



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

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NIROP FRIDLEY
5090.3a

REPLY TO THE ATTENTION OF:

DEC 03 2001

Commanding Officer
Southern Division
Naval Facilities Engineering Command
Attn: Jeff Meyers, Code ES32
P.O. Box 190010
North Charleston, South Carolina 29419-9010

SR-6J

RE: Supplemental Remedial Investigation Information for Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, September 2001 and the Remedial Investigation Operable Unit 3, Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, Revision 1, September 2001

Dear Jeff:

The United States Environmental Protection Agency (U.S. EPA), has completed the review of the Supplemental Remedial Investigation Information for Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, September 2001 and the Remedial Investigation Operable Unit 3, Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, Revision 1, September 2001. U.S. EPA understands that the Supplemental Remedial Investigation Information for Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, September 2001, was necessary to integrate Operable Unit 2 (OU2) risk assessment exposure scenarios with Operable Unit 3 (OU3) risk assessment exposure scenarios. Following are review comments regarding the **Supplemental Remedial Investigation Information for Naval Industrial Ordnance Plant, Fridley, Minnesota, September 2001.**

1. Page 1-1, 3rd paragraph, last sentence: I could not find a discussion evaluating groundwater contamination found during the RI for OU3 against groundwater criteria retained to evaluate the OU-1 groundwater remedy.
2. Page 1-6, 6th paragraph: Although the Minnesota Pollution Control Agency (MPCA) requested that OU2 and OU3 be incorporated and that OU3 include sources in the saturated zone beneath the building, the decision to combine remedy selection and investigate the saturated zone beneath the building was made by the NIROP Partnering Team.
3. Page 1-7, 1st sentence: Reference is made to Table 1-1. Where is Table 1-1?
4. Page 1-10, 1-11: Narrative text on these pages regarding the history of remedial actions such

as, "two additional extraction wells were constructed and were placed into operation in June 1995", is not current. Additional extraction wells were installed in summer/fall 2000. Also, the tense of verbs within the narrative text on these pages such as "Treated groundwater will be discharged to the Mississippi River via an NPDES storm sewer discharge", is not correct. (e.g. "Treated groundwater has been discharged to the Mississippi River via an NPDES storm sewer discharge".)

5. Page 1-11, 4th paragraph: The AMR is also provided to fulfill requirements for other types of environmental monitoring, e.g. groundwater treatment system air stripper monitoring, NPDES discharge monitoring for TCE treated groundwater.

6. Page 1-12, 1st paragraph: The OU2 FS was considered final by the U.S. EPA, but was never approved. 2nd paragraph: The "OU3 is the subject of this RI" reference may be a typo. 3rd paragraph, 9th sentence: AOC should be AOC(s) - typo. Last sentence: incorrect statement.

7. Page 2-1, 1st sentence: This section does not contain the elements of a baseline human health risk assessment e.g. toxicity assessment, exposure assessment, risk characterization/ uncertainty evaluation, etc.

8. Page 2-1, 2nd paragraph: Define "conservatively". 2nd sentence: Narrative text appears bias to land use restriction remedy.

9. Page 2-1, 3rd paragraph: Explain why standard default exposure assumptions were used for typical industrial and major infrequent construction workers and site-specific exposure assumptions were used for minor infrequent construction workers.

10. Page 2-2, last paragraph: Soil reference values used were not for residential exposures. (Tier 1 SRVs)

11. Page 2-3, 1st full paragraph, 1st sentence: Explain, in more detail, how the screening risk evaluation methodology is intended to overestimate the potential risk. 5th sentence: Appears bias toward land use restrictions. 10th sentence: Explain that the maximum detected soil contaminant concentrations from the site were compared to soil contaminant concentrations presented in spreadsheets which were provided by MPCA. 11th sentence: Is the correct term receptor or worker? The term worker is used in the beginning sentences of this paragraph.

12. Page 2-3, 3rd paragraph, 1st sentence: Are the acceptable risk levels screening risk levels or risk levels. Last sentence: What about major infrequent construction workers?

13. Page 2-4, 1st sentence: define "conservatively". 3rd paragraph: The use of the term PAH and cPAH appears to be used inconsistently in the narrative text.

