

August 1, 1994

Commanding Officer
Southern Division
Naval Facilities Engineering Command
Attn: David Cabiness; Code 1869
P.O. Box 190010
North Charleston, SC 29419-9010

Re: Naval Industrial Reserve Ordnance Plant
Fridley, Minnesota
Contract No. N62472-90-C-1024
RMT Project No. 2826.03

Dear David:

Enclosed, for your use, are two copies of the notes from Technical Review Committee meeting #21 held at the Naval Industrial Reserve Ordnance Plant on June 23, 1994. Other copies of these notes have been distributed according to the attached Distribution List.

Sincerely,



Eric Gredell, P.E.
Project Manager

amt

Enclosures



RMT, INC. — MADISON, WI
744 HEARTLAND TRAIL — 53717-1934
P.O. Box 8923 — 53708-8923
608/831-4444 — 608/831-3334 FAX

**DISTRIBUTION LIST
MEETING NOTES
TRC MEETING #21**

Number of Copies

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| City of Fridley Department of Public Works Fridley Municipal Center Attn: Mark Winson 6431 University Avenue, N.E Fridley, MN 55432 | 1 |
| Kerry Morrow NAVSEA Technical Representative Naval Industrial Reserve Ordnance Plant 5001 East River Road Minneapolis, MN 55421-1406 | 1 |
| Naval Sea Systems Command Attn: Steven Hoffman CSEA 654-C Washington, SC 20362-5101 | 1 |
| Minneosta Pollution Control Agency Site Response Section Ground Water and Solid Waste Division Attn: David Douglas 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 |
| United Defense LP Armament Systems Division Attn: Doug Hildre 4800 East River Road Minneapolis, MN 55421 | 1 |
| Metopolitan Waste Control Commission Attn: Leo H. Hermes, P.E./Michael Flaherty Mears Park Centre 230 East 5th Street St. Paul, MN 55101 | 1 |

**DISTRIBUTION LIST
MEETING NOTES
TRC MEETING #21**

Number of Copies

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 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 United Defense-Minneapolis Attn: Commander Mike Stephenson 4800 East River Road Minneapolis, MN 55421-5094 | 1 |
| B&V Waste Science & Technology Corp. Attn: Margaret Casserly 101 North Wacker Drive, Suite 1100 Chicago, IL 60606 | 1 |
| Commanding Officer Southern Division Naval Facilities Engineering Command Attn: David Cabiness, Code 1869 P.O. Box 190010 North Charleston, SC 29419-9010 | 2 |

**Minutes of Meeting
Technical Review Committee Meeting #21
June 23, 1994**

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

Technical Review Committee (TRC) meeting #21 was held at the Naval Industrial Reserve Ordnance Plant (NIROP) in Fridley, Minnesota, on June 23, 1994. A copy of the agenda distributed at the meeting and an attendance list are attached.

A. Introductions

1. David Cabiness opened the meeting.
2. Paul Koski, representing the Minneapolis Water Works, and Pat Mosites, representing the Naval Facilities Engineering Command, were introduced. Pat Mosites has been assigned to assist David Cabiness with the environmental activities at the site. He will be the public relations manager for the Navy at the NIROP, and will prepare and distribute draft agendas for TRC meetings, arrange access clearance for visitors for activities on this project, and other tasks. He is also the Resident Engineer In Charge Of Construction (REICC), stationed at the NIROP. In that role, he will be the Navy's primary technical representative at the plant for all construction related to environmental restoration. Pat's phone # is 612-572-6438.
3. Tom Bloom said that the minutes prepared for TRC meetings also serve as quarterly progress reports required in the Federal Facility Agreement (FFA). To address comments that TRC members may have on any meeting minutes, it was agreed that TRC members will send written comments to the Navy's project manager within 30 days after receipt of the minutes. The Navy will discuss the comments with their author by telephone prior to the next meeting. At the next meeting, an addendum will be distributed to address the revisions to the minutes of the preceeding meeting.
4. Comments on the minutes for TRC meeting #20 (held on April 21, 1994) were provided to the Navy and RMT by the MPCA and USEPA. The procedure noted under item 3. above will be used to address these comments.

