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January 2, 1992

Mr. James Shafer  
Naval Facilities Engineering Command  
U.S. Naval Base - Northern Division  
Building 77L; Code 1421  
Philadelphia, PA 19112

Re: Naval Industrial Reserve Ordnance Plant  
Fridley, Minnesota  
Contract No. N62472-90-C-1024; Amendment No. 2  
RMT Project No. 2313.08

Dear Jim:

Enclosed, for your use, are two copies of the final notes from Technical Review Committee Meeting #12, held at the Naval Industrial Reserve Ordnance Plant on December 5, 1991. Other copies of these notes have been distributed according to the attached Distribution List.

Sincerely,

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

Eric Gredell, P.E.  
Project Manager

2313.08:MSE:shafer

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TRC MEETING #12**

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Fridley Municipal Center  
Attn: Mark Winson  
6431 University Avenue, N.E.  
Fridley, MN 55432

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Attn: James Shafer - Code 1421  
U.S. Naval Base - Northern Division  
Building 77 L  
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Defense Plant Representative Office  
FMC-Minneapolis  
Attn: NAVSEA Technical Representative Dick Hanson  
4800 East River Road  
Minneapolis, MN 55421-5094

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

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Minnesota Pollution Control Agency  
Site Response Section  
Ground Water and Solid Waste Division  
Attn: Cynthia Kahrmann  
520 Lafayette Road  
St. Paul, MN 55155

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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

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TRC MEETING #12**

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**Minutes of Meeting  
Technical Review Committee Meeting #12  
December 5, 1991**

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

Technical Review Committee meeting #12 was held at the Naval Industrial Reserve Ordnance Plant (NIROP) in Fridley, Minnesota, on December 5, 1991. A copy of the agenda distributed at the meeting and an attendance list are attached.

**A. Introductions**

1. Jim Shafer opened the meeting at 1:00 p.m.
2. It was noted that Mark Winson did not receive a copy of the notes for TRC meeting #11. RMT will send a copy to him.

**B. Actions Since Last TRC Meeting**

1. **MWCC Permit:** Clyde Giaquinto said that he had no information regarding the status of the application for the MWCC permit. This permit is for the Phase I ground water discharge to the sanitary sewer. The permit application will be prepared by the USACE.
2. **Ground Water Appropriation Permit:** Clyde Giaquinto said that he had no information regarding the status of the application for the ground water appropriation permit. This permit will be issued by the MDNR. The permit application will be prepared by the USACE.
3. Clyde Giaquinto gave a summary of construction status for the ground water pumpout system.

Four extraction wells have been installed. Aquifer pumping tests at each well will be run after the USACE finalizes their contract with Carbonair Services, to furnish a temporary air stripping system for the ground water from the pumping tests.

The following new monitoring wells have been installed: 12-I; 13-I; 14-I; 16-D; 16-I; and 17-S. Construction of well 17-D will begin soon. Casings are nearly completed for the following wells: 15-D; 15-I; and 26-S.

The USACE's contractor, Morrison-Knudsen (M-K), has determined that the extraction well pumps must be fitted with Teflon® wetted parts, for resistance to TCE in the ground water. These pumps will be special-order items, with an 8- to 10-week delivery time. The estimated schedule for receipt of the pumps at the site is March 1992. However, the USACE has not yet discussed this recommendation for pump materials of construction with M-K.

