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Secretary for
Environmental Protection

Department of Toxic Substances Control

Maureen F. Gorsen, Director
700 Heinz Avenue
Berkeley, California 94710-2721

Arnold Schwarzenegger
Governor

June 29, 2007

CERTIFIED MAIL

Mr. Greg Haet
Associate Director, Environmental Protection
Environment, Health and Safety
University of California
317 University Hall #1150
Berkeley, California 94720-1150

Dear Mr. Haet:

The California Department of Toxic Substances Control (DTSC) has reviewed your submittals dated June 30, 2005, November 4 and 28, 2005, January 13 and 20, and February 6 and 8, 2006, August 2 and November 20, 2006 in response to our requests for information, records and/or documents related to the Phase 1, 2 and 3 activities for subunits 2A and 2B, Meade Street Operable Unit, University of California, Richmond Field Station (UCRFS).

On March 14, 2005, DTSC became aware that unauthorized treatment and disposal of hazardous wastes may have taken place during the 2002-2004 remedial activities at UCRFS and Zeneca sites. On June 13 and September 26, 2005, July 6 and October 25, 2006, DTSC sent information request letters to UCRFS to determine if the remedial activities at UCRFS were conducted in accordance with California's hazardous waste laws and regulations. Separate letters were also sent to Zeneca, Inc. and Cherokee Simeon Venture. Cherokee Simeon Venture became the owner of the Zeneca site on January 1, 2003.

Based on our review of the above submittals, violations of hazardous waste laws and regulations were discovered. A Summary of Violations outlining DTSC's findings follows. As we note at the conclusion of this letter, we anticipate meeting with you at a mutually convenient time to discuss this matter.

SUMMARY OF VIOLATIONS

Class 1 Violations

Treatment of Hazardous Waste Without a Permit

1. University of California Richmond Field Station (UCRFS) violated Health and Safety Code (HSC) section 25201 (a) in that UCRFS treated hazardous wastes without a permit or other grant of authorization from the DTSC, to wit:

   a. On or about October 30 through November 18, 2002, UCRFS treated with 5 % powdered activated carbon, 1,700 cubic yards of contaminated cinders and sediment containing mercury at concentrations between 50 mg/kg and 260 mg/kg, and zinc at 5,000 mg/kg, excavated from Area 1. (See Map 2 for location of Area 1).

   The treated wastes were transported to Zeneca for further treatment with limestone and placed into Subunit 1 (Also see Violation 3.b.). (See Map 1 for location of Subunit 1 for this violation and for subsequent violations).

   [A waste is hazardous if it exhibits any of the characteristics identified in California Code of Regulations, title 22, section 66261.20(a). A waste exhibits the characteristic of toxicity if representative samples of the waste contain a substance listed in subsection (a)(2)(A) or (A)(2)(B) of Section 66261.24 at a concentration in milligrams per liter (mg/l) of waste extract, as determined using the Waste Extraction Test (WET) which equals or exceeds its listed soluble threshold limit concentration (STLC) or at a concentration in milligrams per kilogram (mg/kg) in the waste which equals or exceeds its listed total threshold limit concentration (TTLC). (See California Code of Regulations, title 22, section 66261.24(a) (2) (A). The TTLCs for mercury and zinc are 20 mg/kg and 5,000 mg/kg respectively.]

   b On or about October 8, 2002, UCRFS treated by solidification with cement kiln dust, a total of 14,000 cubic yards of excavated cinders and sediment (7,500 cubic yards from the eastern portion of marsh Area 2, and 6,500 cubic yards from marsh Area 3), containing concentrations of mercury between 20 mg/kg and 50 mg/kg (described by UCRFS as containing less than 50 mg/kg of mercury), arsenic from 555 to 2,210 mg/kg, and copper at 12,000 mg/kg, (See Map 2 for location of Marsh Areas 2 and 3).The TTLCs for mercury, arsenic and copper are 20 mg/kg, 500 mg/kg and 2,500 mg/kg respectively

   The treated cinders and sediment were transported to Zeneca and placed into Subunit 1. (Also see Violation 3.c.).

