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NTC Great Lakes

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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January 7, 2003

Commander, Southern Division
Naval Facilities Engineering Command
Attn: Mr. Anthony Robinson
2155 Eagle Drive
North Charleston, South Carolina 29406

Re: Draft Final Remedial Investigation and Risk Assessment Report, Site 7 – RTC, Silk Screen Shop, Naval Training Center Great Lakes

0971255048 – Lake
Great Lakes Naval Station
Superfund/Technical

Dear Mr. Robinson:

The Illinois Environmental Protection Agency (Illinois EPA or Agency) is in receipt of the amended pages of the Draft Final Remedial Investigation and Risk Assessment Report, Site 7 – RTC Silk Screen from Tetra Tech NUS, Inc. The amended pages were dated October 2002 and received on October 28, 2002. The Agency has reviewed the Navy's responses to Illinois EPA's comments on the Draft document and the submitted amended pages of Appendices D, E, and F. Illinois EPA has detected some minor errors and omissions, which need to be addressed. The Agency's comments are as follows:

1) **Page 6-5** – The third bullet states the USEPA Soil Screening Level guidance will be used to provide screening levels for inhalation of contaminant-laden dusts and volatiles from the soil. The TACO regulation uses identical procedures for calculation of inhalation-based levels and provides a more comprehensive list of chemicals. Illinois EPA suggests the TACO inhalation values also be included for screening. TACO also provides inhalation and ingestion values for the construction worker, which is lacking from the other sources.

2) **Page 6-16** - The second paragraph presents a rationalization for elimination of the inhalation pathway. This evaluation is incomplete. As stated in an earlier comment, additional inhalation screening levels can be supplied by using the TACO remediation objectives. Furthermore, the inhalation screening values should be receptor-specific. Several volatile and semi-volatile chemicals are more of a threat to a construction worker through inhalation than they are to the residential and commercial worker receptors. If the screening process is being used to eliminate the inhalation pathway, the screening process should be complete.

3) **Page 6-18** – The section describing the potential receptors to be evaluated quantitatively begins on this page. For future reference, the Toxicity Assessment Unit (TAU) of Illinois EPA typically looks for inclusion of a current worker receptor in situations such as exist in Building 1212, which is an active enterprise. Because the possible future residential receptor has greater soil contact and is included, we can forego inclusion of the current worker receptor.

4) **Page 6-18** – The second paragraph of Section 6.2.3 should be corrected to state that statistics are presented in Appendix F.4.

5) **Page 6-22** – The last sentence in the second paragraph is technically incorrect. The basis for the CTE ingestion rates are not arbitrarily set at ½ the RME rates, but have justification and support in USEPA documents.

6) **Page 25** – The third paragraph should state the adult lead spreadsheets are presented in Appendix F.5.

7) **Page 32** – The last sentence in the first paragraph should read Appendix F.5.

8) **Page 33** – The last sentence in the first paragraph should read Appendix F.5.

9) **Page 43** – The fifth bullet is incorrect. The maximum value was used because the 95% UCL was greater than the maximum.

10) **Page 49** – The second paragraph begins with a reference to Tables 6-23 and 6-25. The Agency cannot locate these tables nor any tables numbered greater than 6-22.

11) **Table 6-1** – Additional TACO-like screening values are available from the Agency's web site (http://www.epa.state.il.us/land/taco/chemicals-not-in-taco-tier-1-tables.html) or from the TAU for chemicals such as 2-butanone, benzaldehyde, etc...

12) **Table 6-2** – It is incorrect to state that TACO provides no screening objectives for inorganic contaminants. TACO provides extraction-based screening levels for many of the detected metals plus, for a subset of these metals, pH-specific total concentration objectives are available.

13) **Table 6-5** – Although sodium is an essential element, excess levels can be harmful. A discussion should be included comparing site concentrations to the USEPA Health Advisory values.

14) **Table 6-8** – The assumption for an exposure frequency of 150 days for the construction worker, ingestion and dermal, should be better described and justified. Typical construction worker EF exposure assumptions are for fewer days.

15) **Table 6-8** – The ingestion and dermal averaging times for the construction worker non-carcinogenic exposures are incorrect. When exposure is for less than one year, the averaging time becomes the calendar period over which the exposure was experienced. Thus, for the 30-week exposure, the averaging time would be 210 days (30 weeks * 7 days/week).

16) **Table 6-9** – The exposure frequency for the ingestion and dermal exposures of 24 days and 12 days for the RME and CTE exposures, respectively, should be discussed and justified. This should include a discussion of the anticipated activities and their duration.

17) **Table 6-10** – Discuss and justify the trespasser RME and CTE exposure frequency assumptions of 26 and 13 events, respectively.

18) **Table 6-11** – Discuss and justify the military resident exposure duration of 6 years described as being typical.

19) **Table 6-15** – The groundwater contact RME and CTE event durations of 4 and 2 hours, respectively, should be discussed and justified.

20) **Table 6-15** – To augment the subject table of chemical intakes through groundwater exposure parameters, an additional table of chemical-specific parameters should be provided. Generally, the TAU expects sufficient information be included in the report such that exposure results can be duplicated including dose and contact algorithms and all input variables.

21) **Table 6-16** – The subject table presents non-cancer toxicity values. The converted adjusted dermal reference dose for barium could not be confirmed. The manganese oral reference dose should have two safety factors applied to it: a safety factor of 3 for sensitive populations and another factor of 2 for non-food sources. The corresponding adjusted dermal reference dose must also be corrected.

22) **Table 7-1** – This table of surface water standards and criteria omits the IEPA WQC values for 2-butanone. They are listed under the chemical's synonym of methyl ethyl ketone.

23) **Table 7-1** – A spot check of the USEPA WQC hardness-dependent values in the subject table was performed. None of the calculations agreed with those reported. These calculations should be reviewed for accuracy. Additionally, the IEPA WQS values for lead, mercury, nickel, selenium, and zinc could not be confirmed.

24) **Appendix F.2** – Table numbers in this appendix are not in numeric order making it difficult to cite and reference.

25) **Appendix F.2** – Tables 5.2 and 6.2 present inhalation toxicity values. These tables are not necessary since the inhalation route is not quantified in this report.

If you have any questions or require additional information, please contact me at (217) 557-8155 or by electronic mail at *brian.conrath@epa.state.il.us*.

Sincerely,

Brian A. Conrath

Brian A. Conrath
Remedial Project Manager
Federal Facilities Unit
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cc: Owen Thompson, USEPA (HSRL-5J)
Bob Davis, Tetra Tech NUS, Inc.
✓Mark Shultz, US Navy - EFA Midwest