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July 16, 1992

Mr. James Shafer  
Northern Division  
NAVFACENGCOM 1821 J/S  
10 Industrial Highway; Mail Stop #82  
Lester, PA 19113-2090

**RE: Naval Industrial Reserve Ordnance Plant  
Fridley, Minnesota  
Contract No. N62472-90-C-1024  
RMT Project No. 2313.28**

Dear Jim:

Enclosed, for your use, are two copies of the final notes from Technical Review Committee Meeting #14 held at the Naval Industrial Reserve Ordnance Plant on June 17, 1992. Other copies of these notes have been distributed according to the attached Distribution List.

Doug Hildre of FMC Corp. informed me of a correction that needs to be made to the notes for TRC meeting #13, held on March 19, 1992. In the notes on page 6, item F.7., second paragraph, the words "a storm sewer" should be replaced with "the Hazardous Materials Storage Building."

Sincerely,

A handwritten signature in cursive script that reads "Eric Gredell".

Eric Gredell, P.E.  
Project Manager

jld

Enclosures

**DISTRIBUTION LIST  
MEETING NOTES  
TRC MEETING #14**

	<u>Number of Copies</u>
U.S. Army Corps of Engineers Omaha District Attn: Gene Liu 215 North 17th Street Omaha, NE 68102-4973	2
City of Fridley Department of Public Works Fridley Municipal Center Attn: Mark Winson 6431 University Avenue, N.E Fridley, MN 55432	1
Northern Division NAVFACENGCOM 1821 J/S Attn: Jim Shafer 10 Industrial Highway; Mail Stop #82 Lester, PA 19113-2090	2
Dick Hanson NAVSEA Technical Representative Naval Industrial Reserve Ordnance Plant; Code 55 5001 East River Road Minneapolis, MN 55421-1406	1
Naval Sea Systems Command Attn: Steven Hoffman CSEA 654-C Washington, DC 20362-5101	1
Minnesota Pollution Control Agency Site Response Section Ground Water and Solid Waste Division Attn: Steven Giddings 520 Lafayette Road St. Paul, MN 55155	1
U.S. Environmental Protection Agency Region V Remedial & Enforcement Response Branch OH/MN Section, Unit 1 (HSRM-6J) Attn: Tom Bloom 77 W. Jackson Blvd. Chicago, IL 60604-3590	1

**DISTRIBUTION LIST  
MEETING NOTES  
TRC MEETING #14**

	<u>Number of Copies</u>
FMC Corporation Attn: Doug Hildre 4800 East River Road Minneapolis, MN 55421	1
Metropolitan Waste Control Commission Attn: Leo H. Hermes, P.E./Michael Pliml, P.E. Mears Park Centre 230 East 5th Street St. Paul, MN 55101	1
Environmental Services Anoka County Courthouse Attn: Robert Hutchison, Director 325 East Main Street Anoka, MN 55303	1
Minnesota Department of Natural Resources Attn: Mr. Evan Drivas 500 Lafayette Road St. Paul, MN 55115	1
Minneapolis Water Works Attn: Mr. Adam Kramer 4300 Marshall Street NE Minneapolis, MN 55421	1
Defense Plant Representative Office FMC-Minneapolis Attn: Commander Daniel Hogan 4800 East River Road Minneapolis, MN 55421-5094	1
FMC Corporation Attn: Diane Maki 4800 East River Road Minneapolis, MN 55421	1
B&V Waste Science & Technology Corp. Attn: Margaret Casserly 230 West Monroe St.; Suite 2250 Chicago, IL 60606	1

**Minutes of Meeting  
Technical Review Committee Meeting #14  
June 17, 1992**

**Naval Industrial Reserve Ordnance Plant  
Fridley, Minnesota**

Technical Review Committee (TRC) meeting #14 was held at the Naval Industrial Reserve Ordnance Plant (NIROP) in Fridley, Minnesota, on June 17, 1992. A copy of the agenda distributed at the meeting and an attendance list are attached.

**A. Introductions**

1. Commander Hogan opened the meeting at approximately 1:00 p.m.
2. There were no comments on the notes for TRC meeting #13.
3. Commander Hogan announced that he will not be retiring from the Navy this summer as previously planned. He will continue as the commanding officer at the Defense Plant Representative Office (DPRO).
4. Jim Shafer introduced the following representatives of the USACE and MPCA who will be involved in the project:
  - Mr. Eugene Liu has been assigned as the Project Manager for the USACE-Omaha District, replacing John Japp.
  - Ms. Janet Ehresmann of the USACE-Omaha District has been involved in the engineering design for the groundwater extraction system and interim pretreatment system.
  - Mr. Michael Dodyk of the USACE-Chicago office will function as the USACE's liaison to the USEPA-Region V.
  - Mr. Steven Giddings has been assigned as the Project Manager for the MPCA, replacing Cynthia Kahrmann.