c. On or about September 9 to October 25, 2003, UCRFS treated by stabilization, 6,145 and 129 cubic yards (total of 6,274 cubic yards) of cinder related materials, containing mercury between 20 mg/kg and 50 mg/kg (described by UCRFS as less than 50 mg/kg, and referred to as "Type A materials"), and containing concentrations of arsenic between 550 and 1,100 mg/kg, cadmium at 3,000 mg/kg, copper from 2,700 to 11,000 mg/kg, and zinc from 6,200 to 47,000 mg/kg, The TTLCs for mercury, arsenic, cadmium, copper and zinc are 20 mg/kg, 500 mg/kg, 100 mg/kg, 2,500 mg/kg and 5,000 mg/kg respectively. The materials were excavated from Area 4 and from Area 2 of Subunit 2A, respectively. The "Type A materials" were treated with 7.5 % crushed limestone in Treatment Pad B. (See Map 2, for location of Areas 4 and 2, and Map 3 for location of Treatment Pad B).

The treated "Type A materials" were transported to Zeneca for placement at Subunit 1 (Also see Violation 3.d.).

d. On or about August 12 to September 2, 2003, UCRFS treated by stabilization, 1,496 cubic yards of cinder-impacted materials containing mercury at concentrations between 20 and 50 mg/kg, excavated from various locations in Subunit 2B (described by UCRFS as less than 50 mg/kg of mercury and referred to as "UC Berkeley Type A materials"). The "UC Berkeley Type A materials" were treated with 7.5 % crushed limestone in Treatment Pad B. (See Map 3 for location of Subunit 2B and Treatment Pad B). The TTLC for mercury is 20 mg/kg.

The treated "UC Berkeley Type A" materials were transported to Zeneca for placement at Subunit 1 (Also see Violation 3.e.).

e. On or about September 12 to October 25, 2003, UCRFS treated with 5% powdered activated carbon and 7.5% crushed limestone, a total of 11,987 cubic yards of cinder-related soil containing mercury at concentrations greater than 50 mg/kg and less than 260 mg/kg (referred to by UCRFS as "Type B materials"), and containing concentrations of arsenic from 640 to 2,900 mg/kg, copper at 5,300 mg/kg, selenium from 130 to 260 mg/kg, and zinc from 6,100 to 9,200 mg/kg. The TTLCs for mercury, arsenic, copper, selenium and zinc are 20 mg/kg, 500 mg/kg, 2,500 mg/kg, 100 mg/kg and 5,000 mg/kg respectively. The 11,987 cubic yards of cinder-related soil consisted of 4,266 cubic yards excavated from Area 4 of Subunit 2A and 7,721 cubic yards excavated from the western portion of marsh Area 2 of Subunit 2A. (See Map 3 for location of Areas 4 and marsh area 2).

The treated "Type B materials" were transported to Zeneca for placement at Subunit 1 (Also see Violation 3.f.).

f. On or before February 13, 2004, UCRFS treated by solidification with cement kiln dust, approximately 3,785 cubic yards of mercury contaminated material excavated from Area 4 and 3,290 cubic yards excavated from marsh Area M3, containing mercury at concentrations greater than 260 mg/kg (referred to by UCRFS as "Type C materials"), and concentrations of arsenic from 560 to 1,800 mg/kg, copper at 2,600 mg/kg, and zinc from 6,100 to 6,500 mg/kg. The TTLCs for mercury, arsenic, copper and zinc are 20 mg/kg, 500 mg/kg, 2,500 mg/kg and 5,000 mg/kg respectively (See Map 3 for location of Areas 4 and Marsh Area M3).

g On or about November 17 and 18, 2003, UCRFS treated by solidification with cement kiln dust, 464 cubic yards of material excavated from marsh area M1a in Subunit 2B, containing polychlorinated biphenyls (PCBs) at concentrations greater than 50 mg/kg (referred to by UCRFS as "Type D materials"). The TTLC for PCBs is 50 mg/kg. (See Map 3 for location of Marsh Area M1a.)

h. On or about October 27 and 29, 2003, UCRFS treated with 7.5 % crushed limestone, 2,046 cubic yards of vegetation wastes from Zeneca, containing arsenic and zinc at concentrations of 850 mg/kg arsenic and 13,000 mg/kg zinc. The TTLCs for arsenic and zinc are 500 mg/kg and 5,000 mg/kg respectively
[Note: the vegetation wastes excavated from UCRFS marsh Areas 2 and 3 (See Map 2 for location of Areas 2 and 3), during Phase 1 activities were shipped to Subunit 1 for stockpiling on October 13, 2002]. (Also see violations 2.a. and 4.a.).