B. Actions Since Last TRC Meeting

1. The Annual Monitoring Report for 1993 was issued on May 31, 1994. It was agreed that the report titled "Determination of Groundwater Containment System Effectiveness - Revision 0," issued in December 1992, fulfilled the requirement for an Annual Monitoring Report for operation of the groundwater extraction and pretreatment system in 1992.
2. Tom Bloom said that the USEPA will send comments on the 1993 Annual Monitoring Report to the Navy and RMT, to become part of the Administrative Record for the site. He said the USEPA believes that certain statements in the report regarding air

emissions from the groundwater pretreatment system are incorrect. The MPCA will also send review comments on the report to the Navy and RMT.

3. Southern Division is using Northern Division of Naval Facilities Engineering Command's Comprehensive Long-Term Environmental Action, Navy (CLEAN) contract to provide environmental consultation services at NIROP related to the soils operable unit. The CLEAN contractor is Halliburton NUS. Arrangements are being made for RMT to function as a subcontractor to Halliburton NUS to prepare the focused feasibility study for soil and related tasks.
4. Tom Bloom suggested that the Navy should prepare a "flow chart" to show the various entities and relationships involved in the Navy's contracting arrangements. David Cabiness said this information will be available for distribution in the near future.
5. Representatives from the Navy and the City of Fridley met at the city's offices on May 26, to discuss the city's request to receive treated groundwater from the NIROP to supplement the city's potable water supply system. Jim de Lambert of Bruce A. Liesch Associates Inc. discussed issues related to the city's request with RMT representatives immediately after the TRC meeting. Bruce A. Liesch Associates has provided consulting services to the city related to problems with VOC contamination of the city's water supply system.
6. John Betcher said that the MPCA recently took water level readings at several monitoring wells to the northeast of the NIROP, to define the groundwater flow system in that area. Water level measurements at some of the NIROP monitoring wells were also taken. The purpose of this investigation by the MPCA is to evaluate the extent of groundwater contamination attributable to two sites, Kurt Manufacturing Company and Dealers Manufacturing Company, located northeast of the NIROP. The MPCA will send the water level data from this investigation to David Cabiness.
7. The Navy, USEPA, and MPCA have participated in telephone conference calls held on the second and fourth Friday each month, as agreed during TRC meeting #20. These calls will continue.
8. The MPCA will send the Navy and RMT some revisions to the MPCA's soil leaching model results that were previously distributed.
9. Documents from another Minnesota Superfund site that identified state applicable or relevant and appropriate requirements (ARARs) were sent by the MPCA to the Navy, as examples of general state ARARs that should be evaluated for the NIROP soil feasibility study (FS). David Douglas should be contacted if there are questions regarding interpretation of these example ARARs or how they may relate to the NIROP.
10. Tim Ruda gave a report on recent operation and maintenance of the groundwater extraction and pretreatment system. The packing in the air stripping column has been replaced. Attempts to clean the packing by flushing with HCl or H₂SO₄ solutions inside the column were unsuccessful. An attempt was also made to clean fouled packing that was removed from the column in a 40% HCl solution at the NIROP plating shop. This method was only marginally successful; approximately 1 day was required to dissolve the scale, which was predominantly hardened CaCO₃. It was decided to replace the packing instead of return the partially cleaned packing to the column.

The average total groundwater flow rate in May was higher than the rate in April, due to a greater amount of system downtime in April. The total groundwater flow rate is currently 350 gpm. The typical flow rate from wells AT-1A, AT-2, and AT-4 is 55 gpm each. AT-3A currently produces about 185 gpm. It was noted that the original design flow rate for wells AT-1A, AT-2, and AT-4 combined was 325 gpm, compared to the actual combined flow from these 3 wells of 165 gpm. Tim Ruda said he believes the cause of this flow reduction is primarily excessive pressure headloss in the piping system at the location of the Control House and Pretreatment Building, rather than problems with scaling and restriction of the cross-sectional area within the pipelines. This hypothesis is based on a recent pumping test where AT-2 produced 160 gpm when operating without the other wells on-line, but with all 4 wells operating during the same test, AT-2 only produced 55 gpm.

