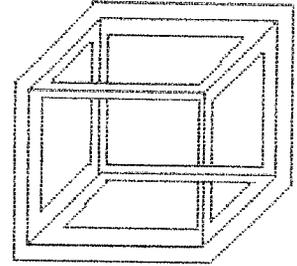


El Toro / Review Committee Roster

Joe Barney	Fred Meier	
Richard Bell	Marcia Rudolph	
Charles Bennett	Jerry B. Werner	
Joseph Farber	Don Zweifel	
Roy Herndon	Dean Gould	- ex officio
Jeff Koepke	Greg Hurley	- ex officio



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25 September 2000

Project # - El Toro RAB / The Review Committee
re: RAB Report

Main Agenda Issues since 26 July 00:

Subcommittee minutes available

Unit A.

*IDP -

The Subcommittee requests that the status of the IDP be permanently added to the RAB Agenda, as long as there is any uncertainty as to its implementation.

[Unchanged/26July00]

Unit B.

* BCP -

A letter submitted by P. Hersh to the DoN in April regarding LUC's still has had no response. The consensus from other base closures is clear that LUC's should not be left as a post ROD action. The response of the DoN should be reported at the full RAB.

[Unchanged/26July00]

Unit C.

* Radionuclides -

Subcommittee comments were submitted on the Final HRA and the Survey Work Plan for the surface evaluation, with copies supplied to the Agencies. The principal omission is the monitoring for uranium specifically, while testing for radium, strontium, and krypton. It was the DoN that alleged that the elevated gross alpha is due to uranium near Sites 2 and 5 from their sampling that was performed after the draft HRA was released.

Unit D.

* UST Closure Status -

The Subcommittee requests that Mr. Wm Sedlak report on 1) the UST sites associated with the gas station(s) and 2) the six 1/2 million gallon USTs at Tank Farm 555. Include: Tank and site numbers and capacities, any MtBE releases, what levels of TPH exceeded action levels. For which tanks have a request to close in place been accepted, and how high were TPH values been at these sites? This is a continuing request that has not been fulfilled at a RAB.

PROVIDED AT
9/27/00 MCAS EL TORO
RAB MEETING BY

DR. CHARLES BENNETT,
MCAS EL TORO RAB SUBCOMMITTEE
CHAIR

Unit E.

* Perchlorate -

The recent Technical Memo noted the high levels at the EOD, but the Subcommittee sees no further action to mitigate it. Is any action to mitigate planned?

Unit F.

* Groundwater Monitoring -

The Subcommittee was not impressed with the Report of the several rounds of Groundwater Monitoring from November 1998. Analysis of the results indicate that groundwater pollutant levels have risen in certain critical areas. Further, the reports do not appear to fulfill the requirements of the original proposed monitoring plan. R. Bell has drafted a Subcommittee response for the Agencies, RAB, and DoN.

Unit G.

* Site 16 -

The Subcommittee commented to the DoN, with copies to the Agencies. The Subcommittee continues to note that the DoN appears to neglect the presence of 1,2 DCA at levels that exceed MCL in a location well separated from the main burn site. It is not clear if this DoN omission of 1,2 DCA from the work plan is merely an oversight.

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Attachment I

Specific Comments and Questions Regarding
Radiological Survey Plan

30 August 2000

1. Background:

a. A single background spot is to be surveyed for each major area studied (e.g. Site 2). Given the critical foundational importance of backgrounds for this entire survey, it would be more valuable to survey several disparate background spots for each major area. If the background values are overstated, that also raises the level that triggers the hot spot designation (1.5 X Background). Thus, the higher the experimental background observed, the lower the required response of the DoN.

b. Locations of the background spots are imprecisely defined in the survey plan. Specifically, the background spot for Site 2 is west, probably between the hilly areas. The aerial view shows an active area west of this background spot. How can there be any assurance that activities on this westerly area would not have impacted the background spot, such as to make the background information valueless? At Bee Canyon Wash, how does this background pertain to the survey of the IWT Unit 4 area at Site 12?

c. The Subcommittee reiterates its concern that the absence of suitable off-base background determinations severely undercuts the value of the survey. The DoN has never countered with any relevant data the assertion by local geologists that the area of El Toro is not one associated with naturally occurring uranium.

2. Survey Areas:

a. The survey areas on the landfills should be go farther out than the alleged landfill boundaries. The DoN has acknowledged that unknown dumping could have been outside of the current boundaries.

b. In Site 2, the survey misses the channel in the middle of the landfill that is known to have a fault underneath. It misses hilly, sloped areas from which it is known that leachate has seeped (see Site 2 Draft ROD) in earlier storm events. It misses the "empty area" downhill from the landfill, where the DoN admitted radioactive stormwater sediment flowed. It misses surveying near 02DGMW60, which has the highest chlorinated solvents and the highest gross alphas. The Subcommittee believes this to be a grave omission, considering this "empty area" is precisely where the construction of the Alton extension is due to proceed.

c. The Survey Plan must recognize that Site 1, Site 2, and Site 5 are quite close to each other, and are downhill from each other such that it may be too difficult to separate the responses from each site. That is, the background spot for Site 5 could be downhill from Site 2,

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continuing to call in question the quality of the background values.

d. Groundwater near Site 2 shows systematically rising gross alpha values downgradient of the landfill. These data should guide the Survey to finding the source(s) of this radioactivity on the surface.

