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

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

of pages ▶

January 29, 1999

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

To	JOSEPH JOYCE	From	GLENN KISNER
Dept./Agency	SW DIV	Phone #	(415) 744-2210
Fax #	(619) 532-4600	Fax #	
NSN 7540-01-317-7368		5099-101 GENERAL SERVICES ADMINISTRATION	

Re: U. S. EPA Comments on Draft Record of Decision, Operable Unit (OU) 2B- Landfill
 Sites 2 and 17, Marine Corp Air Station El Toro, CA, November 1998

Dear Mr. Joyce:

The United States Environmental Protection Agency (EPA) has reviewed the above referenced document. EPA's comments are provided below and include comments from EPA attorney Thelma Estrada and from Ned Black, EPA Ecologist/Microbiologist (attachment).

I will be happy to discuss EPA's comments with you. Please feel free to contact me, if you have any questions.

General Comments

- 1) Please add a description of the habitat mitigation measures to be undertaken to the Declaration and to Section 9.
- 2) Natural attenuation in the groundwater has not been demonstrated thus far (attachment), therefore, EPA will not accept it as part of this remedy. EPA would be willing however to consider a treatability study - over a 5 year period, to assess the viability of *Monitored Natural Attenuation* at Sites 2 and 17. In the meantime, the Navy needs to propose a contingency plan that will address the potential for plume migration and/or contamination level increases.
- 3) Tables showing chemical concentrations in groundwater, etc., should contain recent data that is more indicative of current conditions, not data that is several years old.
- 4) The ROD should state that an Institutional Control (IC) Monitoring, Compliance and Certification Plan will be submitted as part of the Remedial Design.
- 5) VOC groundwater concentration values on the Figures should be shown in ug/L rather than mg/L.

Specific Comments

- 1) Description of the Remedy, pg. 2, 2nd bullet; add "Treatability Study" to ... "document the progress of the natural attenuation process."
- 2) Add a bullet to Description of the Remedy that describes the mitigation measures to be implemented.
- 3) Figure 5-6; Why are the sampling results from 1995 and not from more recent sampling? More recent groundwater data should be used to show current conditions.
- 4) From which sampling event is groundwater analytic results shown on Figure 5-13? Are they the most recent?
- 5) Pg. 7-2, first paragraph; the statement ... "the solvent plumes in groundwater at Site 2 are expected to be reduced by natural attenuation." is not supported at this time and should be deleted.
- 6) Section 7.3.3; change sentence to reflect that a 5 year treatability study will be conducted.
- 7) Section 9, Selected Remedy, 5th bullet; change to - "a pilot study to evaluate Natural Attenuation."
- 8) Include a Contingency Plan as part of the Selected Remedy.

Responsiveness Summary

Comments from June 18, 1998 Public Meeting

- 1) pg. 4, # 3; please add "whenever waste is left in place." to the end of the Navy's Response.

Comments from EPA Attorney - Thelma Estrada

Specific Comments:

1. p.2: refers to groundwater monitoring requirements. Unless these are part of the landfill closure requirements, these should be deleted. If there are groundwater monitoring requirements that are part of landfill closure, we should decide whether these groundwater monitoring requirements would be met by the groundwater remediation that will be addressed in a separate document and whether we should just state that groundwater monitoring will be undertaken as part of the groundwater remediation.

2. p.7-4: Land Use Restrictions - delete the second to the last sentence in this paragraph as well as the phrase "and conducting additional remedial action" from the last sentence. Any agreement between the DON and the transferee (as to who pays for any additional remedial action) does not alter the DON's responsibility under CERCLA for the long-term effectiveness and protectiveness of the remedy it selects.
3. p.7-5: Irrigation - does this mean that there will be no irrigation at all? Is this not an issue at these landfills for the LRA?
4. p.7-6: Notification - second paragraph: add the phrase "remedy for the" before the word "site."
5. p.7-7: Monitoring - states that at Site 2, only groundwater would be monitored. See my comment above re groundwater; will there be no monitoring of landfill gas and leachate at these landfills? Also, the last paragraph on this page refers to a Groundwater Monitoring Plan. Is this just for site 17 or is it also for site 2? Is this Groundwater Monitoring Plan required for landfill closures or is it being done as part of the groundwater remediation?
6. p.8-3: First full par. on the top of this page - states that alternative 3, 4, and 5 are expected to meet the ARARs. Does this apply to all the alternatives under 4 (a, b, c, and d) as well?
7. p.8-4: Second par. - the last sentence here states that the remaining alternatives are more effective than alternative 4a in reducing infiltration. Yet, the previous sentence states that alternative 4a is the Title 27 prescriptive cap. This is confusing.
8. p.8-5: There are infiltration rates listed on this page which are different from the infiltration rates listed in Table 8-1. Am I missing something here?
9. p.9-2: Last par. - makes reference to corrective actions that may need to be implemented. To avoid confusion with the corrective action required under State requirements, I would delete this term and use the term "remedial actions." Also in this par., what does LEA stand for?
10. p. 10-7: Last par. before the Action-Specific ARARs section - refers to CA Fish and Game Code requirements. I am assuming that these are ARARs because there are requirements here that are more stringent (or broader) than the requirements under ESA.
11. p.10-8: Second full par. from the top of the page - makes reference to Orange County Code. Local rules are not ARARs. The par. that follows states that the specific ARARs re post-closure requirements for landfills will be addressed in the RD phase. These should still be identified here Maybe they are in the ARARs Table; if so, the Table should be referenced in this narrative section.
12. p.10-9: Last par. on this page should just be deleted. I think its repetitive of what is stated in the next page.
13. p. 10-10: A sentence should be added to this par. that concludes that it is in fact the case at

El Toro that the waste pose relatively low long-term threat.

