County of San Diego

DANIEL J. AVERA
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 85261, SAN DIEGO, CA 92186-5261
(619) 338-2222 FAX (619) 338-2377

SITE ASSESSMENT AND MITIGATION DIVISION

May 7, 1996

Naval Training Center
Attn: Commander
33502 Decatur Rd., Suite 120
San Diego, CA 92133-1449

Dear Sir:

UNAUTHORIZED RELEASE #H80021-004
NAVY EXCHANGE (NEX) GAS STATION
NAVAL TRAINING CENTER, SAN DIEGO

The purpose of this letter is to notify you that Technical Memorandum No. 3, Contaminant Migration Analysis to Support the Development of Cleanup Goal for the Navy Exchange Gas station, prepared by Bechtel National, Inc., and dated January 1996 has been reviewed. The analysis concludes that the contamination at this site does not pose an ecological risk in San Diego Bay or risk to the health of future occupants and users of the site. The following items are comments that need to be addressed before this office can concur with these statements.

1. In the groundwater migration analysis portion of the memorandum, the analysis factored in transport due to advection, dispersion and biodegradation. Typically the transport analysis should be run with and then without a biodegradation factor so the worst case scenario can be determined. Additionally in the absence of supporting information for biodegradation at the site this will facilitate the review process.

2. The validity of the parameters presented in Table 20-1 is the second area of concern. The table lists a Storage Coefficient of 0.03. This value is referenced to Bechtel National Inc. Extended Site Assessment Report, May 1995 page 3-12. However page 3-12 is a table representing water levels observed on site.

There is discussion of the aquifer testing that was conducted on pages 3-21 through 3-35 but it is not clear if this is the portion that should have been referenced. If this portion is the basis for the interpretation, there is a statement that due to tidal influences the data was difficult to interpret.

The Site Assessment report presents Figure 3-13 as corrected data from the recovery phase of the pumping test. Is this the graph that was used to calculate the transmissivity/ hydraulic conductivity and the storage coefficient? If this was not the graph used to determine these values please provide information on how these values were calculated.

3. On page 2-8, Representation of the Identified Plumes during the Site Investigation, the assumed BTEX values for the dissolved plume are listed as:

   B = 30 mg/l
   T = 38 mg/l
   E = 4.1 mg/l
   X = 16 mg/l

   However, where water is in direct contact with free product the effective solubility values listed on page 2-9 are:

   B = 64.8 mg/l
   T = 27.1 mg/l
   E = 3 mg/l
   X = 10.1 mg/l

   Why are the assumed toluene, ethylbenzene and xylene values higher than the estimated solubility in the dissolved plume?

4. Section 2.1.2.3 describes tidal mixing in sediments near the discharge to the Bay. How sensitive is this equation to variability in the storage coefficient?

5. On page 2-18, the effective solubility of BTEX components are listed as:

   B = 326 mg/l
   T = 98 mg/l
   E = 12 mg/l
   X = 36 mg/l

   These values are significantly different from those presented on page 2-9. Which values are correct?

At this time, the Site Assessment and Mitigation Division cannot agreé that the extent of contamination has been delineated. There still remains issues regarding impacts off-site to the southwest.

Additionally, the potential impacts of vapor migration on-site and off-site have not been sufficiently addressed.

The above referenced study also included statements that there are other off-site source(s) contributing to the soil and groundwater contamination. As of this date it has not been demonstrated clearly what part of the existing contamination is the Navy's and what part is from other source(s). If you have any questions please contact Kevin Heaton at (619) 338-2221 or Laurie Apecechea at (619) 338-2457.

Sincerely,

K. M. H.

KEVIN M. HEATON, Hydrogeologist
Site Assessment and Mitigation Division

Laurie Apecechea

LAURIE APECECHEA, Hazardous Materials Specialist
Site Assessment and Mitigation Division

KMH/LSA:gl

cc: Jackie Cote', Naval Training Center
Thomas Macchiarella, Southwest Division
M'balia Tagoe, Bechtel National, Inc.
Corey Walsh, RWQCB
Alice Gimeno, DTSC