3. Radionuclides of interest (pg 28):

a. Radium, strontium, krypton, cobalt, tritium, and thorium are to be tested for specifically in this Plan. At the time of the release of the draft HRA in early 1999 these were the only elements known to be of concern. However, the DoN and their consultants released a major groundwater report that indicated that uranium was the major contributor to gross alphas and betas downstream of Site 1 and Site 2, based on sampling performed in November of 1999. Furthermore, in written comments to the RAB, the DoN demonstrated that the bulk of the gross alphas and betas in the runoff from Site 2 was contained in the suspended solids. If the previous work of the DoN is credible, then Site 2 and Site 1 should also be surveyed for uranium. Based on the DoN's earlier data, we may find that much of the radioactivity in this region is derived from uranium. Not to survey for uranium leaves a major data gap in what is otherwise a good survey plan. Will uranium be part of the survey of Site 1 and Site 2?

b. Despite the many assurances of the DoN, the community retains concerns about radioactive materials that may be on El Toro. The subcommittee is concerned about sources of uranium that may have been on El Toro, hence it supports the concept that uranium should be a specific target of the Survey.

c. The Plan suggests that if a hot spot is found in the Survey, then speciation will be performed. The Subcommittee requests that uranium be explicitly sought in any such speciation. As currently structured, if the observed radioactivity was solely due to uranium, is there sufficient sensitivity in the survey to trigger the hot spot designation?

d. It was the understanding of the Subcommittee that uranium was to be part of the Survey and are concerned about its absence.

4. Groundwater:

1. This Survey Plan does not address or refer to groundwater. Is groundwater an entirely separate issue? If so, should not the RAB have as thorough a Survey Plan for review as was done for the surface survey. It would seem that surface and groundwater radionuclide issues are intimately related.

2. As stated previously, groundwater radioactivity should be an indicator of sources of radioactive materials on the Base. Consequently groundwater radionuclides should be used as a guide to finding radionuclides at the surface.

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MCAS EL TORO RAB SUBCOMMITTEE CHAIR.

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Attachment 2

Specific Comments Regarding Draft Phase II
Feasibility Study, OU-3 Site 16
18 April 2000

1. Henry's Law: Use of Henry's law to determine concentrations of soil gas that will provide evidence of a reduction of source concentrations of TCE may not be valid. The use of Henry's law is appropriate to the calculation of concentrations of a gas above a solution under ideal conditions, not in a soil environment. Please supply a reference, if there is one, for its use in determining a cleanup standard. Unless there is an accepted method that the use of Henry's law is valid for determining potential water concentrations of a pollutant in soil, it should not be used.

2. 1,2DCA: The Hydro Punch and groundwater monitoring well data in Table 1-4 indicate that 1,2 DCA was identified in several samples, one of which was well over the CA MCL of 0.5 ppb (it was 8.7 $\mu\text{g}/\text{L}$ at 16MW2). Please note that the discussion of 1,2 DCA on p. 1-53 reverses the data, the 8.7 $\mu\text{g}/\text{L}$ sample is noted as 16MW3. Please indicate the correct well/data points. Moreover, there was no discussion in the text of this pollutant. That is, the pollutant 1,2 DCA was an omission from assessment in this report, despite its exceeding both the CA and Federal MCL's at Site 16.

This 1,2 DCA compound is a co-product of the manufacture of trichloroethylene (TCE), tetrachloroethylene (PCE), and 1,1,1-trichloroethane (TCA). It is considered by EPA to be a probable carcinogen itself. The text appears to infer (p. 1-53) that 1,2 DCA is a breakdown product of TCE. If this inference was intentional, please provide a citation for this, as it is unlikely on a scientific basis.

The well in which the 1,2 DCA was identified above the MCL (16MW2) apparently does not have a significant level of the co-product, TCE. Well 16MW2 is approximately 500 feet downgradient from the center of the characterized plume (Figure 1-10). There is no discussion about how this might have occurred or its significance. This omission may have several different consequences. First, if 1,2 DCA is an indicator of how the co-product, TCE, may be moving, then the characterization of the plume will be incorrect and the subsequent remediation effort will not be effective. Alternatively, the TCE may be remediated, but the 1,2 DCA may remain away from the remediated plume at levels above the MCL. The significance of the finding of 1,2 DCA away from the plume should be assessed and discussed.

3. Mitigation of 1,2 DCA: In identifying soil concentrations that will eliminate loading to groundwater, there is no discussion of whether levels of 1,2 DCA will be reduced to below MCLs (federal and state) if TCE target levels are achieved.

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4. Upsets: The discussion of alternatives that involve disposal of treated water to surface waters should include the identification of the receiving waters (e.g., Newport Bay) and the potential impacts on the bay from treated flows during the course of the remediation effort. This should include an analysis of the risk of upsets whereby contaminated groundwater at higher than MCL levels may flow to the receiving waters.

5. POTW's: In addition, the discussion of alternatives that involve disposal of treated waters to publicly owned treatment works (POTW) should analyze potential impacts on the POTW's use of treated waters in a recycling program.

PROVIDED AT 9/27/00
MCAS EL TORO RAB MEETING
BY DR. CHARLES BENNETT,
MCAS EL TORO RAB SUBCOMMITTEE
CHAIR

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