Review Comments on Remedial Investigation Operable Unit 3, Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, Revision 1, September 2001

Executive Summary

1. Page ES-1, 2nd paragraph, last sentence: The NIROP Partnering Team agreed to potentially combine the remedy selection phase of OU2 with the remedy selection phase of OU3.
2. Page ES-4, 1st bullet: Explain, in more detail, what “none showed an increased potential to be disproportionately responsible for site contamination” means. This phrase is repeated through this portion of the report and requires further clarification.
3. Page ES-5, 1st bullet: Are the PAHs mentioned cPAHs or PAHs?
4. Page ES-6, 1st sentence: Explain, in more detail, why DNAPLs are likely somewhere under the building.
5. Page ES-7, 5th bullet: Explain, in more detail, why the previous investigation of the East Plating room is considered conservatively representative of NIROP plating operations.
6. Page ES-7, 8, 9, 10, Summary on ES-11: Narrative information presented in this portion of the Executive Summary regarding evaluation of AOC Groups does not need to be definitive, e.g. “Results do not indicate that significant releases are more likely”, “AOCs does not show evidence of a greater potential for release than the other groups”, or “supplemental points do not show evidence of significant release”.
7. Page ES-12, 1st sentence: Explain, in more detail, how the screening risk evaluation methodology is intended to overestimate the potential risk.
8. Page ES-13, last sentence: Remove reference to Feasibility Study.
9. Page ES-15, first sentence: Remove reference to Feasibility Study.
10. Page ES-18, Initial Screening of Possible Alternative Response Actions: Section need to be reworded.
11. Table ES-4: Receptor Column, Minor Infrequent Construction Worker, 0-20 feet depth may be a typo. (0-12 feet sampled)

Chapter 7 - General Comments

Narrative text in Section 7.1 has not been updated to reflect the current risk information presented in the Supplemental Remedial Investigation Information Report for Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, September 2001.

Narrative text carried forward in Chapter 7 from the Executive Summary requires modification as detailed in the review comments for the Executive Summary. See Review Comments on Remedial Investigation Operable Unit 3, Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, Revision 1, September 2001, Executive Summary Section above.

Initial Screening of Possible Alternative Response Actions Section 7.4 does not reflect discussions to carry forward alternatives previously agreed to e.g. institutional controls, institutional controls with engineering controls, institutional controls with engineering controls and interim remedial action. Also, narrative text in this section appears to be bias towards institutional controls. Language stating that the major infrequent construction worker exposure scenario is a "to be considered (TBC)", should be removed. Language regarding operation of the groundwater treatment system indefinitely should be removed.

U.S. EPA has reviewed the MPCA's review comments, including Attachment 1, regarding the RI for OU3, Revision 1, September 2001. U.S. EPA believes that incorporation of MPCA's suggested narrative text from Attachment 1, with modifications listed below, will be acceptable and will address the majority of U.S. EPA's review comments. U.S. EPA would like the incorporation of MPCA suggested narrative text, with modifications, to complete approval of the RI for OU3. Following are the modifications to MPCA's Attachment 1.

Attachment 1 Modifications to "Remedial Investigation for Operable Unit 3, Volume I of IV Text", Dated September 2001

1. Page 3, 5th paragraph: A general comment on MPCA's suggested narrative text is to complete a word search for the word "slightly". Further define what is meant by "slightly" by adding a parentheses which quantifies, i.e. Chromium slightly ($Cr = 2 \times 10^{-5}$ compared to 1×10^{-5}) exceeds the acceptable (target) risk..... One other general comment is to delete the word "slightly".
2. Page 3, last paragraph: Add the following two sentences after the 3rd sentence - In addition, the existing floor in the East Plating Shop acts as a barrier to prevent the type of risk exposures that were found unacceptable in the risk assessment for OU3. This barrier is considered a type of engineering control.
3. Page 4, 1st sentence: Add reference to CERCLA.

4. Page 4, 5th paragraph, 2nd sentence: A general comment on MPCA's suggested narrative text is to complete a word search for the words "non-time critical removal" and replace with "interim remedial action".

5. Page 4, 7th paragraph, A general comment on MPCA's suggested narrative text is to reword as: A second possible alternative response action would be an engineering control response action which would require that the existing clean soil cover over subsurface soils in A3 contaminated with cPAHs be left in place. Institutional controls to maintain the existing soil cover and limit exposure to industrial workers would also be required. Remove reference to the three foot cover or asphalt cover to address surface soil risks.

6. Page 5, last sentence: Reword as: This potential groundwater problem will be addressed as a component of groundwater remedy under OU1.

If you have questions regarding these specific and general review comments, please contact me at (312) 886-1967.

Sincerely,



Remedial Project Manager

cc: Dave Douglas, MPCA