



General Services Agency

Darlene A. Smith, Director

December 15, 1995

Mr. Scott Seery, CHMM
Senior Hazardous Materials Specialist
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

ENVIRONMENTAL
PROTECTION
95 DEC 20 AM 9:58

**SUBJECT: UST 18 & 19 - BACKFILLING AND STOCKPILE SPREADING
SANTA RITA CORRECTIONAL FACILITY, DUBLIN, CALIFORNIA**

Dear Mr. Seery:

Enclosed for your records is a copy of Environmental Science & Engineering Inc.'s December 4, 1995 report documenting backfilling and stockpile spreading activities at the UST 18 & 19 site. This completes required site closure work.

If you have any questions or need additional information, please call me at 2-9522.

Sincerely,

Rod Freitag, P.E.
Environmental Program Manager

enclosures

cc: Mr. Tom Peacock, Department of Environmental Health
Mr. Patrick Cashman, Surplus Property Authority

RDF:rdg:\project\env\7087sr\eh1215.doc

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, DIRECTOR

December 4, 1995

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

STID 5541

Mr. Rod Freitag
Alameda County GSA
Engineering & Environmental Management Department
1401 Lakeside Drive, 11th Floor
Oakland, CA 94612

RE: SANTA RITA FACILITY, CENTRAL PARCEL, "OLD BOILER PLANT,"
USTS 1, 2, 3 - SUPPLEMENTAL SITE ASSESSMENT

Dear Mr. Freitag:

I am in receipt of the November 1995 Environmental Science & Engineering, Inc. (ESE) *Workplan for Site Investigation, UST 1, 2, 3 Site* for the supplemental investigation of the former "Old Boiler Plant" underground storage tank (UST) area. Three soil borings will be advanced with soil and Hydropunch® ground water samples collected from each.

The cited ESE work plan has been accepted as submitted.

Please call me at 510/567-6783 when field work is scheduled to begin or you have any questions.

Sincerely,



Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Jun Makishima, Acting Director
Robert Weston, ACDEH
Bart Miller, Environmental Science & Engineering, Inc.



General Services Agency

Darlene A. Smith, Director

November 2, 1995

Mr. Scott Seery, CHMM
Senior Hazardous Materials Specialist
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

ENVIRONMENTAL
PROTECTION
95 NOV -6 AM 9:09

SUBJECT: UST 1, 2, 3 SITE, SANTA RITA FACILITY, DUBLIN, CALIFORNIA

Dear Mr. Seery:

In response to your inquiries, Alameda County General Services Agency provides the following information pertaining to closure of the subject site:

- Our records indicate that the UST 1, 2, 3 excavation was backfilled in the middle of May, 1988. Based on a report/workplan submitted to your department on May 4, 1988, and an internal requisition for backfilling services from Environmental Technology, it appears that clean on-site soils were used to backfill the excavation. Additional information regarding the source of the clean fill could not be located.
- The UST 1, 2, 3 site is located in an area zoned for commercial office development. A site development map is attached.

I trust this information meets your present needs. Please call me at extension 2-9522 if I can be of further assistance.

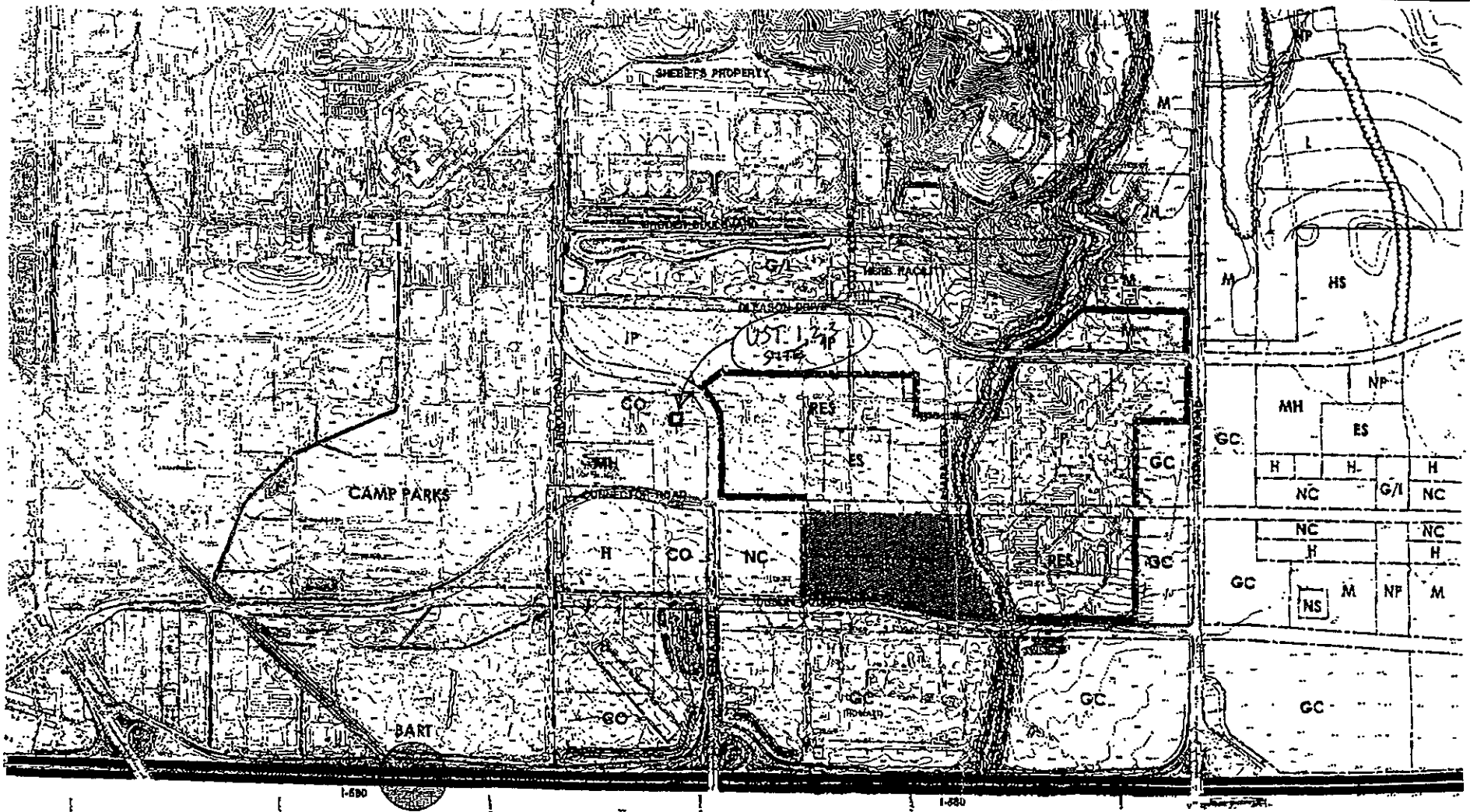
Sincerely,

Rod Freitag, P.E.
Environmental Program Manager

cc: Jim de Vos, GSA-E&EM

attachment

RDF:rdg:\project\env\7055sr12\eh1102.doc



LEGEND

COMMERCIAL

- NC NEIGHBORHOOD COMMERCIAL
- OC GENERAL COMMERCIAL
- CO CAMPUS OFFICE
- IP INDUSTRIAL PARK

RESIDENTIAL

- H HIGH DENSITY
- MH MEDIUM HIGH DENSITY
- M MEDIUM DENSITY
- L LOW DENSITY
- RES RESIDENTIAL (MIXED PRODUCTS)

PUBLIC/SEMI-PUBLIC

- CS PUBLIC/SEMI-PUBLIC
- ES ELEMENTARY SCHOOL
- JH JUNIOR HIGH SCHOOL
- HS HIGH SCHOOL

PARKS AND RECREATION

- P CITY PARK
- NP NEIGHBORHOOD PARK
- NS NEIGHBORHOOD SQUARE
- OS OPEN SPACE
- SPFAM COINTEGRATED



TOWN CENTER
RESIDENTIAL SUB AREA



RESIDENTIAL
DEVELOPMENT SITE I

EXHIBIT B
LAND USE DIAGRAM
EASTERN DUBLIN SPECIFIC PLAN

RESIDENTIAL DEVELOPMENT SITE I
ALAMEDA COUNTY SURPLUS PROPERTY AUTHORITY
DUBLIN, CALIFORNIA

MAY, 1992

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, DIRECTOR

STID 5541

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

September 25, 1995

Mr. Rod Freitag
Alameda County General Services Agency
Engineering & Environmental Management Dept.
1401 Lakeside Drive, 11th Floor
Oakland, CA 94612

RE: SANTA RITA - FORMER MILITARY HOSPITAL SITE, USTs #18 & 19

Dear Mr. Freitag:

This office has reviewed the September 12, 1995 Versar, Inc. (Versar) report evaluating the results of the sampling of stockpiled material presently located at the noted Santa Rita subsite. As you are aware, the subject stockpiles are comprised of material derived from the UST 18/19 closures (~160 yds³), ~200 yds³ excavated during tank closures at the "Old Graystone" fueling complex, and ~100 yds³ of surplus backfill material from the Highland Hospital (Oakland) tank removal. Each stockpile contains some residual concentrations (≤360 ppm) of petroleum oil and grease and/or diesel-range fuel compounds. Fuel aromatic compounds were not detected.

Versar reportedly evaluated the subject analytical results in context with other sampling data generated in preparation to perform leachability studies (SESOIL) for materials derived from two other Santa Rita subsites during previous tank closures. These data were compared in order to extrapolate leachability and vertical transport potential of the subject soil stockpiles should they be reintroduced to the site at grade.

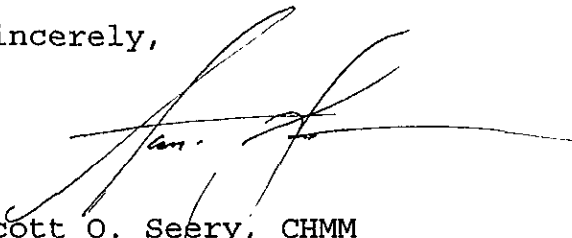
Versar reports that, based on their data extrapolation, the subject stockpiled material may be spread on site without adversely affecting underlying ground water. Versar concludes that such material could be safely spread in areas slated for commercial or industrial development, and that reintroduction of this material to areas of the site planned for residential development is not recommended in the absence of a human health risk evaluation.

This office concurs with this evaluation. Therefore, the subject material may be reintroduced **at grade** to the site of origin (Santa Rita) in areas anticipated for commercial or industrial development.

Mr. Freitag
RE: Santa Rita, UST 18/19, stockpiles
September 25, 1995
Page 2 of 2

Please contact me at 510/567-6783 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott O. Seery", written over a horizontal line.

Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Jun Makishima, Acting Agency Director
Kevin Graves, RWQCB
Tom Peacock, ACDEH
Rob Weston, ACDEH
Jim Ferdinand, Alameda County Fire Department

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Director

August 17, 1995

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

STID 5541

Mr. Rod Freitag
General Services Agency
Engineering & Environmental Management Department
1401 Lakeside Drive, 11th Floor
Oakland, CA 94612

RE: 4TH AND MADIGAN SITE, SANTA RITA REHABILITATION FACILITY -
CENTRAL PARCEL

Dear Mr. Freitag:

As we discussed yesterday, the August 2, 1995 Versar, Inc. subsurface investigation work plan, as amended and annotated August 16, 1995, has been accepted with concurrence from Mr. Kevin Graves of the San Francisco Bay Regional Water Quality Control Board (RWQCB). Please be certain that the report documenting the completion of this work is endorsed by a California-registered geologist or civil engineer.

Please contact this office when field work has been scheduled to begin. I may be reached at 510/567-6783.

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott O. Seery', written over a horizontal line.

Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

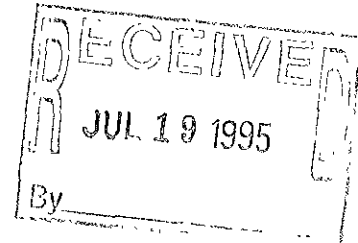
cc: Jun Makishima, Acting Director
Kevin Graves, RWQCB
John Bird, Versar, Inc., 1255 Harbor Bay Pkwy., Ste.100
Alameda, CA 94502



General Services Agency

Darlene A. Smith, Director

July 17, 1995



Mr. Scott Seery, CHMM
Senior Hazardous Materials Specialist
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

**SUBJECT: SPREADING OF STOCKPILED SOIL AT 4TH AND MADIGAN
SANTA RITA CORRECTIONAL FACILITY, DUBLIN, CA**

Dear Mr. Seery:

Enclosed for your records is a copy of Environmental Science & Engineering Inc.'s June 26, 1995 report documenting the spreading of approximately 500 cubic yards of soil at the subject site.

If you have any questions or need additional information, please call me at 2-9522.

Sincerely,

Rod Freitag, P.E.
Environmental Program Manager

enclosures

cc: Mr. Tom Peacock, Department of Environmental Health
Mr. Patrick Cashman, Surplus Property Authority

RDF:rdg:\project\env\7056sr4\eh0714.doc



General Services Agency

Darlene A. Smith, Director

July 17, 1995

Mr. Scott Seery, CHMM
Senior Hazardous Materials Specialist
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

SUBJECT: USTs 18 & 19, SANTA RITA CORRECTIONAL FACILITY, DUBLIN, CA

Dear Mr. Seery:

Enclosed is a copy of a June 26, 1995 letter from ES&E verifying removal of visibly contaminated soil prior to tank closure sampling at the UST 18 & 19 site. Also enclosed is ES&E's July 11, 1995 report documenting characterization of soil stockpiles generated during tank removal activities. Please review both documents and let me know if soil and/or groundwater investigation will be required for closure of this site.

If you have questions or need additional information, I can be contacted at 208-9522 (2-9522). Thank you for your continued assistance.

Sincerely,

Rod Freitag, P.E.
Environmental Program Manager

enclosure

RDF:rdg:\project\env\7087sr\eh0714.doc



General Services Agency

Darlene A. Smith, Director

July 12, 1995

Mr. Scott Seery, CHMM
Senior Hazardous Materials Specialist
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

95 JUL 13 AM 10:30
ENVIRONMENTAL
HEALTH DEPARTMENT

SUBJECT: FOURTH QUARTER GROUNDWATER MONITORING REPORT FOR THE UST 1, 2, 3 SITE, SANTA RITA FACILITY, DUBLIN, CALIFORNIA AND REGULATORY CASE CLOSURE REQUEST FOR THE UST 1, 2, 3 SITE

Dear Mr. Seery:

Enclosed for your review are two copies of the *June 19, 1995 Quarterly Monitoring Report, Alameda County UST 1, 2, 3 Site, Santa Rita Correctional Facility, Dublin, California*. This report was prepared by Environmental Science & Engineering, Inc. (ES&E), environmental consultant. Also enclosed is a letter from ES&E indicating that they were unable to locate documents related to final excavation and sampling at the site. This letter is being provided in response to your January 11, 1995 letter to GSA.

The County of Alameda has now demonstrated four consecutive quarters of groundwater monitoring at the UST 1, 2, 3 site in which the laboratory results for TPH-D and BTEX are well below the Maximum Contaminant Levels for drinking water. Accordingly, we request **case closure**.

If you have any questions or need additional information, please call me at 2-9522.

Sincerely,

Rod Freitag, P.E.
Environmental Program Manager

enclosures

cc: Mr. Tom Peacock, Department of Environmental Health
Mr. Patrick Cashman, Surplus Property Authority

RDF:rdg:\project\env\7055sr12\eh0630.doc



Environmental
Science &
Engineering, Inc.

JUN 29 1995

June 26, 1995

Mr. Rod Freitag, P.E.
Environmental Project Manager
Alameda County
General Services Agency
Engineering & Environmental Management
1401 Lakeside Drive
Oakland, CA 94612

**SUBJECT: 4TH AND MADIGAN SITE
SANTA RITA CORRECTIONAL FACILITY
DUBLIN, CALIFORNIA
ESE PROJECT NO. 65-95-062**

Dear Mr. Freitag:

Pursuant to your request, Environmental Science & Engineering, Inc. (ESE) has prepared the following report to document the spreading of stockpiled soil located at the 4th and Madigan Site at the Santa Rita Correctional Facility, Dublin, California (Figure 1 - Location Map). This document presents the procedures used during the site activities.

SITE ACTIVITIES

On May 25, 1995, ESE supervised Caballero Trucking of San Jose, California (a State Licensed excavation and hauling contractor) during the loading and spreading of soil stockpiled at the subject site. This work was performed with the approval of the Alameda County Health Care Services Agency (see enclosed letter dated July 18, 1994) and in accordance with appropriate Federal, State, and local guidelines.

Prior to the start of work, all onsite personnel attended a brief health and safety meeting. The purpose of the meeting was to summarize the site-specific Health and Safety Plan (HASP) and describe the potential hazards. All work was performed using level D personal protective wear.

Approximately 500 cubic yards of soil were loaded into trucks using an excavator and transported south along Madigan Avenue to the opposite side of the 4th Street intersection (Figure 2 - Site Plan). ESE monitored the stockpiled soil for volatile organic compounds using a photoionization detector during loading. This soil was then spread in an eight to ten-inch thick lift along the west side of Madigan Avenue over an area of approximately 180 feet by 40 feet. Large concrete fragments were separated from the soil during the loading process and were stockpiled on the west side of Madigan Avenue just north of the 4th Street intersection.

Mr. Freitag
June 26, 1995
Page 2

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Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other geologists and engineers practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report. If you have any questions or comments regarding the contents of this letter report, please contact the undersigned at (510) 685-4053.

Sincerely,
ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

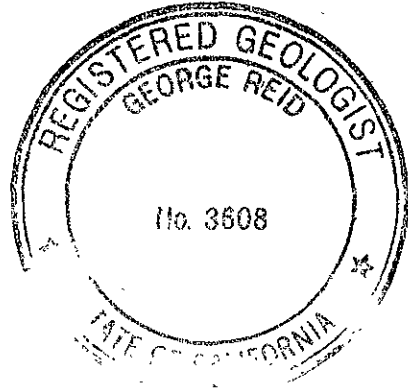


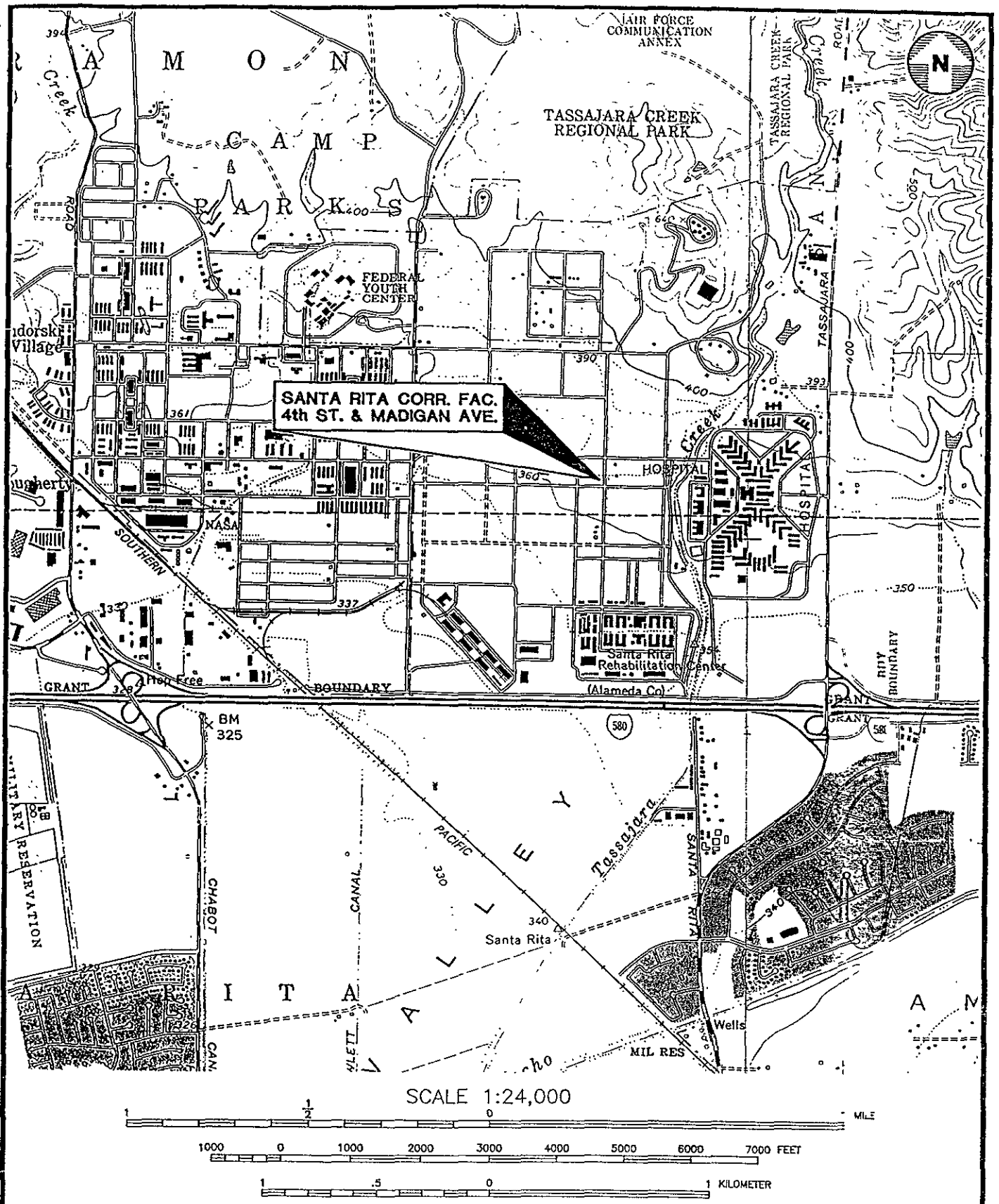
Bart S. Miller
Project Geologist



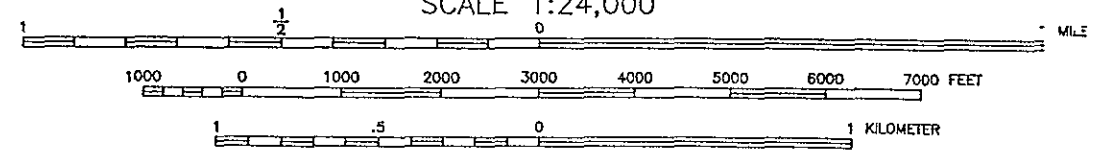
George Reid, R.G.
Manager, Geosciences

- Attachments: (1) Figure 1
(2) Figure 2
(3) HCSA Letter Dated 7/18/94




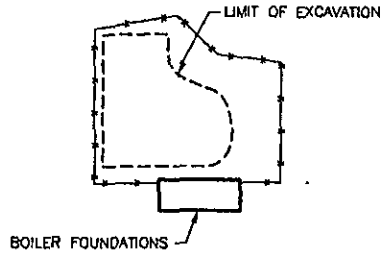


SCALE 1:24,000



ADAPTED FROM U.S.G.S. DUBLIN AND LIVERMORE, CALIFORNIA 7.5 MINUTE TOPOGRAPHIC QUADRANGLE MAPS, 1980.

 <p>Environmental Science & Engineering, Inc. <small>A CH2ORP Company</small></p>	DATE 11/93	LOCATION MAP	FIG. RE NO. 1
	REVISED		ALAMEDA COUNTY GSA SANTA RITA CORRECTIONAL FACILITY DUBLIN, CALIFORNIA
4090 NELSON AVENUE, SUITE J CONCORD, CA 94520	CAD FILE 50771010		



MADIGAN AVENUE

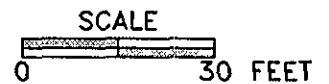
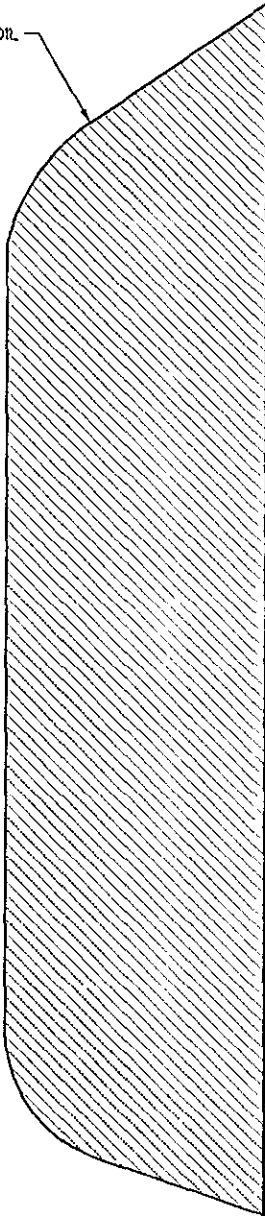


LEGEND

- x- PORTABLE FENCING
- [Hatched Box] SPREAD SOIL

4th STREET

LIMIT OF SPREAD SOIL



Environmental
Science &
Engineering, Inc.

DATE
11/93
REVISED
6/21/95
CAD FILE
65506202

SITE PLAN

ALAMEDA COUNTY GSA
SANTA RITA CORRECTIONAL FACILITY
DUBLIN, CALIFORNIA

FIGURE NO.

2

PROJ. NO.
65-95-062

4090 NELSON AVENUE, SUITE J
CONCORD, CA 94520



Environmental
Science &
Engineering, Inc.

JUL 11 1995

June 26, 1995

Mr. Rod Freitag, P.E.
Environmental Project Manager
Alameda County General Services Agency
Engineering & Environmental Management
1401 Lakeside Drive
Oakland, CA 94612

95 JUL 13 AM 8:52
ENVIRONMENTAL

**SUBJECT: UST 1, 2, 3 SITE
SANTA RITA CORRECTIONAL FACILITY
DUBLIN, CALIFORNIA
ESE PROJECT NO. 6-94-5240**

Dear Mr. Freitag:

Pursuant to your recent request, Environmental Science & Engineering, Inc. (ESE) has prepared this letter to document the results of a records search pertaining to the UST 1, 2, 3 Site located at the Santa Rita Correctional Facility, Dublin, California (Figure 1 - Location Map).

ESE has reviewed a site investigation report prepared by Gregg & Associates during May, 1988 pertaining to the subject site. This report documents the following:

- All underground storage tanks (USTs) at the site were removed under the direction of Environmental Technology during March, 1988;
- Analytical results for some confirmatory soil samples collected during UST removal were reported to contain detectable concentrations of petroleum hydrocarbons;
- A subsurface investigation performed by Gregg & Associates during March, 1988 defined the extent of soil impacted with petroleum hydrocarbons at the site;
- All findings pertaining to the UST removal and subsurface investigation activities described above were documented by Gregg & Associates in the May, 1988 report;
- Gregg & Associates May, 1988 report also documents plans to excavate and treat impacted soil on-site;

Approximately 400 cubic yards of impacted soil were excavated by Gregg & Associates in 1988. ESE profiled and disposed of the soil during November and December, 1993, as documented in ESE's July 20, 1994 letter report.

Mr. Freitag
June 26, 1995
Page 2

JUL 11 1995

ESE installed four ground water monitoring wells at the site during September, 1994 and did not observe detectable concentrations of petroleum hydrocarbons in ground water samples collected at the site during four quarters of monitoring.

Gregg & Associates was purchased by ESE during 1989 and their project files were transferred to our Concord, California office location. ESE has researched these project files in detail and was unable to locate any reports, field notes or laboratory documentation associated with the excavation activities performed by Gregg & Associates at the site during 1988. However, the excavation activities were evidenced by the presence of the stockpiled soil at the site. In addition, some soil samples collected from the stockpile during profiling were noted to contain detectable concentrations of petroleum hydrocarbons. The absence of detectable concentrations of petroleum hydrocarbons in ground water samples subsequently collected at the site suggest that the excavation activities were successful in removing the impacted soil. Given this, ESE concludes that impacted soil at the site has been excavated and subsequently disposed.

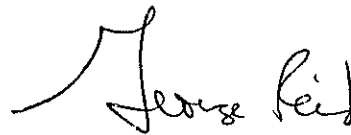
o o O o o

Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other geologists and engineers practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report. If you have any questions or comments regarding the contents of this letter report, please contact Bart Miller at (510) 685-4053.

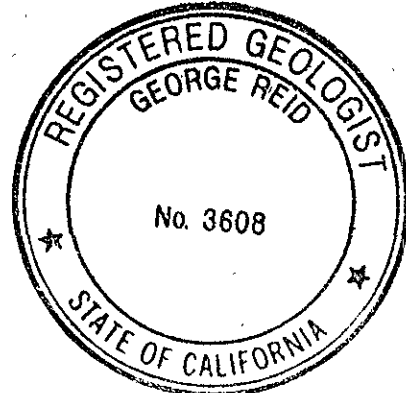
Sincerely,
ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

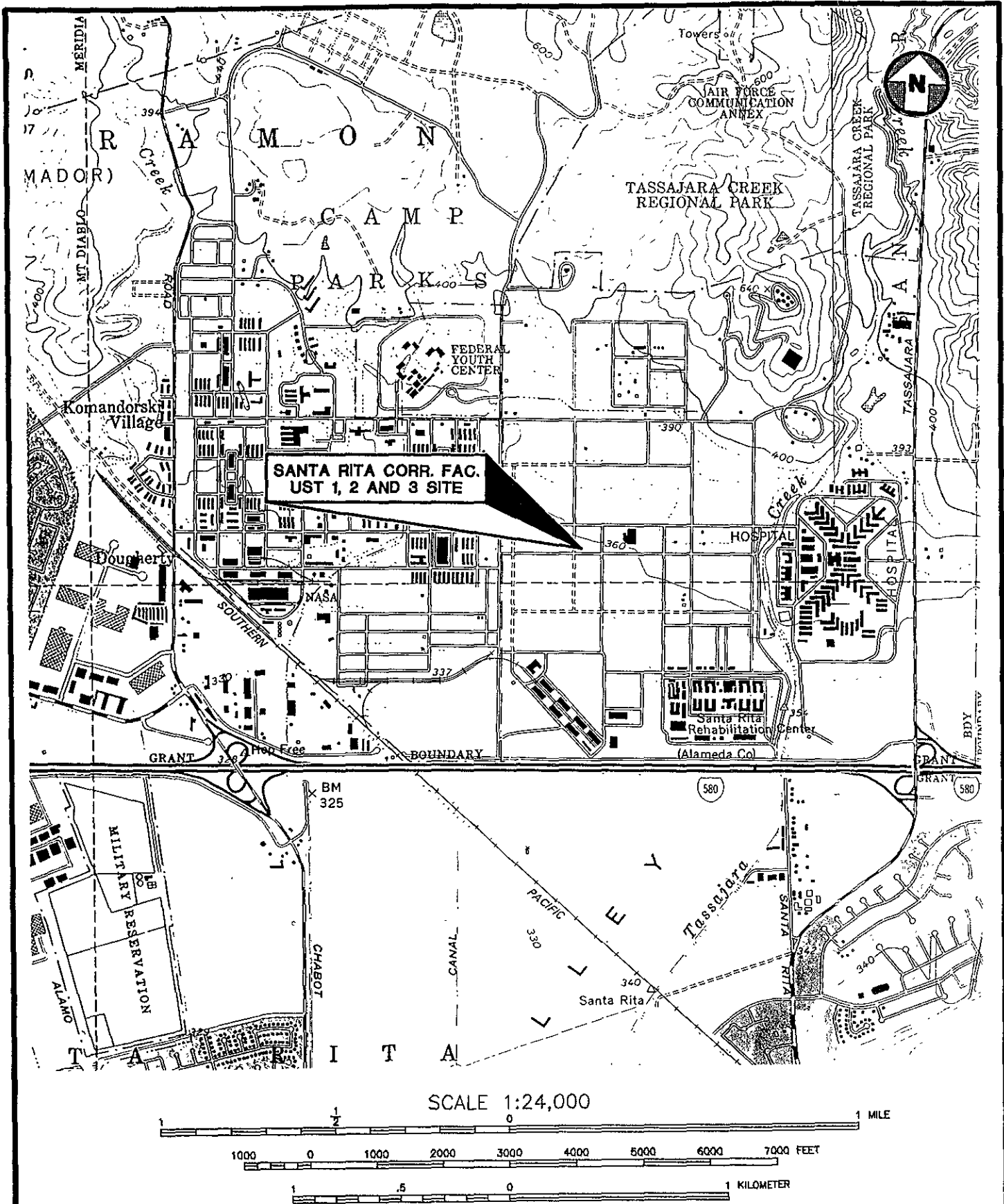


Bart S. Miller
Project Geologist




George Reid, R.G.
Manager, Geosciences





ADAPTED FROM U.S.G.S. DUBLIN AND LIVERMORE, CALIFORNIA, 7.5 MINUTE TOPOGRAPHIC QUADRANGLE MAPS, 1980.

 <p>Environmental Science & Engineering, Inc.</p>	DATE 11/23/94	LOCATION MAP	FIGURE NO. 1
	REVISED		ALAMEDA COUNTY - UST 1,2,3 SITE SANTA RITA CORRECTIONAL FACILITY DUBLIN, CALIFORNIA
4090 NELSON AVENUE, SUITE J CONCORD, CA 94520		CAD FILE 52400005	



Environmental
Science &
Engineering, Inc.

JUN 29 1995

June 26, 1995

Mr. Rod Freitag, P.E.
Environmental Project Manager
Alameda County
General Services Agency
Engineering & Environmental Management
1401 Lakeside Drive
Oakland, CA 94612

**SUBJECT: UST 18 & 19 SITE
SANTA RITA CORRECTIONAL FACILITY
DUBLIN, CALIFORNIA
ESE PROJECT NO. 65-95-068**

Dear Mr. Freitag:

Pursuant to your recent request, Environmental Science & Engineering, Inc. (ESE) has prepared this letter to provide additional clarification concerning activities performed at the UST 18 & 19 Site located at the Santa Rita Correctional Facility, Dublin, California (Figure 1 -Location Map).

5/18/92?
On May 13 and 14, 1992, two underground storage tanks (USTs) located at the site were excavated and removed under the supervision of ESE. These site activities were documented in a letter report dated July 20, 1992 and submitted to the Alameda County General Services Agency (GSA) and the Alameda County Health Care Services Agency (HCSA).

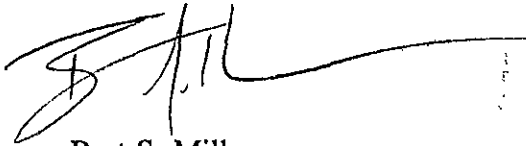
A one-foot thick layer of soil impacted with petroleum hydrocarbons was identified in the UST excavation at a depth of approximately 13 feet below grade. This layer of soil was observed to occur at the bottom of each UST directly above an underlying concrete anchor pad. ESE excavated all of the visibly impacted soil and placed it in a stockpile located at the north side of the excavation. Upon completion of excavation activities confirmation soil samples were collected from the bottom of the excavation immediately adjacent to the UST pads, as directed by Jeff Shapiro of the HCSA. Sample locations and analytical results are documented in ESE's July 20, 1992 report.

Mr. Freitag
June 26, 1995
Page 2

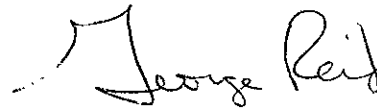
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Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other geologists and engineers practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report. If you have any questions or comments regarding the contents of this letter report, please contact the undersigned at (510) 685-4053.