i. On or about September 3, October 4, 6, 8, 9 and 10, 2003, UCRFS treated with 7.5 % crushed limestone, 978 cubic yards of soil and vegetation excavated from the western portion of Marsh Area 2 (See Map 3 for location of Marsh Area 2), containing concentrations of arsenic from 980 to 2,000 mg/kg. The TTLC for arsenic is 500 mg/kg.

j. On or about November 6 and 24, 2003, UCRFS treated with 7.5 % crushed limestone, 273 cubic yards of vegetation containing concentrations of arsenic from 650 to 1,400 mg/kg and mercury from 40 to 90 mg/kg, excavated in marsh Area M3, Subunit 2B. The TTLCs for arsenic and mercury are 500 mg/kg and 20 mg/kg. (See Map 3 for location of Marsh Area M3).

Corrective Action

Although no further action is required regarding the above violations, please be advised that any future treatment of hazardous waste would require a permit or other grant of authorization from DTSC.

Shipment of Hazardous Waste to an Unpermitted Facility

2. UCRFS violated HSC section 25189.2 (b) in that UCRFS shipped hazardous wastes to a facility not permitted or authorized to receive hazardous waste, to wit:

On or about October 13, 2002, UCRFS shipped to Zeneca's subunit 1 for stockpiling until Phase 2, approximately 2,046 cubic yards of vegetation, at concentrations of 850 mg/kg arsenic and 13,000 mg/kg zinc, The TTLCs for arsenic and zinc are 500 mg/kg and 5,000 mg/kg respectively.The vegetation wastes were excavated from marsh Areas 2 and 3 during Phase 1 activities at UCRFS. The stockpiled vegetation wastes were returned to UCRFS on October 27 and 29, 2003 (Also see violation 1.h. and 4).

Corrective Action

Although no further action is required regarding this violation , in the future, UCRFS must ensure that hazardous wastes shall only be shipped to a permitted or otherwise authorized hazardous waste, treatment, storage, and/or disposal facility.

Disposal of Hazardous Waste at An Unauthorized Point

3. UCRFS violated HSC section 25189.2 (c) in that UCRFS caused the disposal of hazardous wastes at a point not authorized by DTSC, to wit:

a. On or about September 18 through November 4, 2002, UCRFS shipped to Zeneca for treatment and placement into Subunit 1, approximately 12,140 cubic yards of excavated cinders and sediment from Areas 1 and 4, containing mercury at concentrations between 20 and 50 mg/kg, copper from 7,800 mg/kg to 17,000 mg/kg,and zinc from 7,900 to 22,000 mg/kg. The TTLCs for mercury, copper and zinc are 20 mg/kg, 2,500 mk/kg and 5,000 mg/kg respectively.

b. On or about November 15, 16, 25 and 26, 2002, UCRFS shipped to Zeneca, 122 truckloads (1,700 cubic yards before treatment as described in 1.a.) of treated excavated cinders and sediment containing mercury at

concentrations between 50 mg/kg and 260 mg/kg, and zinc at 5,000 mg/kg, excavated from Area, for further treatment and placement into Subunit 1.). The TTLCs for mercury and zinc are 20 mg/kg and 5,000 mg/kg respectively.

c. On or about October 11, 18, 23, 25, 28 to 31, 2002, November 1 through 3, 2002, and on December 5 through 6, 2002, UCRFS shipped to Zeneca, 908 truckloads (14,000 cubic yards before treatment as described in 1 b.) of treated soft marsh cinders and sediment), containing concentrations of mercury between 20 mg/kg and 50 mg/kg (described by UCRFS as containing less than 50 mg/kg of mercury), arsenic from 555 to 2,210 mg/kg, and copper at 12,000 mg/kg that were solidified with cement kiln dust, for placement into Subunit 1. The TTLCs for mercury, arsenic and copper are 20 mg/kg, 500 mg/kg and 2,500 mg/kg respectively.

d. On or about September 11, 16, before October 1, 2, 21, 22, and 25, 2003, UCRFS shipped to Zeneca, a total of 681 truckloads of treated "Type A materials" (6,274 cubic yards before treatment as described in 1.c.) for placement into Subunit 1. These treated "Type A materials" contained concentrations of arsenic between 550 and 1,100 mg/kg, cadmium at 3,000 mg/kg, copper from 2,700 to 11,000 mg/kg, and zinc from 6,200 to 47,000 mg/kg The TTLCs for mercury, arsenic, copper and zinc are 20 mg/kg, 500 mg/kg, 2,500 mg/kg and 5,000 mg/kg respectively.

