

FILE

16

July 26, 2019

18-488-EL-BGN

Ohio Power Siting Board,

I have a great concern about these industrial turbines coming to Seneca County Ohio. Approximately 600 feet from my home is the Rover Pipeline, as I have no problem with the pipeline by itself, I am concerned about the wind turbines not far from it. I was wondering about the years of underground vibration and how it would effect the welds of the pipeline. There are two 42 inch pipelines running beside each other in Seneca County. I have researched accidents and fires caused by pipelines and as you can see I have enclosed pages and pages of them. I have seen many wind turbines on fire on you tube and read about them. If by chance we have a fire in Seneca County, and it comes close to those huge pipelines, there could be an explosion of great magnitude. I am concerned about this and wanted to bring it to your attention to see if further studies need to be done to protect the community.

Thankyou,

Joyce Ziegler

RECEIVED-BOOKING PM
2019 AUG -5 PM 3:11
PUCO

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.
Technician Imm Date Processed 08/05/19

WIKIPEDIA

List of pipeline accidents

The following is a **list of pipeline accidents**:

Belgium

- 2004: A major natural gas pipeline exploded in Ghislenghien, Belgium near Ath (50 kilometres southwest of Brussels), killing 24 people and leaving 122 wounded, some critically on July 30, 2004.^[1]

Canada

- 1962: An explosion on a gas pipeline occurred on a lateral line on January 17, about 50 kilometers northwest of Edson, Alberta. 8 people were killed.^{[2][3]}
- 1965: An explosion from a gas line destroyed several apartments in the LaSalle Heights Disaster in LaSalle, Quebec killing 28 people, the worst pipeline disaster in Canadian history.
- 1965: On October 12, an explosion & fire involved the Albert Gas Trunk Line LTD. near Sundre, Alberta, killing 2 pipeline workers.^[4]
- 1969: On October 25, a faulty pipe exploded in a gas line beneath Malton, Ontario. One person died, about 20 were injured, 9 stores and several homes were destroyed. Gas in a dead end section of gas pipeline.^[5]
- 1986: On October 27, a butane pipeline was hit by a pipeline crew, in Sarnia, Ontario; 4 workers were injured (one critically).^[6]
- 1996: On April 15, a rupture, followed by an explosion and fire at 1829 EST, occurred on the TransCanada PipeLines Limited 864-millimetre (34-inch) natural gas pipeline, at Kilometre Post Mainline Valve 39-2 + 6.07 kilometres, 10 kilometres southwest of Winnipeg, near the town of St. Norbert, Manitoba.^[7]
- 1997: On April 30, a rupture occurred on the Westcoast Energy Inc. 219.1-millimetre (8-inch) outside diameter Monias pipeline at Mile Post 20, near Fort St. John, British Columbia. Approximately 85,000 cubic metres of sour natural gas was released and ignited.^[8]
- 1997: On December 2, a rupture occurred at an area of external corrosion on the TransCanada PipeLines Limited 914-millimetre outside diameter Line 100-3 at main line valve 5-3 + 15.049 kilometres, near Cabri, Saskatchewan. Approximately $3\,252 \times 10^3$ cubic metres of natural gas was released as a result of the rupture. The gas ignited immediately, resulting in damage to the surrounding soil and vegetation. The main fire self-extinguished within 20 minutes of the line break.^[9]
- 1999: On May 20, Line 3 on the Enbridge Pipelines Inc. (Enbridge) pipeline system ruptured, releasing 3 123 cubic metres (m3) (20,600 barrels) of Cold Lake heavy crude oil, east of Regina, Saskatchewan. Approximately 3.6 hectares (ha) (8.8 acres) of farmland was affected by crude oil.^[10]
- 2000: On December 28, a release of natural gas resulted in an explosion that destroyed the electrical and services building, heavily damaged the compressor building, and damaged the remaining buildings at the East Hereford compressor station, approximately 80 km SE of Magog, Quebec. Before the occurrence, the station had been shut down due to an unintentional manual initiation of the station's emergency shutdown system.

