



October 31, 2022

Julie Kloss Molina
Enbridge Energy
11 East Superior Street, Suite 125
Duluth, MN 55802

Docket # IP-NO-2020-2-N00471

Dear Ms. Kloss Molina,

As you know, The Department of Natural Resources (DNR) is in the process of preparing an Environmental Impact Statement (EIS) for the proposed Line 5 Wisconsin Segment Relocation Project. The DNR has identified supporting data and clarifications needed from Enbridge Energy related to the development of the EIS. Listed below is the information the DNR is requesting at this time.

The DNR recognizes that some of the information included in this request is sensitive, and will review any applications made by Enbridge for confidential status per s. NR 2.19, Wis. Adm. Code.

- 1.) Provide a geographic information system (GIS) map layer of High Consequence Areas (HCAs), Unusually-Sensitive Areas (USAs), and Areas of Interest (AOIs) that have been used to evaluate the potential effects of accidental releases of oil and natural gas liquids (NGLs). Include the following within the attribute data:
 - a. Whether the HCA, USA or AOI in question was used to identify the 'could affect' segments that Enbridge shared with the DNR for the draft EIS.
 - b. Whether the HCA, USA or AOI in question was or will be used by RPS Group (RPS) as part of its model-based analyses.
 - c. Whether the HCA, USA or AOI in question was identified based on input provided by a federal, state, local, or tribal agency or agencies, or other sources, including the name(s) of the source(s).
- 2.) Describe how the HCAs, USAs and AOIs referenced in item 1 above were identified, including any outreach efforts or requests that were made for input from federal, state, local, or tribal agencies or other sources. Clearly indicate any resources included in the HCAs, USAs, or AOIs that were identified by tribes or tribal agencies as treaty resources.
- 3.) Describe whether and how RPS's evaluation of the risk and potential effects of accidental releases of oil and NGLs has informed, or will inform, Enbridge's Intelligent

Valve Placement (IVP) process for the proposed Line 5 relocation.

- 4.) Provide information on whether and how increasing the number of valves, beyond the number presently proposed, would reduce the volume of oil and NGLs released from a segment of pipeline under a full-bore release scenario.
- 5.) Provide GIS map layers of oil plumes modeled by RPS using 'OILMAPLand' for the purpose of comparing the proposed and alternative pipeline relocation routes. Aggregate the model outputs by sub-watershed, according to the feature attributes and scenarios listed in items 5-a through 5-f below – one layer per unique combination. (For example, the combined extent of plumes modeled along route alternative 01 within the 'Troutmere Creek-Marengo River' sub-watershed, assuming full-bore ruptures under "low flow" [winter] conditions.)
 - a. Pipeline route (existing, proposed, RA-01, RA-02, RA-03)
 - b. Sub-watershed (12-digit HUC) in which the release point is located
 - c. Type of release point (100-meter interval or stream crossing)
 - d. Release volume (full-bore rupture, average historical accidental release, or any other volume modeled by RPS)
 - e. Hydrographic and environmental conditions ("low flow" [winter], "average flow" [summer/fall], "high flow" [spring], 100-year storm event, or storm event equivalent to July 11, 2016)
 - f. Petroleum type (if modeled separately: Bakken light crude or synthetic light crude)
- 6.) Provide GIS map layers of oil plumes modeled by RPS using 'OILMAPLand' for the detailed segment analysis of the proposed route. Aggregate the model outputs by sub-watershed, according to the feature attributes and scenarios listed in items 6-a through 6-e below – one layer per unique combination. (For example, the combined extent of plumes modeled along the proposed relocation route within the 'Potato River' sub-watershed, assuming the average historical release volume under "high flow" [spring] conditions.)
 - a. Sub-watershed (12-digit HUC) in which the release point is located
 - b. Type of release point (10-meter interval or stream crossing)
 - c. Release volume (full-bore rupture, average historical accidental release, or any other volume modeled by RPS)
 - d. Hydrographic and environmental conditions ("low flow" [winter], "average flow" [summer/fall], "high flow" [spring], 100-year storm event, or storm event equivalent to July 11, 2016)