e. On or before September 10, 2003, UCRFS shipped to Zeneca, a total of 109 truckloads of treated "UC Berkeley Type A materials" (1,496 cubic yards before treatment as described in 1.d.) for placement into Subunit 1 The treated "UC Berkeley Type A materials" contained mercury at concentrations between 20 and 50 mg/kg. The TTLC for mercury is 20 mg/kg.

f. On or about September 23 through October 25, 2003, UCRFS shipped to Zeneca, a total of 1,115 truckloads (11,987 cubic yards before treatment as described in 1 e.) of treated "Type B materials" for placement into Subunit 1. The treated "Type B materials" contained concentrations of mercury greater than 50 mg/kg and less than 260 mg/kg, arsenic from 640 to 2,900 mg/kg, copper at 5,300 mg/kg, selenium from 130 to 260 mg/kg, and zinc from 6,100 to 9,200 mg/kg. The TTLCs for mercury, arsenic, copper, selenium and zinc are 20 mg/kg, 500 mg/kg, 2,500 mg/kg, 100 mg/kg and 5,000 mg/kg respectively

Corrective Action

Within 15 days of receipt of this Summary of Violations, UCRFS shall contact the DTSC Northern California Cleanup Operations Coastal Branch, to initiate and establish a schedule to remove the contaminated cinders and otherwise restore the Subunit 1 areas at Zeneca, where the treated contaminated cinders were disposed of.

Storage and/or Acceptance of Hazardous Waste Without a Permit or Authorization

4. UCRFS violated Health and Safety Code 25201(a) in that UCRFS received and/or accepted hazardous waste without a permit or authorization from the DTSC to wit:

On or about October 27 and October 29, 2003, UCRFS received from Zeneca, approximately 2,046 cubic yards of vegetation wastes at concentrations of 850 mg/kg arsenic and 13,000 mg/kg zinc. The TTLCs for arsenic and zinc are 500 mg/kg and 5,000 mg/kg respectively.

[Note: the above vegetation wastes were excavated from UCRFS marsh areas 2 and 3 (See Map 2 for location of Areas 2 and 3), during Phase 1 activities and were sent to Subunit 1 for stockpiling on October 13, 2002. The above vegetation wastes were shipped back to UCRFS for treatment (See violation 1.h.).] (Also see violation 2].

Corrective Action

Although no further action is required regarding this violation, please be advised that in the future, storage and/or acceptance of hazardous waste from off-site would require a permit or authorization from DTSC.

Transfer of Custody of Hazardous Waste to an Unregistered Transporter

5 UCRFS violated Health and Safety Code section 25163 (a)(1) in that UCRFS transferred custody of hazardous waste to a transporter who does not hold a valid registration issued by DTSC to wit:

a On or about October 8, 2004 UCRFS transferred one truckload of hazardous waste soil contaminated with mercury to American Pacific, on manifest 23455573. American Pacific did not hold a valid registration at that time. American Pacific was registered (No. 5228) from November 23, 2004 to November 30, 2005, and has not held a registration from December 1, 2005 to present.

b. UCRFS transferred hazardous waste soil contaminated with mercury to Baires Trucking, EPA ID CAR000112925 on or about the following dates accompanied by these manifests:

1. One truckload, Manifest No. 22813706, October 29, 2003
2. One truckload, Manifest No. 22813733, October 30, 2003

Baires Trucking, EPA ID CAR000112925 held a transporter registration from February 14, 2002 to February 28, 2003 and from December 23, 2003 to December 31, 2004. Baires Trucking has not held a transporter registration from January 1, 2005 to the present.

c. UCRFS transferred hazardous waste soil contaminated with trace metals to Chapman Trucking, EPA ID CAR000092296 on or about the following dates accompanied by these manifests:

1. Two truckloads, Manifest No. 24281959, October 21, 2004
2. Two truckloads, Manifest No. 24286802, October 21, 2004

Chapman Trucking held a transporter registration from March 7, 2003 to March 31, 2004 and from March15, 2006 to March 31, 2007. Chapman Trucking does not currently hold a transporter registration.