11. United Defense sent a letter to the MPCA proposing a reduced list of parameters that must be monitored for compliance with the Allowable Emission Rates for the air emissions from the groundwater pretreatment system. The reduced list would include only the compounds that have been detected in air monitoring samples since system startup. Revised monitoring procedures that were proposed include use of TCE as an indicator for tracking VOC breakthrough of the activated carbon bed. Air emission quality would be checked on a monthly basis using a portable organic vapor monitor (OVM). Air samples would be collected for laboratory analysis every 3 months. Historical trends of air monitoring data would also be evaluated to develop a means for predicting when carbon breakthrough will occur. Carbon bed life is currently about 5 months. United Defense recently purchased a combination photoionization detector/flame ionization detector (PID/FID) which will be used for the air monitoring. FID readings have been taken in combination with air sampling for laboratory analysis, to evaluate correlations between these monitoring methods. The MPCA Air Quality Division and the Navy are currently reviewing the requested procedure revisions.
12. A working copy of the workplan for upgrading the groundwater extraction system was provided to the Navy by RMT immediately before the start of the TRC meeting. After addressing the Navy's comments, the workplan will be sent to the USEPA and MPCA by July 8, 1994. Tom Bloom said that the due date for the workplan was July 5, 1993.

C. Actions for Next Quarter

1. A meeting will be held with the Navy, USEPA, MPCA, and RMT at the NIROP on July 28 at 10:00 a.m., to discuss the workplan for upgrading the groundwater extraction system. The purpose of the meeting will be to discuss comments from the USEPA and MPCA on the workplan, and if possible, receive their approval of the proposed approach for the upgrade so design of the improvements can begin.
2. The due date for the Alternatives Report for the soil operable unit was March 15, 1994. Tom Bloom noted that the Navy will not be in compliance with the FFA until this report is submitted. David Cabiness said that up to 6 months could be cut from the soil FS schedule if the content of the Alternatives Report can be incorporated directly into the Focused FS Report, and the Alternatives Report submittal is eliminated.

Tom Bloom said that the Alternatives Report is required under the basic Superfund procedures, and the report is necessary for the USEPA to select a legally defensible

remedial action for soil at the site. He said the report is required to comply with existing regulations and to address the public's concerns regarding site cleanup. The Alternatives Report is a "primary document" specified in the FFA. He said the Alternatives Report could be bound into the Focused FS Report, or issued as a separate Volume with the Focused FS Report, but it must be prepared.

David Douglas said it would be necessary to amend the FFA to allow the Alternatives Report to be eliminated. He said this procedure is likely to require more time and effort than the time and effort required to prepare the report.

David Cabiness said that RMT's scope of work will include preparation of the Alternatives Report. However, the Navy will send a letter to the USEPA and MPCA requesting that the Alternatives Report submittal be deleted, with the justification for this request.

3. David Cabiness said that several revisions of the Operation and Maintenance (O&M) Manual have been issued, which has caused difficulty in verifying whether the appropriate parties have received all revisions and have an up-to-date manual. Kerry Morrow said that the Navy, United Defense, RMT, and the USEPA all should have the current version of the manual. David Cabiness said the Navy will compile and re-issue the current edition of the manual, which will not include copies of manufacturers' equipment information included in the original manual. Persons receiving the re-issued manual will be asked to review their copy of the complete manual and notify the Navy if any missing information is identified. Tom Bloom said it is still necessary for the USEPA to formally approve the complete O&M Plan, in its current revision status. He said it is acknowledged that the O&M Plan will continue to be revised in the future as changes to the facilities are made. However, all revisions must be approved by the USEPA.
4. David Douglas distributed a preliminary schedule for the NPDES permit process, prepared by Caroline Voelkers of the MPCA (copy attached). A public meeting will be held during the public comment period on the draft permit only if a sufficient number of written requests for a meeting are received by the MPCA. David Douglas said that if revisions are needed to the discharge flow rate or other data listed in the original permit application submitted in September 1991, Caroline Voelkers at the MPCA should be contacted. Additional written comments can be submitted during the public comment period for the draft permit to advise of revised conditions that are current at that time.
5. The USEPA and MPCA have not completed their review of the USEPA and MPCA soil leaching models, to determine which model will be used for the soil FS. John Trepanowski said that resolution of which model will be used and the remedial action objectives that will be applied is needed soon. Tom Bloom said the decision regarding which model to use and the specific remedial action objectives will be provided to the Navy before the subcontract arrangements between Halliburton NUS and RMT are concluded.

D. RCRA Status

No topics related to the status of RCRA activities were discussed.

E. Community Relations

All documents that were previously in the document repository at the Anoka County Library have been moved temporarily to the NIROP and consolidated. Arrangements will be made for the Fridley City Clerk to come to the NIROP to see the document files. The city will then attempt to find a location in the city to relocate the document repository, to provide easier access to the documents for the public. It was agreed that locating the documents at the NIROP is impractical due to the level of security and access procedures at the plant.

