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February 5, 1991

PW91-28

Mr. James Shafer
Department of the Navy
Naval Facilities Engr. Command
U.S. Naval Base, Bldg. 77L, Code 1421
Philadelphia, PA 19112-5094

SUBJECT: Minutes of Technical Review Committee Meeting of
December 6, 1990

Dear Mr. Shafer:

I have reviewed the minutes of the December 6, 1990, TRC meeting and wish to make the following comments.

1. Item 3, Para. 3 - If I recall correctly, the comment regarding the Navy's responsibility according to the ROD was made by yourself and not by me.
2. Item 5, Para. 2 - The way the minutes read, Doug Hildre is saying that water FMC is receiving from the City of Fridley is contaminated with TCE above the federal MCL. To our knowledge, this is not the case. Mr. Hildre should either produce laboratory results proving this statement or either delete or modify this sentence in the minutes.

Thank you for the opportunity to review the minutes of the December 6, 1990, meeting. I hope the minutes will be changed based on my comments.

Sincerely,



Mark A. Winson, P.E.
Assistant Public Works Director

MAW/kn



RMT, Inc.
744 Heartland Trail
P.O. Box 8923
Madison, WI 53708-8923
Phone: 608-831-4444
FAX: 608-831-3334

January 18, 1991

Name and Location of Project: Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota

Contract No.: DACA45-86-C-0015
Modification No. P00008 & P00009

U.S. Army Corps of Engineers
Omaha District
Attn: CEMRO-ED-ED-2 (John Japp)
215 North 17th Street
Omaha, NE 68102-4978

Dear John:

Enclosed, for your use, are 7 copies of the final Conference Notes for TRC meeting #8 held at the NIROP on December 6, 1990. Other copies of the final notes have been distributed according to the attached Distribution List.

Sincerely,

Eric Gredell, P.E.
Project Manager

tfr

Enclosures

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FINAL CONFERENCE NOTES
TRC MEETING #8
DECEMBER 6, 1990

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12565 West Center Road
Omaha, NE 68144-3869

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Attn: James Shafer - Code 1421
U.S. Naval Base - Northern Division
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Philadelphia, PA 19112

Defense Plant Representative Office 1
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4800 East River Road
Minneapolis, MN 55421-5094

Naval Sea Systems Command 1
Attn: Steven Hoffman
CSEA 654-C
Washington, DC 20362-5101

Minnesota Pollution Control Agency 1
Site Response Section
Division of Solid & Hazardous Waste
Attn: Mark Lahtinen
520 Lafayette Road
St. Paul, MN 55155

U.S. Environmental Protection Agency, 1
Region V
Remedial & Enforcement Response Branch
OH/MN Section, Unit 1 (5HS-11)
Attn: Tom Bloom
230 South Dearborn Street
Chicago, IL 60604

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FINAL CONFERENCE NOTES
TRC MEETING #8
DECEMBER 6, 1990

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FMC Corporation
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4800 East River Road
Minneapolis, MN 55421

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Metropolitan Waste Control Commission
Attn: Leo H. Hermes, P.E.
Mears Park Centre
230 East 5th Street
St. Paul, MN 55101

1

**CONFERENCE NOTES
TECHNICAL REVIEW COMMITTEE MEETING #8
DECEMBER 6, 1990**

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

Technical Review Committee (TRC) meeting #8 was held at the Naval Industrial Reserve Ordnance Plant (NIROP) in Fridley, Minnesota, on December 6, 1990. A copy of the agenda distributed at the meeting and an attendance list are attached.

The meeting was opened by Commander Chattin. Jim Shafer presented a brief summary of the status of the Record of Decision (ROD) for the ground water operable unit. The final ROD was signed by the Assistant Secretary of the Navy, the MPCA, and the USEPA on September 25, 26, and 28, 1990, respectively.