d UCRFS transferred hazardous waste soil to G.A. Grau, EPA ID CAR000090985 on or about the following dates accompanied by these manifests:

1. Two truckloads of hazardous waste soil contaminated with trace metals on Manifest No. 24281958, October 21, 2004
2. Two truckloads of hazardous waste soil contaminated with trace metals on Manifest No. 24281976, October 22, 2004
3. Two truckloads of hazardous waste soil contaminated with trace metals, Manifest No. 2428187, October 25, 2004
4. Two truckloads of hazardous waste soil contaminated with trace metals and PCB's, Manifest No. 24281876, November 1, 2004

G.A. Grau held a transporter registration from March 2, 2001 to March 31, 2003, from June 12, 2003 to June 30, 2004, from January 27, 2005 to January 31, 2006 and from February 2, 2006 to February 28, 2007. G.A. Grau has not held a transporter registration from March 1, 2007 to the present.

e. UCRFS transferred hazardous waste soil contaminated with PCBs to Rufino Hernandez dba Hernandez Trucking, EPA ID CAR00095885 on or about the following dates accompanied by these manifests:

1. One truckload, Manifest No 24281833, October 29, 2004
2. One truckload, Manifest No 24281899, November 3, 2004

Rufino Hernandez dba Hernandez Trucking held a transporter registration from May 3, 2001 to May 31, 2003, from September 8, 2003 to September 30, 2004, and from August 1, 2005 to the present.

f. UCRFS transferred hazardous waste soil to L & M Express, EPA ID CAR000090977 on or about the following dates accompanied by these manifests:

1. One truckload of (PCB and Metals Contaminated Soil) on Manifest No. 22813826, November 19, 2003
2. One truckload of (Soil Contaminated with Mercury) on Manifest 23455572, December 22, 2003
3. One truckload of (Soil Contaminated with Mercury) on Manifest 23530095, January 23, 2004

L & M Express held a transporter registration from March 12, 2002 to April 30, 2003 from February 18, 2004 to February 28, 2005, April 21, 2005 to April 30, 2006, and July 6, 2006 to the present.

g. UCRFS transferred hazardous waste soil with trace metals and PCB's to Mark Doss Trucking, EPA ID CAR000053236 on or about the following dates accompanied by these manifests:

1. One truckload, Manifest No. 24281869, November 1, 2004
2. One truckload, Manifest No. 24281874, November 1, 2004
3. One truckload, Manifest No. 24281850, October 29, 2004

Mark Dross Trucking held a transporter registration from July 26, 1999 to August 31, 2003 and from November 17, 2004 to the present.

h. On or about October 19, 2003 UCRFS transferred hazardous waste soil contaminated with mercury to Marzette Transportation, EPA CAR000073411 on Manifest No 22925620, on December 19, 2003.

Marzette Trucking held a transporter registration from May 26, 2000 to June 30, 2001, from July 20, 2001 to August 31, 2002, from March 4, 2004 to March 31, 2005, and from August 29, 2005 to the present.

i. UCRFS transferred hazardous waste soil contaminated with mercury to Remedial Transportation Services, Inc., EPA ID CAR000127910 on or about the following dates accompanied by these manifests:

1. One truckload, Manifest No. 22813988, November 12, 2003
2. One truckload, Manifest No. 22813989, November 12, 2003
3. One truckload, Manifest No. 22813990, November 12, 2003

Remedial Transportation Services, Inc. held a transporter registration from September 26, 2002 to October 31, 2003 and from November 24, 2003 to the present.

Corrective Action

Although no further action is required regarding this violation, UCRFS must ensure that in the future all custody transfers of hazardous wastes must be to a Hazardous Waste Transporter holding a valid registration with the department.

If you disagree with any of the violations listed above, please send a written notice of disagreement to DTSC. Such notice of disagreement, if sent, should include the violation being disputed (using the numbering system in this document), the basis for the disagreement and any other additional information that explains why you disagree with the violation being alleged.

DTSC will provide you with a complete report within 65 days of the date of this letter. You may request a meeting with DTSC to discuss our findings. The issuance of this Summary of Violations does not preclude the DTSC from taking administrative, civil, or criminal action as a result of the violations noted in the Summary of Violations.

