AGENDA

PUBLIC MEETING

PROPOSED GROUND WATER REMEDIATION
NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
FRIDLEY, MINNESOTA
MAY 9, 1990
6:30 p.m.

PRESENTATION PANEL

Commander Dan Hogan	Commanding Officer Naval Industrial Reserve Ordnance Plant
Mr. James Shafer	Project Manager Naval Facilities Engineering Command
Mr. John Japp	Project Manager Corps of Engineers - Omaha District
Mr. Mark Lahtinen	Project Manager Minnesota Pollution Control Agency
Mr. Thomas Bloom	Project Manager U.S. Environmental Protection Agency
Mr. Eric Gredell	Project Manager RMT, Inc.

1. Opening Remarks and Introductions.
2. Community Participation.
3. The Remedial Process and Status at the NIROP.
4. Project Scope and Site Background.
5. Description of Proposed Remedial Action.
6. Future Work at the Site.

*** Break - 15 minutes ***

7. Question and Answer Period.

NARRATIVE

NIROP PUBLIC MEETING PRESENTATION
May 9, 1990

I.OPENING REMARKS AND INTRODUCTIONS

A.Welcome

1.The U.S. Department of the Navy welcomes the public to this meeting.

2. This public meeting is part of an overall project to respond to environmental conditions at the Naval Industrial Reserve Ordnance Plant (the NIROP). The purpose of this meeting is to inform the public of ongoing response activities, and to discuss and receive comments from citizens on the proposed plan for ground water remediation.

   [Overhead #1 - review agenda.]

3. The lead agency managing this project is the United States Navy. The work is being directed by the Environmental Division of the Naval Facilities Engineering Command (NAVFAC), Northern Division, in Philadelphia. Naval facilities in Minnesota and most other northern states fall within the jurisdiction of the Northern Division of NAVFAC. The Naval Plant Representative Office (NAVPRO) at the NIROP has the mission of overall management of the NIROP, and provides an oversight function for environmental work directed by NAVFAC. The NIROP is government-owned, but is operated by FMC Corporation under contract to the Navy.

B. Introductions

[Commander Hogan introduces himself.]

1. The Project Manager for NAVFAC is Jim Shafer.

2. The Navy has contracted with the Army Corps of Engineers in Omaha, Nebraska, for project oversight and implementation. The Corps' Project Manager is John Japp.

3. The Minnesota Pollution Control Agency (MPCA) is the lead regulatory agency for this project. The MPCA Project Manager is Mark Lahtinen.

4. The supporting regulatory agency is the USEPA, Region V, headquartered in Chicago. The USEPA Project Manager is Thomas Bloom.

5. The contractor for the technical investigations and reports for the project has been RMT, Inc., an environmental consulting firm headquartered in Madison, Wisconsin. The RMT Project Manager is Eric Gredell.

6. Other representatives from these organizations are also present at the meeting tonight, to assist in responding to questions you may have during the question and answer period.

II. COMMUNITY PARTICIPATION

A. The meeting tonight will consist of a presentation lasting about 30 minutes, followed by a short break of about 15 minutes. We request that you hold your questions and comments until after the presentation and break. The meeting will then be opened to questions and comments, which will be made part of the official meeting transcript.

B. This public meeting is part of a comprehensive program by the Navy to inform and involve the public in environmental restoration activities at the NIROP.

C. The community is encouraged to provide input to the selection of the proposed remedial action.

D. Historical information for the project, including the reports upon which the proposed remedial action is based, is on file at the Anoka County Library in Fridley, and at the offices of the MPCA in St. Paul. Addresses for the library and the MPCA are included in a Fact Sheet, which is available at the meeting tonight.

E. All written comments must be submitted at this meeting or by mail, postmarked no later than May 30, 1990. Comments should be sent to Jim Shafer at the Naval Facilities Engineering Command in Philadelphia. Mr. Shafer's mailing address is also included in the Fact Sheet available at this meeting.

F. A transcript of comments made at tonight's meeting will be available at the Anoka County Library and the MPCA. Copies can also be obtained by sending requests in writing to Jim Shafer with NAVFAC. The address is on the Fact Sheet. Comments received will be reviewed by the Navy and will be used as part of the decision process for selection of the preferred remedial action. The Navy's responses will be provided in the Responsiveness Summary section of the Record of Decision.

