Alameda County Environmental Health Services
Environmental Protection Division
1131 Harbor Bay Parkway, Rm 250, Alameda CA 94502-6577
Ph: 510-567-6700 Fax: 510-337-9335

WORK ORDER

MFR# or STID# 4345

A. Site Name NIKE MISSLE Phone

Site Address (If no address, description of area) 2842 FAIRMONT DR SAN LEANDRO
Number Street City Zip

Prior Business Name Prior Owner's Name

B. Service Requestor CHRIS SANCHEZ ESA
Contact Person Company Name Phone

Billing Address 225 BUSH ST. # 1700 S.F. 94104
Number Street City Zip

Category of Service

..... Site Search
..... File Search
..... Other

# of Whole Hours	x $	$	
# of Copies 11	x $ .10	$	1.10
	x $	$	
		TOTAL CHARGE: $	1.10

REMARKS: paid - cash

All services will be charged in accordance with Article II of Chapter 6, Title 3 of the Ordinance Code of Alameda County

Authorized by Printed Name Signature Date

Specialist DON HWANG Printed Name DON HWANG Signature Date 1/9/08

Work Order 1/96 mk/ec MAC

COPIES: White: - Billing Yellow - Office Pink - Svc Requestor

REF./ A/C NO. Copies

COUNTY OF ALAMEDA
OFFICE OF THE AUDITOR-CONTROLLER

DATE: 1/9/98

№ 804936

MISCELLANEOUS RECEIPT

$ 10

DOLLARS

RECEIVED FROM: Mike Missle 2842 Fairmont Dr

FOR: Chris Sanchez
225 Bush St #1200 S.F. 94104

RECEIVED BY: BY

DEPT. NO.: 430-4510

[X] CASH [ ] PERSONAL/CASHIER'S CHECK/M. O. #_____ [ ] OTHER:_____

110-1 (Rev 10/85) [0134E (08)] 3-Part Distribution: White - Payor Yellow & Pink - Depart.

ESA Environmental Science Associates

FAX COVER SHEET

Original will follow via: ☐ Regular Mail ☐ Federal Express
Original will not follow ☒
Number of pages including this cover sheet: 1

To • Karen Gray

Company • Alameda County Public Health

FAX Number • 510-337-9335

Phone Number •

From • Chris Sanchez

ESA Project • 970320

Date • December 31, 1997

Comments • I need to review the file for :

Nike Missle Site at 2892 Fairmont Drive in San Leandro 94578

The Site ID is 4345

Plaese call me at 415-896-5900 for an appointment.

dop/hsp
I,f

LOP
#4345 SOS

IMPORTANT NOTICE

225 Bush Street, Suite 1700 San Francisco, California 94104 (415) 896-5900 *fax* 896-0332 email: esa.sf@esassoc.com

Environmental
Science &
Engineering, Inc.
A CILCORP Company

HAZMAT
94 SEP 19 PM 4:26

September 14, 1994

Mr. Robert Weston
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Ste 250
Alameda, CA 94502-6700

SUBJECT: **NIKE SITE**
2892 FAIRMONT DRIVE
SAN LEANDRO, CA 94578
ESE PROJECT #6-93-5058

Dear Mr. Weston:

On August 2, 1994 approximately 1 55-gallon drum of diesel-impacted soil resulting from the excavation of the diesel tank (ESE closure report dated November 18, 1993) was removed from site. The diesel-impacted soils were sent to the BFI landfill located in Livermore, California, a state-licensed sanitary landfill facility. A copy of the non-hazardous special waste manifest is attached.

Please contact me at (510) 685-4053 with any questions regarding this project.

Sincerely,

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

Jay Carpenter
Construction Manger

Attachments

pc: Mr. Andrew Garcia, Alameda County GSA

f:\6935058\weston.ltr

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 1064462

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ALAMEDA COUNTY GENERAL SERVICES AGENCY
Generating Location: AVIS SITE

Address: 4400 MACARTHUR BLVD. OAKLAND, CA 94619
Address: 2392 FAIRMONT DR. SAN LEANDRO, CA

Phone No.: 510-535-6280
Phone No.:

BFI Waste Code: CA 114 306179 422779

Description of Waste	Quantity	Units	Containers No.	Containers Type
DRILL CUTTINGS (SOIL) FROM BORINGS	1	Y		T

Type: D - Drum; C - Carton; B - Bag; T - Truck; P - Pounds; Y - Yards; O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: JAY GARDNER
Signature: [signature] FOR ACGSA
Shipment Date:

TRANSPORTER

Truck No.:
Phone No.: (408) 942-8955

Transporter Name: IWM, INC.
Driver Name (Print):

Address: 950 AMES AVE MILPITAS, CA 95035-5206
Vehicle License No./State:

Vehicle Certification:

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature: [signature]
Shipment Date: 080294

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature:
Delivery Date:

DESTINATION

Site Name: BFI - KELLER STATION 6000
Phone No.: 510-458-9800

Address: 901 BAILEY RD., PITTSBURG

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent: MICHELLE BENNETT
Signature: [signature]
Receipt Date: 080294

PASS CODE:

BFI260-720 3/93

GENERATOR RETAIN

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

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

STID 4345

February 23, 1994

Peter Kinney
Alameda County General Services Agency
4400 Mac Arthur Boulevard
Oakland, CA 94619

RE: NIKE MISSILE SITE, 2892 FAIRMONT DRIVE, SAN LEANDRO

Dear Mr. Kinney:

This office has completed review of the February 18, 1994 Versar, Inc. revised work plan for the initial subsurface assessment of the referenced site. This work plan has been accepted as revised.

Please call me at 510/271-4530 should you have any questions.

Sincerely,

Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director
Gil Jensen, Alameda County District Attorney's Office
Ed Laudani, Alameda County Fire Department
Robert Weston, ACDEH
Terrance Kinn, Versar, Inc.

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

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

STID 4345

February 1, 1994

Peter Kinney
Alameda County General Services Agency
4400 Mac Arthur Boulevard
Sacramento, CA 94619

RE: NIKE MISSILE SITE, 2892 FAIRMONT DRIVE, SAN LEANDRO

Dear Mr. Kinney:

As we discussed today by telephone, I have completed review of the December 20, 1993 Versar, Inc. work plan for the initial subsurface assessment of the referenced site. In order to facilitate plan approval, please submit the additional information outlined below, in the form of an addendum to the cited work plan:

2/16/94 addendum

✓ 1) The San Francisco Bay RWQCB requires that all work plans and reports dealing with environmental investigations or clean-ups be submitted under signature of a registered geologist or licensed civil engineer with the appropriate background in such endeavors, consistent with provisions of the California Business and Professions Code. Please be certain the requested addendum is submitted under the signature of such a professional.

✓ 2) All soil samples collected during boring advancement should be field screened for the presence of contaminants, either through use of field instruments (e.g., OVA) or other equally-effective subjective techniques, such as noting the presence of odors, staining, etc.

<u>All</u> samples collected from that boring advanced through the known "hot" zone are to be analyzed for all target compounds. Only those sampling intervals showing field "hits" in the remaining borings are to be analyzed for target compounds.

✓ 3) All samples chosen for laboratory analysis are to be run for TPH-D and BTEX.