We are available to meet with you to discuss this matter beginning the week of July 16, 2007. Please call Ms. Colleen Heck at (916) 324-5780 or me at (510) 540-3855 to schedule a meeting.

Sincerely,

Charlene Williams

Charlene Williams, Chief
Northern California Branch
Enforcement and Emergency Response Program

Enclosure

Certified Mail No.: 7006 0100 0002 6809 4010

cc: Ms. Barbara Cook, Chief
Cleanup Operations Coastal Branch
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Ms. Colleen Heck
Office of Legal Counsel
Department of Toxic Substances Control
1001 I Street
P.O. Box 806
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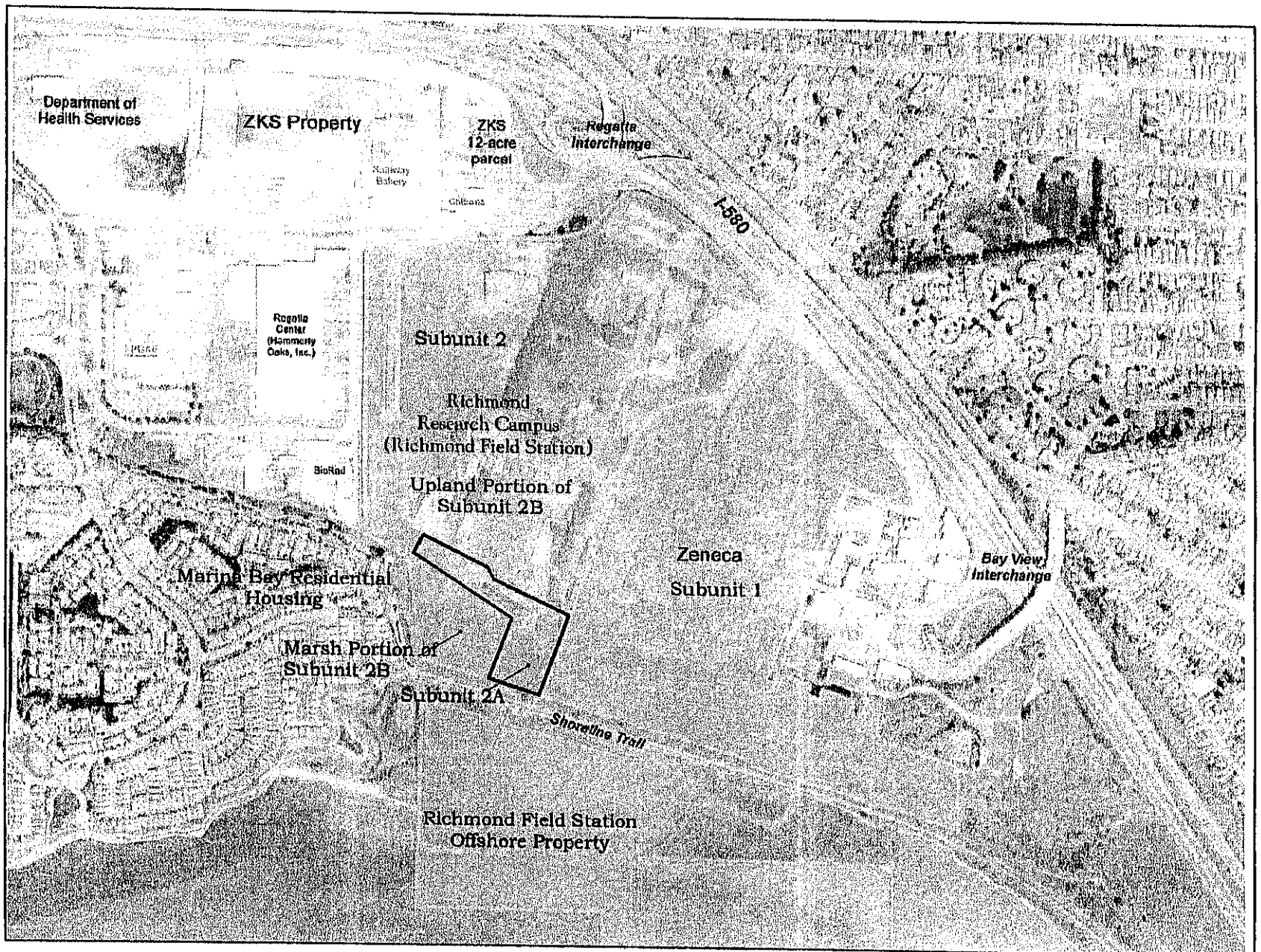
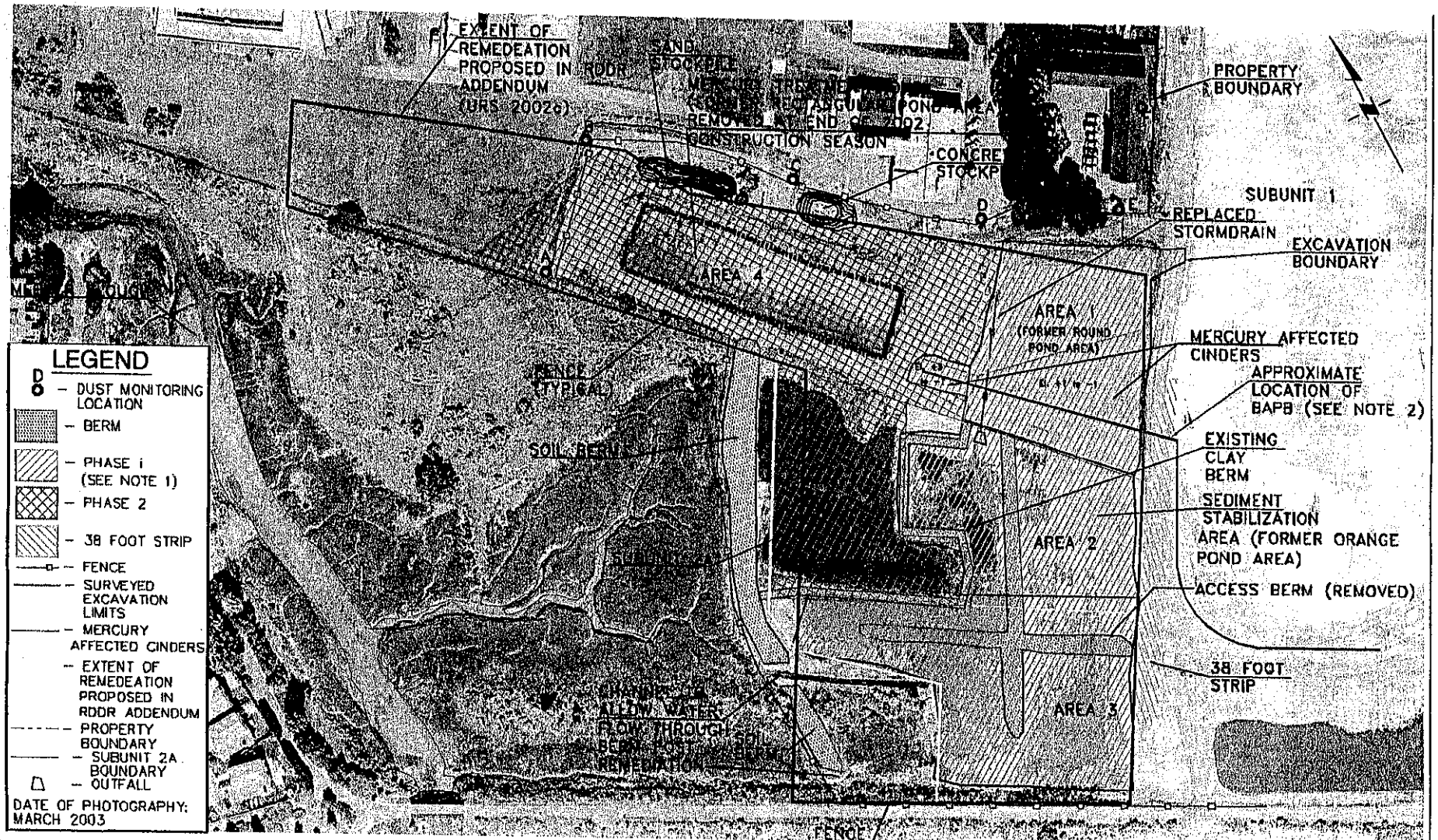


Figure 1. Subunits 1, 2A, and 2B Locations and Boudaries.

MAP 1



NOTE:

1. PHASE 1 FROM SEPT. 1, 2002– JAN 1, 2003.
2. ACTUAL LOCATION OF BAPB IS ANTICIPATED TO BE PRESENT IN SUBUNIT 1 IMPLEMENTATION REPORT.