A. Ground Water Recovery System

1. The U.S. Army Corps of Engineers (USACE) awarded a contract to M-K Environmental Services (M-K) in September 1990 for construction and startup of the ground water recovery system.
2. Mark Koenig described the status of construction of the recovery system. Fieldwork began during the week of November 20, 1990. Construction of the yard piping and pump control building is presently underway. Test borings for well AT-4 have been completed; test borings for well AT-5 will be finished within 10 days. Completion of construction and startup of the recovery system is currently scheduled for sometime in March 1991.
3. Jim Shafer mentioned that, according to the ROD, the Navy must collect data regarding hydraulic capture effectiveness of the recovery system and submit a document to the MPCA and the USEPA within 90 days after recovery system startup. This document will include the Navy's determination regarding whether or not the recovery system is effectively capturing contaminated ground water from the site, and will also include the supporting data for this determination.
4. M-K will prepare an operation and maintenance (O&M) plan for the ground water recovery system, under their contract with the USACE. There is presently no schedule for completion of this O&M plan.
5. Mark Lahtinen will check whether the MPCA must review or approve the O&M plan. He said the MPCA and the USEPA must approve the ground water monitoring plan for the recovery system.
6. Eric Gredell mentioned that RMT, Inc., had prepared the draft and final ROD for the ground water operable unit, under a contract with the USACE. Although not explicitly defined in the ROD, the term "after startup" of the ground water recovery system was intended to indicate the point in time at which the complete ground water recovery system had been through an initial "shake-down" period after the pumps were initially started up. Tasks performed during the shake-down period might include pump

performance testing; piping system and valve checkout for leaks, pipe support adjustments, etc.; and checkout of electrical controls and instruments (flow recorder, alarms, etc.). The end of the start-up period would be defined as the point in time at which all system components are functioning properly as designed, the construction contractor has corrected all punch-list items, and the recovery system is turned over from the construction contractor (M-K) to the long-term O&M contractor for the system. This would be the point in time from which the required submittal due dates specified in the ROD would be measured.

7. Jim Shafer noted that the Naval Sea Systems Command (NAVSEA), which is the owner of the NIROP, has indicated that the Navy prefers to make arrangements for FMC Corp. to operate and maintain the ground water recovery system over the long term. However, discussions with FMC regarding these arrangements apparently have not been initiated by the Navy. Jim Shafer said he will follow up on the status of these arrangements.
8. John Japp mentioned that M-K will collect a limited number of ground water samples and perform lab analyses during the initial 1 to 2 months following startup of the ground water pumps. The USACE has not made any arrangements for a contractor to be responsible for long-term O&M of the ground water recovery system.
9. Evan Drivas noted that the MDNR needs a minimum of 1 month to process the ground water appropriation permit application. John Japp will check with M-K regarding their schedule for preparing and submitting this application. Doug Hildre mentioned that FMC has provided certain information to M-K, which is probably related to the ground water appropriation permit application.

B. Status of Site Investigations

1. The first of two rounds of ground water sampling were performed by RMT during the first two weeks of October. All lab results for these samples have been received. The schedule for the second round of ground water sampling has not been finalized; the second round will be completed before startup of the ground water recovery system.
2. Fieldwork for the soil boring and sampling program was completed on November 17, 1990. Soil samples are currently being analyzed at the RMT Laboratory.
3. The USACE recently received permission from the Burlington Northern Railroad (BNRR) to install two new monitoring wells on BNRR property, upgradient of the NIROP. However, this permission was received too late to allow the wells to be installed during the fieldwork for the soil boring program, as planned. The two new wells may be installed during fieldwork for the second ground water sampling round, or possibly at a later date.
4. Copies of draft Quality Control Plans and Sampling Plans (QCP-SP) for the ground water sampling and soil investigation program have been sent to the MPCA and the USEPA for review, and comments have been received by the Navy and the USACE. Jim Shafer noted that after the Architect-Engineer (A-E) was hired by the USACE, and after the draft planning documents were completed, the Navy was informed by the USEPA that the USEPA would not review or accept any of the data produced by the Navy related to chemical or physical characterization of soil at the NIROP, without a

Quality Assurance Project Plan (QAPP) approved by the USEPA prior to sample collection and analysis. The USEPA has not yet provided written approval of the planning document for the soil investigation work being conducted by the Navy. The Navy intends to request this approval following revisions to the Draft QCP-SP for soil to address MPCA/USEPA review comments, and re-formatting of the document to be consistent with USEPA QAPP format.