ARARs Tables:

1. p.10-12: First row - what is the application of this requirement to Sites 2 and 17?
2. p.10-13: Reference to implementation plans in the Basin Plan should be deleted. Not all of these implementation plans are ARARs and these need to be analyzed separately. The only things we have identified as ARARs in the Basin Plans are: beneficial uses, water quality objectives, both narrative and numerical standards. I would also delete reference to waste discharge requirements (WDRs) because these have generally been used to refer to the permits issued by the WB.
3. p. 10-15: Second row - how is this protection of floodplain applicable to sites 2 and 17. Also, since this is already the ROD, I would delete all the ARARs that were analyzed in the FS that we have concluded are not ARARs for this site and remedial actions. For instance, on this page, I would delete the National Historical Preservation Act since it seems that the conclusion is that it does not apply to this site.
4. p.-18: Generally, the DOT requirements are not identified as ARARs because they are not environmental standards.
5. p.10-20: I would delete the Management memo referenced here as TBC and move it to the narrative section as something that the DON is committing to apply. TBCs are not appropriate in RODs where we generally have firm requirements or performance standards.
6. p. 10-21: Last row - see my comment above re groundwater monitoring requirements.
7. p. 10-24: Second row - the comment section should also state that deed restrictions will prohibit the construction of structures within 1000 feet of the landfills, or structures on top of the waste, etc.
8. p.10-25: Last row - since we are deleting references to the groundwater remediation at this site, point of compliance is not relevant and appropriate.
9. p.10-27: Last row - delete the last sentence in the column 'Action/Requirement.' The CERCLA remedial process is equivalent to the corrective action program under the State Regulations.
10. Table 10-5: It was interesting to see the comparison among all the federal and State regulations. However, it wasn't clear to me how the DON made its decision as to what is the "controlling ARAR." An explanation of this determination is necessary.

5

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

ATTACHMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 Hawthorne Street
San Francisco CA 94105-3901

MEMORANDUM

SUBJECT: Review of Draft Technical Memorandum, U.S. Air Force Technical Protocol for Natural Attenuation at Site 2 Magazine Road Landfill, MCAS El Toro, December 1998.

FROM: Ned Black, Ph.D. *JNPB*
Ecologist/Microbiologist
Technical Support Team (SFD-8-B)

TO: Glenn Kistner
Remedial Project Manager (SFD-8-2)

DATE: 20 January 1999

I have reviewed this document and can not conclude it presents credible evidence in support of significant natural attenuation. The Navy did carefully follow the AFCEE protocol (Wiedemeier *et al.*, 1996), however the actual data presented which support an interpretation that natural attenuation is taking place are extremely light. I do not conclude that natural attenuation should not be further considered. As detailed in the technical memorandum and below, some further investigation may be worthwhile.

Specific comments, organized by topic:

1. Dissolved oxygen. The cut-off value for awarding 3 points in the AFCEE protocol is 0.5 mg/L. For values between 0.5 and 1.0 mg/L, the protocol awards 0 points. In Table 1, the March 1997 value is 0.57 mg/L. The score for this value should be 0. Although dissolved oxygen is depleted in Well 02_DGMW60 with respect to well 02NEW11, the dissolved oxygen within the contaminated groundwater is not yet consistently at a level which supports reductive dechlorination.
2. Nitrate and sulfate. As noted in this memorandum, both of these electron acceptors are present at levels well above the concentrations which are conducive to reductive dechlorination.
3. Oxidation-reduction potential. The value of ORP in the October 1997 sampling of Well 02_DGMW60 may be the start of a trend, or it may be an anomaly. One point does not demonstrate a trend.
4. 1,2-DCE. No mention is made of isomer analysis. The references to DCE as a daughter product of TCE biodegradation (Sections 3.2.1 and 3.2.7) are unsubstantiated. *cis*-1,2-DCE is a

ATTACHMENT

significant daughter product of TCE biodegradation. trans-1,2-DCE is not. Unless and until data are provided which show that the detected 1,2-DCE is cis-DCE, no points can be awarded for these data in the AFCEE protocol analysis.

5. In light of comments 1 and 4 above, the AFCEE protocol scores for all sampling events in Well 02_DGMW60 are less than 5. Again, the evidence presented here in support of monitored natural attenuation as a viable remedial alternative are slight at best.

Recommendation: This technical memorandum is inadequate to support selection of monitored natural attenuation as a remedy. It may be worth continuing to gather data in support of natural attenuation at this site as part of a treatability study. Analyses must include isomer quantification for DCE. The analyses listed in Section 3.5 are otherwise reasonable. I agree that the expense of dissolved hydrogen analysis is not warranted for this site. Methane, however, must be added to the list of analytes; it is a required analyte in the AFCEE protocol. With regard to a microcosm study, I doubt if the expense would provide data of the same value as DCE isomer and methane analysis. I recommend against microcosm studies.

I make no comment on the adequacy of the current well configuration or characterization of the hydrogeology.

I can be reached at 415-744-2354 to discuss this further.

Reference:

Wiedemeier, T.H., M.A. Swanson, D.E. Moutoux, E.K. Gordon, J. T. Wilson, B.H. Wilson, D. H. Kampbell, J.E. Hansen, P. Haas, and F.H. Chapelle. 1996. Draft Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater. Air Force Center for Environmental Excellence, Brooks Air Force Base, San Antonio, TX.