

**STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL**

In the Matter of:)	Docket No. 04/05-006
)	
Zeneca Site)	SITE INVESTIGATION ORDER
aka: Stauffer Chemical Site)	
1390 South 49 th Street)	
Richmond, California)	
)	
Respondents:)	
)	
Cherokee Simeon Venture I, LLC)	Health and Safety Code
c/o Simeon Commercial Properties)	Sections 25355.5(a)(1)(B),
655 Montgomery Street, 11 th Floor)	25358.3(a), 58009 and 58010
San Francisco, CA 94111)	
)	
Zeneca, Inc., successor to)	
ICI Americas, Inc.)	
1800 Concord Pike)	
Wilmington, DE 19850-5438)	
)	
Bayer CropScience Inc., successor)	
to Stauffer Chemical Company)	
2 TW Alexander Drive)	
Research Triangle Park, NC 27709)	
_____)	

I. INTRODUCTION

1.1 Parties. The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) issues this Site Investigation Order (Order) to Cherokee Simeon Venture I, LLC, a Delaware limited liability company doing business in California, Zeneca, Inc., a Delaware corporation doing business in California, and Bayer CropScience, Inc., a New York corporation. (Respondents)

1.2 Property/Site. This Order applies to the property located between Meade Street, University of California Richmond Field Station, South 49th Street, and San Francisco Bay, in Richmond, Contra Costa County, California 94804. The property consists of 76 acres and is identified by Assessor's Parcel number(s) 560-050-007, 560-050-016, 560-050-020, 560-050-021, 560-050-022. A map showing the Property is attached as Exhibit A. This Order applies to the property and the areal extent of contamination that resulted from activities on the property (hereinafter, the "Site" or

the “Property”), with the exception of Stege Marsh and the freshwater lagoons where the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) is overseeing cleanup.

1.3 Jurisdiction. This Order is issued by DTSC to Respondents pursuant to its authority under Health and Safety Code sections 25358.3(a), 25355.5(a)(1)(B), 58009 and 58010.

Health and Safety Code section 25358.3(a) authorizes DTSC to take various actions, including issuance of an Order, upon DTSC’s making certain determinations because of a release or a threatened release of a hazardous substance.

Health and Safety Code section 25355.5(a)(1)(B) authorizes DTSC to issue an order establishing a schedule for removing or remedying a release of a hazardous substance at a site, or for correcting the conditions that threaten the release of a hazardous substance. The order may include, but is not limited to requiring specific dates by which the nature and extent of a release shall be determined and the site adequately characterized, a remedial action plan prepared and submitted to DTSC for approval, and a removal or remedial action completed.

Health and Safety Code section 58009 authorizes DTSC to commence and maintain all proper and necessary actions and proceedings to enforce its rules and regulations; to enjoin and abate nuisances related to matters within its jurisdiction which are dangerous to health; to compel the performance of any act specifically enjoined upon any person, officer, or board, by any law of this state relating to matters within its jurisdiction; and/or on matters within its jurisdiction, to protect and preserve the public health.

Health and Safety Code section 58010 authorizes DTSC to abate public nuisances related to matters within its jurisdiction.

II. FINDINGS OF FACT

DTSC hereby finds:

2.1 Liability of Respondents. Respondents are responsible parties or liable persons as defined in Health and Safety Code section 25323.5.

2.1.1 Cherokee Simeon Ventures I, LLC currently owns and operates the Site, and has owned and operated the Site since December 31, 2002.

2.1.2 Zeneca, Inc. owned and operated the Site as itself, and as successor in interest to ICI Americas, Inc. from 1987 to December 31, 2002. During that time hazardous substances, including some or all of those described in this section, were disposed at the Site.

2.1.3 Bayer CropScience, Inc. is the corporate and legal successor to

Stauffer Chemical Company, Inc., and its successors in interest, which owned the Site from approximately 1897 to January 3, 1986, and which operated the Site from approximately 1897 to 1987. During that time hazardous substances, including some or all of those described in this section, were disposed at the Site.

2.1.4 The Regents of the University of California (UC) own the adjacent Richmond Field Station. Spent pyrite cinders generated during the historical industrial operations described below on the Site were used as fill material on the Richmond Field Station. Some of these cinders and related materials were removed from the Richmond Field Station, treated at the Site, and placed within a capped area on the Zeneca Site. The spent cinders contained hazardous substances, including mercury, lead, and arsenic. These materials are within the scope of work required by this Order.

2.2 Physical Description of Site. The Site comprises approximately 76 acres, located south of Interstate 580, east of the Richmond Field Station, and along the San Francisco Bay shoreline in Richmond, California. The Site is generally flat and historically consisted of three main areas: the former manufacturing plant area, the Western Research Center, and the unimproved upland area south of the plant area and north of the San Francisco Bay Trail. The Western Research Center portion of the site is currently used for research, office space, and open space and is now commonly referred to as Lot 1. The former manufacturing facilities have been largely demolished and this area is now commonly known as Lots 2 and 3. Also located primarily south of the former manufacturing plant area are the closed agricultural pond, a subsurface slurry wall between the Site and the Richmond Field Station, a subsurface groundwater treatment trench, and cinder fill areas that have been treated with lime, compacted and covered with a temporary site cap.

2.3 Site History.

2.3.1 The Site was first developed in 1897 when Stauffer Chemical Company (Stauffer) built a plant for the manufacture of sulfuric acid. Stauffer manufactured sulfuric acid at the Site from approximately 1897 to 1970. As part of the manufacturing process, pyrite ores were roasted at the southwestern portion of the former Plant Area. After processing, spent pyrite cinders were placed as fill material primarily within the southern portions of the Plant Area and the unimproved uplands and marsh areas. The use of pyrite ore in the production of sulfuric acid ceased in 1962. From 1916 to the 1950's both sulfuric and nitric acids were produced and stored in above ground tanks. The production of sulfuric acid ceased in 1970.

2.3.2 Superphosphate fertilizer was produced at the Site beginning in 1906 first by Union Superphosphate, then later by Stauffer, until 1971.

2.3.3 Stauffer expanded its operations to include the manufacturing of carbon disulfide from 1906 to 1961, aluminum sulfate from 1923 to 1984, ferric sulfate from 1949 to 1972, and titanium trichloride from 1954 to 1976. Activated

carbon gas masks were also produced on-site.

2.3.4 In 1960, Stauffer began agricultural formulating activities. Production of agricultural products ceased in 1997.

2.3.5 Several smaller companies occupied parcels at the site prior to and during Stauffer's ownership of the land. Stauffer acquired all of the parcels on which these companies operated by 1949.

2.3.6 On December 24, 1985, Stauffer Chemical Company executed a deed granting the Site to Hudson Finance, Inc. Also on December 24, 1985, Hudson Finance leased the Site to Stauffer Chemical Company. On March 15, 1988, the lease was amended to replace Stauffer Chemical Company with ICI Americas Inc. On December 27, 1989, Hudson Finance Inc. executed a deed granting the Site to ICI Americas Inc.

2.3.7 In 1987, various corporate affiliates of Imperial Chemical Industries, P.L.C. (ICI), purchased Stauffer through a series of name changes, asset transfers, and mergers. One of these affiliates retained the Stauffer agricultural chemical business and merged into ICI Americas Inc. ICI Americas Inc. continued to operate the Site, including Stauffer's Western Research Center located on 47th Street.

2.3.8 In 1987 and 1988, through a series of transactions, ICI sold Stauffer to Rhône-Poulenc, Inc. Stauffer ultimately became Rhône-Poulenc Basic Chemicals Company, Inc., and then Aventis CropScience USA, Inc. Bayer CropScience Inc. is the successor by merger to Aventis CropScience USA, Inc. Bayer CropScience Inc. is the corporate and legal successor to Stauffer Chemical Company, Inc. and its successors in interest.

2.3.9 In 1993, ICI underwent a global reorganization, through which ICI Americas Inc. changed its name to Zeneca, Inc. Zeneca, Inc. continued agricultural chemical products manufacturing at the Site until 1997. Zeneca, Inc. acquired title to the Site under that name in 2002, and then conveyed the Site to Cherokee Simeon Ventures I, LLC.

2.3.10 On or about October 5, 2001, the San Francisco Bay Regional Water Quality Control Board issued to Zeneca, Inc. a Site Cleanup Requirements Order No. 01-101 covering the three parcels identified in this Order as well as the adjacent parcels containing the marsh and freshwater lagoons. Order No. 01-101 required technical evaluation and implementation of various remedial measures for the three parcels covered under this Order and the marsh and freshwater lagoons due to soil, groundwater, and sediment contamination that had been identified.

