

Hornecker, Lynn M CIV NAVFAC SW

From: Hornecker, Lynn M CIV NAVFAC SW
Sent: Tuesday, November 08, 2005 12:13 PM
To: 'Frank Cheng'
Subject: RE: TAA 800



etnavyRTCforTAA8
00DTSCmtsRev2...

Hello Frank,

Thank you very much for the comments pertaining to Tables 3 and 4 of the Navy Response to Comment Package for Former TAA 800 at Former MCAS El Toro dated 26 August 2005.

I made corrections to Tables 3 and 4 in response to your comments, and I updated the PRGs, as necessary, to be consistent with USEPA Region 9 Year 2004 PRGs.

The revised Tables 3 and 4 are attached.

Please do not hesitate to contact me if you have questions pertaining to this project.

Thank you very much.

V/R
Lynn Marie Hornecker
Navy BRAC PMO West
(619) 532-0783

-----Original Message-----

From: Frank Cheng [mailto:FCheng@dtsc.ca.gov]
Sent: Friday, November 04, 2005 13:09
To: Hornecker, Lynn M CIV NAVFAC SW
Subject: TAA 800

Hi Lynn,

Tables 3 and 4 still contain minor errors. The residential soil PRG for arsenic based on noncarcinogenic effects has been removed from the EPA PRG, 2004. Hence, the residential PRG (noncancer) of 2.2E+01 mg/kg should be deleted from table 3. This reduces the cumulative hazard index due to site concentrations at TAA 800 to 4.12E-01, and the cumulative hazard index due to the background levels is reduced to 6.98E-01.

The industrial PRG for vanadium (Table 4) should be 1E+03 instead of 7.2E+03 (EPA PRGs, 2004). The revised cumulative hazard index due to the highest site concentrations at TAA 800 is 2E-01, and the cumulative hazard index due to background ratio is 2.6E-01 under an industrial scenario.

These changes do not change the conclusion that the net hazard index is less than 1. However, it should be corrected before we give final concurrence.

Frank Cheng, P.E.
Office of Military Facilities
Department of Toxic Substances
5796 Corporate Avenue
Cypress, California 90630
Phone: (714) 484-5395
Fax: (714) 484-5437

Revised Table 3. Residential Risk Screening Worksheet for Soil – Former TAA 800.

Detected Chemical	Maximum TAA 800 Soil Concentration (mg/kg)	MCAS El Toro Background Concentration ^A (mg/kg)	Residential PRG (Cancer) (mg/kg) ^B	TAA 800 Maximum Ratio ^C	MCAS El Toro Background Ratio ^D	Residential PRG (Non Cancer) (mg/kg) ^E	TAA 800 Maximum Ratio ^F	MCAS El Toro Background Ratio ^F
METALS								
Aluminum	15800	14800	NE	NE	NE	7.6E+04	2.08E-01	1.947E-01
Arsenic	2.41	6.86	3.9E-01	6.18E+00	6.18E+00	NE	NE	NE
Barium	76.1	173	NE	NE	NE	5.4E+03	1.4E-02	3.20E-02
Beryllium	0.71	0.669	NE	NE	NE	1.5E+02	4.7E-03	4.46E-03
Chromium	10.6	26.9	2.1E+02	5.05E-02	5.05E-02	NE	NE	NE
Cobalt	5.99	6.98	9.0E+02	6.66E-03	6.66E-03	NE	NE	NE
Copper	6.3	10.5	NE	NE	NE	3.1E+03	2.0E-03	3.39E-03
Lead	5.36	15.1	NE	NE	NE	1.50E+02	3.57E-02	1.007E-01
Nickel	7.29	15.3	NE	NE	NE	1.6E+03	4.56E-03	9.56E-03
Vanadium	23.3	71.8	NE	NE	NE	7.8E+01	2.99E-01	9.205E-01
Zinc	23.8	77.9	NE	NE	NE	2.3E+04	1.03E-03	3.39E-03
Subtotal sum of ratios				6.237	6.237		5.7E-01	1.27E-00
TAA 800 Risk Less Background (Net Risk)				NET CANCER RISK < 1x10 ⁻⁶			NET NON-CANCER HAZARD INDEX < 1	

^A MCAS El Toro Background upper threshold limit concentrations from Final Technical Memorandum, Background and Reference Levels (Bechtel National, Inc. 1996).