Contents

Belgium

Canada

China

India

Indonesia

Kenya

Malaysia

Mexico

Nigeria

Russia

Taiwan

United States

See also

References

External links



Following the emergency shutdown of the compressor station, a maintenance person was sent to the station to reinitiate the electric motor-driven compressor unit. During the day, after repeatedly trying to get the station into the ready state mode, to return the station to normal pipeline operations, an explosion occurred. The on-site maintenance person was seriously injured.^[11]

- 2001: On January 17, a rupture occurred on the Enbridge Pipelines Inc. 864-millimetre outside diameter Line 3/4 at Mile Post 109.42, 0.8 kilometres downstream of the Hardisty pump station near Hardisty, Alberta. The rupture occurred in a permanent slough that was fed by an underground spring. Although the line was shut down at the control centre in Edmonton, Alberta, within minutes of the rupture, the exact location of the rupture was not found until after 13 hours. Approximately 3800 cubic metres of crude oil was released and contained within a 2.7-hectare section. As of 01 May 2001, 3760 cubic metres of crude oil had been recovered.^[12]
- 2001: On September 29, a rupture occurred on the Enbridge Pipelines Inc. 508-millimetre outside diameter Line 10 at Mile Post 1885.64, near Binbrook, Ontario. Line 10 transports crude oil from Westover, Ontario, to Buffalo, New York, United States. The rupture occurred in an agricultural field planted with soybeans. Within eight minutes of the rupture, the control centre operator in Edmonton, Alberta, shut the line down and began to sectionalize it. Remedial action response teams contained the spill to two general areas, a natural swale running perpendicular to the pipeline and the pipeline trench. Approximately 95 cubic metres of crude oil were released, affecting a 0.67-hectare section of land.^[13]
- 2002: On April 14, a rupture occurred on the 914-millimetre-diameter natural gas transmission pipeline, at a zone of near-neutral (low) pH stress corrosion cracking, on Line 100-3 of the TransCanada PipeLines, at main-line valve 31-3 + 5.539 kilometres, approximately two kilometres from the village of Brookdale, Manitoba. Following the rupture, the sweet natural gas ignited. With the automatic closure of main-line valves upstream and downstream of the rupture site, the fire self-extinguished at 0230, on 15 April 2002. There were no injuries. As a precautionary measure, approximately 100 people were evacuated from the occurrence area within a four-kilometre radius, including the village of Brookdale, for a period of one day.^[14]
- 2002: A refined product pipeline rupture near Saint-Clet, Quebec, on Dec 7, from Trans Northern Pipelines Inc. 273.1 mm diameter mainline kilometer post 63.57, estimated 32 cubic meters of low sulphur diesel released to area and drainage systems. Transportation Safety Board Investigation Report Number P02H0052. <http://www.tsb.gc.ca/eng/rapports-reports/pipeline/2002/p02h0052/p02h0052.asp>
- 2003: A backhoe punctured a pipeline in Etobicoke, Ontario the resulting explosion killed 7 people
- 2005: On July 15, an employee of Terasen Pipelines (Trans Mountain) Inc. discovered crude oil on the pipeline right-of-way, on the north side of Ward Road, Abbotsford, British Columbia. Before the discovery, the company had been delivering crude oil out of the Sumas Tank Farm, when it received odour complaints from local residents. Approximately 210 cubic metres of crude oil was released into the surrounding area and made its way into Kilgard Creek. There were no injuries.^[15]
- 2007: A crude oil pipeline owned and operated by Kinder Morgan Energy Partners was ruptured by an excavator digging a storm sewer trench in Burnaby, British Columbia.^[16]
- 2007: On 15 April, a rupture occurred on Enbridge Pipelines' 864-millimetre outside diameter Line 3 at Mile Post 506.2217 downstream of the Glenavon pump station near Glenavon, Saskatchewan. The rupture occurred in a wetland area of farmland. Approximately 990 cubic meters of crude oil were released, of which approximately 912 cubic meters were recovered. There were no injuries. The cause was determined to be corrosion cracking.^[17]
- 2007: On July 24, the 610-millimetre (24-inch) Westridge Dock Transfer Line, owned by Trans Mountain Pipeline L.P. and operated by Kinder Morgan Canada Inc., was struck and punctured by a contractor's excavator bucket while the contractor was excavating a trench for a new storm sewer line along Inlet Drive in Burnaby, British Columbia. When the pipeline was punctured, approximately 234 cubic metres of crude oil was released, approximately 210 cubic metres of which was recovered. Crude oil flowed into Burrard Inlet Bay via the Burnaby storm sewer system. Eleven houses were sprayed with crude oil; many other residential properties required restoration and approximately 250 residents voluntarily left their homes. There were no explosions, fires, or injuries resulting from this occurrence; however, emergency workers and two firefighters responding to the incident were sprayed with crude oil. Two members of the public were also sprayed.^[18]
- 2009: A July 20 Alberta pipeline explosion & fire involved a TransCanada Corporation natural gas pipeline. The explosion, which sent 50 meter flames into the air, destroyed a two-hectare wooded area. The NEB said the delay in releasing the report was caused by an "administrative error", when an employee left without transferring the file over. The Peace River Mainline pipeline, built in 1968, had ruptured six times and leaked on 17 occasions until 2014. The line ruptured in 2009 due to corrosion.^[19]
- 2009: On 12 September 2009, TransCanada Corporation's Gas Control received notification, from the