Sincerely,
ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

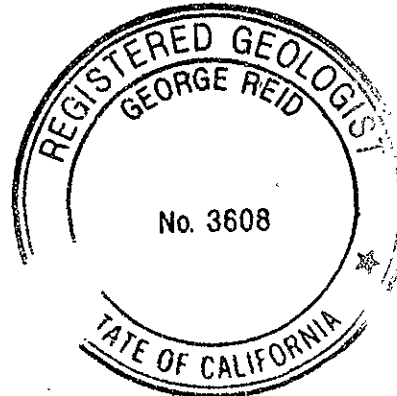


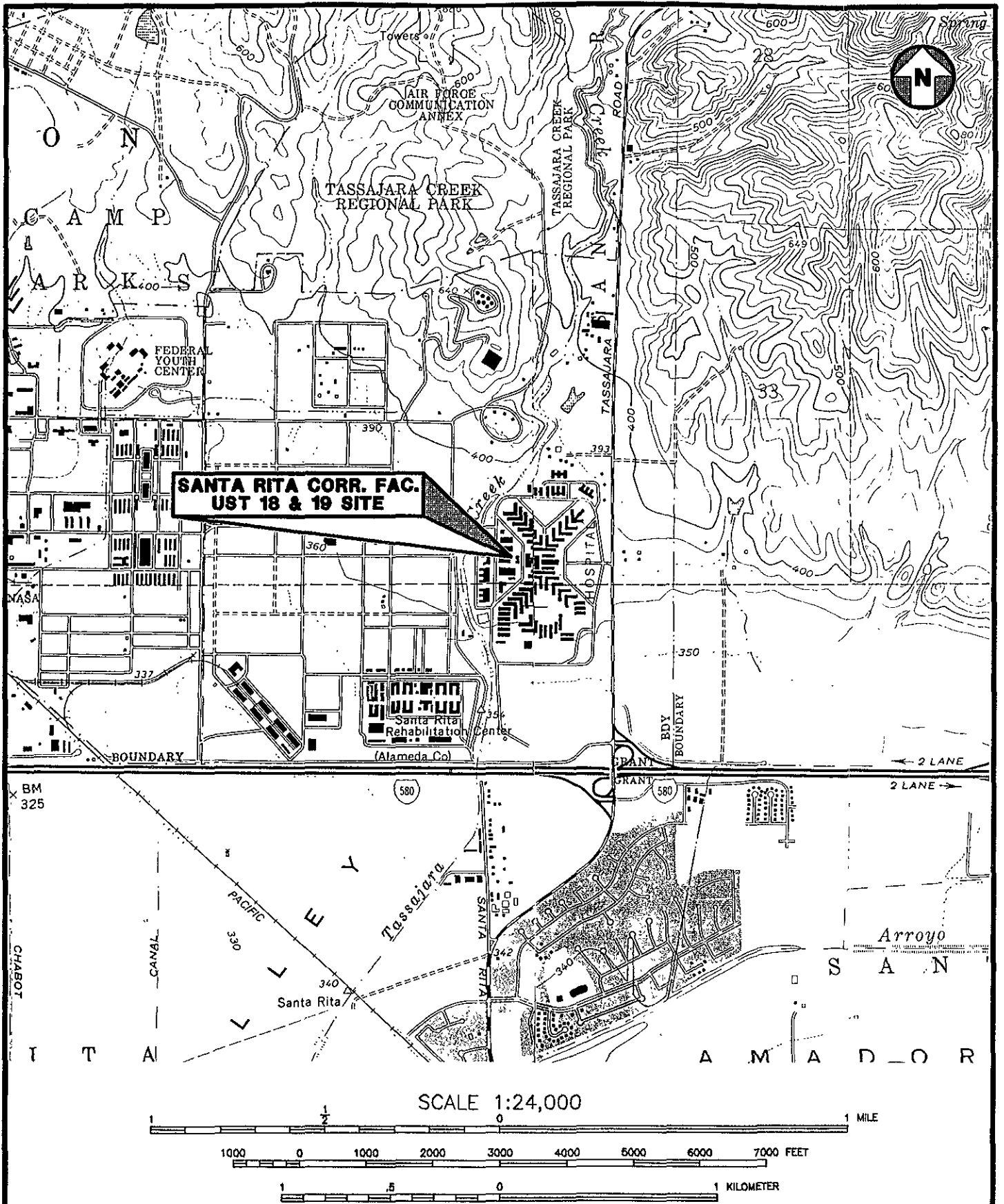
Bart S. Miller
Project Geologist



George Reid, R.G.
Manager, Geosciences

Attachment: (1) Figure 1





ADAPTED FROM U.S.G.S. DUBLIN AND LIVERMORE, CALIFORNIA, 7.5 MINUTE TOPOGRAPHIC QUADRANGLE MAPS, 1980



**Environmental
Science &
Engineering, Inc.**

DATE
6/21/95

REVISED

CAD FILE
65506801

VICINITY MAP

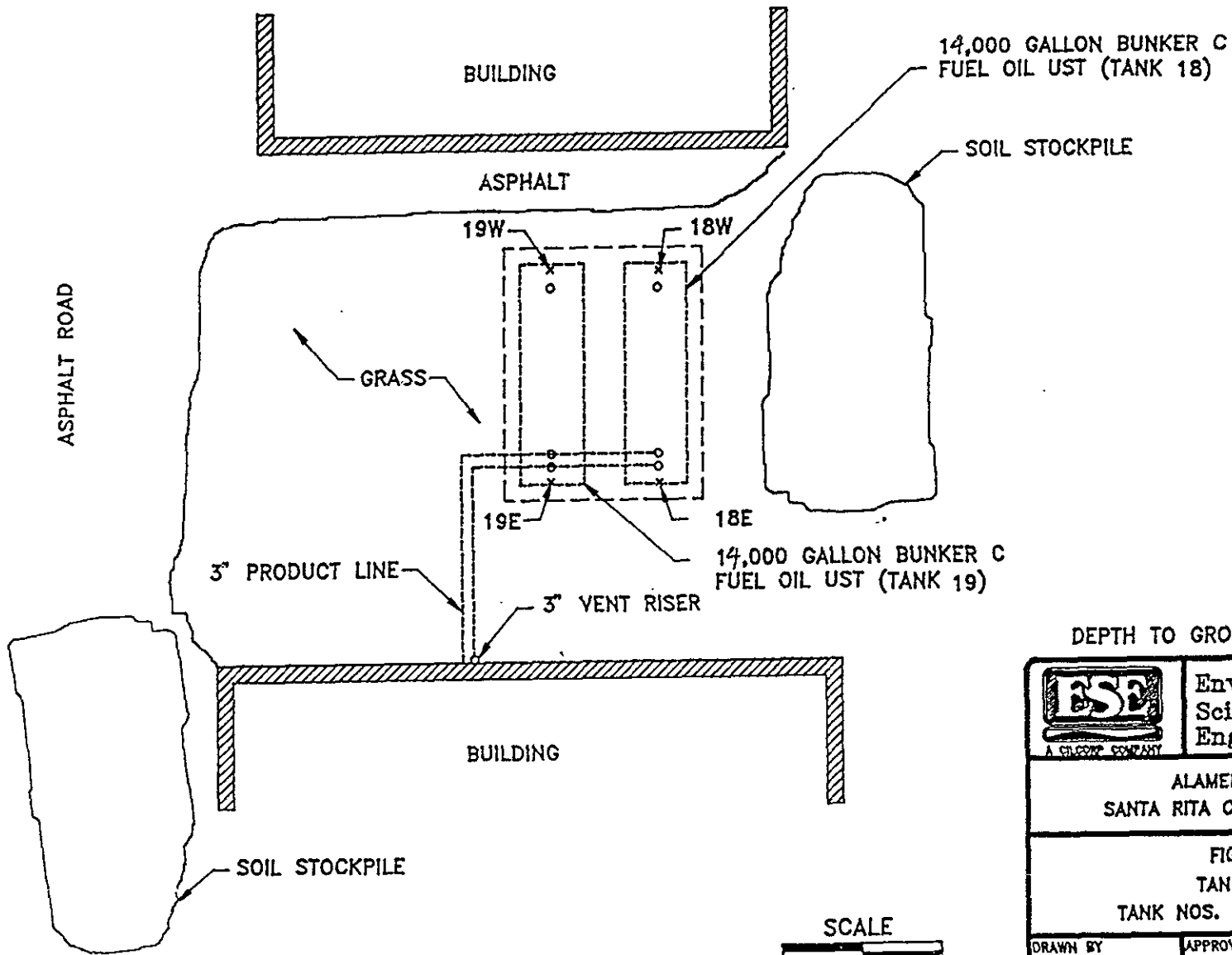
**ALAMEDA COUNTY GSA - UST 18 & 19 SITE
SANTA RITA CORRECTIONAL FACILITY
DUBLIN, CALIFORNIA**

FIGURE NO.

1

PROJ. NO.
65-95-068

4090 NELSON AVENUE, SUITE J
CONCORD, CA 94520



DEPTH TO GROUND WATER: 30 FEET



Environmental
Science &
Engineering, Inc.

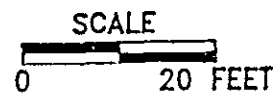
ALAMEDA COUNTY GSA
SANTA RITA CORRECTIONAL FACILITY

FIGURE 3
TANK PLAN
TANK NOS. 2942-18, 2942-19

DRAWN BY DWR	APPROVED BY	REVISED
DATE 6/92	FILE NAME 53492003	PROJ. NO. 8-92-5349

LEGEND

19E * SOIL SAMPLE



ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, Assistant Agency Director

STID 4086

January 11, 1995

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

Mr. Andy Garcia
Alameda County General Services Agency
Engineering & Environmental Management Dept.
1401 Lakeside Drive, 11th Floor
Oakland, CA 94612

RE: SANTA RITA FACILITY - "OLD BOILER PLANT," UST 1, 2, 3

Dear Mr. Garcia:

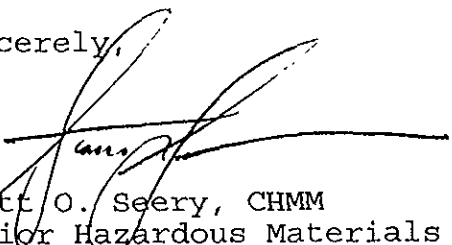
I have completed a review of the case file for this Santa Rita subsite, up to and including the December 21, 1994 Environmental Science & Engineering, Inc. (ESE) *Site Assessment Report*, as submitted under GSA cover dated January 3, 1995. As recommended in the cited ESE report, please adhere to a quarterly sampling, monitoring, and reporting schedule, maintaining the same target analytes as with the initial phase of this current investigation.

The case file indicates that, following the reported over-excavation of the former UST complex, a final soil excavation report appears not to have been submitted. During a phone conversation on May 17, 1988 between this office and Mr. Stanley Klemetson of Gregg & Associates, Inc. (GAI), the contractor performing the remediation work at the site at that time, Mr. Klemetson indicated approximately 600 yds³ of affected material had been excavated and soil samples collected. It is the report documenting this work which we do not have.

Please submit this final excavation/sampling report. Should you discover that such a report was never issued, or is currently not in GSA's possession, the report or raw analysis data may still be available from GAI.

Please contact me at 510/567-6783 should you have any questions.

Sincerely,



Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

Mr. Garcia
RE: Santa Rita, UST 1, 2, 3
January 11, 1995
Page 2 of 2

cc: Rafat A. Shahid, Agency Director
Robert Weston, ACDEH
Bart Miller, ESE

JUL 27 1994

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

STID 4086

July 18, 1994

7056

Mr. Pete Kinney
Alameda County General Services Agency
4400 MacArthur Boulevard
Oakland, CA 94619

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

RE: STOCKPILE SAMPLING AND SESOIL LEACHABILITY MODELING
ANALYSIS - 4TH AND MADIGAN SITE (UST 4, 4A, 4B), SANTA RITA
CORRECTIONAL FACILITY

Dear Mr. Kinney:

I am in receipt of and have reviewed the November 22, 1993 Environmental Science & Engineering, Inc. (ESE) report documenting the results of sampling and analyses, as well as the December 28, 1993 Versar SESOIL modeling analysis, of soil stockpiled at the referenced subsite, generated during the May 1992 tank closures. My review of data presented in the cited ESE and Versar reports was performed in context with the body of work completed at the referenced site to date.

In summary, reports documenting activities associated with the removal of underground storage tanks (UST) 4, 4A, and 4B indicate approximately 500 yds³ of soil were excavated and stockpiled during this process. This stockpiled material remained on-site approximately 18 months before resampling occurred during November 1993. Samples were collected at a rate of one discrete sample per 50 yds³ and analyzed for the presence of total petroleum hydrocarbons as diesel (TPH-D), and benzene, toluene, ethylbenzene and total xylene isomers (BTEX).

Results of sample analyses revealed detectable concentrations of TPH-D present in 5 of ten samples. Of these 5, TPH-D was present in all but one sample at concentrations of <50 parts per million (ppm). The TPH-D concentration of the remaining sample was 100 ppm. Of the aromatic compounds sought, only xylene was present in only one sample of the ten at a concentration of 0.008 ppm.

The cited SESOIL analysis evaluated the leachability and vertical transport potential of the contaminants still present in the 500 yds³ of stockpiled soil should this soil be reintroduced to the subject site. The SESOIL program required the input of parameters for climate, soil type, target chemicals and application data. Climate data were reportedly supplied with the SESOIL software. Soil parameters were derived from site-specific boring logs (Graystone) which reportedly identified four distinct lithologic groups underlying the site. Chemical parameters reportedly included biodegradability, molecular weight, and Henry's Constant.

Mr. Pete Kinney

RE: SESOIL analysis, 4th and Madigan site, Santa Rita facility
July 18, 1994

Page 2 of 2

Two separate model runs were conducted: 1) xylene in diesel; and, 2) diesel, alone. A conservative approach was maintained in the performance of this program in that, of the confirmatory soil samples for which no detectable target compounds were found, it was assumed that said concentrations were equal to the reporting limit. These values were subsequently inserted into the program.

The calculated mass of diesel and xylene, theoretically applied to the top layer of soil at the site to simulate initial loading conditions, was 13.648 and 0.0027 kilograms (kg), respectively. A period of 30 years was used for each simulation.

Versar reports that the result of the SESOIL simulations indicate the maximum depth of xylene in a nondegrading diesel ligand after a 30 year period would be 2.362 meters (m) with 90% of the initial mass having either been (bio)degraded or volatilized within the first 5 years. The maximum xylene concentration remaining adsorbed to soil after 30 years was 2.63×10^{-5} micrograms per kilogram (ug/kg). The reported maximum depth of diesel after 30 years is 1.118 m with 90% of the initial mass having been (bio)degraded or volatilized in the first 4 years. The maximum average concentration of diesel remaining adsorbed to the soil after 30 years is 6.4×10^{-6} ug/kg, found primarily in the top 0.6 m of soil.

The results of the SESOIL analysis, as presented in the cited Versar report, indicate a low probability for remaining contaminants to leach into underlying ground water at this site. Therefore, the subject soil may be reintroduced at grade to the site of origin (Santa Rita facility).

Please call me at should you have any questions. Our temporary telephone number is 510/337-2866.

Sincerely,



Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director
Gil Jensen, Alameda County District Attorney's Office
Kevin Graves, RWQCB
Ravi Arulanantham, Staff Toxicologist, ACDEH

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

STID 4086

July 18, 1994

Mr. Pete Kinney
Alameda County General Services Agency
4400 MacArthur Boulevard
Oakland, CA 94619

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

RE: STOCKPILE SAMPLING AND *SESOIL* LEACHABILITY MODELING
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Mr. Pete Kinney
RE: SESOIL analysis, 4th and Madigan site, Santa Rita facility
July 18, 1994
Page 2 of 2

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Sincerely,



Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director
Gil Jensen, Alameda County District Attorney's Office
Kevin Graves, RWQCB
Ravi Arulanantham, Staff Toxicologist, ACDEH

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

STID 4086

July 15, 1994

Mr. Pete Kinney
Alameda County General Services Agency
4400 Mac Aurthur Boulevard
Oakland, CA 94619

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

RE: SANTA RITA FACILITY - UST 1, 2, 3 SOIL AND GROUND WATER
INVESTIGATION

Dear Mr. Kinney:

Thank you for our recent receipt of the June 24, 1994
Environmental Science & Engineering, Inc. (ESE) preliminary site
assessment (PSA) work plan for the initial investigation of the
referenced subsite. This work plan was submitted under ESE cover
also dated June 24, 1994.

The scope of the June 24, 1994 ESE work plan has been accepted as
proposed.

Please be aware that we have recently moved. Our new address and
temporary telephone number are:

Alameda County Environmental Health Department
Hazardous Materials Division
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

510/337-2866

Please contact me when field work is slated to begin.

Sincerely



Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director
Gil Jensen, Alameda County District Attorney's Office
Jim Ferdinand, Alameda County Fire Department
Bart Miller, ESE

Tanks 18, 19

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT			
EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
REPORT DATE 1 M 2 M 1 D 5 D 9 Y 2 Y		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. <i>R. Stephen Willcutts</i> 12/15/92 SIGNED DATE			
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT R. Stephen Willcutts, Agent for GSA		PHONE (510) 685-4053
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME Environmental Science & Engineering, Inc.
	ADDRESS 4090 Nelson Avenue, Suite J Concord CA 94520		
RESPONSIBLE PARTY	NAME Alameda County General Services Agency (GSA) <input type="checkbox"/> UNKNOWN		CONTACT PERSON Jim DeVos
	ADDRESS 4400 MacArthur Boulevard Oakland CA 94619		PHONE (510) 535-6248
SITE LOCATION	FACILITY NAME (IF APPLICABLE) Santa Rita Jail TANKS 18, 19 Facility "Old Hospital Area"		OPERATOR Alameda County GSA
	ADDRESS Old Hospital Area, Old Santa Rita Jail Dublin Alameda 94568		PHONE (510) 535-6248
	CROSS STREET Tassajara Road		
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME Alameda County Health Care Services Agency		CONTACT PERSON Ravi Arulanantham
	REGIONAL BOARD San Francisco Bay Regional Water Quality Control Board		PHONE (510) 271-4530 Eddie So (415) 286-4366
SUBSTANCES INVOLVED	(1) NAME Bunker C Fuel Oil		QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
	(2)		<input type="checkbox"/> UNKNOWN
DISCOVERY/ABATEMENT	DATE DISCOVERED 0 M 5 M 1 D 8 D 9 Y 2 Y		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER
	DATE DISCHARGE BEGAN M M D D Y Y <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input checked="" type="checkbox"/> REMOVE CONTENTS <input checked="" type="checkbox"/> CLOSE TANK & REMOVE <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> OTHER
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE M M D D Y Y		
SOURCE/CAUSE	SOURCE OF DISCHARGE <input checked="" type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input checked="" type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER
	CASE TYPE CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)		
CURRENT STATUS	CHECK ONE ONLY <input checked="" type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY		
	REMEDIAL ACTION CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> VACUUM EXTRACT (VE) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> VENT SOIL (VS) <input checked="" type="checkbox"/> OTHER (OT) Remedial action has not yet been initiated		
COMMENTS			

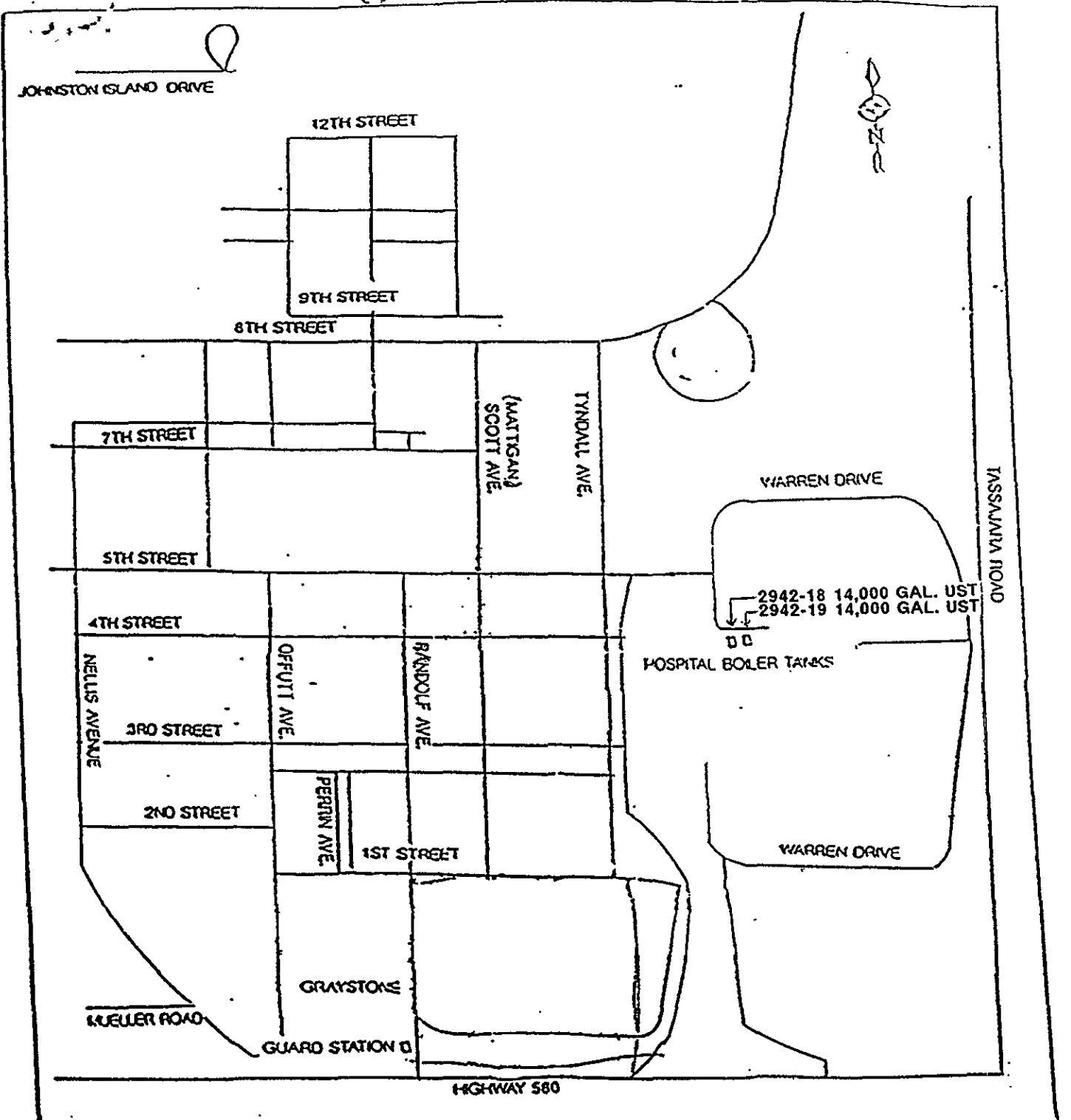


Figure 2 Site Map
LOCATION OF UST'S 2942-18, 2942-19
AT SANTA RITA JAIL FACILITY
DUBLIN, CALIFORNIA

Tanks 4, 4A, 4B

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT			
EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
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.			
REPORT DATE 1 <input type="checkbox"/> M 2 <input type="checkbox"/> W 1 <input type="checkbox"/> D 5 <input type="checkbox"/> D 9 <input type="checkbox"/> Y 2 <input type="checkbox"/> Y		CASE # _____	
REPORTED BY NAME OF INDIVIDUAL FILING REPORT R. Stephen Willcutts, Agent for GSA		PHONE (510) 685-4053	SIGNATURE <i>R. Stephen Willcutts</i> 12/15/92
REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER _____		COMPANY OR AGENCY NAME Environmental Science & Engineering, Inc.	
ADDRESS 4090 Nelson Avenue, Suite J Concord CA 94520 <small>STREET CITY STATE ZIP</small>			
RESPONSIBLE PARTY NAME Alameda County General Services Agency (GSA) <input type="checkbox"/> UNKNOWN		CONTACT PERSON Jim deVos	PHONE (510) 535-6248
ADDRESS 4400 MacArthur Boulevard Oakland CA 94619 <small>STREET CITY STATE ZIP</small>			
SITE LOCATION FACILITY NAME (IF APPLICABLE) Santa Rita Jail Tanks Facility Boiler Foundations 4, 4A, 4B		OPERATOR Alameda County GSA	PHONE (510) 535-6248
ADDRESS Corner of 4th & Magigan Streets, Old Santa Rita Jail Dublin Alameda 94568 <small>STREET CITY COUNTY ZIP</small>			
CROSS STREET Tassajara Road			
IMPLEMENTING AGENCIES LOCAL AGENCY AGENCY NAME Alameda County Health Care Services Agency		CONTACT PERSON Ravi Arulanantham	PHONE (510) 271-4530
REGIONAL BOARD San Francisco Bay Regional Water Quality Control Board		Eddie So	PHONE (415) 286-4366
SUBSTANCES INVOLVED (1) NAME QUANTITY LOST (GALLONS) Bunker C Fuel Oil <input checked="" type="checkbox"/> UNKNOWN		(2) <input checked="" type="checkbox"/> UNKNOWN	
DISCOVERY/ABATEMENT DATE DISCOVERED HOW DISCOVERED 0 <input type="checkbox"/> M 5 <input type="checkbox"/> W 1 <input type="checkbox"/> D 9 <input type="checkbox"/> D 9 <input type="checkbox"/> Y 2 <input type="checkbox"/> Y <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> OTHER _____		DATE DISCHARGE BEGAN METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) _____ <input checked="" type="checkbox"/> REMOVE CONTENTS <input checked="" type="checkbox"/> CLOSE TANK & REMOVE <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> OTHER _____	
SOURCE/CAUSE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER _____		CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER _____	
CASE TYPE CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)			
CURRENT STATUS CHECK ONE ONLY <input checked="" type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY			
REMEDIAL ACTION CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> VACUUM EXTRACT (VE) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> VENT SOIL (VS) <input checked="" type="checkbox"/> OTHER (OT) Remedial action has not yet been initiated			
COMMENTS 			

JOHNSTON ISLAND DRIVE

12TH STREET

9TH STREET

8TH STREET

7TH STREET

5TH STREET

4TH STREET

3RD STREET

2ND STREET

1ST STREET

(MATTIGAN)
SCOTT AVE.

TYNOALL AVE.

WARREN DRIVE

ISSAQUIMONNETT

BOILER FOUNDATIONS

2942-4B 3,500 GAL. UST
 2942-4A 8,000 GAL. UST
 2942-4 10,000 GAL. UST

NELLS AVENUE

OFUIT AVE.

RANDOLF AVE.

PERLIN AVE.

WARREN DRIVE

GRAYSTONE

MUELLER ROAD

GUARD STATION

HIGHWAY 580

Figure 2 Site Map
LOCATION OF UST'S 2942-4 , 2942-4A
AND 2942-4B
AT SANTA RITA JAIL FACILITY
DUBLIN, CALIFORNIA

SUBSURFACE INVESTIGATION
SANTA RITA REHABILITATION CENTER -
CENTRAL PARCEL
4TH AND MADIGAN SITE

BACKGROUND:

- o 3 USTs removed May 1992
 - 2 - Bunker C
 - 1 - diesel
- o product release identified
- o soil samples: collected at ~14-15' BG
 - ≤ 15,000 ppm TOG
 - ≤ 5300 " TPH-D
 - BTEX sought in diesel UST samples, only - "ND"
 - SVOC not sought*

FUTURE SITE DEVELOPMENT PLANS:

- o (possible) single family housing
- o (possible) low income housing project

WORK PLAN SCOPE:

- o four (4) soil borings surrounding excavation to assess vertical/horizontal soil contamination profile
- o all samples to be analyzed for TPH-D, BTEX, TOG
- o "hottest" sample (TOG/TPH-D) to be run for SVOC - if SVOC present, all samples with "hits" to be evaluated for SVOC
- o "comparison" of ratio between SVOC and TPH-D to be performed to estimate human-health PRGs, and evaluate need for clean-up
- o two (2) hydropunch points to be installed south and SW of USTs and samples evaluated for TPH-D, BTEX, TOG

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Inspection Form

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

II, III

Site ID # _____ Site Name Santa Rita Today's Date 5/18/92

Site Address Old Santa Rita Jail

City Dublin Zip 94 Phone _____

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

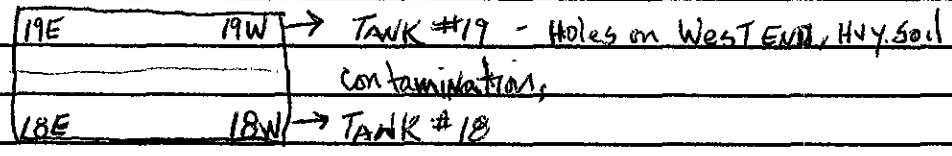
- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

THIS IS A UST Removal.
"2-18000 GAL BURNER OIL." (14,000?)
THE OLD Hospital SITE TANKS #18+19.
Patrick Kinney WAS on SITE FOR GSA.
Tractor ID #205702 - Erickson
SOIL OF PETROLEUM WAS APPARENT while standing by the pit.
- Standing/Floating Product in the Pit.
- Holes Found on Tank Pictures Taken (BOTH TANKS)
- TANKS ABANDONED UNKNOWN YEAR AGO.

SAMPLES Taken - #18E, 18W, 19W, 19E
piping will be removed by Erickson



II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 25703
- 2. Bus. Plan Sids. 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

II.B ACUTELY HAZ. MATLS

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N) _____
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(f)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

III. UNDERGROUND TANKS (Title 23)

- | | |
|--|---|
| General | <input type="checkbox"/> 1. Permit Application 25284 (H&S) |
| | <input type="checkbox"/> 2. Pipeline Leak Detection 25292 (H&S) |
| | <input type="checkbox"/> 3. Records Maintenance 2712 |
| | <input type="checkbox"/> 4. Release Report 2651 |
| | <input type="checkbox"/> 5. Closure Plans 2670 |
| Monitoring for Existing Tanks | <input type="checkbox"/> 6. Method |
| | 1) Monthly Test |
| | 2) Daily Vadose |
| | Semi-annual groundwater |
| | One time soils |
| | 3) Daily Vadose |
| | One time soils |
| | Annual tank test |
| | 4) Monthly Groundwater |
| | One time soils |
| 5) Daily Inventory | |
| Annual tank testing | |
| Cont pipe leak det | |
| Vadose/gndwater mon. | |
| 6) Daily Inventory | |
| Annual tank testing | |
| Cont pipe leak det | |
| 7) Weekly Tank Gauge | |
| Annual tank testing | |
| 8) Annual Tank Testing | |
| Daily Inventory | |
| 9) Other _____ | |
| New Tanks | <input type="checkbox"/> 7. Precs Tank Test 2643 |
| | Date: _____ |
| | <input type="checkbox"/> 8. Inventory Rec. 2644 |
| | <input type="checkbox"/> 9. Soil Testing 2646 |
| <input type="checkbox"/> 10. Ground Water. 2647 | |
| <input type="checkbox"/> 11. Monitor Plan 2632 | |
| <input type="checkbox"/> 12. Access. Secure 2634 | |
| <input type="checkbox"/> 13. Plans Submit 2711 | |
| Date: _____ | |
| <input type="checkbox"/> 14. As Built 2635 | |
| Date: _____ | |

Contact: Patrick Galvin / ESE
 Title: Sr. Engineer
 Signature: Pat Galvin

Inspector: JEFF SAABINO
 Signature: Jeff Saabino

II, III

tanks # 4, 4A, 4B?

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

II, III

white -env.health
yellow -facility
pink -files

Site ID # _____ Site Name 4B + MADDIAN Today's Date 5/18/92

Site Address OLD SANTA RITA JAIL

City Dublin Zip 94 Phone _____

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

1ST - Removal. BUNKER "C" oil (3UST's)

No Holes Found in 8,000 GAL Tank

1-10,000 1-8,000 (1-6,000) ? GAL TANKS (4B?)

Haver's ID# 215578 + 205167
3,500 gal.

Conspicuous odor of Petroleum - 10K Tank

Contamination Found on Western End of Tank

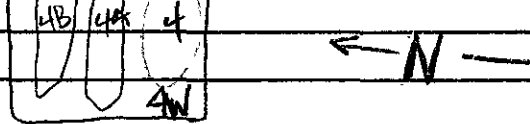
Visual Contamination on Western End of Pit

NO Visual Holes detected. (Photo)

SAMPLES: 4W - Hwy sign of Contamination
BOTH visual + odor.

Sample on Eastern Portion was NOT able to be taken.

4B NOT TAKEN



3 2 1 = Tanks

II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus. Plan Stds. 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

II.B ACUTELY HAZ. MAT'L'S

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N)
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(i)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

III. UNDERGROUND TANKS (Title 23)

- General
- 1. Permit Application 25284 (H&S)
 - 2. Pipeline Leak Detection 25292 (H&S)
 - 3. Records Maintenance 2712
 - 4. Release Report 2651
 - 5. Closure Plans 2670

- Monitoring for Existing Tanks
- 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose Semi-annual groundwater One time soils
 - 3) Daily Vadose One time soils Annual tank test
 - 4) Monthly Groundwater One time soils
 - 5) Daily Inventory Annual tank testing Cont pipe leak det Vadose/groundwater mon.
 - 6) Daily Inventory Annual tank testing Cont pipe leak det
 - 7) Weekly Tank Gauge Annual tank testing
 - 8) Annual Tank Testing Daily Inventory
 - 9) Other _____

- 7. Precls Tank Test Date: _____ 2643
- 8. Inventory Rec. 2644
- 9. Soil Testing . 2646
- 10. Ground Water. 2647

- New Tanks
- 11. Monitor Plan 2632
 - 12. Access Secure 2634
 - 13. Plans Submit Date: _____ 2711
 - 14. As Built Date: _____ 2635

Rev 6/88

Contact: Patrick Galvin /ESE
 Title: Sr. Project Engineer
 Signature: [Signature]

Inspector: Jeff Shapiro
 Signature: [Signature]

II, III

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH
 Hazardous Materials Inspection Form

80 Swan Way, #200
 Oakland, CA 94621
 (415) 271-4320

II, III

Site ID # _____ Site Name 4B / MADIGAN Today's Date 5/20/92

II.A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus. Plan Stds 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

II.B ACUTELY HAZ. MATLS

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25533(c)
- 13. Implement Sch. Req'd? (Y/N) _____
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(m)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

III. UNDERGROUND TANKS (Title 23)

- | | |
|--|---|
| General | <input type="checkbox"/> 1. Permit Application 25284 (H&S) |
| | <input type="checkbox"/> 2. Pipeline Leak Detection 25292 (H&S) |
| | <input type="checkbox"/> 3. Records Maintenance 2712 |
| | <input type="checkbox"/> 4. Release Report 2651 |
| | <input type="checkbox"/> 5. Closure Plans 2670 |
| Monitoring for Existing Tanks | <input type="checkbox"/> 6. Method |
| | 1) Monthly Test |
| | 2) Daily Vadose
Semi-annual groundwater
One time soils |
| | 3) Daily Vadose
One time soils
Annual tank test |
| | 4) Monthly Gndwater
One time soils |
| | 5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon. |
| | 6) Daily Inventory
Annual tank testing
Cont pipe leak det |
| | 7) Weekly Tank Gauge
Annual tank testing |
| | 8) Annual Tank Testing
Daily Inventory |
| | 9) Other _____ |
| <input type="checkbox"/> 7. Prets Tank Test 2643 | |
| <input type="checkbox"/> 8. Inventory Rec. 2644 | |
| <input type="checkbox"/> 9. Soil Testing . 2646 | |
| <input type="checkbox"/> 10. Ground Water. 2647 | |

- | | |
|-----------|---|
| New Tanks | <input type="checkbox"/> 11. Monitor Plan 2632 |
| | <input type="checkbox"/> 12. Access Secure 2634 |
| | <input type="checkbox"/> 13. Plans Submit 2711 |
| | <input type="checkbox"/> 14. As Built 2635 |

Rev 8/88

Site Address OLD SANTA RITA JAIL
 City Dublin Zip 94 Phone _____

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

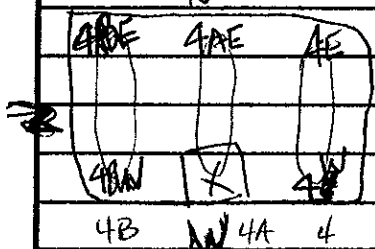
Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

? Tank # 4B
FINAL TANK REMOVAL FOR THIS SITE
1-8500 GAL BUNKER OIL TANK
diesel
Visual Contamination of TANK AND SITE.
IT APPEARS THAT THE BUNKER FUEL BEGAN LEAKING
ON 5/18/92, WHEN THE CONSULTING CONTRACTOR ATTEMPTED
TO LIFT THE TANK FROM THE GROUND; AFTER THE ATTEMPT
FAILED TO FREE THE TANK FROM THE PIT.
THE LEAK APPEARS TO HAVE BEEN ISOLATED TO THE
CONCRETE PAD. THERE IS ONLY MINOR CONTAMINATION OF
THE SOIL ON THE PAD. (PHOTO)

SAMPLES: 4BE, 4BW, 4AE AND 4E

4BW - SHOWS SIGNS OF HIGH CF CONTAMINATION:



NO Sample Taken

Contact: R. Stephen Willcutts
 Title: San. Staff Engineer
 Signature: R. Stephen Willcutts

Inspector: Jeff Shapiro
 Signature: Jeff Shapiro

II, III

Tank Nos. 2942-18
2942-19

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320

Hospital
Please give 5 day notice
before tank removal.
Jeff Shepa 4/28/92

Project Specialist (print) JEFF SHEPA

ACCEPTED

DEPARTMENT OF ENVIRONMENTAL HEALTH
470-2785, 5th Floor
Oakland, CA 94612
Telephone: (415) 271-4327

These plans for tank removal are found to be acceptable and are hereby approved by the Department of State and local health officials. All plans must be covered by this Department's Hazardous Materials Division. State and local laws for removal of tanks and their contents for issuance of permits and for this construction. On approval, state and local health officials and environmental health officials and construction involved with the removal.

Any change 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.

