



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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August 9, 2004

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

Re: Draft Feasibility Study, Site 17  
Pettibone Creek and Boat Basin at  
Naval Station, Great Lakes, Illinois

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 Draft Feasibility Study, Site 17 Pettibone Creek and Boat Basin at Naval Station, Great Lakes, Illinois. It was received from Tetra Tech NUS, Inc. and was received at Illinois EPA on June 7, 2004. The Agency has reviewed the Navy's Feasibility Study and provides the following comments:

- 1) **Executive Summary and Introduction** – It should clearly state in these sections that the Feasibility Study (FS) has been performed and developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, and its governing regulations, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 Code of Federal Regulations (CFR) Part 300, and the National Environmental Policy Act (NEPA) (40 CFR 1500-1508).
- 2) **Executive Summary, page ES-2** – The second paragraph on this page presents the results of the ecological risk assessment. This paragraph needs an introduction statement to explain this detail.
- 3) **Section 1.0, Introduction** – The last sentence should state the remedy must be determined based on the evaluation of the developed alternatives against the nine remedy selection criteria outlined in Section 300.430(e) of the NCP and CERCLA Section 121.

- 4) **Section 1.2.2.1, Human Health Risk Assessment** – Under *Risks from Exposures to Surface Sediment*, the next to the last sentence should provide the calculated risk values that were reported as being within the USEPA risk management range, as was done previously in that paragraph. This same comment applies to other sentences in the following paragraphs of the Human Health Risk Assessment Section. Please make the necessary insertions.
- 5) **Section 1.2.2.2, Ecological Risk Assessment** – On page 1-9, in the first sentence of the fourth paragraph, mention is made of “alternative benchmarks” for evaluation of ecological endpoints. The difference between benchmarks and alternative benchmarks should be explained.
- 6) **Table 1-1** – The Total Hazard Index (HI) Central Tendency Exposure (CTE) value for the Adult Recreational User in the Boat Basin for the fish tissue ingestion exposure route (bottom right corner of the table) is listed as 2.7E+00. The Remedial Investigation and Risk Assessment Report lists this value as 2.6E+00. Please revise.
- 7) **Table 1-2** – In the EEQ column under Boat Basin, for PAHs the range is listed as 5.0 to 62. According to the Remedial Investigation and Risk Assessment Report, it should read 3.5 to 62. Please revise.
- 8) **Section 2.2.2, page 2-7** – The second sentence in the second paragraph should be corrected to read, in part, “...NOAELs...represent the *largest* dose that produces “no effect”...”.
- 9) **Section 2.5.3, page 2-13** – This section should clearly state that the fish advisories are voluntary, that they cannot be enforced, and that they may have no impact upon human fish consumption.
- 10) **Table 2-1** – This table of Federal chemical-specific ARARs could include the U.S. Federal Food and Drug Administration chemical residues in commercial food product standards as to-be-considered requirements.
- 11) **Table 2-2** – Illinois fish advisories for Lake Michigan should not be considered “applicable” state requirements for this assessment. Because these advisories are unenforceable, they should be regarded as to-be-considered requirements.

Additionally, the synopsis for the State sediment levels should be revised to indicate that the Toxicity Assessment Unit of the Illinois EPA oversees development of these levels.

- 12) **Table 2-4** – This table of State location-specific requirements could include the Illinois threatened and endangered species and wetlands protection programs.
- 13) **Table 2-5** – The footnote for the recreational fish ingestion rate should be corrected to 20 *g/day*. Also, the explanation for footnote number 2 is missing. Please revise as necessary.
- 14) **Table 2-7** – The subject table summarizes calculations of ecological remediation objectives. The fourth column is improperly named. It should read “*Fraction TOC*”. The South Branch TOC value should be added to the page 2-9 first paragraph summary of the site sediment TOC values. The LOAEL values for organic contaminants presented in this table do not agree with those provided in the Site 17 RI/RA. The Agency would not expect the PRGs for the respective organic contaminants to be identical values when the fraction TOC is varied in each of the three location-dependent calculations. And finally, the calculated PRG values presented in this table could not be duplicated. Please revise as necessary and clarify how the calculated values were generated or from where they were referenced.
- 15) **Table 2-11** – This table contains language regarding Illinois’ delegation to administer the NPDES permitting program. Illinois has been a delegated state for many years, so the references to Illinois “becoming” a delegated state and “upon delegation” should be revised.
- 16) **Section 4.3.2, Alternative 2: Institutional Controls and MNR** – There is no mention here of the need to add this site to the Navy’s Land Use Control Memorandum of Agreement with Illinois EPA. This should be included along with a discussion of the administrative aspects of its addition and the routine monitoring and reporting that would then be required. Please include this information.
- 17) **Section 4.3.2.2, Detailed Analysis** – The first sentence states that Alternative 2 would be protective of human health and the environment. This statement is misleading. It would be protective of human health, but it would only be protective of the environment upon completion of the remedial action (That is, upon attenuation of the contaminants to Preliminary Remediation Goal (PRG) levels). The timeframe for natural attenuation to reduce the contaminants down to the PRGs could well be infinite. Until that time, the ecological risks at the site would remain.
- 18) **Section 4.3.3** – The excavation and consolidation (management) of contaminated sediments (waste) in the upper Boat Basin would be considered the creation of a new landfill. Under Title 35 of the Illinois Administrative Code (IAC) Part 810.103, the definition of a landfill is, “a unit or part of a facility in or on which waste is placed and accumulated over time for disposal ...” This would make all of the Part 811-815

regulations directly applicable and this alternative does not take those regulations into account. Therefore, this alternative does not comply with ARARs. This information should be discussed within this document. Regardless of that fact, Illinois EPA would not be able to allow creation of a landfill in a location such as the Boat Basin. Illinois EPA would not be able to concur with this alternative should it become the preferred one by the Navy.

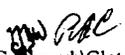
- 19) **Section 4.3.3** - There is no mention here of the need to add this site to the Navy's Land Use Control Memorandum of Agreement with Illinois EPA. This should be included along with a discussion of the administrative aspects of its addition and the routine monitoring and reporting that would then be required. Please include this information.
- 20) **Section 4.3.3.2** - Under *Compliance with ARARs and TBCs*, as noted above, this alternative would not comply with Illinois landfill regulations, which would be ARAR under this alternative. Please revise this section to discuss this fact.
- 21) **Section 5.1.2** - As noted previously, Alternative 3 would not comply with ARARs related to creation of a landfill in Illinois. Please revise. Table 5-1 will require revision as well.
- 22) **Section 5.1.4** - It should be noted here that Alternative 3 would provide some reduction of mobility of the contaminants due to the In-Situ Capping portion of that remedy.

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](mailto:brian.conrath@epa.state.il.us).

Sincerely,

*Brian A. Conrath*

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Remedial Project Manager  
Federal Facilities Unit  
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BAC:pl:rac:h\GIntc\Site17related\site17DFSrvw

cc: Owen Thompson, USEPA (SR-6J)  
Bob Davis, Tetra Tech NUS, Inc.

Mark Shultz, US Navy - EFA Midwest