III. THE REMEDIAL PROCESS AND STATUS AT THE NIROP

[Overhead #2 - describe steps in Superfund process and how the NIROP is progressing through the steps.]

A. <u>Pre-Remedial</u>

1. In response to finding trichloroethylene in plant supply wells in 1981, the Navy began an investigation of on-site conditions. This initial investigation led to the removal of 43 buried drums and 1,200 cubic yards of soil in 1983. The drums and soil were disposed at USEPA-approved landfills.

2. Trichloroethylene (or TCE) is a solvent commonly used for metal degreasing, in dry-cleaning operations, in organic synthesis, and in refrigerants and fumigants. Degreasing of metal products accounts for almost 90 percent of all

TCE produced. As recently as 1975, TCE was used as an extractant in food processing. It was also used as an inhalation analgesic or anesthetic.

3. Releases of TCE into soil and ground water at the NIROP occurred in the past, possibly from some of the buried drums removed in 1983. All use of TCE at the NIROP was discontinued in 1987.

B. **Remedial Investigation (RI) and Feasibility Study (FS)**

[Read from overhead #2.]

1. Although the USEPA did not place the NIROP on the National Priorities List of sites until November 1989, the Navy began a remedial investigation and feasibility study for ground water in 1984, soon after completion of the drum removal project.

2. From 1984 through early 1988, 53 monitoring WATER wells were installed at and near the NIROP, and many ground water samples were collected and analyzed. These studies identified the extent of contamination in ground water and determined the best possible method to remove contamination.

3. The RI and FS were completed in 1988.

C. **Selection of Remedy**

[Read from overhead #2.]

D. **Proposed Plan/Public Comment/Remedy Selection**

[Read from overhead #2.]

The Navy has been working with the USEPA, the MPCA, and other state and local agencies toward selection and implementation of a remedial action alternative for contaminated ground water at the site. Representatives of these organizations and the Navy organized a Technical Review Committee, which has met 6 times at the NIROP, starting in February 1989, to coordinate activities on the project.

E. **Record of Decision**

[Read from overhead #2.]

Subsequent to a review of comments received during the public comment period, the Navy will prepare a draft R.O.D., which will be reviewed, and if approved, will be signed by the USEPA, the MPCA, and the Navy.

F. **Post-R.O.D.**

[Read from overhead #2.]

IV. PROJECT SCOPE AND SITE BACKGROUND [*Refer to overhead #3 - Site Plan.*]

A. Project Scope

1. Investigation to date has included the installation and sampling of a series of ground water monitoring wells on the NIROP property, at the Anoka County Park, and at other locations near the NIROP.

   [Show key site features on site plan.]

2. The results have been used to develop several alternatives for remedial action at the site.

3. Alternatives have been evaluated on the basis of technical feasibility, environmental and public health effects, and cost. This has lead to the proposed selection of a preferred alternative for implementation.

B. Ground Water Contaminants

1. Several organic and inorganic constituents have been identified in soil and ground water.

   [Overhead #4 - Plume Location]

2. Volatile organic compounds detected in ground water in addition to TCE include 1,1,1-trichloroethane; 1,2-dichloroethylene, tetrachloroethylene; 1,1-dichloroethane; toluene; xylenes and ethylbenzene. However, TCE is the best overall indicator of contamination since it is found more frequently and at higher concentrations than any other constituent.

C. Site Conditions

1. TCE has entered the ground water by leakage downward with rain water and snowmelt which percolates through contaminated soil.

   [Refer to overhead #5 - Cross Section.]

2. Ground water flows from northeast to southwest across the NIROP, through a thick deposit of sand and gravel beneath the site. The ground water discharges into the Mississippi River.

3. TCE has been detected in ground water monitoring wells both on the NIROP property and off-site at the Anoka County Parkland.

   [Refer back to overhead #4 - Site Plan.]

4. The highest levels in ground water are found off-site at the parkland along the river, and at three locations on the NIROP property.

5. The intake for the City of Minneapolis drinking water treatment plant draws water from the Mississippi River less than 1 mile downstream from the site.

D. **Public Health Evaluation**

1. Constituents which migrate through ground water from the NIROP discharge into the Mississippi River. The river provides a substantial amount of natural dilution for ground water entering the river.

