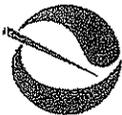




Department of Toxic Substances Control



Linda S. Adams  
Secretary for  
Environmental Protection

Maureen F. Gorsen, Director  
8800 Cal Center Drive  
Sacramento, California 95826-3200



Arnold Schwarzenegger  
Governor

December 1, 2006

Ms. Katherine Greene  
U.S. Army Corps of Engineers  
Sacramento District  
1325 J Street  
Sacramento, California 95814-2922

DRAFT EXPANDED SITE INSPECTION ADDENDUM REPORT; FORMER BENICIA ARSENAL, BENICIA CALIFORNIA

Dear Ms. Greene:

The Department of Toxic Substances Control (DTSC) has reviewed the subject report.

General Comments:

1. The Report describes site investigation work completed at the following sites:  
 Former Drum Storage/Maintenance Area (Building 51);  
 Former Locomotive Building (Building 90);  
 Former Battery Charge Building (Building 101)  
 Former Bar Stock Building/Storage/Vehicle Shop for Motor Pool (Building 168);  
 Alleged Post Dumpsite;  
 Popping Pot (i.e. Armored Fighting Vehicle).
2. The work described in the Report was planned and implemented without concurrence by the state. A similar decision led to implementing the Site Investigation Work Plan without state approval resulting in numerous and ongoing disputes regarding the quality and completeness of the investigations. This situation might have been mitigated if the United States Army Corps of Engineers (USACE) had not unilaterally proceeded with the work.
3. It is unclear how USACE plans to proceed with the sites where they have not been granted Right of Access. DTSC and the Regional Water Quality Control Board will investigate their respective authorities to recommend a course of action.

4. Groundwater flow is not clearly delineated on the figures.
5. If the criteria established under the Risk Assessment Guidance (RAG) is applied; there continues to be insufficient soil data to perform risk assessments at sites where no further action is being recommended, regardless of the reason stated.
6. DTSC does not believe the Army historical records on the arsenal are detailed or complete enough to support conclusions regarding use or disposal of specific chemicals at a site.

Specific Comments:

1. Page 6-3, Section 6.1: The use of phthalates by the Army during its tenure at Benicia Arsenal is probable. Please refer to Mr. Mark Vest's comment number 63, page 20 in his response to comments for the Draft Site Inspection Report. Army responsibility is likely the cause of the contamination at Building 51 (Former Drum Storage/Maintenance Area) and cannot be discounted. DTSC disagrees there is sufficient data to conduct a risk assessment, or that a risk assessment makes sense without further investigation.
2. Page 6-4, Section 6.2: DTSC's concern at Building 90 (Former Locomotive Building) was lack of data. That is still the case. There is still insufficient soil data to conduct a risk assessment per Ms. Patty Wong's comment in response to comments for the SI comment Number 103. DTSC also continues to recommend the approach stated by Mr. Vest in his response to comments number 66, page 26, for the Army to complete a survey including multiple soil gas sampling points in the area of Buildings 165, 156, and 90. Mr. Vest further stipulates that groundwater has not been delineated in this area and should be per the Army's decision diagram.
3. Page 6-6, Section 6.3: The sample collected at the drain was analyzed for lead only and not for any other constituents that may have resulted from the action of cleaning batteries. The detection of cobalt is not adequately explained. There is still insufficient soil data for a risk assessment.
4. Page 6-8, Section 6.4: One of the stated goals of the additional field work was to determine the source of the low levels of diesel in groundwater. The source is still unknown. The second goal was to delineate impacted groundwater.

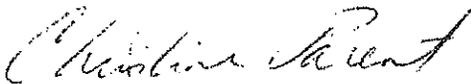
According to Figure 6-4 there is no constraint on the southern portion of the delineation. DTSC maintains that this area is not adequately characterized.

5. Page 6-10, Section 6.5: The recommendation that no further Department of Defense (DoD) action is necessary at the post dumpsite is not substantiated with the Expanded SI sampling results, or with the analysis of the sampling results that include the Expanded SI, Addendum SI and URS sampling event. The discussion on page 6-20 regarding if the petroleum hydrocarbons are naturally occurring is unsupported. The areas of contamination should be delineated on the map. There is clearly vinyl chloride in shallow groundwater. The extent is unknown. The use and interpretation of the URS data is convoluted and does not support the recommendation of no further action. The contours of diesel range hydrocarbons on Figure 6-10 are not supportable from the presented data. Please refer to Mr. Vest's comment number 49, page 3, in his response to comments for the Expanded SI. Much of Mr. Vest's response to comment is still not addressed as a result of the Addendum field work.
6. Page 6-23, Section 6.6: The discussion for the popping pot does not address that unknown quantities of ordnance remains at depth. The risk scenario for residual ordnance at depth is unknown. Please refer to Mr. Vest's response to comment number 62, page 19, in his response to comments for the expanded SI. Please also refer to Ms. Wong's response to comment number 89 of her response to comments for the Expanded SI. There is insufficient data for risk assessment purposes.
7. Page 7-1, Section 7.1: The Summary of Conclusions for the presented sites is not supported by the actual data and by the interpretation of data. There continues to be data gaps and a reasonable probability of DoD responsibility.
8. Page 7-2, Section 7.3: DTSC does not concur that DoD did not contribute wholly or in part to the contamination detected. The recommendations for risk assessments as action is unclear given that the United States Army Corps of Engineers has not agreed to follow approved DTSC/U.S. EPA risk assessment protocol.

Ms. Katherine Greene  
December 1, 2006  
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Please contact me with any questions or to discuss these comments by phone at (916) 255-3707 or email [cparent@dtsc.ca.gov](mailto:cparent@dtsc.ca.gov).

Sincerely,



Christine Parent  
Project Manager  
Office of Military Facilities

cc: Ms. Wendy Linck  
Brown and Caldwell  
10540 White Rock Road  
Rancho Cordova, California 95670

Mr. Colby LaPlace  
Solano County Department of Resource Management  
675 Texas Street, Suite 5500  
Fairfield, California 94533

Ms. Agnes Farres  
Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, California 94612