Englehart Fire Department through its Emergency Notification Line, of an explosion and fire south of its Compressor Station 107, located near Swastika, Ontario. At the time of the occurrence, TransCanada was transporting sweet natural gas. Escaping gas from a pipeline rupture had ignited, resulting in the explosion. A large crater was created and two sections of pipe broke from the system, with one section being ejected approximately 150 metres from the rupture site. There were no injuries.^[20]

- 2009: On 26 September 2009, TransCanada Corporation's Line 100-1 ruptured, near Marten River, Ontario. At 1151, Gas Control at TransCanada's Calgary office became aware of this event when Main Line Valve 112-1, on the upstream side of Compressor Station 112, automatically shut off due to low pipeline pressure. At the time of the occurrence, TransCanada was transporting sweet natural gas. The escaping gas did not ignite. A large crater was created and pipe pieces were ejected from the failed pipeline section and spread around the occurrence site. There were no injuries.^[21]
- 2009: On 29 September, an Enbridge crude oil pipeline, Line 2, leaked at Mile Post 474.7335, immediately downstream of the Odessa pump station near Odessa, Saskatchewan. The leak occurred at a crack within a shallow dent at the 6 o'clock position on the pipe. There were indications of gouging associated with the dent. The release occurred in a low lying, densely vegetated marsh. Approximately 175 cubic meters of crude oil was released, of which most was recovered. There were no injuries.^[22]
- 2009: A refined product pipeline rupture near Farran's Point, Ontario on Ottawa Lateral, on October 5, from Trans Northern Pipelines Inc. system, unknown petroleum product, unknown quantity. Transportation Safety Board Report Number P09H0086. <http://www.tsb.gc.ca/eng/rapports-reports/pipeline/2009/p09h0086/p09h0086.asp>
- 2010: A refined product pipeline rupture at Bronte Creek in Oakville, Ontario, detected on March 11, from Trans Northern Pipeline Inc. system, estimated 23,770 gallons of gasoline released to creek, soil and ground water. Transportation Safety Board Report Number P10H0021. <http://www.tsp.gc.ca/eng/rapports-reports/pipeline/2010/p10h0021/p10h0021.asp>
- 2011: On February 19, TransCanada PipeLines Limited's gas control operator received notification through its emergency notification line of a pipeline fire and explosion, near Beardmore, Ontario. At the time of the occurrence, TransCanada was transporting sweet natural gas. Escaping gas from a pipeline rupture had ignited, resulting in the explosion. A large crater was created and three pieces of pipe broke from the system, with pipe and other debris being ejected up to 100 m from the rupture site. Six residents near the site evacuated until the fire was extinguished. There were no injuries.^[23]
- 2011: In April, a pipeline break northeast of Peace River, Alberta, leaked 28,000 barrels of crude oil, Some wildlife was killed from the spill. The Energy Resources Conservation Board, an independent government agency that was dissolved in 2013, reprimanded the company, saying it had inadequate leak detection and failed to test its emergency response plan.^[24]
- 2012: In June, almost half a million liters of sour crude oil leaked into a creek that flows into the Red Deer River, located about 100 kilometers north of Calgary, near the community of Sundre.^[25]
- 2012: On June 19, an Enbridge pipeline had a gasket failure, spilling about 1,400 barrels of crude oil, at a pumping station near Elk Point, Alberta.^[26]
- 2012: On June 23, an ignition and fire occurred in a valve-enclosure structure at Spectra Energy Transmission Compressor Station N4, located approximately 160 km northwest of Fort St. John, British Columbia. Two maintenance employees sustained burn injuries when sweet natural gas that had been leaking from a station valve ignited. The 2 employees were performing annual inspection work on motor-operated valves. The injured employees were air-lifted to the Fort St. John Hospital. One employee was released later that day, while the second employee was transferred to a burn unit in Vancouver.^[27]
- 2012: On June 28, a pipeline rupture and ignition occurred on Westcoast Energy Inc.'s 406.4 mm (16-inch) Nig Creek pipeline, located about 40 km northwest of Buick, British Columbia. Approximately 25 minutes later, a pipeline rupture and ignition occurred on Bonavista Energy Corporation's 168.3 mm (6.625-inch) pipeline installed nearby in the same right-of-way. At the time of the ruptures, both pipelines had been shut down and contained pressurized sour gas. The fire spread to adjacent forested areas. A large crater was created, and one piece of the Nig Creek pipe was ejected along with other debris to approximately 20 m from the rupture site. There were no injuries and no evacuation was required.^[28]
- 2013: In June, between 400,000 and 600,000 liters of produced water escaped from a pipeline, in addition to 5,000 liters of oil, near Little Buffalo, Alberta.^[29]
- 2013: On October 17, a 36-inch natural gas pipeline ruptured southwest of Fort McMurray, Alberta. An estimated 16.5 million cubic meters of natural gas were released. The rupture did not result in a fire, there were no injuries and no evacuation was required. A fracture in a pipe elbow was the identified for the reason

