

A short selection of Enbridge's violations:

Line 6b- Michigan

June 12/13, 2013 North Ore Creek, Michigan. Enbridge releases contaminated test water into the creek. This incident occurred during a hydrostatic test of a section of Line 6b. This section was being built to replace the section of 6b where the 2010 rupture in Marshall, MI. According to the 2013 article on the incident by David Hasemyer of Insideclimatenews, a pig (pipeline inspection gauge) had been stuck in the pipeline. To remove the stuck pig, Enbridge pumped air into the line, a procedure that could have displaced additional deposits from inside the pipeline. To relieve the built up pressure, workers opened the line near the creek, which allowed liquid from the pipeline to mix with water in the creek.

On the day of the discharge, a device called a pig—an apparatus inserted into the pipeline and pushed along by the water to check for flaws—got stuck, so Enbridge pumped air into the line to dislodge it, according to MDEQ accounts of the mishap. That procedure could have displaced additional deposits from inside the pipeline.

To relieve the pressure built up in the pipeline by the malfunctioning pig, Enbridge workers opened the line where it came closest to the creek, allowing the water purged from the line to mix with the creek water. The article goes on to state:

The MDEQ cited Enbridge for failing to abide by 11 terms of a permit intended to protect aquatic habitat and prevent waterways from becoming discolored by dirty, yet generally harmless, discharges of water used in the pipeline testing process. Enbridge was cited for not having anyone supervising the discharge, failing to accurately report the discharge, improperly sampling the dirty water and on some days doing no sampling at all.

There are also personal experiences with Enbridge's practices during the construction of this line. Some of these are recorded in the Line 6B Citizen's Blog. These experiences include improper topsoil stockpiling, improper sludge discharge, and mixing of removed vegetation (some trees have value as timber).

A 2014 article in the Oxford Leader discusses an Enbridge contractor that was fined for starting construction prior to 7am (in a violation of local ordinances).

Line 5- Michigan

Line 5 runs from Superior, through the Upper Peninsula, under the Straits of Mackinac, across the Lower Peninsula, ending in Sarnia, ONT. In an Aug 3, 2016 article Keith Matheny of the Detroit Free Press wrote on Enbridge's violations regarding the number of supports on the underwater pipeline. The number of supports has been an issue Enbridge was supposed to resolve in 2014.

The lack of proper support and the recent evidence of the deplorable conditions of the coverings has led to increasing calls for the shutdown of the line.

Line 61- Wisconsin

In the largest settlement of construction violations, Enbridge was fined \$1.1 million for a series of violations during construction of Line 61 in 2007/2008. The violations were numerous, widespread and impacting numerous streams and wetlands. While some of the violations/impacts may have been small it was the cumulative impact that was the most disconcerting. The violations included impacts to wetlands and streambeds; construction practices around bridges; and erosion control near navigable waters and wetlands.

This is the same line that desecrated effigy mounds near Nekoosa, WI. This violation was not included in the State's suit against Enbridge.

Milhurst Fen, Illinois

This occurred back in 1998 when Enbridge was still the Lakehead company. A new line was being constructed using Horizontal Directional Drilling (HDD) techniques when there was a release of drilling mud in the Millhurst Fen. Fens are a rare ecosystem that often contain a number of sensitive species. The Millhurst Fen contained numerous endangered and threatened plant species, and was considered one of the highest quality fens in Illinois. There were at least three releases in this fen. There are a number of fens the XL3 would cross, and a number of places where HDD would be utilized.

Enbridge's Safety Record

The possibility of an upset condition is not remote or speculative. Enbridge has a poor safety record, this is augmented by the general insecurity of their pipelines and their lack of ability to protect wetlands and waters of the tribal and national communities.

The Natural Resources Defense Council (NRDC) has studied spill records and has noted that that pipelines in the upper Midwest that transport tar sands crude have spilled 3.6 times more oil per pipeline mile than the U.S. average¹.

According to a United States Department of Transportation (USDOT) study, an average pipeline has a 57% chance of a major spill in a ten-year period. This study used actual spill data from the Pipeline and Hazardous Materials Safety Association (PHMSA).²

From "Pipelines Safety and Security: Is It No More Than a Pipe Dream" (Bell 2015)³:

¹ http://www.oilandwaterdontmix.org/the_bigger_picture

² <https://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Press%20Release%20Files/Leak%20Detection%20Study.pdf>

³ Bell, Trudy. "Pipelines Safety and Security: Is It No More Than A Pipe Dream?" The Bent of Tau Beta Pi. Winter, 2015

“... Today the nation is crisscrossed with 505 mile of transmission pipeline and counting. The industry average of 0.34 to 0.5 incidents per 1000 miles per year translates to 170 to 250 incidents per year somewhere in the nation- **a number actually about half of what is observed**. Statistically, the record shows that several per year are catastrophic. PHMSA data from 2001 to 2011.. conclude(s) “ the average pipeline therefore has a 57% probability of experiencing a major leak, with consequences over the \$1 million range in a ten year period...”