5. Jim Shafer noted that the Navy intends to conduct a second round of soil sampling and analyses, subsequent to an approved QAPP by USEPA - Region V, possibly by the fall of 1991.
6. In response to an inquiry by Mark Winson, Jim Shafer said that Fridley Well #13 will be sampled during the second ground water sampling round in early 1991. Mark Winson noted that detection levels for this sample must be at least at the federal Drinking Water Standards. He said the City would also like to know if the ground water pumpout as part of the NIROP cleanup action will have any effect on water quality at Fridley Well #13.

Mark Winson mentioned that Well #13 is primarily used in the summer to help meet peak demand periods. He said the city does not sample water from Well #13. FMC analyzed some samples from Well #13 a few years ago, which showed no contamination. However, no samples have been collected since that time. Two wells located northeast of the city had to be shut down due to contamination. The City is concerned about current water quality at Well #13, and possible effects on water quality due to the ground water pumpout action at the NIROP.

Mr. Winson will check which lab methods, detection limits, and test parameters are used for testing the other city wells, and will provide this information to Jim Shafer.

C. Ground Water Treatment/Re-use

1. Jim Shafer noted that the ROD requires the Navy to complete final design documents for the on-site ground water treatment facilities within 365 days after the ground water recovery system is determined to be operating effectively. The Navy has made a preliminary selection of an A-E to perform the design; however, the name of the firm cannot be released until the selection process has been finalized.
2. Jim Shafer informed the committee that the Navy recently received a letter from the Minnesota DNR advising the Navy of the MDNR's policy regarding re-use of treated ground water from remediation or corrective action projects. Two re-use options were noted in the letter: 1) for municipal potable water supplies; and 2) for industrial uses. The MDNR's letter indicated that this policy should be addressed as part of the design for the ground water treatment facilities at the NIROP.

Evan Drivas noted that the MDNR's preferred option is re-use of treated ground water to supplement municipal potable supplies. He said the MDNR has requested information from the Navy regarding the Navy's plans for complying with the MDNR's water re-use policy, to be submitted to the MDNR within 6 months after the MDNR issues the ground water appropriation permit. Jim Shafer noted that 6 months is too short a time to prepare and submit these plans.

3. Jim Shafer said the Navy is concerned about the practical and public perception implications of using treated ground water from a cleanup action at a Superfund site as a supplement to a municipal water supply system. The Navy is concerned whether the public would approve of or accept this approach. Mr. Shafer also noted that it is not the Navy's responsibility to present this issue to the public, since the Navy's responsibilities under the CERCLA action include ground water remediation in accordance with the ROD, which does not require re-use of treated ground water. He also noted that the Navy is not responsible for the additional costs related to improvement of the treated water quality to meet all potable water supply standards, or delivery of the water to a municipal water distribution system. However, Mr. Shafer mentioned that the Navy is willing to work with the MDNR and any other interested parties to evaluate alternatives related to re-use of the treated ground water.

Mark Winson said that the City of Fridley wants the Navy to investigate possible alternatives for supplementing the city's water system with the treated NIROP ground water. He said the city believes the alternatives should at least be identified and reviewed, before a decision would be made that re-use for potable water supply was not feasible. He mentioned that other communities in the area, such as New Brighton, have already investigated similar options for re-use of treated ground water from other Superfund sites, including the TCAAP site. The City Council would make the decision whether the city would like to proceed with any viable re-use alternative that may be developed. The city would be responsible for additional costs for potable water re-use, such as chlorination, fluoridation, and iron and manganese removal.