of the failure.^[30]

- 2014: On January 25, a TransCanada Corporation gas transmission pipeline 762 mm (30-inch) Line 400-1 exploded and burned, near Otterburne, Manitoba, causing a natural gas shortage in Manitoba and parts of the United States. Natural gas burned for approximately 12 hours. Five residences in the immediate vicinity were evacuated, and Provincial Highway 303 was closed until the fire was extinguished. There were no injuries.^{[31][32]}
- 2014: On April 2, a pipeline failed, and spilled 70,000 liters of oil and processed water, northwest of Slave Lake, Alberta.^[33]
- 2014: In November, 60,000 liters of crude oil spilled into muskeg from a failed pipeline, in Red Earth Creek in northern Alberta. Officials were delayed in reaching the scene, due to poor weather at the time.^[34]
- 2015: On March 1, a pipeline leak spilled about 17,000 barrel of condensate, in Northern Alberta.^[35]
- 2015: On May 5, a gas transmission pipeline failed approximately 36 kilometers southeast of Drumheller, Alberta. The incident resulted in an undetermined volume of sweet natural gas and associated hydrocarbon liquid being released onto agricultural land.^[36]
- 2015: On July 15, a pipeline at a Long Lake oil sands facility in northern Alberta leaked about 31,500 barrels of oil emulsion. The spill covered approximately 16,000 square meters (4 acres) but was mostly contained within the pipeline's right of way.^[37]
- 2015: On August 14, a leak from a pipeline spilled about 100,000 liters of an oil, water, & gas emulsion on the Hay Lake First Nation, about 100 kilometers northwest of High Level, Alberta.^[38]
- 2016: On July 21, a leaking Husky Energy pipeline spilled 225,000 liters of oil into the North Saskatchewan River, prompting a massive cleanup.^[39]
- 2017: On February 17, a total of 200,000 liters of oil condensate in Strathcona County, Alberta were released from line 2A, near Anthony Henday Drive and 92 Avenue,^[40] after line was struck during 3rd party construction operations.^[41]
- 2018: On January 7, a butane oil pipeline ruptured in St. John, New Brunswick. About 30 homes in the area were evacuated, as well as the SPCA Animal Rescue League Shelter.^[42]
- 2018: On May 27, a Trans Mountain pipeline leaked at the company's Darfield station north of Kamloops, British Columbia. About 4,800 liters of crude were released.^[43]
- 2018: On Oct 9, a 36 inch Enbridge natural gas pipeline exploded 13 km north of Prince George, British Columbia. About 1 million BC customers and 750,000 US customers are affected. Natural gas customers are being asked to reduce use.^[44]