4. Tom Bloom said that the pump design approved by the USEPA in the final design documents prepared by the USACE called for stainless-steel pumps. He commented that the need for Teflon®-fitted pumps should have been identified during design, which would have eliminated the need for a 10-week delivery time. Jim Shafer said that the decision has been made to proceed with the Teflon®-fitted pumps. Doug Hildre said that this involves retrofitting the specified Grundfos pumps with Teflon® seals and Teflon®-coated impeller. However, he noted that the pump order cannot be placed until the design flow and pump horsepower are determined, which depends on the results from the aquifer pumping tests.
5. Doug Hildre said that FMC has installed in-plant piping to supply ground water from the pumpout system to the location of an air compressor for cooling. Estimated cooling water flow rates are 120 gpm minimum to 250 gpm maximum. The demand is expected to be nearly continuous. Backflow preventers are being installed on the connection to the existing plant water system, which will provide emergency backup cooling water supply.
6. Eric Gredell gave a summary of the recommendations from the Ground Water Reuse Study Report. The report was issued on December 2, 1991. Evan Drivas said that the MDNR will provide review comments on the report to the Navy within 45 days. The following persons and groups requested additional copies of the report: Cindy Kahrman (two copies); Doug Hildre (two copies); Mark Winson (one copy); and MDOH (one copy). RMT will send the requested copies.
7. RI/FS for Soil: The following information was presented related to the RI/FS for soil at the NIROP:
  - a. Linda Hicken reported that comments on the draft Workplan for the soils operable unit were received from the MPCA and the USEPA on November 20, 1991. (The Agencies had requested and were granted a 20-day extension of the original October 31 comment deadline.) Linda noted that many of the comments were related to the review of the aerial photographs and that representatives from the MPCA, the USEPA, the Navy, FMC, and RMT were planning to meet after the TRC meeting to view the photographs together. It was also noted that the Navy would be requesting a 20-day extension to the schedule for preparing written responses to the Agencies' comments and for producing the draft-final Workplan. The revised deadline for these submittals will be January 24, 1992.
  - b. In response to the MPCA's comments regarding evidence from the aerial photographs of potential past disposal activities north of the NIROP and on FMC's property, Jim Shafer commented that the Navy is willing to conduct investigations on government-owned property but not on property owned by others, unless it is in the Navy's best interest. Responses to specific MPCA comments will be provided in the formal reply to comments.
  - c. Doug Hildre reported that approximately 3,400 cubic yards of soil were removed from the new hazardous materials storage building area and are now stockpiled in the North 40. None of these soils will be used to backfill the building excavation. FMC plans to land farm and/or send the stockpiled soils to an off-site asphalt plant; this action will not occur, however, until next spring

because the asphalt plant is not in operation during the winter. FMC plans to place tarps over some of the stockpiles, depending on the laboratory results.

The excavation was completed at the water table which was at 23 feet below ground surface. Confirmation samples were collected from within the excavation; laboratory results for VOCs and TPH are expected on December 6. Based on visual indications, contaminated soils appear to remain on the west face of the excavation. In addition, the south wall looks clean but "hits" (with a field detector) were noted. The excavation area will be backfilled with clean fill brought from off-site. Each truckload of fill material will be "screened" for potential VOC contamination prior to use.

- d. Margaret Casserly stated that she had observed some dark lenses and some red lenses in the sidewalls of the trenches that were dug for the stormwater sewer construction project. She said that the staining was several feet thick and many feet long. She had photographs that she would share with interested parties after the TRC meeting. She could not tell if there were any odors because of the exhaust from the heavy equipment.
8. Jim Shafer said that the storm sewer construction work done recently in the North 40 provided approximately 1,500 cy of excess cut material from the trenching. The original plan was to dispose this soil off-site. However, it was stockpiled in the North 40 for possible use as fill material for the excavation being done at the new hazardous materials storage building area.
- During the sewer trenching work, three crushed drums were found in the cut material near the ground surface. The drums were found at the location of a former scrap metal shredding area, near existing railroad tracks. It is believed that the drums were not associated with a past burial pit or trench; the crushed drums were probably uncovered near the ground surface in a scrap metal area, and were only pulled into the earthwork from the sewer trenching operation.
- Jim Shafer said that the soil from the sewer trenching will temporarily remain stockpiled in the North 40. The Navy is considering options for disposition of the soil; the Navy's recommended option will be discussed with the MPCA and the USEPA.
9. Eric Gredell gave a status summary on the ground water flow model being prepared by RMT. It was noted that John Betcher has had discussions with Jeff Ciocco regarding input assumptions for the model. The model is being prepared entirely by RMT, without assistance from a subcontractor.
10. Eric Gredell summarized the preliminary recommendation from an evaluation of interim pretreatment alternatives being prepared by RMT for the USACE. RMT's preliminary recommendation is to use liquid phase activated carbon treatment for pretreatment of ground water under Phase I of the ground water remediation program, until the on-site ground water treatment system is operational.
11. Clyde Giaquinto said that the "milky white substance" found while drilling for Area C monitoring wells was not found at other drilling sites. The USACE has not received laboratory results for the sample of the white substance collected by the MPCA.