^B Residential soil PRG for cancer is from the EPA Region 9, 2004 list.

^C The Ratio is determined by dividing the concentration by the respective PRG.

^D Where the background concentration exceeds the maximum concentration, the background ratio was defaulted to the maximum ratio.

^E Residential soil PRG for non-cancer is from the EPA Region 9, 2004.

^F The Ratio is determined by dividing the concentration by the respective PRG. No ratios were calculated for chemicals detected below background levels.

Italic font identifies PRG that was revised in response to DTSC comments or to update PRG for consistency with the 2004 list.

NE Not established

PRG Preliminary Remediation Goal

Revised Table 4. Industrial Risk Screening Worksheet for Soil – Former TAA 800.

Detected Chemical	Maximum TAA 800 Soil Concentration (mg/kg)	MCAS El Toro Background Concentration ^A (mg/kg)	Industrial PRG (Cancer) (mg/kg) ^B	TAA 800 Maximum Ratio ^C	MCAS El Toro Background Ratio ^D	Industrial PRG (Non Cancer) (mg/kg) ^E	TAA 800 Maximum Ratio ^F	MCAS El Toro Background Ratio ^F
METALS								
Aluminum	15800	14800	NE	NE	NE	1.5E+05	1.0533E-01	9.87E-02
Arsenic	2.41	6.86	1.6E+00	1.506E+00	1.506E+00	NE	NE	NE
Barium	76.1	173	NE	NE	NE	<i>6.7E+04</i>	1.14E-03	2.6E-03
Beryllium	0.71	0.669	1.9E+03	3.74E-04	3.74E-04	NE	NE	NE
Chromium	10.6	26.9	4.5E+02	2.36E-02	2.36E-02	NE	NE	NE
Cobalt	5.99	6.98	<i>1.9E+03</i>	3.15E-03	3.15E-03	NE	NE	NE
Copper	6.3	10.5	NE	NE	NE	<i>4.1E+04</i>	1.54E-04	2.56E-04
Lead	5.36	15.1	NE	NE	NE	7.5E+02	7.15E-03	2.01E-02
Nickel	7.29	15.3	NE	NE	NE	2.0E+04	3.65E-04	7.7E-04
Vanadium	23.3	71.8	NE	NE	NE	<i>1.0E+03</i>	2.33E-02	7.18E-02
Zinc	23.8	77.9	NE	NE	NE	1.0E+05	2.38E-04	7.79E-03
Subtotal sum of ratios				1.533E+00	1.533E+00		1.38E-01	2.02E-01
TAA 800 Risk Less Background Risk (Net Risk)				NET CANCER RISK < 1x10 ⁻⁶			NET NON-CANCER HAZARD INDEX < 1	

^A MCAS El Toro Background upper threshold limit concentrations from Final Technical Memorandum, Background and Reference Levels (Bechtel National, Inc. 1996).

^B Residential soil PRG for cancer is from the EPA Region 9, 2004 list.

^C The Ratio is determined by dividing the concentration by the respective PRG.

^D Where the background concentration exceeds the maximum concentration, the background ratio was defaulted to the maximum ratio.

^E Residential soil PRG for non-cancer is from the EPA Region 9, 2004 list.

^F The Ratio is determined by dividing the concentration by the respective PRG. No ratios were calculated for chemicals detected below background levels.

Italic font identifies PRG that was revised in response to DTSC comments.

NE Not established

PRG Preliminary Remediation Goal