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NIROP FRIDLEY, MN  
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LETTER AND COMMENTS FROM U S EPA REGION V REGARDING FOURTH FIVE-YEAR  
REVIEW REPORT SEPTEMBER 2013 NIROP FRIDLEY MN (PUBLIC DOCUMENT)  
11/14/2013  
U S EPA REGION V



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

NOV 14 2013

REPLY TO THE ATTENTION OF:

S-6J

**VIA ELECTRONIC MAIL AND CERTIFIED MAIL**

Mr. Mark R. Schultz  
Environmental Business Line Coordinator  
NAVFAC Midwest  
201 Decatur Avenue, Building 1A  
Great Lakes, Illinois 60088-2801

Re: Fourth Five-Year Review Report dated September 2013  
Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota

Dear Mr. Schultz:

The U.S. Environmental Protection Agency has reviewed the Fourth Five-Year Review (FYR) Report for the Naval Industrial Reserve Ordnance Plant (NIROP), Fridley, Minnesota, dated September 2013 and signed by the Navy on October 17, 2013. This letter provides EPA's partial concurrence with the Navy's protectiveness determinations/statements for NIROP.

Based upon the information in the FYR Report, EPA concurs with the Navy's "short-term protective" determination for operable unit 1 (OU1) and Sitewide, and a "protective" determination for OU2 and OU3. However, EPA does not concur with the narrative protectiveness statements for OU1 and Sitewide as they do not specify the actions necessary for the remedy to be protective in the long term. The narrative protectiveness statements are therefore not consistent with EPA's *Comprehensive Five-Year Review Guidance* (EPA 540-R-01-007, June 2001) and the September 13, 2012 policy memorandum entitled *Clarifying the Use of Protectiveness Determinations for Comprehensive Environmental Response, Compensation, and Liability Act Five-Year Reviews*. In addition, the FYR Summary Form for OU1 and Sitewide is incorrect. It shows that OU1 and Sitewide are both "protective" instead of "short-term protective."

EPA submitted comments to the Navy on the draft FYR Report on July 23, 2013, but many of the comments were not addressed in the final version of the document signed by the Navy. EPA has enclosed its key comments and concerns that were not addressed in the final FYR Report.

If you have any questions or comments regarding this letter, please contact Sheila Desai of my staff at (312) 353-4150 or via email at [desai.sheila@epa.gov](mailto:desai.sheila@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Richard C. Karl". The signature is written in a cursive style with a large initial "R" and "K".

Richard C. Karl, Director  
Superfund Division

Enclosure

cc: Sheila Desai, EPA (via email)  
Harvey Pokorny, NAVFAC Midwest (via email)  
Shanna Schmitt, MPCA (via email)  
Nicole Goers, TechLaw Inc. (via email)  
Timothy Thurlow, EPA (via email)

**EPA KEY COMMENTS ON THE FOURTH FIVE-YEAR REVIEW REPORT  
DATED SEPTEMBER 2013 AND SIGNED BY NAVY ON OCT.17, 2013**

**NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT  
FRIDLEY, MINNESOTA**

- 1. Issues and Recommended Actions (Sections 8, 9, FYR Summary Form, and Protectiveness Statements):** The final FYR Report states there are no issues affecting current and/or future protectiveness of the remedy. Based on the information provided, EPA disagrees and notes the following issues which affect future protectiveness of the remedy.

*Issue 1 - Capture and containment of the groundwater contaminant plume.* This issue was identified in the Third FYR Report. Additional extraction wells were added in 2012 to address the issue. Initial data appears to show improved performance of the capture/containment system. Because the data review section and appendices lack sufficient information and since the amount of time that monitoring has taken place has been short (~1 year), there is an insufficient basis for concluding that the plume is being fully captured/contained. This is an issue affecting future protectiveness. Recommended actions should include continued monitoring and evaluation of the data and system performance. It is noted that the final FYR Report shows inconsistent statements with regard to the effectiveness of the capture/containment system. See statements in Sections 7.1.1, 7.2.5.1, 7.2.5.2, and 8.1.3, for example.

*Issue 2 - Vapor intrusion (VI).* Per the final FYR Report (Section 7.2.1), "The presence of TCE in groundwater at sufficiently high concentrations renders the compound potentially able to volatilize, migrate through the soil column, and infiltrate the indoor air of a building located over the groundwater contamination." Per the Report (Section 8.1.5), "Although the results of conservative screening indicate that no unacceptable VI exposures are occurring for OU1, the Navy will work with EPA and MPCA to review the site conceptual model and evaluate whether a completed VI pathway exists." VI is an issue that should be included as affecting future protectiveness. The recommended action should be as stated above.