China

- 2010: Dalian Pipeline disaster - The explosion of two petroleum pipelines and subsequent fire in the port of Dalian, in northern China's Liaoning province on Saturday, on July 17, 2010, caused fatalities, damages and an ecological disaster, releasing 11,000 barrels of oil into the Yellow Sea, and covering up, according to different sources, from 50 to 430 km² of sea and coast lines.
- 2013: a Sinopec Corp oil pipeline exploded in Huangdao, Qingdao, Shandong Province, on November 22, 2013. 55 people were killed.^[45]

India

- 2014: On June 27, a pipeline blast in Southern Indian state of Andhra Pradesh killed 22 people and injured 37. The pipeline was operated by Gas Authority of India Limited (GAIL) and a preliminary investigation revealed faulty operational procedures as a cause of fire.^{[46][47]}
- 2017: On April 29, a fire broke out in a GAIL operated gas pipeline caused by civil construction operations.^[48]
- 2017: On June 17, a farm near city of Jamnagar was flooded with oil. An oil pipeline operated by Indian Oil Corporation Limited (IOCL) since 1999 was ruptured below 12 feet from the ground.^[49]

Indonesia

- 2006: On Wednesday, October 18 a gas pipeline explosion killed at least seven people in East Java. The explosion was a consequence of land subsidence caused by volcanic mud eruptions, known as the Sidoarjo mud flow, that began erupting in late May and early June at the site of the Banjar-Panji 1 exploration well drilled by PT Lapindo Brantas.^[50]

Kenya

- 2011 Nairobi pipeline fire kills approximately 100 people and hospitalized 120.

Malaysia

- 2014: PETRONAS gas pipeline explosion in the state of Sarawak, Malaysia ripped apart a portion of the RM3bil Sabah to Sarawak interstate gas pipeline between Lawas town and Long Sukang in the northernmost district of Sarawak at 2 a.m., resulting in the evacuation of nearby villagers.^[51]

Mexico

- 1959: On July 1, a petroleum pipeline exploded, and burned for 7 hours in Coatzacoalcos. 12 people were killed, and 100 more injured.^{[52][53]}
- 1978: On November 1, a gas pipeline exploded and burned, killing 52 people in colonia Benito Juarez, Mexico, and injuring 11 in a town of only 100 people. The failure created a crater 300 feet wide and 20 feet deep.^{[54][55]}
- 2010: The explosion on December 19, 2010 of an oil pipeline at a Petroleos Mexicanos (Pemex) pumping station in San Martín Texmelucan de Labastida in central Mexico, killed at least 27 people and injured more than 50. The explosion is believed to have been caused by attempts to puncture the pipe to steal oil.^[56]
- 2012: On September 18, 2012, twenty-two workers died when a gas leak from a Kinder Morgan pipeline at Reynosa, Tamaulipas, Mexico sparked an explosion which became a fireball that overtook workers running for their lives, lead plaintiff Javier Alvarez del Castillo said. "They were engulfed in fire that burnt and singed every inch of skin from their head to their ankles, taking every bit of hair from their head, laying the plaintiffs 'skinless,' like skeletons bare to the bones, with in most cases only their footwear attached to the only portion of their body not reduced to skeleton." He blamed Kinder Morgan for not adding enough of the odorant methyl mercaptan to the gas. (Natural gas is odorless, so energy companies add the sulfur compound to make leaks smelly and therefore noticeable.) "A gas company may be liable if facts show that it fails to act reasonably after having notice of defects in the pipes through which gas flows," the ruling states, citing the Texas appellate court case Entex, a Division of NorAm Energy Corp. v. Gonzalez.^[57] On July 13, 2016, a U.S. Federal Court ruled that only Kinder Morgan and not any of the other companies originally sued by plaintiffs' groups should face the charges of gross negligence and negligence.^[58] The cause of the leak was a valve that apparently failed as workers performed routine testing, but gaps remain in what is known about the events that led up to the Reynosa explosion.^[59]
- 2019: On 18 January 2019, a pipeline transporting gasoline exploded in the town of Tlahuelilpan, in the Mexican state of Hidalgo killed at least 96 people and injured dozens more.^{[60][61]} The explosion is believed to be related to the government crackdown on fuel thieves.^[62]

