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

April 13, 2018

REPLY TO THE ATTENTION OF:
SR-6J

Mr. Eric Ealy
Environmental Analyst
Xcel Energy
414 Nicollet Mall, MP-04
Minneapolis, Minnesota 55401

RE: EPA Site Hydrogeology Review
Ashland/NSP Lakefront Superfund Site

Dear Mr. Ealy:

The United States Environmental Protection Agency (EPA) and the Wisconsin Department of Natural Resources (WDNR) completed a review of the hydrogeologic conditions at the Ashland/NSP Lakefront Superfund Site based on the documents listed below as well as supporting documentation of the Copper Falls NAPL collection system. Northern States Power Company (NSPW) has drawn some conclusions that are not supported by the documentation.

Reports Received/Reviewed

- Subsurface NAPL Architecture and Mobility Report, November 2013
- Groundwater Monitoring Report, December 2015
- Groundwater Monitoring Report, April 2016
- Hydrogeology Report, March 2017

NAPL Architecture and Mobility Report

The areal extent of NAPL occupies two primary areas of the Upper Bluff/Filled Ravine. The first area (Area A) is within the Filled Ravine, extending north from the former gas holders, beneath the former purifier house, across St. Claire Street, and beneath the NSPW storage yard. The second area (Area B) extends northwest from the former gas holders, crosses Third Avenue, and extends to locations DSB-12T and DSB-13T along the Upper Bluff.

The two soil samples collected from within Area B (DSB-07T and DSB-13T) did not contain mobile NAPL, with low S_{oi}/S_{or} *values relative to the Area A samples. These results suggest that NAPL saturations and mobility within the Copper Falls Aquifer are different in the two areas, and that NAPL present within Area B is not mobile.*

NSPW concludes that there are 2 separate areas of NAPL within the Copper Falls formation. Looking at boring logs, monitoring well results, and information in the NAPL Architecture Report, cross sections can be drawn showing the interconnectedness of these systems within both areas. Important cross sections have been left out of the Hydrogeologic Report using points within both areas. Further, the conclusion that NAPL in Area B is not mobile/recoverable are not supported by the data. The conclusion is based on 2 soil samples in which through disturbance a significant portion of the pore space liquid (water and NAPL) was lost prior to collection. Further the "Architecture" investigation was not able to fully define the NAPL within Area B due to the limits of the direct push equipment.

Cross-sections drawn through DBB-5, DSB-3, DSB-6, DSB-11 to DST12 and DSB-15, DSB-2, DSB-14 to DSB-09 show the interconnectedness of this area.

The Agencies are requiring further investigation of Area B including the connectivity to the MW-40 and MW-43 well nest areas as well as Area A. Cross sections should be added extending from Area A through Area B to the MW-49 area including data collected during the "Architecture" investigation. Drilling (and other investigatory methods) should be used that can determine the site lithology at the "micro" level to determine NAPL transport conditions. This may include further LIF type methods.

Further investigation of the groundwater degree and extent is also needed in the area east of MW-37/38 well nest. A soil boring should be completed at 118 Prentice Ave., in the area of the soil boring that detected toluene in soils to determine the extent of soil contamination.

If you have any questions or would like to discuss things further, please contact me at 312-886-1999.

Sincerely,

Scott Hansen

Scott K. Hansen
Remedial Project Manager

cc: James Dunn, WDNR
Jim Burton, Weston Solutions