



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

N00236.002458
ALAMEDA POINT
SSIC NO. 5090.3

Gray Davis
Governor

March 21, 2003

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

**DRAFT GEOTECHNICAL FEASIBILITY REPORT, OPERABLE UNIT 3, SITE 1,
ALAMEDA POINT, ALAMEDA, CALIFORNIA**

Dear Mr. Weissenborn:

The Department of Toxic Substances Control (DTSC) has reviewed the above referenced document dated August 19, 2002. Our comments are enclosed. If you have any questions, please contact me at 510-540-3767.

Sincerely,

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

enclosure

Mr. Richard Weissenborn

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cc: Michael McClelland, SWDiv
Andrew Dick, SWDiv
Steve Edde, Alameda Point
Mark Ripperda, EPA
Judy Huang, RWQCB
Christopher Fong, CIWMB
Elizabeth Johnson, City of Alameda
Peter Russel, Northgate Environmental
Randolph Brandt, LHF
Bert Morgan, RAB Co-Chair
Lea Loizos, Arc Ecology
Abid Loan, Foster wheeler

DTSC COMMENTS
DRAFT GEOTECHNICAL FEASIBILITY STUDY REPORT
OU-3, SITE 1
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Part I: Comments from DTSC Office of Military Facilities

Section 1.2.3 *Design Basis* states that no formal classification has been established for the landfill at IR Site 1. It then compares landfills for designated waste (Class II) with landfills for non-hazardous waste (Class III) and concludes that, as a conservative measure, the subject landfill is a Class II and the maximum credible earthquake (MCE) will be used as the design basis.

DTSC agrees that MCE is the appropriate design basis. However, we disagree that the landfill at Site 1 is a Class II or III landfill. In our June 25, 2002 and October 21, 2002 comments to the *Draft* and *Draft Final documents for Ordnance and Explosives Waste/Geotechnical Characterization*, DTSC has made it clear that Site 1 is a Solid Waste Management Unit (SWMU) subject to RCRA Corrective Action. The cleanup of this unit must conform to state requirements found in California Code of Regulation (CCR) Title 22 and Title 27.

It is important to note that there has been no invasive work conducted at Site 1 to date to either characterize or delineate the area of refuse within the waste disposal area. Given the nature of past operation and waste disposal practice at Alameda Naval Air Station, it is highly likely that hazardous wastes were disposed of at Site 1 along with other wastes including municipal wastes, radiological wastes, and ordnance explosive wastes (OEW).

The Navy contends that because no hazardous wastes have been identified at Site 1, the contents of the landfill should be considered as non-hazardous (see Navy's *Response to Comments* (RTC) for *Draft Final OEW/Geotechnical Characterization Report* dated September 20, 2002). This contention neglects the fact that no waste characterization has been conducted at Site 1 to date and is therefore flawed.

Part II: Comments from DTSC Engineering Service Units

Please see comments prepared by Mr. Ram Ramanujam, P.E..



Department of Toxic Substances Control



Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

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

Gray Davis
Governor

MEMORANDUM

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

VIA: John Hart, P.E. *[Signature]*
Chief, Engineering Services Unit

FROM: Ram Ramanujam, P.E. *[Signature]*
Hazardous Substances Engineer
Engineering Services Unit

DATE: February 10, 2003

SUBJECT: Draft - Geotechnical Feasibility Study Report - IR Site 1 - Alameda Point, Alameda, CA



Per your request, I have reviewed the following Report:

Draft - Geotechnical Feasibility Study Report, Revision 0 - Installation Restoration Site 1, Alameda Point, Alameda, CA (Prepared by Foster Wheeler Environmental Corporation, dated August 19, 2002).

Based on the review, my comments are as follows:

GENERAL COMMENTS:

G1. The title of the Report, 'Geotechnical Feasibility Study Report,' may get confused with the other Feasibility Report for the project (particularly the term, 'Feasibility'). Since this Report focuses on the remedial design issues, it is appropriate to revise the title of the Report to 'Pre-Design Report.'

G2. The Attachment 1 (Hushmand Associates) identifies that Section 1.2.4 has been prepared and included with the Report. However, the Report as presented does not include the Section 1.2.4. This issue needs clarification.

G3. Abbreviations and Acronyms section should include the Department of Toxic Substances Control (DTSC).

G4. The Report considers various geotechnical methods to improve the shear strength values of the subsurface materials at the site. The Report should also consider other methods such as:

- . Dynamic consolidation will improve the onsite subsurface materials. Dynamic consolidation is very effective on flat areas and shallow subsurface materials.

- . Reinforced earthen slopes at the shoreline areas.

SPECIFIC COMMENTS:

S1. Section 1.2: The site background section should include a brief summary of the contamination problems at the site area. Such information will aid the design basis for the deformation for the site.

S2. Section 1.2.1: Site description should include the end-use of the site.

S3. Section 1.2.3:

- . The Report should include the requirements of California Code of Regulations (CCR) Title 22, in developing the design basis for the site.

- . Page 1-7: "For seismic stability, a pseudo-static factor of safety greater than 1.0 is considered acceptable when designing for the PHGA." CCR Title 27 (§21750(f)(5)) requires that the pseudo-static factor of safety be equal to or greater than 1.5 when designing for the PHGA. The Report should be revised to satisfy the requirements of CCR Title 27.

- . Page 1-8: The following factors should be included for the allowable seismic design displacements:

- . Release of waste and its consequences, and
- . Remediation time for the repair (no restrictions in mobilizing the repair work).

S4. Section 2.2.1: See Comment No: G4.

S5. Section 2.3, page 2-5:

. The Report indicates the post-earthquake stability of the slopes will be evaluated using the residual strength parameters of soils. In this regard, please refer the following publication:

N. Ramanujam, L.L. Holish and W.H. Chen., Post-Earthquake Stability Analysis of Earth dams (Earthquake Engineering and Soil Dynamics, Proceedings of the ASCE Geotechnical Engineering Division, Speciality Conference, June 19-21, 1978, Pasadena).

. See Specific Comment No: S3.

S6. Section 3.1:

. Table 3-1: See General Comment No: G4.

. Various remedial alternatives should include appropriate figures.

S7. Section 3.22, Compliance with ARARs: See General Comment No: G4.

S8. Table 3-2: The ARARs table should include the requirements of CAR Title 22.

S9. Section 4.2.3, Page 4-11, last para: "Therefore, the correlation between seismically induced slope deformation and yield acceleration (shown in Figure 4-6) developed based on existing conditions, is still applicable." The referenced Figure Number should be corrected to Figure 4-61.

S10. Table 4-2, Alternative 5 (Soil Cement Gravity Wall and Stone Columns): The Report presents slope stability analysis passing through the stone column. The Report should include a critical stability analysis for the down stream side of the Gravity Wall.

S11. Section 5.0, References: See Specific Comment No: S5.

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.

