MEETING MINUTES

Meeting Subject:	Meeting Date: April 13, 2004
Meeting for CTO-068 Feasibility Study (FS) for OU 3, IR Site 1, Alameda Point	Meeting Time: 10:00 AM Meeting Place: Bldg. 1, Alameda Point Meeting Notes Prepared By: Jim French Meeting Notes Approved By: Claudia Domingo

Attendees:

Navy	Bechtel Environmental, Inc. (BEI)	Regulating Agencies
Claudia Domingo (SWDIV)	Janet Argyres Jim French Cathie Stumpenhaus	Judy Huang (RWQCB) Marcia Liao (DTSC) Marie McCrink (DTSC) Mark Ripperda (EPA)

Attendees by conference call: None.

Additional Distribution (In Addition to Attendees): None.

Description of Action Items:

Item No.	Item Description	Responsible Individual	Due Date/ Status
1	Research the planned use of a portion of IR Site 1 as a public beach	C. Domingo	Next Meeting
2	Research various technical issues raised and address as appropriate in FS report	Jim French	TBD
3	Attend future meeting. C. Domingo will confirm the meeting time and place.	Navy, BEI, Agencies	TBD

I. INTRODUCTION

A. Introduction of Attendees. The meeting began at approximately 10:00 AM in a conference room at Building 1, Alameda Point. Speaker slide copies were distributed (attached).

B. Purpose of Meeting. The purpose of the meeting was to summarize previous work at the site, identify key issues, and discuss options for the FS technical approach.

C. Action Items from Previous Meetings. Not applicable.

II. DISCUSSION

A. Background and Site Information

J. French summarized the site information, including site features, geology/hydrogeology, and previous investigations.

The group reviewed the 1949 and 1957 aerial photos of the site, showing various site features, including the former disposal area, former burn area, pistol range, skeet target range, and runway construction.

The remedial investigation (RI) baseline human-health risk assessment (HHRA) results were reviewed, including cumulative radiological/non-radiological cancer risk and hazard. Mark Ripperda noted that the previous HHRA and Eco risk assessment are not baseline; use a "presumptive" remedy as starting point. Mark Ripperda asked that the VOC inhalation pathway evaluated in the HHRA be confirmed (indoor vs. outdoor air).

J. French indicated that for the ecological risk assessment (ERA), the assumption was made that terrestrial ecological receptors would not be exposed to site soil, due to the assumption the site would be capped (landfill presumptive remedy). However, aquatic receptors in San Francisco Bay were considered. Ecological Reference Values (ERVs) were derived using ambient water quality criteria (AWQCs) and a 10-fold dilution factor was employed to back-calculate concentrations in monitoring wells that would be protective of aquatic receptors in the bay. Mark Ripperda and Judy Huang indicated this past protocol would not be acceptable for CERCLA cleanup decision making and referenced the current direction on the Site 1 groundwater monitoring program to compare the data directly with AWQC. Claudia Domingo confirmed the approached used for comparing groundwater data in the FS would be consistent with that agreed upon for the Site 1 groundwater monitoring program data. Ms. Domingo indicated that, beginning with the Spring 2004 report, groundwater data would be compared with AWQC criteria.

A summary of the funnel-and-gate pilot-scale groundwater demonstration at Site 1 was provided by Jim French. In response to questions regarding the source of the VOC plume, Mark Ripperda indicated that, as part of the pilot-scale demonstration project, the VOC plume had been well-delineated and the source was shown to be in close proximity upgradient of the funnel-and-gate system.

Jim French summarized the status of the Site 1 groundwater monitoring program and coordination between the FS and the groundwater monitoring contractor. In addition to historic groundwater data, BEI has four quarters of groundwater monitoring results collected over the period summer 2002 through spring 2003 in electronic format.

BEI will soon be obtaining an additional three quarters of monitoring results for the period summer 2003 through winter 2003 and evaluating these data for FS purposes.

The scope and results to-date of the 2004 radiological survey for Site 1 was summarized by Jim French. A detailed site-wide survey is planned for summer 2004 and a work plan will soon be issued to the Agencies for review. He indicated that approximately 11 new acres of seasonal wetlands were field-delineated at Site 1 during March 2004 during the radiological survey vegetative clearance task. The wetland delineation was based on a field evaluation of vegetation, soils, and hydrology of potentially jurisdictional features was conducted in accordance with the procedures of the Army Corps of Engineers Wetlands Delineation Manual (1987). Claudia Domingo indicated that this information was currently under review by the Navy's Natural Resources Department. Potential implications for the FS will be identified as appropriate based on the Navy's determination regarding these findings.

