



# Department of Toxic Substances Control

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HUNTERS POINT  
SSIC NO. 5090.3



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April 25, 2000

Commanding Officer  
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Attention: Mr. Richard Mach

PARCEL B DRAFT EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD),  
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA

Dear Mr. Mach:

Thank you for your E-mail on April 10, 2000, which contains a copy of the Parcel B Draft ESD, a faxed copy was also received on the same date. We still need a signed copy of this draft primary document for our record. We are providing our comments based on the faxed copy because we cannot open the electronic file that contains attachment A and B.

## Specific Comments

1. DTSC does not categorically agree to the limitations placed on the fact that the cleanup values will be health-based (Attachment B, page 1 of 10). We agree with the first criterion that cleanup concentrations can be placed at an "ambient concentration for inorganic elements if the risk-based concentration is below the un-impacted "ambient concentration". We cannot categorically agree that if detection limits exceed the risk-based concentration, that detection limits become the *de facto* cleanup concentration. This would require a chemical by chemical assessment of the concentration of the elevated detection limit and the risk or hazard associated with each elevated detection limit.
2. The indoor exposure pathway should be included for evaluation for any sites in Parcel B with detected concentrations of Volatile Organic Compounds (VOCs) in shallow groundwater (Attachment B, page 2 of 10). DTSC recommends use of the U.S. EPA Johnson and Ettinger model released in 1999 for evaluation of the indoor air pathway for VOCs. DTSC can supply this model or it can be downloaded from the U.S. EPA Superfund web site.

3. Please provide a complete table listing the exposure parameters and the subgrouping of parameters for children and adults, which are presented in the intake equations beginning on page 1 of 10. These can be supplied in a single table so as not to confuse the text section of Attachment B.
4. DTSC agrees that the  $2.0 \text{ (mg/kg-day)}^{-1}$  cancer slope factor may be used (Attachment B, Toxicity Values, page 3 of 10) for polychlorinated biphenyls (PCBs) for calculation of Soil Cleanup Levels (SCLs) at Hunters Point Shipyard Parcel B.
5. The methodology section (Attachment B, page 2 of 10) states that the revised cleanup values are based on the toxicity values currently recommended in the U.S. EPA Region 9 Preliminary Remediation Goal (PRG) tables. The discussion of the toxicity values used indicates that Cal/EPA cancer potency factors were used where the Cal/EPA value was more conservative than the EPA PRG table value (Attachment B, Toxicity Values, page 3 of 10). The comparative table for 1995-based and 1999-based SCLs (Attachment A) only lists 3 SCLs with a footnote of "c" indicating that the Cal/EPA cancer potency factor was used. There are more than 3 carcinogenic chemicals for which the Cal/EPA cancer potency factor is more conservative than that used by the U.S. EPA. A full set of spreadsheet calculations was not presented for review. However, It appears from examination of Attachment A and comparison with the "Cal-modified" values contained in the U.S. EPA Region 9 PRG table, that the "Cal-modified" values are not even presented in the cases where the detection limit exceeds the U.S. EPA Region 9 PRG-based calculation. Please provide more detail in the methodology section to fully describe the sequence of steps for development of the proposed SCLs. If the hypothesis regarding detection limits explains the paucity of SCLs based on Cal/EPA cancer potency factors please state that basis clearly in the text of the methodology (Attachment B).
6. The accuracy of the SCLs based on the 1999 U.S. EPA PRG values (Attachment A) cannot be fully reviewed as the SCLs are presented as a single worksheet without the associated worksheets in which the arithmetic calculations are performed. The physical parameters and toxicity values are presented (Attachment B, Table B-2). However, the actual worksheets should be furnished as part of a complete workbook. For example, without the full spreadsheet calculations to show specifically how  $\log K_{ow}$  values entered into the determination of the reduction in the homegrown produce concentration due to low water solubility (Ingestion of Homegrown Produce, page 3 of 10) cannot be easily verified without the spreadsheet calculations. One specific example of this difficulty is the differing SCLs for Aroclors 1242 through 1260 (Attachment A). The proposed SCLs differ by an approximate factor of 2. We are unaware of any differences in  $\log K_{ow}$  values for different Aroclors in the U.S. EPA Region 9 PRG tables. Without specific statements of the  $\log K_{ow}$  and references we

cannot fully review these values.

7. The non-cancer reference doses (Attachment B, Table B-2) were checked at random and found to agree with the values in the 1999 U.S. EPA Region 9 PRG table. The cancer slope factors (Attachment B, Table B-2) were checked at random and found to agree with the most protective of the U.S. EPA Region 9 cancer slope factors or the three cancer potency factors from the Office of Environmental Health Hazard Assessment (OEHHA) as noted in Specific Comment number 5.

8. Section under "Change in Nickel Ambient Values" should be modified as follow:

In July 1998, remedial action (RA) activities began at Parcel B. Nickel concentrations in soil samples collected from remediation areas excavated during the RA commonly exceeded the calculated Hunters Point Ambient Levels (HPAL). As a result, the Navy reviewed the approach used to calculate the HPAL for nickel and found that, while the nickel ambient concentrations were calculated based on a nickel-magnesium regression, chemical analysis of serpentinite samples at the site shows consistently higher nickel to magnesium ratios. The Navy first hypothesized that the higher nickel to magnesium ratios was probably a consequence of weathering of serpentinite bedrock. DTSC, based on its independent research and field observations, agreed that preferential leaching of magnesium from serpentinite soil would occur as part of the soil weathering process. DTSC further pointed out that Cobalt is not preferentially leached from weathered serpentine soils and a nickel-cobalt regression could be used. The resulting nickel-cobalt ratio should remain relatively the same as soils weather. Using this information, a new nickel-cobalt regression was formulated to calculate nickel ambient levels and was presented in the Nickel Screening and Implementation Plan Technical Memorandum dated August 4, 1999. Nickel ambient concentrations are not listed in the Attachment A because they are sample-specific. But they can be calculated from specific cobalt concentrations using the following formula: (insert formula for nickel calculation here)

If you have any questions, please contact me at (510) 540-3822.

Sincerely,



Chein Ping Kao, P. E.  
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Office of Military Facilities

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