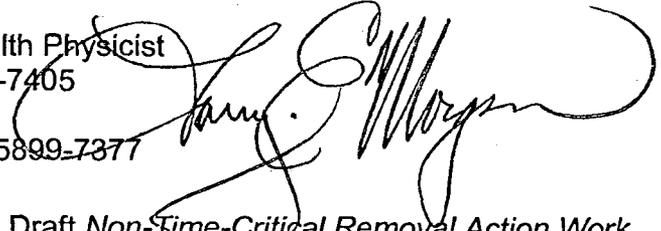




California Department of Public Health
MEMORANDUM

Date: January 16, 2013

To: Remedios Sunga, Project Manager
Brownfields and Environmental Restoration Program-Berkeley Office
California Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, California 94710-2721

From: Larry Morgan, Senior Health Physicist
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Subject: Review Comments for the Draft *Non-Time-Critical Removal Action Work Plan December 2012*; Naval Station Treasure Island, San Francisco, California

As requested by the California Department of Toxic Substances Control (DTSC), Environmental Management Branch (EMB) of the California Department of Public Health (CDPH) reviewed the Draft: *Non-Time-Critical Removal Action Work Plan December 2012*; Naval Station Treasure Island, San Francisco, California. Attached are comments from EMB.

If you need further assistance please contact Tracy Jue of my staff at (916) 324-4804, or Matthew Wright at (916) 449-5687.

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Comments:

Comments:

1. The Environmental Management Branch (EMB) of the California Department of Public Health (CDPH) appreciates the opportunity to review the submitted Draft *Non-Time-Critical Removal Action Work Plan December 2012*; Naval Station Treasure Island, San Francisco, California.
2. It might be helpful to include a designation that this work plan is for Site 12 in the title of the work plan.
3. EMB will be greatly assisted if all aspects of the Final Status Survey (FSS) compare the distribution data from each of the buildings and excavation sites' final status survey results, individually, to reference area results. Please include as a minimum these methodologies the Department of Navy has previously agreed to:
 - Cumulative probability curves to analyze Gamma Walk-over Surveys (GWS) and gamma static data,
 - final status reports and remedial action completion reports will include normal probability plots of the Ra-226 concentrations along with comparison to the Ra-226 concentrations in the soil samples collected from the background reference areas,
 - a comparison of the static count rate data distributions will be included in the final status survey reports and remedial action completion reports. The comparison of static count rate data distributions cited above refers to a comparison to background distribution.
4. EMB does not concur with, "...Ra-226 and the release criterion for this isotope is 1 picocurie per gram above background."(page 1-4,section 1.4, Release Criteria, paragraph one, sentence three.) As a result of a Superior Court order (Committee to Bridge the Gap V. Bonta et.al., Sacramento County Superior Court Case No. 01CS01445,"Order Requiring Supplemental Return to Amended Preparatory Writ", August 17, 2002) which held that,"...the standard in California for decommissioning and termination of licenses for radioactive sites is found in...Section 30256", EMB utilizes the California Code of Regulations (CCR), Title 17, Section 30256(k). This section requires that radioactive material be

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removed, a reasonable effort has been made to eliminate residual radioactive contamination, and the licensee can demonstrate the site is suitable for unrestricted release.

5. EMB does not concur with Table 6-1, Release Criteria, Notes: (g), "Limit is 1 pCi/g above the background, per agreement with EPA"(see General Comment number 2 above). Has the EPA listed Treasure Island as a site in the "National Priority List"(NPL)? If EPA has not, please explain how 42 CFR §9620(a)(4) applies to a non-NPL site.
6. SAP Worksheet #15.1- Reference Limits and Evaluation Table for Soil/Swipe Samples, Notes:(a) "The statement of work lists the release criterion for Ra-226 as background + 1pCi/g, which implies that the background concentration has been established at 0.7 pCi/g." EMB uses comparison to background as its key release criterion; EMB hopes to see a more robust, technically based citation for background values.
7. SAP Worksheet # 17 – Sampling Design and Rationale page 83 of 162, paragraph one, sentence five, "...with a Ludlum Model 44-10 2-inch by 2-inch NaI scintillation detector (or equivalent)..." EMB recommends the use of Ludlum Model 44-20 with a 3-inch by 3-inch NaI scintillation detector. While both models are acceptable, the *a priori* Ra-226 MDC is 0.85 pCi/g for a Ludlum Model 44-20 GWS of a NUREG-1507 hot spot assuming a 0.95 true positive proportion and a 0.60 false positive proportion when the detector is directly over the hot spot term (NRC, 1998). This is considerably more robust than the calculated *a priori* Ra-226 MDC of 1.33 pCi/g of a Ludlum Model 44-10 given the same conditions.