2. Samples collected at the city water plant intake for the last 3 years have been analyzed for TCE and other contaminants. No contamination has been detected which exceeds national drinking water standards.

3. TCE is a suspected human carcinogen, and may pose a cancer risk if it is ingested through drinking water. The USEPA has defined a target range for acceptable risk to be conditions which would result in a likelihood that 1 person in 10 thousand persons to 1 person in 1 million persons would develop cancer from being exposed to those conditions. For example, at the lower end of this risk range, a risk of 1 in 1 million would be experienced by a person who drank approximately 2 quarts of water per day for 70 years which contained 3 parts TCE in 1 billion parts of water. As mentioned, concentrations of TCE or other similar compounds have not been detected at the water plant intake over the last several years.

4. To determine the risk which may result from worst-case conditions, a baseline public health evaluation was performed as part of the remedial investigation.

5. Because TCE is present at higher concentrations in ground water beneath the plant and the county park, the corresponding cancer risk would be greater if water supply wells were installed in the future at these locations. At the present time, there are no wells which collect this water for drinking water use.

V. DESCRIPTIONS OF PROPOSED REMEDIAL ACTION

A. **Objective**

Since there are presently no drinking water wells at the NIROP or in the county park near the NIROP, and there are no unacceptable risks at the Minneapolis water plant intake, the objective of the proposed remedial action is to recover and treat ground water containing TCE so that possible future risks are reduced.

B. **Evaluation of Alternatives**

1. The proposed action was selected after a range of possible alternatives were evaluated. These alternatives include the following:

   [Refer to overhead #6 - List of Alternatives.]

2. Each of these alternatives were evaluated using 5 criteria:

   [Refer to overhead #7 - Evaluation Criteria.]

3. Based on these criteria, it was determined that Alternative F: Ground Water Pumping and Treatment, provided the greatest level of protection and risk

reduction. It was also found that insufficient data was available to determine if remedial action was required for soils in the source areas, and, if so, what the appropriate alternative should be.

4. Therefore, at the present time, the Navy is proposing to implement the ground water pumping and treatment alternative. The Navy will also proceed with further soils investigations to determine if additional remediation is required.

C. **Major Components of Proposed Alternative**

1. The proposed remedial action will consist of several components.

2. Five pumping wells will be installed on NIROP property at locations which will allow the capture of ground water containing TCE. ***[Refer to overhead #8 for well locations.]*** These wells will be installed as soon as possible after the Record of Decision is signed so that immediate containment of ground water can be accomplished. Water will be conveyed through piping and, at the outset of the project, will be discharged to the Metropolitan Waste Control Commission's sanitary sewer system for treatment.

3. While this initial pumping program is under way, a ground water treatment plant will be designed and constructed at the NIROP. After the treatment plant becomes operational, treated ground water will be discharged to the Mississippi River using an existing storm sewer that receives storm water from the NIROP. The treated ground water will meet all required state of Minnesota standards.

4. The treatment system will be monitored to insure that it is providing the required level of treatment. Ground water samples will be collected over time to monitor the effectiveness of the ground water capture system and the improvement in ground water quality.

5. The estimated cost of the proposed ground water pumping and treatment alternative is $3.7 million, over an assumed duration of 30 years.

D. **Expected Results**

1. The immediate goal of the ground water pumping and treatment system is to contain ground water and to prevent further movement of TCE to the Mississippi River.

2. Over time, the objective will be to remove as much TCE as possible from the ground water and to restore ground water quality to the national drinking water standards for TCE, which is currently 5 parts per billion. This may require, at a minimum, several years of continuous operation.

VI. FUTURE WORK AT THE SITE

As mentioned earlier, there is presently not enough information to determine if remedial action is also required for soils at the site. The Navy is in the process of designing a

sampling program to collect additional data. Sampling work will be performed this summer, and the results will be used to evaluate the need for additional remedial action. If additional remedial action is required, the Navy will propose an alternative in a manner similar to what is presently being done, for review and comments by the MPCA, the USEPA, and the public.

*** Break - 15 minutes ***

VII. QUESTION AND ANSWER PERIOD

[Request speakers to go to podium and identify themselves.]

[Take registered speakers first, then open to general comments/questions.]