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NIROP FRIDLEY  
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

MAR 23 1995

REPLY TO THE ATTENTION OF:  
HSRM-6J

Commanding Officer  
Dave Cabiness/Code 1869  
SOUTHNAVFACENGCOM  
P.O. Box 190010  
North Charleston, South Carolina 29419-9010

RE: Review of the Workplan for Improvement of Groundwater Containment System Effectiveness for the Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, January 1995

Dear Mr. Cabiness:

The U.S. Environmental Protection Agency (U.S. EPA) has completed the review of the Workplan for Improvement of Groundwater Containment System Effectiveness for the Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, January 1995. U.S. EPA review comments made regarding the Workplan for Improvement of Groundwater Containment System Effectiveness for the Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, July 1994, have been incorporated.

U.S. EPA has concerns about effects of the additional extraction wells on the existing system. U.S. EPA understands that as part of the upgrade of extraction well system, the U.S. Navy plans to evaluate the existing system. The Workplan for Improvement of Groundwater Containment System Effectiveness for the Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, January 1995, states that flow rates at the wells are significantly below the original design flow rates possibly due to system interferences such as design problems, scaling, or back pressure buildup. The evaluation of the existing system was not appended to the Workplan.

U.S. EPA has also conducted a cursory review of the Workplan for Improvement of Groundwater Containment System Effectiveness, Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, Revision 0, prepared by the Morrison and Knudsen Corporation. The evaluation of the existing system was not included. Please sent a copy of the evaluation of the existing system to U.S. EPA for review. Comments on the Morrison and Knudsen Corporation, Workplan for Improvement of Groundwater Containment System Effectiveness, Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, Revision 0, are as follows.

1. Page 3, Paragraph 8: Describe groundwater depth below ground surface or include ground surface elevations.
2. Page 4, Paragraph 4: Include the competent person

regulations for excavations: OSHA "Safety & Health Regulations for Construction; Chapter XVII of Title 29, CFR, Part 1926.

3. Page 17, Paragraph 1: Well development will produce approximately 5,000 to 10,000 gallons of water. The volume of the temporary straw bale, cuttings containment pit will probably be inadequate to hold development water. There is also potential for spills and leaks from this temporary structure. Development water should be pumped directly to the tanker truck.

4. Page 18, Paragraph 7: Appendix A states previously installed pumps have been undersized. Was a pumping head contingency added to the required pumping head for the current pump design? What is being done differently to ensure that the two new pumps and associated piping are not undersized?

5. Page 19, Paragraph 6: Discuss the approximate trench depth.

6. Page 20, Paragraph 4: Were other pipe materials such as HDPE instead of PVC evaluated to combat scaling/biological buildup problems that may be reducing well flow rates?

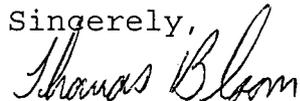
7. Page 20, Paragraph 8: The extraction pipe line should be pressure tested.

8. Appendix A, Page 29, Paragraph 3: Provide design calculations and pump curves for the system improvements, and include equations used for pipe/pump design. The RMT report states that removal of the pretreatment system should eliminate some of the pumping head restrictions placed on the system. New pump/pipe designs should be evaluated thoroughly so that the excessive head problem does not occur again if the pretreatment system is restarted. A discussion of pipe/pump design modification to mitigate past design errors should be included.

9. Appendix G: Provide the specifications, referenced here as attached.

If you have any questions regarding these review comments please contact me at (312) 886-1967.

Sincerely,



Thomas Bloom  
Remedial Project Manager

cc: Dave Douglas, MPCA