THIS IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

UNDERGROUND TANK CLOSURE PLAN
*** * * Complete according to attached instructions * * ***

1. Business Name Santa Rita Jail
Business Owner Alameda County General Services Agency
 2. Site Address 5325 Broder Boulevard
City Dublin Zip 94568 Phone (510) 551-6674
 3. Mailing Address Same
City _____ Zip _____ Phone _____
 4. Land Owner Alameda County General Services Agency
Address 4400 MacArthur Blvd. City, State Oakland, CA Zip 94619
 5. Generator name under which tank will be manifested _____
Alameda County General Services Agency
- EPA I.D. No. under which tank will be manifested CAD 981397060

6. Contractor Environmental Science & Engineering, Inc.
Address 4090 Nelson Avenue, Suite J
City Concord Phone (510) 685-4053
License Type General Engineering ID# 540544

7. Consultant Same as 6.
Address _____
City _____ Phone _____

8. Contact Person for Investigation

Name R. Stephen Willcutts Title Senior Staff Engineer
Phone (510) 685-4053

9. Number of tanks being closed under this plan 2
Length of piping being removed under this plan 15
Total number of tanks at facility 8

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

** Underground tanks are hazardous waste and must be handled **
as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name Erickson Trucking, Inc. EPA I.D. No. CAD 009 466 392
Hauler License No. CA 019 License Exp. Date 05/92
Address 255 Parr Boulevard
City Richmond State CA Zip 94801

b) Product/Residual Sludge/Rinsate Disposal Site

Name Same as 10. a EPA I.D. No. _____
Address _____
City _____ State _____ Zip _____

c) Tank and Piping Transporter

Name Erickson Trucking, Inc. EPA I.D. No. CAD 009 466 392.
Hauler License No. CA 019 License Exp. Date 05/92
Address 255 Parr Boulevard
City Richmond State CA Zip 94801

d) Tank and Piping Disposal Site

Name Same as c EPA I.D. No. _____
Address _____
City _____ State _____ Zip _____

11. Experienced Sample Collector

Name R. Stephen Willcutts
Company Environmental Science & Engineering, Inc.
Address 4090 Nelson Avenue, Suite J
City Concord State CA Zip 94520 Phone (510) 685-4053

12. Laboratory

Name Curtis & Tompkins, LTD.
Address 2323 Fifth Street
City Berkeley State CA Zip 94710
State Certification No. 159

13. Have tanks or pipes leaked in the past? Yes [] No [X]

If yes, describe. _____

14. Describe methods to be used for rendering tank inert

Additional of 15 pounds of dry ice for every 1,000 gallons tank capacity.

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.

15. Tank History and Sampling Information

Tank # 18, 19		Material to be sampled (tank contents, soil, ground-water, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
18K gallons	Currently inactive. Installation date is unknown. Product was Bunker C fuel oil.	Soil	3 Samples to be collected at two feet below tank invert, at each end of tank and middle of tank (approx. 16.5 feet below ground surface)
18K gallons	Currently inactive. Installation date is unknown. Product was Bunker C fuel oil.	Soil	3 Samples to be collected at two feet below tank invert, at each end of tank and middle of tank (approx. 16.5 feet below ground surface)

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated) 80 cy	Sampling Plan Collect four samples from soil stockpiles and analyze as described in item 16.

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
TPH-D	GC FID (3550)	EPA 8015M	1 ppm
BTX&E	GC FID	EPA 8020	0.005 ppm
O&G	5520 D&F	Oil & Grease	50 ppm

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy

Name of Insurer Planet Insurance Company

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. Report any leaks or contamination to this office within 5 days of discovery. The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

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 understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) R. Stephen Willcutts, Environmental Science & Engineering, Inc

Signature *R. Stephen Willcutts*

Date 4/10/92

Signature of Site Owner or Operator

Name (please type) Jim de Vos, Alameda County General Services Agency

Signature *Jim de Vos (PL)*

Date 4-10-92

CERTIFICATE OF INSURANCE
SERVICE CONTRACTS

NOTE: No other certificate forms will be accepted.

please complete the following information:

CONTRACTOR: Environmental Science Engineering, Inc.
CONTRACT TERM: April 1, 1992 to June 15, 1992 General Services Agency
Alameda County Agency or Department

POLICY/BOND ENDORSEMENT REQUIREMENTS

Contractor's policies or bonds shall be endorsed as follows:

Name Alameda County, its Board of Supervisors, officers, agents and employees as Additional Insured/Obligees, but County is not liable to the insurance company for any premiums, costs or assessments in connection with Contractor's policy/bond, as a result of being an Additional Insured.

Provide County 30 days advance written notice of cancellation, non-renewal or reduction in limits or coverage including the name of the Contract, mailed to the following address:

<u>GSA-BMD</u>	<u>Subodh Chowdhry</u>
<u>County Department to Receive Notice(s)</u>	<u>Individual Coordinating Contracts</u>
<u>4400 MacArthur Blvd.</u>	<u>Oakland, CA 94619</u>
<u>Address</u>	<u>City, State, Zip</u>

State the Contractor's policy/bond is primary insurance to any other insurance available to County with respect to any claim arising out of this contract.

Contractor is responsible for payment of insurance deductibles.

Insurance companies must have an "A.M. Best" rating of B+, V or better.

REQUIRED COVERAGES - Where "X" Appears in Box CERTIFICATES OF INSURANCE

- 1. Workers' Compensation
 - a. Statutory Compensation coverage.
 - b. Employer's liability insurance with limit not less than \$100,000 per occurrence.

Planet Insurance Co.
Insurance Company(s)
NWA0102557700 3/16/92-3/16/93
Policy Number(s) Policy Period (dates)

Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.
Johnson & Higgins
Name
500 W. Madison, Suite 2100
Address
Chicago, IL 60661
City, State, Zip

REQUIRED COVERAGES - Where "X" Appears in Box

CERTIFICATES OF INSURANCE

2. Comprehensive General Liability

a. Minimum Limits of Liability:
\$1,000,000 per occurrence combined
single limit Bodily Injury and
Property Damage.

b. Coverages:

- Bodily Injury
- Property Damage
- Blanket Contractual
- Personal Injury
- Products/Completed Operations
- Broad Form Property Damage
- Fire Damage Legal Liability

c. Deductible not to exceed \$5,000
per occurrence.

d. Cross Liability or Severability
of Interests Clause in policy

e. Occurrence Form Claims Made Form _____

f. IF claims made, please complete the following:
Coverage for all prior acts? _____

If prior acts coverage is restricted, advise retroactive date of coverage:

Extended discovery provision: If Insurance Company cancels, how long is
period of extended discovery? _____

IF Contractee cancels, how long is optional coverage for extended discovery?

Percentage of annual premium cost to purchase the extended discovery?

A Certified copy of the Claims Made form must be provided

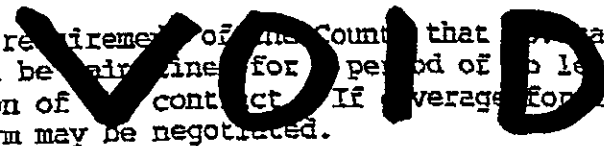
It will be a requirement of the Contract that coverage for the period of the
contract will be maintained for a period of no less than five years after
the expiration of the contract. If coverage for five years is not available,
a shorter term may be negotiated.

Commerce & Industry
Insurance Company(s)

GL3403771 3/16/92-3/16/93
Policy Number(s) Policy Period (dates)

Donald J. Price
Signature of Individual authorized by
Insurance Company to bind Company to
coverage shown, and above endorsement
requirements.

Johnson & Higgins
Name
500 W. Madison, Suite 2100
Address
Chicago, IL 60661
City, State, Zip



REQUIRED COVERAGES - Where "X" Appears in Box

CERTIFICATES OF INSURANCE

3. Comprehensive Automobile Liability

- a. Minimum Limits of Liability: ³
\$1,000,000 per occurrence combined
single limit Bodily Injury and
Property Damage.

Assigned risk insurance at
available State financial
responsibility limits.

b. Coverages:

- Owned Automobiles, if any
- Non-owned Automobiles
- Hired Automobiles
- Cross Liability or Severability
of Interests clause in policy.

Planet Insurance Company
Insurance Company(s)
NKA010257800 3/16/92-3/16/93
Policy Number(s) Policy Period (dates)
Donald A. Price
Signature of Individual authorized by
Insurance Company to bind Company to
coverage shown, and above endorsement
requirements.
Johnson & Higgins
Name
500 W. Madison, Suite 2100
Address
Chicago, IL 60661
City, State, Zip

4. Professional Liability

- 1. For professional employees licensed
as a condition of employment at the
beginning of contract term or hired,
during the contract terms, insuring
against error or omission in render-
ing or failing to render professional
services. Coverage shall continue
for a minimum of five years.

- a. Minimum Limits of Liability:
\$1,000,000 per claim
- b. Deductible not to exceed \$5,000
per claim

c. If claims made, please complete the following:

National Prof. Casualty Co.
Insurance Company(s)
A72961 2/16/92-2/16/93
Policy Number(s) Policy Period (dates)
Lawrence B. Bisher
Signature of Individual authorized by
Insurance Company to bind Company to
coverage shown, and above endorsement
requirements. (Except additional
insured not required.)
Direct Placement
Name
330 Hamilton Blvd., Suite 300
Address
Peoria, IL 61602
City, State, Zip

Coverage for all prior acts? Yes No

If prior acts coverage is restricted, advise retroactive date of coverage.
2-16-90

Extended discovery provisions: If Insurance Company cancels, how long is period of
extended discovery? 365 Days

If Contractee cancels, how long is optional coverage for extended discovery?
12 Months

Percentage of annual premium cost to purchase the extended discovery?
100%

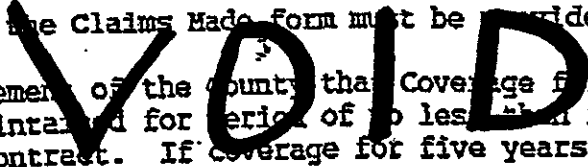
REQUIRED COVERAGES - Where "X" Appears in Box

CERTIFICATES OF INSURANCE

4. Professional Liability (continued)

A Certified copy of the Claims Made form must be provided.

It will be a requirement of the County that Coverage for the period of the contract will be maintained for a period of no less than five after the expiration of the contract. If coverage for five years is not available, a shorter term may be negotiated.



5. Bonds/Crime Insurance

1. Fidelity Insurance Bond

- a. Faithful Performance Coverage of all officials, agents, and employees with access to funds received by Contractor.
- b. Limits shall at least be equal to maximum County funds in contractors possession or control during contract term.

Insurance Company(s)

Policy Number(s) Policy Period (dates)

Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.

Name

Address

City, State, Zip

Insurance Company(s)

Policy Number(s) Policy Period (dates)

Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.

Name

Address

City, State, Zip

2. Money and Securities Policy.

- a. Insurance against the disappearance, destruction or wrongful abstraction of funds on and off premises contractor.
- b. Limits shall at least be equal to maximum County funds in contractors possession or control during contract term.

Insurance Company(s)

Policy Number(s) Policy Period (dates)

Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.

6. Other (Describe below)

Insurance Company(s)

Policy Number(s) Policy Period (dates)

Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.

REQUIRED COVERAGES - Where "X" Appears in Box

CERTIFICATES OF INSURANCE

6. Other (continued)

Name

Address

City, State, Zip

7. Self Insurance

Contractors self-insured for any risks shown in Sections above shall attach to contract evidence satisfactory to County of Contractor's financial ability (such as a current financial statement) to respond to losses in amounts shown above, for each risk self-insured. Contractor shall complete and sign the following statement and attach to contract.

The Contractor is self-insured for the following coverages with respect to this contract"

Worker's Compensation

Comprehensive General Liability to the limit of \$ _____

Bodily injury.

Property damage

Blanket Contractual

Personal injury

Products/completed operations

Broad Form property damage

Fire damage legal liability

Comprehensive Auto Liability to the limit of \$ _____

Owned Automobiles

Non-owned Automobiles

Hired Automobiles

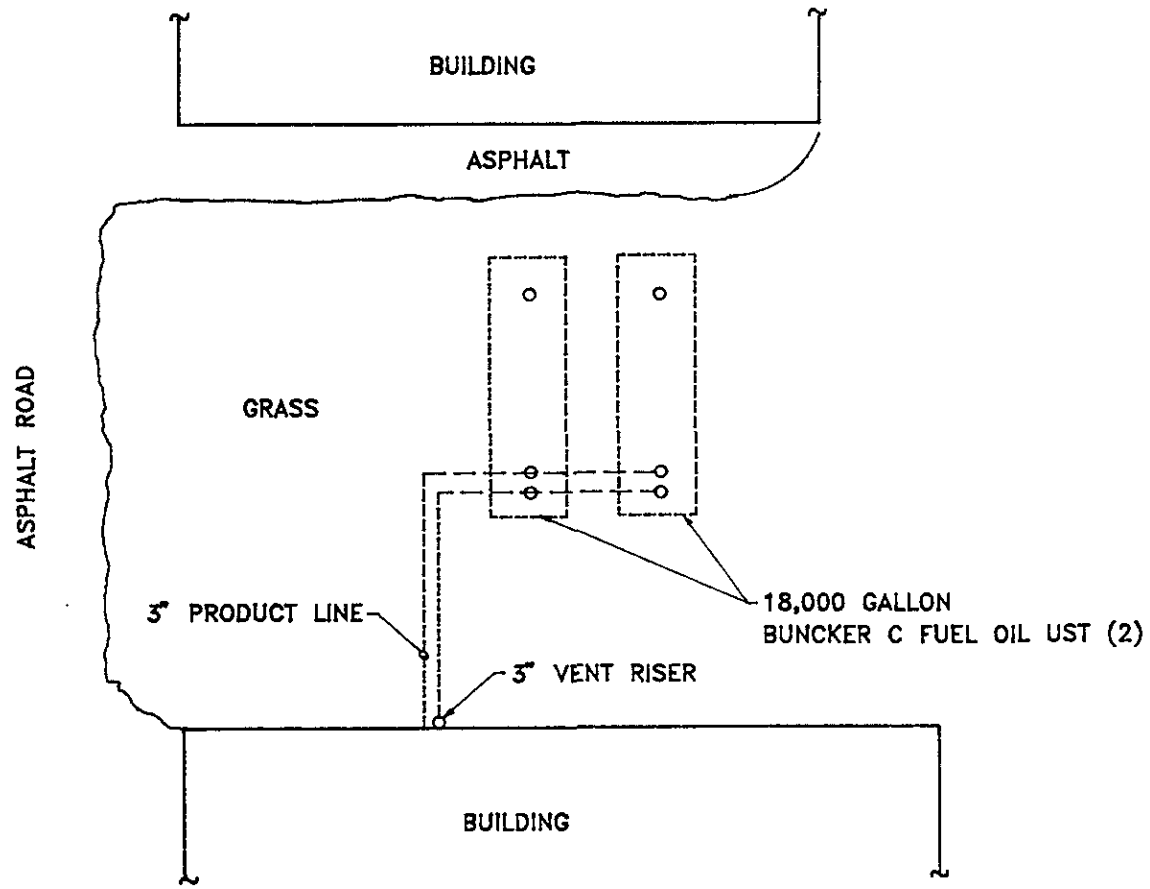
Professional Liability to the limit of \$ _____

Note: If excess insurance is needed to meet the limits required for insurances in Exhibit C, then the authorized representative of the excess insurance company(s) must sign the certificates in Exhibit C pertaining to the necessary coverages.

Signature of authorized
representative of Contractor


Title

Date



DEPTH TO GROUND WATER: 30 FEET



 A CILCORP COMPANY		Environmental Science & Engineering, Inc.
ALAMEDA COUNTY GSA SANTA RITA CORRECTIONAL FACILITY TANK REMOVAL PLOT PLAN TANK NOS. 2942-18, 2942-19		
DRAWN BY DWR	APPROVED BY	REVISED
DATE 4/92	FILE NAME T181920	PROJ. NO. 6-92-5349

HEALTH AND SAFETY PLAN
for
ALAMEDA COUNTY GENERAL SERVICES AGENCY
SANTA RITA CORRECTIONAL FACILITY
Dublin, California

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APPENDICES

- A. **SITE SPECIFIC HEALTH AND SAFETY INFORMATION**
- B. **MATERIAL SAFETY DATA SHEETS (Optional)**

TABLES

- 2-1 Medical Examination--Monitoring Program
- 5-1 Windchill Index

1.0 GENERAL INFORMATION

1.1 INTRODUCTION

This Health and Safety Plan shall provide the safety and health requirements for general site work taking place under a contract with Alameda County General Services Agency. This Plan provides the structure for a Site-Specific Health and Safety Plan, and provides information which will apply to all Environmental Science & Engineering, Inc. (ESE) projects. Together, they comprise the Site Health and Safety Plan (HASP). This HASP will be considered complete only with an associated Site-Specific HASP.

The purpose of this HASP is to protect individuals, those working at the site, visitors, and the surrounding populace, and the environment during on site sampling and site characterization activities at petroleum hydrocarbon impacted sites. This plan includes preventive and protective measures against health hazards, fire and explosion hazards, and mechanical hazards which may exist or occur during field activities.

1.2 SITE INFORMATION

The General Information section of each Site-Specific Health and Safety Plan will provide the following information:

1. Name and Location of the Site;
2. Name of Individual Preparing the Plan, and Date of Preparation;
3. Brief Site History;
4. Investigative Objective and Work Plan;
5. Proposed Dates of Investigation; and
6. Assessment of Overall Worker and Public Health Hazards.

1.3 REGULATORY REQUIREMENTS:

Occupational Safety and Health Administration (OSHA) standards 29 Code of Federal Regulations (CFR) 1910 and 1926 apply to work under this site-specific HASP. Title 8 of California Code of Regulations (General Construction Safety Orders and General Safety Orders) must be complied with at California sites. Additional requirements are contained in Code of Federal Regulations title 40, Protection of the Environment.

2.0 PERSONNEL REQUIREMENTS

2.1 ORGANIZATION

The overall project organization as described in this document will be shown in the Site-Specific Health and Safety Plan, and will identify and show responsibilities for all key personnel, employees, and subcontractors.

2.2 ESE HEALTH AND SAFETY POLICY AND RESPONSIBILITY

It is the policy of the management of ESE and also a contract requirement that a safety plan be implemented at hazardous material contamination sites to protect individuals and the environment. All ESE personnel involved in work on these sites will conform and comply with all aspects of this safety program. Each and every individual is, and therefore must regard and conduct him/herself as, a member of the safety team and adhere to the prescribed site safety plan to ensure his/her own safety as well as that of fellow workers, visitors, and the public.

2.3 PERSONNEL RESPONSIBILITIES

For each site, the responsibilities of the Project Manager include:

1. Preparing an effective site safety plan for the project;
2. Categorizing and identifying for the project staff the levels of potential exposure and dangerous levels of hazardous materials possibly encountered on site;
3. Ensuring that adequate and appropriate safety training and equipment are available for project personnel; and
4. Arranging for medical examinations for specified project personnel.
5. Ensuring a qualified on-site field person is designated Site Safety Officer (SSO) and is present when work is in progress. Alternates may also be designated as needed, however, the project manager must ensure the designated (SSO) is familiar with the safety plan and his/her responsibilities.
6. Ensuring any subcontractors (i.e. drillers, excavators) get an advance copy of the Health and Safety Plan and a start-up safety briefing is scheduled.
7. Determining appropriate level of protection and exposure monitoring strategy for the project by task or phase.

Overall responsibility for safety during the site investigative activities rests with the Project Manager. To assist the Project Manager, a qualified Site Safety Officer will be appointed for each site.

The Site Safety Officer's (SSO's) responsibilities include:

1. Implementing all safety procedures and operations on site.
2. Conducting start-up safety briefing with project personnel and subcontractors. Ensure all necessary equipment and procedures are in place before start-up. Addressing any substandard conditions requiring correction prior to start up.
3. Updating equipment or procedures based upon new information gathered during the site inspection.
4. Upgrading or downgrading the levels of personal protection based upon site observations and/or measurements.
5. Determining and posting locations and routes to medical facilities and arranging emergency transportation to medical facilities (as required).
6. Controlling site entry and notifying (as required) local public emergency officers (i.e., police and fire departments) of the nature of the team's operations and making emergency telephone numbers available to all team members.
7. Ensuring that at least one member of the field team is available to stay behind and notify emergency services if the Site Safety Officer must enter an area of maximum hazard or entering this area only after notifying emergency services (police department).
8. Observing work party members for symptoms of on-site exposure or stress.
9. Arranging for the availability of on-site emergency medical care and first aid, as necessary.
10. Documenting field activities and incidents. Keeping Project Manager informed. Consulting with Health and Safety Officer as needed.

The Health and Safety Officer (HSO) is responsible for:

1. Assisting Project Manager with development of the site specific Health and Safety Plan.
2. Providing technical support during normal operations and upsets for hazard assessment, exposure monitoring, level of protection changes.
3. Reviewing and approving the site specific safety plan.

The responsibilities of all other on site personnel include:

1. Complying with all aspects of the project Safety plan, including strict adherence to the buddy system.
2. Obeying the orders of the Site Safety Officer.
3. Notifying the Site Safety Officer of hazardous or potentially hazardous incidents or working situations.

Subcontractors and other non-ESE site personnel are also responsible for complying with this plan and all applicable federal, state and local safety and environmental regulations and codes.

• 2.4 TRAINING

All ESE site personnel working on the hazardous material contamination site investigations will have completed a safety and health training course for hazardous waste site work meeting the requirements of 29CFR1910.120 and have worked at least 3 days of supervised on the job training. The course consists of an initial 40-hour session and annual refreshers of 8 hours. Subcontractors and visitors are required to provide proof of equivalent training. The field team leader will have completed an additional 8 hours of waste site supervisory training. For each location, specific training is given by the Project Manager or Site Safety Officer to inform employees of site-specific hazards. Additionally, at least one field team member will be trained to perform cardiopulmonary resuscitation (CPR) and first aid.

2.5 MEDICAL MONITORING PROGRAM

All ESE on site personnel, subcontractors, and visitors for this project will be required to have the medical examination outlined in Table 1. This examination is given annually and more often if specified by the attending physician. All medical examinations include certification by the physician of the employee's ability to wear a negative-pressure respirator and to perform strenuous work. If a person sustains an injury or contracts an illness related to work on site that results in lost work time, he must obtain written approval from a physician to regain access to the site.

2.6 RECORDS DOCUMENTATION

Air monitoring data generated during the project will become part of the written record. Both medical and air monitoring data will be retained for the time period required by OSHA in various standards [29 CFR 1910.20(D)(i), 1910.20(D)(ii), 1910.1018, 1910.1025]. Training records are maintained in project files and on ESE's personal identification cards and are available for inspection at all times. Subcontractors are required to have similar documents available for inspection as required.

All personnel associated with work at a site will be required to sign a statement indicating that they have read, and will comply with the site safety plan. This signature page will also include information on their training and medical surveillance status.

Table 2.1

Medical Examination--Monitoring Program

Basic physical exam

Heart status and functions (EKG) baseline only except if >40

Chest X-ray (Roentgenogram posterior-anterior)

Pulmonary function--forced vital capacity, forced expiratory volume at 1 second and reserve volume

Blood--full SMAC Series

Hemoglobin--cell counts, protein levels

Liver function--full enzyme profile

Renal function--BUN, Creatinine, Creatine/Creatinine ratio, lipoprotein count and differential, uric acid

Urinalysis

Audiometry--audio spectrum response of ear

Eye--physical condition, visual acuity

Other laboratory tests may be ordered depending on actual or expected exposures and physician recommendations.

The individuals listed in the Site-Specific Plan organization chart will be certified to wear respirator protection in accordance with criteria from the ANSI Z88.2 and 29 CFR 1910.134.

3.0 HAZARD EVALUATION

3.1 CHEMICAL CONTAMINANTS

Potential site contaminants at petroleum contamination sites include gasoline, gasohol, motor oil, fuel oils (including kerosene, diesel fuel), and aviation grade gasoline. These materials may exist as free product in soil or on groundwater, and/or as contaminants to soil and water, and/or in tanks, piping, and systems. Fuel products include materials in and around storage tanks, such as gasoline, kerosene, diesel, and their derivatives, xylene, toluene, benzene, tetraethyl lead (TEL), and chlorinated solvents. The chlorinated solvents include trichloroethylene and tetrachloroethylene.

3.2 PHYSICAL AND MECHANICAL HAZARDS

Activities on site may include site visits, soil gas sampling, headspace sampling, installation and sampling from monitor wells, installation of free product recovery systems, installation of groundwater recovery systems, installation of soil venting systems, installation of biological treatment systems, installation of air strippers, installation of carbon absorption units, removal of tanks, piping, and systems, and removal of contaminated soil.

Hazards associated with these activities are varied and include vehicle/pedestrian collisions, fire, collapse of excavation and trenching, handling of heavy materials and equipment operations resulting in contact and crushing type injuries, and use of air- and electrically-powered tools which may result in abrasions, contusions, lacerations, etc.

3.3 JOB HAZARD ANALYSIS AND RISK ASSESSMENT

The chemical contaminants which may be present and the hazardous activities which may be performed at the site will be identified through preliminary site assessment activities, such as site visits or records search. Based on this preliminary information, initial risk assessments will be made by the Site Safety Officer, in consultation with an ESE Regional Health and Safety Officer, defining hazards (both chemical and physical) to workers and other on site personnel, the surrounding populace, and the environment.

The identities of potential hazards and resultant initial risk assessments will be included in the Hazard Evaluation section of the Site-Specific Plan, will be reviewed daily, and will be updated as necessary by the Site Safety Officer. Updated information will be communicated to all other on site personnel immediately.

3.4 AIR MONITORING

An air monitoring program is fundamental to the safety of on site and off site personnel. Total organic vapor (TOV) levels associated with on site activities will be monitored with a Photoionization Detection (PID) instrument (Photovac® TIP or HNU PI-101). This instrument will be the primary source of information for upgrading personal protection. Calibration and maintenance of monitoring equipment will be in accordance with manufacturer recommendations.

The Site Safety Officer, or designee, will establish daily a background TOV prior to initiating on site activities. Under most circumstances, this level can be determined by taking multiple readings at representative locations along the perimeter of the site and averaging the results of sustained measurements. (A sustained measurement is defined as the arithmetic average of six readings taken at 10-second intervals.) If, due to site conditions, it appears that perimeter readings will not yield a truly representative background level, the Site Safety Officer or an ESE Regional Health and Safety Officer will be consulted for guidance.

Decisions to upgrade personal protection will be based on sustained breathing zone TOV that exceeds background levels. Breathing zone refers to the area from the top of the shoulders to the top of the head.

Explosivity levels associated with on site activities will be monitored with an explosimeter or combustible gas meter. This will be the primary source of information for determining the potential hazard due to explosion or fire in confined spaces and other enclosed areas with little or no ventilation.

Prior to entry of any area which may contain an explosive or flammable atmosphere, the Site Safety Officer or designee will take representative readings of the suspect area. Representative readings include readings from top, middle, and lower levels of the area, and at various points at each level in larger areas. Areas in which any one reading exceeds 20% of the lower flammable limit will be considered potentially explosive, and will be vented to below 20% of the lower flammable limit before the introduction of any personnel or non-explosion proof powered equipment.

4.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment to be used at petroleum contamination sites will consist of several components. These components will protect the respiratory system, eyes and face, hands, feet, body, and head from a variety of chemical and physical hazards. Levels of personal protection will be categorized in accordance with the criteria described in accordance with the guidelines given in Section 3, Air Monitoring. Additional guidance for personal protective equipment can be found in the ESE Corporate Respiratory Protection Program, or can be obtained from an ESE Regional Health and Safety Officer.

Action levels for upgrading to the various protective levels and levels of personal protection required for the various tasks to be performed on each site, as well as any special site requirements, will be given in the Personal Protective Equipment section of the Site-Specific Plan.

PERSONAL PROTECTIVE EQUIPMENT--LEVEL A

1. Open-circuit, pressure-demand, self-contained breathing apparatus (SCBA);
2. Totally encapsulated suit;
3. Gloves, inner (surgical type);
4. Gloves, outer, chemical protective;
5. Boots, chemical protective, steel toe and shank; and
6. Booties, chemical protective.

CRITERIA

1. Sites known to contain hazards which:
 - a. Require the highest level of respiratory protection (as previously stated),
 - b. Will cause illness as a result of personal exposure,
 - c. Permit a reasonable determination that personal exposure could occur to any part of the body; or
2. Sites for which the Project Manager and/or Site Safety Officer make a reasonable determination that, based on the lack of information to the contrary, the site may be described as previously stated.

PERSONAL PROTECTIVE EQUIPMENT--LEVEL B

1. Open-circuit, pressure-demand SCBA;
2. Chemical protective
 - a. Overalls and long-sleeved jacket, or
 - b. Coveralls;
3. Gloves, inner (surgical type);
4. Gloves, outer, chemical protective;
5. Boots, chemical protective, steel toe and shank;
and
6. Booties, chemical protective.

CRITERIA

1. Sites known to contain hazards which:
 - a. Require the highest level of respiratory protection (as previously stated),
 - b. Will cause illness as a result of personal exposure,
 - c. Permit a reasonable determination that personal exposure to areas of the body not covered by Level B protective clothing is unlikely; and
2. Sites for which the Project Manager and/or Site Safety Officer make a reasonable determination that, based on the lack of information to the contrary, the site may be described as previously stated.

PERSONAL PROTECTIVE EQUIPMENT--LEVEL C

1. Full face-piece, air-purifying respirator (high-efficiency particulate/organic vapor cartridges);
2. Emergency escape oxygen pack (carried);
3. Chemical protective (Tyvek® is the minimum protection)
 - a. Overalls and long-sleeved jacket, or
 - b. Coveralls, or
 - c. Apron;
4. Gloves, inner (surgical type) (Latex);
5. Gloves, outer, chemical protective (Nitrile);
6. Boots, chemical protective (neoprene or NBR), steel toe and shank; and
7. Booties, chemical protective (Latex).

CRITERIA

1. Sites known to contain hazards which:
 - a. Do not require a level of respiratory protection greater than the level afforded by air-purifying respirators (nominal protection of 10), as previously stated;
 - b. Will cause illness as a result of personal exposure; or
 - c. Permit a reasonable determination that personal exposure to areas of the body not covered by Level C protective clothing is unlikely; and
2. Sites for which the Project Manager and/or Site Safety Officer make a reasonable determination that, based on the lack of information to the contrary, the site may be described as previously stated.

PERSONAL PROTECTIVE EQUIPMENT--LEVEL D

1. Coveralls, cotton;
2. Boots/shoes, safety;
3. Safety glasses;
4. Hard hat with optional face shield (where overhead hazards exist); and
5. Air-purifying respirator (readily available).

CRITERIA

Sites where the Project Manager and/or Site Safety Officer make a reasonable determination that hazards due to exposure to hazardous materials are unlikely.

ADDITIONAL PERSONAL PROTECTION

In addition to personal protective equipment, field personnel having duties on or near the hazard site should have ready access to:

1. A fully stocked industrial-size first-aid kit;
2. An eyewash kit; and
3. At least 6 gallons of potable water in a pressurized container to permit decontamination in event of accidental skin or eye contact with chemicals.

5.0 STANDARD WORK PRACTICES

5.1 GENERAL SAFETY RULES:

In addition to the specific requirements of the Site-Specific Plan, common sense should prevail at all times.

The following general safety rules and practices will be in effect at the site.

1. The site will be suitably marked or barricaded as necessary to prevent unauthorized visitors, but will not hinder emergency services if needed.
2. All open holes, trenches, and obstacles will be properly barricaded in accordance with local site needs. These needs will be determined by proximity to traffic ways, both pedestrian and vehicular, and site of the hole, trench, or obstacle. If holes are required to be left open during nonworking hours, they will be adequately decked over or barricaded and sufficiently lighted.
3. Prior to conducting any digging or boring operations, underground utility locations will be identified. The site representative and local utility authorities will be contacted to provide locations of underground utility lines and product piping. All boring, excavation, and other site work will be planned and performed with consideration for underground lines.
4. Smoking and ignition sources in the vicinity of flammable or contaminated material is prohibited.
5. Drilling, boring, movement and use of cranes and drilling rigs, erection of towers, movement of vehicles and equipment, and other activities will be planned and performed with consideration for the location, height, and relative position of aboveground utilities and fixtures, including signs, lights, canopies, buildings, and other structures and construction, and natural features such as trees, boulders, bodies of water, and terrain.
6. When working in areas where flammable vapors may be present, particular care must be exercised with tools and equipment that may be sources of ignition. All tools and equipment so provided must be properly bonded and/or grounded.
7. Approved and appropriate safety equipment, as specified in this site-specific HASP, such as eye protection, hard hats, foot protection, and respirators, must be worn in areas where required by the site-specific HASP. In addition, eye protection must be worn when handling free product, contaminated soil or water, or fill dirt.
8. Beards that interfere with respirator fit are not allowed within the site boundaries. This is necessary because all site personnel may be called upon to use respirator protection in some situations, and beards do not allow for proper respirator fit.
9. No smoking, eating, or drinking will be allowed in the contaminated areas.
10. Tools and hands must be kept away from the face.
11. Personnel must shower at the end of the shift or as soon as possible after leaving the site.
12. Each sample must be treated and handled as though it were extremely toxic.
13. Tank pit excavations must be sampled cautiously, using a remote sampling device or securing samples from excavated soil, and the pit should be entered only as a last resort and only if it is properly shored or sloped. The pit may meet the criteria for a confined space, in which case any entry must be made in accordance with NIOSH recommended Confined Space Entry Procedures. No confined space entry except by written procedure approved by the Health and Safety Officer.
14. Persons with long hair and/or loose-fitting clothing that could become entangled in power equipment are not permitted in the work area.
15. Horseplay is prohibited in the work area.
16. Working while under the influence of intoxicants, narcotics, or controlled substances is prohibited.

5.2 WORK LIMITATIONS:

HOURS

Work shall be limited to daylight hours and during normal weather conditions. Extremes in temperature and weather condition (i.e., wind and lightning) will restrict working hours.

HEAT STRESS

For monitoring the body's recuperative ability toward excess heat, the following techniques will be used as a screening mechanism. Monitoring of personnel wearing protective clothing will commence when the ambient temperature is 70 degrees Fahrenheit (°F) or above. When temperatures exceed 85°F, workers will be monitored after every work period. Monitoring will include visual observations for signs of heat stress and measurement of radial pulse rate for 30 seconds at the beginning of each rest period. If the heart rate exceeds 110 beats per minute (beats/min) at the beginning of a rest period, the next work period will be shortened by 10 minutes, and the rest period stays the same. If the pulse rate is 100 beats/min at the beginning of the next rest period, the following work cycle will be shortened another 10 minutes.

Also, good hygienic standards must be maintained by frequent change of clothing and daily showering. Clothing should be permitted to dry during rest periods. If skin problems occur, consult medical personnel.

COLD STRESS

The human body "senses" cold as a result of two factors, the air temperature and the wind velocity. Cooling of the flesh increases rapidly as wind velocity goes up. Frostbite can occur at relatively mild temperatures if wind penetrates the body insulation. For example, when the air temperature is 40°F and the wind velocity is 30 miles per hour (mph), the exposed skin would perceive an equivalent still air temperature of 13°F.

Table 5-1 illustrates windchill indices and the associated hazards to exposed flesh. Precautions will be taken to minimize exposed flesh, and layered clothing will be provided, as appropriate.

Table 5-1.

Windchill Index

Windspeed (mph)		Actual Thermometer Reading (°F)										
		50	40	30	20	10	0	-10	-20	-30	-40	
Calm	50	40	30	20	10	0	-10	-20	-30	-40		
	5	48	37	27	16	6	-5	-15	-26	-36	-47	
	10	40	28	16	4	-9	-21	-33	-46	-58	-70	
	15	36	22	9	-5	-18	-36	-45	-58	-72	-85	
	20	32	18	4	-10	-25	-39	-53	-67	-82	-96	
	25	30	16	0	-15	-29	-44	-59	-74	-88	-104	
	30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	
	35	27	11	-4	-20	-35	-49	-67	-82	-98	-113	
	40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	

Source: National Safety Council, 1982.

5.3 ACCIDENT PREVENTION PLAN/ACCIDENT REPORTING:

The purpose of the Safety Plan is to prevent accidents and minimize the impact of an accident if one should occur.

All accidents must be reported to the Site Safety Officer immediately. Prompt reporting is essential to the prevention of future incidents in addition to the well-being of the affected individual or individuals. The Site Safety Officer will notify the Project Manager of any serious accidents. The Site Safety Officer or other key members of the field team will be trained in first aid and CPR. First aid will be administered to affected personnel under the direction of the Site Safety Officer. For serious accidents, the nearest ambulance service will be contacted for transport of injured personnel to the nearest medical facility (see Section 6.0). The Site Safety Officer will have established contact and liaison with medical authorities (see Section 6.0) whose personnel will be knowledgeable of the activities of the field team. Telephone numbers and addresses of ambulance and medical services will be posted on site.