✓ 4) At least one boring should be advanced to first encountered ground water or 50 feet below grade, whichever is encountered first.

Please contact me at 510/271-4530 should you have any questions.

Sincerely,

Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director
Gil Jensen, Alameda County District Attorney's Office
Ed Laudani, Alameda County Fire Department
Robert Weston, ACDEH
Terrance Kinn, Versar, Inc.

STID 4345

DATE: 12-6-93

Please transfer to LOP data base

TO : Local Oversight Program

FROM: ROB WESTON

SUBJ: Transfer of Eligible Local Oversight Case

Site name: NIKE SITE (ALAMEDA CO. GSA PROPERTY)

Address: 2892 FAIRMONT AVENUE city SL Zip 94578

TO BE ELLIGIBLE FOR LOP A CASE MUST MEET 3 QUALIFICATIONS:

1. Number of Tanks: 1 removed? (Y) N Date of removal 10-27-93

2. Samples received? (Y) N Contamination level: TPH-D 3,300 ppm soil
(ppm and type of test)

Contamination should be over 100 ppm TPH to qualify for LOP

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

DepRef remaining $ NA Closed with Candace/Leslie? Y N
(If no explain why?)

IF YOUR SITE MEETS ALL OF THE ABOVE QUALIFICATIONS YOU SHOULD DO THE FOLLOWING TO TRANSFER THE SITE:

1. YOU MUST CLOSE THE DEPOSIT REFUND CASE AT THIS TIME. YOU MUST ACCOUNT FOR ALL TIME YOU HAVE SPENT ON THE CASE AND TURN IN THE ACCOUNT SHEET TO LESLIE. IF THERE ARE FUNDS STILL REMAINING IT IS STILL BETTER TO TRANSFER THE CASE TO LOP AS THE RATE FOR LOP ALLOWS THE ADDITION OF MANAGEMENT AND CLERICAL TIME. DO NOT ATTEMPT TO CONTINUE TO OVERSEE THE SITE SIMPLY BECAUSE THERE ARE FUNDS REMAINING!

2. COMPLETE THE A AND B PERMIT APPLICATION FORMS AND GIVE TO CONNIE/ELAINE

3. GIVE THE ENTIRE CASE TO THE PROPER LOP STAFF UPSTAIRS FOR THEM TO DO THE REST OF THE TRANSFER AND YOU ARE DONE!

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

EMERGENCY ☐ YES ☒ NO

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

REPORT DATE: 11 / 19 / 93

CASE #:

FOR LOCAL AGENCY USE ONLY
I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.
SIGNED: Robert Weston DATE: 12-6-93

REPORTED BY

NAME OF INDIVIDUAL FILING REPORT: Peter Kinney
PHONE: (510) 535-6280
SIGNATURE: Pat Kinney
REPRESENTING ☒ OWNER/OPERATOR ☐ REGIONAL BOARD ☐ LOCAL AGENCY ☐ OTHER
COMPANY OR AGENCY NAME: Alameda County General Services Agency
ADDRESS: 4400 MacArthur Boulevard (STREET) Oakland (CITY) CA (STATE) 94619 (ZIP)

RESPONSIBLE PARTY

NAME: Alameda County, GSA ☐ UNKNOWN
CONTACT PERSON: Peter Kinney
PHONE: (510) 535-6280
ADDRESS: 4400 MacArthur Boulevard (STREET) Oakland (CITY) CA (STATE) 94619 (ZIP)

SITE LOCATION

FACILITY NAME (IF APPLICABLE): Nike Site
OPERATOR: Alameda County, GSA
PHONE: ( )
ADDRESS: 2892 Fairmont Avenue (STREET) San Leandro (CITY) Alameda (COUNTY) 94578 (ZIP)
CROSS STREET:

IMPLEMENTING AGENCIES

LOCAL AGENCY / AGENCY NAME: Alameda County Health Services
CONTACT PERSON: Robert Weston
PHONE: (510) 271-4325
REGIONAL BOARD:
PHONE: ( )

SUBSTANCES INVOLVED

(1) NAME: Diesel Fuel — QUANTITY LOST (GALLONS): ☒ UNKNOWN
(2) NAME: — QUANTITY LOST (GALLONS): ☐ UNKNOWN

DISCOVERY/ABATEMENT

DATE DISCOVERED: 10 / 27 / 93
HOW DISCOVERED: ☐ INVENTORY CONTROL ☐ SUBSURFACE MONITORING ☐ NUISANCE CONDITIONS ☐ TANK TEST ☒ TANK REMOVAL ☐ OTHER
DATE DISCHARGE BEGAN: ☒ UNKNOWN
HAS DISCHARGE BEEN STOPPED? ☒ YES ☐ NO IF YES, DATE 10 / 27 / 93
METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)
☐ REMOVE CONTENTS ☒ CLOSE TANK & REMOVE ☐ REPAIR PIPING ☐ REPAIR TANK ☐ CLOSE TANK & FILL IN PLACE ☐ CHANGE PROCEDURE ☐ REPLACE TANK ☐ OTHER

SOURCE/CAUSE

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

CASE TYPE

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

CURRENT STATUS

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

REMEDIAL ACTION

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

COMMENTS

HSC 05 (8/90)

Environmental
Science &
Engineering, Inc.

NOV 22 1993

ALCO
HAZMAT
2060 93 NOV 30 AM 10: 13

TO: Alameda County General Services Agency
4400 MacArthur Boulevard
Oakland, CA 94619

DATE: November 18, 1993

ATTN: Mr. Peter Kinney

JOB NUMBER: 6-93-5058

SUBJECT: Nike Site

WE ARE TRANSMITTING THE FOLLOWING:

1) UST Removal Report

2) Unauthorized Release Form for Your Signature.

3) Invoice for 80% of Total Contract.

DIST:
LB
FILE
ORIGINATOR

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

BY _____
Jay E. Carpenter
Construction Manager

4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323

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 # 4345 Site Name NIKE SITE Today's Date 10/27/93

Site Address FOOTHILL

City SAN LEANDRO Zip 94578 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)

8:30 - 1:00

Comments:

ON SITE TO WITNESS TANK REMOVAL AND SAMPLING BY ESE. TANK LIFTED WITH 30 TON CAPACITY OVERHEAD CRANE. THREE SAMPLES TAKEN IN TRENCH WHILE CO_2 LEVEL STABILIZES IN UST. SAMPLES TAKEN AT WEST END OF TRENCH NEAR 90° TO TANK, CENTER OF TRENCH, UNDER LOCATION OF FORMER DAY TANK.

TANK INERTED W/ CO_2 9.5% O_2 5.4% LEL TANK APPEARS TO BE INTACT, WRAPPED W/ TAR 8'x16.5'

EXCAVATION IS LINED W/ CEMENT. SMALL AMOUNT OF, PRESUMED, RAINWATER IN PIT. SAMPLES TO BE TAKEN OUTSIDE CEMENT LINER AT EACH END. NOT DETECTABLE CONTAMINATION IN SOIL SAMPLES.