2.3.11 The following reports have been prepared and submitted to DTSC

documenting site investigations and/or previous remediation activities for the Site: (Note: By acknowledging receipt of these reports, DTSC does not intend to imply that it is in agreement with the contents or conclusions set forth in these reports or otherwise approves of them.)

Phase I Environmental Site Assessment, Zeneca Inc. Facility (LFR Levine-Fricke, April 7, 200) – documents visual site conditions, site history, surrounding land uses, and review of selected regulatory files.

Phase II Investigation Report Zeneca Inc., Richmond Facility (LFR Levine-Fricke, May 31, 200) – documents soil and groundwater sampling for field activities that occurred from August through November 1999 at the Western Research Center, Plant Area and Open Space areas of the Site, and provides analytical data.

Phase II Investigation Report Addendum, Zeneca Inc. Richmond Facility (LFR Levine-Fricke, October 25, 2000) – documents soil-gas surveys, soil sampling, groundwater sampling, sediment and pore water sampling in Stege Marsh, and aquifer tests that occurred in February through April 2000.

Remedial Design Details, Upland Remediation, Subunit 1 and 2A, Meade Street Operable Unit (LFR Levine-Fricke, January 31, 2002) – contains performance-based design drawings and specifications for the abandonment of utilities, excavation of cinder material from Subunit 2A and neutralization of cinder material, installation of a site cap, installation of a biologically active permeable barrier, and neutralization of cinder material in the southern and central portion of Subunit 1, Also contains as attachments the Soil Management Plan Upland Remediation Subunit 1 and Subunit 2A , Health and Safety Plan, Injection Work Plan, Monitoring Well Abandonment Plan, and Conceptual Design Storm Drain System Upland Remediation Subunit 1.

Conceptual Remediation and Risk Management Plan – Upland (LFR, Levine Fricke, November 15, 2000) - contains the strategy to reach the remedial action objectives identified for the upland portion of the Site.

Treatability Study Report Zeneca Richmond Facility (LFR Levine-Fricke, December 8, 2000) – discusses the results of bench-scale experiments that explore the applicability of various remedial technologies at the Site. Addresses soil, groundwater and a biologically active permeable barrier.

Summary Remedial Investigation and Localized Remediation Report, Zeneca Inc. Richmond Facility (LFR Levine-Fricke, November 30, 2001) – provides a summary and update of additional soil and groundwater investigations for non-cinder impacts in the upland areas of the Site that occurred in 2001. Documents the removal of Odor-Producing Soils and Hot Spot areas in the Upland Area that occurred in 2001. Also includes Revised Soil and Groundwater Quality Investigation, Lot 1, Zeneca Inc., dated October 25, 2000.

Results of Additional Soil and Groundwater Investigations and Groundwater Monitoring Plan, Upland Portion of Subunit 2A, Richmond Field Station (URS November 21, 2001) – discusses investigation to delineate the extent of metals, affected sediments, and pyrite cinders at the Richmond Field Station, and impacts to the underlying groundwater.

Conceptual Remediation and Risk Management Plan for the Upland Portion of Subunit 2AA Meade Street Operable Unit – University of California, Berkeley Richmond Field Station (LFR – Levine-Fricke December 17, 2001 – presents a plan for addressing metals and cinders found on the Richmond Field Station and treating and capping them onto the parcels covered under this Order.

Remedial Design Details Addendum Subunit 2A Meade Street Operable Unit Richmond Field Station (URS August 16, 2002) – discusses the results of additional investigation within Subunit 2A, Remedial Action Objectives proposed for subunit 2A, excavation, treatment, and disposal plan for cinders and sediments for Subunit 2A and installation of a slurry wall along the property boundary between the Richmond Field Station and the Site.

Biologically Active Permeable Barrier Design and Treatability Study Report, Meade Street Operable Unit (LFR Levine-Fricke, September 26, 2002) – presents final treatability study results and design details for the Biologically Active Permeable Barrier.

Radiological Survey Report for Building 94 (MACTEC January 8, 2003) – discusses a primary survey performed on Building 94 to determine if there is any residual radioactive material present from past operations.

Radiological Survey and Sampling Report for Building 94 (MACTEC March 26, 2003) – discusses a survey for beta-gamma measurements of the soil, grass, and paved outdoor areas adjacent to and around Building 94 and the soil samples collected and analyzed near 94 to determine the present of residual uranium present from past operations.

Well Installation Report Subunit 1 Meade Operable Unit (LFR Levine-Fricke, May 16, 2003) – discusses the activities involved in the installation of the down gradient perimeter monitoring well network.

Summary Remedial Investigation and Localized Remediation Report Addendum Subunit 1 of the Meade Street Operable Unit (LFR Levine-Fricke, May 20, 2003) – supplements data previously reported and summarizes status of remediation of hot spot areas that were conducted from November 2001 through December 2002.

Post-Demolition Radiological Survey Report for Buildings 18, 90, 91, 94 and

96 (MACTEC, August 11, 2003) – discusses a survey to determine whether residual radioactivity from past operations at the Site might be present in the surface soils immediately under the former buildings. These soils were not accessible for measurements during previous surveys because the buildings were standing.

Implementation Report for the Upland Remedation of Subunit 1 and 2A Meade Street Operable Unit (URS September 4, 2003) - discusses the remediation and construction activities conducted during 2002 to address areas at the Site and at the University of California Richmond Field Station impacted by pyrite cinders.

Implementation Report for Upland Remediation Subunit 1 and Subunit 2A Meade Street Operable Unit (LFR Levine-Fricke, October 3, 2003) – discusses the remediation and construction activities conducted during 2002 to address areas at the Site and at the University of California Richmond Field Station impacted by pyrite cinders and construction of the biologically active permeable barrier. Also includes discussion of groundwater treatment activities and installation of a temporary cap at the Site.

Revised Residential Risk Evaluation, Lots 2 and 3 (LFR Levine-Fricke, January 13, 2004) – evaluates post-remediation conditions at the Site for potential residential use.

Annual Groundwater Monitoring Report Subunit 1 of the Meade Street Operable Unit January 1 to December 31, 2003 (LFR Levine-Fricke, February 3, 2004) – presents a summary of activities conducted in 2003, groundwater and surface water quality data collected during the fourth quarter of 2003, and evaluation of concentration trends during 2003.

Work Plan for Pilot-Scale and Full-Scale Remediation of Groundwater at Meade Street OU 1 (LFR Levine-Fricke, July 6, 2004) – discusses an in situ treatment of soil and groundwater near wells MW-19 and MW-20 using hydrogen peroxide.

2.4. Hazardous Substances Found at the Site.

2.4.1 Pursuant to section 102 of CERCLA, 42 U.S.C. section 9602, and Health and Safety Code section 25316, a substance is a “hazardous substance” if it is listed in Title 40, Code of Federal Regulations (“CFR”), Section 302.4. The following substances, listed in 40 CFR section 302.4, have been detected in the soil at the Site at levels exceeding hazardous waste criteria: arsenic, DDD, DDT, lead, and toxaphene. The following substances, listed in 40 CFR section 302.4, have been detected in the groundwater at the Site above Basin Plan requirements: arsenic; chloroform; copper; cis-1,2-dichloroethene; mercury; nickel; 1,1,1,2-tetrachloroethane; tetrachloroethene (a.k.a. perchloroethene, PCE); toluene; trichloroethene; and vinyl chloride.

2.4.2 Attached hereto as Exhibit B and incorporated herein by this reference is a table setting forth hazardous substances detected in Site soil above levels safe for unrestricted residential use.

2.5 Health Effects.

2.5.1 Arsenic. Arsenic is listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Confirmed human carcinogen producing liver tumors. It is a poison by subcutaneous, intramuscular, and intraperitoneal routes, and is an experimental teratogen. It causes human systemic skin and gastrointestinal effects by ingestion, Arsenic causes other experimental reproductive effects.

2.5.2 Chloroform (Trichloromethane). Chloroform is listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986. Chloroform can irritate the skin and mucous membranes, and cause liver, heart and kidney damage. Chloroform is anesthetic. Prolonged inhalation of large doses may cause paralysis, cardiac and respiratory failure, and death.

2.5.3 Copper. Copper is a questionable carcinogen with experimental tumorigenic data. It causes experimental teratogenic and reproductive effects. It causes human systemic effects by ingestion including nausea and vomiting.

