

Arc Ecology

Environment, Economy, Society, & Peace

May 7, 2004

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**RE: Draft Landfill Gas Time-Critical Removal Action Closeout Report Parcel E,
Hunters Point Shipyard, San Francisco, California, March 19, 2004**

Dear Mr. Forman:

Thank you for providing Arc Ecology with the opportunity to review the *Draft Landfill Gas Time-Critical Removal Action Closeout Report, Parcel E, Hunters Point Shipyard*, dated March 19, 2004. Our comments and concerns are below.

1. It is unclear how the Navy determined that the Time-Critical Removal Action (TCRA) was completed on May 27, 2003. The stated goals of the project are to remove methane gas from the subsurface at the UCSF compound to below the lower explosive limit (5 percent by volume in air) and to prevent future landfill gas migration onto the UCSF compound at levels above 5 percent (Section 1.3, page 4). Although the criteria in the closure criteria flow chart (Figure 7) may have been met temporarily, methane has been detected above 5% in monitoring wells north of the barrier wall as late as January 2004. Furthermore, as indicated in Appendix I, work continued on the barrier wall until October 2003. Please clarify how the completion date of May 27, 2003 was chosen despite continued migration of methane and ongoing construction.
2. The second sentence in Appendix I states, "This appendix is intended as a supplement to the information presented in the closeout report and should be read in conjunction with the closeout report." However, there is nothing in the main text that highlights the necessity of reading Appendix I. Appendix I contains important information about breaches in the barrier wall and possible causes for failures to the system as well as response actions taken. It is unclear why this is only mentioned in an appendix. The information provided in Appendix I is critical to understanding the effectiveness of the system and potential weaknesses. If one were to read the main body of the report only, he/she would never know that substantial

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modifications were made to the original barrier wall to achieve the desired goal. We strongly suggest providing this information in the main body of the report. At the very least, a summary of the information should be included in the main report that points the reader to Appendix I for a more detailed discussion.

3. Section 2.3.4 – Repairs: Please include information about the work that was done to reinforce the wall in this section.
4. Section 4.1.2, page 24: The report states “The monitoring data verify that methane concentrations remain below 5 percent in all GMPs.” This statement is incorrect. Sampling as recent as January 2004 has shown levels of methane above 5 percent. Please correct this statement to accurately reflect the results of all monitoring at the time the report was written.
5. There is no discussion in the report regarding the source of VOCs along Crisp Avenue. Although no methane has even been detected there, VOCs including trimethylbenzene, benzene, chloroform, and methylene chloride have been detected at levels above EPA’s PRGs for ambient air. Please include a discussion of possible sources for these chemicals along Crisp Avenue.
6. Appendix G –
 - a. The general explanation provided in Section 4 of how a vapor-intrusion evaluation is conducted is very useful. However, more detailed information about how the evaluation for this site was conducted -- such as the calculations used, the EPA screening criteria tables, and the default assumptions -- would make it easier to understand the conclusions. Please provide this information to help clarify how the risk levels were calculated.
 - b. According to Section 4.1, the evaluation is based on industrial reuse, since the current use of the buildings on the UCSF compound is industrial. Section 4.2 then states that the EPA soil gas criteria used for the evaluation were based on a 1E-06 cancer risk level but it is unclear if this is for an industrial or residential reuse scenario. Please clarify if the target risk levels of the screening criteria are for a residential or industrial scenario.
 - c. Arc Ecology inquired at a recent meeting of the BRAC Cleanup Team about the risks from VOCs along Crisp Avenue. The Navy pointed out that a vapor intrusion evaluation had been completed and could be found in Appendix G of the closeout report. The evaluation provided is for VOCs beneath the UCSF compound. If a separate evaluation for Crisp Avenue was determined to be unnecessary, please include an explanation of how this was determined.
7. Appendix I –
 - a. Substantial work was done to the barrier wall in an attempt to decrease methane migration across the barrier, including rehydrating the bentonite seal. What assurances do we have that these problems will not reoccur in the future? The monthly monitoring plan that is being developed will undoubtedly be helpful in detecting a problem. However, judging by the patterns observed during the investigation of possible causes for methane migration, if a breach occurs in the barrier wall, levels of methane on the northern side of the landfill could rise above 5%

in a matter of hours. The monitoring plan should include an explanation of how the Navy will monitor the bentonite seal to ensure adequate hydration and prevent future breaches.

- b. According to the data collected during the investigation of potential methane migration scenarios methane was first detected on the north side of the barrier within 5 hours (Section 4.1, page I-6). In recent meetings with community members of the RAB (e.g., Technical Review Subcommittee 4/16/04), concerns were raised about the stability of the wall during a seismic event. A question was raised regarding how long it would take for methane to migrate onto non-Navy property in the event of a breach in the barrier wall. At that time, the Navy said that it would take days, if not weeks, for methane to migrate onto non-Navy property. The data presented in the closeout report is in direct contradiction to this response. Please explain the response given to the community members of the RAB, including how it was determined that it would take several days for the methane to migrate.

Minor Comments:

1. Section 1.1, page 3: As mentioned in the Health and Safety section, radiological materials were also possibly dumped in the Industrial Landfill. Please include this in the list of materials possibly disposed of in IR-01/21.
2. Section 1.2, page 4: It is unclear from the language in the first paragraph how the initial soil gas survey data were collected. The report mentions that both subsurface and aboveground areas were sampled and then states that soil gas probes were also advanced in various locations. How were the initial data collected? Were there existing soil gas probes in some areas? Please provide more information as to how the initial sampling was conducted to make this section more clear.
3. Section 2.1.2, page 7: According to the report, New World Technology screened every truckload of soil excavated for radioactivity and none of the material triggered the radiological action levels. Does this mean that no radiologically contaminated material was encountered or that it was found only at low levels? For clarity, please explain the process for screening material and what triggers a response. Please also include the quantitative results of those surveys or a reference to the report where those data are included.

Arc Ecology appreciates the opportunity to review and comment on this document. If you have any questions, please contact me at 415-495-1786 or lealoizos@mindspring.com.

Regards,

Lea Loizos
Staff Scientist

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