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'LS

___	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

___	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 gndwater
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 tstng
8) Annual Tank Testing
Daily Inventory
9) Other ____

___	7. Precis 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

II, III

Contact: ____

Title: ____ Inspector: ROBERT WESTON

Signature: ____ Signature: Robert Weston

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Division Inspection Form

Site ID# 4345 Site Name NIKE SITE - ALAMEDA COUNTY Today's Date 10/6/93

Site Address 2842 FAIRMONT DRIVE EPA ID# _____

City SAN LEANDRO Zip 94577 Phone _____

MAX Amt. Stored > 500lbs/55g/200cf? Y N
Hazardous Waste generated per month? _____

Inspection Categories:
- ✓ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ___ II. Business Plans, Acute Hazardous Materials
- ___ III. Underground Tanks

The marked items represent violations of the Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

I.A GENERATOR (Title 22)

	1. Waste ID	* 66471
	2. EPA ID	66472
	3. > 90 days	66508
	4. Label dates	66508
	5. Biennial	66493
Manifest	6. Records	66492
Manifest	7. Correct	66484
Manifest	8. Copy sent	66492
Manifest	9. Exception	66484
Manifest	10. Copies Rec'd	66492
Misc.	11. Treatment	66371
Misc.	12. On-site Disp. (H.S.&C.)	26189.5
Misc.	13. Ex Haz. Waste	66570
Prevention	14. Communications	67121
Prevention	15. Aisle Space	67124
Prevention	16. Local Authority	67126
Prevention	17. Maintenance	67120
Prevention	18. Training	67105
Contin. gency	19. Prepared	67140
Contin. gency	20. Name List	67141
Contin. gency	21. Copies	67141
Contin. gency	22. Emg. Coord. Trng.	67144
Containers, Tanks	23. Condition	67241
Containers, Tanks	24. Compatibility	67242
Containers, Tanks	25. Maintenance	67243
Containers, Tanks	26. Inspection	67244
Containers, Tanks	27. Buffer Zone	67246
Containers, Tanks	28. Tank Inspection	67259
Containers, Tanks	29. Containment	67245
Containers, Tanks	30. Safe Storage	67261
Containers, Tanks	31. Freeboard	67257

I.B TRANSPORTER (Title 22)

	32. Applic./Insurance	66428
	33. Comp. Cert./CHP Insp.	66448
	34. Containers	66465
Manifest	35. Vehicles	66465
Manifest	36. EPA ID #s	66531
Manifest	37. Correct	66541
Manifest	38. HW Delivery	66543
Manifest	39. Records	66544
Con'ts	40. Name/ Covers	66545
Con'ts	41. Recyclables	66800

Comments:

1:15 ON ROUTE
ON SITE TO OBSERVE REMOVAL OF ONE 6000 GALLON DIESEL TANK.

TANK OVEREXCAVATED PRIOR TO ARRIVAL

TANK PULLED USING 35 TON CAPACITY MOBILE CRANE.

MULTIPLE PIPELINES FROM BUILDING TO TANK. LINES RUN PARALLEL.

TANK IS RESTING ON A CONCRETE PAD. TANK UNABLE TO BE REMOVED UNTIL PHYSICAL REMOVAL OF BINDING CEMENT.

WORK WILL BE RESCHEDULED AFTER TANK IS FREE OF CEMENT PAD.

Rev 6/88

Contact: _____

Title: _____ Inspector: ROBERT WESTON

Signature: _____ Signature: Robert Weston

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM A

COMPLETE THIS FORM FOR EACH FACILITY/SITE

MARK ONLY ONE ITEM: ☐ 1 NEW PERMIT ☐ 2 INTERIM PERMIT ☐ 3 RENEWAL PERMIT ☐ 4 AMENDED PERMIT ☐ 5 CHANGE OF INFORMATION ☒ 7 PERMANENTLY CLOSED SITE ☐ 6 TEMPORARY SITE CLOSURE

I. FACILITY/SITE INFORMATION & ADDRESS - (MUST BE COMPLETED)

DBA OR FACILITY NAME	NAME OF OPERATOR	
ALAMEDA COUNTY GSA - NIKE SITE	GSA PERSONNEL	
ADDRESS	NEAREST CROSS STREET	PARCEL # (OPTIONAL)
2892 FAIRMONT AVE.		
CITY NAME	STATE / ZIP CODE	SITE PHONE # WITH AREA CODE
SAN LEANDRO,	CA 94578	NO PHONE

✓ BOX TO INDICATE: ☐ CORPORATION ☐ INDIVIDUAL ☐ PARTNERSHIP ☐ LOCAL-AGENCY DISTRICTS* ☒ COUNTY-AGENCY* ☐ STATE-AGENCY* ☐ FEDERAL-AGENCY*

* If owner of UST is a public agency, complete the following: name of Supervisor of division, section, or office which operates the UST JIM de VOS

TYPE OF BUSINESS	✓ IF INDIAN RESERVATION OR TRUST LANDS	# OF TANKS AT SITE	E. P. A. I. D. # (optional)
☐ 1 GAS STATION ☐ 2 DISTRIBUTOR ☐ 3 FARM ☐ 4 PROCESSOR ☒ 5 OTHER	☐	2	CAC 000110257

EMERGENCY CONTACT PERSON (PRIMARY)		EMERGENCY CONTACT PERSON (SECONDARY) - optional	
DAYS: NAME (LAST, FIRST)	PHONE # WITH AREA CODE	DAYS: NAME (LAST, FIRST)	PHONE # WITH AREA CODE
KINNEY, PETER	(510) 535-6280		
NIGHTS: NAME (LAST, FIRST)	PHONE # WITH AREA CODE	NIGHTS: NAME (LAST, FIRST)	PHONE # WITH AREA CODE

II. PROPERTY OWNER INFORMATION - (MUST BE COMPLETED)

NAME	CARE OF ADDRESS INFORMATION	
ALAMEDA COUNTY GENERAL SERVICES AGENCY	JIM de VOS	
MAILING OR STREET ADDRESS	✓ box to indicate: ☐ INDIVIDUAL ☐ LOCAL-AGENCY ☐ STATE-AGENCY ☐ CORPORATION ☐ PARTNERSHIP ☒ COUNTY-AGENCY ☐ FEDERAL-AGENCY	
4400 MACARTHUR BLVD.		
CITY NAME	STATE / ZIP CODE	PHONE # WITH AREA CODE
OAKLAND	CA 94619	(510) 535-6280

III. TANK OWNER INFORMATION - (MUST BE COMPLETED)

NAME OF OWNER	CARE OF ADDRESS INFORMATION	
SAME AS PROPERTY OWNER		
MAILING OR STREET ADDRESS	✓ box to indicate: ☐ INDIVIDUAL ☐ LOCAL-AGENCY ☐ STATE-AGENCY ☐ CORPORATION ☐ PARTNERSHIP ☒ COUNTY-AGENCY ☐ FEDERAL-AGENCY	
CITY NAME	STATE / ZIP CODE	PHONE # WITH AREA CODE

IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NUMBER - Call (916) 322-9669 if questions arise.

TY (TK) HQ 44-000324

V. PETROLEUM UST FINANCIAL RESPONSIBILITY - (MUST BE COMPLETED) – IDENTIFY THE METHOD(S) USED

✓ box to indicate: ☒ 1 SELF-INSURED ☐ 2 GUARANTEE ☐ 3 INSURANCE ☐ 4 SURETY BOND ☐ 5 LETTER OF CREDIT ☐ 6 EXEMPTION ☐ 99 OTHER

VI. LEGAL NOTIFICATION AND BILLING ADDRESS

Legal notification and billing will be sent to the tank owner unless box I or II is checked.

