

November 5, 2007

RESPONSE TO COMMENTS  
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY COMMENTS  
JULY 31, 2007  
TREATABILITY STUDY REPORT FOR SITE 22  
NAVAL STATION GREAT LAKES

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NTC GREAT LAKES  
5090.3a

1) **First Page** – Please remove the signature block for the Illinois EPA Project Manager. Agency personnel do not typically sign off on this type of document. The Navy may leave the project manager's name under the heading of "*Prepared Under the Supervision of*", just not the signature line.

***Response:*** *The signature line and name for the Illinois EPA Project Manager will be removed from the title sheet.*

2) **Section 5.2** – Another recommendation that should be stated here is that this site will need to be formally added to the Land Use Control Memorandum of Agreement (LUCMOA) between the Navy and Illinois EPA. Having it as part of the LUCMOA will ensure that the required steps discussed therein are monitored and enforced.

***Response:*** *The following text will be added to the end of the first bullet item in Section 5.2: "Site 22 will be formally added to the Navy and Illinois EPA LUC Memorandum of Agreement."*

3) **Appendix F** – The Chain of Custody forms numbered 3794 and 2151 do not have "Received by" signatures, dates, and times.

***Response:*** *The Chain of Custody forms with the appropriate signatures, dates, and times will be included in the final version of the report.*

4) Based upon Illinois EPA's review of the submittal, RCRA closure of Site 22 (Building 105) relative to soil should be considered complete once the Final Record of Decision is submitted and the institutional controls meeting the requirements of 35 Illinois Administrative Code (IAC) 742 are established with the following restrictions for the subject property:

- a. The property will be restricted to industrial and commercial purposes.
- b. The engineered barrier, a cap system composed of a high-density polyethylene liner and an asphalt parking lot, will be maintained.
- c. A site safety plan to address possible worker exposure to the soil and shallow groundwater must be developed and implemented during any future excavation/construction in this area.
- d. Any soil removed from this area during future activities must be managed in accordance with 35 IAC, Subtitle G: Waste Disposal.
- e. Restrict potable use of the groundwater at the facility.

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Finally, a Land Use Control Implementation Plan (LUCIP) for this site must be prepared and appended to the LUCMOA in accordance with the terms of that agreement.

The Record of Decision will also need to address closure for the groundwater exposure pathway. Illinois EPA has on several occasions described appropriate methods for the Navy to pursue an appropriate closure demonstration for groundwater as noted in the following letters: (1) Conditions 3 and 4 of the September 9, 1996 letter (Log No. C-689-M-3); (2) Condition 5 of the February 21, 1997 letter (Log No. C-689-M-4); (3) Conditions 9 and 10 of the March 31, 1998 letter (Log No. C-689-M-5); (4) Conditions 7 through 11 of the March 10, 1999 letter (Log No. C-689-M-6); (5) and Condition 6 of the June 29, 2001 letter, which was subsequently provided in the September 7, 2001 correction letter (Log No. C-689-M-7). These letters are provided as Attachments 1 through 5 to this letter. The referenced conditions were required for proper closure of the RCRA Storage Unit.

Illinois EPA suggests the Navy address the groundwater associated with the RCRA Unit Building 105 according to one or more of the following recommendations:

1. If the Navy proposes to conduct no further remediation, groundwater contamination must continue to be addressed in accordance with 35 IAC, Part 725, and all Illinois EPA letters associated with RCRA Closure of Building 105. Therefore, groundwater known to be impacted by activities associated with Building 105 must be sampled on a quarterly basis and reported to the Illinois EPA in accordance with the schedule listed in Condition 2 below.
2. A minimum of four (4) additional sampling events must be conducted at all monitoring wells associated with Building 105 to demonstrate clean closure of the unit. These sampling events must demonstrate that four (4) consecutive sampling events indicate no exceedances of Class I Groundwater Quality Standards (GQS). The first sample must be collected during the months of August or September 2007, in accordance with the following schedule:

<u>Samples to be Collected During The Months of</u>	<u>Results Submitted to the Illinois EPA by the Following</u>
First Quarter	April 15
Second Quarter	July 15
Third Quarter	October 15
Fourth Quarter	January 15

3. The Navy must analyze groundwater samples required by Conditions 1 and 2 above for the following constituents of concern (COCs): chloromethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride.

