

Dear DNR officials,

I am a pediatrician in Madison Wisconsin and member of the Wisconsin Environmental Health Network, a program of Physicians for Social Responsibility Wisconsin. I am sending you a short email focused on health effects of an accidental oil spill/liquified natural gas leak from Enbridge's Line 5. I am opposed to the WI DNR permitting Enbridge for proposed rerouting south of the Bad River Reservation, just upstream of Copper Falls State Park. As you also must be aware, Enbridge does not have a good safety record, on record as one of the largest inland spill of dilbit (diluted bitumen) from its Line 6B into Talmadge Creek, a tributary of the Kalamazoo River ten years ago and was just fined again last month by the EPA for not fixing pipeline safety issues agreed to during this continued cleanup. There have been at least 4 Enbridge pipeline ruptures/spills recorded in Wisconsin (see this Journal Sentinel article map from 2017 <https://projects.jsonline.com/news/2017/11/9/oil-pipelines-of-wisconsin.html>). I think Enbridge pipeline 5 should be shut down and no permits for rerouting should be approved by the WI DNR.

As you know and have heard from many people who testified on July 1, Enbridge's Line 5 carries both crude (sweet and sour) oil as well as Liquified Natural Gas through its line, about 540,000 barrels each day ( 432,000 barrels of crude and 108,000 barrels of natural gas liquids, which includes propane). This is a 67 year old pipeline whose usual "work-life" has been listed at 40-50 years. This reroute will only replace the line 5 pipeline that previously passed through the Bad River Reservation. Unfortunately, the reroute will still be located on ceded territory for Wisconsin tribes for hunting, gathering and fishing and the rerouting continues to remain in the Bad River Watershed. A spill from this rerouted pipeline segment would dump crude oil into the Kakagon Sloughs that drain into Lake Superior, threatening the wild rice beds of this "wetland of international importance".

Realizing that it took Enbridge 17 hours in July of 2010 to shut down the 6B pipeline, allowing 100 million barrels of oil to flow into the Kalamazoo River and contaminating 40 miles of shoreline downstream, see <https://insideclimatenews.org/news/20072016/enbridge-saga-end-department-justice-fine-epa-kalamazoo-river-michigan-dilbit-spill>, it is worrisome to think how long it might take to identify, locate and shut down a pipeline crossing these remote Wisconsin wetlands.

So what about health effects? For liquified natural gas, no doubt the WI DNR is aware of health effects from the capture of fracked natural gas with releases initially of methane, volatile organic compounds (VOCs) , particulates and nitrogen oxides. The VOCs, particularly BTEX exposure, increases risk of blood cancers and neurologic damage, while particulate exposure increases the risk of respiratory and cardiovascular diseases and neurodevelopmental damage in infants and children. Processing fracked gas into a liquified state results in additional release of CO2 and more methane and magnifies its damaging health effect through climate change. Please see this document by Physicians for Social Responsibility <https://www.psr.org/blog/resource/climate->

[and-health-risks-of-liquified-natural-gas/](#) , a well-resourced source of information on LNG. In the short term, an explosion that could injure people or wildlife or domestic animals nearby is both a safety and security concern along this pipeline's length.

One of the best resources on human exposure to crude oil is from ToxTown, the NIH/National Library of Medicine's online information <https://toxtown.nlm.nih.gov/chemicals-and-contaminants/crude-oil> . This web reference lists effects of acute exposure from a leak— exposure to fumes that can cause difficulty breathing ( a huge issue with Covid-19 symptoms currently) and headache, dizziness and confusion as well as gastrointestinal symptoms and eye and skin irritation. But possibly more worrisome is chronic crude exposure (thinking that it would take a long time to do adequate cleanup of a spill of crude) increasing the risk of lung, liver and kidney damage, issues with infertility, immunologic and endocrine problems and possibly epigenetic damage to future generations.

This pipeline should be closed down in its entirety and not rerouted.

Sincerely, Ann Behrmann

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<https://services.aap.org/en/community/aap-sections/international-child-health/icatch/icatch-grants>