

Arc Ecology

Environment, Economy, Society, & Peace

May 11, 2004

Keith Forman
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Re: Draft Final Work Plan, Phase III Soil Vapor Extraction Treatability Study, Parcel B, Hunters Point Naval Shipyard, San Francisco, California, dated April 16, 2004

Dear Mr. Forman:

Thank you for providing Arc Ecology with the opportunity to review the *Draft Final Work Plan, Phase III Soil Vapor Extraction Treatability Study, Parcel B, Hunters Point Naval Shipyard, San Francisco, California*, dated April 16, 2004. Arc Ecology has the following comments on the document:

1) At a recent BCT meeting it was reported that the Navy has been conducting repair work on some of the sewer lines on Hunters Point Shipyard and that this work has impacted the groundwater flow in certain areas. What data have been collected to determine if and how the sewer line work has impacted the groundwater flow in the soil vapor extraction (SVE) treatability study area? What are the results of these data? If there have been changes in the groundwater flow in the study area, how are these changes being addressed in the SVE treatability study work and sampling plans?

2) In Section 1.5.2 the report states, "The Phase II Treatability Study concluded that SVE was effective in removing VOCs from the vadose zone beneath Building 123 and that minor modifications to the SVE system and the well networks would allow for full-scale implementation of an SVE system." In Section 1.1 the work plan states that one of the objectives of the proposed treatability study is to "operate the expanded system to further evaluate the effectiveness of SVE at removing VOCs from the vadose soils beneath Building 123." Although Section 1.5.3 states that the SVE Confirmation Study recommended the expansion of the existing SVE system in order to evaluate its effectiveness "in reducing TCE concentrations to below risk-based soil volatilization to indoor air screening criteria," the Phase III SVE study objectives don't specify target concentrations against which to evaluate the effectiveness of the expanded SVE system. Therefore, haven't the Phase II Treatability study results already confirmed the stated purpose of the proposed Phase III SVE treatability study? If

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the purpose is to evaluate the effectiveness of the system at lowering trichloroethene (TCE) levels to below a specific screening level, that should be explicitly stated in the workplan and the basis for the selection of the particular screening (and related regulatory agency concurrence) should be explained.

3) The workplan estimates that the treatability study will begin in July 2004 and run for a minimum of 6 months and possibly as long as 18 months. If this treatability study is necessary to fully evaluate the application of SVE as a potential remedy for TCE contamination in the vadose zone below Building 123 on Parcel B, then one would assume that the use of SVE as a potential remedy at the study site cannot be fully evaluated until the study has been completed. Given that the Navy has stated its intent to draft an amendment to the Parcel B Record of Decision (ROD), how does this timeframe correlate with the projected development of the ROD amendment, and how does the Navy plan to address the potentially staggered timeframe?

4) If the SVE system is being expanded and used as part of a treatability study and not as an actual remedial action, why is the existing well field and SVE system being expanded to include “hotspots” not affected by the previous SVE systems? This suggests that the SVE system is being used as a remedy rather than as part of a treatability study to determine if the system can further reduce TCE levels to below screening criteria, as recommended in the SVE Confirmation study.

5) In the Navy’s Response to Comments (RTC) by Treadwell & Rollo on the Draft Final Work Plan, Phase III Soil Vapor Extraction Treatability Study, Parcel B, Hunters Point Naval Shipyard, San Francisco, California, the RTC #13 states that Environmental Screening Level (ESL) contours were added to Figure 5. No contours for TCE levels are shown on either Figure 5 or Figure 6. This makes it difficult to evaluate the placement of the proposed wells relative to the interpreted plume boundaries. Please revise both figures to include contours delineating the interpreted plume extent out to at least ESL values.

6) The workplan needs to provide more information on the problem the treatability study would remediate. The workplan should be revised to more fully describe what is known about TCE contamination in this area. At the least, it should include a map indicating the vertical and lateral extent of the TCE plume in the study area and data on TCE measurements associated with the entire plume, including areas that extend beyond the proposed treatability study area. This information is necessary in order to evaluate the design of the SVE system and workplan.

7) Section 5.2 states, “The location and spacing of these proposed wells was selected to encompass areas where TCE has been identified at concentrations that pose a human health risk and where the existing well network is not likely to effectively reduce those concentrations.” Please revise the text to include the actual TCE concentration value the Navy is using to identify TCE levels that pose a human health risk and give a rationale for the use of that value.

8) Section 5.2. states, “It should be noted that the exact location and the total number of proposed SVE and VM wells may vary depending on the further evaluation of the extent of soil and soil gas contamination ...” Please revise the text to indicate what specific parameters and TCE levels

will be used when determining whether or not additional SVE and VM wells will be needed and how the decision of where to site those wells will be made.

9) Section 6.3 about the continued operation of the SVE system states, “Additional changes to operations will be addressed in amendments to this workplan or in separate workplans.” Please clarify if these workplans will be submitted for regulatory review and public comment prior to implementation.

10) Section 10.0, Project Schedule, states, “The system will continue to operate until recoverable VOCs are removed from the site or approval to shut down the SVE system is received from the Navy.” Please define “recoverable VOCs” and clarify whether the system would continue to operate until VOC levels were no longer affected by the SVE system, until no VOCs were measured, and/or until VOC levels reached specific values. Also please clarify on what basis the Navy would make the decision to shut down the SVE system.

11) Given that the results and recommendations from the Draft Phase II SVE Treatability Study Report (IT, 2002) are a significant basis for the proposed Phase III treatability study, why was the Phase II report not previously submitted for regulatory agency review?

Minor comments:

12) Switching between measurement systems can make it more difficult for the reader to easily compare data. For example, TCE mass is given in pounds in Section 1.5.2 and in kilograms in Section 1.5.3. TCE concentrations in soil gas in figure 6 are in different units from the ESLs listed in table B-2. Please revise the report to be consistent in the use of either standard or metric units and to be consistent in the units used for a specific type of measurement.

13) The first sentence of Section 5.2 contains errors and is unclear as written. Please revise the sentence and also specify the actual ESL values being used for TCE.

Arc Ecology also has the following comments on Appendix B, *Sampling and Analysis Plan, Phase III Soil Vapor Extraction Treatability Study, Parcel B, Hunters Point Shipyard, San Francisco, California, (Field Sampling Plan/Quality Assurance Project Plan), Draft Final*:

14) Appendix B, Section 1.0 states, “In addition, vapor monitoring and soil and soil gas sampling will be conducted to evaluate SVE system effectiveness and/or to confirm that the concentrations of VOCs remaining in place meet cleanup goals.” This stated purpose does not agree with the workplan objectives, which include evaluating SVE effectiveness but not confirming that VOC levels meet cleanup goals. It would make sense for the treatability study to evaluate the SVE system’s potential effectiveness in lowering TCE levels to cleanup goals, but the workplan did not state this as an objective. If this is an objective of the treatability study, it needs to be explicitly stated in the workplan, and a clear explanation of what the cleanup goals are, how those values were determined, and regulatory agency concurrence on those goals needs to be included in the document.

15) It appears that Table B-1, Implementation Schedule for Field Activities, does not reflect the current document release and review schedule. Please revise to reflect the accurate schedule.

Arc Ecology appreciates having the opportunity to review this document. If you have any questions about our comments, please contact me at (415) 495-1786.

Sincerely,

Cian B. Dawson
Staff Scientist

Cc (electronic):

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