



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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SFD 8-3

N00236.002672
ALAMEDA POINT
SSIC NO. 5090.3

November 15, 2004

Thomas Macchiarella
BRAC Operations, Code 06CA.TM
Department of the Navy, Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101

RE: **Revised Draft Soil Feasibility Study Report Installation Restoration Site 25,
Alameda Point**

Dear Mr. Macchiarella:

EPA has reviewed the above referenced document, prepared by CDM Federal Programs Corporation and submitted by the Navy to the agencies on August 13, 2004. EPA requested a 30 day extension for review of the document, in accordance with the FFA, making our comments due on November 15, 2004. The Revised Draft Final Feasibility Study for Site 25 will be due for submittal by the Navy on January 18, 2005.

We have enclosed our comments on the Site 25 Revised Draft Feasibility Study, and look forward to discussing them with you. I can be reached at (415) 972-3029.

Sincerely,

A handwritten signature in cursive script that reads "Anna-Marie Cook".

Anna-Marie Cook
Remedial Project Manager

enclosure

cc list next page

cc list: Darren Newton, SWDiv
Marcia Liao, DTSC
Judy Huang, RWQCB
Elizabeth Johnson, City of Alameda
Peter Russell, Russell Resources, Inc
Lea Loizos, Arc Ecology
Jean Sweeney, RAB Co-Chair
Suzette Leith, EPA
Sophia Serda, EPA
Karla Brasaemle, TechLaw Inc

**EPA Review of the Revised Draft Soil Feasibility Study Report
Site 25, Alameda Point**

GENERAL COMMENTS:

1. Throughout the FS, there are statements that the groundwater is addressed in another OU. This statement is not correct, rather the groundwater is addressed in a separate FS that is part of the same OU. In addition, in the draft final Site 25 Soil FS, the cumulative risks for soil and groundwater should be presented for the parcels covered under IR Site 25.
2. It is not certain that ICs are effective at restricting access to soil below a 2 foot depth. Homegrown produce roots and tree planting activities remain issues of concern.
3. The calculated risks under different alternatives vary by Decision Area (DA), but the FS considers excavation to the same depth across all DAs for each alternative, regardless of calculated risk. It seems that an acceptable level of protectiveness could be achieved by excavating certain DAs, or even selected portions of DAs, to 4 feet and leaving others as they are. For example, excavating to 4 feet in all or parts of DAs 4, 5, 6, and 7, excavating to 2 feet in DA 2 and doing nothing in DAs 1 and 3 will result in a risk that is projected to be below 1×10^{-5} for all residential parcels in the unimproved (and therefore currently exposed) areas. ICs would be needed to restrict access to the soil beneath all buildings and hardscape, and to restrict activities below four feet in all residential areas.
4. ICs are discussed in several places in the FS, in various amount of detail. While it is not necessary for the FS to spell out the proposed ICs in as much detail as will be necessary in the ROD, it is necessary to specify both the types of ICs (e.g., restrictive covenant) and the substance of the ICs (e.g., no digging) in enough detail so as to ensure an adequate evaluation of the protectiveness and implementability of the ICs. In terms of the vehicle, it appears that the Navy is contemplating incorporating restrictions in both the Navy deed and in a LUC with the State; however, this is not entirely clear, and a more definitive statement would be appreciated. Additionally, while the first draft FS implied that there would also be governmental controls such as a City ordinance, the current version only mentions this "layer" of ICs in the cost estimate in E10 and has totally omitted this type of IC from the main text of the FS. While we understand that this change was in response to an EPA comment, what we would actually prefer would be a middle ground - a fuller discussion of what is being considered and the probability that it will be adopted.

In terms of the substance of the ICs, it is unclear whether the Navy is contemplating a "no dig" IC, or a "no dig without permission" IC. For example, the discussion on page 6-8 suggests a prohibition on excavation altogether, whereas page 6-9 indicates that the restriction would allow excavation under certain standards and procedures. Without

clarification as to what the Navy is contemplating in terms of these standards and procedures, or whether the Navy is in fact contemplating a strict “no excavation” restriction, it is not possible to analyze meaningfully whether ICs would be effective. This concern also relates to the issue of governmental controls noted above: If the Navy is in fact contemplating allowing excavation under certain circumstances, who is contemplated as the approval authority? Would it be the City, as with the Marsh Crust ICs; the Navy, as suggested in the discussion of the Soil Management Plan on page 4-7; or someone else?