**B. Actions Since Last TRC Meeting**

1. Gene Liu presented the following status information regarding permits needed for operation of the groundwater extraction and pretreatment systems:

a. Groundwater Pretreatment System

The USACE is close to finishing negotiations with Morrison-Knudsen (M-K) to add a gas-phase activated carbon treatment unit to the interim pretreatment system. The remaining construction of the pretreatment system is expected to resume during the week of July 6, 1992. Allowing for time to deliver and install the remaining

pretreatment equipment, startup of the groundwater extraction and pretreatment systems is expected to occur by the end of August 1992.

b. MWCC Permit

Earlier on June 17, Michael Pliml of the MWCC hand-delivered to the DPRO an "unofficial" draft of the permit to be issued by the MWCC for the interim discharge of groundwater to the MWCC's sanitary sewer system. The Navy will provide review comments on the draft permit to the MWCC. The MWCC will then prepare and issue the final permit. A signature(s) by an authorized Navy representative is not required on the permit. A copy of the final permit will be sent by the DPRO to Steven Hoffman.

The unofficial draft permit indicates that an "add-on service charge" for the groundwater discharge will be required by the MWCC. Jim Shafer will call Michael Pliml to discuss the procedures for finalizing the permit and for processing payment of the add-on service charge. The final permit will be included as an appendix or attachment to the Remedial Action Workplan.

c. Groundwater Appropriation Permit

The USACE requested a revision of the permit to allow up to 600 gpm total flow from the groundwater extraction system. The MDNR issued a revised groundwater appropriation permit on June 5, 1992, which authorized a flow rate up to 600 gpm.

d. Air Emission Monitoring

On April 8, 1992, the MPCA sent a document titled "Monitoring Controlled Air Stripper Air Emissions at NIROP" to the USACE-Omaha. The document describes site-specific sampling and reporting requirements for monitoring the air emission from the gas-phase activated carbon unit included in the groundwater pretreatment system. It also defines actions required if allowable emission levels are exceeded. It was noted that these requirements had not been previously communicated to the Navy or USACE by the MPCA. A permit from the MPCA for the air emission from the groundwater pretreatment system is not required.

2. No information was available from the MPCA regarding status of the NPDES permit application.
3. It was agreed that the new MPCA requirements for air sampling and analyses for the gas-phase activated carbon unit emissions do not have to be addressed in the Quality Assurance Project Plan (QAPjP) included in the Remedial Action Workplan (RAWP). However, the air monitoring requirements will be included in a subsequent revision of the Remedial Action Monitoring Plan (part of the RAWP). Jim Shafer said that the Navy or USACE will make contract arrangements with RMT to provide all required sample collection and laboratory analyses for air emissions during the first 90 days following startup of the groundwater pretreatment system.
4. Tom Bloom reported that a conference call was held recently between the USEPA and RMT, to discuss the Quality Assurance Section (QAS) comments on the QAPjP included in the RAWP-Revision 1, which was issued in April 1992. During this discussion, the USEPA's comments were satisfactorily addressed.

It was agreed that revised pages of the QAPjP addressing the QAS comments will be issued as a "pre-draft proof copy" to the USEPA and MPCA for review. After receiving approval of the proof copy from the USEPA and MPCA, RMT will issue Revision 2 of the RAWP, which will consist only of the pages from the Workplan which contain revisions to the Revision 1 Workplan.

It was noted that no comments were provided by the USEPA-QAS on the QAPjP included in the RAWP-Revision 0; however, the QAS subsequently decided to review and comment on the QAPjP included in the Revision 1 Workplan, which addressed comments on Revision 0 provided by other USEPA reviewers. To lessen the effect of these sequential review procedures on the schedule for USEPA approval of the RAWP, the QAS has tentatively agreed to use a "quick turn-around" review procedure for the proof copy of the QAPjP-Revision 2.

5. Gene Liu said that M-K will provide copies of information from Carbonair Services to the USACE, describing details of the groundwater pretreatment system equipment furnished to M-K by Carbonair. This information will be combined with other information on the groundwater extraction system equipment, and will be included in a comprehensive Operation and Maintenance (O&M) Plan for the groundwater extraction and pretreatment systems.

