The steam cleaner is a convenient source of hot water for personnel and protective equipment cleaning.

508.5.7 Smoking

Smoking and open flames are strictly prohibited at sites under investigation.

508.5.8 Inerting of Tanks

Whenever L&W personnel must be present during removal or transport of fuel storage tanks, the SSO or designee must determine whether or not the procedures to be used by the firm responsible for tank removal/transport agree with procedures recommended by the America Petroleum Institute (attached). If the firm's procedures, especially those addressing removal/inactivation of flammable vapors, disagree substantially with API's procedures, the PM and HSO must be notified immediately (by telephone if possible). In turn, the PM shall inform the client that L&W personnel will not report to the site during tank removal/transport operations unless proper procedures are used. If the firm responsible for tank removal/transport is under subcontract to L&W it must be required to follow API procedures.

508.5.8 Reporting

Site Safety Plan Form must be completed and delivered to the HSO for each accident or incident involving L&W personnel. The form is available from the HSO.

The Site Safety Officer shall prepare a safety completion report after field work has been completed and deliver it to the HSO. The report shall contain and evaluation of the adequacy of the safety plan, summaries of each accident and safety incident, including safety infractions by site personnel (subcontractors included), air quality monitoring data (if collected) and description of decisions based on them, and recommendation for improving safety at similar sites.

TABLE 1
RELATIVE SENSITIVITIES OF FID AND PID INSTRUMENTS TO SELECTED COMPONENTS OF OILS AND PETROLEUM DISTILLATE FUELS

Component	Sensitivity in Percent of Standard		
	FID	PID	
		10.2 eV[a]	11.7 eV[b]
Paraffins			
Pentane	65	--	141
Hexane	70	22 (31)	189
Heptane	75	17 (24)	221
Octane	80	25 (35)	--
Nonane	90		--
Decane	75	--	--
Napthenes			
Cyclopentane	--	--	--
Methylcyclopentane	80	--	--
Cyclohexane	85	34 (40)	--
Methylcyclohexane	100	--	--
Aromatic			
Benzene	150	100 (143)	122
Toluene	110	100 (143)	100
Ethylbenzene	100	--	--
p-Xylene	116	114 (60)	--
Cumene	100	--	--
n-Propylbenzene	--	--	--
Napthaeine	--	--	--

[a] Values are relative to benzene standard. Values in parentheses are relative to isobutylene standard and were calculated.

[b] Values are relative to isobutylene standard.