B. Geotechnical/Seismic FS

J. French summarized the results of the geotechnical/seismic FS. In the OEW Characterization Report, an analysis of seismic hazards was performed using a design earthquake called the "maximum credible earthquake" (MCE). Predicted lateral deformations of the site from the MCE was estimated to be up to 19 feet, and liquefaction-induced lateral spreading was estimated to be greater than 20 feet and much higher in some areas (up to 260 feet).

The geotechnical/seismic FS evaluated alternatives to mitigate the predicted lateral deformation and liquefaction-induced lateral spreading. The recommended alternative was a composite structure along the 3,000-foot western and northern site perimeter consisting of a deep soil mixing gravity wall (for the deeper Bay mud and Merritt sand formations and stone columns for the fill material. The present-worth cost estimate for this system in was estimated to be $13.9 million.

J. French explained that deep soil mixing (DSM) is a technology that employs large-diameter specially equipped auger drilling rigs are advanced into the ground as a reagent fluid is pumped down the shaft. The fluid is mixed into the drilled soil column, creating a soil-crete mass. It was noted in the geotechnical/seismic FS that the technology could be limited in effectiveness if there were obstructions in the subsurface (e.g. sunken barges, concrete blocks). Mr. French also noted that the mixing and addition of the cement-bentonite increases the volume and results in spoils (excess soil) that must be managed and disposed.

J. French explained the basic concept of the stone columns, which is to increase shear strength of the fill material and provide for dissipation of excess pore pressure during seismic loading. Soil borings would be advanced to the top of the Young Bay Mud Layer and the boreholes then filled with stones to act as a filter and provide a vertical drainage path.

J. French acknowledged the agency's previous comments that the geotechnical and environmental FS be coordinated. He indicated that the geotechnical remedy itself would not be re-analyzed; however, one or more FS alternatives could be developed that could obviate the need for portions of the geotechnical remedy. For example, he suggested on FS alternative could include removal of waste material from the

near-shore area, potentially eliminating the need for geotechnical measures to prevent the predicted lateral displacement of 20 feet during the design earthquake.

C. Environmental FS

J. French briefly summarized the draft final environmental FS for IR Site 1, dated December 21, 2001. There were three alternatives evaluated as follows:

- Alternative 1 - No Action
- Alternative 2 - Lead and Radiological Remediation, Monolithic Cap, Groundwater Treatment, and Institutional Controls
- Alternative 3 Lead and Radiological Remediation, Multi-Layer Cap, Groundwater Treatment, Landfill Gas Control and Institutional Controls

The cap area was 55 acres and was intended to cover up the landfill area, pistol range area, and areas having contaminated soils. Under Alternative 2, two sub-alternatives were evaluated for the monolithic cap; a 24-inch cap and a 48-inch cap.

Two sub-alternatives were evaluated for groundwater. One sub-alternative involved extension of the existing funnel-and-gate groundwater treatment system and one sub-alternative involved groundwater pump and treat. Only a limited portion of the site-wide groundwater was proposed for containment/treatment, corresponding to the VOC plume in the west-central portion of the site.

The recommended alternative in the draft final environmental FS was Alternative 2, with a 24-inch monolithic cap and funnel-and-gate groundwater treatment. (Alternative 2B-1). The estimated cost of this alternative was $15.6 million. The key elements of this alternative were:

- Lead removal
- Radiological Removal
- 24-inch monolithic cap
- Funnel and gate groundwater treatment
- Landfill gas monitoring
- Institutional Controls

D. Agency Comments

Jim French summarized key technical issues raised by the Agencies during their review of the environmental FS, including:

- Waste characterization and impact on size of cap.
- HELP modeling.
- Effect of the Geotech FS remedy on the hydraulics of the funnel and gate system.
- Rationale for limited groundwater remediation.
- Treatment of non-cVOCs in groundwater.

- Need for a more "stand-alone" document.
- Costing methods and disposal unit costs.
- Coordination between environmental and geotech FS.
- Presumptive remedy doesn't apply; evaluate a wider range of options.
- ARARs
- Truck trips for monolithic cap and effect on surrounding community.

Relative to these issues, Mr. French indicated the Navy believes that the size of the cap and the scope and scale of groundwater remediation were critical.

E. Technical Approach Options

J. French indicated that for soil, the Navy is proposing to delineate and evaluate technologies for discrete areas/contaminant types on-site, including:

- Subsurface Disposed Materials
- Pistol Range Berm
- Radiological anomalies
- Paved Areas (outside disposal area limits)
- Unpaved Areas (outside disposal area limits)

The objective of this approach would be to assure appropriate measures are evaluated for each area of the site/contaminant source. He cited the pistol range soil berm as an example, where technologies to be evaluated could include monitored natural attenuation (MNA), on-site treatment, consolidation of the material under a cap overlying the adjacent subsurface disposed materials, or off-site disposal. After technologies are evaluated/screened for each discrete area, the retained technologies would be assembled into site-wide alternatives. Mr. Ripperda indicated this approach would be acceptable, providing that alternatives be supported by risk assessment results based on adequate soil chemical data. Judy Huang raised the issue that there will be a public access beach near the offshore skeet range IR Site and that this may be a data gap. Mark Ripperda suggested inclusion of a complete removal alternative for comparison since this is something that the public will be interested in knowing.