Another concern is that ICs may have to be different for land that is currently open and for land that is currently underneath a building. The Coast Guard comments indicate that the existing houses very well may be torn down and replaced in the near future. That contingency should be taken into consideration in developing remedial alternatives. For the soil currently beneath buildings and hardscape, EPA recommends considering a remedy of ICs prohibiting excavation so long as the buildings and hardscape are in place, with a contingent remedy of cleanup to the four-foot level if the buildings or hardscape were demolished. EPA would be open to discussing possible vehicles under which the contingent remedy could be undertaken by a subsequent owner of the property.

SPECIFIC COMMENTS:

1. **Page iv**--need to explain what a DA is.
2. **Page iv, description of the TCRA**--The TCRA was performed in 2002, not 2003.
3. **P. iv through vi**--The discussion of the risk assessments was somewhat confusing because of multiple risk assessments, the TCRA, and the recalculation of risk numbers for the non-TCRA sites. It would be helpful to have a clear statement in the executive summary of what the current risk numbers are -- for example, exclusion of (or at least reference to) Table 1-4.
4. **Page v, middle paragraph**: Define Parcel 178 since it is not covered in this FS.
5. **Page vi, second paragraph**: The risk of 3×10^{-5} due to arsenic contradicts the statement at the top of Page v which states that the risk from arsenic is 1×10^{-5} at all DAs at all depth intervals.
6. **Page vii, third paragraph**: It may be clearer to use a term such as Remedial Action Objective, rather than Preliminary Remediation Goal for the proposed clean up level here. The PRG for BaP eq is actually $0.062 \mu\text{g}/\text{kg}$, not $0.62 \mu\text{g}/\text{kg}$.
7. **Page. xii**. The text indicates that the number of alternatives was reduced from five to three, but does not clearly state that nos. 4 and 5 were ruled out, and why. Although this

is clear from the charts at the end of the executive summary, we would recommend a clarifying statement in the text also.

8. **Sec. 1.2, p. 1-3, discussion of nine criteria.** (a) Here and in other places (e.g., p. 5-2, 6-5, 7.2), the FS suggests that the criteria of State and community acceptance will not be analyzed until the proposed plan and ROD stages. While the NCP does indicate that analysis of these criteria “may not be completed” until those stages, it also specifically states that in the FS the remedies should be evaluated using all nine criteria (as indicated in this FS on page 1-3). EPA guidance also emphasizes that during the FS process, the lead agency should actively seek input from the community on the regulatory alternatives being considered, and that in the proposed plan, the preferred alternative is identified tentatively “on the basis of the RI/FS report and ongoing discussions between the lead and support agencies and the affected community.” (See OSWER 9200.1-23P, July 1999.) The FS in section 7 has a brief mention of a community concern, and EPA is aware that the alternatives have been discussed with the RAB. Nevertheless, we recommend that this FS include more discussion and consideration of State and community concerns, and we emphasize that the Navy will need to take these concerns into account in selecting the preferred alternative to be identified in the proposed plan. We also recommend that statements in the FS that the State and community acceptance criteria “will be evaluated after the public comment period” be modified to indicate that evaluation of those criteria “may not be completed until after the public comment period.”
(b) The FS incorrectly refers to the eighth criterion as “regulatory agency acceptance.” This should be changed to “State acceptance.”
9. **Page 1-6, fourth paragraph:** Wasn’t it established through aerial photograph review that the “structures of unknown use” were actually the former DRMO scrapyard? This information assists with the understanding of the physical site conceptual model and should be included.
10. **Page 1-8, fourth paragraph, last sentence:** EPA would prefer that the wording state that the Marsh Crust is associated with refinery and coal gasification wastes as opposed to the stated petroleum related contamination. It almost sounds like the PAH problem is related to the TPH program and not CERCLA related.
11. **Page 1-9, second sentence:** Please revise the paragraph to reflect the following facts and to be consistent with the OU 5 Groundwater RI/FS.: 1) the groundwater beneath Site 25 meets the federal criteria for a Class II aquifer (potential drinking water source) and the federal criteria should be used here since it is more stringent than the state criteria; and 2) the RWQCB has stated that groundwater beneath Site 25 needs to be cleaned to MCLs, regardless of the exemption for the Annex.
12. **Page 1-16, last paragraph:** The 1999 OU 2 RI document was rejected by the regulatory agencies, and so presents a problem to reference this document as the source of the

ecological assessment. Navy should discuss a resolution to the ecological component of the Site 25 FS with the agencies.