2.5.4 DDD (Dichlorodiphenyldichloroethane). DDD is listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. A poison by ingestion, DDD is moderately toxic by skin contact.

2.5.5 DDT (Dichlorodiphenyltrichloroethane). DDT is listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. A poison by ingestion, DDT is moderately toxic by skin contact.

2.5.6 Cis-1, 2-dichloroethene. Cis-1, 2-dichloroethene has anesthetic properties at high concentrations. Humans inhaling high concentrations may display symptoms of nausea, vomiting, and cramps, followed by unconsciousness.

2.5.7 Lead. Lead is listed as a chemical known to the State to cause cancer and reproductive toxicity pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Short-term exposure to lead can cause fatigue, sleep disturbance, headache, aching bones and muscles, constipation, abdominal pains, decreased appetite and reversible kidney damage. Chronic lead exposure can lead to irreversible vascular sclerosis, irreversible brain damage, tubular cell atrophy, interstitial fibrosis, and glomerular sclerosis. Prolonged exposure at high concentrations may result in progressive kidney damage and possibly kidney failure. Anemia is an early sign of lead poisoning. Exposure to lead can produce

neurobiological defects in children such as learning disabilities and behavioral problems.

2.5.8 Mercury. Mercury is listed as a chemical known to the State to cause reproductive toxicity pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Highly toxic by skin absorption and inhalation of fume or vapor, absorbed by respiratory and intestinal tracts. Acute effects of exposure to mercury include vomiting, abdominal pain, bloody diarrhea, kidney damage, and death. Chronic effects include inflammation of mouth and gums, excessive salivation, loosening of teeth, kidney damage, muscle tremors, jerky gait, spasms of extremities, personality changes, depression, irritability, and nervousness.

2.5.9 Nickel. Nickel and certain nickel compounds are listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Nickel can cause dermatitis, pulmonary asthma, and conjunctivitis.

2.5.10 1, 1, 2, 2-Tetrachloroethane. 1,1,2,2-Tetrachloroethane is listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. It is a powerful narcotic and a liver poison, and is toxic by ingestion, inhalation and skin absorption. Exposure symptoms include eye and skin irritation, and gastrointestinal upset.

2.5.11 Tetrachloroethene (Perchloroethene, "PCE"). PCE is listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Short-term exposure to PCE through ingestion and inhalation may cause nausea, vomiting, headache, dizziness, drowsiness, and tremors. Skin contact with PCE causes irritation and blistering. Liver and kidney toxicity are long-term effects.

2.5.12 Toluene. Toluene is listed as a chemical known to the State to cause developmental toxicity pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Toluene is a clear, colorless liquid with a distinctive smell. It is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes. Exposure symptoms include: irritated eyes and nose, fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, nervousness, muscle fatigue, insomnia, paresthesia, dermatitis, and liver and kidney damage.

2.5.13 Toxaphene. Toxaphene is listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Toxaphene is used as an insecticide, and is toxic by ingestion, inhalation, and skin absorption. It can cause mild skin irritation, central nervous system stimulation with tremors, convulsions, and death.

2.5.14 Trichloroethene ("TCE"). TCE is listed as a chemical known to the

State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Acute exposure to TCE causes headache, dizziness, vertigo, tremors, irregular heartbeat, fatigue, nausea, vomiting, and blurred vision. TCE vapors may cause irritation of the eyes, nose, and throat. Long-term effects may include liver and kidney damage.

2.5.15 Vinyl Chloride. Vinyl chloride is listed as a chemical known to the State to cause cancer pursuant to the Safe Drinking water and Toxic Enforcement Act of 1986. Inhalation of vinyl chloride causes headache, dizziness, abdominal pain, numbness, and tingling of the extremities. Vinyl chloride vapors cause eye irritation and may cause skin irritation. Long-term effects of vinyl chloride exposure include liver damage and liver cancer. There is evidence that vinyl chloride causes mutagenicity.

2.6 Routes of Exposure.

2.6.1 People working at the Site could be exposed to contaminants via dermal contact or via inhalation of volatile or dust-borne contaminants. Excavation and treatment of soil in the areas where contamination exists or sediments from the adjacent marsh or freshwater lagoons and placed on upland containment berms could expose workers, nearby residents and/or business employees to contamination via dermal contact or via inhalation of contaminants, either from soil or groundwater. Currently, a temporary cap made up of cement, paper, and glue covers the majority of the upland portion of the site in order to prevent dust-borne contaminants.

2.6.2 Contaminated groundwater or surface water runoff could migrate to adjacent properties, including the adjacent marsh. Sensitive species may be exposed to contaminants via contact, inhalation, and/or ingestion of contaminated water and/or plants. Currently, a groundwater treatment trench (bioreactive permeable barrier) exists to treat any contaminated groundwater before it reaches the marsh.

2.7 Public Health and/or Environmental Risk.

2.7.1 The public at risk includes those people who work at or visit the Site, those who excavate into contaminated soil or groundwater, and/or persons who otherwise come into contact with, inhale or ingest contaminated air, soil or groundwater. People who could potentially come into contact with contamination at the Site includes persons who participate in the Making Waves Program located within the boundaries of Lot 3, people working at adjacent businesses located both to the east and west of the property boundaries, and recreational users of the San Francisco Bay Trail.

2.7.2 The Property is located up-gradient from Stege Marsh and two Freshwater Lagoons. The potential exists for contamination to discharge via groundwater or surface water runoff into the marsh or lagoon areas. The risk to the

environment includes sensitive species (which may include threatened or endangered species) that may reside in these areas.

III. CONCLUSIONS OF LAW

3.1 Respondents are responsible parties or liable persons as defined by Health and Safety Code section 25323.5.

3.2 Each of the substances listed in Section 2.4 is a "hazardous substance" as defined in Health and Safety Code section 25316.

3.3 There has been a "release" and/or there is a "threatened release" of hazardous substances listed in Section 2.4 at the Site, as defined in Health and Safety Code section 25320.

3.4 The actual and threatened release of hazardous substances at the Site present the conditions set forth in Health and Safety Code section 25358.3(a).

3.5 Response action is necessary to abate a public nuisance and/or to protect and preserve the public health.

IV. DETERMINATION

4.1 Based on the foregoing findings of fact and conclusions of law, DTSC hereby determines that response action is necessary at the Site because there has been a release and/or there is a threatened release of a hazardous substance presenting the conditions set forth in Health and Safety Code section 25358.3(a).

4.2 Based on the foregoing findings of fact and conclusions of law, DTSC hereby determines that further investigation is required because of the release and/or the threatened release of the hazardous substances at the Site.

V. ORDER

Based on the foregoing FINDINGS, CONCLUSIONS, AND DETERMINATION, IT IS HEREBY ORDERED THAT Respondents conduct the following response actions in the manner specified herein, and in accordance with a schedule specified by DTSC as follows:

5.1 All response actions taken pursuant to this Order shall be consistent with the requirements of Chapter 6.8 (commencing with section 25300), Division 20 of the Health and Safety Code and any other applicable state or federal statutes and regulations.

5.1.1 Site Remediation Strategy. The purpose of this Order is to require for the Site: implementation of any appropriate removal actions, completion of a

Remedial Investigation (RI) and Preparation of a Baseline Risk Assessment.

5.1.2 Removal Actions. Respondents shall undertake removal actions if, during the course of the RI, DTSC determines that they are necessary to mitigate the release of hazardous substances at or emanating from the Site. Either DTSC or Respondents may identify the need for removal actions. Respondents shall implement the following removal actions:

(a) Fence and Post.

- 1) Within 15 days of the effective date of this Order, Respondents shall install a fence around Lots 2, 3, and a portion of Lot 1 in accordance with the specifications attached as Exhibit C. The fence shall secure, at a minimum, the areas specified on the Site map (Exhibit D).
- 2) Within 15 days of the effective date of this Order, Respondents shall install signs which are visible from the area surrounding the contaminated Site and posted at each route of entry into the Site, including those routes likely to be used by unauthorized persons. Such routes of entry include access roads leading to the Site, and facing rivers, creeks, lakes or other waterways, which may provide a route of access to the Site. The signs shall be in accordance with the specifications attached as Exhibit E.
- 3) No later than March 15, 2005, Respondents shall also install a fence in accordance with the specifications attached as Exhibit C and signs in accordance with the specifications attached as Exhibit E between the Site and the Marsh and the freshwater lagoon area, as specified on the Site map, (Exhibit D).
- 4) The fence and signs shall be constructed of materials able to withstand the elements and shall be continuously maintained for as long as DTSC determines it to be necessary in order to protect public health and safety and the environment.