CHECK ONE BOX INDICATING WHICH ABOVE ADDRESS SHOULD BE USED FOR LEGAL NOTIFICATIONS AND BILLING: I. ☐ II. ☒ III. ☐

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

OWNER'S NAME (PRINTED & SIGNED)	OWNER'S TITLE	DATE MONTH/DAY/YEAR
Peter KINNEY	ENV. PROJ MGR	6-16-93

LOCAL AGENCY USE ONLY

COUNTY #	JURISDICTION #	FACILITY #
01	000	000205

LOCATION CODE - *OPTIONAL*	CENSUS TRACT # - *OPTIONAL*	SUPVISOR - DISTRICT CODE - *OPTIONAL*

THIS FORM MUST BE ACCOMPANIED BY AT LEAST (1) OR MORE PERMIT APPLICATION - FORM B, UNLESS THIS IS A CHANGE OF SITE INFORMATION ONLY.

OWNER MUST FILE THIS FORM WITH THE LOCAL AGENCY IMPLEMENTING THE UNDERGROUND STORAGE TANK REGULATIONS

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B

COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONE ITEM
☐ 1 NEW PERMIT ☐ 2 INTERIM PERMIT ☐ 3 RENEWAL PERMIT ☐ 4 AMENDED PERMIT ☐ 5 CHANGE OF INFORMATION ☐ 6 TEMPORARY TANK CLOSURE ☐ 7 PERMANENTLY CLOSED ON SITE ☒ 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED: ALAMEDA COUNTY GSA - NIKE SITE

I. TANK DESCRIPTION
COMPLETE ALL ITEMS -- SPECIFY IF UNKNOWN

A. OWNER'S TANK I. D.# 2992-1	B. MANUFACTURED BY: UNKNOWN
C. DATE INSTALLED (MO/DAY/YEAR) UNKNOWN	D. TANK CAPACITY IN GALLONS: 6,000

II. TANK CONTENTS
IF A-1 IS MARKED, COMPLETE ITEM C.

A. ☐ 1 MOTOR VEHICLE FUEL ☐ 4 OIL ☒ 2 PETROLEUM ☐ 80 EMPTY ☐ 3 CHEMICAL PRODUCT ☐ 95 UNKNOWN

B. ☒ 1 PRODUCT ☐ 2 WASTE

C. ☐ 1a REGULAR UNLEADED ☐ 1b PREMIUM UNLEADED ☐ 2 LEADED ☒ 3 DIESEL ☐ 4 GASAHOL ☐ 5 JET FUEL ☐ 6 AVIATION GAS ☐ 7 METHANOL ☐ 99 OTHER (DESCRIBE IN ITEM D. BELOW)

D. IF (A.1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED C. A. S. # :

III. TANK CONSTRUCTION
MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D AND E

A. TYPE OF SYSTEM
☐ 1 DOUBLE WALL ☐ 3 SINGLE WALL WITH EXTERIOR LINER ☐ 95 UNKNOWN
☒ 2 SINGLE WALL ☐ 4 SECONDARY CONTAINMENT (VAULTED TANK) ☐ 99 OTHER

B. TANK MATERIAL (Primary Tank)
☒ 1 BARE STEEL ☐ 2 STAINLESS STEEL ☐ 3 FIBERGLASS ☐ 4 STEEL CLAD W/ FIBERGLASS REINFORCED PLASTIC
☐ 5 CONCRETE ☐ 6 POLYVINYL CHLORIDE ☐ 7 ALUMINUM ☐ 8 100% METHANOL COMPATIBLE W/FRP
☐ 9 BRONZE ☐ 10 GALVANIZED STEEL ☐ 95 UNKNOWN ☐ 99 OTHER

C. INTERIOR LINING
☐ 1 RUBBER LINED ☐ 2 ALKYD LINING ☐ 3 EPOXY LINING ☐ 4 PHENOLIC LINING
☐ 5 GLASS LINING ☐ 6 UNLINED ☒ 95 UNKNOWN ☐ 99 OTHER
IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL ? YES ___ NO ___

D. CORROSION PROTECTION
☐ 1 POLYETHYLENE WRAP ☐ 2 COATING ☐ 3 VINYL WRAP ☐ 4 FIBERGLASS REINFORCED PLASTIC
☐ 5 CATHODIC PROTECTION ☐ 91 NONE ☒ 95 UNKNOWN ☐ 99 OTHER

E. SPILL AND OVERFILL SPILL CONTAINMENT INSTALLED (YEAR) _____ OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR) _____

IV. PIPING INFORMATION
CIRCLE **A** IF ABOVE GROUND OR **U** IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE A (U) 1 SUCTION A U 2 PRESSURE A U 3 GRAVITY A U 99 OTHER

B. CONSTRUCTION A (U) 1 SINGLE WALL A U 2 DOUBLE WALL A U 3 LINED TRENCH A U 95 UNKNOWN A U 99 OTHER

C. MATERIAL AND CORROSION PROTECTION
A U 1 BARE STEEL A U 2 STAINLESS STEEL A U 3 POLYVINYL CHLORIDE (PVC) A U 4 FIBERGLASS PIPE
A U 5 ALUMINUM A U 6 CONCRETE A U 7 STEEL W/ COATING A U 8 100% METHANOL COMPATIBLE W/FRP
A U 9 GALVANIZED STEEL A U 10 CATHODIC PROTECTION A (U) 95 UNKNOWN A U 99 OTHER

D. LEAK DETECTION ☐ 1 AUTOMATIC LINE LEAK DETECTOR ☐ 2 LINE TIGHTNESS TESTING ☐ 3 INTERSTITIAL MONITORING ☐ 99 OTHER

V. TANK LEAK DETECTION
☐ 1 VISUAL CHECK ☐ 2 INVENTORY RECONCILIATION ☐ 3 VADOZE MONITORING ☐ 4 AUTOMATIC TANK GAUGING ☐ 5 GROUND WATER MONITORING
☐ 6 TANK TESTING ☐ 7 INTERSTITIAL MONITORING ☒ 91 NONE ☐ 95 UNKNOWN ☐ 99 OTHER

VI. TANK CLOSURE INFORMATION

1. ESTIMATED DATE LAST USED (MO/DAY/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING	3. WAS TANK FILLED WITH INERT MATERIAL ?
UNKNOWN	0 GALLONS	YES ☐ NO ☒

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE)	DATE
Peter Kinney PK	6-16-93

LOCAL AGENCY USE ONLY
THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.#	COUNTY #	JURISDICTION #	FACILITY #	TANK #
	01	000	000205	01

PERMIT NUMBER	PERMIT APPROVED BY/DATE	PERMIT EXPIRATION DATE

THIS FORM MUST BE ACCOMPANIED BY A PERMIT APPLICATION - FORM A, UNLESS A CURRENT FORM A HAS BEEN FILED.
FILE THIS FORM WITH THE LOCAL AGENCY IMPLEMENTING THE UNDERGROUND STORAGE TANK REGULATIONS

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

Project Specialist (print) ROBERT WESTON

ACCEPTED

Underground Storage Tank Closure Permit Application
Alameda County Division of Hazardous Materials
80 Swan Way, Suite 200
Oakland, CA 94621
Telephone: (510) 271-4320

These closure/removal plans have been received and found to be acceptable and essentially meet the requirements of State and Local Health Laws. Changes to your closure 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/destruction.