A formal report of any OSHA-recordable accident will be filed with ESE. All reports must be received within 2 working days.

5.4 WORK ZONES AND DECONTAMINATION PROCEDURES:

Work zones will be established in accordance with guidance provided in Figure 5-1. These zones may be modified to fit applicable field conditions; however, proposed modifications must be approved by the Project Manager and Site Safety Officer prior to being implemented in the field.

Personnel decontamination will be initiated on site. Disposable clothing will be removed and stored in designated containers. If additional decontamination is necessary, based on preliminary or subsequent risk assessment by the Site Safety Officer in consultation with ESE Regional Safety and Health Officer, additional decontamination procedures will be implemented. Site specific decontamination procedures will be listed in the Site-Specific Plan.

All heavy equipment will be decontaminated on site. Water in the form of steam cleaning and/or pressure washing may be used to remove any visual contamination from drilling equipment and backhoe.

5.5 SITE SECURITY AND ENTRY:

Site security measures, including barricading, fencing, and lighting, and any special site entry procedures will be described in the Section 5 of the Site-Specific Plan.

6.0 EMERGENCY INFORMATION AND CONTINGENCY PLANS

All emergency information, including phone numbers, site resources, and routes to emergency medical care, will be maintained on site in the Site-Specific Plan by each field team.

The phone list will include the following numbers:

AMBULANCE:

FIRE DEPARTMENT:

HOSPITAL (primary):

HOSPITAL (secondary):

POISON CONTROL CENTER:

POLICE:

TOXIC WASTE AND OIL SPILL:

CLIENT CONTACT:

AGENCY CONTACT:

PROJECT MANAGER:

CORPORATE SAFETY AND HEALTH OFFICER:

The list of site resources will include fire extinguishers, first aid equipment, eyewash units, communications (telephone), emergency personal protective equipment, spill containment equipment and materials, and any other special equipment, supplies or resources.

6.1 INJURY CONTINGENCY PLAN

First aid equipment will be kept on site during all site activities. Additionally, one member of the field team will be trained in first aid. Emergency telephone numbers for ambulance and poison control will be maintained on site in a readily accessible location. Names, addresses, and routes to two emergency medical care providers (hospitals or emergency clinics) will be verified prior to any site activity, and will be listed in the Site-Specific Plan. Maps showing the location of the site, the emergency medical care providers, and hotels and restaurants (if any) used by the field team should be provided in each vehicle. In the event of an injury that cannot be treated on site, the injured person will be immediately transported to the medical provider either by support vehicle or ambulance on determination by the Site Safety Officer, Project Manager, and/or first aid provider.

6.2 FIRE CONTROL AND CONTINGENCY PLAN

No smoking will be allowed during field activities. Fire extinguishers will be available at sites for use on small fires. All samples must be treated as flammable or explosive. The Site Safety Officer will have available the telephone number of the nearest fire station and local law enforcement agencies in case of a major fire emergency.

6.3 SPILL CONTROL AND CONTINGENCY PLAN

In the event of a spill, the Site Safety Officer will be notified immediately. The important factors are that no personnel are overexposed to vapors, gases, or mists and that the liquid does not ignite. Waste spillage must not be allowed to contaminate any local water source. Small dikes will be erected to contain spills, if necessary, until proper disposal can be completed. Subsequent to cleanup activities, the Site Safety Officer will survey the area to ensure that no toxic or explosive vapors remain.

6.4 OFF SITE INCIDENT CONTINGENCY PLAN

The Site Safety Officer will provide field team members with emergency medical care information similar to that kept on site in event of an off site emergency, such as a motor vehicle accident, food poisoning, or other injury sustained off the site.

6.5 COMMUNITY THREAT CONTINGENCY PLAN

The potential for exposure to the surrounding community will be assessed in conjunction with the preliminary site assessment.

The Site Safety Officer will consult with a representative of the local emergency services agency (police or fire department, in accordance with local governmental procedures), and will outline procedures in the Site-Specific Plan to be followed in the event of an emergency threat to the surrounding populace. Situations requiring specified procedures include fire, explosion, accidental ingestion, large spills consisting of free product, and accumulation of potentially explosive vapors off site.

The Site-Specific Plan will identify individuals who will respond to reports of non-emergency community threats arising from site activities. This non-emergency response will include sampling of air, wells and ground water, and soil. Situations requiring specified procedures include small spills and presence of existing concentrations of potentially explosive vapors on site.

APPENDIX A

**SITE-SPECIFIC
HEALTH & SAFETY
INFORMATION**

A. GENERAL PROJECT INFORMATION

SITE: Santa Rita Correctional Facility DATE PREPARED: 4-08-92

LOCATION: 5325 Broder Boulevard, Dublin, California

PREPARED BY: R. Stephen Willcutts Jr., ESE

OBJECTIVE (S) AND WORKPLAN: Removal of two 18,000 gallon Bunker C Fuel Oil USTs, and associated piping.

PROPOSED DATE(S) OF ON-SITE WORK: March 23, 1992 - May 29, 1992

BRIEFING DATE(S): _____ BACKGROUND REVIEW:

COMPLETE: x

PRELIMINARY: —

-----PROJECT H.A.S.P. SUMMARY-----

LEVEL(S) OF PROTECTION: A B C D x MIXED MODIFIED x

OVERALL HAZARD ESTIMATE: HIGH MODERATE LOW x UNKNOWN

ADDITIONAL DOCUMENTATION: TLV TABLE FULL HASP x METHODS

OTHER

B. SITE/MATERIAL CHARACTERISTICS

MATERIAL/WASTE TYPE(S): LIQUID x SOLID GAS SLUDGE

MATERIAL PRESENT IN: DRUMS TANKS x OPEN OTHER

CHARACTERISTICS: IGNITABLE CORROSIVE TOXIC x REACTIVE

RADIOACTIVE VOLATILE UNKNOWN OTHER

FACILITY TYPE: Former Correctional Facility CLOSED OPEN x

FACILITY SIZE: _____

TOPOGRAPHY: Relatively flat, at an approximately 350-feet above mean sea level.

PRINCIPAL DISPOSAL METHOD AND LOCATION(S): The two tanks will be hauled off-site as hazardous waste by Erickson Trucking, Inc., to Erickson Environmental of Richmond, California where they will be cleaned and scrapped.

C. HAZARD EVALUATION

INSTRUCTIONS: Evaluate principal hazards expected at this site. Be specific; complete all entries.

HAZARDS

Physical: On-site hazards include physical injuries due to the proximity of workers to engine-driven heavy equipment and tools, including backhoe or other excavator, loader, mechanical tamper, crane and trucks.

Chemical: Potential chemical hazards include skin and eye contact exposure to potentially toxic concentrations of Bunker C Fuel Oil.

Biological: None anticipated.

CORRECTIVE ACTIONS

Physical: Site will be inspected at start up. Identified safety hazards will be discussed at start up safety meeting and mitigated to extent feasible before start-up.

Chemical: Skin contact: Wash skin with soap and water. Eye contact: Flush with eye wash for 15 minutes.

Biological: None Anticipated

D. WORK PLAN INSTRUCTIONS

PERSONAL PROTECTION REQUIRED:

Level of protection: A ___ B ___ C ___ D x MIXED ___ MODIFICATIONS ___

For MIXED levels of protection describe areas and levels: _____

For MODIFICATIONS identify action levels: This site will involve D level protection which includes a hard hat, gloves, steel-toe boots.

_____ ADDITIONAL PERSONAL PROTECTIVE EQUIPMENT (PPE): Goggles, respirator, etc. should be available and ready for use.

MONITORING EQUIPMENT: PID ___ FID ___ TOXIC GAS ___ OXYGEN ___

DETECTOR TUBES ___ EXPLOSIMETER ___ PERSONAL MONITOR ___

OTHER INSTRUMENTS: N/A

EQUIPMENT CALIBRATION: N/A

MONITORING STRATEGY: N/A

DECONTAMINATION PROCEDURES: If required, equipment and personnel decontamination areas will be designated by the Project Manager at the start of the project. All tools will be cleaned adequately prior to final removal from the work zone, to prevent the transfer of contamination from the work site into clean areas. Protective clothing such as Tyvek coveralls, latex gloves, boot covers, etc. will be changed on a daily basis or at the discretion of the Project Manger. All disposable protective clothing will be put into plastic bags and disposed of in a proper manner. Excavated soils will be stockpiled in an area designated by the Project Manager, until chemical analysis has been performed on representative samples.

SITE CONTROL MEASURES: Set up 25-foot perimeter with traffic cones or surveyor's tape. Visitors within perimeter to read and sign H&S plan and abide by directions of site H&S officer.

SPILL CONTAINMENT PROCEDURES: All pumpable fluids will be removed from tanks and hauled off-site as hazardous waste. Care will be taken when draining and rinsing associated tank piping. Care will be taken while rinsing tanks to prevent any spillage of residual hydrocarbons. No storage of removed product, rinsate or other hazardous fluids will be allowed. Fluids will be pumped from tanks into vacuum trucks and immediately hauled off-site.

NOTES: N/A

E. EMERGENCY PROCEDURES

FIRE OR EXPLOSION: Evacuate the area and call the Fire Department at 911 immediately. All burn victims should seek medical attention immediately.

INJURY: Call 911 and administer first aid to victims who have severe injuries. Ensure all injured are transported to the nearest medical facility doctor.

WEATHER: Avoid extremes in temperature (i.e. very cold or very hot conditions)

OTHER:

CHEMICAL EXPOSURE ACTIONS:

(See Appendix B for Optional Material Safety Data Sheets)

EMERGENCY TELEPHONE NUMBERS

POLICE/FIRE/AMBULANCE: 911

POISON CONTROL: (800) 523-2222

ESE CONCORD OFFICE: (510) 685-4053

CHEMTREC: (800) 424-9300

UNDERGROUND SERVICE ALERT: (800) 642-2444

PROJECT CONTACTS

AGENCY CONTACT: Alameda County Health Care Services Agency (510) 271-4320

SITE CONTACT: Mr. Ernie Hall, Facility Supervisor (510) 551-6674

CLIENT CONTACT: Mr. Jim de Vos, Alameda County GSA (510) 535-6248

F. EMERGENCY PRECAUTIONS

PRIMARY HOSPITAL/INFIRMARY:

Name: Valley Memorial Hospital

Address: 1111 East Stanely Blvd., Livermore, CA Telephone Number: (510) 447-7000 (emergency)

Directions from site to emergency unit: Take Tassajara Road (south) to Highway 580. Take Highway 580 west. Exit south on First Street (Highway 84). After junction with Railroad Avenue, turn left into driveway of hospital.

Remarks: See Figure A

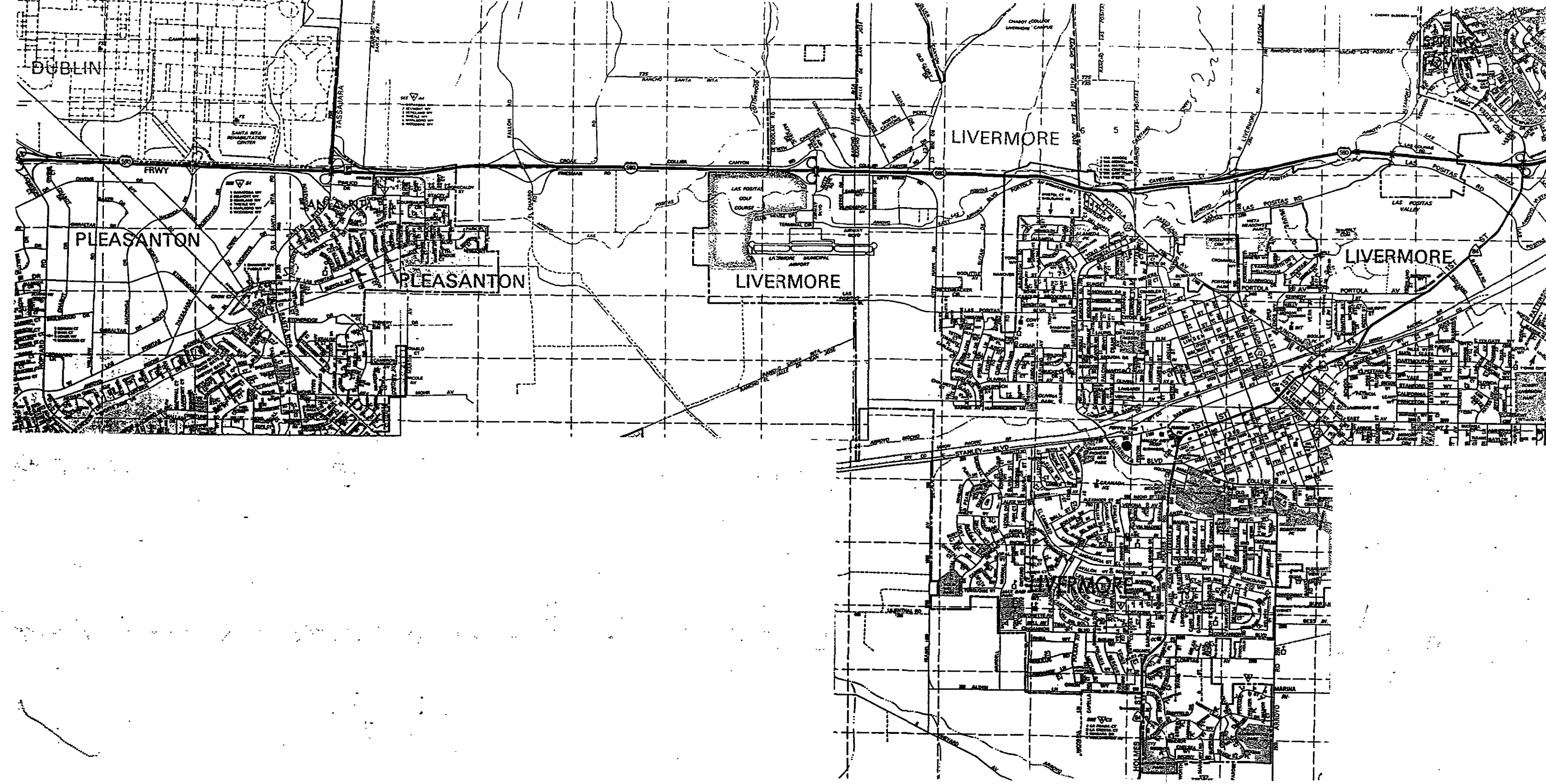


FIGURE A

APPENDIX B

**MATERIAL
SAFETY DATA
SHEETS**

MATERIAL SAFETY DATA SHEET



Product Name: UNOCAL 76 LEADED REGULAR GASOLINE
 Product Code No: 00301
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Responsible Party: UNOCAL REFINING & MARKETING DIVISION UNION OIL COMPANY OF CALIFORNIA 1201 WEST 5TH STREET LOS ANGELES, CALIFORNIA 90017 CONTACT FOR FURTHER INFORMATION: MSDS COORDINATOR 213-977-7589	Transportation Emergencies: CHEMTREC (800) 424-9300 Cont. U.S. (202) 483-7616 (Collect) from Alaska & Hawaii Health Emergencies: Call LOS ANGELES POISON INFORMATION CENTER (24 hrs) (800) 356-3129
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PRODUCT IDENTIFICATION

PRODUCT NAME: UNOCAL 76 LEADED REGULAR GASOLINE
 SYNONYMS: UNION 76 LEADED REGULAR GASOLINE
 GENERIC NAME: LEADED GASOLINE
 CHEMICAL FAMILY: PETROLEUM HYDROCARBON MIXTURE
 DOT PROPER SHIPPING NAME: GASOLINE
 ID NUMBER: UN1203
 DOT HAZARD CLASSIFICATION: FLAMMABLE LIQUID

PRECAUTIONARY WARNING

DANGER
 EXTREMELY FLAMMABLE. VAPORS MAY EXPLODE. HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. POSSIBLE CANCER HAZARD BASED ON TESTS WITH LABORATORY ANIMALS. NO SMOKING OR OPEN FLAME. KEEP AWAY FROM HEAT, SPARKS, FLAMES OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS OR MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY BE IGNITED BY SPARK OR FLAME SOURCE MANY FEET AWAY. DO NOT OVERFILL TANK. USE ONLY WITH ADEQUATE VENTILATION. DO NOT TASTE OR SWALLOW. KEEP CONTAINER CLOSED. DO NOT BREATHE VAPOR OR MISTS. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. WASH THOROUGHLY AFTER HANDLING. NEVER SIPHON BY MOUTH. FOR USE AS MOTOR FUEL ONLY. DO NOT USE FOR ANY OTHER PURPOSE. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, GRIND OR DRILL ON OR NEAR CONTAINER. "EMPTY" CONTAINER RETAINS RESIDUE (LIQUID AND/OR VAPOR) AND MAY EXPLODE IN HEAT OF A FIRE. KEEP OUT OF REACH OF CHILDREN. FAILURE TO USE CAUTION MAY CAUSE SERIOUS INJURY OR ILLNESS.

SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
HAZARDOUS COMPONENTS					
GASOLINE					
CAS #: 8006-61-9		300.000	ppm	ACGIH	TWA
		500.000	ppm	ACGIH	STEL
		300.000	ppm	OSHA	TWA
		500.000	ppm	OSHA	STEL

UNION OIL CO.

Product Name: UNOCAL 76 LEADED REGULAR GASOLINE
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Status: FINAL**SECTION II - EMERGENCY AND FIRST AID PROCEDURES*******EMERGENCY*****Have physician call LOS ANGELES POISON
INFORMATION CENTER (24 hrs) (800) 356-3129**EYE CONTACT:**

IF IRRITATION OR REDNESS DEVELOPS, MOVE VICTIM AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES WITH CLEAN WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION.

SKIN CONTACT:

WIPE MATERIAL FROM SKIN AND REMOVE CONTAMINATED SHOES AND CLOTHING. CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER AND, IF NECESSARY, A WATERLESS SKIN CLEANSER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION (BREATHING):

IF RESPIRATORY SYMPTOMS OR OTHER SYMPTOMS OF EXPOSURE DEVELOP, MOVE VICTIM AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSIST, SEEK IMMEDIATE MEDICAL ATTENTION. IF VICTIM IS NOT BREATHING, IMMEDIATELY BEGIN ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULTIES DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION (SWALLOWING):

ASPIRATION HAZARD: DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH BECAUSE THIS MATERIAL CAN ENTER THE LUNGS AND CAUSE SEVERE LUNG DAMAGE. IF VICTIM IS DROWSY OR UNCONSCIOUS, PLACE ON THE LEFT SIDE WITH THE HEAD DOWN. IF POSSIBLE, DO NOT LEAVE VICTIM UNATTENDED. SEEK MEDICAL ATTENTION.

COMMENTS:

NOTE TO PHYSICIANS: EXPOSURE TO HIGH CONCENTRATIONS OF THIS MATERIAL (e.g. IN ENCLOSED SPACES OR WITH DELIBERATE ABUSE) MAY BE ASSOCIATED WITH CARDIAC ARRHYTHMIAS. EPINEPHRINE AND OTHER SYMPATHOMIMETIC DRUGS MAY INITIATE CARDIAC ARRHYTHMIAS IN PERSONS EXPOSED TO THIS MATERIAL. OTHER DRUGS WITH LESS ARRHYTHMOGENIC POTENTIAL SHOULD BE CONSIDERED. IF SYMPATHOMIMETIC DRUGS ARE ADMINISTERED, OBSERVE FOR THE DEVELOPMENT OF CARDIAC ARRHYTHMIAS.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY**EYE CONTACT:**

THIS MATERIAL MAY CAUSE MILD EYE IRRITATION. DIRECT CONTACT WITH THE LIQUID OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING, TEARING AND REDNESS.

SKIN CONTACT:

THIS MATERIAL MAY CAUSE MILD SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE REDNESS, BURNING, AND DRYING AND CRACKING OF THE SKIN. CONTACT MAY RESULT IN SKIN ABSORPTION BUT SYMPTOMS OF TOXICITY ARE NOT ANTICIPATED BY THIS ROUTE ALONE UNDER NORMAL CONDITIONS OF USE. PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

INHALATION (BREATHING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, BREATHING HIGH CONCENTRATIONS OF VAPORS OR MISTS MAY CAUSE FLUSHING, BLURRED VISION, NAUSEA AND SIGNS OF NERVOUS SYSTEM DEPRESSION (e.g. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). EXPOSURE TO HIGH CONCENTRATIONS MAY CAUSE LOSS OF CONSCIOUSNESS, CONVULSIONS, RESPIRATORY COLLAPSE AND DEATH. RESPIRATORY SYMPTOMS ASSOCIATED WITH PRE-EXISTING LUNG DISORDERS (e.g. ASTHMA-LIKE CONDITIONS) MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

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SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
		300.000	ppm	CAL OSHA	TWA
BENZENE CAS #: 71-43-2	1.0 - 5.0	10.000 25.000 1.000 5.000 50.000 25.000 10.000	ppm ppm ppm ppm ppm ppm ppm	ACGIH MSHA OSHA OSHA CAL OSHA CAL OSHA CAL OSHA	TWA CEIL-SKIN TWA STEL CEIL EXCUR TWA-SKIN
LEAD COMPOUND CAS #: NONE	0.1 GM/GAL			NOT ESTABLISHED	
TOLUENE CAS #: 108-88-3	1.0 - 15.0	100.000 150.000 100.000 100.000 150.000 200.000 100.000 500.000	ppm ppm ppm ppm ppm ppm ppm ppm	ACGIH ACGIH MSHA OSHA OSHA CAL OSHA CAL OSHA CAL OSHA	TWA STEL TWA TWA STEL EXCUR TWA-SKIN CEIL-SKIN
XYLENES CAS #: 1330-20-7	1.0 - 21.0	100.000 150.000 100.000 100.000 150.000 200.000 100.000 300.000	ppm ppm ppm ppm ppm ppm ppm ppm	ACGIH ACGIH MSHA OSHA OSHA CAL OSHA CAL OSHA CAL OSHA	TWA STEL TWA TWA STEL EXCUR TWA-SKIN CEIL-SKIN
N-HEXANE CAS #: 110-54-3		50.000 500.000 50.000 50.000	ppm ppm ppm ppm	ACGIH MSHA OSHA CAL OSHA	TWA TWA TWA TWA

OTHER COMPONENTS

--NONE--

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR 372:

	CAS NUMBER	WEIGHT %
BENZENE	71-43-2	1-5
LEAD COMPOUND	NONE	0.1 GM/GAL
TOLUENE	108-88-3	1-15
XYLENES	1330-20-7	1-21
ETHYLBENZENE	100-41-4	1-5
METHYL TERT-BUTYL ETHER	1634-04-4	0-11
1,2,4-TRIMETHYLBENZENE	95-63-6	1-5

NOTE: GASOLINE IS A COMPLEX COMBINATION OF HYDROCARBONS INCLUDING A SMALL QUANTITY OF BENZENE, TOLUENE, XYLENE AND N-HEXANE.

UNION OIL CO.

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Status: FINAL**SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY****INGESTION (SWALLOWING):**

ASPIRATION HAZARD - THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE. INGESTION OF EXCESSIVE QUANTITIES OF THIS MATERIAL MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT AND SIGNS OF NERVOUS SYSTEM DEPRESSION (e.g. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION, AND FATIGUE).

COMMENTS:

GASOLINE IS A POSSIBLE CANCER HAZARD BASED ON ANIMAL DATA. FOLLOW-UP STUDIES SUGGEST THAT THIS MAY BE A UNIQUE EFFECT IN MALE RATS. UNLEADED GASOLINE HAS BEEN IDENTIFIED AS A POSSIBLE CARCINOGEN BY IARC. BENZENE, A COMPONENT OF THIS PRODUCT, IS A KNOWN CANCER (LEUKEMIA) HAZARD. RESULTS OF TESTS IN HUMANS HAVE SHOWN THAT EXPOSURE TO BENZENE CAN CAUSE IRREVERSIBLE CHANGES IN THE GENETIC MATERIAL (DNA) OF A CELL. THE HUMAN HEALTH CONSEQUENCES OF THESE CHANGES IS NOT FULLY UNDERSTOOD. BENZENE HAS BEEN IDENTIFIED AS A CARCINOGEN BY IARC, NTP AND OSHA. THERE IS INSUFFICIENT EVIDENCE TO SHOW THAT GASOLINE POSSES ANY HAZARD RELATED TO ITS LOW BENZENE CONTENT. INTENTIONAL MISUSE BY DELIBERATE INHALATION OF LEADED GASOLINE MAY RESULT IN CHANGES IN BEHAVIOR CHARACTERIZED BY IRRITABILITY, AGGRESSIVENESS AND HALLUCINATIONS; MORE SEVERE OVEREXPOSURE MAY RESULT IN TREMORS AND SEIZURES. PERSONS WITH PRE-EXISTING HEART DISORDERS MAY BE MORE SUSCEPTIBLE TO IRREGULAR HEARTBEATS (ARRHYTHMIAS) IF EXPOSED TO HIGH CONCENTRATIONS OF THIS MATERIAL (SEE SECTION II - NOTE TO PHYSICIANS).

SECTION IV - SPECIAL PROTECTION INFORMATION**VENTILATION:**

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REQUIRED. WHERE EXPLOSIVE MIXTURES MAY BE PRESENT, ELECTRICAL SYSTEMS SAFE FOR SUCH LOCATIONS MUST BE USED.

RESPIRATORY PROTECTION:

THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I). DEPENDING ON THE AIRBORNE CONCENTRATION, USE A RESPIRATOR OR GAS MASK WITH APPROPRIATE CARTRIDGES AND CANNISTERS (NIOSH APPROVED, IF AVAILABLE) OR SUPPLIED AIR EQUIPMENT.

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN THE WORK AREA FOR FLUSHING EYES AND SKIN. IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED.

SECTION V - REACTIVITY DATA**REACTIVITY:**

STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

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SECTION V - REACTIVITY DATA

CONDITIONS AFFECTING REACTIVITY:

AVOID ALL POSSIBLE SOURCES OF IGNITION (SEE SECTIONS VII AND VIII).

INCOMPATIBLE MATERIALS:

STRONG OXIDIZING AGENTS SUCH AS CHLORINE, PERMANGANATES AND DICHROMATES MAY CAUSE FIRE OR EXPLOSION.

HAZARDOUS DECOMPOSITION PRODUCTS:

COMBUSTION MAY YIELD SIGNIFICANT AMOUNTS OF CARBON MONOXIDE AND SMALL AMOUNTS OF OXIDES OF SULFUR AND NITROGEN, BENZENE AND OTHER ORGANIC COMPOUNDS.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

POLYMERIZATION CONDITIONS TO AVOID:

NONE KNOWN

SECTION VI - SPILL AND LEAK PROCEDURES

HIGHWAY OR RAILWAY SPILLS
 Call CHEMTREC (800) 424-9300 Cont. U.S.
 (Collect) (202) 483-7616 from Alaska & Hawaii

PRECAUTIONS IN CASE OF RELEASE OR SPILL:

EXTREMELY FLAMMABLE. KEEP ALL SOURCES OF IGNITION AND HOT METAL SURFACES AWAY FROM SPILL/RELEASE. STAY UPWIND AND AWAY FROM SPILL/RELEASE. ISOLATE HAZARD AREA AND LIMIT ENTRY TO EMERGENCY CREW. STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). PREVENT SPILLED MATERIAL FROM ENTERING SEWERS, STORM DRAINS, OTHER UNAUTHORIZED TREATMENT DRAINAGE SYSTEMS AND NATURAL WATERWAYS. DIKE FAR AHEAD OF SPILL FOR LATER RECOVERY OR DISPOSAL. SPILLED MATERIAL MAY BE ABSORBED INTO AN APPROPRIATE ABSORBENT MATERIAL. NOTIFY FIRE AUTHORITIES AND APPROPRIATE FEDERAL, STATE AND LOCAL AGENCIES. IMMEDIATE CLEANUP OF ANY SPILL IS RECOMMENDED. IF SPILL OF ANY AMOUNT IS MADE INTO OR UPON U.S. NAVIGABLE WATERS, THE CONTIGUOUS ZONE, OR ADJOINING SHORELINES, NOTIFY THE NATIONAL RESPONSE CENTER (PHONE NUMBER 800-424-8802).

WASTE DISPOSAL METHOD:

DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

KEEP CONTAINER(S) TIGHTLY CLOSED. USE AND STORE THIS MATERIAL IN COOL, DRY, WELL VENTILATED AREAS AWAY FROM HEAT, DIRECT SUNLIGHT, HOT METAL SURFACES AND ALL SOURCES OF IGNITION. POST AREA "NO SMOKING OR OPEN FLAME." BOND AND GROUND ALL EQUIPMENT WHEN TRANSFERRING FROM ONE VESSEL TO ANOTHER. STORE ONLY IN APPROVED CONTAINERS. KEEP AWAY FROM ANY INCOMPATIBLE MATERIALS (SEE SECTION V). PROTECT CONTAINER(S) AGAINST PHYSICAL DAMAGE. THE USE OF EXPLOSION-PROOF EQUIPMENT IS RECOMMENDED AND MAY BE REQUIRED (SEE APPROPRIATE FIRE CODES). DO NOT ENTER CONFINED SPACES SUCH AS TANKS OR PITS WITHOUT FOLLOWING PROPER ENTRY PROCEDURES SUCH AS ASTM D-4276. OUTDOOR OR DETACHED STORAGE IS PREFERRED. INDOOR STORAGE SHOULD MEET OSHA STANDARDS AND APPROPRIATE FIRE CODES. THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED ANY ESTABLISHED EXPOSURE LIMITS (SEE SECTIONS I AND IV). WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR CONTAMINATED CLOTHING OR SHOES. USE GOOD PERSONAL HYGIENE PRACTICE. "EMPTY" CONTAINERS RETAIN RESIDUE (LIQUID AND/OR VAPOR) AND CAN BE DANGEROUS. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE

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SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

AND CAUSE INJURY OR DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY SHIPPED TO THE SUPPLIER OR A DRUM RECONDITIONER. ALL OTHER CONTAINERS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS PRODUCT, REFER TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ANSI Z49.1, AND OTHER GOVERNMENTAL AND INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING, OR OTHER CONTEMPLATED OPERATIONS.

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

NFPA HAZARD CLASS	HEALTH HAZARD:	2	HAZARD RANKING	FLASH POINT
	FLAMMABILITY:	3	0 = LEAST	
	REACTIVITY:	0	1 = SLIGHT	
	OTHER:		2 = MODERATE	-45 F (TCC)
			3 = HIGH	
			4 = EXTREME	

EXTINGUISHING MEDIA:

DRY CHEMICAL, CARBON DIOXIDE, HALON, FOAM OR WATER SPRAY IS RECOMMENDED. WATER MAY BE INEFFECTIVE.

UNUSUAL FIRE & EXPLOSION HAZARDS:

THIS MATERIAL IS EXTREMELY FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPOR/AIR EXPLOSION HAZARD INDOORS/OUTDOORS OR IN SEWERS. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE.

SPECIAL FIRE FIGHTING PROCEDURES:

WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. MOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. WATER SPRAY MAY BE USEFUL IN MINIMIZING OR DISPERSING VAPORS AND COOLING EQUIPMENT EXPOSED TO HEAT AND FLAME. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

SECTION IX - PHYSICAL DATA

***UNLESS OTHERWISE NOTED, VALUES ARE AT 20 C/68 F AND 760 mm Hg/1 atm.

<u>APPROX BOILING POINT</u>	<u>(AIR = 1) VAPOR DENSITY</u>	<u>(N-BUTYL ACETATE = 1) EVAPORATION RATE</u>	<u>% VOLATILE</u>
85-430F / 29-221C	>1	<1	100

% SOLUBILITY IN WATER

NEGLIGIBLE

SPECIFIC GRAVITY

0.80

APPEARANCE

BRONZE COLORED LIQUID

ODOR

GASOLINE

UNION OIL CO.

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SECTION X - DOCUMENTARY INFORMATION

ISSUE DATE: 05/04/90 PRODUCT CODE NO. 00301
PREV. DATE: 04/25/90 PREV. PROD. CODE NO. N/A
MSDS NO: N/A PREV. MSDS NO: N/A

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

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Tank Nos 2942-4
2942-4a 4B!

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320

4th + Madison
Please give 5 day notice
before tank removal.
Jeff Shapiro
4/28/92

Project Specialist (print) Jeff Shapiro

ACCEPTED

DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 20th Street, 4th Floor
Oakland, CA 94612
Telephone: (510) 274-2237

These plans must be approved and accepted by the Department of Environmental Health and approved by the State and local health officials. Changes to the plans authorized by this Department must be submitted to the State and local health officials for approval. A permit for issuance of any tank closure must be obtained in accordance with the following requirements:

One copy of the approved plans must be on the job and every contractor and craftsman involved with the removal.

Any change 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.

UNDERGROUND TANK CLOSURE PLAN

*** * * Complete according to attached instructions * * ***

1. Business Name Santa Rita Jail
 Business Owner Alameda County General Services Agency

2. Site Address 5325 Broder Boulevard
 City Dublin Zip 94568 Phone (510) 551-6674

3. Mailing Address Same
 City _____ Zip _____ Phone _____

4. Land Owner Alameda County General Services Agency
 Address 4400 MacArthur Blvd. City, State Oakland, CA Zip 94619

5. Generator name under which tank will be manifested _____
Alameda County General Services Agency

EPA I.D. No. under which tank will be manifested CAD 981397060

6. Contractor Environmental Science & Engineering, Inc.
Address 4090 Nelson Avenue, Suite J
City Concord Phone (510) 685-4053
License Type General Engineering ID# 540544

7. Consultant Same as 6.
Address _____
City _____ Phone _____

8. Contact Person for Investigation

Name R. Stephen Willcutts Title Senior Staff Engineer
Phone (510) 685-4053

9. Number of tanks being closed under this plan 2
Length of piping being removed under this plan 0
Total number of tanks at facility 8

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

**** Underground tanks are hazardous waste and must be handled **
as hazardous waste**

a) Product/Residual Sludge/Rinsate Transporter

Name Erickson Trucking, Inc. EPA I.D. No. CAD 009 466 392
Hauler License No. CA 019 License Exp. Date 05/92
Address 255 Parr Boulevard
City Richmond State CA Zip 94801

b) Product/Residual Sludge/Rinsate Disposal Site

Name Same as 10, a EPA I.D. No. _____
Address _____
City _____ State _____ Zip _____

c) Tank and Piping Transporter

Name Erickson Trucking, Inc. EPA I.D. No. CAD 009 466 392.
Hauler License No. CA 019 License Exp. Date 05/92
Address 255 Parr Boulevard
City Richmond State CA Zip 94801

d) Tank and Piping Disposal Site

Name Same as c EPA I.D. No. _____
Address _____
City _____ State _____ Zip _____

11. Experienced Sample Collector

Name R. Stephen Willcutts (Sr. Staff Engineer)
Company Environmental Science & Engineering, Inc.
Address 4090 Nelson Avenue, Suite J
City Concord State CA Zip 94520 Phone (510) 685-4053

12. Laboratory

Name Curtis & Tompkins, LTD.
Address 2323 Fifth Street
City Berkeley State CA Zip 94710
State Certification No. 159

13. Have tanks or pipes leaked in the past? Yes [] No [x]

If yes, describe. _____

14. Describe methods to be used for rendering tank inert

Additional of 15 pounds of dry ice for every 1,000 gallons tank capacity.

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.

15. Tank History and Sampling Information

Tank # 4, 4A		Material to be sampled (tank contents, soil, ground-water, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
10K gallons	Currently inactive. Installation date is unknown. Product was Bunker C fuel oil.	Soil	2 Samples to be collected at two feet below tank invert, at each end of tank. (approx. 16.5 feet below ground surface)
8K gallons	Currently inactive. Installation date is unknown. Product was Bunker C fuel oil.	Soil	2 Samples to be collected at two feet below tank invert, at each end of tank. (approx. 16.5 feet below ground surface)

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated) 75 cy	Sampling Plan Collect four samples from soil stockpiles and analyze as described in item 16.

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant - Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
TPH-D	GC FID (3550)	EPA 8015M	1 ppm
BTX&E	GC FID	EPA 8020	0.005 ppm
O&G	5520 D&F	Oil & Grease	50 ppm

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy

Name of Insurer Planet Insurance Company

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. Report any leaks or contamination to this office within 5 days of discovery. The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

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 understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) R. Stephen Willcutts, Environmental Science & Engineering, Inc

Signature *R. Stephen Willcutts*

Date 4/10/92

Signature of Site Owner or Operator

Name (please type) Jim de Vos, Alameda County General Services Agency

Signature *Jim de Vos (P)*

Date 4/10/92

NOTE: No other certificate forms will be accepted.

