

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Region 4
245 West Broadway, Suite 350
Long Beach, CA 90802-4444
(310) 590-4868



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April 18, 1994

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NAVSTA LONG BEACH
SSIC #5090.3

Captain Barry Janov
Commander Long Beach Naval Shipyard
300 Skipjack Road
Long Beach, California 90822-5099

Captain John Jones
Commander Long Beach Naval Station
Long Beach Naval Station
Long Beach, California 90822-5000

Dear Captain Janov and Jones:

**FINAL TECHNICAL MEMORANDUM FACILITY WIDE LIMITED FIELD INVESTIGATION,
FINAL TECHNICAL MEMORANDUM PROPOSED MODIFICATION TO FINAL REMEDIAL
INVESTIGATION FEASIBILITY STUDY (RI/FS), FINAL HEALTH AND SAFETY PLAN
SUPPLEMENT, AND FINAL RISK ASSESSMENT WORK PLAN (RI/FS) FOR LONG BEACH
NAVAL STATION, LONG BEACH**

The California Department of Toxic Substances Control (Department) has completed its review of the following documents: Final Technical Memorandum Facility Wide Limited Field Investigation, Final Technical Memorandum Proposed Modification to Final Remedial Investigation/Feasibility Study (RI/FS), Final Health and Safety Plan Supplement, and Final Risk Assessment Work Plan (RI/FS) dated January 30, 1994, for Long Beach Naval Station, Long Beach. These documents were prepared for SouthWest Division Naval Engineering Command by Bechtel National Inc.

These documents are RI/FS Supplements to the Final RI/FS Workplan approved by the Department on October 1993. The Department is not approving the above documents because comments were not appropriately incorporated in the final documents. The response to comments regarding the Draft Health and Safety Plan Supplement were sent to the Department via fax by the Navy's contractor. However, on the cover sheet of the fax, it was stated that revisions were to be submitted with the final documents. As of April 18, 1994, no revisions to the final document have been submitted. The Final Risk Assessment Work Plan is still deficient. Specific comments are enclosed and must be addressed on the final document. The Final Technical Memorandum Facility Wide Limited Field Investigation and Final Technical Memorandum Proposed Modification to Final RI/FS comments on the draft of these two documents appear to have been adequately addressed in the fax dated February 16, 1994. However, comments were not incorporated on these two Final Technical Memorandums dated January 30, 1994. During the draft phase of these documents mentioned in the first paragraph, the Department sent a letter to the Navy with enclosed comments. Please refer to this letter and incorporate these comments on the final documents. The Department will not approve these documents unless either revisions or revised final documents are resubmitted.



Cpt. Barry Janov
Cpt. John Jones
April 18, 1994
Page 2

The Department has compiled general and specific comments on these documents from its internal technical staff and from the Regional Water Quality Control Board's (RWQCB). General and specific comments are enclosed with this letter.

If you have any questions regarding comments included with this letter please contact me at (310) 590-5565.

Sincerely,



FOR Alvaro Gutierrez
Base Closure Team, LBNC
Region 4 - Base Closure Unit
Office of Military Facilities

Enclosure

cc: Mr. Allen Winans HQ-24
Program Coordination and Policy Development Branch
Department of Toxic Substances Control
400 "P" Street, 4th Floor
P.O. Box 806
Sacramento, California 95812-0806

Mr. Albert Arellano Jr., P.E., Chief
Region 4 Base Closure Unit
Office of Military Facilities
Department of Toxic Substances Control
245 West Broadway, Suite 425
Long Beach, California 90802-4444

Mr. J. E. Ross
California Regional Water Quality Control Board
Los Angeles Region
101 Centre Plaza Drive
Monterey Park, California 91754-2156

Mr. H. Kekoolani
Code 106
Long Beach Naval Shipyard
Long Beach, California 91754-2156

Cpt. Barry Janov
Cpt. John Jones
April 18, 1994
Page 3

Mr. Duane Rollefson
Naval Station Long Beach
Environmental Division
Code N46, Building 1, Room 271
Long Beach, California 90822-5000

Ms. Anna Ulaszewski
Environmental Protection Division, Code 106.31
Long Beach Naval Shipyard
Long Beach, California 90822-5099

Mr. Alan Lee
Remedial Project Manager
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, California 92132-5181

Mr. Lester Kaufman, Chief
Permits Section
Hazardous Waste Management Division (H-3)
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105

Ms. Gina Maria Gillette R4-4
Environmental Assessment and Reuse Specialist
Office of Base Closure and Conversion
Department of Toxic Substances Control
Region 4
245 West Broadway, Suite 425
Long Beach, California 90802-4444

Ms. Claire Best R4-4
Public Participation Specialist
Public Participation Unit
Department of Toxic Substances Control
Region 4
245 West Broadway, Suite 425
Long Beach, California 90802-4444

Cpt. Barry Janov
Cpt. John Jones
April 18, 1994
Page 4

Ms. Sheryl Lauth
Remedial Project Manager
Hazardous Waste Management Division (H-9-2)
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105

Mr. John Christopher HQ-24
Office of Scientific Affairs
Department of Toxic Substances Control
400 "P" Street, 4th Floor
P.O. Box 806
Sacramento, California 95612-0806

Ms. Denise M. Klimas
Coastal Resource Coordinator
NOAA
c/o U.S Environmental Projection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105

FINAL RISK ASSESSMENT WORKPLAN

GENERAL COMMENTS

1. In recent discussions among the regulatory agencies, SWDIV, and contractors regarding the ecological risk assessment have led to altering the flow chart of logical decisions affecting sampling and bioassay of the harbor sediments.

SPECIFIC COMMENTS

1. **Chemicals of Potential Concern (COPC), Sec. 2.2.1, p. 16-17** In the screening process described, chemicals whose highest detected concentrations are lower than the risk-based criteria (RBC) described in Appendix B of the RI/FS work plan are dropped from further consideration. RBC are set at concentrations in environmental media corresponding to carcinogenic risks or $1E-6$ for carcinogenic effects and a hazard quotient of unit for non carcinogenic effects. The exposure scenario for the derivation of the RBC is a residential setting, including ingestion, dermal contact, and inhalation.

This procedure is deficient because it fails to take into account potential additivity of toxic effects, as recommended in "Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual, Part A" (USEPA, 1989) and "Supplemental Guidance for Human Health Multimedia Risk Assessments for Hazardous Waste Sites and Permitted Facilities" (Cal/EPA 1992). The Department pointed out these deficiencies in the comments on the Draft Risk Assessment Work Plan and on the Navy's Response to our comments. An appropriate procedure would be to examine summed hazard quotients for all chemicals detected at a site. Similarly, the figure of merit for evaluating carcinogenic risks is the summed risk, not the risks due to any one chemical. It would then be possible to calculate for each detected chemical its proportional contribution to the summed hazard quotient or carcinogenic risk in a sample or site; negligible contributors could then be identified and possibly removed from the list of COPC.

2. **Section 3 and Figure 3-4:** A version of the decision tree regarding chemical analysis and bioassay of harbor sediments was distributed at a project meeting in March 1994. This version was very different from Figure 3-4. Section 3 of the work plan, which deals with ecological risk assessment, especially Site 7, should be redrafted to conform to the altered logic of the most recent flow chart.

CONCLUSION

The process of selection of COPC should take into consideration the additivity of risk or hazard. The section on ecological risk should be rewritten to conform with the logic of the most recent version of the decision tree guiding the assessment of Site 7.