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

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

Notify this Department at least 72 hours prior to the following required inspections:*

- ✓ Removal of Tank(s) and Piping
- ✓ Sampling
- Final Inspection

*THERE IS A FINANCIAL PENALTY FOR ISSUANCE OF a) permit to operate, b) permanent site closure, IS DEPENDENT ON COMPLIANCE WITH ACCEPTED PLANS AND ALL APPLICABLE LAWS AND REGULATIONS. NOT OBTAINING THESE INSPECTIONS

Contact Specialists

INDICATE PERSONNEL REQUIRING STRAIGHT TIME

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

1. Business Name Nike Site

   Business Owner Alameda County General Services Agency

2. Site Address 2842 Fairmont Drive

   City San Leandro, CA Zip 94578 Phone (510) 577-1293

3. Mailing Address 4400 MacArthur Boulevard

   City Oakland, CA Zip 94619 Phone (510) 535-6280

4. Land Owner Alameda County General Service Agency

   Address 4400 MacArthur Boulevard 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 CAL 000110257

rev 12/90

6. Contractor Environmental Science & Engineering, Inc.

Address 4090 Nelson Avenue, Suite J

City Concord Phone (510) 685-4053

License Type General A ID# 658022

7. Consultant Environmental Science & Engineering, Inc.

Address 4090 Nelson Avenue, Suite J

City Concord Phone (510) 685-4053

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 1

Length of piping being removed under this plan 20 LF

Total number of tanks at facility 2

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 Environmental Inc. EPA I.D. No. CAD009466392

Hauler License No. CA019 License Exp. Date ~~5/93~~ 5/31/94

Address 255 Parr Boulevard

City Richmond State CA Zip 94801

b) Product/Residual Sludge/Rinsate Disposal Site

Name Erickson Environmental Inc. EPA I.D. No. CAD009466392

Address 255 Parr Boulevard

City Richmond State CA Zip 94801

rev 12/90

c) Tank and Piping Transporter

Name Erickson Environmental Inc. EPA I.D. No. CAD009466392

Hauler License No. CA019 License Exp. Date ~~5/93~~ 5/31/94

Address 255 Parr Boulevard

City Richmond State CA Zip 94801

d) Tank and Piping Disposal Site

Name Erickson Environmental Inc. EPA I.D. No. CAD009466392

Address 255 Parr Boulevard

City Richmond State CA Zip 94801

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 McCampbell Analytical, Inc.

Address 110 2nd Avenue South #D7

City Pacheco State CA Zip

State Certification No. 1644

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

Addition of 300 lbs of Dry Ice.

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		Material to be sampled (tank contents, soil, groundwater, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
6,000 Gallons	Currently out of service. Installation date unknown. Product was Diesel Fuel.	Soil	Collect one soil sample from each end of tank pit, approx. two feet below tank invert for a total of two samples.

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) 40 Cubic Yards (CY)	Sampling Plan Collect two samples from soil stockpile and analyze as described in item 16. Sampling Schedule based upon disposition of soil. One discrete sample every 20 CY for soil returned to excavation pit. One discrete sample every 50 CY for offsite disposal.

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 BTEX	GCFID (5030) EPA 5030	EPA 8015 Mod. EPA 8020	1ppm (TPH-D) 0.005 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 [signature]

Date 4/14/93

Signature of Site Owner or Operator

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

Signature [signature]

Date 4/20/93

rev 12/90

ACORD. CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY): 3/17/93

PRODUCER
JOHNSON & HIGGINS
500 WEST MADISON, SUITE 2100
500 WEST MADISON, SUITE 2100
CHICAGO, IL 60661-2595

(312) 648-4200

INSURED
ENVIRONMENTAL SCIENCE &
ENGINEERING, INC.
ATT KAREN JENSEN
300 HAMILTON BLVD, STE 330
PEORIA, IL 61602

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A: COMMERCE AND INDUSTRY INS CO
COMPANY LETTER B: NATIONAL UNION FIRE INS CO
COMPANY LETTER C: PLANET INS CO
COMPANY LETTER D:
COMPANY LETTER E:

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY					
	[X] COMMERCIAL GENERAL LIABILITY	GL3404530	3/16/93	3/16/94	GENERAL AGGREGATE	$ 5,000,000
	[ ] CLAIMS MADE [X] OCCUR.				PRODUCTS-COMP/OP AGG.	$ 5,000,000
	[ ] OWNER'S & CONTRACTOR'S PROT.				PERSONAL & ADV. INJURY	$ 5,000,000
	[ ]				EACH OCCURRENCE	$ 5,000,000
					FIRE DAMAGE (Any one fire)	$ 50,000
					MED.EXPENSE(Any one person)	$ 5,000
B	AUTOMOBILE LIABILITY					
	[X] ANY AUTO	CA1188507	3/16/93	3/16/94	COMBINED SINGLE LIMIT	$ 1,000,000
	[ ] ALL OWNED AUTOS				BODILY INJURY (Per person)	$
	[ ] SCHEDULED AUTOS				BODILY INJURY (Per accident)	$
	[X] HIRED AUTOS				PROPERTY DAMAGE	$
	[X] NON-OWNED AUTOS					
	[ ] GARAGE LIABILITY					
	EXCESS LIABILITY				EACH OCCURRENCE	$
	[ ] UMBRELLA FORM				AGGREGATE	$
	[ ] OTHER THAN UMBRELLA FORM					
C	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY	MWA010257701	3/16/93	3/16/94	[ ] STATUTORY LIMITS	
					EACH ACCIDENT	$ 500,000
					DISEASE-POLICY LIMIT	$ 500,000
					DISEASE-EACH EMPLOYEE	$ 500,000
	OTHER					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / SPECIAL ITEMS
Alameda County General Services Agency is Additional Insured as respects UST Compliance Monitoring, UST Removal, Replacement and Subsurface Investigations.

CERTIFICATE HOLDER

Alameda County General
Services Agency
Building Maintence Dept.
4400 Macarthur Blvd.
Oakland CA 94619

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

CERTIFICATE OF INSURANCE
SERVICE CONTRACTS

EXHIBIT C
Page 1

NOTE: No other certificate forms will be accepted.

Please complete the following information:

CONTRACTOR: Environmental Science Engineering, Inc.

CONTRACT TERM: April 6, 1993 to June 30, 1993 — 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:

GSA-BMD — Subodh Chowdhury
County Department to Receive Notice(s) — Individual Coordinating Contracts

4400 MacArthur Blvd, — Oakland, CA 94619
Address — 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
[X] 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 — 3/16/93 - 3/16/94 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

Service Contract

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

[X] 2. Comprehensive General Liability

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

Commerce & Industry
Insurance Company(s)

GL3403771 3/16/93 - 3/16/94
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

b. Coverages:

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

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

[X] d. Cross Liability or Severability of Interests Clause in policy

e. Occurrence Form: X 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 this 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.

