



Department of Toxic Substances Control



Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Edwin F. Lowry, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

N00236.002462
ALAMEDA POINT
SSIC NO. 5090.3

Gray Davis
Governor

June 25, 2002

Mr. Richard Weissenborn
Department of Navy
Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101

**DRAFT ORDANCE AND EXPLOSIVE WASTE/GEOTECHNICAL
CHARACTERIZATION REPORT, INSTALLATION AND RESTORATION SITE
1, ALAMEDA POINT, ALAMEDA, CALIFORNIA**

Dear Mr. Weissenborn:

The Department of Toxic Substances Control (DTSC) has reviewed the above referenced document prepared by Foster Wheeler Environmental Corporation and submitted by the Navy on April 26, 2002. Our comments are enclosed. If you have any questions, please contact me at 510-540-3767.

Sincerely,

Marcia Y. Liao

Marcia Liao, Ph.D., CHMM
Hazardous Substances Engineer
Office of Military Facilities

enclosure

Ms. Richard Weissenborn

Page 2

June 25, 2002

cc: Michael McClelland, SWDiv
Andrew Dick, SWDiv
Steve Edde, Alameda Point
Anna-Marie Cook, EPA
Judy Huang, RWQCB
Elizabeth Johnson, City of Alameda
Peter Russel, Northgate Environmental
Michael John Torrey, RAB Co-Chair
Lea Loizos, Arc Ecology
Abid Loan, Foster wheeler

DTSC COMMENTS
DRAFT ORDNANCE AND EXPLOSIVES WASTE/GEOTECHNICAL
CHARACTERIZATION REPORT
SITE 1, OPERABLE UNIT 3
ALAMEDA POINT, ALAMEDA, CALIFORNIA

PART 1: OVERALL

1. Site 1, being a Solid Waste Management Unit (SWMU), is subject to the corrective action requirements of RCRA Subpart S. Therefore, management of this unit must conform to RCRA, either directly or as ARARs. Please revise Section 1.5 (Regulatory Framework), particularly subsection 1.5.5, as appropriate.
2. Section 1.5.5 concerns the applicable regulations and criteria for geotechnical and seismic design. There is no comparable section for ordnance and explosive waste (OEW). Please provide one for OEW management.
3. The OEW work described in this document includes not only OEW characterization, as suggested by the report title, but also demilitarization and disposal. Please consider modifying the report title to reflect the full scope of work involved.
4. It is unclear if Section 1.1.3 (Previous Investigation) contains all investigations conducted to date for Site 1. This has caused some confusion. For example,
 - ◆ Page 1-3, paragraph 4 discusses a radiological survey conducted in September 1995 while paragraph 4 on the same page references a 1998 radiological survey. Does this mean that there had been two separate radiological surveys done on site?
 - ◆ Page 1-3, paragraph 3 discusses a 1995 soil sampling. Does this mean that the 1995 study is the only chemical investigation done to date at the subject site?
 - ◆ Page 1-4, paragraph 2 states that a RI was conducted by TtEMI and references documents dated 1999 as well as 2001. It is unclear that except hydrogeological and geotechnical data what other information is available through these two documents.

For the purpose of this document, it is the Navy's choice to make Section 1.1.3 a summary of *all* or only *selected* investigations done to date. Please just make it clear.

5. Page 1-1, paragraph 2 states, "Alameda Point is rectangular in shape, approximately 2 miles long east-to-west and 1 mile wide from north-to-south". However, a number of figures (e.g. Figures 1-1 through 1-3) show that Site 1 is

actually longer in the north-to-south direction than east-to-west direction. Please revise as necessary.

PART 2: ORDANCE AND EXPLOSIVE WASTE

Please refer to the memorandum prepared by Mr. James Austreng.

PART 3: GEOTECHNICAL AND SEISMIC EVALUATION

Please refer to the memorandum prepared by Mr. Ram Ramanujam.



Department of Toxic Substances Control



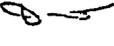
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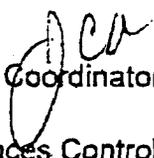
Edwin F. Lowry, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gray Davis
Governor

MEMORANDUM

TO: Marcia Liao
Project Manager
Office of Military Facilities
Department of Toxic Substances Control

Via: Donn Diebert, P.E. 
Chief, Open Base Navy and FUDS Unit
Office of Military Facilities
Department of Toxic Substances Control

From: James C. Austreng, P.E. 
State Unexploded Ordnance Coordinator
Office of Military Facilities
Department of Toxic Substances Control

Date: June 25, 2002

SUBJECT: DRAFT ORDNANCE AND EXPLOSIVE WASTE/GEOTECHNICAL
CHARACTERIZATION REPORT, REVISION O, ALAMEDA POINT,
ALAMEDA, CALIFORNIA, DATED APRIL 26, 2002

I have reviewed the subject document provided May 24, 2002. My comments follow:

GENERAL COMMENTS:

On page 1-3 of the report, the Navy states- "During a 1998 radiological survey of IR [Installation Restorations] Site 1 (which found low-level radiation), a number of live 20 mm high explosive projectiles were discovered." Because of this discovery, I have raised questions in the following comments and conclusion regarding the adequacy of the proposed surface clearance. (Ref: page 1-4, The City of Alameda intends to convert IR Site 1 into a golf course after the DON [Department of Navy] turns over the site. An OEW investigation and removal of OEW, if encountered on the surface, must occur prior to property transfer to the city. (Emphasis added).