* Mr. Winson noted that the Navy's responsibility according to the ROD is to remediate the aquifer to the federal MCLs, not remediate the recovered ground water to these levels. Effluent standards for the treated ground water to be discharged to the river would be defined in the NPDES permit issued by the MPCA, as provided in the ROD.

4. Gary Eddy mentioned that the MPCA intends to revise their policy regarding prohibiting re-injection of treated ground water to allow this practice under certain circumstances. The schedule for issuing this revised policy is undetermined. It was acknowledged that re-injection of treated ground water at the NIROP would be a viable alternative, due to the soil characteristics.
5. Adam Kramer mentioned that the newly appointed City Engineer for Minneapolis, Richard Strough, is opposed to the discharge of treated ground water to the river near the NIROP, due to the proximity of the NIROP upstream of the Minneapolis water treatment plant intake. This opposition stems from three primary concerns:
- The concept is bad in general, and especially because it does not address the possible cumulative effect of contaminants from sources upstream of the NIROP.
 - There could be equipment failures that could result in breakthrough or bypass of partially treated or untreated ground water in the discharge to the river.
 - The city may have to meet lower Drinking Water Standards in the future.

Mr. Kramer also said that the City of Minneapolis is not interested in supplementing the city's potable water system with treated ground water from the NIROP. Mr. Kramer

* then excused himself from the meeting. Doug Hildre mentioned that the City of Minneapolis has not expressed any concern regarding the current discharges of non-contact cooling water from the NIROP to the river, even though the water, which comes from the City of Fridley supply, is contaminated with TCE above the federal Maximum Contaminant Levels.

6. Regarding possible water re-use alternatives at the NIROP, Doug Hildre said that approximately 1 year ago, FMC evaluated the economics of installing a new chiller system for the machine shop. The chiller system would use a once-through cooling water supply from the new ground water recovery wells to be installed as part of the remedial action. Machine shop cooling water currently is obtained from the plant water system, which is supplied from the City of Fridley system. The evaluation showed that the new chiller system with tie-in to the ground water piping could not be justified at that time, due to the cost to install the piping connections. However, the city is planning to increase the water use rates to FMC by approximately 50% in the near future. This will make re-assessment of alternatives for re-use of treated ground water in the plant worthwhile. Depending on the recovered ground water flow volume, there is a question regarding whether a sufficient number of re-use points could be found at the NIROP to take all of the ground water flow. Doug Hildre estimated that it may be possible to identify re-use points for 300 to 400 gpm of ground water. FMC has already made some plans to cut the amount of water used at the NIROP from the Fridley system. For example, two large air compressors had been using 250 gpm of cooling water from the plant supply. A new closed-loop cooling water system is being installed which will substantially reduce the water use at these compressors.
7. It was mentioned that the printing company located to the north of the NIROP may be a possible location for re-use of treated ground water, for cooling water supply to printing presses and other equipment. Doug Hildre mentioned that the new 20-inch water main that was recently installed along the north NIROP security fence was intended to supply a large volume of water to the printing company, as well as improve reliability of the fire protection supply in the area.
8. Jim Shafer asked which groups should be involved in discussions regarding the re-use of treated ground water. It was mentioned that the City of Fridley and the Minnesota DOH should be involved in these discussions.

D. RCRA Issues

1. Jim Shafer mentioned that it is the Navy's understanding that the soil at former Hazardous Waste Storage Area C will be addressed under RCRA, with ground water at Area C addressed under the CERCLA action. Bruce Brott said that there is nothing in writing stating that ground water at Area C will be addressed under CERCLA, although soil will definitely be addressed under RCRA. Doug Hildre noted that the RCRA Part B permit application indicated that ground water cleanup would be under CERCLA. Bruce Brott then said that the Part B permit states that ground water remediation would be addressed under RCRA.

It was noted that this issue will be clarified in the Inter-Agency Agreement (IAG). The IAG will indicate that soil at Area C will be addressed under RCRA, with ground water at the entire NIROP site, including Area C, to be addressed under CERCLA. The IAG

will also clarify how the RCRA permit requirements will relate to the CERCLA remedial action.