13. **Page 1-18, first paragraph:** In the draft final FS for Site 25, please include a combined risk for the soil and groundwater for Parcels 181, 182 and 183.
14. **Page 1-19, first full paragraph:** Were benzene and naphthalene both used in the modeling efforts? Also, how does this inhalation pathway differ, if at all, from the one presented in the OU 5 Groundwater RI/FS? It is important not to count the same pathway twice in the cumulative risk assessment for the groundwater and soil.
15. **Page 1-19, Section 1.6.1.5, third paragraph:** Please reconcile the cancer risk of 1×10^{-5} from metals with that stated on Page 1-25. Also, clarify whether the indoor air risk associated with migration of VOCs was calculated from soil gas or from groundwater. Lastly, please clarify what is meant by “the USEPA incremental cancer risks from PAHs in soil”.
16. **Page 1-19, last paragraph:** Please define “de minimis cancer risk levels”.
17. **Page 1-20, third bullet:** The first and second sentence do not follow logically.
18. **Page 1-21, top of the page:** Elaborate on why the difference appears to be related to the season.
19. **Sec. 1.7.1, p. 1-21.** Please clarify the renaming of “Clover Park” versus “Clown Park” (as it is identified in the 2000 removal documents)?
20. **Page 1-21, Section 1.7.2, first paragraph:** EPA believes that the 2002 TCRA Work Plan for OU 5 was an amended workplan, rather than a revised workplan, in order to accommodate the increased scope of the project. Please verify.
21. **Page 1-23, Section 1.8.1, last sentence:** Were all detection limits below the PRG? This information needs to be stated here.
22. **Page 1-25, Section 1.8.5, first bullet:** Please reconcile the 3×10^{-5} arsenic risk with that stated on Page 1-19.
23. **Page 1-25, third paragraph:** Please do not use the term “incremental cancer risk for organic chemicals”. This terminology implies that there is a “background risk” for organic chemicals and there is not. Incremental risk should only be applied when describing risks associated with inorganics. EPA’s would like to see risk presented as a total or cumulative risk, with the phrase “of which x-amount may be attributed to background levels of arsenic” added after the presented total risk number.

24. **Page 1-25, second to last bullet:** It seems impossible that post-TCRA risk could increase for the 0 - 8 ft interval. Please explain.
25. **Figure 1-18:** Please include the decision areas on this map as has been done for the other intervals on the previous figures.
26. **Sec. 2.2.1, p. 2-1:** “promulgated through federal or state law” should be changed to “promulgated under federal or state law.”
27. **Sec. 2.2.1, p. 2-2 (first paragraph).** After the listing of statutes cited in CERCLA, we recommend the addition of the following language: “although ARARs are not limited to these statutes.”
28. **Sec. 2.2.1, p. 2-2 (second paragraph), discussion of TBCs.** This section is a bit misleading, and the quotation from the NCP is incomplete. The NCP states that TBCs “should not be required as cleanup standards in the rule” because they are neither promulgated nor enforceable. In other words, EPA was not requiring in the rule that use of TBCs as cleanup standards is mandatory. At a particular site, however, it is certainly permissible to choose a TBC as a cleanup standard (unless there is a more stringent ARAR). If, at the ROD stage, a requirement identified as a TBC in the FS is chosen as a requirement, the ROD should make clear that it is no longer just a TBC, but rather a performance standard with which the chosen remedy must comply.
29. **Sec. 2.3.3, p. 2-4, Alternative 2:** The FS should include substantive portions of the California LUC regulation, 22 CCR 67391.1, as an ARAR. In its response to comments, the Navy indicated that this regulation will be considered in the ROD. EPA is puzzled why the Navy is not including this as a potential ARAR in the FS, especially since the list of potential ARARs (Appendix D) is so over-inclusive and includes so many requirements that the Navy states are not ARARs. Especially given the real possibility that LUCs will be a component of the selected remedy, the Navy should include this ARAR in the FS.
30. **Page 3-1, Section 3.1.1:** The description of media of interest here is incomplete. The areas under the hardscaping, i.e. sidewalks, roadways and residences are assumed to have the same levels of PAH as the pre-TCRA levels and thus also need a remedy, most likely a form of institutional control prohibiting or restricting digging in the soil.
31. **Page 3-5, last bullet:** What are risk based CERCLA nine criteria? They are not risk based, but rather an evaluation criteria.
32. **Page 4-2, first full bullet:** EPA reiterates that monitoring is not a remedy. It does not prevent exposure to a contaminant, or reduce or mitigate a risk. Perhaps monitored natural attenuation, which is an accepted remedy, is meant here instead?

