

MEMORANDUM

To: Jim Sullivan, Treasure Island BRAC Environmental Coordinator, and Treasure Island Restoration Advisory Boardmembers

From: John C. Allman, Community Member, Treasure Island Restoration Advisory Board and Technical Subcommittee

Date: May 27, 1997

Re: Comments concerning *Draft Remedial Investigation Report Addendum 4: Revised Remedial Investigation Conclusions and Recommendations*

Following are my comments concerning the abovementioned document. I have first included a general comment which applies to the entire document followed by specific comments relevant to particular sections of the document.

General Comment:

Whenever reference is made in this document to the fact that values for soil samples were determined to be above PRGs for various chemicals, but that the contaminants are not expected to impact ecological receptors in the Bay based on groundwater results, it must be remembered that geotechnical studies of Treasure Island (TI) have demonstrated that the island is slowly settling, *especially in the shoreline regions which this document focuses on*. Since the modeling results indicated in this report frequently predict Bay contamination several decades in the future, it is reasonable to assume that as the island settles the relative positions of contaminant plumes with respect to the water table may change significantly over time, thereby making any assumptions that highly contaminated soil has no chance of contaminating groundwater unreasonable in my opinion. I have made this comment at several RAB meetings over the past two years, and still have not received a response as to how this settling effect was reflected in the modeling calculations and will address this problem throughout this memorandum. If high levels of a contaminant are discovered in the soil, the complete extent should be determined and that soil should be removed, using physical means as opposed to handwaving models.

Specific Comments:

Section 1.1, Approach, Purpose, and Application

- Page 1 - "The total TPH chronic effective concentration (EC) 10 of 14.3 milligrams per liter...."
The sentence should be rewritten to change "(EC) 10" to "(EC10)", as is stated in the actual addendum which the sentence addresses.
- Page 2 - "... several sites are recommended for no action for soil."
If the modeling in Addendum 1 and screening levels determined in Addendum 3 are found to be inadequate, all of these sites will have to be reevaluated for the proper corrective action.

Section 2.1, Site 05 - Old Boiler Plant

- Page 3 - "Beryllium concentrations in soil exceeded the ambient levels in soil samples collected throughout Site 05."
This sentence is nonsensical, as this section is discussing soil samples at Site 05 and it is curious that the soil samples can exceed themselves. Please reword this sentence to identify which specific soil samples were above ambient levels generally for this site.
- Page 3 - Just because the high source of beryllium in the soil is unknown at this site, this does not preclude the need for it to be removed under CERCLA. Since, according to the text, the beryllium was determined *not* to be associated with the petroleum releases at the site, how can this site be managed under the UST program which would be inconsistent with the criteria listed on page 2, which states "4. If TPH and related contamination are the only COCs that require further evaluation, the site will be managed under the UST program."
- Page 3 - Concerning mercury contamination, I refer to my general comment on the settling of TI, and the high mercury concentrations in the soil which are not expected to exceed the AWQC at the shoreline. "Groundwater samples collected in the area show that the mercury-affected area is small." Were adequate soil samples taken and tested for mercury to demonstrate that the affected area is also small with respect to soil contamination?
- Page 4 - Concerning the recommended actions for Site 05, since high sources of beryllium and mercury were identified at the site, the site should remain under the CERCLA program and the metal contaminated soil should be removed in the event that the island settles and permits the contaminated soil to interact with the groundwater in the future.

