



# Minnesota Pollution Control Agency

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

November 30, 2005

Commanding Officer  
Southern Division  
Naval Facilities Engineering Command  
Attn.: Dan Owens, Code ES32  
P.O. Box 190010  
North Charleston, SC 29419-9010

RE: Naval Industrial Reserve Ordnance Plant Superfund Site

Dear Mr. Owens:

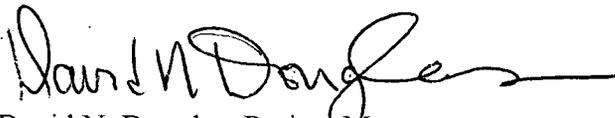
The Minnesota Pollution Control Agency (MPCA) staff has reviewed document entitled "Technical Memorandum, Preliminary Results for the Anoka County Park Organic Substrate Addition, Pilot Test, Fridley, Minnesota," ("Technical Memorandum") dated October 17, 2005. The Technical Memorandum is for Operable Unit 1 of the Naval Industrial Reserve Ordnance Plant (NIROP) Superfund Site was submitted pursuant to the Federal Facility Agreement, dated March 27, 1991, between the MPCA, the U.S. Environmental Protection Agency, and the U.S. Navy (Navy).

The MPCA staff believes that it remains the NIROP partnering team's plan to review the final pilot study report and to then have discussions regarding conclusions and recommendations and the potential application of this technology on a larger scale. Presumably the final pilot study report will include conclusions and recommendations similar to those found in the Technical Memorandum. Please find comments to the Technical Memorandum in Attachment I to this letter. The Navy does not need to respond to Attachment I.

Mr. Dan Owens  
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If you have any questions regarding this letter, please call me at (651) 296-7818.

Sincerely,

A handwritten signature in black ink, appearing to read "David N. Douglas", with a long horizontal flourish extending to the right.

David N. Douglas, Project Manager  
Superfund Unit 2  
Superfund and Emergency Response Section  
Remediation Division

DND:csa

cc: Mark Sladic, Tetra Tech NUS, Inc. (w/enclosure)  
Venky Venkatesh CH2MHILL Constructors, Inc. (w/enclosure)

## **Attachment I**

### **Comments to the Document Entitled, "Technical Memorandum, Preliminary Results for the Anoka County Park Organic Substrate Addition, Pilot Test, Fridley, Minnesota," Dated October 17, 2005**

1. The Technical Memorandum contains conclusions and recommendations that the MPCA staff may or may not agree with.
2. Revisions to the pilot test, including the new monitoring well network, has resulted in much more quantifiable and definitive assessments about the pilot study area and the magnitude of the impacts of vegetable oil injection.
3. The Technical Memorandum shows that the vegetable oil injection has resulted in distribution of organic carbon within impacted aquifer that has delivered a carbon source to a well-defined area of the aquifer down gradient of the injection area.
4. Within the area of carbon distribution, there have been reductions of trichloroethylene (TCE) levels that have been shown, in part, to be the result of reductive dechlorination due to vegetable oil injection.
5. The pilot test data quality objectives for the reduction of TCE levels continue to be met.
6. The production of vinyl chloride from vegetable oil injection has not been observed to be an issue in the pilot test area.
7. After the final pilot test report has been reviewed by U.S. Environmental Protection Agency and MPCA, the NIROP partnering team will meet to discuss the conclusions and recommendations of the report and the potential applicability of the vegetable oil injection technology to the Anoka County Riverside Regional Park ground water contamination problem.
8. Upon completion of the United States Geological Survey capture evaluation report, the results of the capture evaluation as well as the results of the final pilot test will need to be taken into account when making remedy decisions for the park's ground water contamination problem.

9. Any discussion in the Technical Memorandum beyond the objectives of the pilot test as cited in the Quality Assurance Project Plan should be considered the subject of subsequent meetings by the NIROP partnering team.
10. The NIROP ground water contaminant plume in the park is currently exceeding MPCA surface water quality standards for this stretch of the Mississippi River. Meeting the MPCA water quality standards for site contaminants of concern in park compliance wells prior to plume discharge to the Mississippi River remains a remediation goal for NIROP and the primary reason that the NIROP partnering team is evaluating vegetable oil injection technology in the park.
11. Eventually the NIROP partnering team needs to discuss the potential application of the vegetable oil injection technology (and any other appropriate remedies) to source areas beneath the main NIROP building.