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All information required by Conditions 1 and 2 above, as well as, any future correspondence associated with the RCRA Unit Building 105, must be submitted to the following address:

Stephen F. Nightingale, P.E.  
Illinois Environmental Protection Agency  
Bureau of Land/Permit Section #33  
1021 North Grand Avenue East  
Springfield, Illinois 62702

4. If the Navy chooses to pursue a risk-based closure for groundwater or to pursue the exclusion of the Groundwater Ingestion Exposure Route, the facility must submit the appropriate demonstration/documentation in accordance with 35 IAC 742, Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO). That may include, but is not limited to, the following:
  - a. Submit a Tier II or Tier III demonstration in accordance with 35 IAC 742 (TACO); or
  - b. Pursue the exclusion of the Groundwater Ingestion Exposure Route, as provided in Subpart C of TACO, Part 742.320 specifically; or
  - c. Provide evidence that groundwater contamination is not statistically significant, in accordance with methods outlined in 35 Ill. Adm. Code, 724.197(h).

Provided the Navy addresses the groundwater according to one of the above-listed options and submits the appropriate documentation, RCRA closure of Site 22 (Building 105) relative to groundwater should be considered complete once the Final Record of Decision is submitted and the previously mentioned institutional controls are established.

***Response: This comment is being addressed in several ways. In response to the first two paragraphs and items a. through e. in this comment, the Navy, through a separate task order, is preparing a Land Use Control Implementation Plan (LUCIP) for the site. The LUCIP will include elements a. through e. of this comment. The restriction on groundwater use at Naval Station Great Lakes has been in place since September 2003 based on the Naval Station Great Lakes Instruction 11130.1 from Commanding Officer K.M. Hobbs (see attached). This will be referenced as part of the Land Use Controls for Site 22. Upon establishment of the LUCIP, the requirements for RCRA closure of soil at Site 22 will be complete.***

***Based on this comment, changes will be made to the recommendations section (Section 5.2) of the report in regard to both soil and groundwater. For soil, the following bulleted items will be added to the existing three bullets summarizing the LUCs to be implemented at the site:***

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- *Restricting the property use to industrial and commercial purposes.*
- *Requiring that soil removed from this area during future activities is managed in accordance with 35 IAC, Subtitle G: Waste Disposal.*

*Additionally, the following text will be added to the end of the existing second bullet in the section: "A site safety plan to address possible worker exposure to the soil and shallow groundwater will be developed and implemented to address the intrusive work."*

*For groundwater, Option 4b from the comments provided by the Illinois EPA will be implemented and the Navy will submit documentation to meet the requirements of the exclusion of the Groundwater Ingestion Exposure Route, as provided in Subpart C of TACO, Part 742.320. The report will be modified to show that items a) through f) in Section 742.320 are met. Specifically:*

- *The requirements of Section 742.300 and 742.305 are met; i.e., contamination is delineated and the soil meets the characteristics of Section 742.305;*
- *There is no free product at the site;*
- *The site is not within a setback zone or recharge area for a potable well;*
- *An ordinance adopted by a unit of local government (in this case Naval Station Great Lakes) prohibits the installation and use of potable water supply wells (see the first paragraph of this response above). Additional text will be added to the report in the human health risk assessment section discussing this ordinance;*
- *Modeling of groundwater concentrations has been completed that shows the concentrations of contaminants are at or below Tier 1 groundwater remediation objectives at the site boundary and the Naval Station boundary, which are outside potable water setback zones and surface water discharge points. A table is attached showing the preliminary modeling calculations. Additional text will be added to the report in the human health risk assessment section discussing the modeling results (and any necessary appendices).*

*The RCRA closure forms will still be attached to the report with the understanding that the closure will not be granted until after approval of the Record of Decision for the site.*

*These elements will be included in the Record of Decision for the site as justification for discontinuation of groundwater sampling and RCRA closure of the site. The appropriate changes in the remedy (removal of the groundwater monitoring task) will also be incorporated in to the Proposed Plan for Site 22 that was previously submitted to the Illinois EPA in draft form.*