Please complete the following information:

CONTRACTOR: Environmental Science Engineering, Inc.
General Services Agency
CONTRACT TERM: April 1, 1992 to June 15, 1992 Alameda County Agency or Department

POLICY/BOND ENDORSEMENT REQUIREMENTS

Contractor's policies or bonds shall be endorsed as follows:

Name Alameda County, its Board of Supervisors, officers, agents and employees as Additional Insured/Obligees, but County is not liable to the insurance company for any premiums, costs or assessments in connection with Contractor's policy/bond, as a result of being an Additional Insured.

Provide County 30 days advance written notice of cancellation, non-renewal or reduction in limits or coverage including the name of the Contract, mailed to the following address:

GSA-BMD
County Department to Receive Notice(s)
4400 MacArthur Blvd.
Address

Subodh Chowdhry
Individual Coordinating Contracts
Oakland, CA 94619
City, State, Zip

State the Contractor's policy/bond is primary insurance to any other insurance available to County with respect to any claim arising out of this contract.

Contractor is responsible for payment of insurance deductibles.

Insurance companies must have an "A.M. Best" rating of B+, V or better.

REQUIRED COVERAGES - Where "X" Appears in Box CERTIFICATES OF INSURANCE

- 1. Workers' Compensation
 - a. Statutory Compensation coverage.
 - b. Employer's liability insurance with limit not less than \$100,000 per occurrence.

Planet Insurance Co.
Insurance Company(s)
NWA0102557700 - 3/16/92-3/16/93
Policy Number(s) Policy Period (dates)
Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.
Johnson & Higgins
Name
500 W. Madison, Suite 2100
Address
Chicago, IL 60661
City, State, Zip

REQUIRED COVERAGES - Where "X" Appears in Box

CERTIFICATES OF INSURANCE

2. Comprehensive General Liability

a. Minimum Limits of Liability:
\$1,000,000 per occurrence combined
single limit Bodily Injury and
Property Damage.

b. Coverages:

- Bodily Injury
- Property Damage
- Blanket Contractual
- Personal Injury
- Products/Completed Operations
- Broad Form Property Damage
- Fire Damage Legal Liability

c. Deductible not to exceed \$5,000
per occurrence.

d. Cross Liability or Severability
of Interests Clause in policy

e. Occurrence Form Claims Made Form

f. IF claims made, please complete the following:
Coverage for all prior acts? _____

If prior acts coverage is restricted, advise retroactive date of coverage:

Extended discovery provision: If Insurance Company cancels, how long is
period of extended discovery? _____

If Contractee cancels, how long is optional coverage for extended discovery?

Percentage of annual premium cost to purchase the extended discovery?

A Certified copy of the Claims Made form must be provided

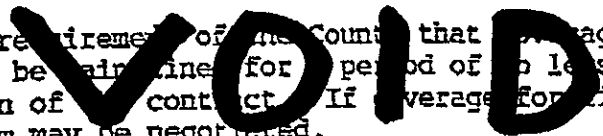
It will be a requirement of the Court that coverage for the period of the
contract will be maintained for a period of no less than five years after
the expiration of the contract. If coverage for five years is not available,
a shorter term may be negotiated.

Commerce & Industry
Insurance Company(s)

GL3403771 3/16/92-3/16/93
Policy Number(s) Policy Period (dates)

Donald J. Price
Signature of Individual authorized by
Insurance Company to bind Company to
coverage shown, and above endorsement
requirements.

Johnson & Higgins
Name
500 W. Madison, Suite 2100
Address
Chicago, IL 60661
City, State, Zip



REQUIRED COVERAGES - Where "X" Appears in Box

CERTIFICATES OF INSURANCE

3. Comprehensive Automobile Liability

a. Minimum Limits of Liability: \$1,000,000 per occurrence combined single limit Bodily Injury and Property Damage.

Assigned risk insurance at available State financial responsibility limits.

b. Coverages:

- Owned Automobiles, if any
- Non-owned Automobiles
- Hired Automobiles
- Cross Liability or Severability of Interests clause in policy.

Planet Insurance Company
 Insurance Company(s)
 NKA010257800 3/16/92-3/16/93
 Policy Number(s) Policy Period (dates)
Donald A. Price
 Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.
 Johnson & Higgins
 Name
 500 W. Madison, Suite 2100
 Address
 Chicago, IL 60661
 City, State, Zip

4. Professional Liability

1. For professional employees licensed as a condition of employment at the beginning of contract term or hired during the contract terms, insuring against error or omission in rendering or failing to render professional services. Coverage shall continue for a minimum of five years.

a. Minimum Limits of Liability: \$1,000,000 per claim

b. Deductible not to exceed \$5,000 per claim

c. If claims made, please complete the following:

Coverage for all prior acts? Yes X No _____

If prior acts coverage is restricted, advise retroactive date of coverage.
2-16-90

Extended discovery provisions: If Insurance Company cancels, how long is period of extended discovery? 365 Days

If Contractee cancels, how long is optional coverage for extended discovery?
12 Months

Percentage of annual premium cost to purchase the extended discovery?
100%

National Prof. Casualty Co.
 Insurance Company(s)
 A72961 2/16/92-2/16/93
 Policy Number(s) Policy Period (dates)
Kathryn Reiche
 Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements. (Except additional insured not required.)
 Direct Placement
 Name
 330 Hamilton Blvd., Suite 300
 Address
 Peoria, IL 61602
 City, State, Zip

REQUIRED COVERAGES - Where "X" Appears in Box

CERTIFICATES OF INSURANCE

4. Professional Liability (continued)

A Certified copy of the Claims Made form must be provided.

It will be a requirement of the county that Coverage for the period of the contract will be maintained for a period of no less than five after the expiration of the contract. If coverage for five years is not available, a shorter term may be negotiated.

VOID

5. Bonds/Crime Insurance

1. Fidelity Insurance Bond

- a. Faithful Performance Coverage of all officials, agents, and employees with access to funds received by Contractor.
- b. Limits shall at least be equal to maximum County funds in contractors possession or control during contract term.

Insurance Company(s)

Policy Number(s) Policy Period (dates)

Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.

Name

Address

City, State, Zip

2. Money and Securities Policy.

- a. Insurance against the disappearance, destruction or wrongful abstraction of funds on and off premises contractor.
- b. Limits shall at least be equal to maximum County funds in contractors possession or control during contract term.

Insurance Company(s)

Policy Number(s) Policy Period (dates)

Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.

Name

Address

City, State, Zip

6. Other (Describe below)

Insurance Company(s)

Policy Number(s) Policy Period (dates)

Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.

REQUIRED COVERAGES - Where "X" Appears in Box

CERTIFICATES OF INSURANCE

6. Other (continued)

Name

Address

City, State, Zip

7. Self Insurance

Contractors self-insured for any risks shown in Sections above shall attach to contract evidence satisfactory to County of Contractor's financial ability (such as a current financial statement) to respond to losses in amounts shown above, for each risk self-insured. Contractor shall complete and sign the following statement and attach to contract.

The Contractor is self-insured for the following coverages with respect to this contract"

Worker's Compensation

Comprehensive General Liability to the limit of \$ _____

Bodily injury

Property damage

Blanket Contractual

Personal injury

Products/completed operations

Broad Form property damage

Fire damage legal liability

Comprehensive Auto Liability to the limit of \$ _____

Owned Automobiles

Non-owned Automobiles

Hired Automobiles

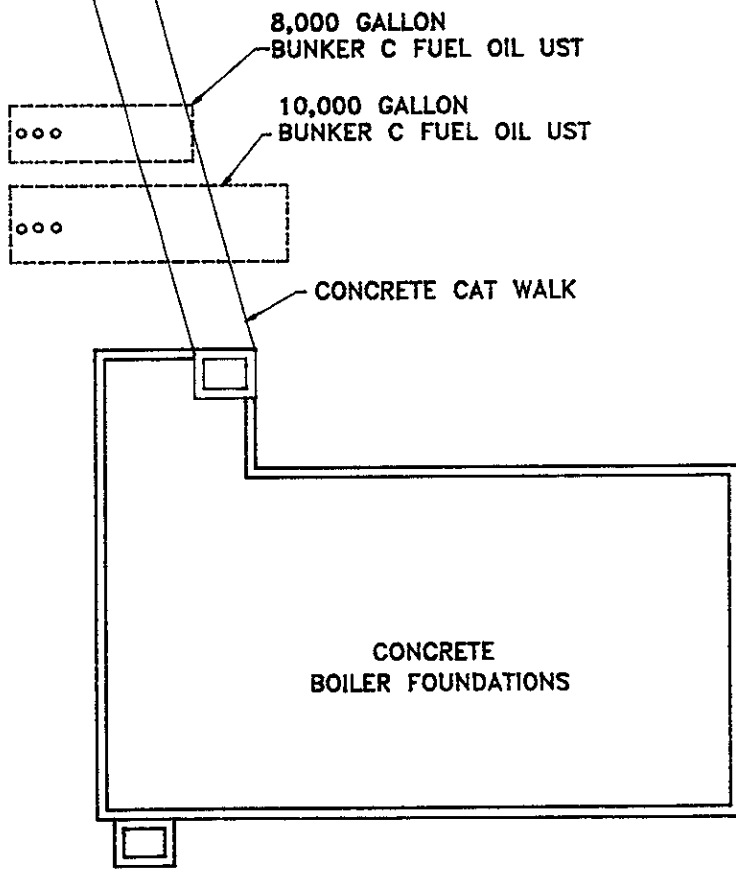
Professional Liability to the limit of \$ _____

Note: If excess insurance is needed to meet the limits required for insurances in Exhibit C, then the authorized representative of the excess insurance company(s) must sign the certificates in Exhibit C pertaining to the necessary coverages.

Signature of authorized
representative of Contractor

Title

Date



MADIGAN AVENUE

DEPTH TO GROUND WATER: 30 FEET

GRASS FIELD

4th STREET



Environmental
Science &
Engineering, Inc.

ALAMEDA COUNTY GSA
SANTA RITA CORRECTIONAL FACILITY
TANK REMOVAL PLOT PLAN
TANK NOS. 2942-4, 2942-4a

DRAWN BY DWR	APPROVED BY	REVISED
DATE 4/92	FILE NAME TANK44A2	PROJ. NO. 6-92-5348

HEALTH AND SAFETY PLAN
for
ALAMEDA COUNTY GENERAL SERVICES AGENCY
SANTA RITA CORRECTIONAL FACILITY
Dublin, California

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APPENDICES

- A. SITE SPECIFIC HEALTH AND SAFETY INFORMATION
- B. MATERIAL SAFETY DATA SHEETS (Optional)

TABLES

- 2-1 Medical Examination--Monitoring Program
- 5-1 Windchill Index

1.0 GENERAL INFORMATION

1.1 INTRODUCTION

This Health and Safety Plan shall provide the safety and health requirements for general site work taking place under a contract with Alameda County General Services Agency. This Plan provides the structure for a Site-Specific Health and Safety Plan, and provides information which will apply to all Environmental Science & Engineering, Inc. (ESE) projects. Together, they comprise the Site Health and Safety Plan (HASP). This HASP will be considered complete only with an associated Site-Specific HASP.

The purpose of this HASP is to protect individuals, those working at the site, visitors, and the surrounding populace, and the environment during on site sampling and site characterization activities at petroleum hydrocarbon impacted sites. This plan includes preventive and protective measures against health hazards, fire and explosion hazards, and mechanical hazards which may exist or occur during field activities.

1.2 SITE INFORMATION

The General Information section of each Site-Specific Health and Safety Plan will provide the following information:

1. Name and Location of the Site;
2. Name of Individual Preparing the Plan, and Date of Preparation;
3. Brief Site History;
4. Investigative Objective and Work Plan;
5. Proposed Dates of Investigation; and
6. Assessment of Overall Worker and Public Health Hazards.

1.3 REGULATORY REQUIREMENTS:

Occupational Safety and Health Administration (OSHA) standards 29 Code of Federal Regulations (CFR) 1910 and 1926 apply to work under this site-specific HASP. Title 8 of California Code of Regulations (General Construction Safety Orders and General Safety Orders) must be complied with at California sites. Additional requirements are contained in Code of Federal Regulations title 40, Protection of the Environment.

2.0 PERSONNEL REQUIREMENTS

2.1 ORGANIZATION

The overall project organization as described in this document will be shown in the Site-Specific Health and Safety Plan, and will identify and show responsibilities for all key personnel, employees, and subcontractors.

2.2 ESE HEALTH AND SAFETY POLICY AND RESPONSIBILITY

It is the policy of the management of ESE and also a contract requirement that a safety plan be implemented at hazardous material contamination sites to protect individuals and the environment. All ESE personnel involved in work on these sites will conform and comply with all aspects of this safety program. Each and every individual is, and therefore must regard and conduct him/herself as, a member of the safety team and adhere to the prescribed site safety plan to ensure his/her own safety as well as that of fellow workers, visitors, and the public.

2.3 PERSONNEL RESPONSIBILITIES

For each site, the responsibilities of the Project Manager include:

1. Preparing an effective site safety plan for the project;
2. Categorizing and identifying for the project staff the levels of potential exposure and dangerous levels of hazardous materials possibly encountered on site;
3. Ensuring that adequate and appropriate safety training and equipment are available for project personnel; and
4. Arranging for medical examinations for specified project personnel.
5. Ensuring a qualified on-site field person is designated Site Safety Officer (SSO) and is present when work is in progress. Alternates may also be designated as needed, however, the project manager must ensure the designated (SSO) is familiar with the safety plan and his/her responsibilities.
6. Ensuring any subcontractors (i.e. drillers, excavators) get an advance copy of the Health and Safety Plan and a start-up safety briefing is scheduled.
7. Determining appropriate level of protection and exposure monitoring strategy for the project by task or phase.

Overall responsibility for safety during the site investigative activities rests with the Project Manager. To assist the Project Manager, a qualified Site Safety Officer will be appointed for each site.

The Site Safety Officer's (SSO's) responsibilities include:

1. Implementing all safety procedures and operations on site.
2. Conducting start-up safety briefing with project personnel and subcontractors. Ensure all necessary equipment and procedures are in place before start-up. Addressing any substandard conditions requiring correction prior to start up.
3. Updating equipment or procedures based upon new information gathered during the site inspection.
4. Upgrading or downgrading the levels of personal protection based upon site observations and/or measurements.
5. Determining and posting locations and routes to medical facilities and arranging emergency transportation to medical facilities (as required).
6. Controlling site entry and notifying (as required) local public emergency officers (i.e., police and fire departments) of the nature of the team's operations and making emergency telephone numbers available to all team members.
7. Ensuring that at least one member of the field team is available to stay behind and notify emergency services if the Site Safety Officer must enter an area of maximum hazard or entering this area only after notifying emergency services (police department).
8. Observing work party members for symptoms of on-site exposure or stress.
9. Arranging for the availability of on-site emergency medical care and first aid, as necessary.
10. Documenting field activities and incidents. Keeping Project Manager informed. Consulting with Health and Safety Officer as needed.

The Health and Safety Officer (HSO) is responsible for:

1. Assisting Project Manager with development of the site specific Health and Safety Plan.
2. Providing technical support during normal operations and upsets for hazard assessment, exposure monitoring, level of protection changes.
3. Reviewing and approving the site specific safety plan.

The responsibilities of all other on site personnel include:

1. Complying with all aspects of the project Safety plan, including strict adherence to the buddy system.
2. Obeying the orders of the Site Safety Officer.
3. Notifying the Site Safety Officer of hazardous or potentially hazardous incidents or working situations.

Subcontractors and other non-ESE site personnel are also responsible for complying with this plan and all applicable federal, state and local safety and environmental regulations and codes.

2.4 TRAINING

All ESE site personnel working on the hazardous material contamination site investigations will have completed a safety and health training course for hazardous waste site work meeting the requirements of 29CFR1910.120 and have worked at least 3 days of supervised on the job training. The course consists of an initial 40-hour session and annual refreshers of 8 hours. Subcontractors and visitors are required to provide proof of equivalent training. The field team leader will have completed an additional 8 hours of waste site supervisory training. For each location, specific training is given by the Project Manager or Site Safety Officer to inform employees of site-specific hazards. Additionally, at least one field team member will be trained to perform cardiopulmonary resuscitation (CPR) and first aid.

2.5 MEDICAL MONITORING PROGRAM

All ESE on site personnel, subcontractors, and visitors for this project will be required to have the medical examination outlined in Table 1. This examination is given annually and more often if specified by the attending physician. All medical examinations include certification by the physician of the employee's ability to wear a negative-pressure respirator and to perform strenuous work. If a person sustains an injury or contracts an illness related to work on site that results in lost work time, he must obtain written approval from a physician to regain access to the site.

2.6 RECORDS DOCUMENTATION

Air monitoring data generated during the project will become part of the written record. Both medical and air monitoring data will be retained for the time period required by OSHA in various standards [29 CFR 1910.20(D)(i), 1910.20(D)(ii), 1910.1018, 1910.1025]. Training records are maintained in project files and on ESE's personal identification cards and are available for inspection at all times. Subcontractors are required to have similar documents available for inspection as required.

All personnel associated with work at a site will be required to sign a statement indicating that they have read, and will comply with the site safety plan. This signature page will also include information on their training and medical surveillance status.

Table 2.1

Medical Examination--Monitoring Program

Basic physical exam

Heart status and functions (EKG) baseline only except if >40

Chest X-ray (Roentgenogram posterior-anterior)

Pulmonary function--forced vital capacity, forced expiratory volume at 1 second and reserve volume

Blood--full SMAC Series

Hemoglobin--cell counts, protein levels

Liver function--full enzyme profile

Renal function--BUN, Creatinine, Creatine/Creatinine ratio, lipoprotein count and differential, uric acid

Urinalysis

Audiometry--audio spectrum response of ear

Eye--physical condition, visual acuity

Other laboratory tests may be ordered depending on actual or expected exposures and physician recommendations.

The individuals listed in the Site-Specific Plan organization chart will be certified to wear respirator protection in accordance with criteria from the ANSI Z88.2 and 29 CFR 1910.134.

3.0 HAZARD EVALUATION

3.1 CHEMICAL CONTAMINANTS

Potential site contaminants at petroleum contamination sites include gasoline, gasohol, motor oil, fuel oils (including kerosene, diesel fuel), and aviation grade gasoline. These materials may exist as free product in soil or on groundwater, and/or as contaminants to soil and water, and/or in tanks, piping, and systems. Fuel products include materials in and around storage tanks, such as gasoline, kerosene, diesel, and their derivatives, xylene, toluene, benzene, tetraethyl lead (TEL), and chlorinated solvents. The chlorinated solvents include trichloroethylene and tetrachloroethylene.

3.2 PHYSICAL AND MECHANICAL HAZARDS

Activities on site may include site visits, soil gas sampling, headspace sampling, installation and sampling from monitor wells, installation of free product recovery systems, installation of groundwater recovery systems, installation of soil venting systems, installation of biological treatment systems, installation of air strippers, installation of carbon absorption units, removal of tanks, piping, and systems, and removal of contaminated soil.

Hazards associated with these activities are varied and include vehicle/pedestrian collisions, fire, collapse of excavation and trenching, handling of heavy materials and equipment operations resulting in contact and crushing type injuries, and use of air- and electrically-powered tools which may result in abrasions, contusions, lacerations, etc.

3.3 JOB HAZARD ANALYSIS AND RISK ASSESSMENT

The chemical contaminants which may be present and the hazardous activities which may be performed at the site will be identified through preliminary site assessment activities, such as site visits or records search. Based on this preliminary information, initial risk assessments will be made by the Site Safety Officer, in consultation with an ESE Regional Health and Safety Officer, defining hazards (both chemical and physical) to workers and other on site personnel, the surrounding populace, and the environment.

The identities of potential hazards and resultant initial risk assessments will be included in the Hazard Evaluation section of the Site-Specific Plan, will be reviewed daily, and will be updated as necessary by the Site Safety Officer. Updated information will be communicated to all other on site personnel immediately.

3.4 AIR MONITORING

An air monitoring program is fundamental to the safety of on site and off site personnel. Total organic vapor (TOV) levels associated with on site activities will be monitored with a Photoionization Detection (PID) instrument (Photovac® TIP or HNU PI-101). This instrument will be the primary source of information for upgrading personal protection. Calibration and maintenance of monitoring equipment will be in accordance with manufacturer recommendations.

The Site Safety Officer, or designee, will establish daily a background TOV prior to initiating on site activities. Under most circumstances, this level can be determined by taking multiple readings at representative locations along the perimeter of the site and averaging the results of sustained measurements. (A sustained measurement is defined as the arithmetic average of six readings taken at 10-second intervals.) If, due to site conditions, it appears that perimeter readings will not yield a truly representative background level, the Site Safety Officer or an ESE Regional Health and Safety Officer will be consulted for guidance.

Decisions to upgrade personal protection will be based on sustained breathing zone TOV that exceeds background levels. Breathing zone refers to the area from the top of the shoulders to the top of the head.

Explosivity levels associated with on site activities will be monitored with an explosimeter or combustible gas meter. This will be the primary source of information for determining the potential hazard due to explosion or fire in confined spaces and other enclosed areas with little or no ventilation.

Prior to entry of any area which may contain an explosive or flammable atmosphere, the Site Safety Officer or designee will take representative readings of the suspect area. Representative readings include readings from top, middle, and lower levels of the area, and at various points at each level in larger areas. Areas in which any one reading exceeds 20% of the lower flammable limit will be considered potentially explosive, and will be vented to below 20% of the lower flammable limit before the introduction of any personnel or non-explosion proof powered equipment.

4.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment to be used at petroleum contamination sites will consist of several components. These components will protect the respiratory system, eyes and face, hands, feet, body, and head from a variety of chemical and physical hazards. Levels of personal protection will be categorized in accordance with the criteria described in accordance with the guidelines given in Section 3, Air Monitoring. Additional guidance for personal protective equipment can be found in the ESE Corporate Respiratory Protection Program, or can be obtained from an ESE Regional Health and Safety Officer.

Action levels for upgrading to the various protective levels and levels of personal protection required for the various tasks to be performed on each site, as well as any special site requirements, will be given in the Personal Protective Equipment section of the Site-Specific Plan.

PERSONAL PROTECTIVE EQUIPMENT-LEVEL A

1. Open-circuit, pressure-demand, self-contained breathing apparatus (SCBA);
2. Totally encapsulated suit;
3. Gloves, inner (surgical type);
4. Gloves, outer, chemical protective;
5. Boots, chemical protective, steel toe and shank; and
6. Booties, chemical protective.

CRITERIA

1. Sites known to contain hazards which:
 - a. Require the highest level of respiratory protection (as previously stated),
 - b. Will cause illness as a result of personal exposure,
 - c. Permit a reasonable determination that personal exposure could occur to any part of the body; or
2. Sites for which the Project Manager and/or Site Safety Officer make a reasonable determination that, based on the lack of information to the contrary, the site may be described as previously stated.

PERSONAL PROTECTIVE EQUIPMENT--LEVEL B

1. Open-circuit, pressure-demand SCBA;
2. Chemical protective
 - a. Overalls and long-sleeved jacket, or
 - b. Coveralls;
3. Gloves, inner (surgical type);
4. Gloves, outer, chemical protective;
5. Boots, chemical protective, steel toe and shank;
and
6. Booties, chemical protective.

CRITERIA

1. Sites known to contain hazards which:
 - a. Require the highest level of respiratory protection (as previously stated),
 - b. Will cause illness as a result of personal exposure,
 - c. Permit a reasonable determination that personal exposure to areas of the body not covered by Level B protective clothing is unlikely; and
2. Sites for which the Project Manager and/or Site Safety Officer make a reasonable determination that, based on the lack of information to the contrary, the site may be described as previously stated.

PERSONAL PROTECTIVE EQUIPMENT--LEVEL C

1. Full face-piece, air-purifying respirator (high-efficiency particulate/organic vapor cartridges);
2. Emergency escape oxygen pack (carried);
3. Chemical protective (Tyvek® is the minimum protection)
 - a. Overalls and long-sleeved jacket, or
 - b. Coveralls, or
 - c. Apron;
4. Gloves, inner (surgical type) (Latex);
5. Gloves, outer, chemical protective (Nitrile);
6. Boots, chemical protective (neoprene or NBR), steel toe and shank; and
7. Booties, chemical protective (Latex).

CRITERIA

1. Sites known to contain hazards which:
 - a. Do not require a level of respiratory protection greater than the level afforded by air-purifying respirators (nominal protection of 10), as previously stated;
 - b. Will cause illness as a result of personal exposure; or
 - c. Permit a reasonable determination that personal exposure to areas of the body not covered by Level C protective clothing is unlikely; and
2. Sites for which the Project Manager and/or Site Safety Officer make a reasonable determination that, based on the lack of information to the contrary, the site may be described as previously stated.

PERSONAL PROTECTIVE EQUIPMENT--LEVEL D

1. Coveralls, cotton;
2. Boots/shoes, safety;
3. Safety glasses;
4. Hard hat with optional face shield (where overhead hazards exist); and
5. Air-purifying respirator (readily available).

CRITERIA

Sites where the Project Manager and/or Site Safety Officer make a reasonable determination that hazards due to exposure to hazardous materials are unlikely.

ADDITIONAL PERSONAL PROTECTION

In addition to personal protective equipment, field personnel having duties on or near the hazard site should have ready access to:

1. A fully stocked industrial-size first-aid kit;
2. An eyewash kit; and
3. At least 6 gallons of potable water in a pressurized container to permit decontamination in event of accidental skin or eye contact with chemicals.

5.0 STANDARD WORK PRACTICES

5.1 GENERAL SAFETY RULES:

In addition to the specific requirements of the Site-Specific Plan, common sense should prevail at all times.

The following general safety rules and practices will be in effect at the site.

1. The site will be suitably marked or barricaded as necessary to prevent unauthorized visitors, but will not hinder emergency services if needed.
2. All open holes, trenches, and obstacles will be properly barricaded in accordance with local site needs. These needs will be determined by proximity to traffic ways, both pedestrian and vehicular, and site of the hole, trench, or obstacle. If holes are required to be left open during nonworking hours, they will be adequately decked over or barricaded and sufficiently lighted.
3. Prior to conducting any digging or boring operations, underground utility locations will be identified. The site representative and local utility authorities will be contacted to provide locations of underground utility lines and product piping. All boring, excavation, and other site work will be planned and performed with consideration for underground lines.
4. Smoking and ignition sources in the vicinity of flammable or contaminated material is prohibited.
5. Drilling, boring, movement and use of cranes and drilling rigs, erection of towers, movement of vehicles and equipment, and other activities will be planned and performed with consideration for the location, height, and relative position of aboveground utilities and fixtures, including signs, lights, canopies, buildings, and other structures and construction, and natural features such as trees, boulders, bodies of water, and terrain.
6. When working in areas where flammable vapors may be present, particular care must be exercised with tools and equipment that may be sources of ignition. All tools and equipment so provided must be properly bonded and/or grounded.
7. Approved and appropriate safety equipment, as specified in this site-specific HASP, such as eye protection, hard hats, foot protection, and respirators, must be worn in areas where required by the site-specific HASP. In addition, eye protection must be worn when handling free product, contaminated soil or water, or fill dirt.
8. Beards that interfere with respirator fit are not allowed within the site boundaries. This is necessary because all site personnel may be called upon to use respirator protection in some situations, and beards do not allow for proper respirator fit.
9. No smoking, eating, or drinking will be allowed in the contaminated areas.
10. Tools and hands must be kept away from the face.
11. Personnel must shower at the end of the shift or as soon as possible after leaving the site.
12. Each sample must be treated and handled as though it were extremely toxic.
13. Tank pit excavations must be sampled cautiously, using a remote sampling device or securing samples from excavated soil, and the pit should be entered only as a last resort and only if it is properly shored or sloped. The pit may meet the criteria for a confined space, in which case any entry must be made in accordance with NIOSH recommended Confined Space Entry Procedures. No confined space entry except by written procedure approved by the Health and Safety Officer.
14. Persons with long hair and/or loose-fitting clothing that could become entangled in power equipment are not permitted in the work area.
15. Horseplay is prohibited in the work area.
16. Working while under the influence of intoxicants, narcotics, or controlled substances is prohibited.

5.2 WORK LIMITATIONS:

HOURS

Work shall be limited to daylight hours and during normal weather conditions. Extremes in temperature and weather condition (i.e., wind and lightning) will restrict working hours.

HEAT STRESS

For monitoring the body's recuperative ability toward excess heat, the following techniques will be used as a screening mechanism. Monitoring of personnel wearing protective clothing will commence when the ambient temperature is 70 degrees Fahrenheit (°F) or above. When temperatures exceed 85°F, workers will be monitored after every work period. Monitoring will include visual observations for signs of heat stress and measurement of radial pulse rate for 30 seconds at the beginning of each rest period. If the heart rate exceeds 110 beats per minute (beats/min) at the beginning of a rest period, the next work period will be shortened by 10 minutes, and the rest period stays the same. If the pulse rate is 100 beats/min at the beginning of the next rest period, the following work cycle will be shortened another 10 minutes.

Also, good hygienic standards must be maintained by frequent change of clothing and daily showering. Clothing should be permitted to dry during rest periods. If skin problems occur, consult medical personnel.

COLD STRESS

The human body "senses" cold as a result of two factors, the air temperature and the wind velocity. Cooling of the flesh increases rapidly as wind velocity goes up. Frostbite can occur at relatively mild temperatures if wind penetrates the body insulation. For example, when the air temperature is 40°F and the wind velocity is 30 miles per hour (mph), the exposed skin would perceive an equivalent still air temperature of 13°F.

Table 5-1 illustrates windchill indices and the associated hazards to exposed flesh. Precautions will be taken to minimize exposed flesh, and layered clothing will be provided, as appropriate.

Table 5-1.

Windchill Index

Windspeed (mph)	Actual Thermometer Reading (°F)										
	50	40	30	20	10	0	-10	-20	-30	-40	
Calm	50	40	30	20	10	0	-10	-20	-30	-40	
5		48	37	27	16	6	-5	-15	-26	-36	-47
10		40	28	16	4	-9	-21	-33	-46	-58	-70
15		36	22	9	-5	-18	-36	-45	-58	-72	-85
20		32	18	4	-10	-25	-39	-53	-67	-82	-96
25		30	16	0	-15	-29	-44	-59	-74	-88	-104
30		28	13	-2	-18	-33	-48	-63	-79	-94	-109
35		27	11	-4	-20	-35	-49	-67	-82	-98	-113
40		26	10	-6	-21	-37	-53	-69	-85	-100	-116

Source: National Safety Council, 1982.

5.3 ACCIDENT PREVENTION PLAN/ACCIDENT REPORTING:

The purpose of the Safety Plan is to prevent accidents and minimize the impact of an accident if one should occur.

All accidents must be reported to the Site Safety Officer immediately. Prompt reporting is essential to the prevention of future incidents in addition to the well-being of the affected individual or individuals. The Site Safety Officer will notify the Project Manager of any serious accidents. The Site Safety Officer or other key members of the field team will be trained in first aid and CPR. First aid will be administered to affected personnel under the direction of the Site Safety Officer. For serious accidents, the nearest ambulance service will be contacted for transport of injured personnel to the nearest medical facility (see Section 6.0). The Site Safety Officer will have established contact and liaison with medical authorities (see Section 6.0) whose personnel will be knowledgeable of the activities of the field team. Telephone numbers and addresses of ambulance and medical services will be posted on site.

A formal report of any OSHA-recordable accident will be filed with ESE. All reports must be received within 2 working days.

5.4 WORK ZONES AND DECONTAMINATION PROCEDURES:

Work zones will be established in accordance with guidance provided in Figure 5-1. These zones may be modified to fit applicable field conditions; however, proposed modifications must be approved by the Project Manager and Site Safety Officer prior to being implemented in the field.

Personnel decontamination will be initiated on site. Disposable clothing will be removed and stored in designated containers. If additional decontamination is necessary, based on preliminary or subsequent risk assessment by the Site Safety Officer in consultation with ESE Regional Safety and Health Officer, additional decontamination procedures will be implemented. Site specific decontamination procedures will be listed in the Site-Specific Plan.

All heavy equipment will be decontaminated on site. Water in the form of steam cleaning and/or pressure washing may be used to remove any visual contamination from drilling equipment and backhoe.

5.5 SITE SECURITY AND ENTRY:

Site security measures, including barricading, fencing, and lighting, and any special site entry procedures will be described in the Section 5 of the Site-Specific Plan.

6.0 EMERGENCY INFORMATION AND CONTINGENCY PLANS

All emergency information, including phone numbers, site resources, and routes to emergency medical care, will be maintained on site in the Site-Specific Plan by each field team.

The phone list will include the following numbers:

AMBULANCE:

FIRE DEPARTMENT:

HOSPITAL (primary):

HOSPITAL (secondary):

POISON CONTROL CENTER:

POLICE:

TOXIC WASTE AND OIL SPILL:

CLIENT CONTACT:

AGENCY CONTACT:

PROJECT MANAGER:

CORPORATE SAFETY AND HEALTH OFFICER:

The list of site resources will include fire extinguishers, first aid equipment, eyewash units, communications (telephone), emergency personal protective equipment, spill containment equipment and materials, and any other special equipment, supplies or resources.

6.1 INJURY CONTINGENCY PLAN

First aid equipment will be kept on site during all site activities. Additionally, one member of the field team will be trained in first aid. Emergency telephone numbers for ambulance and poison control will be maintained on site in a readily accessible location. Names, addresses, and routes to two emergency medical care providers (hospitals or emergency clinics) will be verified prior to any site activity, and will be listed in the Site-Specific Plan. Maps showing the location of the site, the emergency medical care providers, and hotels and restaurants (if any) used by the field team should be provided in each vehicle. In the event of an injury that cannot be treated on site, the injured person will be immediately transported to the medical provider either by support vehicle or ambulance on determination by the Site Safety Officer, Project Manager, and/or first aid provider.

6.2 FIRE CONTROL AND CONTINGENCY PLAN

No smoking will be allowed during field activities. Fire extinguishers will be available at sites for use on small fires. All samples must be treated as flammable or explosive. The Site Safety Officer will have available the telephone number of the nearest fire station and local law enforcement agencies in case of a major fire emergency.

6.3 SPILL CONTROL AND CONTINGENCY PLAN

In the event of a spill, the Site Safety Officer will be notified immediately. The important factors are that no personnel are overexposed to vapors, gases, or mists and that the liquid does not ignite. Waste spillage must not be allowed to contaminate any local water source. Small dikes will be erected to contain spills, if necessary, until proper disposal can be completed. Subsequent to cleanup activities, the Site Safety Officer will survey the area to ensure that no toxic or explosive vapors remain.

6.4 OFF SITE INCIDENT CONTINGENCY PLAN

The Site Safety Officer will provide field team members with emergency medical care information similar to that kept on site in event of an off site emergency, such as a motor vehicle accident, food poisoning, or other injury sustained off the site.

6.5 COMMUNITY THREAT CONTINGENCY PLAN

The potential for exposure to the surrounding community will be assessed in conjunction with the preliminary site assessment.

The Site Safety Officer will consult with a representative of the local emergency services agency (police or fire department, in accordance with local governmental procedures), and will outline procedures in the Site-Specific Plan to be followed in the event of an emergency threat to the surrounding populace. Situations requiring specified procedures include fire, explosion, accidental ingestion, large spills consisting of free product, and accumulation of potentially explosive vapors off site.

The Site-Specific Plan will identify individuals who will respond to reports of non-emergency community threats arising from site activities. This non-emergency response will include sampling of air, wells and ground water, and soil. Situations requiring specified procedures include small spills and presence of existing concentrations of potentially explosive vapors on site.

APPENDIX A

**SITE-SPECIFIC
HEALTH & SAFETY
INFORMATION**

A. GENERAL PROJECT INFORMATION

SITE: Santa Rita Correctional Facility DATE PREPARED: 4-08-92

LOCATION: 5325 Broder Boulevard, Dublin, California

PREPARED BY: R. Stephen Willcutts Jr., ESE

OBJECTIVE (S) AND WORKPLAN: Removal of one 10,000 gallon Bunker C Fuel Oil UST, and one 8,000 gallon Bunker C Fuel Oil UST.