33. **Sec. 4.3, p. 4-4, last bullet.** Although the cited EPA guidance does discuss administrative implementability and obtaining approvals, the discussion of permits in the FS is confusing, as permits are not required for on-site activities. The FS could more clearly say that the reference to permits refers to off-site activities. Additionally, the correct reference for the 1988 EPA guidance is OSWER 9355.3-01.
34. **Sec. 4.3.3.1, p. 4-7, first line.** The Navy is responsible for enforcing the environmental restrictions and should delete the phrase “when necessary and appropriate.”
35. **Sec. 4.3.3.1, p. 4-7.** The discussion of the typical proprietary controls and means of communication is confusing, because it combines types of ICs (e.g. restrictive covenants) with means of communicating and enforcing them (e.g. lawsuits, deed notices). Additionally, the relevance of the discussion of a Soil Management Plan on page 4-7 is unclear; is this what the Navy envisions for the substance of the IC in the deed or State land use covenant?
36. **Sec. 4.3.3.2, p. 4-8, second bullet.** Statement that “LUCs are in use for portions of OU-5 underlain by the Marsh Crust” is confusing, given the previous statement that the State LUC has been signed only for the Annex. Is the Navy referring here to the City ordinance? Need to omit the words “and LUCs” at the end of the next to last sentence in this bullet.
37. **Sec. 4.3.4, p. 4-9.** Title should be changed to “Monitored Natural Attenuation.” Monitoring by itself is not a remedy.
38. **Sec. 4.3.4, p. 4-9, discussion of cost.** This needs to be clarified. The implication is that monitoring of ICs would be done by future residents. EPA objects to this implication, as the Navy is responsible for monitoring the ICs.
39. **Sec. 4.3.9, p. 4-19.** Including “disposal” as a type of remedy is confusing, as it is already included in the “Excavation/Backfill/Disposal” remedy. EPA recommends combining these discussions.
40. **p. 4-19.** The FS here indicates that contaminated soil may be placed in containers prior to shipment offsite; however, the ARARs table indicates that container requirements are not being selected as ARARs because containers will not be used. This should be clarified and made consistent.
41. **Page 4-19, last paragraph, third sentence:** The phrase “limited volume of soil” should be replaced by “extensive volume of soil”.
42. **Page 5-4, Section 5.1.2.1 first bullet, Page 5-5, Section 5.1.3, first bullet and Page 5-6, Section 5.1.3.1, first bullet:** Present the volumes of soil in terms of cubic yards so that they are consistent with the units presented on Pages 5-9 and 5-10.

