UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 22, 1998

Mr. Joseph Joyce
BRAC Environmental Coordinator
AC/S Environment (1AU)
MCAS El Toro
P. O. Box 95001
Santa Ana, CA 92709-5001

Re: EPA Comments on Draft CERCLA Monitoring Plan, Marine Corps Air Station (MCAS) El Toro

Dear Mr. Joyce:

The United States Environmental Protection Agency (EPA) has reviewed the above referenced document. Please find attached, comments from EPA's hydrogeologist, Herb Levine.

In addition to the attached comments, EPA believes that it is premature to eliminate monitoring wells from the longterm monitoring network that have been selected by the Navy for the perchlorate investigation. If the perchlorate investigation shows contamination in those wells, they may need to become part of the monitoring network, therefore, any decision to eliminate wells should wait until the analytical results have been evaluated.

If you have any questions, please feel free to contact me at (415) 744-2210.

Sincerely,

Glenn R. Kistner
Remedial Project Manager
Federal Facilities Cleanup Branch

Attachment

cc: Patricia Hannon, RWQCB
Gregory Hurley, RAB Co-Chair
Tayseer Mahmoud, DTSC
Andy Piszkin, SWDIV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

September 23, 1998

MEMORANDUM

SUBJECT: Review of DRAFT CERCLA Groundwater Monitoring Plan, Marine Corps Air Station, El Toro, California

TO: Glenn Kistner, RPM
Navy Section

FROM: Herbert Levine, Hydrogeologist
Technical Support

I have reviewed this document per your request and in general find it a good attempt to optimize the groundwater monitoring network at EL Toro. The goal to maximize efficiency while minimizing costs is consistent with EPA guidance. I do have a few concerns which need to be resolved prior to approving this plan. I suggest that after the Navy has had a chance to review comments from the other agencies that we meet as a group to resolve issues.

General Comments

1. Section 3. The report states that wells were evaluated to determine if they would be needed for future performance monitoring. It would be helpful to provide the criteria which the Navy used to make this evaluation. Without those criteria EPA can not concur with the well selection presented in Section 3. As example, how was the first diamond in Figure 3-3 evaluated? Sections 3.3.1.1 and 3.3.1.2 claim that the monitoring network presented were evaluated to comply with final remedy monitoring objectives presented in Section 3.1. I can not find those objectives in Section 3.1. EPA has developed a guidance titled Methods for Monitoring Pump-and-Treat Performance (EPA/600/R-94/123, June 1994) which presents remedial action monitoring objectives. It would be useful for the Navy to consider this guidance while revising the monitoring plan. It would be helpful to add the monitoring rationale to Table 3-4.

2. Section 3.3.1 Wells for VOC Plume Migration Monitoring, page 3-7. EPA concurs with the first bullet however, I recommend that the words "at least one well..." be changed to "wells sufficient to define the leading edge of each plume be monitored to track further down gradient migration." The Navy should define in this document which those wells are. For Site 18 there is not even one clearly defined well down gradient of the plume for monitoring purposes. The Navy will need to add monitoring wells at the leading down gradient edge of the off-site plume.

These could be placed to be used for water level measurements as well to attempt to confirm capture of the plume by N. Lake well. The information provided on well IRWD-78 (Table F6-1) does not support its use as a water quality monitoring well. There is no provided data on how this well is sampled (nor in the CDM reports) however based on screen length this well is not appropriate for water quality data. Figure 2-8 indicates that we will need similar data down gradient to the North Lake well as provided by 18_MCAS07. Also, Figure 2-8 might need to be modified with regards to where the contamination exists within the North Lake well. I suggest adding pump location (North Lake well) to this Figure and then reconsidering how the plume is interpreted.

3. The pumping data from the production wells in the vicinity of the edge of the off-site plume will need observation wells nearby to confirm the extent of drawdown. EPA guidance (see above) prefers that gradient and flow paths be interpreted based on head measurement in observation wells or piezometers. The Navy could attempt to make an estimate of the heads in the vicinity of the pumping wells using well hydraulics equations, however there will be uncertainty associated with this.

4. It would be very useful to have plume maps with potentiometric elevations overlain.

5. I do not think that the Navy has presented compelling evidence to discontinue monitoring at the following wells: 18_TIC117, 18_TIC74, 18_TIC47, 18_TIC55, and TIC-82.

6. Table 3-1, page 3-6. Objective number 3 should include leading edge of plume well(s) which will be needed to evaluate objective 5.

7. Wells which confirm plume stability and boundaries should be sampled semi-annually. The pumping rates for the production wells North Lake, 18_ET1, 18_TIC106, 18_TIC113 should be obtained monthly. The water quality near the production wells will need o be confirmed with monitoring well data.

8. The North Lake well and 18_ET1 production wells present an interesting situation. The information presented in F4.2.1 indicates that about 30 lb/year of TCE is being removed by these wells. This raises the question of whether TCE is accumulating in the lake. I suggest sampling of the lake to determine an impact. What is the fate of the water from 18_ET1? This should be presented here as well.

9. I suggest that the Navy perform a capture zone analysis at North Lake well to aid the interpretation of plume capture.