(b) Removal of Sediments. Sediments are being removed from the marsh and freshwater lagoon area under the oversight of the San Francisco Bay Region, Regional Water Quality Control Board. The tarped stockpiled of soil from the Lot 1 excavation and any sediment placed on the Site beginning in 2004 shall be removed and disposed of at an appropriate off-site disposal facility no later than April 30, 2005.

(c) Temporary Cap. A temporary cap has been installed over portions of the former manufacturing area. Within 45 days of the effective date of this Order, Respondents shall submit a workplan for repair and maintenance of this temporary cap. Implementation of this repair work shall be completed within

7 days after the work outlined in paragraph (b) above is completed.

(d) Dust Abatement. Respondents shall continue dust abatement activities in accordance with the Remedial Design Details Addendum for the Habitat Enhancement Area, Subunit 1, Meade Street Operable Unit, dated August 9, 2004 including all subsequent approved amendments and revisions.

(e) Biologically Active Permeable Barrier. Within 90-days of the effective date of this Order, Respondents shall submit an effectiveness evaluation for the biologically active permeable barrier to demonstrate that concentrations of any contamination migrating from the upland Site to the Marsh area have been reduced to be protective of the ecological health of the marsh or freshwater lagoons. The report shall provide the results of the remedial action evaluation, and if necessary, propose modifications to improve the existing remedial system.

Respondents shall maintain the biologically active permeable barrier during this evaluation. If the evaluation determines that any modifications, repairs or upgrades are necessary, the Respondents shall implement those modifications upon DTSC's approval.

5.1.3 Groundwater Monitoring. Respondents shall continue interim groundwater monitoring in accordance with Exhibit F. Groundwater level measurements shall be conducted quarterly from all wells, commencing the first Monday of March 2005. Groundwater sampling shall be conducted on a quarterly basis commencing March 2005. Subsequent monitoring shall be conducted until DTSC determines it is appropriate to terminate monitoring.

Within 45 days of the effective date of the order, Respondents should submit an assessment of the current interim groundwater plan. The assessment shall outline modifications to the plan including but not limited to new wells required, parameters, and frequency of the plan. If applicable, a schedule for implementing any changes shall be included.

5.1.4 Surface Water Monitoring. Respondents shall continue interim monitoring of surface water in accordance with the Self-Monitoring Program attached to the San Francisco Bay Region, Regional Water Quality Control Board's (Regional Board's) Order No. 01-101 attached as Exhibit G. Copies of all monitoring reports submitted to the SFRWQCB shall also be submitted to DTSC.

5.1.5 Air Monitoring. Respondents shall continue interim monitoring of air in accordance with DTSC's letter dated December 23, 2004 attached as Exhibit H, and any updates.

5.2 Current Site Conditions. DTSC acknowledges that site activities have occurred in the past as documented in the reports described in Section 2.3.11.

However, there is no single report that accurately depicts current site conditions.

5.2.1 Current Condition Report Objectives. The objectives of the Current Condition Report are to:

(a) Determine the nature and full extent of hazardous substance contamination of air, soil, surface water, and groundwater at the Site;

(b) Identify all actual and potential exposure pathways and routes through environmental media; and

(c) Determine the magnitude and probability of actual or potential harm to public health, safety, or welfare or to the environment posed by the threatened or actual release of hazardous substances at or from the Site;

5.2.2 Current Condition Report Within 90 days of the effective date of this Order, Respondents shall prepare and submit to DTSC for review and approval a Current Conditions Report that:

(a) summarizes all investigations conducted at the Site to date;

(b) summarizes all removal and remedial actions taken to date;

(c) provides an inventory of chemicals used on the Site (by name and volume) and identifies all pollution sources on the Site, including chemical storage areas, sumps, underground tanks, utility lines, process lines, and related facilities;

(d) identifies surface and subsurface human-made conduits at the Site that may allow contaminants to migrate laterally off the site or vertically into deeper aquifers;

(e) compiles data collected in previous investigations, along with all removal and remedial actions taken to date, to provide a comprehensive summary of current conditions at the Site;

(f) includes figures that:

(1) identifies all sample locations along with the type of chemical analysis (e.g., metals, PCBs, VOCs, etc.) identified in a pie chart for each sample location;

(2) compares sample concentrations to residential screening levels or appropriate background values for surface and samples collected at depth;

(3) identifies all areas that were previously excavated (on a single map) that can be overlain on the figures prepared for (2) above; and

(4) identifies confirmation sample data for all excavated areas including areas excavated due to odors

(g) identifies all response actions required under the RWQCB's Order that

have not been completed; and

(h) identifies data gaps taking into account all reasonably foreseeable land uses.

5.3 Field Sampling

5.3.1 Field Sampling Workplan. Within 60 days of the date DTSC issues comments on the Current Conditions Report, Respondents shall prepare and submit to DTSC for review and approval a detailed Workplan and implementation schedule that addresses data gaps identified in (h) above. The workplan shall include all the sections and address each component listed below.

(a) The Field Sampling Plan, if applicable, shall include:

- (1) Sampling objectives, including a brief description of data gaps and how the field sampling plan will address these gaps;
- (2) Sample locations, including a map showing these locations, and proposed frequency;
- (3) Sample designation or numbering system;
- (4) Detailed specification of sampling equipment and procedures;
- (5) Sample handling and analysis including preservation methods, shipping requirements and holding times; and
- (6) Management plan for wastes generated.

(b) Quality Assurance Project Plan. The plan shall include:

- (1) Project organization and responsibilities with respect to sampling and analysis;
- (2) Quality assurance objectives for measurement including accuracy, precision, and method detection limits. In selecting analytical methods, Respondents shall consider obtaining detection limits at or below potentially applicable legal requirements or relevant and appropriate standards, such as Maximum Contaminant Levels (MCLs) or Maximum Contaminant Level Goals (MCLGs);
- (3) Sampling procedures;
- (4) Sample custody procedures and documentation;
- (5) Field and laboratory calibration procedures;
- (6) Analytical procedures;
- (7) Laboratory to be used certified pursuant to Health and Safety Code section 25198;
- (8) Specific routine procedures used to assess data (precision, accuracy, and completeness) and response actions;
- (9) Reporting procedure for measurement of system performance and data quality;
- (10) Data management, data reduction, validation, and reporting. Information shall be accessible to downloading into DTSC's system; and
- (11) Internal quality control.

(c) Health and Safety Plan. A site-specific Health and Safety Plan shall be prepared in accordance with federal (29 CFR 1910.120) and state (Title 8 CCR Section 5192) regulations. This plan should include, at a minimum, the following elements:

- (1) Site Background/History/Workplan;
- (2) Key Personnel and Responsibilities
- (3) Job Hazard Analysis/Summary;
- (4) Employee Training;
- (5) Personal Protection;
- (6) Medical Surveillance;
- (7) Air Surveillance;
- (8) Site Control;
- (9) Decontamination;
- (10) Contingency Planning;
- (11) Confined Space Operations;
- (12) Spill Containment;
- (13) Sanitation;
- (14) Illumination; and
- (15) Other applicable requirements based on the work to be performed.

DTSC's Interim Draft Site Specific Health and Safety Plan Guidance Document for Site Assessment/Investigation, Site Mitigation Projects, Hazardous Waste Site Work Closure, Post Closure, and Operation and Maintenance Activities (DTSC, December 2000) can be used as a reference tool.

All contractors and all subcontractors shall be given a copy of the Health and Safety Plan prior to entering the Site. Any supplemental health and safety plans prepared by any subcontractor shall also be prepared in accordance with the regulations and guidance identified above. The prime contractor will be responsible for ensuring that all subcontractor supplemental health and safety plans will follow these regulations and guidelines.

(f) Other Activities. A description of any other significant activities, which are appropriate to address data gaps and information needed so that a baseline risk assessment can be prepared, shall be included.

(g) Schedule. A schedule, which provides specific time frames and dates for completion of each activity and report conducted or submitted under the Field Sampling Workplan including the schedules for removal actions and operable unit activities.