43. **Sec. 5.1.2.1, p. 5-4.** Line 4, “inhibit’ should be changed to “prevent.”
44. **Sec. 5.1.3, p. 5-5.** Same comment.
45. **Sec. 5.1.3.1, p. 5-6, first line.** Same comment.
46. **Sec. 5.2, p. 5-8.** It does not appear that the cost estimate for ICs includes monitoring, reporting, and enforcement of the ICs, other than the five-year review. There needs to be at least an annual review of IC implementation. The response to comments indicates that the costs for annual monitoring will be included, although it does not appear that this has been done. (Similar concern throughout, whenever costs for ICs are discussed.)
47. **Sec. 6.1.4., p. 6-3.** Offsite disposal does not contribute to the reduction in the toxicity, mobility, and volume of hazardous substances. Rather, this criterion refers to treatment or recycling. (See 40 CFR 300.430(e)(9)(iii)(D) and USEPA 1988, p. 6-8 and 6-9.)
48. **Sec. 6.2.1.2, p. 6-7, second paragraph under Long-Term Effectiveness,** first line, remove the word “is.”
49. **Sec. 6.2.2.1, p. 6-11 first paragraph on violations of the ICs.** Text should include EPA among the entities to be notified within 10 working days of a violation. EPA also recommends taking out reference to entities such as U.S. Fish & Wildlife that have no interest in Site 25.
50. **Sec. 6.2.2.1, p. 6-11, third paragraph on annual report regarding the ICs.** EPA appreciates the Navy’s commitment to preparing an annual report documenting review of the ICs and does not object to the Navy contracting with another entity to perform the inspections and prepare the report. The FS, however, should be more clear that this is the Navy’s obligation, not that of the transferee. Reference to the transferee preparing the annual report is especially problematic here where the ultimate transferees could be homeowners.
51. **Sec. 6.2.2.2, p. 6-11.** Remove “is” from first line after “Overall Protection.”
52. **Table 6-1, Table 6-2:** Monitoring ICs every five years is not acceptable, as mentioned in previous comments. At the minimum, annual monitoring and reporting will be required to form the basis of the five year reviews to determine the effectiveness of the remedy. Annual monitoring and reporting will increase the cost of this alternative at least five fold.
53. **Sec. 7.1, p. 7-1, first paragraph.:** The statement, “Potential human exposure to PAH-impacted soil can be effectively managed through the implementation of ICs with or without excavation of soil” appears to be an overstatement and inconsistent with the

discussion on page 7-3 of circumstances under which ICs could not effectively prevent contact with PAH-impacted surface soil.

54. **Sec. 7.1.1., p. 7-3 and the chart on page 7-21.** Text and chart conclude that alternative 2 (ICs) is protective; however, page 7-3 indicates that it would be difficult for ICs to effectively limit exposure, and Table 7-1 specifically says that “human exposure to PAH-impacted soil with concentrations exceeding the PRG is likely under Alternative 2.”
55. **Table 7-1, p. 7-8, discussion of Implementability for Alt. 3** -- Something is cut off at the bottom.

Appendix D: ARARs

56. As noted above, substantive portions of the State LUC regulation (22 CCR 67391.1) should be included as an ARAR in the FS, and not just considered in the ROD.
57. Throughout the Appendix, there are references to the “removal action.” This should be changed to “remedial action,” “response action,” or “excavation.”
58. EPA appreciates the Navy’s thorough analysis of potential ARARs. However, we renew our comment that it is unnecessary, and in fact, hinders an effective review of the document, to include pages and pages of non-ARARs both in the text and tables. For example, a simple statement in the text that PCB requirements are not ARARs because there are no PCBs would be sufficient. It would be most helpful in future FSs to have the discussion of non-ARARs in the text only, leaving the tables free for only the laws and regulations that the Navy is including as realistically potential ARARs. In other documents, the Navy’s position has been that controversial requirements that are potentially the subject of dispute should be included in the ARARs table, even if the Navy is not selecting them. EPA agrees with this practice. In this FS, however, the lengthy table of non-ARARs defeats the purpose of an ARARs table, which is to provide an easy reference of what the applicable and relevant and appropriate requirements are. Here, one must search through pages of non-ARARs to find the requirements that actually are ARARs. This is especially confusing for an FS dealing with remedies (ICs and excavation) where the ARARs are relatively few.
59. **P. D1-1.** Remove reference to action memorandum.
60. **P. D1-3 and D1-2.** Discussion of on-site is confusing, as it implies that disposal of soil on another part of the Alameda Point NPL site would be considered “off-site” for the purpose of compliance with ARARs.
61. **P. D1-5.** Isn’t the proposed remediation goal a range rather than 1.0 mg/kg?

MINOR EDITS:

1. **Figure 1-15:** Include decision area "4" on the figure.
2. **Page 5-7, Section 5.2:** The text in the first full paragraph refers to Section 1.7.4.1, but this section does not exist in the FS and it is unclear whether this reference is to another document.
3. **Appendix E, Pages E.6 and E.7:** The discussion of Alternatives 4 and 5 include two citations to Figure XXX. Please provide the correct figure number.
4. **Page 5-14, second paragraph:** The unit cubic yards is missing from 200,000 in the first sentence.