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at www.dtsc.ca.gov.

Marcia Liao
June 25, 2002
Page 2

In addition, I have concerns about the absence of details pertaining to uncertainties and what risk management activities will be established.

SPECIFIC COMMENTS:

1) A Department of Defense Explosive Safety (DDESB) approved Explosive Safety Submission (ESS) was not included in the document. It is DTSC's practice that an ESS is incorporated into the investigative report and DDESB's concurrence is obtained prior to initiating the response action. Furthermore, based on the intended land use, I do not believe limiting the OEW response action to surface clearance is consistent with Department of Defense (DoD) Explosive Safety Standard, 6055.9. Ordnance removal should be to depth or at a minimum of four feet below the deepest planned excavation, which ever is greatest.

2) Page 1-3 also states that "The rounds [the live 20 mm high-explosives rounds referenced above] were taken to an area between the runways and were detonated." There is no text, which discusses actions taken to ensure the detonation was complete and no unexploded items were thrown, or kicked out. Furthermore, there is no reference that such detonation constitutes treatment of a hazardous waste subject to compliance with California Code of Regulations (CCR) Section 66264.600, Miscellaneous Units. Questions remain whether this action was authorized by DTSC.

3) The Report also fails to address subsequent finds of OEW and the need to comply with CCR 66264.600. Such compliance includes the analysis of potential impacts from treatment of hazardous waste as well as the assessment of treatment alternatives. Open detonation cannot be presumed to be the preferred treatment method. Contained detonation methods must be included in the analysis.

4) While Abid Loan, P.E. signed the report; it is not clear if this individual is a California license professional. Pursuant to DTSC's practices and the California Business Code, such reports should be signed and stamped by a licensed California professional.

Conclusion:

Based on the reported discoveries of live ordnance, it is my opinion that limiting the level of ordnance detection and removal to surface clearance is insufficient and does not adequately support the intended land use (golf course). Further information, which includes an assessment and protection against potential users coming in contact with any remaining ordnance items needs to be provided. In addition, a Covenant with DTSC that "runs with the land", needs to be developed and approved by DTSC prior to transfer.

MEMORANDUM

TO: Marcia Liao
Office of Military Facilities
Northern California Region
Berkeley

VIA: John Hart, P.E. (Original Signed by)
Chief, Engineering Services Unit

FROM: Ram Ramanujam, P.E. (Original Signed by)
Hazardous Substances Engineer
Engineering Services Unit

DATE: June 25, 2002

SUBJECT: Draft - Ordnance and Explosive Waste/Geotechnical
Characterization Report - IR Site 1 - Alameda Point, Alameda, CA

Per your request, I have reviewed the following Report:

Draft Ordnance and Explosives Waste/Geotechnical Characterization Report - Installation Restoration Site 1, Alameda Point, Alameda, CA (Prepared by Foster Wheeler Environmental Corporation, dated April 26, 2002).

Based on the review, my comments are as follows:

COMMENTS:

1. Section 5.0, Conclusions and Recommendations: The calculated permanent slope deformations at the site range from 2 to 19 feet. And, the liquefaction induced settlements are estimated to be up to 12 inches. These slope deformations and settlement values may not be restricted within the site and may extend beyond the site boundary. The proposed remedial measures should also consider the seismic impact on the site due to the out side boundary effects.

2. Table 4-1: The table should include the surface elevation at which the Cone

Penetrometer test (CPT) probes were taken.

3. Table 4-6: The long term stability analyses require effective stress parameters such as c' and ϕ' for various subsurface materials. The summary of material design parameters Table 4-6 should include effective stress parameters c' and ϕ' .

4. Figure 4-17: Please provide a detailed reference to the publication in the reference Section 6.0.

5. Appendix A: All the identification of the subsurface soil profiles in the Geological cross sections should be same as the soils profile provided in the Figures 4-7a through 4-7h (for consistency).

6. Appendix G: Some of the laboratory test results indicate very high moisture content values. Refer to Boring Nos. B8 and B10, the moisture content values are greater than the liquid limit. The Report should include some discussion on the high moisture content values of the samples.

7. Appendix K:

- . Liquefaction induced settlements should include back calculations for review.

- . All figures should include subsurface layer identification using Unified Soil Classification System (USCS).

8. Appendix L:

- . The Appendix should include a summary conclusions of the stability analyses.

- . For selected stability analyses cover material is used. The Report should include the thickness of the cover materials and the justification of shear strength properties used for the stability analyses.

- . The Report should include long term static stability analyses using effective shear strength properties (c' and ϕ') of various subsurface materials.

- . The Report should include backup calculations for the permanent slope deformations.

I have not visited the site to observe the existing conditions. Next time, I will join you for the site visit.

I will be available to attend any project meeting to resolve the technical issues identified in this memorandum. In the meantime, if you need any clarification on this memorandum, please contact me at (916) 255-6662.