Using that same PHMSA data, the US State Department found Enbridge’s annual spill rates, which are higher than the industry average.

Table S-6. Incident Rate Summary

Pipeline Operator	Annual Incident Rate Per 1,000 Miles of Pipeline				Total Volume Spilled (bbl)
	Small Spills	Medium Spills	Large Spills	Catastrophic Spills	
Industry Average	2.75	0.55	0.07	0.01	182,672
Enbridge	2.80	0.20	0.16	0.03	39,637

Source: PHMSA 2016a, 2016c

Note: This table presents a summary of incident rates for the period 2010 to 2015.

Using these averages, XL3 would experience an average of .94 small spills, 0.0674 medium spills, 0.05 large spills and 0.01 catastrophic spills annually.

Using data from Enbridge's own reports, the Polaris Institute calculated that 804 spills occurred on Enbridge pipelines between 1999 and 2010. These spills released approximately 161,475 barrels (25,672.5 m³) of crude oil into the environment.⁴ There is missing data from this source, study did not include undiscovered leaks. One major example was discovered in Cass Lake, which released more than 11,000 barrels over an unknown number of years into the environment.⁵

⁴Girard, Richard and Roberts Davis, Tanya. “Out on the Enbridge Mainline: Mapping Enbridge’s Web of Pipelines” Polaris Institute Report. May 2010 (partially updated, March 2012)

⁵ This leak was in the existing Line 3. Drennan, D.M., Bekins, B.A., Warren, E., Cozzarelli, I.M., Baedecker, M.J., Herkelrath, W.N., Delin, G.N., Rosenbauer, R.J., and Campbell, P.L., 2010, Fate and transport of petroleum hydrocarbons in the subsurface near Cass Lake, Minnesota: U.S. Geological Survey Scientific Investigations Report 2010-5085, 33 p.

Year	Number of spills	Quantity of barrels spilled
1999	54	28,760
2000	48	7,513
2001	34	25,980
2002	48	14,683
2003	62	6,410
2004	69	3,252
2005	70	9,825
2006	68	5,734
2007	65	13,777
2008	92	2,842
2009	103	8,441
2010	91	34,258
Total	804	161,475 (Approximately 25.67 million litres, or 6.8 million gallons)

Response

The Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations, 49 CFR § 194.115, requires only that a pipeline company identify a first wave of equipment that it claims can arrive at the scene of a spill within six hours. Here’s more on that regulation and implications:

§ 194.115 Response resources⁶.

(a) Each operator **shall identify** and ensure the resources necessary to remove a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge.

(b) An operator **shall identify** in the response plan the resources which are available to respond within the time specified, after discovery of a worst case discharge, or to mitigate the substantial threat of such a discharge, as follows:

	Tier 1	Tier 2	Tier 3
High volume area	6 hrs	30 hrs	54 hrs
All other areas	12 hrs	36 hrs	60 hrs

This regulation clearly states that a pipeline operator **need only identify** available resources that can “respond” within the specified timeframe, one that only begins when the spill is “officially” discovered. This can be hours or even days after it actually happens. According to the

⁶ HISTORY: 58 FR 253, Jan. 5, 1993. AUTHORITY: 33 U.S.C. 1231, 1321(j)(1)(C), (j)(5) and (j)(6); sec. 2, E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; 49 CFR 1.53.

Wall Street Journal, an estimated 80% of spills are actually detected by civilians, despite pipeline companies' faith in their leak detection systems.⁷

This regulation does not specify the **amount** of resources needed to respond to a worst case discharge. The PHMSA regulation leaves this decision entirely up to the pipeline companies. There are no other regulations that cover this topic, although the Oil Pollution Act does allow states to institute additional and more stringent response plan requirements.

Public Oversight

The Pipeline Safety Act (PSA) and its regulations are drafted to as to exclude all public involvement in the regulation of pipelines. The law and its regulations were drafted to avoid triggering the hearing requirements of the Administrative Procedures Act (APA) and the environmental review and public participation requirements in the National Environmental Policy Act (NEPA). For oil pipelines, the routing and construction permitting process relies on a mishmash of state and federal laws, which also fractures the review process and complicates public understanding.

PHMSA is not even required to have documentation related to operators' violations. PHMSA's enforcement efforts are limited to going to a pipeline company's office and reviewing paper files on site that show compliance with law. Sometimes after a leak or spill, PHMSA will collect information from companies, though PHMSA is very generous with exempting information if a company wants it exempted. **It is nearly impossible to acquire any information about the adequacy of company compliance with the Pipeline Safety Act standards before something bad happens.**

Confidentiality and transparency

PHMSA's oil spill planning duties arise under the Oil Pollution Act (OPA), which is a part of the Clean Water Act. In theory all of the normal citizen participation requirements of the APA and NEPA apply to regulation of oil spill planning and cleanup. **The foundation of all oil spill planning under the OPA is the worst case discharge calculation, because it determines how much equipment and personnel a company must have available to respond to a spill.** PHMSA has determined that worst case discharge amounts are confidential, even though they are not difficult to calculate based on publicly available information.