F. General Topics

1. Documents submitted directly from RMT to the USEPA and MPCA will include a statement in the transmittal letter, when appropriate, indicating that the document is being submitted on behalf of the Navy. This will signify that the Navy has approved and concurs with the document contents.
2. David Douglas requested the Navy to provide a schedule for completion and submittal of all overdue documents.
3. Tom Bloom said the FFA dictates schedules for the project, not the Navy's contracting mechanisms. Contracting problems that the Navy may experience will not be allowed to delay progress toward site remediation.
4. Recent contract arrangements will now require all documents issued by RMT related to the soil operable unit to be sent initially to Halliburton NUS for technical review, then to Southern Division of the Navy. Halliburton's contract is with Northern Division of the Navy. This is not expected to result in additional administrative problems that would affect work progress.

Tom Bloom questioned whether Halliburton NUS could provide a knowledgeable review of the documents without an understanding of past project activities and events. John Trepanowski said that a quality control review for general technical content will be performed by Halliburton, which will not require knowledge of historical events at the site. David Douglas expressed a concern that additional parties in "the loop" may cause delays. He said that as long as the schedules specified in the FFA are met, the MPCA will not object to the Navy's contracting arrangements.

5. Tom Bloom said the primary goal of the USEPA at this time is to get the project back into compliance with the FFA.
6. John Flora said he believes that removal of iron and manganese from the groundwater is necessary prior to groundwater treatment for VOC removal. He said this is based on the city's experience operating 2 water supply wells that pump groundwater from the unconsolidated aquifer. The discharge from these 2 wells is treated through a sand filter to minimize scaling problems in the distribution system due to iron. He said the Jordan aquifer near the NIROP is known to be contaminated. FMC completed a soil cleanup project at their site to the south of the NIROP, but no cleanup of the Jordan aquifer was included in that action or is planned for the NIROP cleanup. He said the bedrock aquifer is being evaluated as part of ongoing cleanup actions for the Kurt Manufacturing site and other sites in the area. He said that although no

contamination has been detected at city Well #13, the city believes that contamination in the Jordan aquifer is not being adequately addressed by the NIROP cleanup action.

John Betcher said that the bedrock aquifer was adequately addressed during the remedial investigation. Five monitoring wells at the site that are finished in the bedrock have been sampled several times, and the analysis data show that the bedrock groundwater quality is not of concern. Tom Bloom said that the city's questions will be addressed; however, the USEPA also believes that the bedrock groundwater quality is not of concern. He said the public meeting held after issuing the Proposed Plan for groundwater remediation provided an opportunity for the public to raise any such concerns.

It was agreed that follow-up discussions between Bruce A. Liesch Associates and RMT will continue regarding the information obtained on the bedrock aquifer quality during the remedial investigation.

7. Morrison Knudsen Company will be the Navy's construction contractor for the facilities to upgrade the groundwater extraction system. The schedule for construction and startup of these facilities is currently under review by the Navy.
8. Permanent shutdown of well AT-1A will not be proposed in the draft workplan for upgrading the groundwater extraction system. However, the feasibility of doing this may be evaluated again in the future.
9. David Cabiness said the Navy intends to treat groundwater to meet the NPDES permit limits for discharge to the river. The treated water could be provided to the city, who will be responsible for treating the water to meet potable water standards. Gary Eddy said the Navy is not required to provide treated groundwater to the city at a quality beyond that required to comply with the Record of Decision.
10. Tom Bloom suggested that the Navy should consider seeking reimbursement from the USACE for the re-design of the groundwater extraction system that will be required to correct the existing hydraulic problems.
11. A copy of the laboratory results from analysis of a sample from Fridley Well #13 collected in May 1994 was provided to John Flora and David Douglas.
12. The next TRC meeting will be held on Thursday, September 8, 1994, at 10:00 a.m. in the Defense Plant Representative Office (DPRO) at the NIROP Fridley.

