STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
9771 CLAIREMONT MESA BOULEVARD, SUITE A
SAN DIEGO, CA 92124-1331
TELEPHONE: (619) 467-2952
FAX: (619) 571-6972

August 2, 1996

Mr. Aaron Yue
Department of Toxic Substances Control, Region 4
Office of Military Facilities
245 West Broadway, Suite 425,
Long Beach, CA 90802-4444

Dear Mr. Yue:

RE: REVIEW OF THE DRAFT ENGINEERING EVALUATION/COST ANALYSIS (EE/CA) NON-TIME CRITICAL REMOVAL ACTION FOR SITE 1 INACTIVE LANDFILL, NAVAL TRAINING CENTER (NTC), SAN DIEGO

The Regional Water Quality Control Board (RWQCB) staff has completed its review of the *DRAFT ENGINEERING EVALUATION/COST ANALYSIS NON-TIME CRITICAL REMOVAL ACTION FOR INSTALLATION RESTORATION PROGRAM NAVAL TRAINING CENTER SITE 1, INACTIVE LANDFILL*, dated June 1996. Comments were discussed with yourself, Navy Southwest Division, US EPA, and by tele-conference the California Integrated Waste Management Board (CIWMB) on July 23, 1996. The EE/CA was developed to identify and analyze alternative containment actions which will reduce the potential for human and ecological exposure to landfill wastes, to reduce potential for development of leachate, and to reduce landfill gas generation. The following comments address the Navy's recommended presumptive remedy as it pertains to current landfill use continuing as non-irrigated open space, and the selection of Applicable or Relevant and Appropriate Requirements (ARARs) for the Inactive Landfill, Site 1.

GENERAL COMMENTS

Final Cover Design

The RWQCB is interested in minimizing the amount of infiltration through the landfill cover and in particular in the least tern nesting area. Each proposed alternative for the landfill cover design includes three feet of sand in the least tern nesting area and no proposed mitigation for that area of increased permeability. Provide a comparison of infiltration for the least tern nesting area (Alternative 1) and the same area but without sand (modified Alternative 1).

Alternative 2 - Soil Cover

1. Provide additional information which demonstrates that a 0.5% slope is adequate to ensure that no ponding on the final cover will occur. How will you ensure against ponding behind curb in the least tern area?

2. Provide additional information regarding vegetation including type of vegetation, rooting depth, irrigation requirements, etc.

3. Indicate on map where the lined surface drainage trenches will be placed.

4. Based on Figure 4-3, it appears that the thickness of the final cover will range from 1.5' to 8.2'. Please ensure that the description of the final cover and Figure 4-3 are consistent.

5. Has the reduced thickness of the final cover, due to the 0.5 % slope construction, in the least tern area been adequately addressed in the HELP model?

Help Model

1. The results of the HELP model summarized in Table 4-1, page 4-2 do not appear to be consistent. How can the proposed single layer soil cap be more protective that the multi-layer soil cap (Chapter 15 prescriptive standard)?

2. Provide explanation of all assumptions and parameters used in this HELP model. Also provide all information regarding proposed vegetation for final cover design used in model.

3. Reevaluate the original parameters in the least tern area and perform an evaluation using an alternative design under the least tern area of 1×10^{-6} cm/sec.

Ground Water Monitoring Program

1. The Navy has proposed to include nine existing shallow ground water monitoring wells and eight existing deep ground water monitoring wells and an additional paired shallow and deep ground water monitoring well as their ground water monitoring network. According to Figure 2-6 of the EE/CA, it appears that the well screens for ground water monitoring wells ES11-S, ES10-S, SMW-9, SMW-10, ES13-S are located in the aquitard.

We understand that the accuracy of this figure is questionable. For the final E/CA, please ensure that this figure accurately depicts the location of the aquitard as well as the well screen location for each monitoring well. We are concerned that the wells which have the majority of their well screen located in the aquitard may not yield ground water monitoring samples which would be representative of the upper aquifer: For the final document, the Navy will need to reassess the entire ground water monitoring network (including whether or not to add an additional shallow and deep monitoring well) to determine the location and number of ground water monitoring wells needed to accurately assess the water quality of both the upper and lower aquifers for the NTC landfill.