PHMSA also determined that the location and amount of an operator's spill response equipment are also confidential. This means that publicly available, operator spill plans only include boilerplate language – generic “how to respond to an oil spill” information that can be found in any training course on oil spill response. It also means that citizens now have no meaningful access to the guts of facility response plans, which makes practical review and civic oversight of

⁷ <http://thinkprogress.org/climate/2014/01/21/3186261/pipeline-spills-discovered-people/>

these plans nearly impossible. The company simply wants to spend as little as possible on buying spill response equipment and hiring spill response personnel.

The truth is that bigger pipelines are likely to cause bigger spills.

Response

The real way the system works is that smaller vendors own small amounts of spill response equipment mostly to respond to small spills. If there is a big spill from a pipeline, the pipeline company calls a general contractor who hires a bunch of these small companies to come from all over the county to work mopping up the mess. **The pipeline company itself usually itself owns relatively small amounts of spill response equipment.** This scheme keeps the cost down for pipeline companies and generally means that the industry is poorly equipped to arrive at the site of a big spill quickly with the right equipment. **In remote rural areas, the spill response plans have little to do with containing a spill and consist almost entirely of cleaning up as cheaply as possible.**

A federal audit of Enbridge's 2010 spill in Marshall, MI, showed that Enbridge does not know the best way to control anomalies in their lines. The audit showed that Enbridge could not prove that it knew how to monitor and repair pipeline cracks forming from corrosion - the key factor that had led to two major Enbridge oil spill disasters in 2007 and 2010. As it were, Enbridge lobbied hard to demand the NEB remove the most incriminating parts of that report, and covered up two secret environmental documents.

Enbridge has lobbied aggressively against responsible spill response regulations in Minnesota. In an October 2014 letter to the Environmental Quality Board, a number of Minnesota legislators pointed out Enbridge's determination to thwart any safety regulations by the state of Minnesota. The letter, from Minnesota Senators Steve Dribble and John Marty, and Representatives Frank Hornstein and Jean Wagenius, stated:

*“Enbridge and the pipeline industry were **unwilling to agree to:***

- *Provide a **qualified company employee** to advise public sector incident commander by telephone within one hour of a major pipeline oil discharge;*
- *Provide **monitoring equipment** within three hours of a discharge, or to develop an annual plan to deliver monitoring equipment to a discharge site to comply with the provision;*
- *Provide **qualified personnel** to advise incident commanders at the discharge site within three hours of a major spill;*
- *Provide **containment booms** from land across sewer outfalls, creeks, ditches and other places where oil and other hazardous substances may drain in order to contain leaked material before it reaches those resources;*
- *To **have capability to deliver containment booms, boats, oil recovery equipment and trained staff** within eight hours of a confirmed discharge to recover 10% of a worst case*

discharge, including protection of listed sensitive areas and potable water intakes within one mile of a discharge site

- ***Deliver equipment to protect sensitive environmental areas and drinking water intakes, within 60 hours of a major spill***
- *Provide updated disaster prevention and response plans to the Pollution Control Agency every three years...*

In 2014, Public Safety Commissioner Mona Doman told House Transportation Finance Committee members that firefighters and others first responders are not equipped to deal with oil disasters⁸. They do not have the equipment or training need to fight explosive dilbit fires. President Chris Parsons of the Minnesota Professional Firefighters stated that *“If an oil disaster occurs in Minnesota, it is likely to result in loss of life and property loss on a massive scale.”*

An oil disaster is “low frequency, high risk,” said Savage Fire Chief Joel McColl. ***Preparing for oil disasters is especially hard for smaller volunteer fire departments.*** Fire officials have said that in such cases all they can do is evacuate anyone who might be in danger and wait for help from nearby communities and the state. Brooklyn Park Fire Chief Ken Prillaman said the state has given money to form and equip regional hazardous materials teams, but provides no money to maintain the equipment. He warned legislators not to hand fire departments “additional unfunded mandates.”

Why should the burden of responding to oil disasters fall to local first responders?

Local, state, and federal agencies are already spread thin with budget cuts and staff limitations. There are very few people on the ground who are trained to inspect and monitor crude oil pipelines, including their construction, operations, and impacts. Each of these aspects are covered by a different state or federal agency and there is little communication or coordination between agencies.

⁸ <http://www.grandforksherald.com/content/minnesota-could-face-oil-disaster-loss-massive-scale>