Nigeria

- 1998: At Jesse in the Niger Delta in Nigeria, a petroleum pipeline exploded killing well over 500 villagers, some of whom were scavenging gasoline. The worst of several similar incidents in this country.^[63] (October 18, 1998)
- 2000: Another pipeline explosion near the town of Jesse killed about 250 villagers.^[63] (July 10, 2000)
- 2000: At least 100 villagers died when a ruptured pipeline exploded in Warri.^[63] (July 16, 2000)
- 2000: A leaking pipeline caught fire near the fishing village of Ebute near Lagos, killing at least 60 people.^[63] (November 30, 2000)

- 2003: A pipeline punctured by thieves exploded and killed 125 villagers near Umuahia, Abia State.^[63] (June 19, 2003)
- 2004: A pipeline punctured by thieves exploded and killed dozens of people in Lagos State.^[63] (September 17, 2004)
- 2006: An oil pipeline punctured by thieves exploded and killed 150 people at the Atlas Creek Island in Lagos State.^[64] (May 12, 2006)
- 2006: A vandalised oil pipeline exploded in Lagos. Up to 500 people may have been killed.^[65] (December 26, 2006)
- 2008: The 2008 Ijegun pipeline explosion (May 16)
- 2016: Vandalism at the Akulagba pipeline in Warri South - West Local Government Area of Delta State (January 22, 2016)^[66]
- 2016: The Fire explosion at Arepo and other coastal communities Pipeline in Ogun State (July 29, 2016)^[67]

Russia

- June 1982 Trans-Siberian Pipeline, three kilotons,^[68] via Farewell Dossier (Siberian pipeline sabotage)
- 1989 The Ufa train disaster: Sparks from two passing trains caused gas leaking from an LPG pipeline near Ufa, Russia to explode. Workers with the pipeline noticed pressure dropping in the line, but they increased pressure instead of searching for a leak. Trees up to 4 kilometers away were felled by the blast, and 2 locomotives and 38 passenger cars on the trains were derailed. Up to 645 people were reported killed on June 4, 1989.^[69]
- 2018 On January 18, a monstrous blaze resembling a wall of fire has engulfed a village in Russia's southern Saratov region after an oil transit pipeline sprung a leak. The flames raged for hours, devastating several houses. Some 2,000 cubic meters of oil spilled over to the adjacent territory and flooded several streets of the neighboring Krasnoarmeiskoe village in Russia's Volga region. The oil then caught fire. No casualties were reported, according to Russian media, citing "preliminary reports" of the emergency services.^[70]

Taiwan

- 2014: On the night of July 31, a string of explosions originating in buried gas pipes occurred in the city of Kaohsiung. Leaking gas, suspected to be propylene, filled the storm drains along several major thoroughfares and the resulting explosions turned several kilometers of road surface into deep trenches, sending vehicles, people and debris high into the air and igniting fires over a large area. At least 30 people were killed and over 300 injured.^{[71][72][73]}

United States

From 1994 through 2013, the U.S. had 745 serious incidents with gas **distribution**, causing 278 fatalities and 1059 injuries, with \$110,658,083 in property damage.^[74]

From 1994 through 2013, there were an additional 110 serious incidents with gas **transmission**, resulting in 41 fatalities, 195 injuries, and \$448,900,333 in property damage.^[75]

From 1994 through 2013, there were an additional 941 serious incidents with gas **all system type**, resulting in 363 fatalities, 1392 injuries, and \$823,970,000 in property damage.^[76]

A recent Wall Street Journal review found that there were 1,400 pipeline spills and accidents in the U.S. 2010–2013. According to the Journal review, four in every five pipeline accidents are discovered by local residents, not the companies that own the pipelines.^{[77][78]}

