

Spills and Ruptures on Enbridge Pipelines

Enbridge operates pipelines primarily in Canada and the United States. Finding detailed information on the total number of spills and ruptures on Enbridge pipelines can be challenging. Enbridge pipelines cross many provincial, national, state, and international boundaries. There are many different agencies that hold the records for the location, type, cause, and volume of each spill.



However, it is important to know the likelihood of a pipeline rupture or spill on the proposed Northern Gateway pipeline. Pipeline ruptures and oil spills cause enormous and irreversible damage to entire watersheds and ecosystems impacting fish, wildlife, plants, and drinking water. The following is a summary of some of the information publicly available on Enbridge pipeline spills and ruptures.

Enbridge Self-Reported Spills

- 2007: 65 reportable liquids spills totaling 13,777 barrels¹.
- 2006: 67 reportable liquid spills totaling 5,363 barrels
- 2005: 70 reportable liquid spills totaling 9,825 barrels.
- 2004: 69 reportable liquid spills, totaling 3,252 barrels.
- 2003: 62 reportable liquid spills, totaling 6,410 barrels.

These spills and releases occurred throughout their transmission pipelines in Canada and the United States.² A “reportable spill” is any spill reportable to a regulatory jurisdiction. What is considered “reportable” can change from one province, state or country to the next.

Stories of Major Spills on Enbridge Pipelines³

Fort McMurray, AB: On January 3, 2009, a valve blew on a pipe at the Enbridge Cheechan Terminal tank farm on Hwy 881 just south of Anzac, near Fort McMurray. Oil spewed 30 to 40 metres into the air, going undetected for two to three hours. Approximately 4,000 barrels of oil were spilled, with the majority of the oil on the ground flowing into surrounding storage ponds. The Enbridge tank farm was unmanned, had no security onsite, and the detection system didn’t notice the leak. According to Enbridge 4,000 barrels was “too small a spill” to register. Yet this “small spill” has resulted in a blanket of black oil over the entire facility and beyond the boundaries, covering trees and threatening wildlife.

¹ A “barrel” equals approximately 35 Imperial gallons, 42 U.S. gallons or 159 litres, roughly equivalent to the volume of liquid held by a standard bathtub. Source: Alberta Energy: http://www.energy.gov.ab.ca/About_Us/1132.asp

² Enbridge Inc. Corporate Social Responsibility Reports, 2004-07. Found at: <http://www.enbridge.com/corporate/>

³ Courtesy of: *Think twice about pipelines*. By Andrew Williams, Terrace Standard, March 18, 2009.

Glenavon, SK: On April 15, 2007, Enbridge shut down one of its biggest Canadian oil pipelines to the United States after a leak was discovered southeast of Regina. Approximately 6,227 barrels of crude oil spilled in a field downstream of Liquids Pipelines' pumping station at Glenavon, Saskatchewan.

Wisconsin: Two recent pipeline breaks leaked at least 176,000 gallons of crude oil from Enbridge pipelines operating in Wisconsin. A Jan. 1, 2007 spill near Curtis in Clark County occurred from a 4-foot crack in a buried 24-inch line. A Feb. 2 break near Exeland in Rusk County occurred in the same pipe because of a construction accident in installing the new 42-inch line. The Exeland leak sprayed oil onto trees and other vegetation. Earlier this year in Wisconsin, Enbridge Energy Partners L.P. were also ordered to pay \$1.1 million to settle a lawsuit filed against it by the Wisconsin attorney general's office. At issue were over 100 environmental violations arising from the company's construction of a pipeline stretching from Superior to Whitewater in southeastern Wisconsin in 2007 and 2008. The lawsuit alleged that Enbridge violated numerous permits during the pipeline project, resulting in impacts to wetlands and navigable waterways.⁴

St. Leon, MB: The largest recorded spill on an Enbridge pipeline in Canada is 4,000,000 litres. This occurred in 1994 near St. Leon, MB. The cause was listed as "Other/Improper Operation".⁵

Potential Spills on the Northern Gateway Pipeline⁶

The Northern Gateway Project is unique in that two pipelines, an oil pipeline and a condensate pipeline, parallel one another. Therefore, the risk presented by two pipelines is greater than the risk presented by a single pipeline. A rupture of both pipelines at a stream crossing would introduce two waste streams to the water body, potentially leading to additive effects that may be difficult to predict.

Given the planned pumping rate of 400,000 barrels per day (or 64 million litres/day), a rupture at a stream crossing lasting even 30 minutes would result in a discharge of more than 1,300,000 litres of oil to the stream. A similar rupture in the condensate pipeline would discharge about 500,000 litres.

Although the properties of the synthetic crude oil and condensate are different, both are highly toxic to aquatic life. Spilled hydrocarbons pose serious threats to a wide range of terrestrial and aquatic organisms that are linked in the food chain and include human food resources. Spilled oil can harm the environment in several ways, including direct physical damages and the toxicity of the oil itself, which can poison exposed organisms. Polycyclic aromatic hydrocarbons (PAHs) have limited effect on acute toxicity, but are a concern because of their potential to bioaccumulate in aquatic organisms and thereby contribute to chronic toxicity.

*This factsheet has been produced by Nadleh Whut'en First Nation
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⁴ Source: Duluth News-Tribune. By Peter Passi. Jan. 2, 2009.

<http://www.istockanalyst.com/article/viewiStockNews/articleid/2920816>

⁵ Source: National Energy Board, http://www.neb-one.gc.ca/safety/PipelineRuptureData/index_e.htm

⁶ Source: *Carrier Sekani Tribal Council Aboriginal Interests and Use Study*, May 2006.