



DEPARTMENT OF THE NAVY

SOUTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
P.O. BOX 190010  
2155 EAGLE DRIVE  
NORTH CHARLESTON, S.C. 29419-0010

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NIROP FRIDLEY  
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10 Jan 1995  
1996

Mr. David Douglas  
Minnesota Pollution Control Agency  
Site Response Section  
Division of Ground Water and Solid Waste  
520 Lafayette Road  
St. Paul, Minnesota 55155-4194

Subj: NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT, FRIDLEY - OU2/OU3  
COMBINATION AND DNAPL ISSUES

Dear Mr. Douglas:

The Navy has reviewed letters received from the MPCA dated August 4 and August 30, 1995. Attachments 1 and 2 of this letter are the Navy's response to those letters. In both these letters, as well as subsequent communications with the MPCA, two common issues are raised. These issues are the combination of Operable Unit (OU)2 and OU3 and the conducting of additional investigations for potential Dense Non-Aqueous Phase Liquids (DNAPLs). This letter is provided to state the Navy's position regarding these issues.

The Navy agrees to incorporate OU2 as a sub-area of OU3. With the exception of a seismic reflection study which the Navy expects to conduct and a drum removal planned for the spring of 1996, the Navy considers that the investigation of OU2 is complete. The Feasibility Study for OU2 will be complete upon incorporation of USEPA comments received in a letter dated December 1, 1995. The Navy is proceeding, as planned, with the Remedial Investigation (RI) for OU3. The Navy will incorporate results from the OU2 RI and the OU2 FS into the OU3 RI/FS by reference.

The Navy considers OU3 to encompass source areas in either the vadose or saturated zones. The Navy plans on conducting a DNAPL investigation as part of the OU3 remedial investigation. Pursuant to the FFA, the OU3 investigation, coupled with planned seismic reflection studies, is intended to identify the magnitude and extent of contamination.

Should you have any questions or comments, please contact me at (803) 820-5587 or by fax at (803) 820-5563.

Sincerely,

SCOTT A. GLASS, P.E.  
Remedial Project Manager  
Installation Restoration II Division

Attachment:

- (1) Navy Response to MPCA Letter Dated August 4, 1995
- (2) Navy Response to MPCA Letter Dated August 30, 1995

Copy to:

Thomas Bloom, US Environmental Protection Agency, Region V  
Mr. Kevin Donnelly, P.E., Brown & Root Environmental

## Attachment 1

### Navy Response to the MPCA Letter Dated August 4, 1995

- I. Response numbers below correspond to the Attachment 1 comments included in the MPCA letter to the Navy dated August 4, 1995.

Response 1: The Site Evaluation Report (SER) is complete and has been distributed to the MPCA and EPA Region V in a letter dated 12 September 1995 from Brown & Root Environmental on behalf of the Navy. Although the SER was not prepared pursuant to the Federal Facilities Agreement (FFA) requirement for an Initial Evaluation Report, since the Initial Assessment Study (dated June 1983) was accepted as meeting the requirement for an Initial Evaluation Report, the Navy has received comments on the SER from both the MPCA and USEPA. Comments shall be incorporated into the issue of the Draft RI Workplan for OU3. Responses to the MPCA and USEPA comments have been specifically addressed in letters from the Navy to the MPCA and USEPA dated December 20, 1995.

The report includes all suspected areas where releases may have occurred. A detailed map identifying locations and a narrative for each area of concern was also provided in the report. An updated map and narrative, including additional areas of concern that were identified based on MPCA and USEPA comments to the SER was also provided. The objective of the Site Evaluation is to identify potential source areas beneath the main industrial plant building for the purpose of developing the OU3 RI Work Plan. The report does recognize that potential source areas exist outside the plant, in particular the drum disposal area in the North 40. The North 40 has been investigated and the results provided in the OU2 RI Report. A geophysical investigation of the North 40 has also been completed, and plans for a drum removal operation is underway. In keeping with the holistic approach to investigation/remediation at the NIROP, the Navy expects to conduct seismic reflection to help identify potential source areas.

Response 2: All areas of concern identified on Navy property at the NIROP in the SER will be addressed in the OU3 RI Workplan.

Response 3: The Navy is in the process of developing a plan for the use of seismic reflection at the NIROP. The seismic reflection data is expected to be available in time to support any final decisions for the placement of wells during OU3 RI field work. The Navy intends to conduct seismic reflection to gain a better understanding of the overall site lithology at the NIROP.

The Navy intends on convening a meeting, upon completion of seismic reflection, to discuss the results of this effort.

## Attachment 1

### Navy Response to the MPCA Letter Dated August 4, 1995

Response 4: It is recognized that careless drilling practices could cause the further migration of free product or DNAPL. Appropriate controls and cautions shall be implemented to prevent unnecessary breaching of confining layers.

Historical and geological information gathered during the Site Evaluation along with information obtained from the proposed RI Phase I and II soil gas survey and, any information that may be obtained from seismic imaging will be used to determine the actual number, locations and depths of wells.