VOID

REQUIRED COVERAGES - Where "X" Appears in Box	CERTIFICATES OF INSURANCE
[X] 3. Comprehensive Automobile Liability	Planet Insurance Company Insurance Company(s)
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.	NKA010257800 3/16/93 - 3/16/94 Policy Number(s) Policy Period (dates)
b. Coverages:	Donald A. Price Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements.
[X] Owned Automobiles, if any [X] Non-owned Automobiles [X] Hired Automobiles [X] Cross Liability or Severability of Interests clause in policy.	Johnson & Higgins Name 500 W. Madison, Suite 2100 Address Chicago, IL 60661 City, State, Zip
[X] 4. Professional Liability	National Prof. Casualty Co. Insurance Company(s)
[X] 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.	A72961 2/16/93 - 2/16/94 Policy Number(s) Policy Period (dates)
	Jacquine Russie Signature of Individual authorized by Insurance Company to bind Company to coverage shown, and above endorsement requirements. (Except additional insured not required.)
a. Minimum Limits of Liability: $1,000,000 per claim	Direct Placement Name 330 Hamilton Blvd., Suite 300 Address
b. Deductible not to exceed $5,000 per claim	Peoria, IL 61602 City, State, Zip

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 extendes 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.

VOID

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

☐ 2. Money and Securities Policy.

a. Insurance against the disapperance, 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

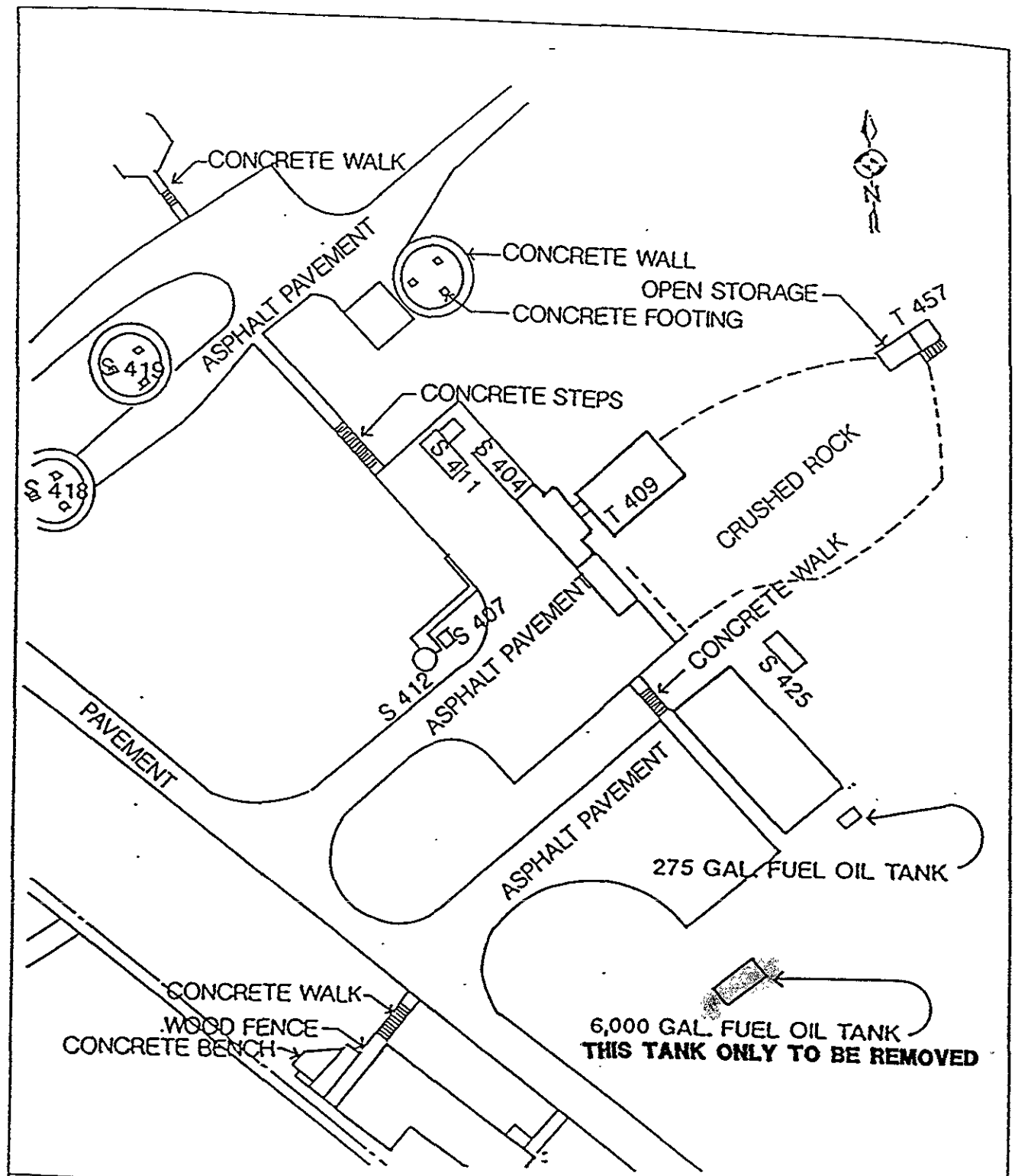

Figure 2992-2
LOCATION OF TANKS AT NIKE SITE
IN ALAMEDA COUNTY, CALIFORNIA

HEALTH AND SAFETY PLAN
for
ALAMEDA COUNTY GENERAL SEVICES AGENCY
NIKE SITE
San Leandro, California

TABLE OF CONTENTS

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 (GSA). 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

ENVIRONMENTAL SCIENCE & ENGINEERING

SITE SPECIFIC INFORMATION

PROJECT NAME: Removal of UST at Nike Site, San Leandro, California

PROJECT NUMBER: 6-93-5058

PROJECT MANAGER: Patrick Galvin

HEALTH AND SAFETY OFFICER: Lionel S. Reynolds, CIH

SITE SAFETY OFFICER (ALTERNATE): R. Stephen Willcutts

THIS HEALTH AND SAFETY PLAN HAS BEEN REVIEWED AND APPROVED BY:

Lionel S. Reynolds
CERTIFIED INDUSTRIAL HYGIENIST

DECLARATION OF UNDERSTANDING

I have read and understand the Health and Safety Plan and agree to abide by it.

NAME	EMPLOYEE NUMBER OR COMPANY NAME	SOCIAL SECURITY NUMBER	DATE

A. GENERAL PROJECT INFORMATION

SITE: Nike Site DATE PREPARED: 04-13-93

LOCATION: 2842 Fairmont Avenue, San Leandro, California

PREPARED BY: R. Stephen Willcutts, Jr.

OBJECTIVE (S) AND WORKPLAN: Removal of one 6,000 gallon capacity diesel fuel underground storage tank.

PROPOSED DATE(S) OF ON-SITE WORK: April 20, 1993 - June 20 1993

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 x CORROSIVE__ TOXIC x REACTIVE__

RADIOACTIVE__ VOLATILE x UNKNOWN__ OTHER__

FACILITY TYPE: Nike Missile Tracking Center CLOSED x OPEN__

FACILITY SIZE:

TOPOGRAPHY: Relatively flat, at approximately 600-feet above mean sea level.

