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MARE ISLAND
SSIC NO. 5090.3.A



Linda S. Adams
Secretary for
Environmental Protection

Department of Toxic Substances Control



Arnold Schwarzenegger
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MEMORANDUM

TO: Chip Gribble
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Office of Military Facilities, Berkeley Regional Office, Site Mitigation

FROM: Buck King, PG, CHG *Buck King*
Engineering Geologist, Geological Services Unit (GSU)
Hazardous Waste Management Program, Berkeley Regional Office

CONCUR: Brian Lewis, CHG, CEG *Bk for*
Senior Engineering Geologist, GSU
Hazardous Waste Management Program, Sacramento Regional Office

DATE: May 24, 2007

SUBJECT: WORK PLAN TIME-CRITICAL REMOVAL ACTION
IR04, IR05, PWA, DRMO SITES, VALLEJO, CALIFORNIA
PCA: 18040 SITE: 201208-18

DOCUMENTS REVIEWED

Draft Work Plan Time-Critical Removal Action, Installation Restoration Site 04, Installation Restoration Site 05, Parcel XVI Paint Waste Area, Defense Reutilization and Marketing Office Scarpyard, and Horse Stables Area. Former Mare Island Naval Shipyard, Vallejo, California (TCRA Work Plan). Prepared by Weston Solutions, Inc. and dated May 2007.

INTRODUCTION

As you requested, the GSU of the Department of Toxic Substances Control (DTSC) has reviewed the above-referenced TCRA Work Plan. This memorandum provides GSU comments and recommendations. If you have questions, please contact Buck King at (510) 540-3955 or Brian Lewis at (916) 255-6532.

COMMENTS

Comment 1. The TCRA Work Plan Section 4.10 indicates that imported soil to be used as back fill for soil excavations will be sampled at a minimum of one sample per 5,000 cubic yards of material in accordance with DTSC guidance and references the *Information Advisory for Clean Imported Material* (DTSC 2001). The GSU points out that the DTSC 2001 guidance specifically recommends a total of 12 samples for the first 5,000 yards and 1 additional for each additional 1,000 cubic yards. The guidance was prepared for clean fill to be used at school sites and is designed to address the high level of characterization required for remediation of school facilities and may be overly stringent for this project and its associated soil volume. The work plan should describe the import soil source areas and chemical characterization conducted to date and anticipated. The TCRA Work Plan should remove the reference to the DTSC 2001 guidance if it is not followed.

Information presented in Appendix D – Sampling and Analysis Plan Addendum 1, Section 3.1.6.6 indicates that Dredge Pond 4S will be used as source of imported soil for back fill. This information should be verified and included in TCRA Work Plan Section 4.10.

Comment 2. The GSU has concerns regarding the potential for side wall collapse and excavation flooding at the proposed main IR04 soil excavation. The excavation appears to coincide with the approximate high tide limit associated with Mare Islands Strait. The close proximity of the excavation to saturated sediments and surface water body create the likely potential for a high volume of groundwater flow, potential soil erosion (piping), and eventual side wall collapse which could result in excavation flooding.

The Figure 4-1a reflects the interpretation that the Abrasive Blasting Material (ABM) is present as a lense that tapers to a zero thickness at the water's edge. It is GSU's understanding that spent ABM was used to fill inter tidal and open water areas and is expected to occur in Mare Island Strait. If the ABM materials are continuously present between the main excavation area and the water of Mare Island Strait, then the potential for uncontrollable groundwater influx, side wall collapse, or excavation flooding are considered very possible.

The ABM materials along the excavation – Mare Island straight boundary should be evaluated for their geotechnical properties and the excavation side wall should be evaluated by a geotechnical engineer. Reconnaissance soil pits and trenches should be installed to evaluate ABM thickness and groundwater dewatering characteristics.

Comment 3 The TCRA Work Plan Section 4.10.2 should present a more thorough discussion of site restoration at IR05 in regards to final grades and wetland habitat restoration. The work plan should include elevation control on the perimeters of the existing eastern pickle weed area, open water tidal wetland, and existing intertidal

channels (channel bottom) that connect the wetland features to each other and to the bay.

The Figure 4-2 should include the location of the existing water channels, monitoring wells, and monitoring well access routes. This information should be considered during the design of final site grades. The work plan should include a preliminary grading plan and estimated excavation bottom elevations and anticipated habitat.

RECOMMENDATIONS

The GSU recommends that the TCRA Work Plan be revised to address the three comments previously described.