It was agreed that the O&M Plan will now be issued as a single document incorporating both the information previously issued by RMT (the O&M Plan-Revision 1) and the additional information to be provided to RMT by the USACE. However, it was also agreed that the O&M Plan does not need to be approved by the USEPA and MPCA prior to startup of the groundwater extraction system. The complete O&M Plan is scheduled to be issued by September 30, 1992.

6. It was mentioned that RMT issued a final report titled "Evaluation of Alternatives for Pretreatment of Extracted Groundwater for the Phase I Remedial Action," on June 8, 1992.
7. Linda Hicken said that the RI/FS Workplan for the soil operable unit has been approved by the USEPA and MPCA. Jim Shafer will check the date of the correspondence from the USEPA to the Navy which included the approval, and will notify Linda Hicken.

Linda Hicken and Ron Vaughn gave a presentation on the status of fieldwork for the soil RI. Fieldwork is expected to be completed by June 19, 1992.

8. It was reported that an area of potential drum disposal was recently found while drilling soil borings for the RI. The area is located in the north 40, near the sump at the east end of the concrete decontamination pad. The drilling auger apparently penetrated a buried container which contained liquid. A sample of the liquid was collected from the buried container through the borehole, and the sample headspace was analyzed using a portable gas chromatograph (GC). The GC results indicated that the liquid is primarily Stoddard solvent, with some TCE, DCE, and heavier hydrocarbons also present. Samples of the liquid were also sent to the RMT Laboratories for quick turn-around analyses; the lab results will be sent to the USEPA and MPCA as soon as they are available.

Jim Shafer said that the Navy decided not to immediately begin an emergency removal action in the area, primarily due to the potential health hazards to NIROP workers and persons to the north of the NIROP property. The Navy decided to review the results from analysis of the liquid sample by the RMT Laboratories prior to taking further action. The Navy has requested FMC to make arrangements with an FMC remedial action contractor, Bay West, to perform an excavation in the area of the buried container during the week of June 22, 1992.

Representatives of Bay West attending the meeting said that fieldwork could begin on June 22. However, they preferred to receive the results of the lab analyses being performed by RMT prior to starting the excavation. The Navy will send the lab results to FMC as soon as they are available. It was estimated that the removal action fieldwork would require about one week, with the actual duration dependent on the number of buried containers found and the severity of soil contamination, health hazards while performing the work, and other factors.

Specific arrangements and procedures for the work were to be discussed following the TRC meeting by representatives of Bay West, FMC, the Navy, and RMT; the Navy will provide this information to the USEPA and MPCA prior to the start of fieldwork. It was noted that if drums are found, they will be removed to an appropriate disposal facility if it is believed this can be done safely. If necessary, excavated drums will be over-packed before moving them off-site. If it is decided that the drums cannot or should not be removed, the liquid contents will be pumped out for proper disposal, if possible. The material found in any drums will be sampled and analyzed, if necessary for disposal or if requested by the Navy, the USEPA, or the MPCA. The Bay West field crew will take photographs of the fieldwork and will prepare a log for each drum or container removed.

9. Commander Hogan mentioned that the area north of the NIROP contains a significant amount of fill material. An airport with hangars was located in this area in the past. Ron Vaughn said that drilling work performed by RMT has confirmed that fill material generally exists in this area in the first few feet; however, native soil material is found within a few feet of the surface.
10. Doug Hildre said that during the drum and soil excavation in the north 40 performed by the USACE in 1983, soil was generally removed only 1' to 2' below the level of the deepest drum in each excavation. He noted that because of these work procedures, relatively high levels of VOCs could still be present immediately below the levels of the drums removed in 1983.
11. Commander Hogan requested that FMC and Bay West coordinate the logistics of moving any heavy equipment needed for the removal action with the DPRO.

**C. Actions for Next Quarter**

1. The RAWP-Revision 2 will be issued by July 17, 1992.
2. Gene Liu said that M-K will be responsible for maintenance of all equipment in the groundwater extraction and pretreatment systems for 6 months after startup. Some maintenance work will be performed by subcontractors to M-K.

All equipment warranties will be turned over to FMC by the USACE within 6 months after startup. If manufacturers' warranties extend past one year, M-K will be responsible for maintenance or repairs under these warranties. M-K is under an Indefinite Delivery Contract with the USACE. Under this contract, M-K has the responsibility for warranties of all equipment and materials which they installed at the NIROP.

3. Jim Shafer said that the Navy is negotiating contract arrangements with RMT for the design of the long-term, on-site groundwater treatment facility. Design will begin soon after groundwater extraction system startup.
4. Doug Hildre reported on the status of the soil stockpiles in the north 40.

