

**RESPONSE TO COMMENTS
DRAFT TECHNICAL MEMORANDUM
EVALUATION OF OU-1 ALTERNATIVE 8A WITH RESPECT TO NCP CRITERIA
MCAS EL TORO, CALIFORNIA**

M60050.002561
MCAS EL TORO
SSIC #5090.3

October 2001

<p>Originator: Triss M. Chesney, P.E., RPM Department of Toxic Substances Control</p> <p>To: Dean Gould, BRAC Environmental Coordinator MCAS El Toro</p> <p>Date: June 5, 2001</p>	<p style="text-align: right;">CLEAN II Program Contract No. N68-711-92-D-4670 CTO-0161 File Code: 0232</p>
<p><u>SPECIFIC COMMENT</u></p> <p>The Department of Toxic Substances Control (DTSC) reviewed the technical memorandum dated April 2001 and received by this office on May 1, 2001. The technical memorandum describes Alternative 8A, a new alternative that was developed to remediate volatile organic compound contamination in the regional groundwater identified as OU-1, Installation Restoration Program Site 18 at MCAS El Toro. The technical memorandum also evaluates the alternative with respect to the nine NCP evaluation criteria and compares the alternative with those previously identified in the OU-1 Interim Action Feasibility Study Addendum (Jacobs Engineering Group, 1996).</p> <p>After review of the document, DTSC has the following comment:</p> <p>Table 2, Overview of Remedial Alternatives and Table 3, Simulated TCE Plume Area in the Principal Aquifer After 20 Years: According to Table 2, the treatment rate for Alternative 8 is 4,400 gpm and for Alternative 8A is 2,500 gpm. Then the estimated TCE Mass Removed in 20 years under Alternative 8 is 13,200 pounds and under Alternative 8A is 14,000 pounds. Further, in Table 3, the area of the plume in the principal aquifer with TCE concentrations greater than 5 µg/L in 20 years is 979 acres for Alternative 8 and 1,073 acres for Alternative 8A.</p> <p>The area of the TCE plume appears to decrease proportionally with the treatment rate. For example, after 20 years, the area of the plume decreases more under Alternative 8 than Alternative 8A. However, after 20 years, the amount of TCE mass removed is greater for Alternative 8A (14,000 pounds) than for Alternative 8 (13,200 pounds). Please clarify the apparent inconsistency in the text.</p>	<p><u>RESPONSE TO SPECIFIC COMMENT</u></p> <p>Response: The apparent inconsistency that is discussed in this comment is due to three factors: the placement of the wells in Alternatives 8 and 8A, the wells that are counted in the extraction rate, and the assumptions regarding when the wells will be operated.</p> <p><u>Placement of Wells</u></p> <p>Alternative 8 has only one well (18_ET1) located in the most contaminated area of the principal aquifer groundwater plume. Alternative 8A has two wells (18_ET1 and 18_ET2) located in this same area. 18_ET1 and 18_ET2 are assumed to extract groundwater at a rate of 1,000 gpm and 700 gpm, respectively, making Alternative 8A more effective in extracting mass from the most contaminated area.</p> <p><u>Wells Counted in the Extraction Rate</u></p> <p>Alternative 8A has a potable (non-CERCLA) and a nonpotable (CERCLA) component. Only the groundwater extracted from the CERCLA wells (18_ET1, 18_ET2, and IRWD_78) is counted in the 2,500 gpm treatment rate. In the case of Alternative 8, all wells, including those inside and outside the contaminated plume are counted in the extraction rate of 4,400 gpm. Therefore, most of the wells that are contributing to this treatment rate are outside the plume and are not actively contributing to VOC mass removal.</p> <p><u>Assumptions Regarding Period of Well Operation</u></p> <p>Groundwater in the nonpotable (CERCLA) portion of the Alternative 8A system is only required for irrigation purposes part of the year. Therefore, the nonpotable wells that remove groundwater from the most contaminated portion of the plume were assumed to function for only approximately 5.5 months out of the year. The potable wells were assumed to function year round, but the potable wells associated with Alternative 8A are located outside the plume and therefore do not remove mass or contain the plume. The result of this intermittent operation is that the Alternative 8A plume area will be slightly</p>

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Originator: Triss M. Chesney, P.E., RPM Department of Toxic Substances Control To: Dean Gould, BRAC Environmental Coordinator MCAS El Toro Date: June 5, 2001	CLEAN II Program Contract No. N68-711-92-D-4670 CTO-0161 File Code: 0232
	larger at the end of 20 years than the plume area associated with Alternative 8, which is assumed to treat and supply potable water to the public on a year-round basis.

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October 2001

<p>Originator: Patricia A. Hannon Regional WaterQuality Control Board</p> <p>To: Dean Gould, BRAC Environmental Coordinator MCAS El Toro</p> <p>Date: October 4, 2001</p>	<p style="text-align: right;">CLEAN II Program Contract No. N68-711-92-D-4670 CTO-0161 File Code: 0232</p>
<p><u>SPECIFIC COMMENT</u></p> <p>We have completed our review of the above-referenced document, dated April 2001, which we received on May 1, 2001. Based on the information in the report, we have the following comments:</p> <p><u>Page 17, Section 5.3 Long-Term Effectiveness and Permanence</u> In reviewing this section and Table 3, "Simulated TCE Plume Area in the Principal Aquifer After 20 Years," there appears to be a discrepancy between Table 3 and the text. It is unclear which remedial alternatives are predicted to be the most effective, based on the amount of acreage with remaining TCE concentration over 5 µg/L in groundwater after 20 years.</p>	<p><u>RESPONSE TO SPECIFIC COMMENT</u></p> <p>Response: To resolve the discrepancy between the text and Table 3, the last three sentences in Section 5.3 have been revised to read as follows:</p> <p style="padding-left: 40px;">"As the table shows, Alternatives 6A and 8 are the most effective in reducing the total area of the principal aquifer plume that exceeds the remedial goals, closely followed by Alternative 2 and 8A. These four alternatives reduce the area to approximately 900 to 1,100 acres. Alternative 7A and 7B are less effective, reducing the principal aquifer plume to slightly over 1,300 acres. Alternative 1 is the least effective, leaving approximately 1,400 acres of groundwater containing concentrations of TCE above the MCL in the principal aquifer at the end of 20 years."</p>

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<p>Originator: Nicole Moutoux, Project Manager United States Environmental Protection Agency</p> <p>To: Dean Gould, BRAC Environmental Coordinator MCAS El Toro</p> <p>Date: May 24, 2001</p>	<p style="text-align: right;">CLEAN II Program Contract No. N68-711-92-D-4670 CTO-0161 File Code: 0232</p>
<p>EPA has reviewed the above-referenced memorandum and has no comments at this time. We look forward to progressing to ROD stage for OU-1.</p>	<p>Response: The DON thanks EPA for their comments and timely review of this document.</p>



BECHTEL NATIONAL INC.

CLEAN II TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N-68711-92-D-4670

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TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 02R1
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: October 18, 2001
CTO #: 161
LOCATION: MCAS El Toro

FROM: Thurman L. Heironimus, Project Manager

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Alternative 8A With Respect to NCP Criteria -- Dated October 2001

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