2. The RCRA closure plan for Area C requires a soil investigation report to be submitted to the MPCA by January 21, 1991. This date was set based on projections made several months ago regarding the schedule for the Navy's soil investigation program, which included samples collected at Area C. Because the soil investigation work began later than had been projected, the data from the investigation will not be available in time to allow a separate report to be prepared and submitted to the MPCA by the January 21 due date.

E. Community Relations

1. Interviews of elected officials and other community representatives were performed in August. Information obtained from the interviews was used to prepare a draft Community Relations Plan (CRP). The Draft CRP was sent to the MPCA and the USEPA on November 2, 1990.
2. Copies of an MPCA Office Memorandum dated November 17, 1990, from Katherine Carlson to Mark Lahtinen, were distributed at the meeting. The memorandum contained review comments on the Draft CRP. Mark Lahtinen noted that the MPCA will have no further comments on the Draft CRP. The USEPA has not provided any review comments.
3. The Navy issued a news release, a Fact Sheet, and a newspaper ad, and also notified the local news media by telephone, following signing of the ROD in September.

F. Schedules

1. The USACE will provide a schedule for construction and startup of the ground water recovery system to the MPCA and USEPA, with a name and telephone number of a point of contact for the agencies to check on construction status.
2. A Quality Control Summary Report (QCSR) presenting the results and QC information from the soil sampling program may be issued by mid-January 1991. A Draft Technical Memorandum presenting an analysis of the soil investigation results may be issued by mid-March 1991. RMT will summarize a production schedule for the QCSR and Technical Memorandum, and the projected schedule for the second ground water sampling round, and will send this information to the Navy and the USACE, to be relayed to the TRC members. The schedules will be included with the notes prepared for this meeting, or sent to the TRC members prior to issuing the meeting notes.
3. The IAG will require quarterly progress reports to be issued to the MPCA and USEPA. Since the TRC meetings are held on a quarterly basis, the Navy intends to meet this requirement by issuing TRC meeting notes on a timely basis. The meeting notes would include an updated schedule of key events and outputs.
4. The next TRC meeting is scheduled for March 7, 1991, 1:00 p.m., at the NIROP.

G. General Topics

1. All TRC members will be added to a mailing list to receive copies of all test results and any monitoring data.
2. None of the groups represented on the TRC have collected river water samples at the water plant intake for several years. The City of Minneapolis samples quarterly in the distribution system, but not at the intake. Adam Kramer suggested that river samples should be collected at the intake semi-annually. It was noted that the second round of ground water sampling to be performed by RMT in the first quarter of 1991 does not include river sampling. No decision was made regarding whether river sampling would be done by the Navy or another group.
3. Gary Eddy mentioned that the regulatory agencies have revised their project oversight agreement. The USEPA and the MPCA are now sharing a joint lead. Jim Shafer noted that until now, the Navy had been informed that the MPCA was the lead support agency.
4. Gary Eddy noted that the Navy had been requested by the USEPA to postpone the fieldwork related to the soil investigation, until a QAPP for this work had been approved by the USEPA. Jim Shafer explained that the Navy could not postpone this work, since this request from the USEPA was received well after the contract for the work had been awarded to the A-E, and shortly before the fieldwork was planned to begin. Mr. Shafer said that the Navy anticipated claims may have been filed by the A-E for work stoppage, if the Navy had agreed to the USEPA's request. Mr. Shafer assured the TRC that any future soil investigations would only be conducted subsequent to Region V QAPP approval.
5. The next IAG negotiations are scheduled for January 16 and 17, 1991.

Note: Next TRC meeting to be held on March 7, 1991, 1:00 p.m., at the NIROP.

