



# Department of Toxic Substances Control

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MCAS EL TORO  
SSIC # 5090.3



Winston H. Hickox  
Agency Secretary  
California Environmental  
Protection Agency

Edwin F. Lowry, Director  
5796 Corporate Avenue  
Cypress, California 90630

Gray Davis  
Governor

March 22, 2000

Mr. Dean Gould  
BRAC Environmental Coordinator  
Marine Corps Air Station El Toro  
Base Realignment and Closure  
P.O. Box 51718  
Irvine, California 92619-1718

## CLOSURE REPORT FOR TEMPORARY ACCUMULATION AREA (TAA) 658, MARINE CORPS AIR STATION (MCAS) EL TORO

Dear Mr. Gould:

The Department of Toxic Substances Control (DTSC) reviewed the above report dated December 22, 1999 and received by this office on December 28, 1999. The report summarizes the decontamination and sampling activities performed at the TAA 658 site. TAA 658 (also reference as Solid Waste Management Unit (SWMU) 171) was identified as a temporary Hazardous Waste Management Unit (HWMU) south of Building 658, former Engine Test Cell, during the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) conducted in 1991. During site visits in January and October 1997, TAA 658 was observed to be an inactive TAA consisting of a concrete pad with a berm and roof.

After review of the report, DTSC has the following general comments:

1. The applicable work plan for closure of TAA 658 is the *Draft Supplemental Work Plan for Closure of Various Temporary Accumulation Areas and RCRA Facility Assessment Sites, Marine Corps Air Station El Toro (Work Plan)*, prepared by OHM Remediation Services Corp., dated March 19, 1997. Any deviations from the Work Plan should be identified and an explanation provided.

For example, the Work Plan states that contaminated soil exceeding the screening criteria will be excavated and confirmation samples will be collected. Please refer to Section 6.3, Sample Locations and Sampling Frequency, and Section 6.8.2, Identification of Decisions, in the Work Plan. Please provide an

explanation for deviating from the Work Plan, including the rationale for conducting a risk assessment for rather than excavating soil with chemical constituents exceeding the screening criteria.

2. Background and reference levels for metals were documented in the *Final Technical Memorandum, Background and Reference Levels, Remedial Investigations, Marine Corps Air Station El Toro, California*, prepared by Bechtel National, Inc., dated October 1996 (Background Memorandum). Two sets of background and reference levels were calculated for metals.
  - 0.95 (or 95<sup>th</sup>) quantile or 95<sup>th</sup> percentile: used to screen analytical results for potential releases.
  - 95 percent confidence limit on the mean/median or 95 percent upper confidence limit (UCL): used in baseline risk assessment to estimate risks associated with background metals.

Please use the appropriate value documented in this Background Memorandum when referencing background levels for metals.

Additionally, DTSC has the following specific comments.

1. Section 5 - Risk Characterization and Hazard Index Calculation: Please illustrate the method used to determine chemicals of potential concern (COPCs) and clearly identify those to be evaluated in the risk assessment. One suggestion is to provide a table of the chemical constituents detected that includes the maximum detect concentration and the background concentration so that the two values can be compared. Please note that if the highest concentration of a metal detected at a site is less than the comparator selected to represent the upper range of ambient conditions (in this case, the 95<sup>th</sup> quantile), then the metal can be eliminated as a COPC. If concentrations higher than the comparator are found, then include the metal in the risk assessment as a COPC.
2. Page 5-2, Section 5.4 - Risk Characterization: The first paragraph states, "Generally, a cancer risk of  $10^{-6}$  to  $10^{-4}$  and a non-cancer hazard index of 1 or less are considered acceptable levels of exposure."

DTSC does not consider  $10^{-6}$  to  $10^{-4}$  an acceptable risk range. DTSC considers one in one million or  $10^{-6}$  risk as the point of departure for considering remediation of risks.

3. Page 5-2, Section 5.4- Risk Characterization: The fourth paragraph states, "No contributors to non-cancer hazard for soil were detected above the Station background concentrations."

Please clarify that copper was detected above the Station background concentration and contributes to the non-cancer hazard for soil.

4. Page 5-3, Summary" The third bullet states, "No detected concentrations were greater than the Station's background concentrations."

Please clarify that detected concentrations of copper in all of the samples that were analyzed (samples collected from 1.5 bgs at 5 locations) exceeded the background concentration listed in the Background Memorandum.

5. Page 6-1, Section 6 - Conclusions and Recommendations: The fifth bullet states, "OHM collected 10 confirmation soil samples from five shallow hand augur borings at TAA 658. Based on review of analytical data, no indications of hazardous contaminants (i.e., previous spills) were found in the soil under or around TAA 658. Therefore, the temporary use of the DSA did not impact the concrete pad and soil beneath or around the TAA 658."

The 95th quantiles for Station background concentrations are used to screen analytical results for potential releases. Since detected concentrations of copper exceeded the 95<sup>th</sup> quantile in all of the samples collected from 1.5 feet bgs, this indicates a potential release that must be evaluated. Please revise this bullet accordingly.

Additionally, please correct the typographical errors, "augur" should be "auger" and "DSA" should be "HWA" or "TAA."

6. Page 6-1, Section 6 - Conclusions and Recommendations: The sixth bullet states, "TPH [total petroleum hydrocarbons], VOCs [volatile organic compounds], SVOCs [semi-volatile organic compounds], pesticides, and most of the metal compounds from all 10-confirmation soil samples collected at 1.5 and 3 feet bgs were not detected above the laboratory reporting limits."

Please clarify that all 10 confirmation samples (samples collected from 1.5 and 3 feet bgs at five locations) were analyzed for VOCs; however, only the five confirmation samples collected from 1.5 feet bgs were analyzed for TPH (gasoline and diesel), SVOCs, pesticides and metals.

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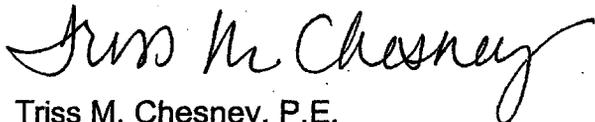
7. Table 4-2, Summary of Analytical Results for Confirmation Soil Samples - TAA 658: The Work Plan states that soil samples from 3.0 feet below ground surface (bgs) will only be initially analyzed for volatile organic compounds. The remaining analytical parameters will be performed if results from the 1.5-foot sample indicates that detected concentrations are above the cleanup goals. Please refer to Section 6.4, Analytical Requirements, in the Work Plan.

Detected concentrations of copper exceeded the screening criteria in all of the samples collected from 1.5 feet bgs. Please clarify why the samples collected from 3 feet bgs were not subsequently analyzed for metals.

8. Table 5-1, Residential Risk Screening Worksheet for Soil - TAA 658: Risks associated with background metals must be based on the 95 percent confidence limit on the mean/median (also referenced as the 95 percent upper confidence limit (UCL)) presented in the Background Memorandum previously referenced.

Please provide clarification or revisions as requested in the above comments. If you have any questions, please contact Ms. Triss Chesney, Remedial Project Manager, at (714) 484-5395.

Sincerely,



Triss M. Chesney, P.E.  
Remedial Project Manager  
Southern California Branch  
Office of Military Facilities

cc: Mr. Glenn Kistner  
Remedial Project Manager  
U. S. Environmental Protection Agency Region IX  
Superfund Division (SFD-8-2)  
75 Hawthorne Street  
San Francisco, California 94105-3901

Ms. Patricia Hannon  
Remedial Project Manager  
California Regional Water Quality Control Board  
Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, California 92501-3339