0 50 100
SCALE: 1"=100'

URS

University of California, Berkeley
Richmond Field Station

26814100

SUBUNIT 2A
PHASE 1 REMEDIATION
SITE LAYOUT

FIGURE 1

MAP 2

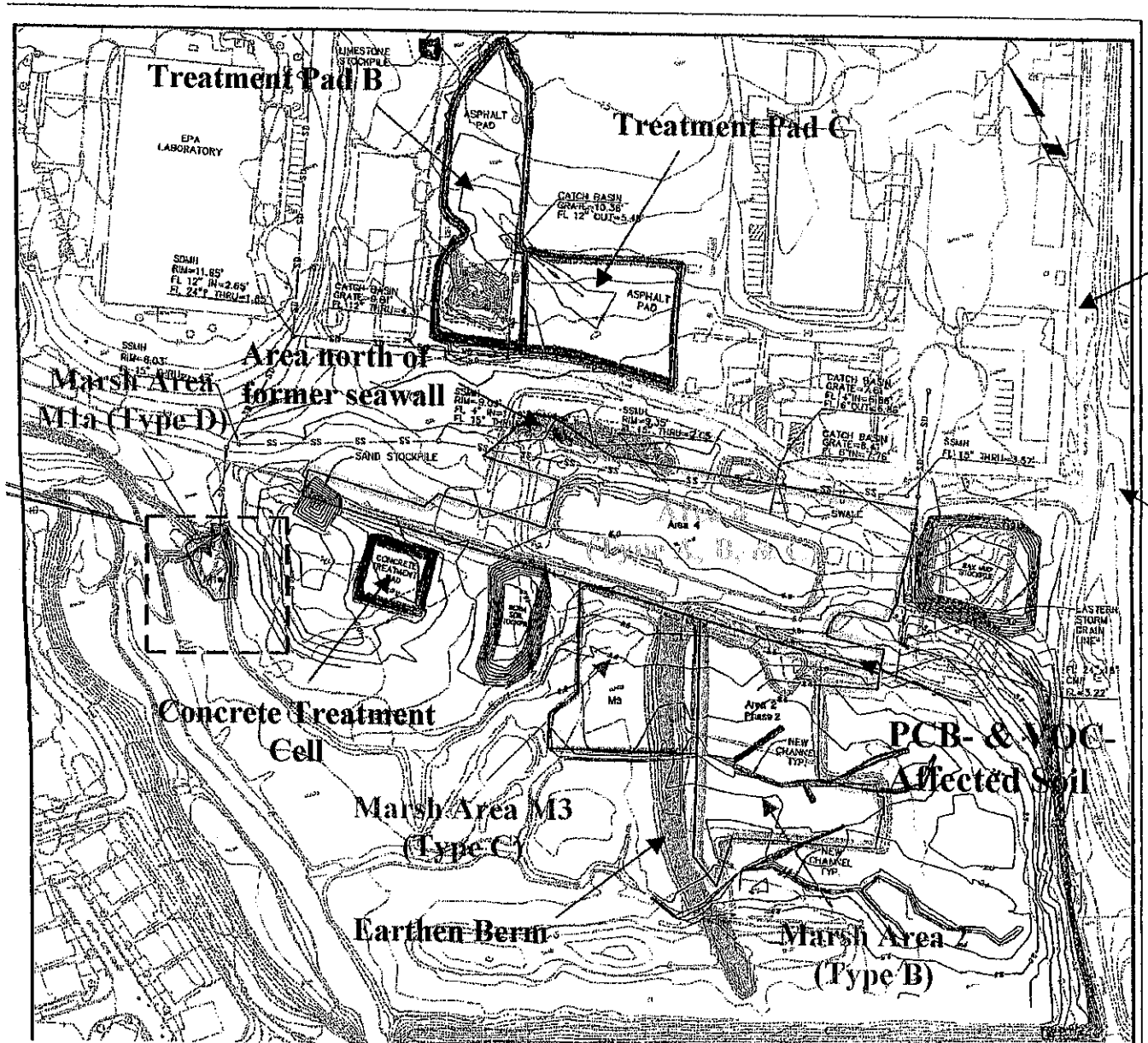


Figure 2. Phase 2 remedial areas.

MAP 3