C. Actions Scheduled for Next Quarter

1. Jim Shafer said that the signed NPDES permit application was sent to the MPCA, with the application fee. Pete Sanders said that he is the permit engineer assigned to process the application. The permit application was received by the MPCA, and is currently being logged in. Pete Sanders presented the following information related to the permit application process:

The subject application is actually for a modification to an existing NPDES permit. The MPCA's review process for a modification is the same as the process for a new permit. The first step after log-in is a review for completeness of the application. The MPCA reviewers will consider whether existing data address all contaminants of concern. MPCA toxicologists will also perform a review. If all necessary information is provided or available in reference documents already provided to the MPCA, a draft permit modification will be prepared. A minimum 30-day public notice period will follow the MPCA's completion of the draft permit. The MPCA will notify the Navy prior to issuing the draft permit for public notice. The draft permit will be mailed by the MPCA to all persons or groups in Anoka and Hennepin Counties who have requested to be placed on the MPCA's distribution roster. If any person from the general public requests a meeting during the public notice period, the MPCA is required to hold the meeting. If a contested case hearing is requested, the matter must be brought before the MPCA Board of Directors. The draft permit modification may be ready for public notice in a minimum of 2 to 3 months.

2. Jim Shafer said that the City of Minneapolis has expressed its concern regarding the discharge of treated ground water to the river. However, the Record of Decision specified discharge to the river. Nevertheless, the Navy is sensitive to the concerns of the city and others, and will address these concerns in the design of the ground water treatment facilities.

3. Jim Shafer said that, at the last TRC meeting, an MPCA representative stated that an air emission permit would probably be required for the air discharge from a stripping column. It was also stated that a significant time period is required to obtain the permit, which could delay startup of the ground water remediation.

George Bollweg said that this statement was incorrect. The MPCA does not have an air permit process which would be applicable to an air stripping column. The MPCA does have draft guidelines for preparing screening calculations to determine whether a control system would be required for the air discharge. The MPCA previously provided these draft guidelines to RMT. The MPCA Air Quality Division wants to receive a copy of the screening calculation sheets, even if the results indicate that no air emission controls are required.

Pete Sanders said that, based on the MPCA's experience from other sites, the public may be concerned about the air discharge from a stripping column.

4. Clyde Giaquinto said that the scheduled startup date for the ground water pumpout system is March 1992. Doug Hildre said that this date was based on the assumption that the USACE would issue a contract modification to M-K, to furnish the temporary air stripping system and other work items, by November 22, 1991. It now appears that the modification will not be issued until December 6. This indicates that startup will not occur until April 1992.

5. Clyde Giaquinto said that 10 to 14 days are required after issuing the contract modification to have the air stripping system delivered to the site. Allowing time for air stripper setup, the aquifer pumping tests will not be run until January 6, 1992, at the earliest.

The temporary air stripping equipment will be set up inside a temporary prefabricated building, on a concrete foundation. Carbonair Services will furnish and erect the equipment. The USACE's original contract with M-K did not include the temporary air stripping system, because at that time, several questions related to the operating conditions for the system were unknown. After sufficient information was available, some administrative delays were encountered related to finalizing the air stripping system procurement.