2. The Navy has proposed to monitor the ground water monitoring network semi-annually for VOCs, SVOCs, copper, nickel & mercury. We understand that these constituents were chosen based on past ground water monitoring results. However, review of the constituents listed in Table 2-3, indicates the presence of barium, lead, silver and zinc in either one or both aquifers. These constituents will need to be added to the semi-annual monitoring program. The Regional Board may also add constituents such as pH, TDS, nitrate, chloride and sulfate which are used as indicator parameters of a release from a landfill.

   The Navy proposed to conduct an in-depth sampling of the monitoring wells for TAL metals, PCBs/pesticides and TDS every eighteen months. It is possible that the Regional Board may require that a more substantial monitoring program be implemented at this landfill. If routine maintenance and erosion control measures do not improve ground water quality over a period of time, corrective action measures may need to be proposed and/or implemented by the owner of the landfill. This may include the construction of a Chapter 15 final cover, installation and operation of a gas collection system or other measures. At this time, we do not concur that it will be necessary for the Navy to implement this proposed portion of the monitoring program.

3. Please note that if the Navy modifies the proposed ground water monitoring program, the cost estimates for these changes will need to be reflected in cost estimates for closure of this landfill.

ARARs

Preliminary post-closure maintenance and monitoring ARARs or to-be-considered (TBC) for use in the investigation and cleanup on and off-site environmental contamination associated with discharges of waste(s) at Site 1 Inactive Landfill, were submitted to Southwest Division Naval, in our August 23, 1995 letter and more specific ARARs again in a letter dated May 22, 1996. The following ARAR was not addressed it the draft EE/CA:

1. RWQCB Order No. 95-25, NPDES No. CAG919001, General Waste Discharge Requirements for Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or other conveyance systems tributary thereto. This order establishes procedural requirements and discharge limitations for ground water extraction waste discharges associated with ground water dewatering operations and ground water remediation systems into San Diego Bay and storm drains or other conveyance systems tributary thereto.

CONCLUSION

The Regional Board has established minimum post-closure maintenance standards for landfills which ceased operation prior to 1984. Provided that the owner/operator of the landfill adequately maintains the landfill cover to prevent ponding of water above the waste, provides erosion control measures and makes any necessary repairs to the drainage control facilities, formal closure of the landfill may not be necessary until the actual site use changes.

Our objective with this particular landfill is to ensure that a post-closure maintenance program with a ground water monitoring program be implemented. We intend to evaluate the ground water monitoring results over a period of time until it can be determined whether or not implementation of the post-closure maintenance program has a positive or negative effect on ground water quality.

If impairment of beneficial uses of water is found, the owner/operator may be required to further evaluate and correct water quality impacts. As part of a corrective action, a closure plan may be required to be developed and implemented by the owner/operator. The formal closure plan may include the placement of a Chapter 15 final cover and improvements to surface water drainage features and additional containment features, pursuant to Section 2581(a) of Chapter 15.

If you have any questions regarding this letter, please contact Corey Walsh at (619) 467-2980 or Carol Tamaki at (619) 467-2982.

Sincerely,

JOHN P. ANDERSON, Senior Engineering Geologist
Site Mitigation and Cleanup Unit

JPA:cmw d:\docs\dod-ntc\ee_ca.let

cc: Mr. John J. Adams, Jr. State Water Resources Control Board, Division of Clean Water Programs, 2014 T Street, Suite 130, Sacramento, CA 95814

Mr. Ken Calvert, County of San Diego, Department of Health Services. Hazardous Materials Management, PO Box 85261, San Diego, CA 92138-5261

Mr. Keith S. Forman, BRAC Environmental Coordinator (BEC), Naval Training Center, 33502 Decatur Road, Suite 120, San Diego, California 92133-1449

Ms. Content Arnold, (1832.CA) Remedial Project Manager, Southwest Division Naval Facilities Engineering Command, 1220 Pacific Highway, San Diego, California 92132-5187

Mr. Martin Hausladen, U.S. EPA, Region IX, (H-9-2), Hazardous Waste Management Division, 75 Hawthorne Street, San Francisco, California 94105-3901

Ms. Tamara Zielinski, Waste Management Engineer, Closure and Remediation Branch,Integrated Waste Management Board, 8800 Cal Center Drive, Sacramento, California 95826

FILE: 30-0092.N02, Department of Defence, San Diego NTC