There are 4 soil stockpiles consisting of soil from storm sewer installation and construction of the new Hazardous Materials Storage Building, all done earlier this year. The soil has been classified according to the following "Categories:"

- Category 1: no contamination
- Category 2: primarily petroleum products contamination
- Category 3: primarily petroleum products contamination with some TCE
- Category 4: contamination levels above the land disposal criteria

Soil from the storm sewer installation is all Category 1. This soil will be hauled off-site for disposal or used on-site for general fill material. The Category 2 soil will be thermally treated off-site. FMC is currently planning to combine Category 3 and 4 soil for land application in the north 40, because analysis indicates the soils pass the TCLP. Bid documents are being prepared by FMC for handling all stockpiled soil. The draft bid documents will be sent to the MPCA for review in the same transmittal with the preliminary design documents for the soil vacuum extraction (SVE) system at the former Hazardous Waste Storage Area (HWSA) "C." It was noted that the MPCA land application guidelines prohibit land application of any contaminated soil after November 1, 1992.

**D. RCRA Status**

Darlene Weber gave a status summary for RCRA activities at the former HWSA "C."

A revised Closure Plan was sent to the MPCA by FMC in April 1992. The MPCA approved the Closure Plan on June 3, 1992. FMC is now preparing a workplan for implementing the closure; a draft of the workplan will be sent to the MPCA within two weeks. The proposed schedule is as follows:

7-15-92	Design 95% complete
8-11-92	All MPCA review comments to FMC
9-18-92	Out to bid
11-17-92	FMC issues notice-to-proceed to selected contractor
4-12-93	Construction completed

A soil vacuum extraction (SVE) system will be installed, consisting of 4 vacuum wells located on a 100'-square area. The wells will be finished at approximately 20' depth, which is about 3' above the average water table elevation. An enclosure will be provided for the vacuum blower

and related equipment, including a tank for condensate collection. The blower exhaust will be discharged to the air; if found to be necessary based on air monitoring results, activated carbon treatment of the blower exhaust will be added. The MPCA will apply the same allowable air emission requirements as used for the groundwater pretreatment system at the NIROP. A cap over the closure area is not planned; if found to be needed, a flexible membrane liner with topsoil cover will be placed over the area. The criteria for determining when the SVE system will be shut down are not included in the Closure Plan. FMC will submit a proposed plan with these criteria to the MPCA. A VOC other than TCE may be monitored to determine when the SVE system has reached its effective treatment limits.

**E. Community Relations**

1. Draft copies of a News Release and Fact Sheet were distributed. The News Release and Fact Sheet contain information on the startup of the groundwater extraction system, and the soil RI fieldwork. The Navy requested comments on the drafts. After addressing review comments, the Navy intends to mail the Fact Sheet to all persons on the previous mailing list.
2. Steven Giddings said that the MPCA has received several telephone inquiries regarding the property owned by Glacier Park Development Corporation, located to the north of the NIROP. These inquiries are primarily from potential tenants of the commercial development in this area, regarding the environmental and regulatory status of the commercial area and the NIROP.

He also reported that the National Geographic Society is considering preparing an article on the effects of groundwater contamination on the Mississippi River in the Twin Cities area; the NIROP could be included among the specific sites investigated for this article.

3. Tom Bloom said that the USEPA still intends to hold a public relations ceremony at the NIROP, sometime after startup of the groundwater extraction system. A tentative schedule for the ceremony is at the end of August 1992. Jim Shafer and Tom Bloom will advise persons at their respective offices of this tentative schedule, and will continue discussions between their offices to arrange for representatives at an approximate level of "political equivalency" to attend the ceremony.

**F. General Topics**

1. Galen Kenoyer gave a presentation describing the purpose and development of the groundwater flow model which RMT is preparing for the site. Jim Shafer noted that the Navy decided to have RMT prepare the comprehensive flow model to assist in management of the groundwater remedial action, although the model is not required by the Federal Facility Agreement or Record of Decision.
2. Jim Shafer gave a summary of information which he presented at the last TRC meeting, regarding plans for reorganization of the Navy office.