6. Tom Bloom said that the USEPA will send their review comments on the draft (Rev. 0) Field Sampling Plan and Site Safety and Health Plan by December 13, 1991.
7. Tom Bloom said that the USEPA will submit review comments on the draft Operation and Maintenance Plan; however, the submittal date was not mentioned. The USEPA will approve startup following approval of the O&M Plan prepared by RMT; the portion of the O&M Plan to be prepared by the USACE can be submitted for approval after startup. The MPCA will inform the Navy whether the MPCA will submit review comments on the draft O&M Plan.
8. Jim Shafer said that RMT will perform the initial ground water sampling during startup. FMC will then assume responsibility for sampling. However, Doug Hildre said that arrangements have not been finalized with the USACE defining the duration of the "hand-off period" from the USACE's contractor (M-K) to FMC for system operation responsibility. He said that 2 weeks is a sufficient hand-off period if a temporary air stripping system is not used; if air stripping is included, a period longer than 2 weeks is needed.
9. Jim Shafer asked about responsibility for system repairs if there are problems with pumpout system or pretreatment equipment within a few months after startup. Clyde Giaquinto said that M-K provides a 1-year warranty on all of their work. However, this warranty may not cover the equipment; equipment may be covered only by manufacturers' warranties. C. Giaquinto will check the USACE/M-K contract regarding the type of warranties provided by M-K. It is presumed that problems with the pumpout system which are not covered by warranties provided by M-K would be the responsibility of FMC.
10. Doug Hildre said that a project is scheduled over the Christmas shutdown to replace Broadway Street. At the preconstruction meeting, FMC will brief their contractors regarding appropriate safety precautions in the event that potentially contaminated soil or materials are encountered. However, FMC does not foresee any environmental problems, because only the existing concrete is scheduled for removal.
11. Jim Shafer said that the Navy is considering options for managing the stockpiled soil in the North 40. He said the Navy only recently became aware of the situation regarding stockpiled soil. Tom Bloom mentioned his concern about protecting the piles from rain, disturbance from equipment, etc. Cindy Kahrman said that it had been previously agreed by the Navy that the stockpiled soil would be sampled and tested, for the "full range" of analyses. Jim Shafer said that this agreement is not

applicable to the existing soil stockpiles, which are part of the removal project for soil associated with construction of the new hazardous materials storage building. He noted that the Navy is developing a specific plan for the stockpiles and will submit the plan to the MPCA and the USEPA for review.

12. Jim Shafer said that the Navy is currently negotiating a contract with RMT for design of the ground water treatment system (GWTS). As part of the predesign work, RMT will visit the TCAAP to observe their ground water treatment facilities.

**D. RCRA Status**

1. Darlene Weber gave a status summary for former Hazardous Waste Storage Area C.

FMC met with the MPCA-RCRA staff in August 1991 to discuss closure requirements. FMC then retained RMT to prepare a Closure Alternatives Study. This study was recently submitted to the MPCA. It evaluated 18 closure alternatives, which were screened down to three viable alternatives. The study recommended use of SVE for soil treatment at Area C. Three vacuum extraction wells would be installed, with the air discharge to the atmosphere. Gary Eddy said that review comments on the study will be sent to FMC soon. After resolution of the MPCA's comments, FMC will modify and resubmit the Closure Plan, and after approval of the plan by the MPCA, will design and implement the closure. The schedule for closure completion is uncertain, due to funding issues. Gary Eddy said that the MPCA was pleased with the recommended alternative in the Closure Alternatives Study.

**E. Community Relations**

The Navy will issue separate Fact Sheets addressing 1) startup of the ground water pumpout system, and 2) start of the RI for soil. Procedures for issuing these Fact Sheets will be similar to the procedures used for the previous Fact Sheet, including the mailing list. The Fact Sheet for the soil RI may be issued at the time the final RI Workplan is approved.

**F. General Topics**

1. Jim Shafer mentioned a concern expressed by Adam Kramer at the last TRC meeting regarding safeguards which the Navy will design into the GWTS. The Navy is aware of these concerns, and is willing to discuss specific design criteria with the city.
2. Doug Hildre suggested that Steve Hoffman and Dick Hanson should be informed about the temporary air stripping system which will be installed for the aquifer pumping tests.
3. Mark Winson said that Fridley will not be able to receive any of the treated ground water from the TCAAP in the summer, since it is expected that New Brighton will use the entire volume produced at the TCAAP. Alliant Technology Systems is the contractor that constructed the GWTS at the TCAAP; the contact there is Marty McQuerry.

4. Cindy Kahrmann expressed a concern regarding an apparent lack of set procedures for managing potential remedial issues which may arise during general construction activities at the NIROP. Jim Shafer said that a list of all proposed construction projects at the NIROP was obtained from and reviewed with Dick Hanson after the last TRC meeting. The Navy is aware of planned construction projects and will manage all related environmental issues. The recent storm sewer construction project in the North 40 area had been discussed with the MPCA and the USEPA prior to starting the work. No further construction is planned in the North 40.
5. Tom Bloom's new address and telephone number are:

Remedial and Enforcement Response Branch  
OH/MN Section  
77 West Jackson Blvd.  
Mail Code HSRM-6J  
Chicago, IL 60604  
312/886-1967
6. The next TRC meeting will be held on **April 2, 1992, at 1:00 p.m.** in the Defense Plant Representative Office at the NIROP Fridley.