NIROP FRIDLEY TRC MTG #21
JUNE 23, 1994
AGENDA

1. Introduction
2. Corrections to Minutes of TRC #20.
3. Actions since last meeting.

Navy/RMT

- Annual Monitoring Report
- GWES Upgrade workplan draft
- Award of contract to prepare the Alternatives Report and Feasibility Study Report for Soil. Schedule for completing report.
- Navy Assistant RPM at NIROP Fridley
- O&M Manual for Groundwater Extraction System
- Letters to MPCA and MWCC requesting formal approval of sampling and sampling analysis modifications.
- Meeting between City of Fridley/US Navy 26 May 1994
- Issue Public Notice announcing new location for the repository
- City of Fridley/US Navy Meeting of 26 May 1994

United Defense

- Maintenance & Monitoring Activities
- Letter to MPCA requesting approval of modification to current monthly sampling schedule for monitoring air emissions from the carbon vessel.

MPCA

- Schedule for NPDES permit process

City of Fridley

- Availability of space at Fridley Municipal Center for Repository
- Navy & City's Technical Consultants are exchanging information

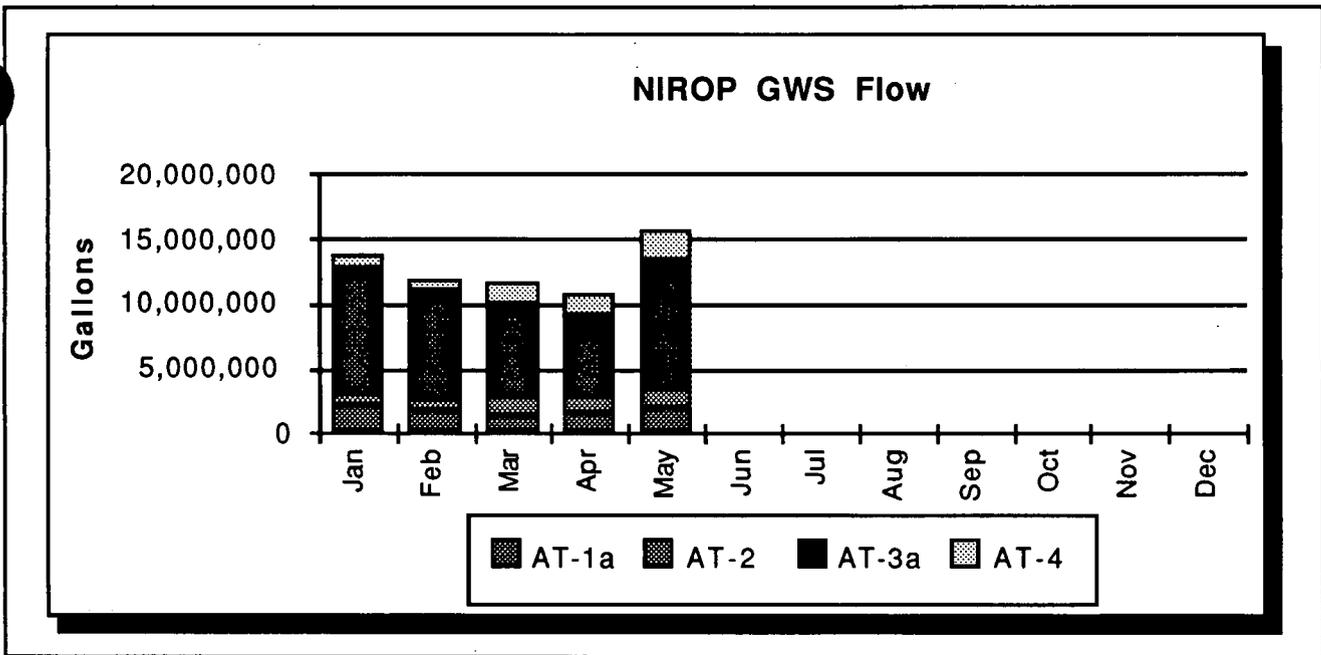
4. Actions scheduled for next six months

- Obtain NPDES Permit
- Preliminary design of the new Groundwater treatment facility(GWTF)
- Upgrade of GWES
- Completion of GWTF design

5. Other issues/comments

- Status of Mt Simon/Jordan aquifer contamination
- Consideration of shutting down well AT-1A
- Conference calls between Southdiv, USEPA, MPCA, and RMT

6. Next TRC Meeting



NIROP Maintenance Activities April 1st to June 23rd

- * CLP sampling event (including Fridley Well 13) conducted May 11, 12.
- * Carbon Vessel replaced June 10.

Planned Activities

- * Quarterly Water level readings June 28
- * Review alternative approaches to scrubber operation/cleaning.
- * Conduct monitoring well and extraction well sampling August 10.

