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APPROVAL

OTHER

(South Agency) Comments "Draft Remedial Investigation Report"

ACTION REQUIRED

WORK AUTHORIZATION (R. Ward)

OTHER

TITLE: AGENCY COMMENTS "DRAFT REMEDIAL INVESTIGATION REPORT"

AUTHOR: ALBERT ARELLANO/DTSC

DATE: 09/07/94

CATEGORY: 3.4

CC: SAN DIEGO

PASADENA

OTHER

- PMO File
- E. BANKS (PM)
- B. ROBSON
- S. MONTIJO
- L. JONES
- DATABASE ENTRIES
- J. HUGHES
- J. SHEKER (Tickler)
- H. MONEGUE (Property)
- \_\_\_\_\_
- \_\_\_\_\_

- PAS File (distribution)
- R. PORTILLO (LRCM)
- D. LONGPRE (QA)
- D. SMITH (H&S)
- M. MCCLURE (SM)
- M. BELL (CM)
- R. WARD (RFPs)
- CA: \_\_\_\_\_ \*
- B. MICHELL (PCM)
- K. Spathias (for distr)
- CS/E: \_\_\_\_\_ \*
- \_\_\_\_ CTO NOTEBOOK

- Lead PjM (for Activity) \_\_\_\_\_ \*
- CTO PjM \_\_\_\_\_ \*
- G. Rumford (Interim MTPQC) (JEG)
- S. TSAI (RCM) (IT)
- R. GATES (IT) (for distribution)
- K. TOMEO (CH2M) (RCM)
- M. EMBREE (CH2M) (for distribution)
- TR: \_\_\_\_\_ \*

Dist: RFPs-(PM, LRCM, CM, PCM 280 PJM) Fax initial RFP to R. Ward, CM, LRCM, PCM, & PM. They will review for CP funds and dist. further w/WAF

MODs, Stop Work Orders- (RCMs, CM, CA, LPjM, PjM, PCM, CSE, 280 PJM)

COMMENTS-(Full set to LRCM, RCM(s), LPjM, PjM, TR, MTPQC cover sheet to others noted). PM to receive full sets of Code 185 comments/top copy of all others.

CLOSE-OUT LETTERS-PM, RCM(s), C.M. CA, PCM, CSE, MTPQC, LPjM, PjM)

\*LOCATION DESIGNATOR: 1-Pasadena 2-Denver 3-CH2M 4-IT 5-San Diego

\*\*\*NOTE: Location designator dictates further distribution to applicable RCMs.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL



Region 4  
 5 West Broadway, Suite 425  
 Long Beach, CA 90802-4444  
 (310) 590-4868

September 7, 1994

Mr. Wayne D. Lee  
 Assistant Chief of Staff  
 Environment and Safety  
 Marine Corps Air Station El Toro  
 P. O. Box 95001  
 Santa Ana, California 92709-5001

FROM SEP 13 AM 10:54

Dear Mr. Lee:

**DRAFT REMEDIAL INVESTIGATION (RI) REPORT**

The California Environmental Protection Agency (Cal EPA) has completed review of the above mentioned document. The enclosed comments were prepared by: Department of Toxic Substances Control (Department), Santa Ana Regional Water Quality Control Board (Board), and Bechtel National Inc. (Bechtel).

The Draft RI Report, as it stands, will either have to be rejected, or changed to be entitled "interim" RI before approval would be considered. Cal EPA feels that not enough data has been acquired to demonstrate validity of projections made in the report.

As stated on page ES-2 of the RI, the Navy will proceed with an Interim-Action FS, leading to an Interim-Remedy ROD. This being the case, this document should be an Interim RI. We are unable to submit comments on the Draft Operable Unit 1 Baseline Risk Assessment at this time. You can expect comments on this document after September 15, 1994.

If you have any questions, please call me at (310) 590-4920.

Sincerely,

Albert A. Arellano, Jr., P.E., Chief  
 Region 4 - Base Closures Unit  
 Office of Military Facilities

Enclosures

cc: See next page.



Mr. Wayne d. Lee  
September 7, 1994  
Page 2

Ms. Bonnie Arthur  
U.S. Environmental Protection Agency  
Region-IX  
Hazardous Waste Management Division, H-9-2  
75 Hawthorne Street  
San Francisco, California 94105

Mr. Joseph Joyce  
BRAC Environmental Coordinator  
DON  
Naval Facility Engineering Command  
Environmental Division  
1220 Pacific Highway, Room 18  
San Diego, California 92132-5181

Mr. John Broderick  
Remedial Project Manager  
Regional Water Quality Control Board  
Santa Ana Region (8)  
2010 Iowa Avenue, Suite 100  
Riverside, California 92507-2409

Mr. Dante J. Tedaldi, Ph.D, P.E.  
Bechtel National Inc.  
401 West A Street, Suite 1000  
San Diego, California 92101-7905

**COMMENTS ON  
DRAFT RI REPORT FOR OU#1  
EL TORO MCAS**

**GENERAL COMMENTS**

The report is well written and sets out very logical procedures for determining the mass, volume and shape of groundwater contamination plumes but, with only two rounds of groundwater data, which do not agree in all cases, the Department cannot grant final approval to the report. The Department feels that, at least two more rounds of groundwater sampling is needed before projections of concentration, mass, size and shape of the plumes can be considered valid.

**SPECIFIC COMMENTS**

**Pages 1-12, 1-13, 1-14, & 1-15**

Title to paragraphs should not have a period after them unless they are complete sentences. Either a colon should be used, or the title moved up one line with no punctuation.

**Page 2-19**

Figure 2-2, Typical Design of Conventional Monitoring Well; diagram should show well casing material and size. For example:

4" Schedule 40 PVC < 220'

5" Schedule 80 PVC > 220'

**Page 2-25 Pump Selection and Installation**

During field sampling, it was observed that constant speed pumps, installed in about 40 wells, were used to sample the wells for VOCs. Sampling, using constant speed pumps may aerate the sample so that VOCs are lost. Something should be done so that representative samples of VOCs are obtained consistently.

**Page 3-99 Leakage Factor**

Refers to Table 3-8 which has a column entitled "leakance factor". Is it leakance or leakage?

**Page 3-106 Inorganic Chemistry of Groundwater**

Copper is spelled "Cooper" in this paragraph.

**Page 4-2**

The second paragraph states, "The extent of groundwater contamination is based on two complete rounds . . .". Please state what time frame round one and round two were collected.

**Page 4-9 to 4-45 Table 4-2**

Only two rounds of concentrations are listed. Many of the concentrations are either: non-detect in the first and above regulatory standards in the second, above regulatory standards in the first and non-detect in the second, or different by orders of magnitude in the first and second rounds. Taking a geometric mean of such differing data casts doubts on the validity of the projections this data is used for.

**Page 4-57 Table 4-5**

If these data were used to calculate the mass found in table 4-7, the geometric mean numbers should either be tabulated here or in table 4-7.

**Page 4-85 Third paragraph**

The end parenthesis is missing from (2,000 mg/L).

**Page 4-101 Table 4-7**

The geometric mean concentrations should be tabulated so that mass calculations can be checked.

**Page 4-103 Table 4-7**

The mass formula is misstated. The conversion factor of 0.3048(m/ft) should either be squared or a conversion factor of 0.0929 (m<sup>2</sup>/ft<sup>2</sup>) should be used.