As of the end of FY 93 (October 1, 1993), the Northern Division (NORTHDIV) of the Naval Facilities Engineering Command (NAVFACENGCOM) will not manage environmental resoration projects for Navy activities west of Pennsylvania. As of



TECHNICAL REVIEW COMMITTEE (TRC) MEETING # 14  
17 JUNE 1992  
NIROP FRIDLEY, MINNESOTA

EXPECTED  
LIST OF ATTENDEES: (See attached sign-in  
sheet for actual list  
of attendees)

<u>NAME</u>	<u>ORGANIZATION</u>
Jeffrey Ciocco	NORTHDIVNAVFAC
James Shafer	NORTHDIVNAVFAC
John Betcher	MPCA
Steve Giddings	MPCA
Fred Jenness	MPCA
Craig Biglow	MPCA
Doug Hildre	FMC/NSD
Darlene Weber	FMC/NSD
John Flora	City of Fridley
Robert Hutchinson	County of Anoka
CDR Hogan	DPRO FMC Minneapolis
John Dresch	DPRO FMC Minneapolis
Sue Oetterer	DPRO FMC Minneapolis
Richard Hanson	NAVSEA
Kerry Morrow	NAVSEA
Eric Gredell	RMT, Inc.
Linda Hicken	RMT, Inc.
Galen Kenoyer	RMT, Inc.
Adam Kramer	Minneapolis Water Works
Mike Pliml	MWCC
Thomas Bloom	USEPA
Margaret Casserly	Black and Veatch
Evan Drivas	DNR
Eugene Liu	COE
Janet Ehresmann	COE
Sam Bass	COE
Mark Koenig	COE

## AGENDA

1. INTRODUCTION
2. ACTIONS SINCE LAST TRC MEETING
  - \* PHASE I GROUND WATER EXTRACTION SYSTEM
    - SYSTEM START UP
  - \* PERMITS
    - NPDES
    - MWCC
    - GROUNDWATER APPROPRIATIONS
    - AIR
  - \* PHASE I REMEDIAL ACTION WORK PLAN
  - \* PHASE I OPERATIONS & MAINTENANCE PLAN
  - \* GROUND WATER MODELING PRESENTATION
3. ACTIONS SCHEDULED FOR NEXT QUARTER
  - \* PHASE 2 DESIGN - PROPOSED SCHEDULE
  - \* FIELD WORK FOR SOILS OPERABLE UNIT
  - \* AREA C RCRA SITE
  - \* COMMUNITY RELATIONS
    - FACT SHEET/PRESS RELEASE PHASE
4. OTHER ISSUES/COMMENTS ?
5. NEXT TRC MEETING

TECHNICAL REVIEW COMMITTEE (TRC) MEETING  
 17 JUNE 1992  
 NIROP FRIDLEY, MINNESOTA

LIST OF ATTENDEES:

<u>NAME</u>	<u>ORGANIZATION</u>	
Jeffrey Ciocco	NORTHDIVNAVFAC	<i>Jeffrey Ciocco</i>
James Shafer	NORTHDIVNAVFAC	<i>James Shafer</i>
John Betcher	MPCA	<del><i>[Signature]</i></del>
Steve Giddings	MPCA	<i>Steve Giddings</i>
Fred Jenness	MPCA	<i>Fred Jenness</i>
Craig Biglow	MPCA	
Doug Hildre	FMC/NSD	<i>Doug Hildre</i>
Darlene Weber	FMC/NSD	<i>Darlene Weber</i>
John Flora	City of Fridley	
Robert Hutchinson	County of Anoka	
CDR Hogan	DPRO FMC Minneapolis	
John Dresch	DPRO FMC Minneapolis	<i>John Dresch</i>
Sue Oetterer	DPRO FMC Minneapolis	<i>Sue Oetterer</i>
Richard Hanson	NAVSEA	<i>Richard Hanson</i>
Kerry Morrow	NAVSEA	<del><i>[Signature]</i></del>
Eric Gredell	RMT, Inc.	<i>Eric Gredell</i>
Linda Hicken	RMT, Inc.	<i>Linda E. Hicken</i>
Galen Kenoyer	RMT, Inc.	<i>Galen Kenoyer</i>
<del>Adam Kramer</del> <del>Harry Cole</del>	Minneapolis Water Works	<i>Harry Cole</i>
Mike Pliml	MWCC	
Thomas Bloom	USEPA	<i>Thomas Bloom</i>
Margaret Casserly	Black and Veatch	<i>M. Casserly</i>
Evan Drivas	DNR	
Eugene Liu	COE	<i>Eugene Liu</i>
Janet Ehresmann	COE	<i>Janet Ehresmann</i>
<del>Sam Bass</del> MIKE DODYK	COE	<i>Michael Dodyk</i>
Mark Koenig	COE	
JAN Williams / Stephen Gross	BAY WEST INC	<i>Jan Williams / Stephen A. Gross</i>