

Enbridge Energy's response to the UM Water Center's oil spill modeling study (e-mailed to Michigan Radio on 3/31/2016)

We appreciate and respect the efforts of all parties who are looking out for the best interest of the Great Lakes, an important source for fresh water, recreation and tourism for Michigan and beyond. We share their concern. However, we believe that Mr. Schwab's report, sponsored by the National Wildlife Foundation, is based on unrealistic assumptions in three primary areas:

1. **Volume out:** The model and illustrations focus on an unrealistic volume of oil released. The worst case discharge is approximately 4,950 barrels, which is significantly lower than the volume assumed in this study. There are automatic shut off valves located on either side of the Straits of Mackinac that will shut down flow of product into the line within three minutes if there is a drop in pressure. We would immediately activate containment and clean up equipment and crews.
2. **Response:** The model doesn't take into consideration that we would move quickly to contain and clean-up any spill. We regularly test our emergency response plans for the Straits of Mackinac with local, state and federal response agencies – including the U.S. Coast Guard and U.S. EPA; most recently in September 2015.
3. **Product:** The model assumes the only product in the line is crude oil. It doesn't take into consideration that 20 percent of the product shipped in the twin pipes under the Straits is natural gas liquids which are light weight and will float to the water's surface and not have the same impact as oil.

Line 5 has operated safely across the Straits of Mackinac for 63 years, and continues to do so. Enbridge takes very seriously its responsibility to operate its facilities safely to protect the public and the environment, while providing a vital service to the residents and economy of Michigan.

Supporting Points

1. No response/mitigation

If there is a change in pressure or flow, Enbridge can remotely shut off flow in three minutes and activate trained responders. A response plan, which reflects input from the U.S. Coast Guard and Environmental Protection Agency, and approval from our federal regulatory authority, the Pipeline Hazardous Materials Safety Administration, is in place and local emergency responders are trained on it and prepared to respond if an incident were to happen.

2. 25,000 barrels

Mr. Schwab's 25,000 barrel worst-case scenario is based on a scenario that has nothing to do with Line 5. It is significantly greater even than the volume released in the Marshall, MI incident in July 2010 and Line 5 is nothing like the pipeline that failed in Marshall, known as Line 6B. That

was a larger diameter pipeline (30" vs. 20") and the volume released related to a specific set of circumstances that would not occur on Line 5, especially given the company's heightened safety procedures today.

If there is a change in pressure on the line, Enbridge would activate automatic shut off valves to stop the flow of oil in three minutes. Further, given Line 5 operates at 25% of its pressure capacity, the approximate volume of oil released from a single pipeline between the valves that bracket the Straits would be 4,950 barrels. And even that is a high estimate because it doesn't take into account several factors such as leak location, hydrostatic pressure from the water depth that would restrict oil or NGLs from escaping the pipeline, and the likelihood that product would be trapped above the rupture location. Once isolated any residual pressure in the pipeline will displace oil until the pipeline reaches a state of equilibrium where external water pressure would impede oil flowing from the pipeline.

3. NGLs

All products shipped on Line 5 are floating oils. The oil that does not evaporate will sit on the surface of the water, allowing Enbridge and first responders to capture the oil through skimmers, boom and vacuum trucks. NGLs in particular will in most cases evaporate.

Enbridge works with Michigan Tech's Great Lakes Research Center to monitor water conditions in the Straits of Mackinac, using a real-time environmental monitoring buoy. We're also working with the National Oceanic and Atmospheric Administration to create new models so that we know when and where to stage response equipment to maximize the speed of our response at any time throughout the year. What's most important for Michigan residents to know is that we share their deep concern for this critical waterway and our top priority is keeping the product in the pipe and protecting this very important environment.