5.3.2 Field Sampling Implementation. Respondents shall implement the approved field sampling Workplan.

5.4 Remedial Investigation (RI) Report. An addendum to the Current Site Condition Report incorporating the results of the Field Sampling shall be prepared. This report will serve as the Final RI Report for the Site. The purpose of the RI is to collect data necessary to adequately characterize the Site for the purposes of defining risks to public health and the environment and developing and evaluating effective remedial alternatives for foreseeable land uses. Site characterization may be conducted in one or more phases to focus sampling efforts and increase the efficiency of the investigation. Respondents shall identify the sources of contamination and define the nature, extent, and volume of the contamination. Using this information, the contaminant fate and transport shall be evaluated. The RI Report shall contain:

(a) Site Physical Characteristics. Data on the physical characteristics of the Site and surrounding area shall be collected to the extent necessary to define potential transport pathways and receptor populations and to provide sufficient engineering data for development and screening of remedial action alternatives.

(b) Sources of Contamination. Contamination sources (including heavily contaminated media) shall be defined. The data shall include the source locations, type of contaminant, waste characteristics, and Site features related to contaminant migration and human exposure.

(c) Nature and Extent of Contamination. Contaminants shall be identified and the horizontal and vertical extent of contamination shall be defined in soil, groundwater, surface water, sediment, air, and biota. Spatial and temporal trends and the fate and transport of contamination shall be evaluated.

5.5 Baseline Health and Ecological Risk Assessment. Within 30 days of submitting of the Final RI Report, Respondents shall perform health and ecological (if applicable) risk assessments for the Site that meet the requirements of Health and Safety Code section 25356.1.5(b). Respondents shall submit a Baseline Health and Ecological Risk Assessment Report. The report shall be prepared consistent with U.S. EPA and California Environmental Protection Agency guidance and regulations, including as a minimum: Risk Assessment Guidance for Superfund, Volume 1; Human Health Evaluation Manual, December 1989; Superfund Exposure Assessment Manual, April 1988; Risk Assessment Guidance for Superfund, Volume 2, Environmental Evaluation Manual, March 1989; Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities (DTSC, September 1993); and all other related or relevant policies, practices and guidelines of the California Environmental Protection Agency and policies, practices and guidelines developed by U.S.EPA pursuant to 40 CFR 300.400 et seq. The Baseline Health and Ecological Risk Assessment Report shall include the following components:

- (a) Contaminant Identification. Characterization data shall identify contaminants of concern for the risk assessment process.
- (b) Environmental Evaluation. An ecological assessment consisting of:
 - (1) Identification of sensitive environments and rare, threatened, or endangered species and their habitats; and
 - (2) As appropriate, ecological investigations to assess the actual or potential effects on the environment and/or develop remediation criteria.
- (c) Exposure Assessment. The objectives of an exposure assessment are to identify actual or potential exposure pathways, to characterize the potentially exposed populations, and to determine the extent of the exposure. Exposed populations may include industrial workers, residents, and subgroups that comprise a meaningful portion of the general population, including, but not limited to, infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations, that are identifiable as being at greater risk of adverse health effects due to exposure to hazardous substances than the general population.
- (d) Toxicity Assessment. Respondents shall evaluate the types of adverse health or environmental effects associated with individual and multiple chemical exposures; the relationship between magnitude of exposures and adverse effects; and related uncertainties such as the weight of evidence for a chemical's potential carcinogenicity in humans.
- (e) Risk Characterization. Risk characterization shall include the potential risks of adverse health or environmental effects for each of the exposure scenarios derived in the exposure assessment.

5.6 Public Participation Plan (Community Relations). Respondents shall work cooperatively with DTSC in providing an opportunity for meaningful public participation in response actions. Any such public participation activities shall be conducted in accordance with Health and Safety Code sections 25356.1 and 25358.7 and DTSC's most current Public Participation Policy and Guidance Manual, and shall be subject to DTSC's review and approval.

Respondents shall assist DTSC in conducting a baseline community survey and developing a Public Participation Plan (PPP) which describes how, under this Order, the public and adjoining community will be kept informed of activities conducted at the Site and how Respondents will be responding to inquiries from concerned citizens. Major steps in developing a PPP are as follows:

- (a) Develop proposed list of interviewees;
- (b) Schedule and conduct community interviews; and

(c) Analyze interview notes, and develop objectives.

DTSC with assistance of the Respondents shall conduct the baseline community survey and the PPP within 60 days of the effective date of this Order.

Respondents shall implement any of the public participation support activities identified in the PPP, at the request of DTSC. DTSC retains the right to implement any of these activities independently. These activities include, but are not limited to, development and distribution of fact sheets; public meeting preparations; and development and placement of public notices.

5.7 California Environmental Quality Act (CEQA). If applicable, DTSC, as a responsible agency, will work with the City of Richmond to comply with CEQA. Upon DTSC request, Respondents shall provide DTSC with any information that DTSC deems necessary to facilitate compliance with CEQA. The costs incurred by DTSC in complying with CEQA are response costs and Respondents shall reimburse DTSC for such costs pursuant to Section 6.19.

5.8 Land Use Covenant. On April 26, 2004, the Cherokee Simeon Venture I (Current Property Owner) and the SFRWQCB signed Covenants and Environmental Restriction documents for Lot 1, Lot 2, and Lot 3. The documents were recorded with the Contra Costa County Recorder's Office. The Current Property Owner shall abide by the terms of those covenants until they are either removed or replaced.

5.9 Stop Work Order. In the event that DTSC determines that any activity (whether or not pursued in compliance with this Order) may pose an imminent or substantial endangerment to the health or safety of people on the Site or in the surrounding area or to the environment, DTSC may order Respondents to stop further implementation of this Order for such period of time needed to abate the endangerment. In the event that DTSC determines that any site activities (whether or not pursued in compliance with this Order) are proceeding without DTSC authorization, DTSC may order Respondents to stop further implementation of this Order or activity for such period of time needed to obtain DTSC authorization, if such authorization is appropriate. Any deadline in this Order directly affected by a Stop Work Order, under this Section, shall be extended for the term of the Stop Work Order.

5.10 Emergency Response Action/Notification. In the event of any action or occurrence (such as a fire, earthquake, explosion, or human exposure to hazardous substances caused by the release or threatened release of a hazardous substance) during the course of this Order, Respondents shall immediately take all appropriate action to prevent, abate, or minimize such emergency, release, or immediate threat of release and shall immediately notify the Project Manager. Respondents shall take such action in consultation with the Project Manager and in accordance with all applicable provisions of this Order. Within 7 days of the onset of such an event, Respondents shall furnish a report to DTSC, signed by Respondents' Project

Coordinator, setting forth the events which occurred and the measures taken in the response thereto. In the event that Respondents fail to take appropriate response and DTSC takes the action instead, Respondents shall be liable to DTSC for all costs of the response action. Nothing in this Section shall be deemed to limit any other notification requirement to which Respondents may be subject.

5.11 Discontinuation of Remedial Technology. Any remedial technology employed shall be left in place and operated by Respondents until and except to the extent that DTSC authorizes Respondents in writing to discontinue, move or modify some or all of the remedial technology.

5.12 Financial Assurance. Respondents shall demonstrate to DTSC and maintain financial assurance sufficient for operation and maintenance and monitoring related to the fencing and signage, temporary cap, groundwater and air monitoring, and the bioreactive wall. Respondents shall demonstrate financial assurance within 30 days after the Effective Date of this Order or the time that operation and maintenance activities for that item of work is initiated, whichever is later, and shall maintain it throughout the period of time necessary to complete all required operation and maintenance activities pursuant to this Order. The financial assurance mechanisms shall meet the requirements of Health and Safety Code Section 25355.2. All financial assurance mechanisms are subject to the review and approval of DTSC.

VI. GENERAL PROVISIONS

6.1 Project Coordinator. Within 10 days from the date the Order is signed by DTSC, Respondents shall submit to DTSC in writing the name, address, and telephone number of a Project Coordinator whose responsibilities will be to receive all notices, comments, approvals, and other communications from DTSC. Respondents shall promptly notify DTSC of any change in the identity of the Project Coordinator. Respondents shall obtain approval from DTSC before the new Project Coordinator performs any work under this Order.

6.2 Communication and Coordination Plan (CCP). Within 30 days from the date this Order is signed by DTSC, Respondents shall submit to DTSC for its approval a CCP, which specifies the requirements, and procedures by which Respondents will communicate and coordinate with one another in carrying out the requirements of this Order.

6.3 Project Engineer/Geologist. The work performed pursuant to this Order shall be under the direction and supervision of a qualified professional engineer or a registered geologist in the State of California, with expertise in hazardous substance site cleanups. Within 15 calendar days from the date this Order is signed by DTSC, Respondents shall submit: a) The name and address of the project engineer or geologist chosen by Respondents; and b) in order to demonstrate expertise in hazardous substance cleanup, the resume of the engineer or geologist, and the statement of qualifications of the consulting firm responsible for the work.