June 17, 1994

Schedule for Public Notice and Issuance of NPDES Permit
for NIROP Facility in Fridley

The following schedule assumes that I get all comments from the Permittees by July 31, 1994, and that there are no time consuming issues raised from those comments that need to be resolved prior to public notice. Those portions of the schedule that are after the public notice date assume an extra 30 days (after the end of the notice period) to deal with issues that may come up during the notice period. These dates are very tentative since I expect there will be a good deal of public comment which could take longer than anticipated to resolve.

Receive comments from Permittee: July 31, 1994

Finalize draft permit and send out public notice: August 17, 1994

End of public notice period: September 14, 1994

Final issuance of permit: October 31, 1994

If there are any questions, please contact me at 296-7716.

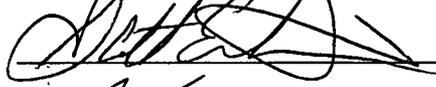
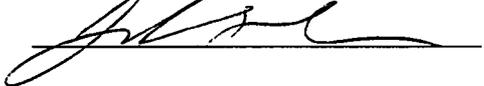
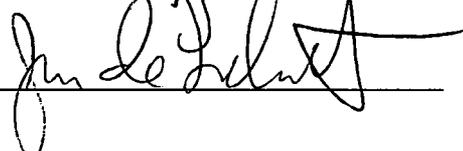
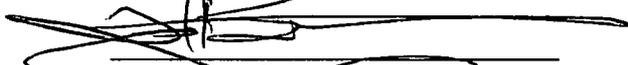
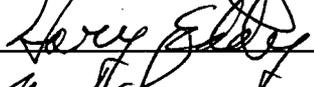
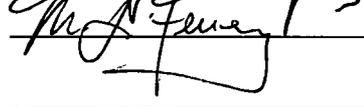
Caroline Voelkers
Water Quality Division

Telephone Device for Deaf (TDD): (612) 297-5353

Printed on recycled paper containing at least 10% paper recycled by consumers

**TECHNICAL REVIEW COMMITTEE (TRC) MEETING #21
JUNE 23, 1994
NIROP FRIDLEY, MINNESOTA**

LIST OF ATTENDEES

| <u>NAME</u> | <u>ORGANIZATION</u> | |
|-------------------|------------------------------------|---------------------------------------------------------------------------------------|
| Margaret Casserly | Black and Veatch |  |
| Scott Erickson | City of Fridley |  |
| John Flora | City of Fridley |  |
| Robert Hutchinson | County of Anoka | _____ |
| Evan Drivas | DNR | _____ |
| John Dresch | DPRO United Defense Minneapolis | _____ |
| Major Gartin | DPRO United Defense Minneapolis | _____ |
| Keith Lura | DPRO United Defense Minneapolis |  |
| Sue Oetterer | DPRO United Defense Minneapolis | _____ |
| CDR Stephenson | DPRO United Defense Minneapolis |  |
| James de Lambert | Liesch Associates Inc. |  |
| Larry Cole | Minneapolis Water Works | _____ |
| John Betcher | MPCA |  |
| Dave Douglas | MPCA |  |
| Gary Eddy | MPCA |  |
| Mark Ferrey | MPCA |  |
| Fred Jenness | MPCA | _____ |
| Carolyn Volker | MPCA | _____ |
| Michael Flaherty | MWCC | _____ |

NAME

ORGANIZATION

Charles Smith

Naval Weapons Station

Charles Smith

Jeff Allison

NAVSEA

Steve Hoffman

NAVSEA

Kerry Morrow

NAVSEATECHREP Office

[Signature]

Pat Mosites

REICC, Minneapolis

Pat Mosites

Eric Gredell

RMT, Inc.

Eric Gredell

Linda Hicken

RMT, Inc.

Linda Hicken

Galen Kenoyer

RMT, Inc.

Charles Black

SOUTHNAVFACENGCOM

David Cabiness

SOUTHNAVFACENGCOM

David Cabiness

Douglas Hildre

United Defense

Douglas Hildre

Timothy Ruda

United Defense

Timothy R. Ruda

Thomas Bloom

USEPA

John Trepanowski

Halliborton NUS

John Trepanowski

Paul M. Koski

mpls water works

Paul M. Koski

Bruce Rehwaldt

B.A. Liesch Assoc.

Bruce Rehwaldt