Response 5: The Navy will address this issue during the development of the OU3 RI Workplans.

Response 6: The Navy will address this issue during the development of the OU3 RI Workplans.

Response 7: It is the Navy's intention to propose a baseline risk assessment based on an industrial reuse scenario. The site is currently industrial, and the Navy reasonably expects it will always be industrial. The Navy intends on presenting a more detailed justification pursuant to OSWER No. 9355.7-04, supporting an industrial reuse as the "reasonably anticipated future land use" for this site. The MPCA stated in Attachment 3, item 3 of the MPCA letter dated August 30, 1995, that the MPCA may approve the completion of a risk assessment using only the industrial land use scenario if compelling evidence is provided by the Navy.

Response 8: The Navy will address this issue during the development of the OU3 RI Report.

Response 9: If DNAPL is located in the saturated zone during the OU3 RI, it will be assumed to be contributing to groundwater contamination.

Response 10: The Navy will address these issues during the development of the OU3 RI Report.

Response 11: If DNAPL is located, it will be addressed in the FS.

Response 12: The implementability of Treatability studies/pilot scale tests shall be considered during the development of the FS.

Attachment 1

Navy Response to the MPCA Letter Dated August 4, 1995

Response 13: The Navy agrees with this recommendation and intends on making draft fact sheets and news releases available to the agencies for review.

II. MPCA letter dated August 9, 1995 requested that the Navy respond to items 2 and 3 of Attachment 2 of the MPCA letter dated August 4, 1995. Response numbers below correspond to Attachment 2 comments included in the MPCA letter to the Navy dated August 4, 1995.

Response 2: If DNAPL is located, it will be addressed in the FS.

Response 3: The latest round of groundwater sampling at the NIROP revealed TCE levels in well PC-2 to be less than 5 parts per billion, therefor, the Navy does not consider any action to be warranted at this time. The Navy will continue monitoring well PC-2 as part of the well sampling network.

## Attachment 2

### Navy Response to the MPCA Letter Dated August 30, 1995

I. Response numbers below correspond to the Attachment 1 comments included in the MPCA letter to the Navy dated August 30, 1995.

Response 1. The Navy concurs.

Response 2. The Navy concurs.

Responses 3 and 4. The Navy is in the process of developing a plan for the implementation of seismic reflection of the site to gain a better understanding of the overall site lithology at the NIROP. The Navy will discuss the proposed seismic reflection scope with the MPCA prior to work plan development.

Response 5. The Navy is still interested in pursuing institutional controls as the sole remedy based on an industrial reuse scenario. The site is currently industrial, and the Navy reasonably expects it will always be industrial. The Navy intends on presenting a more detailed justification pursuant to OSWER No. 9355.7-04, supporting an industrial reuse as the "reasonably anticipated future land use" for this site. If additional information is obtained from the OU3 RI which would require action based on an industrial reuse scenario, the Navy shall consider other options in the OU3 FS. The Navy is committed to the protection of human health and the environment. If at some future date, the unlikely residential use scenario becomes a reality, then the Navy would re-evaluate OU2/OU3 remedies.

Responses 6, 7, 8, 9. The Navy concurs.

Response 10. A limited amount of data concerning geology, hydrogeology and contamination under the main industrial plant was obtained via the initial East Plating Shop Investigation. The Navy agrees that the gathering of additional information is warranted. The RI investigation of OU3 along with the proposed seismic reflection study is expected to provide information to help make more informed decisions concerning any further investigation or remediation of the NIROP.

Responses 11 and 12. The Navy agrees that combining OU2 and OU3 not only has the potential for a more cost effective remedy, but should lead to a more effective cleanup of OU2/OU3.

Attachment 2

Navy Response to the MPCA Letter Dated August 30, 1995

Response 13. The Navy is aware of the innovative technologies being demonstrated at the Savannah River Site and at other installations. The Navy intends on evaluating these technologies, along with other technologies being demonstrated, for use at the NIROP. The Navy continues to welcome any suggestions that may lead to a quicker, more efficient and cost effective cleanup of the NIROP.

II. Response numbers below correspond to the Attachment 2 comments included in the MPCA letter to the Navy dated August 30, 1995.

Response 1 and 2. The Navy has provided the requested information as discussed in the Navy letter dated October 18, 1995. The MPCA has approved, with modifications, in a letter dated November 16, 1995. The Navy concurs with the modifications proposed by the MPCA.

III. Response numbers below correspond to the Attachment 3 comments included in the MPCA letter to the Navy dated August 30, 1995.

Response 1. The Navy shall incorporate the data of the OU2 RI by reference in the OU3 RI Report.

Response 2. The Navy concurs.

Response 3. See Response 5, Section I of this Attachment.

Response 4. The Navy concurs.

IV. The response below corresponds to the Attachment 4 comment included in the MPCA letter to the Navy dated August 30, 1995.

The Navy concurs.