PRINCIPAL DISPOSAL METHOD AND LOCATION(S): The tank 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: Excavation equipment can be a hazard to workers. Trucks may drive by at all times.

Chemical: The soil samples collected from the borings may contain petroleum hydrocarbons and/or toxic fumes which can be hazardous to an individual breathing them.

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: Should breathing conditions exceed work action level while excavating, then all workers within the 25-foot exclusion zone will be required to wear a respirator (half-face mask). If a worker becomes sick, he should leave the work area immediately, breathe fresh air and seek medical attention if needed. Recommended work Action Level = 5 ppm in workers' breathing zone for 3 minutes (sustained).

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. Respirator for 5 ppm or greater._____

_____

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

MONITORING EQUIPMENT: PID x FID___ TOXIC GAS___ OXYGEN___

DETECTOR TUBES___ EXPLOSIMETER___ PERSONAL MONITOR___

OTHER INSTRUMENTS: N/A

EQUIPMENT CALIBRATION: PID instrument will be calibrated each day.

MONITORING STRATEGY: Measurements of area and breathing zone levels will be taken at 15 minute intervals at start up of each phase of work. If levels are below 5 ppm at breathing zone frequency will be decreased to hourly unless conditions change (odor levels, etc.).

DECONTAMINATION PROCEDURES: If required, equipment and personal 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 area. 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 Manager. All disposable protective clothing (including respirator cartridges) will be put into plastic bags and disposed of in a proper manner. Excavated soil 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 caution 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 the 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 the tank to prevent and spillage of residual hydrocarbons. No storage of removed product, rinsate, or other hazardous fluids will be allowed. Fluids will be pumped from the tank 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: Ken Johnson, Facility Supervisor (510) 667-4499

CLIENT CONTACT: Mr. Peter Kinney, ACGSA (510) 535-6280

F. EMERGENCY PRECAUTIONS

PRIMARY HOSPITAL/INFIRMARY:

Name: HUMANA HOSPITAL OF SAN LEANDRO

Address: 13855 E 14th St., San Leandro Telephone Number: (510) 357-6500(emergency)

Directions from site to emergency unit: Take Fairmont Dr. south to 150th St., turn right onto 150th St. (heading south), cross over the 580 Freeway and down to 14th St. (3 blocks) and turn right (north west) on 14th St. Drive to 136th St. (14 blocks). The Hospital is on the left side (south west) of 14th St. just before 136th St. intersection.

Remarks: See Figure A

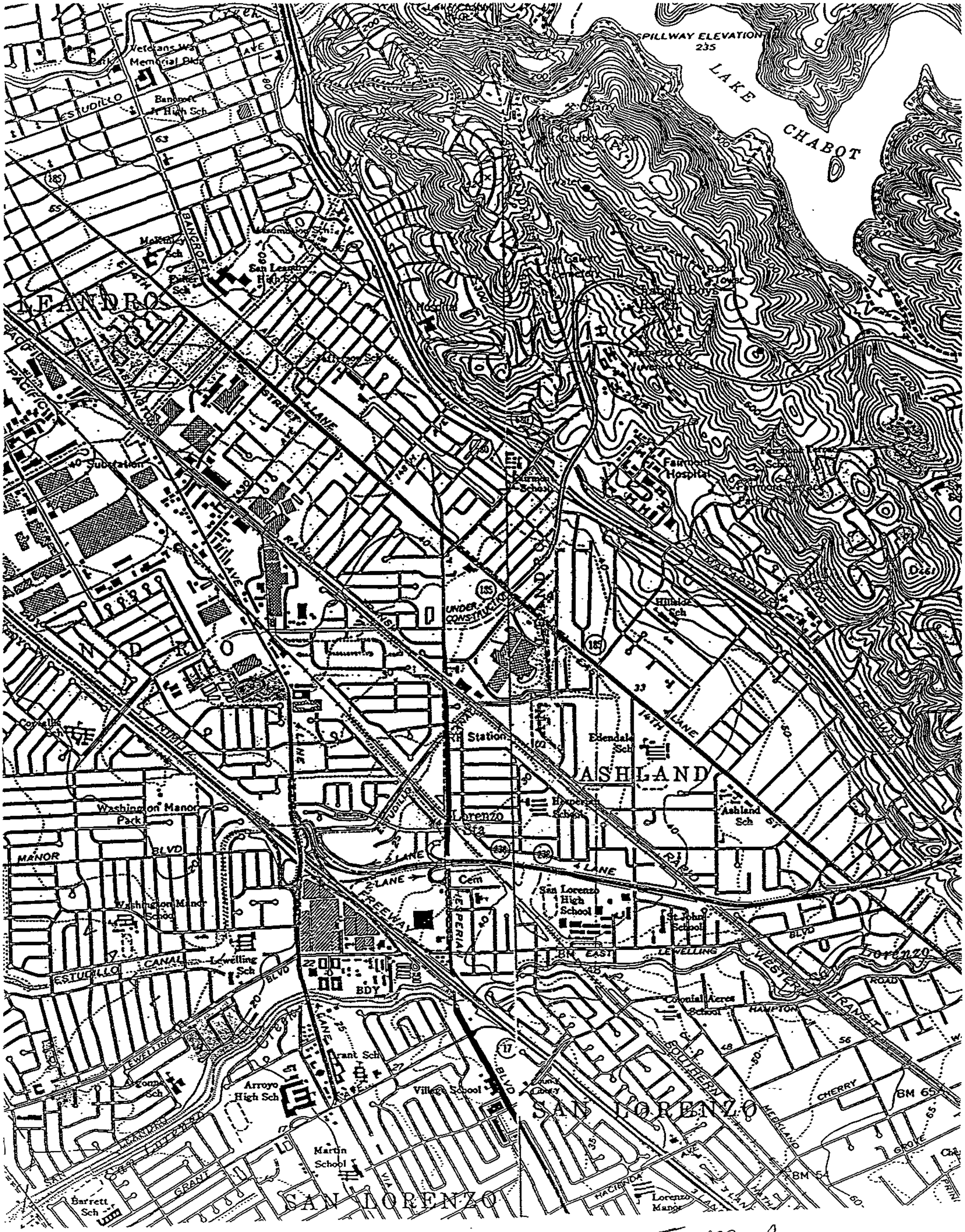
SPILLWAY ELEVATION
235
LAKE CHABOT
ESTUDILLO
Bancroft Jr High Sch
San Leandro High Sch
LEANDRO
Substation
Fairmont Hospital
Hillside Sch
Edendale Sch
ASHLAND
Ashland Sch
RR Station
Washington Manor Park
MANOR BLVD
Washington Manor School
ESTUDILLO CANAL
Lewelling Sch
FREEWAY
San Lorenzo High School
St John School
LEWELLING
Colonial Acres School
HAMPTON
Grant Sch
Arroyo High Sch
Village School
SAN LORENZO
CHERRY
Martin School
Barrett Sch
Lorenzo Manor
HACIENDA
GRANT
UNDER CONSTRUCTION
4 LANE
2 LANE
Cem
BDY

