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July 21, 1992

Mr. Cyrus Shabahari
State of California EPA
Department of Toxic Substances Control
700 Heinz Avenue, Building F
Berkeley, CA 94704

RE: Request for Variance from Secondary Containment of Process Equipment at Naval Air Station (NAS) Moffett Field Site 9

Dear Mr. Shabahari:

The Department of Toxic Substances Control (DTSC) has requested that the Navy incorporate the requirements setforth in Title 22, Chapter 14, Article 10 of the California Code of Regulations (CCR) in the NAS Moffett Field Site 9 source control design. Specifically, DTSC has requested that process equipment (the air stripper and granular activated carbon [GAC] units) include secondary containment. This letter presents a request for a variance from the secondary containment requirements outlined in Chapter 14, Article 10. This request is based on the technical and economic considerations described below.

Under the current source control design, the potential for release of extracted ground water from process equipment will be minimized by using process instrumentation and controls designed to prevent releases; by implementing a system maintenance plan involving frequent inspection of process equipment; and by using double-walled storage tanks and below-ground pipe. A description of the process instrumentation and controls included in the source control design to prevent releases from process equipment appears in the Site 9 source control measure (SCM) 100 percent design report and PRC Environmental Management, Inc.'s (PRC's) letter to DTSC dated March 2, 1992.

Storage tanks have been added to the Building 12 and Building 6 treatment systems to facilitate treatment of ground water from additional extraction wells (the air stripper sump will function as a surge tank in the Building 45 treatment system). The Navy proposes to secondarily contain these storage tanks since they are the only vessels within the treatment systems that will contain entirely untreated ground water. However, the Navy proposes that the Building 45 treatment system air stripper not be secondarily contained since water collected in the air stripper sump already will have undergone treatment in the tray chamber of the stripper resulting in 99 percent removal of hazardous volatile organic compounds (VOCs).

Subsequently, effluent from the air stripper will be polished using two GAC units placed in series. Because potentially hazardous constituents should be almost entirely removed in the air stripper, the Building 45 GAC polishing beds will contain water exhibiting low concentrations of hazardous constituents. Any potential release of this water will pose a negligible threat to human health and the environment.

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Finally, in addition to release-prevention controls, the Navy recommends a maintenance and inspection plan to further reduce the possibility of releases from the GAC beds. Under this plan, each GAC vessel will be filled with clean water and inspected after 24 hours to detect any leaks before treating contaminated water in these vessels. In addition, each GAC vessel will be inspected daily to monitor the integrity of the GAC beds, above ground pipe, and associated valves and fittings.

As requested by DTSC during the July 2, 1992 meeting with PRC, estimated costs associated with secondary containment of the Site 9 SCM process equipment have been developed. The use of double-walled vessels appears to be the most effective and implementable method of secondary containment for the GAC beds. Therefore, cost estimates were developed based on this containment option.

As shown in Table 1, incorporation of secondary containment of process equipment in the Site 9 SCM design would cost approximately $71,950. This estimate represents approximately 20 percent of the current estimated SCM cost of $387,000.

This request for a variance from the secondary containment requirements specified in Chapter 14, Article 10 of Title 22 of the CCR is based on the safety features incorporated in the current source control design to prevent releases of ground water, the limited potential hazard posed to human health and the environment as a result of a release, the limited duration of this SCM, and the economic considerations involved with secondary containment of process equipment.

If you have any questions regarding this matter, please call me at (303) 295-1101.

Sincerely,

PRC Environmental Management, Inc.

Jeffrey Reichmuth
Project Engineer

cc: Stephen Chao, WESTDIV
Joshua Marvil, PRC
Michael Young, PRC
PRC File

TABLE 1

SECONDARY CONTAINMENT COSTS

1.	Double Walled GAC Vessels[1] (6 Tanks X $13,800 per tank)	$82,800
2.	Air Stripper Secondary Containment[2]	$10,000
	TOTAL	$92,800
	Single Walled Tank Cost (6 tanks X $3,475)	-$20,850
Adjusted Total (Actual Additional Costs for Secondary Containment)		$71,950

[1] Based on quote from Cameron Yakima, Inc.

[2] Estimate includes containment basin, cover (roof), and level controls.