TECHNICAL REVIEW COMMITTEE (TRC) MEETING # 12  
5 DECEMBER 1991  
NIROP FRIDLEY, MINNESOTA

EXPECTED  
LIST OF ATTENDEES: (See sign-in list of attendees)

<u>NAME</u>	<u>ORGANIZATION</u>
James Shafer	NORTHDIVNAVFAC
Jeff Ciocco	NORTHDIVNAVFAC
John Betcher	MPCA
Gary Eddy	MPCA
Tom Schaub	MPCA
Paul Gerbec	MPCA
Pete Sanders	MPCA
George Bollweg	MPCA
Cindy Kahrman	MPCA
Robert Hutchinson	County of Anoka
Tom Koch	RMT, Inc.
Eric Gredell	RMT, Inc.
Linda Hicken	RMT, Inc.
Thomas Bloom	USEPA
Margaret Casserly	Black and Veatch
Mike Pliml	MWCC
Larry Cole	Minneapolis Water Works
Mark Winson	City of Fridley
Doug Hildre	FMC/NSD
Sue Oetterer	DPRO FMC Minneapolis

AGENDA:

1. INTRODUCTION
2. ACTIONS SINCE LAST TRC MEETING
  - \* PERMITS
    - NPDES
    - MWCC
    - GROUNDWATER APPROPRIATIONS
    - AIR
  - \* CONSTRUCTION PROGRESS FOR PHASE I
  - \* PHASE I MONITORING PLAN
  - \* PHASE I OPERATIONS & MAINTENANCE PLAN
  - \* SYSTEM STARTUP - OPERATORS
  - \* GROUNDWATER REUSE STUDY
  - \* RIWP SOILS OPERABLE UNIT
    - SCHEDULE
3. ACTIONS SCHEDULED FOR NEXT QUARTER
  - \* GROUNDWATER MODELING
  - \* PRE-TREATMENT ALTERNATIVES FOR PHASE I
  - \* PHASE I SYSTEM START UP
  - \* PHASE 2 DESIGN
  - \* AREA C RCRA SITE
  - \* FACT SHEETS
    - SYSTEM START UP
4. QUESTIONS/COMMENTS

SIGN IN SHEET

TECHNICAL REVIEW COMMITTEE (TRC) MEETING  
5 DECEMBER 1991  
NIROP FRIDLEY, MINNESOTA

LIST OF ATTENDEES:

<u>NAME</u>	<u>ORGANIZATION</u>	
James Shafer	NORTHDIVNAVFAC	<i>James Shafer</i>
Jeff Ciocco	NORTHDIVNAVFAC	
John Betcher	MPCA	<i>John Betcher</i>
Paul Gerbec	MPCA	
Gary Eddy	MPCA	<i>Gary E. Eddy</i>
Tom Schaub	MPCA	
Pete Sanders <sup>b.g.</sup>	MPCA	<i>Peter Sandberg</i>
George Bollweg	MPCA	<i>George Bollweg</i>
Cindy Kahrman	MPCA	<i>Cynthia Kahrman</i>
Thomas Bloom	USEPA, Region V, Chicago, IL	<i>Thomas Bloom</i>
Mark Winson	City of Fridley	<i>Mark H. Winson</i>
Eric Gredell	RMT, Inc.	<i>Eric Gredell</i>
Linda Hicken	RMT, Inc.	<i>Linda E. Hicken</i>
Tom Koch	RMT, Inc.	<i>Thomas E. Koch</i>
Larry Cole	Minneapolis Water Works	<i>Larry Cole</i>
Mike Pliml	MWCC	
Margaret Casserly	Black and Veatch	
Robert Hutchinson	County of Anoka	
Doug Hildre	FMC/NSD	<i>Doug Hildre</i>
Sue Oetterer	DPRO FMC Minneapolis	
DARLENE WEBER	FMC/NSD	
Eric Dumas	DNR	<i>Eric Dumas</i>
Clyde Giaginta	Corps of Engineers	<i>Clyde Giaginta</i>