

Alameda Point Restoration Advisory Board IR Sites 14 and 15 Focus Group

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Glenna M. Clark
Department of the Navy
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92132-5190

RE: Remedial Investigation for IR Sites 14 and 15, Alameda Point, Alameda, CA

Dear Ms. Clark:

On behalf of the focus group for IR Sites 14 and 15, I am submitting the following comments and questions on the above-mentioned document, dated August 15, 2002.

Executive Summary -

The Executive Summary succeeds in summarizing all of the important information from the document, including the results of the risk assessment, which is greatly appreciated.

There is, however, one area that is unclear. On page ES-1, it says that antimony, arsenic and manganese were detected in groundwater at Site 15 with a frequency of greater than 10% and a maximum detected concentration greater than the PRG. This statement is then contradicted on the following page where it says that no site-related constituents were detected in groundwater that exceed PRGs and therefore, groundwater was not addressed further. The term "site-related" would imply that the levels of antimony, arsenic and manganese were consistent with background levels. However the results from the two-populations tests - site 15 groundwater versus background - are not given in Appendix G (Background Soil and Groundwater Determination.) Please provide this information in the Draft Final version.

Residential Exposure Pathway -

We were pleased to see that the residential exposure pathway was assessed in the risk assessment even though current re-use plans do not call for residential use. Likewise, we appreciate that the Navy did not screen out risks from background metals in the total site risk.

Evaluation of groundwater ingestion/contact as a potential exposure pathway -

At the August BCT meeting, regarding the OU-5 Groundwater RI/FS, the decision was made that because the groundwater is still legally considered to be a potential drinking water source by the State of California, ingestion of groundwater should be evaluated in the risk assessment. (Draft Alameda Point BCT Monthly Tracking Meeting After Action Report, August 20, 2002)

Since the groundwater at Sites 14 and 15 is a class II aquifer, it seems reasonable that the same conclusion can be made in regards to the Sites 14 and 15 risk assessment: the ingestion of groundwater should be evaluated.

Furthermore, though the area is slated for recreational use (golf course), evaluating the water quality is necessary for the benefit of future land-owners and to create an argument in favor of institutional controls, if need be. Indeed, at the August BCT meeting, it was agreed that the IR Sites 14 and 15 FS would include an evaluation of unrestricted use, as required by the Department of Defense land use control guidance, when institutional controls are being considered. Therefore, it is unclear why the Navy has not included the ingestion of groundwater nor the dermal contact route in the IR Sites 14 and 15 human health risk assessment.

Soil Gas Data -

The soil gas sampling data are not provided in the document. Table D.7.1-3 (Appendix D) shows selection of COPC for chemicals in soil gas at Site 14, but there is no other data found to support this decision. Considering the high levels of vinyl chloride found in the groundwater at Site 14, it is unusual that no vinyl chloride was measured in the soil gas. Please provide the soil gas data in the Draft Final version as well as possible explanations for the lack of vinyl chloride in soil gas. The location and small number of samples are factors worth considering. Only one sample, S14-DGS-SG12, was taken near the highest concentrations of the vinyl chloride plume.

At Site 15, soil gas data were modeled using concentrations in soil. How did the Navy choose which VOCs to model? For example, why was naphthalene modeled in the occupational scenario and not the residential scenario? Similarly, several of the VOCs that were included as COPCs for the inhalation of vapors in ambient air pathway at Site 14 were not included in the inhalation of vapors in indoor air pathway (e.g., naphthalene, pyrene, carbon disulfide. (Table D.7.1-7.)) Please explain this discrepancy.

It is also very difficult to establish which areas the model outputs are referring to; some are well labeled while others are not. Please label all of the model output tables found at the back of Appendix D.

Most Current Soil Data -

It is unclear which data were used in the risk assessment at Site 14. According to Section D.7.1.2, preliminary removal action data were used for dioxins and the data set was likely to change when the removal action was completed. Are the results given on Figure 4-1 the preliminary or final confirmation soil sampling data results? Are we to assume that the maximum detected concentration of dioxin of 0.054 µg/kg, which was used as the exposure point concentration, was within the removal area since it is not shown on Figure 4-1? A table containing the most current soil sampling data, i.e., post-removal action,

should be included in the draft final version as well as an explanation in the text of which data set was used in the risk assessment.