Respondents shall promptly notify DTSC of any change in the identity of the Project Engineer/Geologist. Respondents shall obtain approval from DTSC before the new Project Engineer/Geologist performs any work under this Order.

6.4 Monthly Summary Reports. Within 30 days from the date of this Order and on a monthly basis thereafter, Respondents shall submit a Monthly Summary Report of its activities under the provisions of this Order. The report shall be received by DTSC by the 15th day of each month and shall describe:

- (a) Specific actions taken by or on behalf of Respondents during the previous calendar month;
- (b) Actions expected to be undertaken during the current calendar month;
- (c) All planned activities for the next month;
- (d) Any requirements under this Order that were not completed;
- (e) Any problems or anticipated problems in complying with this Order; and
- (f) All results of sample analyses, tests, and other data generated under this Order during the previous calendar month, and any significant findings from these data.

6.5 Quality Assurance/Quality Control (QA/QC). All sampling and analysis conducted by Respondents under this Order shall be performed in accordance with QA/QC procedures submitted by Respondents and approved by DTSC pursuant to this Order.

6.6 Submittals. All submittals and notifications from Respondents required by this Order shall be sent simultaneously to:

Barbara J. Cook, P.E.
Regional Branch Chief
Attention: Lynn Nakashima
Site Mitigation Branch
DTSC of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

6.7 Communications. All approvals and decisions of DTSC made regarding submittals and notifications will be communicated to Respondents in writing by the Site Mitigation Branch Chief or his/her designee. No informal advice, guidance, suggestions or comments by DTSC regarding reports, plans, specifications, schedules or any other writings by Respondents shall be construed to relieve Respondents of the obligation to obtain such formal approvals as may be required.

6.8 DTSC Review and Approval. (a) All response actions taken pursuant to this Order shall be subject to the approval of DTSC. Respondents shall submit all deliverables required by this Order to DTSC. Once the deliverables are approved by DTSC, they shall be deemed incorporated into, and where applicable, enforceable under this Order.

(b) If DTSC determines that any report, plan, schedule, or other document submitted for approval pursuant to this Order fails to comply with this Order or fails to protect public health or safety or the environment, DTSC may:

(1) Modify the document as deemed necessary and approve the document as modified; or

(2) Return comments to Respondents with recommended changes and a date by which Respondents must submit to DTSC a revised document incorporating the recommended changes.

(c) Any modifications, comments or other directives issued pursuant to (a) above, are incorporated into this Order. Any noncompliance with these modifications or directives shall be deemed a failure or refusal to comply with this Order.

6.9 Compliance with Applicable Laws. Nothing in this Order shall relieve Respondents from complying with all other applicable laws and regulations, including but not limited to compliance with all applicable waste discharge requirements issued by the State Water Resources Control Board or a California Regional Water Quality Control Board. Respondents shall conform all actions required by this Order to all applicable federal, state, and local laws and regulations.

6.10 Respondent Liabilities. Nothing in this Order shall constitute or be construed as a satisfaction or release from liability for any conditions or claims arising as a result of past, current or future operations of Respondents. Nothing in this Order is intended or shall be construed to limit the rights of any of the parties with respect to claims arising out of or relating to the deposit or disposal at any other location of substances removed from the Site. Nothing in this Order is intended or shall be construed to limit or preclude DTSC from taking any action authorized by law to protect public health or safety or the environment and recovering the cost thereof. Notwithstanding compliance with the terms of this Order, Respondents may be required to take further actions as are necessary to protect public health and the environment.

6.11 Site Access. Access to the Site and laboratories used for analyses of samples under this Order shall be provided at all reasonable times to employees, contractors, and consultants of DTSC. Nothing in this Section is intended or shall be construed to limit in any way the right of entry or inspection that DTSC or any other agency may otherwise have by operation of any law. DTSC and its authorized

representatives shall have the authority to enter and move freely about all property at the Site at all reasonable times for purposes including, but not limited to: inspecting records, operating logs, sampling and analytic data, and contracts relating to this Site; reviewing the progress of Respondents in carrying out the terms of this Order; conducting such tests as DTSC may deem necessary; and verifying the data submitted to DTSC by Respondents.

To the extent the Site or any other property to which access is required for the implementation of this Order is owned or controlled by persons other than Respondents, Respondents shall use best efforts to secure from such persons access for Respondents, as well as DTSC, its representatives, and contractors, as necessary to effectuate this Order. To the extent that tenants of Respondents control any portion of the Site, Respondents shall use best efforts to secure from such tenants, access for Respondents, as well as for DTSC, its representatives, and contractors, as necessary to effectuate this Order. For purposes of this Section, "best efforts" includes the payment of reasonable sums of money in consideration of access. If any access required to complete the Work is not obtained within 45 days of the effective date of this Order, or within 45 days of the date DTSC notifies Respondents in writing that additional access beyond that previously secured is necessary, Respondents shall promptly notify DTSC, and shall include in that notification a summary of the steps Respondents have taken to attempt to obtain access. DTSC may, as it deems appropriate, assist Respondents in obtaining access. Respondents shall reimburse DTSC in obtaining access, including, but not limited to, attorneys fees and the amount of just compensation.

6.12 Sampling, Data and Document Availability. Respondents shall permit DTSC and its authorized representatives to inspect and copy all sampling, testing, monitoring, or other data generated by Respondents or on Respondents' behalf in any way pertaining to work undertaken pursuant to this Order. Respondents shall submit all such data upon the request of DTSC. Copies shall be provided within 7 days of receipt of DTSC's written request. Respondents shall inform DTSC at least 7 days in advance of all field sampling under this Order, and shall allow DTSC and its authorized representatives to take duplicates of any samples collected by Respondents pursuant to this Order. Respondents shall maintain a central depository of the data, reports, and other documents prepared pursuant to this Order.

6.13 Record Retention. Respondents shall preserve all such data, reports and other documents for a minimum of 10 years after the conclusion of all activities under this Order. If DTSC requests that some or all of these documents be preserved for a longer period of time, Respondents shall either comply with that request or deliver the documents to DTSC, or permit DTSC to copy the documents prior to destruction. Respondents shall notify DTSC in writing at least six months prior to destroying any documents prepared pursuant to this Order.

6.14 Government Liabilities. The State of California shall not be liable for

any injuries or damages to persons or property resulting from acts or omissions by Respondents, or related parties specified in Section 6.25, Parties Bound, in carrying out activities pursuant to this Order, nor shall the State of California be held as party to any contract entered into by Respondents or its agents in carrying out activities pursuant to this Order.

6.15 Additional Actions. By issuance of this Order, DTSC does not waive the right to take any further actions authorized by law.

6.16 Extension Requests. If Respondents are unable to perform any activity or submit any document within the time required under this Order, Respondents may, prior to expiration of the time, request an extension of the time in writing. The extension request shall include a justification for the delay. All such requests shall be in advance of the date on which the activity or document is due.

6.17 Extension Approvals. If DTSC determines that good cause exists for an extension, it will grant the request and specify a new schedule in writing. Respondents shall comply with the new schedule incorporated in this Order.

6.18 Liability for Costs. Respondents are liable for all of DTSC's costs that have been incurred in taking response actions at the Site (including costs of overseeing response actions performed by Respondents) and costs to be incurred in the future.

6.19 Payment of Costs. DTSC may bill Respondents for costs incurred in taking response actions at the Site prior to the effective date of this Order. DTSC will bill Respondents quarterly for its response costs incurred after the effective date of this Order. Respondents shall pay DTSC within 60 days of receipt of any DTSC billing. Any billing not paid within 60 days is subject to interest calculated from the date of the billing pursuant to Health and Safety Code section 25360.1. All payments made by Respondents pursuant to this Order shall be by cashier's or certified check made payable to this "DTSC," and shall bear on the face the project code of the Site (Site 201567-00) and the Docket number of this Order. Payments shall be sent to:

Department of Toxic Substances Control
Accounting/Cashier
1001 I Street, 21st Floor
P.O. Box 806
Sacramento, California 95812-0806

A photocopy of all payment checks shall also be sent to the person designated by DTSC to receive submittals under this Order.

6.20 Severability. The requirements of this Order are severable, and Respondents shall comply with each and every provision hereof, notwithstanding the

effectiveness of any other provision.