*Issue 3 - Institutional controls (ICs).* The Third FYR Report protectiveness statement identified ICs as an issue and included a recommended action to ensure the remedy is protective in the long term. The Third FYR Report protectiveness statement for OU1 was:

"The remedy at OU1 is currently protective of human health and the environment because there is no evidence of inconsistent uses with the objectives of the commercial and industrial land use restrictions and the groundwater standards. Long term protectiveness requires compliance

with land use restrictions that prohibit interference with the limited industrial land use area and groundwater use restrictions. The groundwater remedy will achieve long-term protectiveness when the groundwater cleanup standards are achieved throughout the plume area. However, in order for the remedy to be protective in the long-term, effective ICs need to be demonstrated to be in-place and compliance with effective ICs will be ensured through long term stewardship by maintaining, monitoring and enforcing effective ICs for the site and until groundwater cleanup goals are attained. In addition, there are no known completed pathways to receptors. However, for the remedy to be protective in the long-term, hydraulic containment must be maintained and optimal performance of the extraction system must be achieved to ensure long-term protectiveness."

General Comment 19 in EPA's comments on the Draft Fourth FYR Report requested that the Navy's evaluation of ICs as part of the FYR process include a review of records at the Registrar of Deeds' office to verify that deeds and lease agreements for applicable property transactions contain the required use restrictions with no competing claims. The Navy's response to General Comment 19 indicates that they have not conducted this review. EPA recommends that the Navy complete a records review to ensure that the remedy remains protective, and that the completion of the records review be properly documented.

General Comment 20 in EPA's comments on the Draft Fourth FYR indicated that land use control (LUC) compliance certifications have not been consistently submitted annually, as required. Submittal of annual LUC compliance certification is a critical component in documenting that LUCs are being implemented and maintained in a manner that is consistent with remedial design requirements and in a manner that is protective of human health and the environment. It is noted that according to item A.5.b under Covenants, Conditions, and Restrictions of the June 17, 2004, Quitclaim Deed, the property owner shall provide written LUC compliance certifications by March 1st of each year to the Navy, EPA, and Minnesota Pollution Control Agency. It is also noted that the Land Use Control Remedial Design, Operable Unit 2 and Operable Unit 3, Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, dated March 2004 specifically states that "should the Navy convey the NIROP to another party, the Navy shall either continue to provide such certifications, or shall ensure that the new owner(s) of the facility provide the same." It is therefore recommended that the Navy provide documented assurance that the LUC compliance certifications will be submitted by March 1st of each year.

The final FYR Report is lacking an adequate discussion about ICs, and does not contain an "Institutional Controls" section. It is not clear whether any additional actions have been undertaken with regard to ICs. Given the lack of information on this matter, ICs should be carried forward as an issue affecting future protectiveness with the appropriate recommended actions.

- 2. Progress Since the Previous FYR (Section 5):** The final FYR Report was revised to state that the previously identified issues are no longer issues affecting current or future protectiveness. The final Fourth FYR Report states:

"The last Five-Year Review Report (Third Five-Year Review Report) included the following recommendations which were based on the identified issues (each recommendation is followed by a current status summary). During this Fourth Five-Year Review it was determined, as a part of the evolving Five-Year Review process that these are maintenance items inherently required by the remedy, or, items which had potential to improve remedy performance and/or decrease the time the remedy needed to be in-place, and not Five-Year Review "issues" requiring recommendations. Therefore, the following items are listed in this Fourth Five-Year Review to provide a current status summary, but beginning in this Fourth Five-Year Review, will not be carried over as "issues" requiring "recommendations":..." (Section 5.1)

Previous FYR issues and recommended actions are reported on in the next FYR Report. Per the FYR Guidance and template, the following areas are reported on for each issue and recommended action: Party Responsible, Oversight Party, Original Milestone Date, Current Status, and Completion Date (if applicable). The final FYR Report states there are no longer issues from the Third FYR Report. Although updates are provided, the information provided is not complete as per the FYR Guidance.

- 3. The FYR Report Format.** The FYR Report format is inconsistent with the FYR Guidance and template. These inconsistencies were previously identified. It is noted that the new version of the FYR Summary Form was used in the final FYR Report.
- 4. Data Review (Section 6.3).** This section of the final FYR Report lacks an adequate summary narrative of the data with tables. A reference is made to the Annual Monitoring Reports, but they are not included in the appendices.