PROJECT NOTE NO.	PROJECT NO.
PN-0145-149 CLE-C01-01F145-I3-0130	01-F145-H6

CONFIRMATION OF:	CONFERENCE	DATE HELD	N/A
	TELECOM	DATE ISSUED	26 January 1995
	OTHER X	RECORDED BY	D. Richards, J. Dolegowski
		PLACE	CH2M HILL

SUBJECT

Contract Task Order (CTO) No. 145
ARARs Issues Raised in EPA Comments for OU-1 IAFS
Marine Corps Air Station El Toro

PARTICIPANTS: (* DENOTES PART-TIME ATTENDANCE)

N/A

ACTION REQ'D. BY	ITEM
	The purpose of this memorandum is to address issues raised by Karen Goldberg/U.S. Environmental Protection Agency Region IX (EPA) Assistant Regional Counsel regarding applicable or relevant and appropriate requirements (ARARs) based on her review of the Marine Corps Air Station (MCAS) El Toro Operable Unit-1 (OU-1) Interim Action Feasibility Study (IAFS) in September and October 1994 (letter from K. Goldberg to Bonnie Arthur/EPA Remedial Project Manager [RPM], 14 November 1994.) The project team is in the process of incorporating agency comments while preparing the upcoming draft of the IAFS and will produce written responses as part of this effort. Many of K. Goldberg's comments are points already considered by Southwest Division, Naval Facilities Engineering Command (SWDIV) last summer, and it is believed that the comments are less likely to pose substantive problems than the ones discussed in this memorandum. In the meantime, however, it is important to point out two issues that, if not resolved, could be substantial hindrances to completion of the project: 1. Classification of groundwater as containing a listed hazardous waste 2. Application of Resource Conservation and Recovery Act (RCRA) groundwater protection standards **Hazardous Waste Classification** The Navy's position, presented on pages B-10 and B-19 of Appendix B of the IAFS, is:

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Page B-10:

"A key threshold question for the ARARs analysis is whether or not the wastes generated by the OU-1 interim remedial action would constitute Federal hazardous waste as defined under RCRA and the state's authorized program, or would qualify as non-RCRA, state-regulated hazardous waste. If the source of the TCE [trichloroethylene] contamination in the groundwater is a listed hazardous waste, then the extracted groundwater would need to be handled as if it were a hazardous waste under EPA's "contained in" policy (EPA, 1986a). Based on an investigation of available historical site information, manifests, and storage records conducted as part of the Remedial Investigation (RI) and RCRA Facility Assessment (RFA), specific information on the original sources of the TCE is not known. EPA guidance states that, when documentation of the sources of the contamination is not available, the lead agency may assume that the wastes are not listed RCRA hazardous wastes, unless further analysis or information becomes available that allows the lead agency to determine that the wastes are listed RCRA hazardous wastes (EPA, 1988). Therefore, the determination for this IAFS is that the groundwater does not contain a listed hazardous waste."

And on page B-19:

". . . Substantive provisions of Title 22 CCR Sections 66264.94(a)(1), (a)(3), (c), (d), and (e) are "relevant and appropriate" federal ARARs for OU-1 interim-action groundwater because the wastes released to groundwater, in particular TCE, are similar in composition to listed waste."

K. Goldberg's comment (page 3 of her letter) is:

"TCE and other constituents of concern are not "similar in composition to listed waste" as stated on page B-19; they **are** listed wastes under 22 CCR 66261.33. [Emphasis in the original.]"

If the groundwater is determined to contain a listed hazardous waste, regardless of concentration, the extracted groundwater requires treating, handling, and conveying as a hazardous waste, enormously (and uselessly) increasing the complexity and cost of the project. Furthermore, TCE contamination in groundwater is the most common environmental problem at National Priority List (NPL) (and non-NPL) sites undergoing remediation, and we are not aware of any site where the groundwater is being handled as a hazardous waste because it contains listed TCE.

In areas at MCAS El Toro where TCE in the groundwater exceeds concentrations that would cause the extracted groundwater to be classified as a **characteristic** hazardous waste, we have acknowledged this possibility and explained how the design of the project would be modified in these areas, if necessary. These modifications would be a very small fraction of those needed to make the entire project a hazardous waste treatment facility.

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	Application of RCRA Groundwater Protection Standards The Navy's position, stated in Section 2.4, page 2-16, of the IAFS, is that: "As discussed in Section 2.3 and Appendix B, the RCRA groundwater protection standards have been identified as relevant and appropriate standards for the OU-1 Interim Action. 22 CCR 66264.94(c) of these requirements specifies that, for corrective actions, concentration limits greater than background can be established for constituents of concern only by demonstrating both of two conditions: o It is technically and economically infeasible to achieve the background value for that constituent. o The constituent will not pose a substantial present or potential hazard to human health or the environment as long as the concentration limit greater than background is not exceeded. Critical issues for evaluating the feasibility of attaining background levels in groundwater in the aquifer are: o The background level or chemical concentration that must be achieved o The area that must be restored, by medium (e.g., soil or groundwater) o The volume of material that must be treated or removed o The availability of demonstrated technologies that can actually achieve background levels The volatile organic compounds (VOCs) detected at MCAS El Toro do not occur naturally. Therefore, to achieve background levels, the concentrations of these chemicals would have to be zero or, for practical purposes, below the limits of detection. While demonstrated technologies may be available to excavate contaminated surface and subsurface soils above the groundwater table, the only practical method usually available for removing dissolved chemicals from an aquifer is to pump the groundwater to the surface for treatment. Past EPA efforts to restore impacted aquifers to pristine levels using groundwater extraction have not been successful (EPA 1989). In general, chemical concentrations in the groundwater decline rapidly during the initial removal of the groundwater in the affected zone; however, the fraction of the chemical that is sorbed to the aquifer matrix remains as a source of chemicals that dissolve or desorb into the groundwater slowly over time. Complete removal of these chemicals within a reasonable amount of time, therefore, is virtually impossible. See Appendix H of the IAFS for further technical explanation.