6.21 Incorporation of Plans, Schedules and Reports. All plans, schedules, reports, specifications, and other documents that are submitted by Respondents pursuant to this Order are incorporated in this Order upon DTSC's approval or as modified pursuant to Section 6.7, DTSC Review and Approval, and shall be implemented by Respondents. Any noncompliance with the documents incorporated in this Order shall be deemed a failure or refusal to comply with this Order.

6.22 Modifications. DTSC reserves the right to unilaterally modify this Order. Any modification to this Order shall be effective upon the date the modification is signed by DTSC and shall be deemed incorporated in this Order.

6.23 Time Periods. Unless otherwise specified, time periods begin from the effective date of this Order and "days" means calendar days.

6.24 Termination and Satisfaction. Except for Respondents' obligations under 5.12 Financial Assurance, 6.13 Record Retention, 6.18 Liability for Costs, and 6.19 Payment of Costs, Respondents' obligations under this Order shall terminate and be deemed satisfied upon Respondents' receipt of written notice from DTSC that Respondents have complied with all the terms of this Order.

6.24. Parties Bound. This Order applies to and is binding upon Respondents, and their officers, directors, agents, employees, contractors, consultants, receivers, trustees, successors and assignees, including but not limited to, individuals, partners, and subsidiary and parent corporations. Respondents shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants, which are retained to conduct any work performed under this Order, within 15 days after the effective date of this Order or the date of retaining their services, whichever is later. Respondents shall condition any such contracts upon satisfactory compliance with this Order. Notwithstanding the terms of any contract, Respondents are responsible for compliance with this Order and for ensuring that its subsidiaries, employees, contractors, consultants, subcontractors, agents and attorneys comply with this Order.

6.25 Change in Ownership. No change in ownership or corporate or partnership status relating to the Site shall in any way alter Respondents' responsibility under this Order. No conveyance of title, easement, or other interest in the Site, or a portion of the Site, shall affect Respondents' obligations under this Order. Unless DTSC agrees that such obligations may be transferred to a third party, Respondents shall be responsible for and liable for any failure to carry out all activities required of Respondents by the terms and conditions of this Order, regardless of Respondents' use of employees, agents, contractors, or consultants to perform any such tasks. Respondents shall provide a copy of this Order to any subsequent owners or successors before ownership rights or stock or assets in an

corporate acquisition are transferred.

VII. NOTICE OF INTENT TO COMPLY

7. Not later than 15 days after the effective date of this Order, Respondents shall provide written notice, in accordance with paragraph 6.6 Submittals of this Order, stating whether Respondents will comply with the terms of this Order. If Respondents, or any one of them, do not unequivocally commit to perform all of the requirements of this Order, they, or each so refusing, shall be deemed to have violated this Order and to have failed or refused to comply with this Order. Respondents' written notice shall describe, using facts that exist on or prior to the effective date of this Order, any "sufficient cause" defenses asserted by Respondents under Health and Safety Code sections 25358.3(a) and 25355.5(a)(1)(B) or CERCLA section 107(c)(3), 42 U.S.C. section 9607(c)(3).


VIII. EFFECTIVE DATE

8. This Order is final and effective 5 days from the date of mailing, which is the date of the cover letter transmitting the Order to you.

IX. PENALTIES FOR NONCOMPLIANCE

9. Each Respondent may be liable for penalties of up to \$25,000 for each day out of compliance with any term or condition set forth in this Order and for punitive damages up to three times the amount of any costs incurred by DTSC as a result of Respondents' failure to comply, pursuant to Health and Safety Code sections 25359, 25359.2, 25359.4, and 25367(c). Health and Safety Code section 25359.4.5 provides that a responsible party who complies with this Order, or with another order or agreement concerning the same response actions required by this Order, may seek treble damages from Respondents who fail or refuse to comply with this Order without sufficient cause.

DATE OF ISSUANCE: 2/8/05



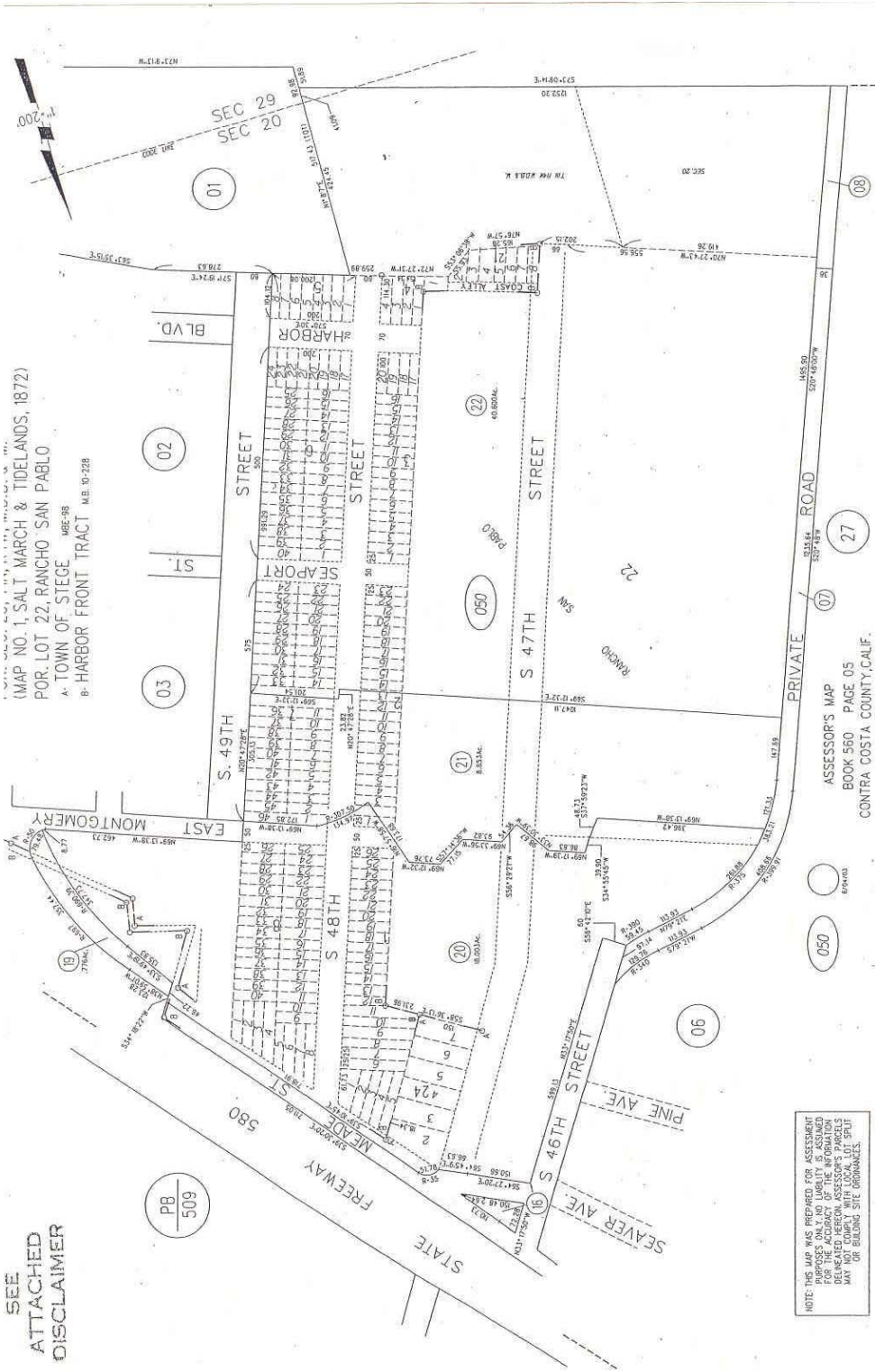
Barbara J. Cook, P.E.
Regional Branch Chief
Department of Toxic Substances Control

cc: Site Mitigation Program
Headquarters, Planning & Policy
Office of Legal Counsel

EXHIBITS

EXHIBIT A	Site Map
EXHIBIT B	Table of Hazardous Substances
EXHIBIT C	Fence Specifications
EXHIBIT D	Map of Area to be Fenced
EXHIBIT E	Sign Specifications
EXHIBIT F	Groundwater Monitoring Requirements
EXHIBIT G	Surface Water Monitoring Requirements
EXHIBIT H	Air Monitoring Requirements

EXHIBIT A - SITE MAP



(MAP NO. 1, SALT MARCH & TIDELANDS, 1872)
 POR. LOT 22, RANCHO SAN PABLO
 A. TOWN OF STEGE M.B. 98
 B. HARBOR FRONT TRACT M.B. 10-228

SEE
 ATTACHED
 DISCLAIMER

NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR ANY ERRORS OR OMISSIONS. THE INFORMATION IS UNWARRANTED. PERSONS USING THIS MAP MAY NOT COMPLY WITH LOCAL, LOT SPLIT OR BUILDING SITE ORDINANCES.