Section 2.2, Site 07/10 - Pesticide Storage Area/Bus Painting Shop

- Page 4 - Concerning the high concentration of the herbicide MCPHP determined from "one soil sample," I am concerned with the conclusion that "the potential that the soil was removed during the construction activities" for the installation of the new equalization basins for the wastewater treatment plant prevents the necessity of determining whether it was actually removed, and also the conclusion that the basin covering the contaminated soil creates "an incomplete exposure pathway."
 - Were other soil samples taken before construction to show the extent of MCPHP contamination?
 - Was the excavated soil analyzed for herbicides during construction prior to being disposed of?
 - Was the potentially contaminated soil removed from the site or piled elsewhere on TI?
 - Which specific exposure pathway is incomplete? (Certainly direct contact with the soil is prevented where the basins are located, but how does the presence of the basins preclude exposure of the herbicide to groundwater?)
- Page 5 - The recommendation that "No action for the area of the former sludge disposal west of building 62" needs to be reevaluated, based on my previous comment concerning MCPHP.

Section 2.3, Site 09 - Foundry

- Page 5 - "TPH-immunoassay (TPH-i) concentrations detected in nearby locations indicated that TPH has not migrated from the trench area."
Based on the previous debates concerning the validity of immunoassay results, especially in areas containing brackish groundwater, such as Site 09 which is in close proximity to the Bay, I suggest that samples be taken and sent to a certified lab to confirm this conclusion. No mention is made in this document concerning confirmatory lab data to support the conclusions of the immunoassay results.
- Page 6 - "The source of the elevated concentration of lead in the surface soil sample is unknown."
I would suggest that the lead may have somehow originated in relation to the skeet shooting range located near Site 09.

- Page 6 - "The source of beryllium in soil is unknown and is not expected to be associated with releases at the site. The lead-affected soil in this area should be considered for a potential removal action." Based on my general comments concerning settling of TI, I think that it would be prudent to remove the beryllium containing soil as well since it has been identified.
- Page 6 - "Chromium, lead, and zinc were detected in soil at concentrations exceeding TI ambient levels and in groundwater at concentrations exceeding AWQC ... [and] are not expected to reach the shoreline at concentrations exceeding the AWQC." Once again, I refer to my general comments concerning the settling of TI and remark that these metals may become more prevalent in the groundwater in the future.
- Page 6 - Concerning the recommendations, beryllium contaminated soil should also be considered for removal.

Section 2.4, Site 11 - Yerba Buena Island Landfill

- Page 7 - Concerning the recommendations, why is the site not being further evaluated for use by harbor seals which haul out on the south edge of Yerba Buena Island, in addition to use by peregrine falcons?

Section 2.5, Site 12 - Old Bunker Area

- Page 9 - "Conservative screening-level modeling showed that fluoranthene, phenanthrene, endrin, heptachlor, epoxide, aroclor-1254, arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc in groundwater at Site 12 are not expected to reach the shoreline at concentrations exceeding the AWQC." I again refer to my general comments concerning the settling of TI, where this vast list of contaminants may come into greater contact with groundwater in the future and find their way to the Bay.
- Page 9 - "A potential source for the metals could be the disposal activities that occurred at the site and the artificial fill of which TI is composed." I continue to object to the argument of the "artificial fill" contributing high levels of metals to Site 12, unless it can be demonstrated that other "filled" sites on TI also contain high levels of these same metals. If this is not the case then the second part of the sentence should be stricken.

Section 2.6, Site 17 - Tanks 103 and 104

- Page 10 - "However, these concentrations are less than the AWQC and do not pose an ecological risk." I again refer to my general comments concerning the settling of TI, where the VOCs may come into greater contact with groundwater in the future and find their way to the Bay.
- Page 10 - Concerning the recommendation "No action under CERCLA," the decision should be made based on the response to my last comment concerning VOCs in the groundwater.

Table 1, Recommendations for IR Sites: NSTI

- Pages 16-18 - The "Chemicals of Concern" column often identifies contaminants in the soil, but identifies no contaminants in the groundwater. Based once again on my general comment concerning the settling of TI, I suggest that chemicals which are not of concern in the groundwater at this time may become problems in the groundwater in the future if the contaminated soil is not removed. Changes in this column would of course alter conclusions in the "Ecological Risk" column as concerns potential impacts to the Bay.

This concludes my comments for the abovementioned document.

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