Figure A

APPENDIX B

MATERIAL SAFETY DATA SHEETS

MATERIAL SAFETY DATA SHEET

97367 (4-85)

MSDS NUMBER ▶ 52,303-3 PAGE 1

24 HOUR EMERGENCY ASSISTANCE	GENERAL MSDS ASSISTANCE
SHELL: 713-473-9461 CHEMTREC: 800-424-9300	SHELL: 713-241-4819

ACUTE HEALTH - 2	FIRE 2	REACTIVITY 0	HAZARD RATING ▶ LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4

*For acute and chronic health effects refer to the discussion in Section III

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW REQUIRES IT)

SECTION I NAME

PRODUCT ▶	SHELL AUTO DIESEL
CHEMICAL NAME ▶	DIESEL OIL
CHEMICAL FAMILY ▶	PETROLEUM HYDROCARBON
SHELL CODE ▶	31100

SECTION II-A PRODUCT/INGREDIENT

NO.	COMPOSITION	CAS NUMBER	PERCENT
P	SHELL AUTO DIESEL	68334-30-5	100

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NOT AVAILABLE		

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT
BASED ON ESSENTIALLY SIMILAR PRODUCT TESTING LIQUID IS PRACTICALLY NONIRRITATING TO THE EYES.

SKIN CONTACT
BASED ON ESSENTIALLY SIMILAR PRODUCT TESTING LIQUID IS PRESUMED TO BE MODERATELY IRRITATING TO THE SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SEVERE IRRITATION AND DERMATITIS. MAY CAUSE MILD SKIN SENSITIZATION. RELEASE DURING HIGH PRESSURE USAGE MAY RESULT IN INJECTION OF OIL INTO THE SKIN CAUSING LOCAL NECROSIS.

INHALATION
INHALATION OF VAPORS OR MIST MAY CAUSE MILD IRRITATION TO THE UPPER RESPIRATORY TRACT. HIGH CONCENTRATIONS MAY RESULT IN CENTRAL NERVOUS SYSTEM DEPRESSION. INHALATION OF HIGH LEVELS OF MIST MAY RESULT IN CHEMICAL PNEUMONITIS.

INGESTION
INGESTION OF PRODUCT MAY RESULT IN VOMITING; ASPIRATION (BREATHING) OF VOMITUS INTO THE LUNGS MUST BE AVOIDED AS EVEN SMALL QUANTITIES MAY RESULT IN ASPIRATION PNEUMONITIS.

SIGNS AND SYMPTOMS
IRRITATION AS NOTED ABOVE. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE EVIDENCED BY GIDDINESS,

HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR. LOCAL NECROSIS IS EVIDENCED BY DELAYED ONSET OF PAIN AND TISSUE DAMAGE A FEW HOURS FOLLOWING INJECTION. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABORED BREATHING AND CYANOSIS (BLUISH SKIN); IN SEVERE CASES DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS
PREEXISTING SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. PREEXISTING SKIN OR LUNG ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS
KIDNEY DAMAGE MAY RESULT FOLLOWING ASPIRATION PNEUMONITIS. THE RESULTS OF ANIMAL BIOASSAYS ON MIDDLE DISTILLATE FUELS SHOW THAT PROLONGED DERMAL CONTACT PRODUCES A WEAK TO MODERATE CARCINOGENIC ACTIVITY.

SEE SECTION VI FOR ADDITIONAL HEALTH INFORMATION.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

NO.	OSHA PEL/TWA	OSHA PEL/CEILING	ACGIH TLV/TWA	ACGIH TLV/STEL	OTHER
P	*				

* NO OSHA PEL OR ACGIH TLV HAS BEEN ESTABLISHED.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT
FLUSH EYES WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

SKIN CONTACT
REMOVE CONTAMINATED CLOTHING/SHOES AND WIPE EXCESS FROM SKIN. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED. IF MATERIAL IS INJECTED UNDER THE SKIN, GET MEDICAL ATTENTION PROMPTLY TO PREVENT SERIOUS DAMAGE; DO NOT WAIT FOR SYMPTOMS TO DEVELOP.

INHALATION
REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.

INGESTION
DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN
IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

REPEATED DERMAL APPLICATION OF HIGH LEVELS OF MIDDLE DISTILLATE FUELS IN EXPERIMENTAL ANIMALS HAS PRODUCED EXTREMELY SEVERE IRRITATION TO CORROSIVE ACTION ON THE SKIN. VARYING DEGREES OF LIVER AND KIDNEY DAMAGE WERE NOTED IN THESE STUDIES, INCLUDING CONGESTION, ENLARGEMENT, MOTTLING, AND MULTIFOCAL NECROSIS.

MIDDLE DISTILLATE FUELS HAVE BEEN DEMONSTRATED TO CAUSE CHROMOSOME DAMAGE IN THE IN VIVO RAT BONE MARROW CYTOGENETICS ASSAY, AND MUTAGENIC IN THE L5178Y MOUSE LYMPHOMA ASSAY. BASED ON AN INCREASED INCIDENCE OF VARIOUS TUMORS IN STUDIES WITH LABORATORY ANIMALS, THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) REGARDS WHOLE DIESEL EXHAUST AS A POTENTIAL OCCUPATIONAL CARCINOGEN.

SECTION VII PHYSICAL DATA

BOILING POINT: 450 (APPROX.) (DEG F)

SPECIFIC GRAVITY: 0.8762 (H2O=1)

VAPOR PRESSURE: NOT AVAILABLE (MM HG)

MELTING POINT: NOT AVAILABLE (DEG F)

SOLUBILITY: NEGLIGIBLE (IN WATER)

VAPOR DENSITY: >1 (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): NOT AVAILABLE

APPEARANCE AND ODOR:
YELLOW LIQUID; STRONG HYDROCARBON ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
130 DEG F (PMCC) MIN.

FLAMMABLE LIMITS /% VOLUME IN AIR
LOWER: N/AV UPPER: N/AV

EXTINGUISHING MEDIA
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS
CAUTION. COMBUSTIBLE. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINTED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER. IN THE CASE OF LARGE FIRES, ALSO COOL SURROUNDING EQUIPMENT AND STRUCTURES WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION IX REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS
THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID, PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134, USE EITHER A FULL-FACE, ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
NO SPECIAL EYE PROTECTION IS ROUTINELY NECESSARY. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

ADDITIONAL PROTECTIVE MEASURES
USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS.

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES
CAUTION. COMBUSTIBLE. *** LARGE SPILLS *** ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS AND SEAL TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTION AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

SECTION XII SPECIAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE (ONLY) WITH ADEQUATE VENTILATION. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
COMBUSTIBLE LIQUID

D.O.T. PROPER SHIPPING NAME:
FUEL OIL, NA 1993

SECTION XIV OTHER REGULATORY CONTROLS

THIS PRODUCT IS LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE EDS SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV SPECIAL NOTES

THIS REVISION INCORPORATES THE FINDINGS OF DIESEL EXHAUST CARCINOGENICITY INTO SECTION VI.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: NOVEMBER 06, 1989

BE SAFE

READ OUR PRODUCT
SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW
REQUIRES IT)

J. C. WILLETT

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
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