PROPOSED DATE(S) OF ON-SITE WORK: March 23, 1992 - May 29, 1992

BRIEFING DATE(S): _____ BACKGROUND REVIEW:

COMPLETE:

PRELIMINARY:

-----PROJECT H.A.S.P. SUMMARY-----

LEVEL(S) OF PROTECTION: A B C D MIXED MODIFIED

OVERALL HAZARD ESTIMATE: HIGH MODERATE LOW UNKNOWN

ADDITIONAL DOCUMENTATION: TLV TABLE FULL HASP METHODS

OTHER

B. SITE/MATERIAL CHARACTERISTICS

MATERIAL/WASTE TYPE(S): LIQUID SOLID GAS SLUDGE

MATERIAL PRESENT IN: DRUMS TANKS OPEN OTHER

CHARACTERISTICS: IGNITABLE CORROSIVE TOXIC REACTIVE

RADIOACTIVE VOLATILE UNKNOWN OTHER

FACILITY TYPE: Former Correctional Facility CLOSED OPEN

FACILITY SIZE: _____

TOPOGRAPHY: Relatively flat, at an approximately 350-feet above mean sea level.

PRINCIPAL DISPOSAL METHOD AND LOCATION(S): The two tanks will be hauled off-site as hazardous waste by Erickson Trucking, Inc., to Erickson Environmental of Richmond, California where they will be cleaned and scrapped.

D. WORK PLAN INSTRUCTIONS

PERSONAL PROTECTION REQUIRED:

Level of protection: A ___ B ___ C ___ D x MIXED ___ MODIFICATIONS ___

For MIXED levels of protection describe areas and levels: _____

For MODIFICATIONS identify action levels: This site will involve D level protection which includes a hard hat, gloves, steel-toe boots.

_____ ADDITIONAL PERSONAL PROTECTIVE EQUIPMENT (PPE): Goggles, respirator, etc. should be available and ready for use.

MONITORING EQUIPMENT: PID ___ FID ___ TOXIC GAS ___ OXYGEN ___

DETECTOR TUBES ___ EXPLOSIMETER ___ PERSONAL MONITOR ___

OTHER INSTRUMENTS: N/A

EQUIPMENT CALIBRATION: N/A

MONITORING STRATEGY: N/A

DECONTAMINATION PROCEDURES: If required, equipment and personnel decontamination areas will be designated by the Project Manager at the start of the project. All tools will be cleaned adequately prior to final removal from the work zone, to prevent the transfer of contamination from the work site into clean areas. Protective clothing such as Tyvek coveralls, latex gloves, boot covers, etc. will be changed on a daily basis or at the discretion of the Project Manger. All disposable protective clothing will be put into plastic bags and disposed of in a proper manner. Excavated soils will be stockpiled in an area designated by the Project Manager, until chemical analysis has been performed on representative samples.

SITE CONTROL MEASURES: Set up 25-foot perimeter with traffic cones or surveyor's tape. Visitors within perimeter to read and sign H&S plan and abide by directions of site H&S officer.

SPILL CONTAINMENT PROCEDURES: All pumpable fluids will be removed from tanks and hauled off-site as hazardous waste. Care will be taken when draining and rinsing associated tank piping. Care will be taken while rinsing tanks to prevent any spillage of residual hydrocarbons. No storage of removed product, rinsate or other hazardous fluids will be allowed. Fluids will be pumped from tanks into vacuum trucks and immediately hauled off-site.

NOTES: N/A

E. EMERGENCY PROCEDURES

FIRE OR EXPLOSION: Evacuate the area and call the Fire Department at 911 immediately. All burn victims should seek medical attention immediately.

INJURY: Call 911 and administer first aid to victims who have severe injuries. Ensure all injured are transported to the nearest medical facility doctor.

WEATHER: Avoid extremes in temperature (i.e. very cold or very hot conditions)

OTHER:

CHEMICAL EXPOSURE ACTIONS:

(See Appendix B for Optional Material Safety Data Sheets)

EMERGENCY TELEPHONE NUMBERS

POLICE/FIRE/AMBULANCE: 911

POISON CONTROL: (800) 523-2222

ESE CONCORD OFFICE: (510) 685-4053

CHEMTREC: (800) 424-9300

UNDERGROUND SERVICE ALERT: (800) 642-2444

PROJECT CONTACTS

AGENCY CONTACT: Alameda County Health Care Services Agency (510) 271-4320

SITE CONTACT: Mr. Ernie Hall, Facility Supervisor (510) 551-6674

CLIENT CONTACT: Mr. Jim de Vos, Alameda County GSA (510) 535-6248

F. EMERGENCY PRECAUTIONS

PRIMARY HOSPITAL/INFIRMARY:

Name: Valley Memorial Hospital

Address: 1111 East Stanelly Blvd., Livermore, CA Telephone Number: (510) 447-7000 (emergency)

Directions from site to emergency unit: Take Tassajara Road (south) to Highway 580. Take Highway 580 west, Exit south on First Street (Highway 84). After junction with Railroad Avenue, turn left into driveway of hospital.

Remarks: See Figure A

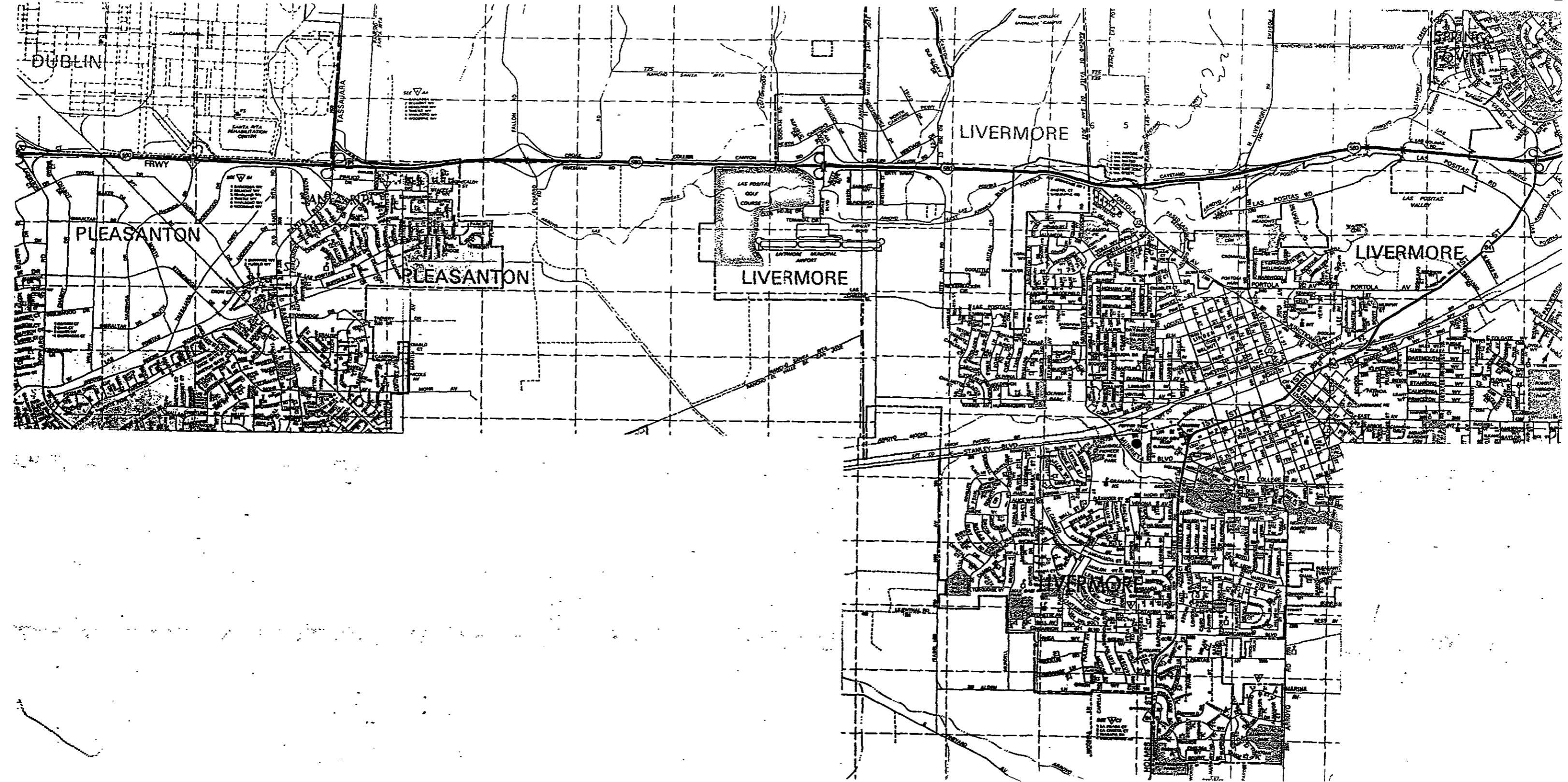


FIGURE A

APPENDIX B

**MATERIAL
SAFETY DATA
SHEETS**

MATERIAL SAFETY DATA SHEET



Product Name: UNOCAL DIESEL #2
 Product Code No: 01602

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Responsible Party:
 UNOCAL REFINING & MARKETING DIVISION
 UNION OIL COMPANY OF CALIFORNIA
 1201 WEST 5TH STREET
 LOS ANGELES, CALIFORNIA 90017

 CONTACT FOR FURTHER INFORMATION:
 MSDS COORDINATOR 213-977-7589

Transportation Emergencies:
 CHEMTREC
 (800) 424-9300 Cont. U.S.
 (202) 483-7616 (Collect)
 from Alaska & Hawaii
Health Emergencies:
 Call LOS ANGELES POISON
 INFORMATION CENTER (24 hrs)
 (800) 356-3129

PRODUCT IDENTIFICATION

PRODUCT NAME: UNOCAL DIESEL #2
SYNONYMS: UNION DIESEL #2
GENERIC NAME: MID-DISTILLATE
CHEMICAL FAMILY: PETROLEUM HYDROCARBON
DOT PROPER SHIPPING NAME: COMBUSTIBLE LIQUID, N.O.S. (MID DISTILLATE)
ID NUMBER: NA1993
DOT HAZARD CLASSIFICATION: COMBUSTIBLE LIQUID

PRECAUTIONARY WARNING

WARNING
 MAY CAUSE SEVERE SKIN IRRITATION AFTER PROLONGED OR REPEATED CONTACT. BREATHING DIESEL EXHAUST MAY CAUSE LUNG CANCER. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. COMBUSTIBLE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID BREATHING EXHAUST FUMES. DO NOT TASTE OR SWALLOW. WASH THOROUGHLY AFTER HANDLING. KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION. KEEP AWAY FROM HEAT, SPARKS, FLAMES OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS OR MECHANICAL/ELECTRICAL EQUIPMENT). DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, GRIND OR DRILL ON OR NEAR CONTAINER. "EMPTY" CONTAINER RETAINS RESIDUE (LIQUID AND/OR VAPOR) AND MAY EXPLODE IN HEAT OF A FIRE.

SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
HAZARDOUS COMPONENTS					
DIESEL OIL NO. 2 CAS #: 68476-34-6	>98	400.000	ppm	OSHA	TWA
BIPHENYL CAS #: 92-52-4	0.0 - 1.0	0.200	ppm	ACGIH	TWA
		0.200	ppm	MSHA	TWA
		0.200	ppm	OSHA	TWA
		0.200	ppm	CAL OSHA	TWA

UNION OIL CO.

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SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
NAPHTHALENE CAS #: 91-20-3	0.0 - 1.0	10.000	ppm	ACGIH	TWA
		15.000	ppm	ACGIH	STEL
		10.000	ppm	MSHA	TWA
		10.000	ppm	OSHA	TWA
		15.000	ppm	OSHA	STEL
		10.000	ppm	CAL OSHA	TWA

OTHER COMPONENTS

--NONE--

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR 372:

	CAS NUMBER	WEIGHT %
BIPHENYL	92-52-4	0-1
NAPHTHALENE	91-20-3	0-1

SECTION II - EMERGENCY AND FIRST AID PROCEDURES

EMERGENCY

Have physician call LOS ANGELES POISON INFORMATION CENTER (24 hrs) (800) 356-3129

EYE CONTACT:

IF IRRITATION OR REDNESS DEVELOPS, MOVE VICTIM AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES WITH CLEAN WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION.

SKIN CONTACT:

WIPE MATERIAL FROM SKIN, REMOVE CONTAMINATED SHOES AND CLOTHING, AND FLUSH AFFECTED AREA(S) WITH LARGE AMOUNTS OF WATER. IF SKIN SURFACE IS DAMAGED, APPLY A CLEAN DRESSING AND SEEK MEDICAL ATTENTION. IF SKIN SURFACE IS NOT DAMAGED, CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER AND, IF NECESSARY, A WATERLESS SKIN CLEANSER. IF IRRITATION OR REDNESS DEVELOPS, SEEK MEDICAL ATTENTION.

INHALATION (BREATHING):

IF RESPIRATORY SYMPTOMS OR OTHER SYMPTOMS OF EXPOSURE DEVELOP, MOVE VICTIM AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSIST, SEEK IMMEDIATE MEDICAL ATTENTION. IF VICTIM IS NOT BREATHING, IMMEDIATELY BEGIN ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULTIES DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION (SWALLOWING):

ASPIRATION HAZARD: DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH BECAUSE THIS MATERIAL CAN ENTER THE LUNGS AND CAUSE SEVERE LUNG DAMAGE. IF VICTIM IS DROWSY OR UNCONSCIOUS, PLACE ON THE LEFT SIDE WITH THE HEAD DOWN. IF POSSIBLE, DO NOT LEAVE VICTIM UNATTENDED. SEEK MEDICAL ATTENTION.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

EYE CONTACT:

THIS MATERIAL MAY CAUSE MILD EYE IRRITATION. DIRECT CONTACT WITH THE LIQUID OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING, TEARING AND REDNESS.

SKIN CONTACT:

THIS MATERIAL IS A SKIN IRRITANT. PROLONGED OR REPEATED CONTACT MAY CAUSE SEVERE IRRITATION INCLUDING REDNESS AND BURNING, DRYING AND CRACKING OF THE SKIN, AND SEVERE SKIN DAMAGE. NO HARMFUL EFFECTS ARE EXPECTED FROM SKIN ABSORPTION OF THIS MATERIAL.

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SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

INHALATION (BREATHING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, BREATHING HIGH CONCENTRATIONS OF VAPORS OR MISTS MAY CAUSE IRRITATION OF THE NOSE AND THROAT AND SIGNS OF NERVOUS SYSTEM DEPRESSION (e.g. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION, AND FATIGUE).

INGESTION (SWALLOWING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, INGESTION OF EXCESSIVE QUANTITIES MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT AND SIGNS OF NERVOUS SYSTEM DEPRESSION (e.g. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION, AND FATIGUE). ASPIRATION HAZARD - THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE.

COMMENTS:

DIESEL EXHAUST IS A PROBABLE HUMAN CANCER HAZARD, BUT IT HAS NOT BEEN IDENTIFIED AS A CARCINOGEN BY IARC, NTP OR OSHA.

SECTION IV - SPECIAL PROTECTION INFORMATION**VENTILATION:**

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REQUIRED. WHERE EXPLOSIVE MIXTURES MAY BE PRESENT, ELECTRICAL SYSTEMS SAFE FOR SUCH LOCATIONS MUST BE USED.

RESPIRATORY PROTECTION:

THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I). DEPENDING ON THE AIRBORNE CONCENTRATION, USE A RESPIRATOR OR GAS MASK WITH APPROPRIATE CARTRIDGES AND CANNISTERS (NIOSH APPROVED, IF AVAILABLE) OR SUPPLIED AIR EQUIPMENT.

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN THE WORK AREA FOR FLUSHING EYES AND SKIN. IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED.

SECTION V - REACTIVITY DATA**REACTIVITY:**

STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.

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SECTION V - REACTIVITY DATA**CONDITIONS AFFECTING REACTIVITY:**

AVOID CONTACT WITH ANY SOURCE OF HEAT OR FLAME.

INCOMPATIBLE MATERIALS:

AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:

COMBUSTION MAY YIELD MAJOR AMOUNTS OF OXIDES OF CARBON AND MINOR AMOUNTS OF OXIDES OF SULFUR AND NITROGEN.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

POLYMERIZATION CONDITIONS TO AVOID:

NONE KNOWN

SECTION VI - SPILL AND LEAK PROCEDURES ***HIGHWAY OR RAILWAY SPILLS***
Call CHEMTREC (800) 424-9300 Cont. U.S.
(Collect) (202) 483-7616 from Alaska & Hawaii

PRECAUTIONS IN CASE OF RELEASE OR SPILL:

COMBUSTIBLE. KEEP ALL SOURCES OF IGNITION AWAY FROM SPILL/RELEASE. STAY UPWIND AND AWAY FROM SPILL/RELEASE. ISOLATE HAZARD AREA AND LIMIT ENTRY TO AUTHORIZED PERSONNEL. STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). PREVENT SPILLED MATERIAL FROM ENTERING SEWERS, STORM DRAINS, OTHER UNAUTHORIZED TREATMENT DRAINAGE SYSTEMS AND NATURAL WATERWAYS. DIKE FAR AHEAD OF SPILL FOR LATER RECOVERY OR DISPOSAL. SPILLED MATERIAL MAY BE ABSORBED INTO AN APPROPRIATE ABSORBENT MATERIAL. NOTIFY FIRE AUTHORITIES AND APPROPRIATE FEDERAL, STATE AND LOCAL AGENCIES. IMMEDIATE CLEANUP OF ANY SPILL IS RECOMMENDED. IF SPILL OF ANY AMOUNT IS MADE INTO OR UPON U.S. NAVIGABLE WATERS, THE CONTIGUOUS ZONE, OR ADJOINING SHORELINES, NOTIFY THE NATIONAL RESPONSE CENTER (PHONE NUMBER 800-424-8802).

WASTE DISPOSAL METHOD:

DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS**HANDLING AND STORAGE PRECAUTIONS:**

KEEP CONTAINER(S) TIGHTLY CLOSED. USE AND STORE THIS MATERIAL IN COOL, DRY, WELL VENTILATED AREAS AWAY FROM HEAT AND ALL SOURCES OF IGNITION. POST AREA "NO SMOKING OR OPEN FLAME." BOND AND GROUND ALL EQUIPMENT WHEN TRANSFERRING FROM ONE VESSEL TO ANOTHER. STORE ONLY IN APPROVED CONTAINERS. KEEP AWAY FROM ANY INCOMPATIBLE MATERIALS (SEE SECTION V). PROTECT CONTAINER(S) AGAINST PHYSICAL DAMAGE. THE USE OF EXPLOSION-PROOF EQUIPMENT IS RECOMMENDED AND MAY BE REQUIRED (SEE APPROPRIATE FIRE CODES). DO NOT ENTER CONFINED SPACES SUCH AS TANKS OR PITS WITHOUT FOLLOWING PROPER ENTRY PROCEDURES SUCH AS ASTM D-4276. OUTDOOR OR DETACHED STORAGE IS PREFERRED. INDOOR STORAGE SHOULD MEET OSHA STANDARDS AND APPROPRIATE FIRE CODES. THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED ANY ESTABLISHED EXPOSURE LIMITS (SEE SECTIONS I AND IV). WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR CONTAMINATED CLOTHING OR SHOES. USE GOOD PERSONAL HYGIENE PRACTICE. "EMPTY" CONTAINERS RETAIN RESIDUE (LIQUID AND/OR VAPOR) AND CAN BE DANGEROUS. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY

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SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

SHIPPED TO THE SUPPLIER OR A DRUM RECONDITIONER. ALL OTHER CONTAINERS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS PRODUCT, REFER TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ANSI Z49.1, AND OTHER GOVERNMENTAL AND INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING, OR OTHER CONTEMPLATED OPERATIONS.

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

NFPA HAZARD CLASS	HEALTH HAZARD:	0	HAZARD RANKING	FLASH POINT
	FLAMMABILITY:	2	0 = LEAST	
	REACTIVITY:	0	1 = SLIGHT	140-190 F (PMCC)
	OTHER:		2 = MODERATE	60-87 C
			3 = HIGH	
		4 = EXTREME		

EXTINGUISHING MEDIA:

DRY CHEMICAL, CARBON DIOXIDE, HALON, FOAM OR WATER SPRAY IS RECOMMENDED.

UNUSUAL FIRE & EXPLOSION HAZARDS:

THIS MATERIAL IS COMBUSTIBLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPOR/AIR EXPLOSION HAZARD INDOORS/OUTDOORS OR IN SEWERS. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE.

SPECIAL FIRE FIGHTING PROCEDURES:

WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. MOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. WATER SPRAY MAY BE USEFUL IN MINIMIZING OR DISPERSING VAPORS AND COOLING EQUIPMENT EXPOSED TO HEAT AND FLAME. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

SECTION IX - PHYSICAL DATA

***UNLESS OTHERWISE NOTED, VALUES ARE AT 20 C/68 F AND 760 mm Hg/1 atm.

<u>APPROX BOILING POINT</u>	(AIR = 1) <u>VAPOR DENSITY</u>	(N-BUTYL ACETATE = 1) <u>EVAPORATION RATE</u>	<u>% VOLATILE</u>
490-700 F / 232-271 C	>1	<1	98

% SOLUBILITY IN WATER

<0.1

SPECIFIC GRAVITY

0.85

APPROX. BULK DENSITY (LB/GAL)

7.0

APPEARANCE

CLEAR TO YELLOW LIQUID

ODOR

CHARACTERISTIC PETROLEUM

UNION OIL CO.

Product Name: UNOCAL DIESEL #2
Product Code No: 01602

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Issue Date: 05/09/90
Status: FINAL

SECTION X - DOCUMENTARY INFORMATION

ISSUE DATE: 05/09/90 PRODUCT CODE NO. 01602
PREV. DATE: 12/18/89 PREV. PROD. CODE NO. N/A
MSDS NO: N/A PREV. MSDS NO: N/A

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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MATERIAL SAFETY DATA SHEET



Product Name: UNOCAL PERFORMANCE PLUS 89
 Product Code No: 00401

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 Issue Date: 05/04/90
 Status: FINAL

Responsible Party:

UNOCAL REFINING & MARKETING DIVISION
 UNION OIL COMPANY OF CALIFORNIA
 1201 WEST 5TH STREET
 LOS ANGELES, CALIFORNIA 90017

CONTACT FOR FURTHER INFORMATION:
 MSDS COORDINATOR 213-977-7589

Transportation Emergencies:

CHEMTREC
 (800) 424-9300 Cont. U.S.
 (202) 483-7616 (Collect)
 from Alaska & Hawaii

Health Emergencies:
 Call LOS ANGELES POISON
 INFORMATION CENTER (24 hrs)
 (800) 356-3129

PRODUCT IDENTIFICATION

PRODUCT NAME: UNOCAL PERFORMANCE PLUS 89
 GENERIC NAME: UNLEADED GASOLINE
 CHEMICAL FAMILY: PETROLEUM HYDROCARBON MIXTURE
 DOT PROPER SHIPPING NAME: GASOLINE
 ID NUMBER: UN1203
 DOT HAZARD CLASSIFICATION: FLAMMABLE LIQUID

PRECAUTIONARY WARNING

DANGER
 EXTREMELY FLAMMABLE. VAPORS MAY EXPLODE. HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL. POSSIBLE CANCER HAZARD BASED ON TESTS WITH LABORATORY ANIMALS. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. NO SMOKING OR OPEN FLAME. KEEP AWAY FROM HEAT, SPARKS, FLAMES OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS OR MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY BE IGNITED BY SPARK OR FLAME SOURCE MANY FEET AWAY. DO NOT OVERFILL TANK. USE ONLY WITH ADEQUATE VENTILATION. DO NOT TASTE OR SWALLOW. DO NOT BREATHE VAPOR OR MIST. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. WASH THOROUGHLY AFTER HANDLING. NEVER SIPHON BY MOUTH. FOR USE AS MOTOR FUEL ONLY. DO NOT USE FOR ANY OTHER PURPOSE. KEEP CONTAINER CLOSED. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, GRIND OR DRILL ON OR NEAR CONTAINER. "EMPTY" CONTAINER RETAINS RESIDUE (LIQUID AND/OR VAPOR) AND MAY EXPLODE IN HEAT OF A FIRE. KEEP OUT OF REACH OF CHILDREN. FAILURE TO USE CAUTION MAY CAUSE SERIOUS INJURY OR ILLNESS.

SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
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HAZARDOUS COMPONENTS

GASOLINE CAS #: 8006-61-9	300.000	ppm	ACGIH	TWA
	500.000	ppm	ACGIH	STEL
	300.000	ppm	OSHA	TWA
	500.000	ppm	OSHA	STEL
	300.000	ppm	CAL OSHA	TWA

UNION OIL CO.

Product Name: UNOCAL PERFORMANCE PLUS 89
 Product Code No: 00401

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SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
BENZENE CAS #: 71-43-2	1.0 - 5.0	10.000	ppm	ACGIH	TWA
		25.000	ppm	MSHA	CEIL-SKIN
		1.000	ppm	OSHA	TWA
		5.000	ppm	OSHA	STEL
		50.000	ppm	CAL OSHA	CEIL
		25.000	ppm	CAL OSHA	EXCUR
		10.000	ppm	CAL OSHA	TWA-SKIN
TOLUENE CAS #: 108-88-3	1.0 - 9.0	100.000	ppm	ACGIH	TWA
		150.000	ppm	ACGIH	STEL
		100.000	ppm	MSHA	TWA
		100.000	ppm	OSHA	TWA
		150.000	ppm	OSHA	STEL
		200.000	ppm	CAL OSHA	EXCUR
		100.000	ppm	CAL OSHA	TWA-SKIN
		500.000	ppm	CAL OSHA	CEIL-SKIN
XYLENES CAS #: 1330-20-7	1.0 - 14.0	100.000	ppm	ACGIH	TWA
		150.000	ppm	ACGIH	STEL
		100.000	ppm	MSHA	TWA
		100.000	ppm	OSHA	TWA
		150.000	ppm	OSHA	STEL
		200.000	ppm	CAL OSHA	EXCUR
		100.000	ppm	CAL OSHA	TWA-SKIN
		300.000	ppm	CAL OSHA	CEIL-SKIN
N-HEXANE CAS #: 110-54-3		50.000	ppm	ACGIH	TWA
		500.000	ppm	MSHA	TWA
		50.000	ppm	OSHA	TWA
		50.000	ppm	CAL OSHA	TWA

OTHER COMPONENTS

--NONE--

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR 372:

	CAS NUMBER	WEIGHT %
BENZENE	71-43-2	1-5
TOLUENE	108-88-3	1-9
XYLENES	1330-20-7	1-14
ETHYLBENZENE	100-41-4	1-5
METHYL TERT-BUTYL ETHER	1634-04-4	0-10
1,2,4-TRIMETHYLBENZENE	95-63-6	1-5

NOTE: GASOLINE IS A COMPLEX COMBINATION OF HYDROCARBONS INCLUDING A SMALL QUANTITY OF BENZENE, TOLUENE, XYLENE AND N-HEXANE.

UNION OIL CO.

Product Name: UNOCAL PERFORMANCE PLUS 89
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SECTION II - EMERGENCY AND FIRST AID PROCEDURES*****EMERGENCY*****

Have physician call LOS ANGELES POISON
INFORMATION CENTER (24 hrs) (800) 356-3129

EYE CONTACT:

IF IRRITATION OR REDNESS DEVELOPS, MOVE VICTIM AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES WITH CLEAN WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION.

SKIN CONTACT:

WIPE MATERIAL FROM SKIN AND REMOVE CONTAMINATED SHOES AND CLOTHING. CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER AND, IF NECESSARY, A WATERLESS SKIN CLEANSER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION (BREATHING):

IF RESPIRATORY SYMPTOMS OR OTHER SYMPTOMS OF EXPOSURE DEVELOP, MOVE VICTIM AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSIST, SEEK IMMEDIATE MEDICAL ATTENTION. IF VICTIM IS NOT BREATHING, IMMEDIATELY BEGIN ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULTIES DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION (SWALLOWING):

ASPIRATION HAZARD: DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH BECAUSE THIS MATERIAL CAN ENTER THE LUNGS AND CAUSE SEVERE LUNG DAMAGE. IF VICTIM IS DROWSY OR UNCONSCIOUS, PLACE ON THE LEFT SIDE WITH THE HEAD DOWN. IF POSSIBLE, DO NOT LEAVE VICTIM UNATTENDED. SEEK MEDICAL ATTENTION.

COMMENTS:

NOTE TO PHYSICIANS: EXPOSURE TO HIGH CONCENTRATIONS OF THIS MATERIAL (e.g. IN ENCLOSED SPACES OR WITH DELIBERATE ABUSE) MAY BE ASSOCIATED WITH CARDIAC ARRHYTHMIAS. EPINEPHRINE AND OTHER SYMPATHOMIMETIC DRUGS MAY INITIATE CARDIAC ARRHYTHMIAS IN PERSONS EXPOSED TO THIS MATERIAL. OTHER DRUGS WITH LESS ARRHYTHMOGENIC POTENTIAL SHOULD BE CONSIDERED. IF SYMPATHOMIMETIC DRUGS ARE ADMINISTERED, OBSERVE FOR THE DEVELOPMENT OF CARDIAC ARRHYTHMIAS.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY**EYE CONTACT:**

THIS MATERIAL MAY CAUSE MILD EYE IRRITATION. DIRECT CONTACT WITH THE LIQUID OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING, TEARING AND REDNESS.

SKIN CONTACT:

THIS MATERIAL MAY CAUSE MILD SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE REDNESS, BURNING, AND DRYING AND CRACKING OF THE SKIN. CONTACT MAY RESULT IN SKIN ABSORPTION BUT SYMPTOMS OF TOXICITY ARE NOT ANTICIPATED BY THIS ROUTE ALONE UNDER NORMAL CONDITIONS OF USE. PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

INHALATION (BREATHING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, BREATHING HIGH CONCENTRATIONS OF VAPORS OR MISTS MAY CAUSE FLUSHING, BLURRED VISION, NAUSEA AND SIGNS OF NERVOUS SYSTEM DEPRESSION (e.g. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). EXPOSURE TO HIGH CONCENTRATIONS MAY CAUSE LOSS OF CONSCIOUSNESS, CONVULSIONS, RESPIRATORY COLLAPSE AND DEATH. RESPIRATORY SYMPTOMS ASSOCIATED WITH PRE-EXISTING LUNG DISORDERS (e.g. ASTHMA-LIKE CONDITIONS) MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

UNION OIL CO.

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SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY**INGESTION (SWALLOWING):**

ASPIRATION HAZARD - THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE. INGESTION OF EXCESSIVE QUANTITIES OF THIS MATERIAL MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT AND SIGNS OF NERVOUS SYSTEM DEPRESSION (e.g. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION, AND FATIGUE).

COMMENTS:

GASOLINE IS A POSSIBLE CANCER HAZARD BASED ON ANIMAL DATA. FOLLOW-UP STUDIES SUGGEST THAT THIS MAY BE A UNIQUE EFFECT IN MALE RATS. UNLEADED GASOLINE HAS BEEN IDENTIFIED AS A POSSIBLE CARCINOGEN BY IARC. BENZENE, A COMPONENT OF THIS PRODUCT, IS A KNOWN CANCER (LEUKEMIA) HAZARD. RESULTS OF TESTS IN HUMANS HAVE SHOWN THAT EXPOSURE TO BENZENE CAN CAUSE IRREVERSIBLE CHANGES IN THE GENETIC MATERIAL (DNA) OF A CELL. THE HUMAN HEALTH CONSEQUENCES OF THESE CHANGES IS NOT FULLY UNDERSTOOD. BENZENE HAS BEEN IDENTIFIED AS A CARCINOGEN BY IARC, NTP AND OSHA. THERE IS INSUFFICIENT EVIDENCE TO SHOW THAT GASOLINE POSES ANY HAZARD RELATED TO ITS LOW BENZENE CONTENT. PERSONS WITH PRE-EXISTING HEART DISORDERS MAY BE MORE SUSCEPTIBLE TO IRREGULAR HEARTBEATS (ARRHYTHMIAS) IF EXPOSED TO HIGH CONCENTRATIONS OF THIS MATERIAL (SEE SECTION II - NOTE TO PHYSICIANS).

SECTION IV - SPECIAL PROTECTION INFORMATION**VENTILATION:**

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REQUIRED. WHERE EXPLOSIVE MIXTURES MAY BE PRESENT, ELECTRICAL SYSTEMS SAFE FOR SUCH LOCATIONS MUST BE USED.

RESPIRATORY PROTECTION:

THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I). DEPENDING ON THE AIRBORNE CONCENTRATION, USE A RESPIRATOR OR GAS MASK WITH APPROPRIATE CARTRIDGES AND CANNISTERS (NIOSH APPROVED, IF AVAILABLE) OR SUPPLIED AIR EQUIPMENT.

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN THE WORK AREA FOR FLUSHING EYES AND SKIN. IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED.

SECTION V - REACTIVITY DATA**REACTIVITY:**

STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.
EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

UNION OIL CO.

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SECTION V - REACTIVITY DATA**CONDITIONS AFFECTING REACTIVITY:**

AVOID ALL POSSIBLE SOURCES OF IGNITION (SEE SECTIONS VII AND VIII).

INCOMPATIBLE MATERIALS:

STRONG OXIDIZING AGENTS SUCH AS CHLORINE, PERMANGANATES AND DICHROMATES MAY CAUSE FIRE OR EXPLOSION.

HAZARDOUS DECOMPOSITION PRODUCTS:

COMBUSTION MAY YIELD SIGNIFICANT AMOUNTS OF CARBON MONOXIDE AND SMALL AMOUNTS OF OXIDES OF SULFUR AND NITROGEN, BENZENE AND OTHER ORGANIC COMPOUNDS.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

POLYMERIZATION CONDITIONS TO AVOID:

NONE KNOWN

SECTION VI - SPILL AND LEAK PROCEDURES ***HIGHWAY OR RAILWAY SPILLS***
 Call CHEMTREC (800) 424-9300 Cont. U.S.
 (Collect) (202) 483-7616 from Alaska & Hawaii

PRECAUTIONS IN CASE OF RELEASE OR SPILL:

EXTREMELY FLAMMABLE. KEEP ALL SOURCES OF IGNITION AND HOT METAL SURFACES AWAY FROM SPILL/RELEASE. STAY UPWIND AND AWAY FROM SPILL/RELEASE. ISOLATE HAZARD AREA AND LIMIT ENTRY TO EMERGENCY CREW. STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION -IV). PREVENT SPILLED MATERIAL FROM ENTERING SEWERS, STORM DRAINS, OTHER UNAUTHORIZED TREATMENT DRAINAGE SYSTEMS AND NATURAL WATERWAYS. DIKE FAR AHEAD OF SPILL FOR LATER RECOVERY OR DISPOSAL. SPILLED MATERIAL MAY BE ABSORBED INTO AN APPROPRIATE ABSORBENT MATERIAL. NOTIFY FIRE AUTHORITIES AND APPROPRIATE FEDERAL, STATE AND LOCAL AGENCIES. IMMEDIATE CLEANUP OF ANY SPILL IS RECOMMENDED. IF SPILL OF ANY AMOUNT IS MADE INTO OR UPON U.S. NAVIGABLE WATERS, THE CONTIGUOUS ZONE, OR ADJOINING SHORELINES, NOTIFY THE NATIONAL RESPONSE CENTER (PHONE NUMBER 800-424-8802).

WASTE DISPOSAL METHOD:

DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS**HANDLING AND STORAGE PRECAUTIONS:**

KEEP CONTAINER(S) TIGHTLY CLOSED. USE AND STORE THIS MATERIAL IN COOL, DRY, WELL VENTILATED AREAS AWAY FROM HEAT, DIRECT SUNLIGHT, HOT METAL SURFACES AND ALL SOURCES OF IGNITION. POST AREA "NO SMOKING OR OPEN FLAME." BOND AND GROUND ALL EQUIPMENT WHEN TRANSFERRING FROM ONE VESSEL TO ANOTHER. STORE ONLY IN APPROVED CONTAINERS. KEEP AWAY FROM ANY INCOMPATIBLE MATERIALS (SEE SECTION V). PROTECT CONTAINER(S) AGAINST PHYSICAL DAMAGE. THE USE OF EXPLOSION-PROOF EQUIPMENT IS RECOMMENDED AND MAY BE REQUIRED (SEE APPROPRIATE FIRE CODES). DO NOT ENTER CONFINED SPACES SUCH AS TANKS OR PITS WITHOUT FOLLOWING PROPER ENTRY PROCEDURES SUCH AS ASTM D-4276. OUTDOOR OR DETACHED STORAGE IS PREFERRED. INDOOR STORAGE SHOULD MEET OSHA STANDARDS AND APPROPRIATE FIRE CODES. THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED ANY ESTABLISHED EXPOSURE LIMITS (SEE SECTIONS I AND IV). WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR CONTAMINATED CLOTHING OR SHOES. USE GOOD PERSONAL HYGIENE PRACTICE. "EMPTY" CONTAINERS RETAIN RESIDUE (LIQUID AND/OR VAPOR) AND CAN BE DANGEROUS. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE

UNION OIL CO.