ASSESSOR'S MAP
 BOOK 560 PAGE 05
 CONTRA COSTA COUNTY, CALIF.

Exhibit A - Site Map

EXHIBIT B**SUBSTANCES DETECTED
Zeneca Site**

Table 1 lists hazardous substances detected in Site soil that requires remediation to reach levels suitable for unrestricted residential land use.

Table 1

Substances Detected in Soil	Range of Concentrations in mg/kg.	Hazardous Waste Criteria in mg/kg
Arsenic	Up to 1,700	500
DDD	Up to 2,800	1
DDT	Up to 2,100	1
Lead	Up to 18,000	1,000
Toxaphene	Up to 230	5

Table 2 lists hazardous substances detected in Site groundwater above Basin Plan requirements

TABLE 2

Substances Detected in Groundwater	Range of concentrations in ug/L	Maximum Contaminant Levels
Arsenic	45,000	10
Chloroform	3,400	100
Copper	380,000	1,300
Cis-1,2-dichloroethene	880	6
Mercury	8.7	2
Nickel	5,400	100
1,1,2,2-tetrachloroethane	120	1
Tetrachloroethene	10,000	5
Toluene	7,100	150
Trichloroethene	5,700	5
Vinyl chloride	54	0.5

EXHIBIT C
STANDARD FENCE SPECIFICATIONS

The fence shall be a standard chain link fence with a height of six feet. The fence shall be similar in construction and material to the main line fences located on the site. In general, replacement fencing shall consist of a minimum of 11-gauge, woven into an approximately two-inch mesh. The fencing should have a knuckled finish on the top and bottom edges. The posts are to be made of galvanized metal and shall be placed no more than ten feet apart. Any access gates are to be of the same material as the fence. Gates shall be secured with a padlock unless alternative measures approved by DTSC are in place to prevent access to unauthorized personnel.

EXHIBIT D – AREA TO BE FENCED

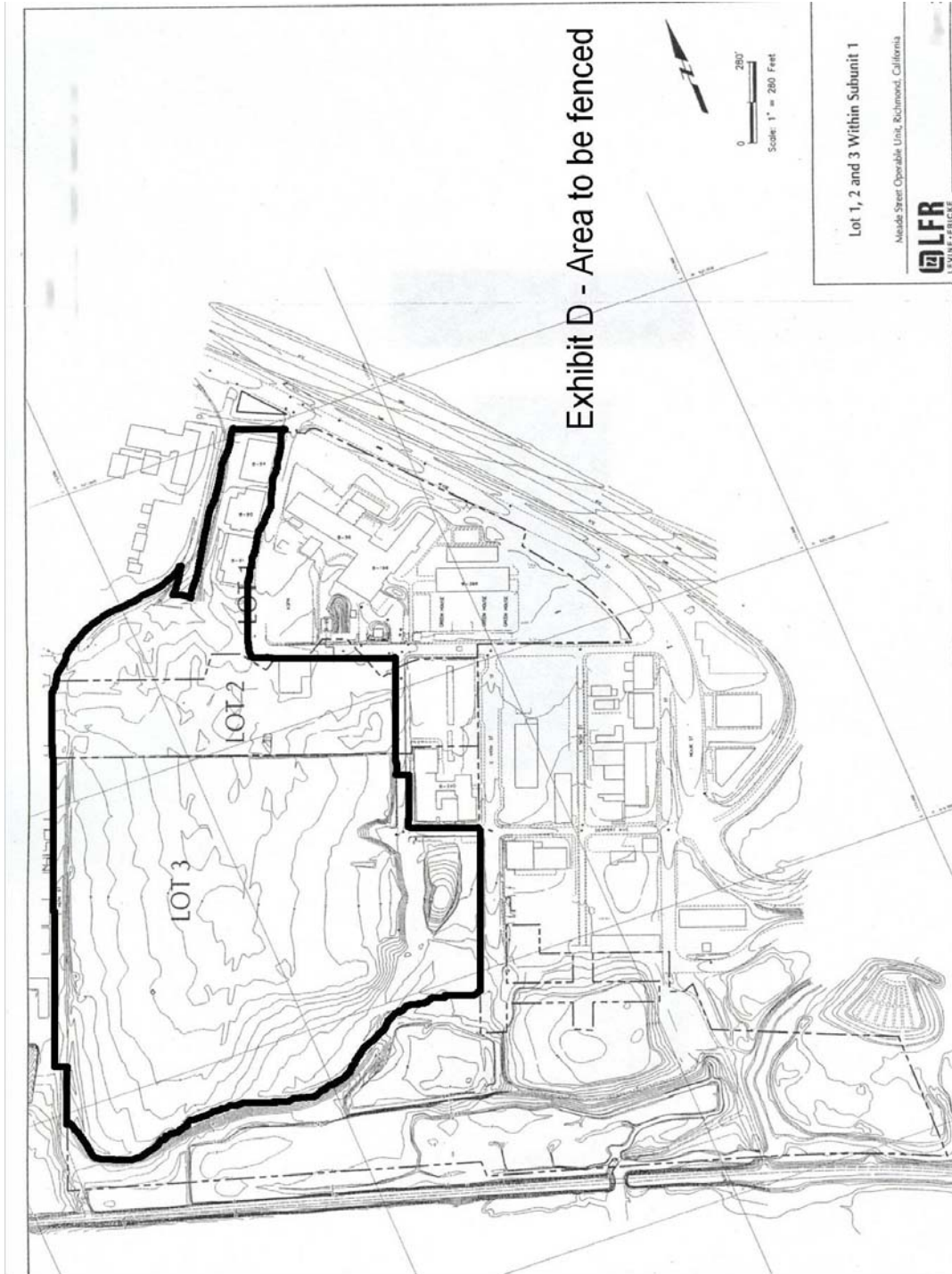


EXHIBIT E SIGN SPECIFICATIONS

Signs shall be posted with lettering legible from a distance of at least 25 feet which states, "Caution: Hazardous Substance Area, Unauthorized Persons Keep Out", in English. The signs shall include the name of the Department and the telephone number 510-540-2122. The Department also recommends that the Respondents attach "do not enter" international symbol signs at appropriate intervals to the fence to prevent injury to individuals who cannot read the sign.

The signs shall be visible from the area surrounding the contaminated area and posted at each route of entry into the Site, including those routes likely to be used by unauthorized persons, access roads leading to the Site, and facing rivers, creeks, lakes or other waterways where appropriate.

The fence and signs shall be continuously maintained to minimize the risk of unauthorized entry. The signs shall be of a material able to withstand the elements.

EXHIBIT F
GROUNDWATER MONITORING REQUIREMENTS

Consistent with the Comprehensive Monitoring Plan dated November 7, 2002, as modified by San Francisco Bay Region, Regional Water Quality Control Board comments, groundwater elevation shall be measured in all monitoring wells quarterly on Monday of the first full week of February, May, August, and November. Representative samples of groundwater shall be collected and analyzed quarterly during the first full week of February, May, August, and November from all monitoring wells and piezometers. Sampling, analysis, and reporting procedures shall be as approved by the San Francisco Bay Region, Regional Water Quality Control Board until such times as DTSC amends these requirements. Copies of reports submitted in compliance with these requirements must be sent concurrently to the San Francisco Bay Region, Regional Water Quality Control Board and to DTSC.

EXHIBIT G
SURFACE WATER MONITORING REQUIREMENTS

Surface water monitoring shall be conducted in accordance with the Comprehensive Monitoring Plan dated November 7, 2002, as modified by San Francisco Bay Region, Regional Water Quality Control Board comments. Surface water monitoring will also be conducted as part of the General Industrial Storm Water Discharge Permit through Industrial and Construction Storm water Monitoring Plans (NPDES Permit Nos. CAS000001 and CAS000002, respectively). Sampling, analysis, and reporting procedures shall be as approved by the San Francisco Bay Region, Regional Water Quality Control Board until such times as DTSC amends these requirements. Copies of reports submitted in compliance with these requirements must be sent concurrently to the San Francisco Bay Region, Regional Water Quality Control Board and to DTSC.