TECHNICAL REVIEW COMMITTEE (TRC) MEETING
6 DECEMBER 1990
NIROP FRIDLEY, MINNESOTA

LIST OF ATTENDEES:

<u>NAME</u>	<u>ORGANIZATION</u>
Bruce Brott	MPCA
James Shafer	NORTHDIVNAVFAC
Jeff Ciocco	NORTHDIVNAVFAC
John Betcher	MPCA
Craig Biglow	MPCA
Mark Lahtinen	MPCA
Fred Jennes	MPCA
Gary Eddy	MPCA
Tom Schaub	MPCA
Doug Hildre	FMC/NSD
John Japp	Corps of Engineers, Omaha
CDR James Chatten	DPRO FMC Minneapolis
Mel Buesseler	DPRO FMC Minneapolis
Dick Hanson	DPRO FMC Minneapolis
Keith Lura	DPRO FMC Minneapolis
Robert Hutchinson	County of Anoka
Steve Termont-Schenk	Warzyn Engineering, Subcontractor for USEPA
Mark Winson	City of Fridley
Evan Drivas	DNR
Ron Vaughn	RMT, Inc.
Tom Koch	RMT, Inc.
Eric Gredell	RMT, Inc.
Adam Kramer	Minneapolis Water Works
Navneet Tiku	MWCC
Mike Pliml	MWCC

AGENDA:

1. INTRODUCTION
2. STATUS OF GROUND WATER REMEDIAL ACTION AT NIROP
 - * Record of Decision
 - * Remedial Action Construction
 - * Permits
3. COMMUNITY RELATIONS PLAN
 - * COMMUNITY CONCERNS RAISED DURING INTERVIEWS
4. STATUS SOIL BORING AND MONITORING WELL PROGRAM
5. OTHER ISSUES ?
6. QUESTIONS/COMMENTS

SIGN IN SHEET

TECHNICAL REVIEW COMMITTEE (TRC) MEETING
8 DECEMBER 1990
WIROP FRIDLEY, MINNESOTA

LIST OF ATTENDEES:

<u>NAME</u>	<u>ORGANIZATION</u>	
Bruce Brott	MPCA	<u>Bruce Brott</u>
James Shafer	NORTHDIVNAVFAC	<u>James Shafer</u>
Jeff Ciocco	NORTHDIVNAVFAC	<u>Jeffrey Ciocco</u>
John Betcher	MPCA	<u>John Betcher</u>
Craig Biglow	MPCA	<u>(did not attend)</u>
Mark Lahtinen	MPCA	<u>Mark Lahtinen</u>
Fred Jennes S	MPCA	<u>Fred Jennes</u>
Gary Eddy	MPCA	<u>Gary Eddy</u>
Tom Schaub	MPCA	<u>Tom Schaub</u>
Doug Hildre	FMC/NSD	<u>Doug Hildre</u>
John Japp	Corps of Engineers, Omaha	<u>John Japp</u>
CDR James Chattin	DPRO FMC Minneapolis	<u>James Chattin (612) 572-6369</u>
Mel Buesseler	DPRO FMC Minneapolis	<u>Mel Buesseler</u>
Dick Hanson	DPRO FMC Minneapolis	<u>Richard Hanson</u>
Keith Lura	DPRO FMC Minneapolis	<u>Keith Lura</u>
Robert Hutchinson	County of Anoka	<u>(did not attend)</u>
Steve Termont-Schenk	Warzyn Engineering, Subcontractor for USEPA	<u>Steve Termont-Schenk</u>
Mark Winson	City of Fridley	<u>Mark Winson</u>
Evan Drivas	DNR	<u>Evan Drivas</u>
Ron Vaughn	RMT, Inc.	<u>(did not attend)</u>
Tom Koch	RMT, Inc.	<u>(present; part-time)</u>
Eric Gredell	RMT, Inc.	<u>Eric Gredell</u>
Adam Kramer	Minneapolis Water Works	<u>Adam Kramer</u>
Navneet Tiku	MWCC	<u>(did not attend)</u>
Mark KOENIG	COE	<u>Mark E. Koening</u>