Product Name: UNOCAL PERFORMANCE PLUS 89
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SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

AND CAUSE INJURY OR DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY SHIPPED TO THE SUPPLIER OR A DRUM RECONDITIONER. ALL OTHER CONTAINERS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS PRODUCT, REFER TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ANSI Z49.1, AND OTHER GOVERNMENTAL AND INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING, OR OTHER CONTEMPLATED OPERATIONS.

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

NFPA HAZARD CLASS	HEALTH HAZARD:	2	HAZARD RANKING	FLASH POINT
	FLAMMABILITY:	3	0 = LEAST	
	REACTIVITY:	0	1 = SLIGHT	-45 F (TCC)
	OTHER:		2 = MODERATE	
			3 = HIGH	
			4 = EXTREME	

EXTINGUISHING MEDIA:

DRY CHEMICAL, CARBON DIOXIDE, HALON, FOAM OR WATER SPRAY IS RECOMMENDED. WATER MAY BE INEFFECTIVE.

UNUSUAL FIRE & EXPLOSION HAZARDS:

THIS MATERIAL IS EXTREMELY FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPOR/AIR EXPLOSION HAZARD INDOORS/OUTDOORS OR IN SEWERS. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE.

SPECIAL FIRE FIGHTING PROCEDURES:

WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. MOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. WATER SPRAY MAY BE USEFUL IN MINIMIZING OR DISPERSING VAPORS AND COOLING EQUIPMENT EXPOSED TO HEAT AND FLAME. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

SECTION IX - PHYSICAL DATA

***UNLESS OTHERWISE NOTED, VALUES ARE AT 20 C/68 F AND 760 mm Hg/1 atm.

<u>APPROX BOILING POINT</u>	(AIR = 1) <u>VAPOR DENSITY</u>	(N-BUTYL ACETATE = 1) <u>EVAPORATION RATE</u>	<u>% VOLATILE</u>
85-430F / 29-221C	>1	<1	100

% SOLUBILITY IN WATER

NEGLECTIBLE

SPECIFIC GRAVITY

0.75

APPEARANCE

CLEAR LIQUID

ODOR

GASOLINE

UNION OIL CO.

Product Name: UNOCAL PERFORMANCE PLUS 89
Product Code No: 00401

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Issue Date: 05/04/90
Status: FINAL

SECTION X - DOCUMENTARY INFORMATION

ISSUE DATE: 05/04/90 PRODUCT CODE NO. 00401
PREV. DATE: 10/20/89 PREV. PROD. CODE NO. N/A
MSDS NO: N/A PREV. MSDS NO: N/A

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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MATERIAL SAFETY DATA SHEET



Product Name: UNOCAL 76 LEADED REGULAR GASOLINE
 Product Code No: 00301

Page 1
 Issue Date: 05/04/90
 Status: FINAL

Responsible Party:

UNOCAL REFINING & MARKETING DIVISION
 UNION OIL COMPANY OF CALIFORNIA
 1201 WEST 5TH STREET
 LOS ANGELES, CALIFORNIA 90017

CONTACT FOR FURTHER INFORMATION:
 MSDS COORDINATOR 213-977-7589

Transportation Emergencies:

CHEMTREC
 (800) 424-9300 Cont. U.S.
 (202) 483-7616 (Collect)
 from Alaska & Hawaii

Health Emergencies:
 Call LOS ANGELES POISON
 INFORMATION CENTER (24 hrs)
 (800) 356-3129

PRODUCT IDENTIFICATION

PRODUCT NAME: UNOCAL 76 LEADED REGULAR GASOLINE
 SYNONYMS: UNION 76 LEADED REGULAR GASOLINE
 GENERIC NAME: LEADED GASOLINE
 CHEMICAL FAMILY: PETROLEUM HYDROCARBON MIXTURE
 DOT PROPER SHIPPING NAME: GASOLINE
 ID NUMBER: UN1203
 DOT HAZARD CLASSIFICATION: FLAMMABLE LIQUID

PRECAUTIONARY WARNING

DANGER
 EXTREMELY FLAMMABLE. VAPORS MAY EXPLODE. HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. POSSIBLE CANCER HAZARD BASED ON TESTS WITH LABORATORY ANIMALS. NO SMOKING OR OPEN FLAME. KEEP AWAY FROM HEAT, SPARKS, FLAMES OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS OR MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY BE IGNITED BY SPARK OR FLAME SOURCE MANY FEET AWAY. DO NOT OVERFILL TANK. USE ONLY WITH ADEQUATE VENTILATION. DO NOT TASTE OR SWALLOW. KEEP CONTAINER CLOSED. DO NOT BREATHE VAPOR OR MISTS. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. WASH THOROUGHLY AFTER HANDLING. NEVER SIPHON BY MOUTH. FOR USE AS MOTOR FUEL ONLY. DO NOT USE FOR ANY OTHER PURPOSE. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, GRIND OR DRILL ON OR NEAR CONTAINER. "EMPTY" CONTAINER RETAINS RESIDUE (LIQUID AND/OR VAPOR) AND MAY EXPLODE IN HEAT OF A FIRE. KEEP OUT OF REACH OF CHILDREN. FAILURE TO USE CAUTION MAY CAUSE SERIOUS INJURY OR ILLNESS.

SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
HAZARDOUS COMPONENTS					
GASOLINE		300.000	ppm	ACGIH	TWA
CAS #: 8006-61-9		500.000	ppm	ACGIH	STEL
		300.000	ppm	OSHA	TWA
		500.000	ppm	OSHA	STEL

UNION OIL CO.

Product Name: UNOCAL 76 LEADED REGULAR GASOLINE
 Product Code No: 00301

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 Status: FINAL

SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
		300.000	ppm	CAL OSHA	TWA
BENZENE CAS #: 71-43-2	1.0 - 5.0	10.000 25.000 1.000 5.000 50.000 25.000 10.000	ppm ppm ppm ppm ppm ppm ppm	ACGIH MSHA OSHA OSHA CAL OSHA CAL OSHA CAL OSHA	TWA CEIL-SKIN TWA STEL CEIL EXCUR TWA-SKIN
LEAD COMPOUND CAS #: NONE	0.1 GM/GAL			NOT ESTABLISHED	
TOLUENE CAS #: 108-88-3	1.0 - 15.0	100.000 150.000 100.000 100.000 150.000 200.000 100.000 500.000	ppm ppm ppm ppm ppm ppm ppm ppm	ACGIH ACGIH MSHA OSHA OSHA CAL OSHA CAL OSHA CAL OSHA	TWA STEL TWA TWA STEL EXCUR TWA-SKIN CEIL-SKIN
XYLENES CAS #: 1330-20-7	1.0 - 21.0	100.000 150.000 100.000 100.000 150.000 200.000 100.000 300.000	ppm ppm ppm ppm ppm ppm ppm ppm	ACGIH ACGIH MSHA OSHA OSHA CAL OSHA CAL OSHA CAL OSHA	TWA STEL TWA TWA STEL EXCUR TWA-SKIN CEIL-SKIN
N-HEXANE CAS #: 110-54-3		50.000 500.000 50.000 50.000	ppm ppm ppm ppm	ACGIH MSHA OSHA CAL OSHA	TWA TWA TWA TWA
OTHER COMPONENTS					

--NONE--

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR 372:

	CAS NUMBER	WEIGHT %
BENZENE	71-43-2	1-5
LEAD COMPOUND	NONE	0.1 GM/GAL
TOLUENE	108-88-3	1-15
XYLENES	1330-20-7	1-21
ETHYLBENZENE	100-41-4	1-5
METHYL TERT-BUTYL ETHER	1634-04-4	0-11
1,2,4-TRIMETHYLBENZENE	95-63-6	1-5

NOTE: GASOLINE IS A COMPLEX COMBINATION OF HYDROCARBONS INCLUDING A SMALL QUANTITY OF BENZENE, TOLUENE, XYLENE AND N-HEXANE.

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SECTION II - EMERGENCY AND FIRST AID PROCEDURES

*****EMERGENCY*****

Have physician call LOS ANGELES POISON
 INFORMATION CENTER (24 hrs) (800) 356-3129

EYE CONTACT:

IF IRRITATION OR REDNESS DEVELOPS, MOVE VICTIM AWAY FROM EXPOSURE AND INTO FRESH AIR. FLUSH EYES WITH CLEAN WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION.

SKIN CONTACT:

WIPE MATERIAL FROM SKIN AND REMOVE CONTAMINATED SHOES AND CLOTHING. CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER AND, IF NECESSARY, A WATERLESS SKIN CLEANSER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION (BREATHING):

IF RESPIRATORY SYMPTOMS OR OTHER SYMPTOMS OF EXPOSURE DEVELOP, MOVE VICTIM AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSIST, SEEK IMMEDIATE MEDICAL ATTENTION. IF VICTIM IS NOT BREATHING, IMMEDIATELY BEGIN ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULTIES DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION (SWALLOWING):

ASPIRATION HAZARD: DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH BECAUSE THIS MATERIAL CAN ENTER THE LUNGS AND CAUSE SEVERE LUNG DAMAGE. IF VICTIM IS DROWSY OR UNCONSCIOUS, PLACE ON THE LEFT SIDE WITH THE HEAD DOWN. IF POSSIBLE, DO NOT LEAVE VICTIM UNATTENDED. SEEK MEDICAL ATTENTION.

COMMENTS:

NOTE TO PHYSICIANS: EXPOSURE TO HIGH CONCENTRATIONS OF THIS MATERIAL (e.g. IN ENCLOSED SPACES OR WITH DELIBERATE ABUSE) MAY BE ASSOCIATED WITH CARDIAC ARRHYTHMIAS. EPINEPHRINE AND OTHER SYMPATHOMIMETIC DRUGS MAY INITIATE CARDIAC ARRHYTHMIAS IN PERSONS EXPOSED TO THIS MATERIAL. OTHER DRUGS WITH LESS ARRHYTHMOGENIC POTENTIAL SHOULD BE CONSIDERED. IF SYMPATHOMIMETIC DRUGS ARE ADMINISTERED, OBSERVE FOR THE DEVELOPMENT OF CARDIAC ARRHYTHMIAS.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

EYE CONTACT:

THIS MATERIAL MAY CAUSE MILD EYE IRRITATION. DIRECT CONTACT WITH THE LIQUID OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING, TEARING AND REDNESS.

SKIN CONTACT:

THIS MATERIAL MAY CAUSE MILD SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE REDNESS, BURNING, AND DRYING AND CRACKING OF THE SKIN. CONTACT MAY RESULT IN SKIN ABSORPTION BUT SYMPTOMS OF TOXICITY ARE NOT ANTICIPATED BY THIS ROUTE ALONE UNDER NORMAL CONDITIONS OF USE. PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

INHALATION (BREATHING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, BREATHING HIGH CONCENTRATIONS OF VAPORS OR MISTS MAY CAUSE FLUSHING, BLURRED VISION, NAUSEA AND SIGNS OF NERVOUS SYSTEM DEPRESSION (e.g. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). EXPOSURE TO HIGH CONCENTRATIONS MAY CAUSE LOSS OF CONSCIOUSNESS, CONVULSIONS, RESPIRATORY COLLAPSE AND DEATH. RESPIRATORY SYMPTOMS ASSOCIATED WITH PRE-EXISTING LUNG DISORDERS (e.g. ASTHMA-LIKE CONDITIONS) MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

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Status: FINAL**SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY****INGESTION (SWALLOWING):**

ASPIRATION HAZARD - THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE. INGESTION OF EXCESSIVE QUANTITIES OF THIS MATERIAL MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT AND SIGNS OF NERVOUS SYSTEM DEPRESSION (e.g. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION, AND FATIGUE).

COMMENTS:

GASOLINE IS A POSSIBLE CANCER HAZARD BASED ON ANIMAL DATA. FOLLOW-UP STUDIES SUGGEST THAT THIS MAY BE A UNIQUE EFFECT IN MALE RATS. UNLEADED GASOLINE HAS BEEN IDENTIFIED AS A POSSIBLE CARCINOGEN BY IARC. BENZENE, A COMPONENT OF THIS PRODUCT, IS A KNOWN CANCER (LEUKEMIA) HAZARD. RESULTS OF TESTS IN HUMANS HAVE SHOWN THAT EXPOSURE TO BENZENE CAN CAUSE IRREVERSIBLE CHANGES IN THE GENETIC MATERIAL (DNA) OF A CELL. THE HUMAN HEALTH CONSEQUENCES OF THESE CHANGES IS NOT FULLY UNDERSTOOD. BENZENE HAS BEEN IDENTIFIED AS A CARCINOGEN BY IARC, NTP AND OSHA. THERE IS INSUFFICIENT EVIDENCE TO SHOW THAT GASOLINE POSES ANY HAZARD RELATED TO ITS LOW BENZENE CONTENT. INTENTIONAL MISUSE BY DELIBERATE INHALATION OF LEADED GASOLINE MAY RESULT IN CHANGES IN BEHAVIOR CHARACTERIZED BY IRRITABILITY, AGGRESSIVENESS AND HALLUCINATIONS; MORE SEVERE OVEREXPOSURE MAY RESULT IN TREMORS AND SEIZURES. PERSONS WITH PRE-EXISTING HEART DISORDERS MAY BE MORE SUSCEPTIBLE TO IRREGULAR HEARTBEATS (ARRHYTHMIAS) IF EXPOSED TO HIGH CONCENTRATIONS OF THIS MATERIAL (SEE SECTION II - NOTE TO PHYSICIANS).

SECTION IV - SPECIAL PROTECTION INFORMATION**VENTILATION:**

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REQUIRED. WHERE EXPLOSIVE MIXTURES MAY BE PRESENT, ELECTRICAL SYSTEMS SAFE FOR SUCH LOCATIONS MUST BE USED.

RESPIRATORY PROTECTION:

THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I). DEPENDING ON THE AIRBORNE CONCENTRATION, USE A RESPIRATOR OR GAS MASK WITH APPROPRIATE CARTRIDGES AND CANNISTERS (NIOSH APPROVED, IF AVAILABLE) OR SUPPLIED AIR EQUIPMENT.

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN THE WORK AREA FOR FLUSHING EYES AND SKIN. IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED.

SECTION V - REACTIVITY DATA**REACTIVITY:**

STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

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SECTION V - REACTIVITY DATA**CONDITIONS AFFECTING REACTIVITY:**

AVOID ALL POSSIBLE SOURCES OF IGNITION (SEE SECTIONS VII AND VIII).

INCOMPATIBLE MATERIALS:

STRONG OXIDIZING AGENTS SUCH AS CHLORINE, PERMANGANATES AND DICHROMATES MAY CAUSE FIRE OR EXPLOSION.

HAZARDOUS DECOMPOSITION PRODUCTS:

COMBUSTION MAY YIELD SIGNIFICANT AMOUNTS OF CARBON MONOXIDE AND SMALL AMOUNTS OF OXIDES OF SULFUR AND NITROGEN, BENZENE AND OTHER ORGANIC COMPOUNDS.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

POLYMERIZATION CONDITIONS TO AVOID:

NONE KNOWN

SECTION VI - SPILL AND LEAK PROCEDURES ***HIGHWAY OR RAILWAY SPILLS***
 Call CHEMTREC (800) 424-9300 Cont. U.S.
 (Collect) (202) 483-7616 from Alaska & Hawaii

PRECAUTIONS IN CASE OF RELEASE OR SPILL:

EXTREMELY FLAMMABLE. KEEP ALL SOURCES OF IGNITION AND HOT METAL SURFACES AWAY FROM SPILL/RELEASE. STAY UPWIND AND AWAY FROM SPILL/RELEASE. ISOLATE HAZARD AREA AND LIMIT ENTRY TO EMERGENCY CREW. STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). PREVENT SPILLED MATERIAL FROM ENTERING SEWERS, STORM DRAINS, OTHER UNAUTHORIZED TREATMENT DRAINAGE SYSTEMS AND NATURAL WATERWAYS. DIKE FAR AHEAD OF SPILL FOR LATER RECOVERY OR DISPOSAL. SPILLED MATERIAL MAY BE ABSORBED INTO AN APPROPRIATE ABSORBENT MATERIAL. NOTIFY FIRE AUTHORITIES AND APPROPRIATE FEDERAL, STATE AND LOCAL AGENCIES. IMMEDIATE CLEANUP OF ANY SPILL IS RECOMMENDED. IF SPILL OF ANY AMOUNT IS MADE INTO OR UPON U.S. NAVIGABLE WATERS, THE CONTIGUOUS ZONE, OR ADJOINING SHORELINES, NOTIFY THE NATIONAL RESPONSE CENTER (PHONE NUMBER 800-424-8802).

WASTE DISPOSAL METHOD:

DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS**HANDLING AND STORAGE PRECAUTIONS:**

KEEP CONTAINER(S) TIGHTLY CLOSED. USE AND STORE THIS MATERIAL IN COOL, DRY, WELL VENTILATED AREAS AWAY FROM HEAT, DIRECT SUNLIGHT, HOT METAL SURFACES AND ALL SOURCES OF IGNITION. POST AREA "NO SMOKING OR OPEN FLAME." BOND AND GROUND ALL EQUIPMENT WHEN TRANSFERRING FROM ONE VESSEL TO ANOTHER. STORE ONLY IN APPROVED CONTAINERS. KEEP AWAY FROM ANY INCOMPATIBLE MATERIALS (SEE SECTION V). PROTECT CONTAINER(S) AGAINST PHYSICAL DAMAGE. THE USE OF EXPLOSION-PROOF EQUIPMENT IS RECOMMENDED AND MAY BE REQUIRED (SEE APPROPRIATE FIRE CODES). DO NOT ENTER CONFINED SPACES SUCH AS TANKS OR PITS WITHOUT FOLLOWING PROPER ENTRY PROCEDURES SUCH AS ASTM D-4276. OUTDOOR OR DETACHED STORAGE IS PREFERRED. INDOOR STORAGE SHOULD MEET OSHA STANDARDS AND APPROPRIATE FIRE CODES. THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED ANY ESTABLISHED EXPOSURE LIMITS (SEE SECTIONS I AND IV). WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR CONTAMINATED CLOTHING OR SHOES. USE GOOD PERSONAL HYGIENE PRACTICE. "EMPTY" CONTAINERS RETAIN RESIDUE (LIQUID AND/OR VAPOR) AND CAN BE DANGEROUS. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE

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SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

AND CAUSE INJURY OR DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY SHIPPED TO THE SUPPLIER OR A DRUM RECONDITIONER. ALL OTHER CONTAINERS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS PRODUCT, REFER TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ANSI Z49.1, AND OTHER GOVERNMENTAL AND INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING, OR OTHER CONTEMPLATED OPERATIONS.

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

NFPA HAZARD CLASS	HEALTH HAZARD:	2	HAZARD RANKING	FLASH POINT
	FLAMMABILITY:	3	0 = LEAST	
	REACTIVITY:	0	1 = SLIGHT	-45 F (TCC)
	OTHER:		2 = MODERATE	
			3 = HIGH	
		4 = EXTREME		

EXTINGUISHING MEDIA:

DRY CHEMICAL, CARBON DIOXIDE, HALON, FOAM OR WATER SPRAY IS RECOMMENDED. WATER MAY BE INEFFECTIVE.

UNUSUAL FIRE & EXPLOSION HAZARDS:

THIS MATERIAL IS EXTREMELY FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPOR/AIR EXPLOSION HAZARD INDOORS/OUTDOORS OR IN SEWERS. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE.

SPECIAL FIRE FIGHTING PROCEDURES:

WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. MOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. WATER SPRAY MAY BE USEFUL IN MINIMIZING OR DISPERSING VAPORS AND COOLING EQUIPMENT EXPOSED TO HEAT AND FLAME. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

SECTION IX - PHYSICAL DATA

***UNLESS OTHERWISE NOTED, VALUES ARE AT 20 C/68 F AND 760 mm Hg/1 atm.

<u>APPROX BOILING POINT</u>	<u>(AIR = 1) VAPOR DENSITY</u>	<u>(N-BUTYL ACETATE = 1) EVAPORATION RATE</u>	<u>% VOLATILE</u>
85-430F / 29-221C	>1	<1	100

% SOLUBILITY IN WATER

NEGLECTIBLE

SPECIFIC GRAVITY

0.80

APPEARANCE

BRONZE COLORED LIQUID

ODOR

GASOLINE

UNION OIL CO.

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SECTION X - DOCUMENTARY INFORMATION

ISSUE DATE: 05/04/90 PRODUCT CODE NO. 00301
PREV. DATE: 04/25/90 PREV. PROD. CODE NO. N/A
MSDS NO: N/A PREV. MSDS NO: N/A

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

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GREGG & ASSOCIATES, INC.
597 CENTER AVENUE, SUITE 350
MARTINEZ, CA 94553
(415) 372-3637

May 5, 1988

Storm Goranson
Alameda County Health Agency
Dept. of Environmental Health
80 Swan Way #200
Oakland, CA 94621
(415) 271-4320

Subject: Site Remediation at Santa Rita Rehabilataion Center

Dear Mr. Goranson:

Enclosed is the preliminary report for the underground tank site remediation work being planned for Alameda County's facility at Santa Rita Rehabilataion Center. Three tanks were removed from this site. As we discussed, the soil that exceeds the allowable contamination limits will be removed and placed on a plastic sheet in preparation for on-site treatment. This work is planned for Wednesday, May 11. Since the enclosed report indicates the limits of the contamination we would like to be able to put the clean soil directly back into the excavation as soon as the contaminated soil has been removed.

I have talked to Soil Purification Service about possible on-site purification of the contaminated soil using their mobile treatment unit. They have obtained preliminary approval from the San Francisco Regional Air Quality Control Board. Once we have excavated all of the necessary soil from the site and stockpiled it, I will schedule a meeting with Soil Purification Service, Paul LeCheminant of Alameda County General Services Agency and yourself to discuss this method. If the method is not suitable because the petroleum hydrocarbon concentrations are too low, we would like to treat the soil on-site by spreading it on the roadway or other paved and unpaved surfaces throughout the facility.

Please let me know if you have any questions.

Very truly yours,



Stanley L. Klemetson, Ph.D., P.E.
Chief Engineer

Enclosure

cc: Paul LeCheminant

Tanks 1, 2, 3

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

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY: I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE.	
REPORT DATE 3/22/88		CASE # 3/22/88		SIGNED _____ DATE _____	
NAME OF INDIVIDUAL FILING REPORT Norm Nelson			PHONE (415) 372-3637		SIGNATURE Norm Nelson
PRESENTING <input checked="" type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER		<input type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD		COMPANY OR AGENCY NAME Gregg & associates Inc	
ADDRESS 547		STREET Center Ave		CITY Martinez	
STATE Ca		ZIP 94553		CONTACT PERSON Paul Lecheminant	
PHONE (415) 530-4660		ADDRESS 4400		STREET Mac Arthur Blvd	
CITY Oakland		STATE Ca		ZIP 94619	
FACILITY NAME (IF APPLICABLE) Santa Rita Rehabilitation Center #1, 2, 3			OPERATOR Harvey Knight		PHONE (415) 828-5400
ADDRESS 4847		STREET Alta moreno ave		CITY Pleasanton	
CROSS STREET Tacubana		COUNTY Alameda		ZIP 94566	
TYPE OF AREA <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> RURAL <input type="checkbox"/> RESIDENTIAL <input checked="" type="checkbox"/> OTHER <u>Jail area</u>		TYPE OF BUSINESS <input checked="" type="checkbox"/> FARM <input type="checkbox"/> OTHER <u>rehabilitation center</u>			
LOCAL AGENCY Alameda County Health agency			AGENCY NAME Alameda County Health agency		CONTACT PERSON Storm Garanson
REGIONAL BOARD Calif Regional Water Quality Control			CONTACT PERSON Tom Calihan		PHONE (415) 874-7237
NAME Buster S oil			PHONE (415) 464-1255		QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
DATE DISCOVERED 3/19/88		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER			
DATE DISCHARGE BEGAN UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> REPLACE TANK <input checked="" type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> OTHER			
HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE		CAUSE(S) <input checked="" type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input type="checkbox"/> SPILL <input type="checkbox"/> OTHER <u>open to rain water</u>			
SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		TANKS ONLY/CAPACITY 5000 Gallons AGE 30? YRS <input type="checkbox"/> UNKNOWN		MATERIAL <input type="checkbox"/> FIBERGLASS <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> OTHER	
CHECK ONE ONLY <input type="checkbox"/> UNDETERMINED <input checked="" type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
CHECK ONE ONLY <input checked="" type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input type="checkbox"/> CLEANUP IN PROGRESS <input type="checkbox"/> SIGNED OFF (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> NO FUNDS AVAILABLE TO PROCEED <input type="checkbox"/> EVALUATING CLEANUP ALTERNATIVES					
CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input checked="" type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT)					

underground Tanks were mounted on a concrete pad which contained most of the product loss. Tests on soil samples are being run to determine extent of contamination.

3/16/88

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
470 - 27TH ST., RM. 322

ACCEPTED

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

PHONE 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 construction and installation. Any change or alteration 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: Pre-Covering of Tank and Piping 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.

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

- Business Name ENVIRONMENTAL TECHNOLOGY
Business Owner STUART SOLOMON AND DAVID WHITMAN
- Site Address SANTA RITA REHABILITATION CTR
City PLEASANTON Zip 94566 Phone 415 828-5400
- Mailing Address PO Box 87
City Pleasanton Zip 94566 Phone same
- Land Owner ALAMEDA COUNTY
Address 4400 MAC ARTHUR BLVD City, State OAKLAND Zip 94619
- EPA I.D. No. CAD981397060
- Contractor ENVIRONMENTAL TECHNOLOGY
Address 4606 MERIDIAN AVE G
City SAN JOSE, CA 95124 Phone 408 723-3837
License Type C61D40 ID# 52227
- Other (Specify) _____
Address _____
City _____ Phone _____

8. Contact Person for Investigation

Name STUART SOLOMON / MARY-KAY BURCESS Title PROPRIETOR
ADMINISTRATOR
Phone 408 723-3837

9. Total No. of Tanks at facility 2

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

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name ALLIED OIL & PUMPING EPA I.D. No. CAT 080014277
Address PO BOX 399
City ALVISO State CA Zip 95002

b) ~~Rinsate~~ ^{WASTE TRANSPORTED TO REFINERY SERVICES, PATTERSON} Transporter

Name _____ EPA I.D. No. _____
Address _____
City _____ State _____ Zip _____

c) Tank Transporter

Name H & H SHIP SERVICE EPA I.D. No. CAD004771168
Address 220 CHINA BASIN
City SAN FRANCISCO State CA Zip 94107

d) Contaminated Soil Transporter

Name BAUERLE TRUCKING EPA I.D. No. CAD 980585780
Address 1468 Oak Canyon Place
City SAN JOSE State CA Zip 95120

12. Sample Collector

Name MICHAEL PRINCEVALLE / ALAMEDA COUNTY PREFERS CONSULTANT TO WITNESS SAMPLES
Company ENVIRONMENTAL TECHNOLOGY *Greg Assoc*
Address 4606 MERIDIAN AVE STE
City San Jose State CA Zip 95124 Phone 408 723-3837

13. Sampling Information for each tank or area: SOIL SAMPLES TO BE TAKEN ONE FOOT BELOW EACH TANK. ONE AT FILL END AND ONE AT OPPOSITE END OF TANK. PIPING: SAMPLE TO BE TAKEN EVERY 20 FT. AND/OR AT JOINTS. TOTAL SAMPLES: FOUR

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
3,000 gal.	BUNKER C		
3,000 gal.	BUNKER C		
TESTS PROVED CONTENT TO BE 98% WATER.			

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

If yes, describe. _____

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

If yes, describe. INERTING THE TANK: INSTALL A MINIMUM OF 1.5 LBS. OF DRY ICE PER 100 GAL. TANK CAPACITY, AT LEAST 2 HOURS PRIOR TO INSPECTION OF LEL AND REMOVAL OF TANK.

16. Laboratories

Name GROUNDWATER TECHNOLOGY LABS Seepenia Analytical
 Address 4000 PIKE LANE Ste C 1385 Fairfax, Suite D
 city CONCORD SP State CA Zip 94520-94124
 State Certification No. 194 220

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
BUNKER C	TPH - HIGH BOILING POINT HC'S	

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

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

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

Name of Insurer FARMERS INSURANCE GROUP

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

21. Deposit enclosed? Yes [x] 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 solely 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

Name (please type) STUART SOLOMON / ENVIRONMENTAL TECHNOLOGY

Signature [Handwritten Signature]

Date MARCH 14, 1988

Signature of Site Owner or Operator

Name (please type) COUNTY OF ALAMEDA / MR. PAUL LE CHEMINANT

Signature [Handwritten Signature]

Date 3/17/88

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.



TRUCK-INSURANCE EXCHANGE

INTERIM CERTIFICATE AS TO EVIDENCE OF INSURANCE

THIS IS NOT AN INSURANCE POLICY. THIS IS ONLY A VERIFICATION OF INSURANCE. IT DOES NOT IN ANY WAY AMEND, EXTEND OR ALTER THE COVERAGE PROVIDED BY THE POLICIES LISTED BELOW.

Named Insured **STUART SOLOMON & DAVID WHITMANB**
 Address **DBA: ENVIRONMENTAL TECHNOLOGY**
4606 MERIDIAN AVENUE, SUITE G
SAN JOSE, CA 95124

96 62 380 Agent	Policy # - Gen. Liab.
	Policy # - Auto Liab.
	Policy # - CARGO
	N05 08 36 44
	Policy # - Work Comp.

This is to certify that policies for the above named insured are in force as follows:

This Interim Certificate As To Evidence of Insurance shall expire sixty days from 12:01 a. M., 3/1, 1988, unless cancelled prior to such date by written notice to the named insured.

Please issue a Permanent Certificate

COVERAGE	COMBINED LIMITS OF LIABILITY																									
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">COVERED</td> <td style="width: 15%; text-align: center;">NOT COVERED</td> <td style="width: 70%;">AUTO LIABILITY</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Owned</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Hired</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Non-Owned</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Employer's Non-Ownership</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Contingent Liability</td> </tr> </table>	COVERED	NOT COVERED	AUTO LIABILITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Owned	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hired	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Non-Owned	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Employer's Non-Ownership	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Contingent Liability	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Bodily Injury</td> <td style="width: 60%;">\$ _____,000 each person</td> </tr> <tr> <td></td> <td>\$ _____,000 each occurrence</td> </tr> <tr> <td>Property Damage</td> <td>\$ _____,000 each occurrence</td> </tr> </table>	Bodily Injury	\$ _____,000 each person		\$ _____,000 each occurrence	Property Damage	\$ _____,000 each occurrence	
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* Includes Goods or Products Warranty, Written Lease of Premises, Easement Agreement, Municipal Ordinance Agreement, Sidetrack Agreement, Elevator or Escalator Maintenance Agreement only, unless accompanied by specific endorsement providing additional Contractual Coverage.

Described below Description waived

OWNED AUTO-MOBILES, IF COVERED	YEAR, MAKE, TYPE OF BODY, LOAD CAPACITY	IDENTIFICATION NUMBER
		LAST 3 DIGITS SHOWN

POLICY NUMBER _____ Umbrella Liability	\$ _____,000 retained limit
	\$ _____ each occurrence
	\$ _____ aggregate

If this Interim Certificate As To Evidence Of Insurance is to be cancelled prior to the expiration date, we shall provide 10 days advance notice in writing to whom this certificate is issued.

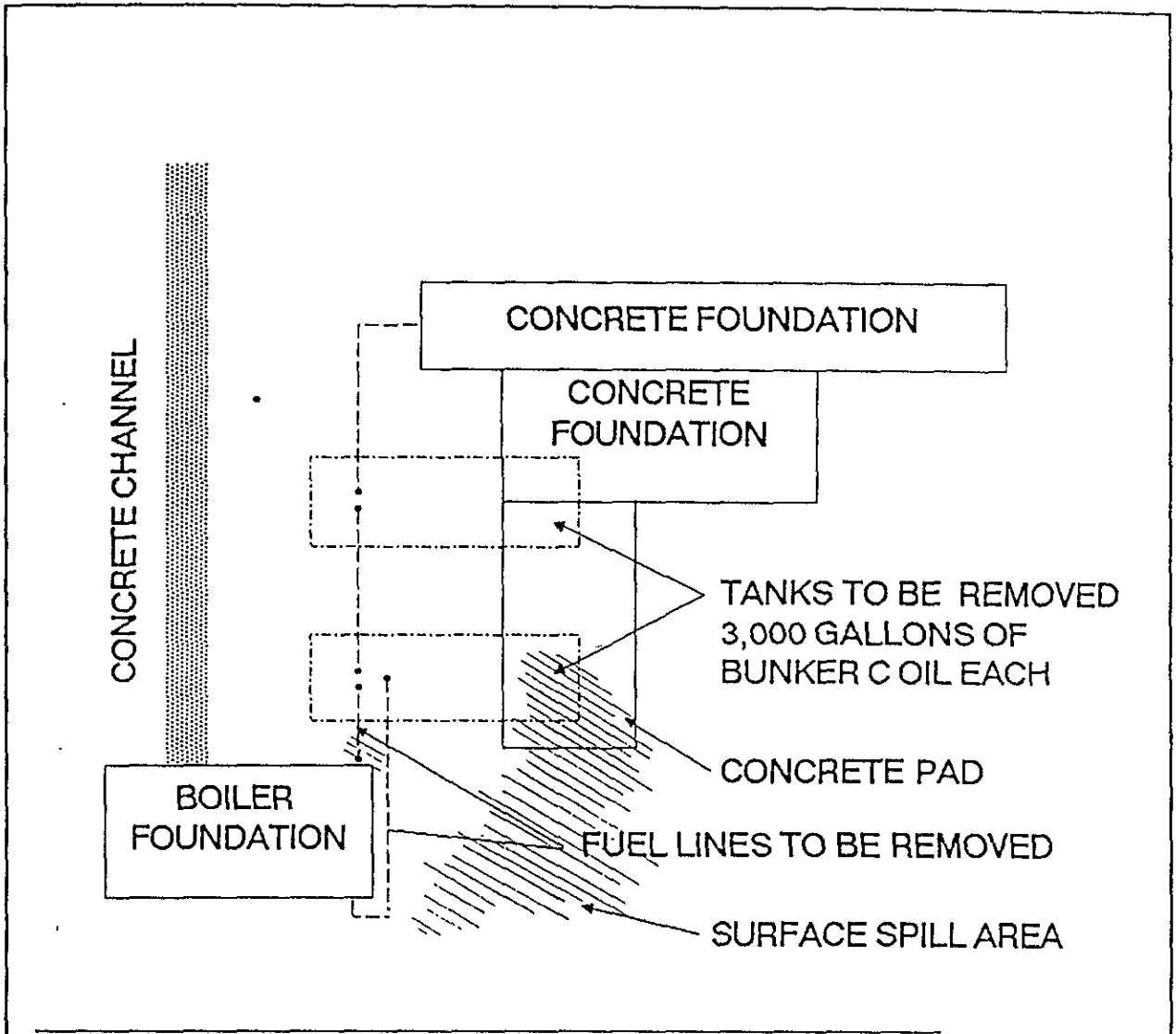
Certificate issued to:

Name And Address . **COUNTY OF ALAMEDA**
GENERAL SERVICE AGENCY BUILDING
MAINTENANCE DEPT.
4400 MAC ARTHUR BLVD
OAKLAND, CA 94619

Countersigned
 Authorized Representative

** Not Applicable in Texas.

*** In Texas the aggregate also applies to owners and contractors protective, contractual and/or completed operations.



*A HUNTER ENVIRONMENTAL
SERVICES COMPANY*

GREGG & ASSOCIATES, INC.
597 Center Avenue, Suite 350
Martinez, CA 94553
(415) 372-3637

**Figure 2942-2
TANKS TO BE CLOSED AT
SANTA RITA REHABILITATION CENTER
OLD BOILER PLANT SITE**

SAFETY PLAN

The following Safety Plan should be completed by the Project Manager and must be approved by the Health Safety Officer and Field Safety Officer prior to the performance of all work related to the handling, transport or disposal of hazardous materials.

Project Manager to fill in the following:

Job No: 020881 Project Name: Gregg and Associates

Project Manager: Mr. David Whirman

Project Personnel: Dave Whitman, Greg Evertt, Damon Bush

Others: Rex Shipman, Gino/Quitán Feyling

SITE LOCATION: Santa Rita State Jail, Pleasanton, CA

WORK DESCRIPTION:

Objectives: Closure of underground storage tanks, believed to have contained diesel fuel

Methods: Removal (pumping out) of contents found in the tanks; exposing of the tanks for excavation; excavation of the tanks; collection of soils samples; provide for the proper disposal of the tanks; removing soils materials that appear to be contaminated; backfill excavation.