- e. Petroleum type (if modeled separately: Bakken light crude or synthetic light crude)
- 7.) Provide GIS map layers representing the spatial outputs of Spill Impact Model Application Package ('SIMAP') models run by RPS for its detailed segment analysis of the proposed route. Map layers should illustrate the trajectory and fate of hypothetical oil releases into each of the four rivers listed below, under the different hypothetical release volumes and hydrographic/environmental conditions listed in items 5-c and 5-d above, plus any other scenarios modeled by RPS.
 - a. White River
 - b. Marengo River
 - c. Bad River
 - d. Potato River
 - 8.) Describe how waterfalls in the Bad River and Potato River would affect the following:
 - a. The trajectory and fate of oil released into those rivers
 - b. The recovery of oil that passes over those falls
 - 9.) Describe how seasonal differences affect the trajectory, fate, and cleanup of accidental releases of oil, including the effect of weather conditions (e.g., snow, rain) on transportation, access to affected locations, and equipment.
 - 10.) Provide GIS or GIS-compatible map layers representing the spatial outputs of models run by RPS to simulate vapor clouds resulting from accidental releases of NGLs.
 - 11.) Provide updated information on the impacts of accidental releases of oil on groundwater, including historical releases (e.g., Bemidji, MN), as well as hypothetical releases modeled by RPS where plumes overlay areas of higher groundwater recharge as modeled by the U.S. Geological Survey (Leaf et. 2015, see figure 12)¹. Describe the likely and worst-case impacts on drinking water wells and the Copper Falls Aquifer.
 - 12.) Provide updated information on historical accidental releases of oil and NGLs, including the type, cause, volume, and amount of time it took to identify and stop the release, the cleanup time and cost, resources impacted, and damage amounts.
 - 13.) Provide information on the probability of pinhole leaks, and information on how these are typically detected and repaired.

¹ Leaf, A.T. M.N. Fienen, R.J. Hunt, and C. Buchwald. 2015. *Groundwater/Surface-Water Interactions in the Bad River Watershed, Wisconsin*. Scientific Investigations Report 2015–5162. U.S. Geological Survey. See Figure 12 (Estimated annual recharge to the groundwater system, following smoothing of the Soil Water Balance results, and adjustment during calibration of the groundwater model.) Data available at <https://pubs.er.usgs.gov/publication/sir20155162>.

- 14.) Describe whether and how RPS's evaluation of the risk and potential effects of accidental releases of oil and NGLs is being used, or will be used, to update Enbridge's Integrity Management Plan (IMP) for Line 5. Provide a copy of the current written IMP for Line 5.
- 15.) Provide GIS or GIS-compatible map layers representing the spatial outputs of models run by RPS or other Enbridge consultants to simulate the fate and transport of drilling fluids inadvertently released into streams.
- 16.) Identify drilling fluid products anticipated to be used for the proposed relocation project. Provide the following information in table format: manufacturer, product name, function, and maximum percent by weight. Note in the table which products are on the Wisconsin Approved Drilling and Sealing Product List, the NSF/ANSI/CAN 60: Drinking Water Treatment Chemicals – Health Effects list, or the Wisconsin Approved Horizontal Directional Drilling Products List. Also submit Material Safety Data Sheets for each of the products.
- 17.) Describe whether and how RPS's evaluation of the risk and potential effects of accidental releases of oil, NGLs, and drilling fluids is being used, or will be used, to update Enbridge's emergency response plans for Line 5.
- 18.) Describe how the Bad River Band of Lake Superior Chippewa would be notified in the event of an accidental release of oil or drilling fluids upstream from the Bad River Reservation. Explain how Enbridge would coordinate with the Mashkiizibii (Bad River) Natural Resources Department, including permission to enter lands within the Bad River Reservation.

If you have any questions regarding these requests, please call me at 608-405-0016, or email me at benjamin.callan@wi.gov.

Sincerely,



Benjamin Callan
Chief, Integration Services Section

cc: Bill Sande, USACE
Adam Mednick, DNR