Explosion details

- 1965 (March 4) A 32-inch gas transmission pipeline, north of Natchitoches, Louisiana, belonging to the Tennessee Gas Pipeline exploded and burned from Stress corrosion cracking (SCC) on March 4, killing 17 people. At least 9 others were injured, and 7 homes 450 feet from the rupture were destroyed. The same pipeline had also had an explosion on May 9, 1955, just 930 feet (280 m) from the 1965 failure.^{[79][80]}
- 1999 (June 10) An Olympic gasoline pipeline ruptured near Bellingham, Washington, resulting in 3 deaths: a fly fisherman and two 10-year-old boys. The cause was a series of errors and malfunctions in relief systems and process control computer systems in the Olympic Pipeline system, resulting in 277,000 gallons of gasoline spilled to Whatcom Creek. The fire burned for five days.^{[81][82]}
- 2000 (19 August) A 30-inch El Paso Energy natural gas pipeline exploded, killing twelve people in southeast New Mexico. They were camping under a bridge which carried the pipeline across the Pecos River. The explosion occurred underground on the east side of the river 200 to 300 yards from the campers around 5:30 a.m.. The explosion left a crater 86 feet long, 46 feet wide and 20 feet deep. The fireball was visible 20 miles north in Carlsbad, N.M. The pipeline was installed in 1950.^[83]
- 2004 (May 24) A pinhole-sized leak caused by wear unleashed thousands of gallons of gasoline that fueled the BP / Olympic pipeline fire and explosion near the Westfield Shoppingtown Southcenter in Renton, Washington. The blaze sent three firefighters to the hospital, and a mile-square area, which included a nearby fire station, was cordoned off. The leak occurred in a half-inch-wide tube of stainless steel that Olympic operators use to extract fuel samples from the system's 16-inch-wide main line. A metal electrical conduit had rubbed against the stainless steel sampling tube to open the pinhole leak.^[84]
- 2010 (September 9) The San Bruno pipeline explosion: At 6:11 PM, a PG&E 30-inch natural gas line exploded in San Bruno, California, killing 8. Eyewitnesses reported the initial blast "had a wall of fire more than 1,000 feet high".^[85]
- 2010 (July 25) Crude oil pipeline ruptures near Marshall, Michigan, spilling over 840,000 gallons of oil into the Kalamazoo River ^{[86][87]}
- 2012 (12 December) a 20-inch transmission line owned by NiSource Inc., parent of Columbia Gas, exploded, leveling 4 houses, between Sissonville and Pocatalico in Kanawha County, West Virginia (WV). When it blew, nobody at pipeline operator, Columbia Gas Transmission knew it. An 800' section of I-77 was obliterated. ^{[88][89]} "The fire melted the interstate and it looked like lava, just boiling." Later the West Virginia Public Service Commission released several pages of violations by Columbia Gas.^[90] Forty families were "impacted" by the explosion.^{[91][92]} The investigation cited "external corrosion" as the cause of the blast.^{[93][88][94]}
- 2013 (29 March) ExxonMobil pipeline carrying Canadian Wabasca heavy crude from the Athabasca oil sands ruptured in Mayflower, Arkansas, about 25 miles northwest of Little Rock. Approximately 12,000 barrels (1,900 m3) of oil mixed with water had been recovered by March 31. Twenty-two homes were evacuated.^[1] The United States Environmental Protection Agency (EPA) classified the leak as a major spill. A reported 5,000–7,000 barrels of crude were released.^[95]
- 2013 (20 August) Explosion of a natural gas pipeline near Kiowa southwest of Oklahoma City ^[96]
- 2013 (8 October) Explosion of a natural gas pipeline near Rosston, Oklahoma.^[97]
- 2014 (Jan 25) A Trans Canada pipeline about 15 miles south of Winnipeg ruptured and exploded. The incident prompted the precautionary closure of two nearby pipelines. The pipelines supply the main source of natural gas to more than 100,000 Xcel Energy customers in eastern North Dakota, northwestern Minnesota and western Wisconsin.^[98] The explosion happened near Otterburne, Manitoba, about 15 miles south of the provincial capital, Winnipeg. The area was evacuated as a precaution. No injuries were reported but the fire burned for more than 12 hours.^[99]
- 2014 (Feb) In Knifely, Adair County, Kentucky, a Columbia Gulf gas pipeline exploded at 1 a.m. flattening homes, burning barns, and causing one casualty. The 30-inch natural gas pipeline was about 100 feet from Highway 76 and buried 30 feet underground. When it exploded, large rocks and sections of pipeline flew into the air, leaving a 60-foot crater. Columbia Gulf, part of NiSource's Columbia Pipeline Group, owns and operates more than 15,700 miles of natural gas pipelines, one of the largest underground storage systems in North America. The pipeline that exploded was carrying natural gas from the Gulf of Mexico to New York.^[100]
- 2014 (Feb 11) A Hiland gas pipeline exploded about six miles south of Tioga, North Dakota. Hiland was "blowing" hydrates, ice-like solids formed from a mixture of water and gas that can block pipeline flow, out of the pipeline.^[101]
- 2014 (Mar 14) A Northern Natural Gas Company pipeline erupted near the intersection of county roads 20

and O, about six miles north of Fremont, Nebraska. A company spokesman said, "In the summer you can tell if you've got a gas leak by vegetation, sometimes it dies in the ground."^[102]