Why was the data for residential exposure averaged over the 0-10ft. interval as opposed to the 0-2ft. interval, when the Navy usually maintains that the most frequent exposure happens within the first two feet of soil? Although the exposure point concentrations may not vary that greatly, it eliminates both naphthalene and DDD as COPCs at Site 15 and reduces the exposure point concentrations of other COPCs.

Site 15 Removal Action –

According to the text of Section 3.2.2, there was a span of nearly 2 years between the time of the soil excavation and the disposal of the soil at designated landfills. Witnesses recall the soil remaining on site in an uncovered stockpile for several months post-excavation (long enough for grasses and weeds to take root.) A long-term stockpile of contaminated soil presents an opportunity for recontamination of the area. The confirmation sampling was done in November of 1995 at the end of the removal action and, presumably, prior to the removal of the stockpile. Since then, no sampling of the immediate area has occurred. For exactly how long did the soil pile remain on site after the removal action? How can one be assured that the site was not re-contaminated during this time?

Acceptable Risk Range -

The phrase "acceptable" risk range is used several times within the document (pgs. ES-2, ES-3, 6-7.) While the risk associated with the site may be acceptable to the Navy or even the agencies, it should not be assumed to be acceptable by all. The risk assessment is only a model and the numbers it provides are to be used as a benchmark for risk management decisions. Please remove this phrasing.

Recommended Preliminary Remedial Action Objectives –

According to Section 6.1.2, the first phase of the FS will consist of developing Remedial Action Objectives to reduce the exposure of human receptors to the chemicals of concern. Not only is the discussion of remedial action objectives inappropriate in an RI, the phrase "reduce the exposure" implies blocking pathways with institutional controls rather than actually reducing risk. This is a risk management decision that has yet to be agreed upon. Please remove this section.

Source Material –

Chapter 4 discusses the nature and extent of the contamination. Each potential source is examined in relation to the location of the contamination however only the source for the dioxin is located. No sources/past activities were identified that would contribute to high levels of metals, 1,1-dichloroethane, 1,2-dichloroethene and vinyl chloride in the groundwater, nor the high concentrations of PAHs in the soil.

It seems likely, judging by past activities in the area and concentrations of chlorinated compounds beneath and adjacent to former Building 528/GAP 9, that this area was a source of the groundwater contamination for these plumes. Concentrations of trichloroethene (TCE) above PRGs are mentioned in Section 4.1.4.2 but the location and

number of these detections are not provided on a figure due to insufficient data points. The groundwater analytical results in Appendix E show the highest concentrations of TCE in the same vicinity as the other VOCs detected in the groundwater (wells M101-A and M101-A-old.) A spill of TCE near the heart of the groundwater plumes would explain the presence of vinyl chloride and other chlorinated solvents. Has the possibility of a floor drain in Building 528 been explored?

Section 6.1 suggests that the dioxin-contaminated soil, which has been removed from the site, constituted much of the potential source material for VOCs in the groundwater. However, judging by the location of the plumes in relation to the dioxin-contaminated soil, the soil was not the source material.

Minor Comments –

1. There is no mention of an RI work plan for IR Sites 14 and 15 in the references. Was a separate RI work plan written up for these sites?
2. Please explain the derivation of the surface area parameter for the occupational scenario.
3. Another contradiction regarding the chemicals of potential concern in groundwater at Sites 14 and 15 is found in Table 5-3 and Section 5.1.3, which list barium and manganese as the only COPCs. (See Executive Summary comment.) Please clarify, with data and statistical tests, the chemicals of concern in groundwater and those that were disqualified due to background comparison tests.

We appreciate the opportunity to review this document and look forward to discussing our comments with you at our meeting on the 15th of this month. Please contact me at 415-495-1786 or Doug DeHaan at 510-523-3312 with any questions.

Best regards,



Lea Loizos

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