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	Because attaining background levels is not feasible, restoration of the aquifer to background level is not included as a remedial action objective. Instead, other concentration limits consistent with ARARs and the human health risk assessment have been used, as provided for in 22 CCR 66264.94(c)."
	K. Goldberg's comment (pages 3 and 4 of her letter) is:
	"The IAFS and Appendix B only discuss one prong of the test set forth by the California regulations to justify setting concentration limits above background–"feasibility". The other prong–whether the constituent will pose a substantial hazard at the higher concentration limit–is not addressed. Furthermore, the discussion of the first prong is conclusory and based on general EPA experience rather than site-specific demonstration. DON must provide a **demonstration** that background levels cannot be achieved at this site. [Emphasis in original.]"
	On January 18, 1995, we participated in preliminary discussions with the regulatory agencies to resolve some of the comments on the IAFS. At that time, B. Arthur confirmed that EPA is still not accepting statements that cleanup to background is not feasible without specific, site-specific data on each site. (Guidance issued by EPA in September 1994 acknowledges for the first time that the agency realizes that this goal may not be achievable, but it still doesn't accept infeasibility as a general approach.) The effect of this policy is to require that background be designated as the cleanup goal for remedial actions addressing groundwater contamination until it can be **demonstrated** that it is not feasible.
	However, since OU-1 is presently developing an interim Record of Decision (ROD) rather than a final ROD, B. Arthur said that the agency's approach would be to delete the discussion of the ARAR's basis for cleanup goals altogether at this time. In this case, the Navy would simply state that for this interim measure, it has selected Maximum Contaminant Levels (MCLs), non-zero Maximum Contaminant Level Goals (MCLGs), and Risk-Based Concentrations (RBCs) as a reasonable initial cleanup goal to use as a design basis for this evaluation and action. We explained the Navy's preference to establish cleanup goals at this time in order to have a reasonably firm basis for negotiation with the Orange County Water District (OCWD), but of course, this concern is not EPA's central focus.
	Another possible approach might be to expand the upcoming groundwater modeling evaluations to include scenarios based on cleanup to background to have a preliminary basis for actual cost comparison with cleanup to MCLs. However, just this task alone seems unlikely to satisfy the September 1994 EPA guidance mentioned above, and it would increase the time required to complete the IAFS.

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	Recommended Follow-up At present, Cindy Dahl/CH2M HILL is focused on preparing the ARARs analysis in support of disposal options. Once she has completed that task, she will work with SWDIV to prepare responses to the agency comments on the IAFS ARARs. Because it is crucial to address these potential problems immediately, the project team would like to schedule a meeting and/or conference call with K. Goldberg and B. Arthur as soon as possible. B. Arthur indicated at the 17 January 1995 meeting in San Francisco that resolution of these issues should involve the Federal Facility Agreement team, but she would probably welcome more focused preliminary discussions in preparation for an RPM meeting. **References** U.S. Environmental Protection Agency (EPA), 1989. *Evaluation of Groundwater Extraction Remedies,* OSWER, EPA, 540/2-89/054. September 1989.

JACOBS ENGINEERING GROUP INC.

CLEAN TRANSMITTAL/DELIVERABLE RECEIPT

CONTRACT N68711-89-D-9296 Doc. Control Number: CLE-C01-01F145-I3-0130

TO: Ms. Robin Green
Contracting Officer, Code 0232
Southwest Division
Naval Facilities Engineering Command
Contracts Department, Room 131
1220 Pacific Highway
San Diego, California 92132-5187

DATE: 26 Jan 1995
CTO#: 145
LOCATION: MCAS El Toro
TASK/WORK ELEMENT:

John Dolegowski/Project Manager

Ken Tomeo/Resource Center Manager

DESCRIPTION: ARARs Issues Raised in EPA Comments for OU-1 IAFS
Project Note PN-0145-149

TYPE: ____ Contract Deliverable ____ CTO Deliverable X Request for Change/Project Note

VERSION: Final (e.g., Draft, Draft Final, Final, etc.) **REVISION #:** ____

ADMIN RECORD Yes ____ No X Category ____ Confidential ____
(PjM to identify)

NEGOTIATED DELIVERY DATE: 26 January 1995 **ACTUAL DELIVERY DATE:** ~~26 January 1995~~ 2/1/95 JS

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