



**CONESTOGA-ROVERS
& ASSOCIATES**

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August 23, 2007

Reference No. 002012

Mr. Doug Wetzstein
MINNESOTA POLLUTION CONTROL AGENCY
Remediation Division
Superfund and Emergency Response Section
520 Lafayette Road
St. Paul, Minnesota 55155-4194

Dear Mr. Wetzstein:

Re: Recommendation for Selected Remedy
Feasibility Study for North Oaks-West of Gilfillan Lake
Highway 96 Site - White Bear Township, Minnesota

This letter provides a recommendation for the selected remedy in the North Oaks area west of Gilfillan Lake. This recommendation is made by Conestoga-Rovers & Associates (CRA) on behalf of Whirlpool Corporation and Reynolds Metals Company.

By way of background, CRA submitted the Feasibility Study (FS) report to the MPCA on July 26, 2007. The FS report provides a comprehensive evaluation of remedial alternatives for the area west of Gilfillan Lake. The area of groundwater contamination is a limited area represented by three residential wells with vinyl chloride detections. The list of remedial alternatives evaluated within the FS included monitoring, groundwater extraction, installation of residential carbon filters, installation of new/deeper residential wells and municipal water.

As required by the FS process, the Minnesota Pollution Control Agency (MPCA) will select the remedy. However, it is common for the Responsible Parties to provide a recommendation for consideration by the MPCA.

Whirlpool and Reynolds's recommended alternative for Scenario A (the scenario where no health risk limits (HRLs) have been exceeded), is Alternative A2 - Long-Term Monitoring. Under this alternative, monitoring wells and residential wells would continue to be monitored in order to evaluate potential changes in groundwater quality. Under Alternative A2, the existing off-Site monitoring well network would be upgraded to include additional sentry wells in the Ski Lane Ravine and angle wells that extend from the west shore, beneath Gilfillan Lake. As indicated in our FS cover letter dated July 26, 2007, Whirlpool and Reynolds will also, for the immediate future, continue to provide bottled water to homes where vinyl chloride is detected above a concentration of 0.08 µg/L. Even after an amended MDD is issued, Whirlpool and Reynolds will continue to provide bottled water to those homes until the current HRL rulemaking is concluded and either the current HRL for vinyl chloride is confirmed or a new one is adopted.

With respect to Scenario B (the scenario where there are HRL exceedences), the recommended selection of a remedy is Alternative B3 - Installation of New/Deeper Residential Wells, an upgrade to the monitoring well network, and long-term sampling of residential wells and monitoring wells.



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Alternative B3 meets the threshold criteria of protection of human health. In addition, it provides an effective, permanent remedy.

In terms of implementation, Alternative B3 employs a common remedy which utilizes the same technology used to install conventional residential wells. In this case, a new and deeper well would be installed into the Prairie du Chein aquifer. As discussed in the FS, a new well provides a permanent remedy and avoids a long-term maintenance program. A carbon filter system has a distinct disadvantage compared to a new well because a contractor must routinely come into each home and change out the carbon filter. Another contractor would continue to sample the well water and treated water to ensure that the carbon system is operating properly. Given that vinyl chloride is not as efficiently treated by carbon compared to other VOCs, the carbon change outs are expected to be more frequent compared to other sites such as Baytown where the contaminant is trichloroethylene. The ongoing requirements make the carbon filters more inconvenient to the homeowner compared to a new well.

Given that all the alternatives evaluated in the FS (carbon, new well and municipal water) meet the threshold criterion on protection of human health, it is appropriate to select a remedy based on the balancing criteria and cost. Alternative B3 - Installation of New/Deeper Residential Wells is the most cost effective remedy.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Ron Frehner, P.E.

RF/plh/4

c.c.: Fred Campbell; Minnesota Pollution Control Agency
Nile Fellows; Minnesota Pollution Control Agency
Carmen Netten, Attorney General's Office
Jim Kelly; Minnesota Department of Health
Mayor Tom Watson; City of North Oaks
Council members; City of North Oaks
Jim March; City of North Oaks Administrator
Jeff Roos; City of North Oaks Engineer
Keith Benker; Wenck Associates
Lugene Olson; North Oaks Homeowners Association
Senator Sandy Rummel
Representative Paul Gardner
Representative Carol McFarlane
Highway 96 PRP Group