For groundwater, the Navy proposes to complete a screening of the recent groundwater data (seven quarterly sampling rounds from summer 2002 through winter 2003) against California Toxics Rule (CTR) criteria, prepare posting plots, share this information with the agencies, and engage in discussions regarding the scope of groundwater remediation potentially required at the Site. This information would be a key discussion topic for the next meeting. Marica Liao and Mark Ripperda requested this evaluation include an assessment of the adequacy of detection limits to evaluate comparison with CTR criteria. Judy Huang confirmed that ARARs for groundwater will be CTR criteria and nondegradation need not be evaluated at this time. Mark Ripperda recommended that the Navy conduct some

form of comparison of historical groundwater data (1990s) with current data (2002-2004) with emphasis on the site perimeter. Judy Huang requested that groundwater flow rates and transfer rates be determined as an additional factor for evaluating the groundwater cleanup issue. Mark Ripperda indicated that the volatile inhalation pathway associated with the VOC plume needed to be evaluated in addition to the CTR criteria and that the public will want to see some sort of "source reduction" for the groundwater plume area.

F. Additional Issues Raised

Mark Ripperda mentioned the issue of using sediment from Seaplane Lagoon for cover needs to be addressed/coordinated with the Seaplane Lagoon project team.

Mark Ripperda noted that placing 2 to 4 feet of soil cover on the runways that already represent a 3-foot concrete cap does not make sense.

Marcia Liao was interested in non-VOC soils data for the burn area. She asked the Navy to evaluate whether soils were tested for incineration related compounds.

Marcia Liao recommended a landfill gas evaluation and indicated that the landfill gas data collected was NOT included in the risk assessment.

Marcia Liao raised the concern that Basewide PAH investigation activities have not included IR Site 1 and asked this be addressed in the FS data evaluation.

Mark Ripperda noted that the Navy needs to evaluate alternatives irrespective of intended future use (i.e. golf course). He recommended the FS alternatives include all costs and not defer costs to the other entities following property transfer

The regulators asked for electronic copies of the presentation.

Claudia Domingo agreed to provide the electronic presentation copy and indicated the additional issues raised would be evaluated by the Navy and BEI.

G. What's Next?

J. French indicated the FS schedule has been extended to allow for incorporation of the summer 2004 radiological survey results and the draft FS is currently scheduled to reach the Agencies in November 2004. The Navy wishes to continue dialogue with the agencies regarding the outstanding technical issues. Prior to the next meeting, the FS project team will be re-evaluating soil and groundwater data, identifying and screening technologies, then developing and screening remedial alternatives.

III. NEXT MEETING DATE

The next meeting with the regulatory agencies will be scheduled following evaluation of the soil and groundwater data and development of FS alternatives. The next meeting would therefore likely occur during early summer 2004.

CLEAN 3 Program
Bechtel Job No. 23818
Contract No. N68711-95-D-7526
File Code: 0208
IN REPLY REFERENCE: CTO-0068/0023

May 3, 2004

Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Chon Son, Code 02R1.CS
1220 Pacific Highway
San Diego, CA 92132-5190

Subject: Meeting Minutes – April 13, 2004 Agency Workshop for Installation Restoration Site 1 Feasibility Study
Alameda Point, Alameda, California

Dear Mr. Son:

Enclosed, please find three copies of meeting minutes from the April 13, 2004 Agency workshop meeting for the Installation Restoration Site 1, Feasibility Study, Alameda Point, California. As directed by the Navy RPM, we are concurrently transmitting copies of the document to Mr. Mark Ripperda of U.S. EPA, Ms. Marcia Liao and Ms. Marie McCrink of DTSC, and Ms. Judy Huang of the RWQCB.

If you have any questions, please contact Jim French, CTOL, at (619) 744-3034 or me at (415) 768-9917.

Very truly yours,

Janet L. Argyres
Project Manager

Enclosure

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BECHTEL ENVIRONMENTAL, INC.

CLEAN 3 TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N-68711-95-D-7526 **Document Control No.** CTO-0068/0023

File Code: 0208

TO Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Chon Son, Code 02R1.CS
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: May 3, 2004
CTO #: 0068
LOCATION: Alameda Point, California

FROM: Janet L. Argyres
Janet L. Argyres, Project Manager

DESCRIPTION: Meeting Minutes – April 13, 2004 Agency Workshop for Installation Restoration Site 1 Feasibility Study

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TO VIEW THE DATA, CONTACT:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676