ANTICIPATED CHEMICAL CONTAMINANTS:

<u>Chemical</u>	<u>Max. Concentrations (ppm/ppb)</u>
<u>Diesel Fuel (Bunker 6)</u>	<u>1000 ppm</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

HAZARD ASSESSMENT:

<u>Chemical</u>	<u>TWA</u>	<u>STEL</u>
<u>Diesel Fuel</u>	<u>No level</u>	<u>established</u>

Notes: TWA: 8 hour time-weighted average.

STEL: Short-term exposure limit (usually 15 minutes) as established by American Conference of Governmental Industrial Hygenists (ACGIH).

NR: Denoted not regulated.

SERVICE LINES AND PIPES (include location as necessary): Briefly describe any piping in the work area, including a description of markings on the pipes. Attach diagrams of immediate work area.

BE SURE TO INDICATE ON A SITE MAP !!

PROTECTIVE EQUIPMENT NEEDED:

<input checked="" type="checkbox"/> hard hats	<input checked="" type="checkbox"/> safety goggles	<input type="checkbox"/> dredger tubes
<input checked="" type="checkbox"/> gloves	<input type="checkbox"/> boots	<input type="checkbox"/> radiation meter
<input type="checkbox"/> coveralls (disposable)	<input checked="" type="checkbox"/> respiration	<input type="checkbox"/> others (specify): _____
<input type="checkbox"/> OVA	<input checked="" type="checkbox"/> explosimeter	_____

DISPOSAL OF CONTAMIANATED MATERIAL:

	Type of Contamination	Method of Disposal
<input type="checkbox"/> protective clothing	_____	_____
<input checked="" type="checkbox"/> ground water and soils	_____	<u>Class 1 Landfill</u>
<input checked="" type="checkbox"/> equipment	_____	<u>Steam or TSP</u>
<input checked="" type="checkbox"/> rinse water	_____	<u>Solididifed- Class 1 Landfill</u>
<input type="checkbox"/> other: _____	_____	_____

METHODS OF DISPOSAL:

1. Put into waste drums
2. Rinse thoroughly and re-use
3. Not applicable

Field safety officer is responsible for determining proper disposal methods.

EMERGENCY EQUIPMENT:

<input checked="" type="checkbox"/> first aid kit (mandatory)	<input type="checkbox"/> welding equipment
<input type="checkbox"/> others (specify) _____	<input checked="" type="checkbox"/> spill containment kit
_____	<input type="checkbox"/> repair kits (specify) _____
_____	_____

POSSIBLE EMERGENCIES:

<input checked="" type="checkbox"/> fire	<input checked="" type="checkbox"/> contamination
<input checked="" type="checkbox"/> spills	<input checked="" type="checkbox"/> ruptured lines

MATERIAL SAFETY DATA SHEETS (MSDS);

Available (please attach) Not Available

Dear Customer: This Bulletin contains important environmental, health and toxicology information for your employees who recently ordered this product. Please make sure this information is given to them. If you resell this product, this Bulletin should be given to the Buyer. This Form may be reproduced without permission

Chevron U.S.A. Inc.

?

Material Safety Data Sheet

Prepared According to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
(Formerly Called MATERIAL INFORMATION BULLETIN)

CHEVRON Diesel Fuel No. 2

DANGER! HARMFUL OR FATAL IF SWALLOWED
PROLONGED OR REPEATED CONTACT WITH SKIN MAY BE HARMFUL
MAY CAUSE SKIN IRRITATION
COMBUSTIBLE
KEEP OUT OF REACH OF CHILDREN

TYPICAL COMPOSITION

Petroleum mid-distillate (CAS 68476-34-6) 100%

EXPOSURE STANDARD

No Federal OSHA exposure standard or ACGIH TLV has been established for this material.

PHYSIOLOGICAL & HEALTH EFFECTS

Expected to cause no more than minor eye irritation.

May cause skin irritation. Application of a similar material onto the skin of rabbits produced moderate to severe skin irritation. Prolonged or repeated skin contact may be harmful. See Additional Health Data.

Prolonged breathing of high vapor concentrations can cause central nervous system effects. See Additional Health Data.

Not expected to have acute systemic toxicity by ingestion. Note to Physician: Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid which can cause pneumonitis.

EMERGENCY & FIRST AID PROCEDURES

Eyes

Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. If irritation persists, see a doctor.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water. See a doctor if irritation occurs. Launder contaminated clothing.

Inhalation

If there are signs or symptoms due to breathing this material as described in this MSDS, move the person to fresh air. If any of these effects continue, see a doctor.

Ingestion

If swallowed, give water or milk to drink and telephone for medical advice. DO NOT make person vomit unless directed to do so by medical personnel. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.



SANTA RITA
ALAMEDA COUNTY

ENVIRONMENTAL INCIDENT NOTIFICATION LIST

AGENCY	PHONE NUMBER	TIME NOTIFIED	NAME OF PERSON REPORTED TO
Fire Department	911 or (415) 447-6611		
State Office of Emergency Services	(800) 852-7550		
National Response Center	(800) 424-8802		
Water Quality Board	(415) 464-1255		
Fish & Game (day)	(415) 326-0324		
(night & weekends)	(415) 557-0220		
Client Phone Number(s)*	(415) 828-5400 (ext. 306) Harvey Knight		
Bay Area Air Quality Management**	(415) 771-6000		
Department of Health (Alameda County)	(415) 874-7237 or (415) 874-6794		
Department of Health (California)	(415) 540-2043		
Coast Guard	(415) 437-3073		
Environmental Protection Agency	(415) 974-8131		
Alameda County Water District	(415) 659-1970		
Environmental Technology Phone Numbers	(408) 723-3837 (408) 995-2683		

* Notify Client IMMEDIATELY

** For releases or threatened releases to air from any type of an incident.

ADDITIONAL HEALTH DATA

See Page 3.

SPECIAL PROTECTIVE INFORMATION

Eye Protection: Do not get in eyes. Eye contact can be avoided by wearing chemical safety goggles.

Skin Protection: Avoid contact with skin or clothing. Skin contact can be minimized by wearing impervious protective clothing including gloves.

Respiratory Protection: This material may be an inhalation hazard, and unless ventilation is adequate, the use of an approved respirator is recommended.

Ventilation: Use this material only in well ventilated areas.

FIRE PROTECTION

Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85°F.

Flash Point: (P-M)125°F(52°C)

Autoignition Temp.: NDA

Flammability Limits: n/a

Extinguishing Media: CO₂, Dry Chemical, Foam, Water Fog.

Special Fire Fighting Procedures: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire MSDS.

SPECIAL PRECAUTIONS

See Page 3.

ENVIRONMENTAL PROTECTION

Y-1400-1 104-25

Environmental Impact: This material is not expected to present any environmental problems other than those associated with oil spills.

Precautions if Material is Released or Spilled: Eliminate all open flame in vicinity of spill or released vapor. Stop the source of the leak or release. Clean up releases as soon as possible, observing precautions in Special Protective Information. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

REACTIVITY DATA

Stability (Thermal, Light, etc.): Stable.

Incompatibility (Materials to Avoid): May react with strong oxidizing materials.

Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.

PHYSICAL PROPERTIES

Solubility: Miscible with hydrocarbons; insoluble in water.

Appearance (Color, Odor, etc.): Pale yellow liquid

Boiling Point: 157-371°C (315-700°F)

Melting Point: n/a

Specific Gravity: 0.82 @ 15.6/15.6°C (Typical)

Vapor Pressure: 0.04 psia @ 40°C

Vapor Density (Air=1): NDA

Percent Volatile (Volume %): NDA

Evaporation: NDA

Viscosity: 1.9 @ 40°C (Min.)

n/a = Not Applicable

NDA = No Data Available

The above information is based on data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

No. 525

Tanks # 1, 2, 3

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

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

- 1. Business Name ENVIRONMENTAL TECHNOLOGY
Business Owner STUART SOLOMON AND DAVID WHITMAN
- 2. Site Address SANTA RITA REHABILITATION CTR
City PLEASANTON Zip 94566 Phone 415 828-5400
- 3. Mailing Address PO Box 87
City Pleasanton Zip 94566 Phone same
- 4. Land Owner ALAMEDA COUNTY
Address 4400 MAC ARTHUR BLVD City, State OAKLAND Zip 94619
- 5. EPA I.D. No. CAD981397060
- 6. Contractor ENVIRONMENTAL TECHNOLOGY
Address 4606 MERIDIAN AVE G
City SAN JOSE, CA 95124 Phone 408 723-3837
License Type C61D40 ID# 52227
- 7. Other (Specify) _____
Address _____
City _____ Phone _____

8. Contact Person for Investigation

Name STUART SOLOMON / Mary Kay Title PROPRIETOR
Phone 408 723-3837

9. Total No. of Tanks at facility 2

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

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

- product handled by allied to Refinery Services in Port Har

Name _____ EPA I.D. No. _____
Address _____ *was 9840 WME*
City _____ State _____ Zip _____

b) Rinsate Transporter

Name ALLIED OIL & PUMPING EPA I.D. No. CAT 080014277
Address PO BOX 399
City ALVISO State CA Zip 95002

c) Tank Transporter

Name H & H SHIP SERVICE EPA I.D. No. CAD004771168
Address 220 CHINA BASIN
City SAN FRANCISCO State CA Zip 94107

d) Contaminated Soil Transporter

Name BAUERLE TRUCKING EPA I.D. No. CAD 980585780
Address 1468 Oak Canyon Place
City SAN JOSE State CA Zip 95120

12. Sample Collector

Name MICHAEL PRINCEVALLE
Company ENVIRONMENTAL TECHNOLOGY
Address 4606 MERIDIAN AVE STE
City San Jose State CA Zip 95124 Phone 408 723-3837

(Gregg Assoc to Winters Sample collected)

TANKS TO BE HANDLED AS HAZ MAT. NO TRIPLE RISK

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
3,000 gal.	BUNKER C	2 Seal Samples w/ 1' of bottom, one at full end, other @ opposite end. For each tank (4 samples)	
3,000 gal.	BUNKER C		
Piping		Sample every 20' and at joints	

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

If yes, describe. _____

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

If yes, describe. INERTING THE TANK: INSTALL A MINIMUM OF 1.5 LBS. OF DRY ICE PER 100 GAL. TANK CAPACITY, AT LEAST 2 HOURS PRIOR TO INSPECTION OF LEL AND REMOVAL OF TANK.

16. Laboratories

Name GROUNDWATER TECHNOLOGY LABS
 Address 4080 PIKE LANE Ste C
 City CONCORD State CA Zip 94520
 State Certification No. 194

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
BUNKER C	TPH - HIGH BOILING POINT HC'S	

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

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

Copy of Certificate enclosed? Yes [] No [X] (ON FILE)

Name of Insurer FARMERS INSURANCE GROUP

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

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

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

- a) Chain of Custody Sheets
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Signature of Contractor

Name (please type) STUART SOLOMON / ENVIRONMENTAL TECHNOLOGY

Signature 

Date MARCH 14, '88

Signature of Site Owner or Operator

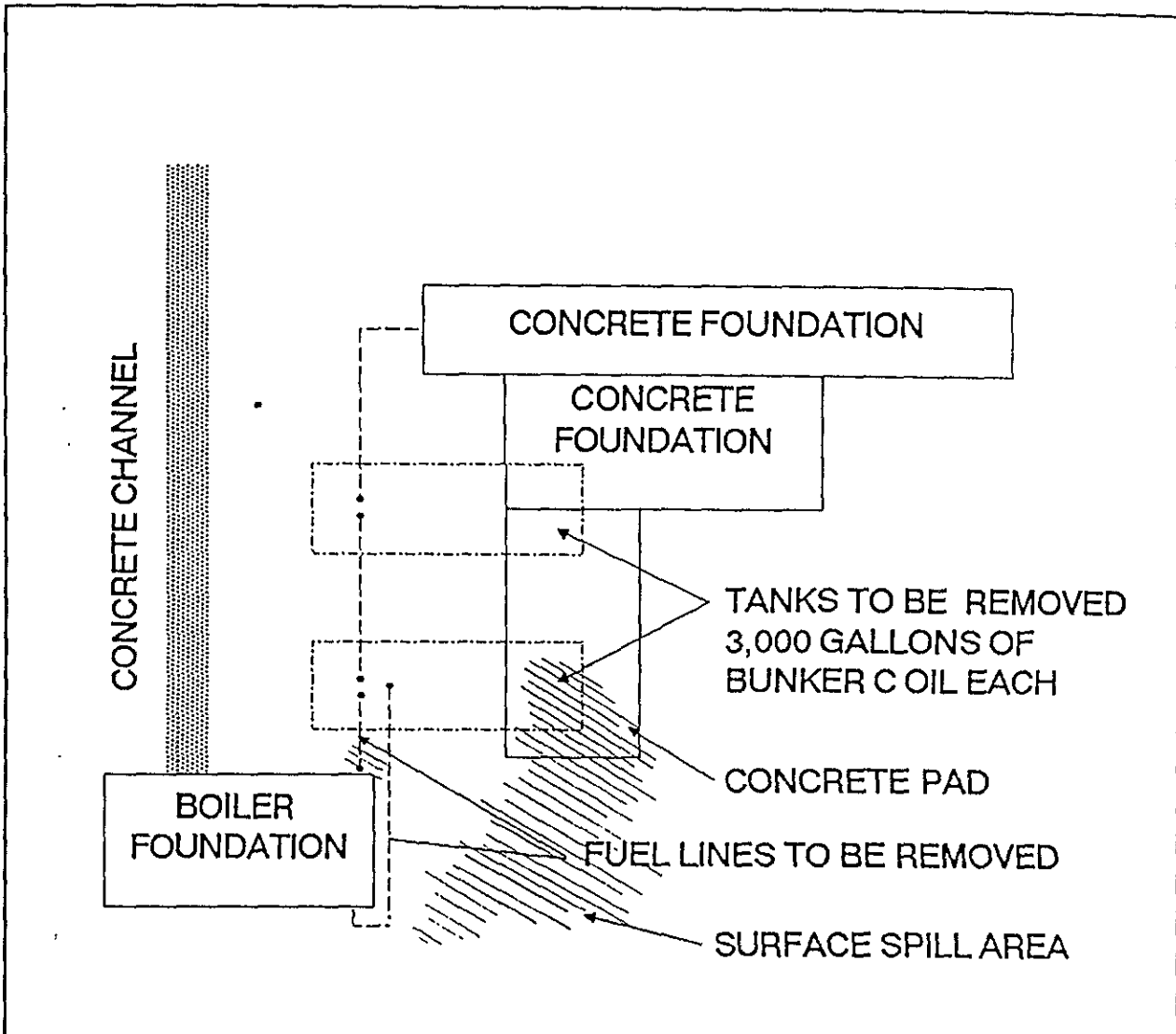
Name (please type) ALAMEDA COUNTY

Signature _____

Date _____

NOTES:

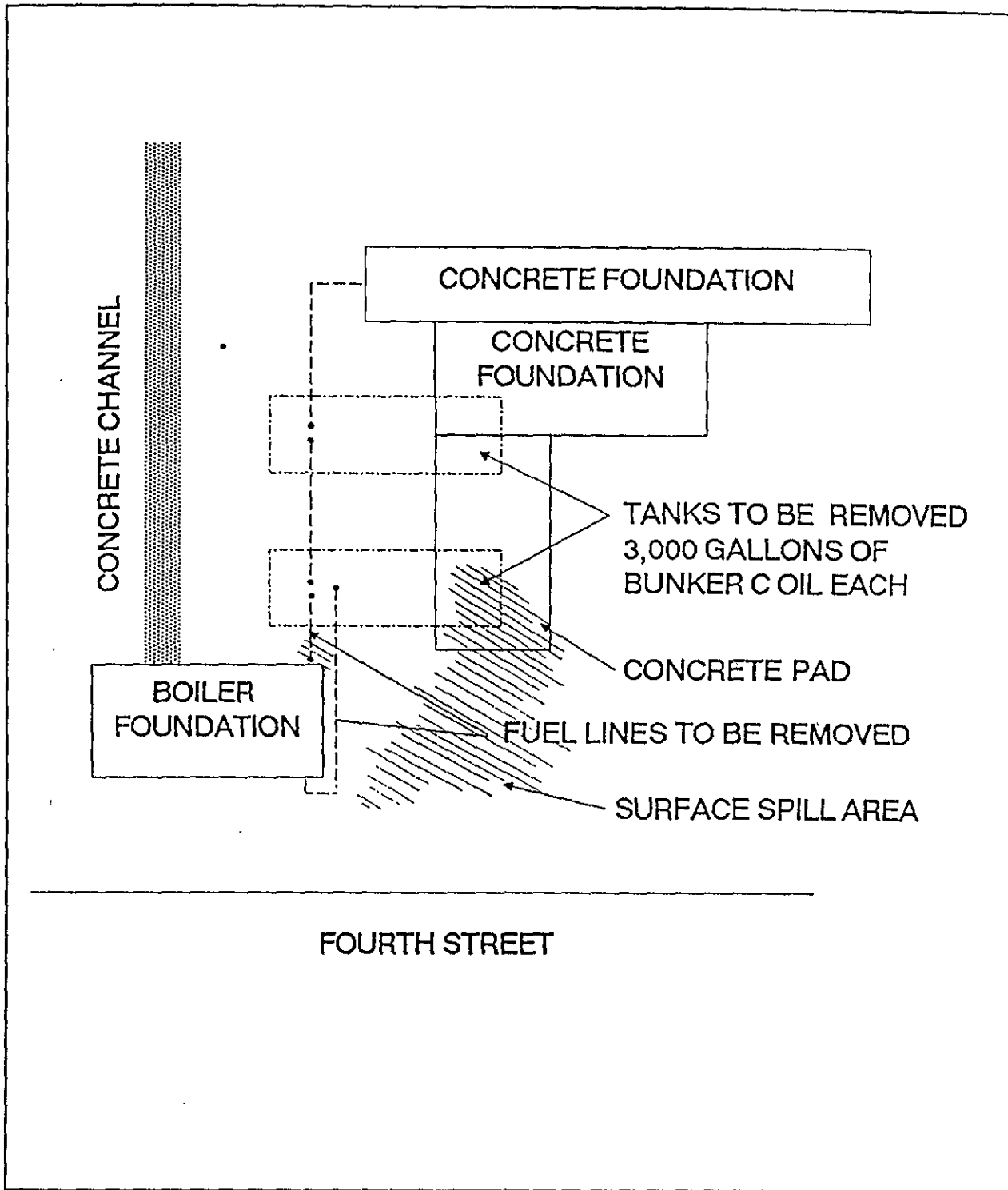
1. Any changes in this document must be approved by this Department.
2. Any leaks discovered must be submitted to this office on an underground storage tank unauthorized leak/contamination site report form within 5 days of its discovery.
3. Three (3) copies of this plan must be submitted to this Department.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



A HUNTER ENVIRONMENTAL
SERVICES COMPANY

GREGG & ASSOCIATES, INC.
597 Center Avenue, Suite 350
Martinez, CA 94553
(415) 372-3637

Figure 2942-2
TANKS TO BE CLOSED AT
SANTA RITA REHABILITATION CENTER
OLD BOILER PLANT SITE



A HUNTER ENVIRONMENTAL
SERVICES COMPANY

GREGG & ASSOCIATES, INC.
597 Center Avenue, Suite 350
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(415) 372-3637

Figure 2942-2

TANKS TO BE CLOSED AT
SANTA RITA REHABILITATION CENTER
OLD BOILER PLANT SITE



TRUCK INSURANCE EXCHANGE

INTERIM CERTIFICATE AS TO EVIDENCE OF INSURANCE

THIS IS NOT AN INSURANCE POLICY. THIS IS ONLY A VERIFICATION OF INSURANCE. IT DOES NOT IN ANY WAY AMEND, EXTEND OR ALTER THE COVERAGE PROVIDED BY THE POLICIES LISTED BELOW.

Named Insured Address: **'STUART SOLOMON & DAVID WHITMANB
'DBA: ENVIRONMENTAL TECHNOLOGY
'4606 MERIDIAN AVENUE, SUITE G
SAN JOSE, CA 95124**

96 62 380 Agent	Policy # - Gen. Liab
	Policy # - Auto Liab
	Policy # - CARGO N05 08 36 44
	Policy # - Work Comp

This is to certify that policies for the above named insured are in force as follows:

This Interim Certificate As To Evidence of Insurance shall expire sixty days from 12:01 a. M., 3/1, 1988, unless cancelled prior to such date by written notice to the named insured.

Please issue a Permanent Certificate

COVERAGE	COMBINED LIMITS OF LIABILITY																															
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">COVERED</td> <td style="width: 15%; text-align: center;">NOT COVERED</td> <td style="width: 70%;">AUTO LIABILITY</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Owned</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Hired</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Non-Owned</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Employer's Non-Ownership</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Contingent Liability</td> </tr> </table>	COVERED	NOT COVERED	AUTO LIABILITY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Owned	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hired	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Non-Owned	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Employer's Non-Ownership	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Contingent Liability	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Bodily Injury</td> <td style="width: 60%;">\$ _____,000 each person</td> </tr> <tr> <td></td> <td>\$ _____,000 each occurrence</td> </tr> <tr> <td>Property Damage</td> <td>\$ _____,000 each occurrence</td> </tr> </table>	Bodily Injury	\$ _____,000 each person		\$ _____,000 each occurrence	Property Damage	\$ _____,000 each occurrence							
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* Includes Goods or Products Warranty, Written Lease of Premises, Easement Agreement, Municipal Ordinance Agreement, Sidetrack Agreement, Elevator or Escalator Maintenance Agreement only, unless accompanied by specific endorsement providing additional Contractual Coverage.

	<input type="checkbox"/> Described below <input type="checkbox"/> Description waived	YEAR, MAKE, TYPE OF BODY, LOAD CAPACITY	IDENTIFICATION NUMBER
OWNED AUTO-MOBILES, IF COVERED			LAST 3 DIGITS SHOWN
		Umbrella Liability	\$ _____,000 retained limit
		POLICY NUMBER	\$ _____ each occurrence
			\$ _____ aggregate

If this Interim Certificate As To Evidence Of Insurance is to be cancelled prior to the expiration date, we shall provide 10 days advance notice in writing to whom this certificate is issued.

Certificate issued to:

Name And Address: **COUNTY OF ALAMEDA
GENERAL SERVICE AGENCY BUILDING
MAINTENANCE DEPT.
4400 MAC ARTHUR BLVD
OAKLAND, CA 94619**

Countersigned _____
 Authorized Representative

** Not Applicable in Texas

*** In Texas the aggregate also applies to owners and contractors protective, contractual and/or completed operations.

SAFETY PLAN

The following Safety Plan should be completed by the Project Manager and must be approved by the Health Safety Officer and Field Safety Officer prior to the performance of all work related to the handling, transport or disposal of hazardous materials.

Project Manager to fill in the following:

Job No: 020881 Project Name: Gregg and Associates

Project Manager: Mr. David Whitman

Project Personnel: Dave Whitman, Greg Evertt, Damon Bush

Others: Rex Shipman, Gino/Quitian Feyling

SITE LOCATION: Santa Rita State Jail, Plesanton, CA

WORK DESCRIPTION:

Objectives: Closure of underground storage tanks, believed to have contained diesel fuel.

Methods: Removal (pumping out) of contents found in the tanks; exposing of the tanks for excavation; excavation of the tanks; collection of soils samples; provide for the proper disposal of the tanks; removing soils materials that appear to be contaminated; backfill excavation.

ANTICIPATED CHEMICAL CONTAMINANTS:

<u>Chemical</u>	<u>Max. Concentrations (ppm/ppb)</u>
<u>Diesel Fuel (Bunker 6)</u>	<u>1000 ppm</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

HAZARD ASSESSMENT:

<u>Chemical</u>	<u>TWA</u>	<u>STEL</u>
<u>Diesel Fuel</u>	<u>No level</u>	<u>established</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Notes: TWA: 8 hour time-weighted average.

STEL: Short-term exposure limit (usually 15 minutes) as established by American Conference of Governmental Industrial Hygienists (ACGIH).

NR: Denoted not regulated.

SERVICE LINES AND PIPES (include location as necessary): Briefly describe any piping in the work area, including a description of markings on the pipes. Attach diagrams of immediate work area.

BE SURE TO INDICATE ON A SITE MAP !!

PROTECTIVE EQUIPMENT NEEDED:

<input checked="" type="checkbox"/> hard hats	<input checked="" type="checkbox"/> safety goggles	<input type="checkbox"/> dredger tubes
<input checked="" type="checkbox"/> gloves	<input type="checkbox"/> boots	<input type="checkbox"/> radiation meter
<input type="checkbox"/> coveralls (disposable)	<input checked="" type="checkbox"/> respiration	<input type="checkbox"/> others (specify): _____
<input type="checkbox"/> OVA	<input checked="" type="checkbox"/> explosimeter	_____

DISPOSAL OF CONTAMIANATED MATERIAL:

	Type of Contamination	Method of Disposal
<input type="checkbox"/> protective clothing	_____	_____
<input checked="" type="checkbox"/> ground water and soils	_____	<u>Class 1 Landfill</u>
<input checked="" type="checkbox"/> equipment	_____	<u>Steam or TSP</u>
<input checked="" type="checkbox"/> rinse water	_____	<u>Solididfed- Class 1 Landfill</u>
<input type="checkbox"/> other: _____	_____	_____

METHODS OF DISPOSAL:

1. Put into waste drums
2. Rinse thoroughly and re-use
3. Not applicable

Field safety officer is responsible for determining proper disposal methods.

EMERGENCY EQUIPMENT:

<input checked="" type="checkbox"/> first aid kit (mandatory)	<input type="checkbox"/> welding equipment
<input type="checkbox"/> others (specify) _____	<input checked="" type="checkbox"/> spill containment kit
_____	<input type="checkbox"/> repair kits (specify) _____
_____	_____

POSSIBLE EMERGENCIES:

<input checked="" type="checkbox"/> fire	<input checked="" type="checkbox"/> contamination
<input checked="" type="checkbox"/> spills	<input checked="" type="checkbox"/> ruptured lines

MATERIAL SAFETY DATA SHEETS (MSDS);

Available (please attach) Not Available

SANTA RITA
ALAMEDA COUNTY

ENVIRONMENTAL INCIDENT NOTIFICATION LIST

AGENCY	PHONE NUMBER	TIME NOTIFIED	NAME OF PERSON REPORTED TO
Fire Department	911 or (415) 447-6611		
State Office of Emergency Services	(800) 852-7550		
National Response Center	(800) 424-8802		
Water Quality Board	(415) 464-1255		
Fish & Game (day)	(415) 326-0324		
(night & weekends)	(415) 557-0220		
Client Phone Number(s)*	(415) 828-5400 (ext. 306) Harvey Knight		
Bay Area Air Quality Management**	(415) 771-6000		
Department of Health (Alameda County)	(415) 874-7237 or (415) 874-6794		
Department of Health (California)	(415) 540-2043		
Coast Guard	(415) 437-3073		
Environmental Protection Agency	(415) 974-8131		
Alameda County Water District	(415) 659-1970		
Environmental Technology Phone Numbers	(408) 723-3837 (408) 995-2683		

* Notify Client IMMEDIATELY

** For releases or threatened releases to air from any type of an incident.

Dear Customer: This Bulletin contains important environmental, health and toxicology information for your employees who recently ordered this product. Please make sure this information is given to them. If you resell this product, this Bulletin should be given to the Buyer. This Form may be reproduced without permission

Chevron U.S.A. Inc.

?

Material Safety Data Sheet

Prepared According to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
(Formerly Called MATERIAL INFORMATION BULLETIN)

CHEVRON Diesel Fuel No. 2

DANGER! **HARMFUL OR FATAL IF SWALLOWED**
PROLONGED OR REPEATED CONTACT WITH SKIN MAY BE HARMFUL
MAY CAUSE SKIN IRRITATION
COMBUSTIBLE
KEEP OUT OF REACH OF CHILDREN

TYPICAL COMPOSITION

Petroleum mid-distillate (CAS 68476-34-6) 100%

EXPOSURE STANDARD

No Federal OSHA exposure standard or ACGIH TLV has been established for this material.

PHYSIOLOGICAL & HEALTH EFFECTS

Expected to cause no more than minor eye irritation.

May cause skin irritation. Application of a similar material onto the skin of rabbits produced moderate to severe skin irritation. Prolonged or repeated skin contact may be harmful. See Additional Health Data.

Prolonged breathing of high vapor concentrations can cause central nervous system effects. See Additional Health Data.

Not expected to have acute systemic toxicity by ingestion. Note to Physician: Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid which can cause pneumonitis.

EMERGENCY & FIRST AID PROCEDURES

Eyes

Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. If irritation persists, see a doctor.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water. See a doctor if irritation occurs. Launder contaminated clothing.

Inhalation

If there are signs or symptoms due to breathing this material as described in this MSDS, move the person to fresh air. If any of these effects continue, see a doctor.

Ingestion

If swallowed, give water or milk to drink and telephone for medical advice. DO NOT make person vomit unless directed to do so by medical personnel. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

ADDITIONAL HEALTH DATA

See Page 3.

SPECIAL PROTECTIVE INFORMATION

Eye Protection: Do not get in eyes. Eye contact can be avoided by wearing chemical safety goggles.

Skin Protection: Avoid contact with skin or clothing. Skin contact can be minimized by wearing impervious protective clothing including gloves.

Respiratory Protection: This material may be an inhalation hazard, and unless ventilation is adequate, the use of an approved respirator is recommended.

Ventilation: Use this material only in well ventilated areas.

FIRE PROTECTION

Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85°F.

Flash Point: (P-M) 125°F (52°C)

Autoignition Temp.: NDA

Flammability Limits: n/a

Extinguishing Media: CO₂, Dry Chemical, Foam, Water Fog.

Special Fire Fighting Procedures: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire MSDS.

SPECIAL PRECAUTIONS

See Page 3.

ENVIRONMENTAL PROTECTION

Y-IRCOA 104-05

Environmental Impact: This material is not expected to present any environmental problems other than those associated with oil spills.

Precautions if Material is Released or Spilled: Eliminate all open flame in vicinity of spill or released vapor. Stop the source of the leak or release. Clean up releases as soon as possible, observing precautions in Special Protective Information. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

REACTIVITY DATA

Stability (Thermal, Light, etc.): Stable.

Incompatibility (Materials to Avoid): May react with strong oxidizing materials.

Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.

PHYSICAL PROPERTIES

Solubility: Miscible with hydrocarbons; insoluble in water.

Appearance (Color, Odor, etc.): Pale yellow liquid

Boiling Point: 157-371°C (315-700°F)

Melting Point: n/a

Specific Gravity: 0.82 @ 15.6/15.6°C (Typical)

Vapor Pressure: 0.04 psia @ 40°C

Vapor Density (Air=1): NDA

Percent Volatile (Volume %): NDA

Evaporation: NDA

Viscosity: 1.9 @ 40°C (Min.)

n/a = Not Applicable

NDA = No Data Available

The above information is based on data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

No. 525

Material Safety Data Sheet

CHEVRON Diesel Fuel No. 2

CPS 272102

ADDITIONAL HEALTH DATA

Signs and symptoms of central nervous system effects may include one or more of the following: headache, dizziness, loss of appetite, weakness and loss of coordination. Affected persons usually experience complete recovery when removed from the exposure area.

This product contains a petroleum mid-distillate. Toxicology data from studies on similar hydrocarbon mid-distillates indicate that lifetime application to the skin of mice resulted in a low-level skin carcinogenicity response characterized by low tumor incidence and long latency. Other similar materials caused gene mutations in the Mouse Lymphoma Assay and in the Rat Bone Marrow Assay.

SPECIAL PRECAUTIONS

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

Contains Petroleum Distillate.

DO NOT USE OR STORE near flame, sparks or hot surfaces. USE ONLY IN WELL VENTILATED AREA. Keep container closed.

DO NOT weld, heat or drill container. Replace cap or bung. Emptied container still contains hazardous or explosive vapor or liquid.

CAUTION! Do not use pressure to empty drum or explosion may result.

WARNING! Not for use as portable heater or appliance fuel. Toxic fumes may accumulate and cause death.

Diesel Fuel 3

X-IRCO41 (07-86)

No. 525

Rev. 6 01/16/86

UNIFORM HAZARDOUS WASTE MANIFEST

Generator's US EPA ID No. **CAD 901597060** Manifest Document No. **34793**

2. Page 1 of 1 Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Alameda Co. Sheriff Dept.
4047 Alhambra Ave. Pleasanton, CA 94560

A. State Manifest Document Number
87434933

4. Generator's Phone **(415) 828 5400 X 306**

B. State Generator's ID

5. Transporter 1 Company Name
H4H SHIP SERVICE

C. State Transporter's ID
902428

6. US EPA ID Number
CA101014771162

D. Transporter's Phone
(415) 543 4835

7. Transporter 2 Company Name

E. State Transporter's ID

8. US EPA ID Number

F. Transporter's Phone

9. Designated Facility Name and Site Address
H4H SHIP SERVICE
220 CHINA BASIN ST.
SAN FRANCISCO CA 94107

G. State Facility's ID
78 001178

10. US EPA ID Number
CA101014771162

H. Facility's Phone
(415) 543 4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers		13. Total Quantity	14. Unit Wt/Vol	1. Waste No.
	No.	Type			
a. WASTE COMBUSTIBLE LIQUID N.O.S. N/A 1270, EMPTY TANK	0101	TD	010001	Five Thousand Gallons	State 512 EPA/Other 24/0000
b. WASTE COMBUSTIBLE LIQUID N.O.S. N/A 1270, EMPTY TANK	0101	TD	010001	Three Thousand Gallons	State 512 EPA/Other 24/0000
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
EMPTY UNDERGROUND FUEL OIL TANKS WITH LESS THAN 2 GAL RESIDUAL LIQUID IN EACH TANK

K. Handling Codes for Wastes Listed Above
 a. b. c. d.

15. Special Handling Instructions and Additional Information
GLUONS

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
 If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name **Paul Lehmann** Signature *[Signature]* Month Day Year **10/31/88**

17. Transporter 1 Acknowledgement of Receipt of Materials
 Printed/Typed Name **DAVID GERSON** Signature *[Signature]* Month Day Year **10/31/88**

18. Transporter 2 Acknowledgement of Receipt of Materials
 Printed/Typed Name _____ Signature _____ Month Day Year _____

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
 Printed/Typed Name _____ Signature _____ Month Day Year _____

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

GENERATOR

TRANSPORTER

FACILITY

30440

UNIFORM HAZARDOUS WASTE MANIFEST

Generator's US EPA ID No. **CA0198139706011721** Manifest Document No. **11721**

2. Page 1 of 1 information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
COUNTY OF ALAMEDA - SHERIFF DEPT. 94560
4847 All. MIFUND AVE, PIEDMONT, CA
 4. Generator's Phone **(415) 828-5400 X 366**

A. State Manifest Document Number
87434721
 B. State Generator's ID

5. Transporter 1 Company Name **H. S. Ship Service** 6. US EPA ID Number **CA0104441166**

C. State Transporter's ID **902111**
 D. Transporter's Phone

7. Transporter 2 Company Name 8. US EPA ID Number

E. State Transporter's ID
 F. Transporter's Phone

9. Designated Facility Name and Site Address
H. S. Ship Service
220 OAKLAND BASIN
SAN FRANCISCO, CA 94117
 10. US EPA ID Number **CA010127711165**

G. State Facility's ID
13A101277111
 H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers No. Type 13. Total Quantity 14. Unit Wt/Vol 15. Waste No.

a. Empty Fuel oil Tank waste combustible liquid NA 1770

State
 EPA/Other

b.

State
 EPA/Other

c.

State
 EPA/Other

d.

State
 EPA/Other

J. Additional Descriptions for Materials Listed Above
255 underground fuel oil storage tank
has less than 1 gallon residual liquid
IN TANK.

K. Handling Codes for Wastes Listed Above
 a. b. c. d.

15. Special Handling Instructions and Additional Information
NONE.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
 If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name
Paul LeCheminant

Signature
[Signature] Month Day Year
10/3/1986

17. Transporter 1 Acknowledgement of Receipt of Materials
 Printed/Typed Name
Rick C. Schladit

Signature
[Signature] Month Day Year
10/3/1986

18. Transporter 2 Acknowledgement of Receipt of Materials
 Printed/Typed Name

Signature
 Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
 Printed/Typed Name
 Signature
 Month Day Year

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA CALL 1-800-852-7550

GENERATOR

TRANSPORTER

FACILITY