



## Department of Toxic Substances Control



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March 23, 2006

Mr. Thomas Macchiarella  
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### PROPOSED PLAN FOR OPERABLE UNIT 5/IR-02 GROUNDWATER, FORMER NAS ALAMEDA AND ALAMEDA ANNEX, ALAMEDA, CALIFORNIA

Dear Mr. Macchiarella:

The Department of Toxic Substances Control (DTSC) has received the draft final *Proposed Plan for Operable Unit 5/IR-02 Groundwater, Former NAS Alameda and Alameda Annex* and the Responses to Comments (RTC) dated January 30, 2006 for the benzene and naphthalene plume straddling the Alameda Point and former Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex (FISCA). DTSC provided comments on previous drafts on July 16, 2005, December 16, 2005, and January 24, 2006. DTSC discussed the issues with the Navy in two resolution meetings in January 2006. DTSC has reviewed the draft final Proposed Plan and RTC. This letter memorializes tasks that are postponed until later stages.

1. Institutional Controls: The following statements are excerpted from the Meeting Summary transmitted on August 26, 2005:

"Mr. Plaseied said the Navy wants to move forward without conducting indoor air sampling, and asked if there are any objections. Mr. Murphy said this opinion is based on discussions with the Schools Unit of DTSC regarding the crawl space beneath the school at Alameda Point Site 30. The Schools Unit wants benzene

and naphthalene sampling in the crawl space. Mr. Murphy suggested that such data would provide a clue regarding the rest of the area – if nothing appears, this issue would end. Mr. Murphy said that he'll ask the DTSC risk assessors if the modeling is okay and he'll contact the Navy with the answer. If not, DTSC will make a request to the Navy about such sampling."

DTSC has considered the potential of benzene and naphthalene vapor intrusion to indoor air, and has determined that using either soil gas or groundwater data as the only source term for the Johnson and Ettinger Model would not be appropriate because of the shallow (~ 5 to 7 feet bgs) groundwater table. Therefore, DTSC is making a risk management decision in requiring new institutional controls that have not been evaluated in the feasibility study. DTSC agrees with the Navy in moving the project forward, and is relying on additional institutional controls instead of reverting back to the RI/FS and risk assessment stages. DTSC agrees with the Navy's general institutional control statement in the Proposed Plan. However, DTSC requires the Record of Decision to include the following institutional controls: (a) indoor air/subslab/crawl space air monitoring for existing buildings, and (b) sub-slab depressurization system for new buildings.

These institutional controls should be applied to the benzene/naphthalene plume. As suggested during the January 17, 2006 comment resolution meeting, DTSC is amiable to alter the institutional control application areas by using a benzene isoconcentration line greater than 1 µg/L. Such determination would need to be technically justified and consistent with arguments raised above. DTSC is ready to work with the Navy in this effort.

2. Biosparging Performance Standard: DTSC agrees that the estimated two years of biosparging and six years of monitoring natural attenuation are for cost estimation purpose only. These time frames must not be used in determining the treatment durations.

DTSC agrees with Navy that performance standard would be specified in the Remedial Design instead of the Record of Decision. DTSC reiterates that the Remedial Design document must clearly define the following criteria and the regulatory agencies must concur with the criteria before commencement of biosparging:

- (a) Benzene and naphthalene target concentrations for groundwater and saturated soil on which biosparging could be stopped and monitored natural attenuation could be commenced; and

(b) Provisions for restarting the biosparging system after three to five years of unsuccessful attenuation of contaminant concentrations or reconsider the remedy altogether.

3. Remedial Action Objective for Naphthalene in Groundwater: DTSC agrees with the revised institutional controls language which include the applicable or relevant and appropriate requirements (ARARs) as the termination criteria for the groundwater institutional controls. However, DTSC reiterates that the applicable California drinking water standard at the time would be the remedial action objective for unrestricted groundwater use, regardless of whether the Navy would accept any ARAR identification in the future.

Table 2 of the draft final Proposed Plan states "(r)estrictive covenants included in a "Covenant to Restrict Use of Property" entered into by the Navy and DTSC as provided in tit. 22 Cal Code Regs. Section 67391.1 and consistent with the Navy/DTSC 2000 Memorandum of Agreement." DTSC reminds the Navy that the California Code of Regulations, Title 22, Section 67391.1 provisions supersede the Navy/DTSC 2000 Memorandum of Agreement.

4. College of Alameda: DTSC requests the Navy to notify the College of Alameda that a portion of its property is within the benzene/naphthalene plume, and the College of Alameda may be one of the parties in the upcoming Land Use Covenant.
5. Inadequate Risk Assessment: DTSC disagrees with the Navy's risk evaluation for reasons already stated in all previous comment letters on the proposed plans and feasibility study reports for the benzene and naphthalene plume. DTSC acknowledges that the U.S. EPA approved the Navy's risk assessment. The Navy has offered to host a meeting with the regulatory agencies' toxicologists to address unresolved issues. However, in the interest of moving the project forward, DTSC is making a risk management decision to require institutional controls to minimize the potential of vapor intrusion to indoor air. The details of the institutional controls must be specified in the Record of Decision.
6. Biosparge Zone 2: DTSC has requested the footprint of Biosparge Zone 2 be expanded to cover locations OU5-SG-20D and SG-T2-4'. These locations contain two maximum benzene soil gas detections among FISCA and the Alameda Point. The Biosparge Zone 2 coverage as shown in Figure 4 of the revised Proposed Plan is only slightly altered, but not enough to encompass OU5-SG-20D and SG-T2-4' locations. The eastern limit of Biosparge Zone 2

Mr. Thomas Macchiarella  
March 23, 2006  
Page 4

must be extended beyond the north-south margin aligning with the eastern edge of former Building 366.

During the January 17, 2006 comment resolution meeting, the Navy requested DTSC to identify the appropriate boundary for Biosparge Zone 2. DTSC forwarded a Portable Format Document showing the expanded Biosparge Zone 2 following the meeting. On January 19, 2006, the Navy informed that Figure 4 would be removed from the Proposed Plan citing that the figure is confusing to the public.

DTSC agrees that Figure 4, which shows the approximate locations of three biosparge zones, may be removed. However, DTSC requires the Record of Decision to include a figure showing the expanded Biosparge Zone 2 that is depicted in "Max Soil Gas Benzene Detection at SG-T2.pdf" emailed to the Navy on January 17, 2006.

8. Project Manager: Please remove Ms. Marcia Liao from the site contacts list.

Please revise the Proposed Plan in accordance with this letter, and mail DTSC the updated Proposed Plan and Portable Document Format file saved in a compact disc. If you have any question, please contact me at (510) 540-3770.

Sincerely,



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cc: Mr. Greg Lorton  
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Mr. Thomas Macchiarella  
March 23, 2006  
Page 5

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