- 2014 (May 26) A Viking gas pipeline explosion near Warren, Minnesota was "hell on earth," shaking the ground and shooting a fireball over 100 feet in the air. Roads within a two-mile radius were blocked off. Authorities suspected natural causes because there was still frost in the ground and the soil was wet.^{[98][103]}
- 2017 (November 16) TransCanada's Keystone Pipeline leaked 210,000 gallons (5,000 barrels) of crude oil in Marshall County in northeastern South Dakota. Officials don't believe the leak affected any surface water bodies or threatened any drinking water systems.^[104]
- 2018 (September 13) Suspected over-pressurization of natural gas pipes by Columbia Gas caused multiple explosions and fires in 3 towns in Massachusetts (Andover, Lawrence, and North Andover), leaving 1 dead.^[105]

See also

- List of oil spills
- Natural gas pipeline system in United States
 - Pigging
- Hydrostatic test
- Varanus Island, Western Australia
 - 2008 Western Australian gas crisis
- Palaceknowe Gas Pipeline Failure, Moffat, Beattock^[106]

References

1. "Archived copy" (https://web.archive.org/web/20110724154332/http://www.iab-atex.nl/publicaties/database/Ghis_lenghien%20Dossier.pdf) (PDF). Archived from the original (http://www.iab-atex.nl/publicaties/database/Ghis_lenghien%20Dossier.pdf) (PDF) on 2011-07-24. Retrieved 2010-12-31.
2. "Jan. 16, 1962: Eight dead, four injured in gas explosion" (<https://archive.today/20130215215441/http://www.edmontonjournal.com/1962+Eight+dead+four+injured+explosion/7823967/story.html>). 15 February 2013. Archived from the original (<https://edmontonjournal.com/1962+Eight+dead+four+injured+explosion/7823967/story.html>) on 15 February 2013.
3. "The Montreal Gazette - Google News Archive Search" (<https://news.google.com/newspapers?nid=1946&date=19620117&id=3o4jAAAAIBAJ&sjid=z50FAAAAIBAJ&pg=6178,2472719>). *google.com*. Retrieved 4 October 2016.
4. "Ottawa Citizen - Google News Archive Search" (<https://news.google.com/newspapers?nid=2194&date=19651013&id=ITk0AAAAIBAJ&sjid=bfUIAAAAIBAJ&pg=3622,452027>). *google.com*. Retrieved 4 October 2016.
5. "The Day Malton Blew Up | Mississauga" (<http://www.insauga.com/the-day-malton-blew-up>). *insauga.com*. Retrieved 2016-10-04.
6. "The Montreal Gazette - Google News Archive Search" (<https://news.google.com/newspapers?nid=1946&date=19861028&id=m1kiAAAAIBAJ&sjid=S6gFAAAAIBAJ&pg=3568,4211494&hl=en>). *google.com*. Retrieved 4 October 2016.
7. Government of Canada, Transportation Safety Board of Canada (27 January 1999). "Pipeline Investigation Report P96H0012" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/1996/p96h0012/p96h0012.asp>). *www.bst-tsb.gc.ca*. Retrieved 7 February 2019.
8. Government of Canada, Transportation Safety Board of Canada (13 August 1998). "Pipeline Investigation Report P97H0024" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/1997/p97h0024/p97h0024.asp>). *www.bst-tsb.gc.ca*. Retrieved 7 February 2019.

9. Government of Canada, Transportation Safety Board of Canada (24 March 1999). "Pipeline Investigation Report P97H0063" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/1997/p97h0063/p97h0063.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
10. Government of Canada, Transportation Safety Board of Canada (13 March 2002). "Pipeline Investigation Report P99H0021" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/1999/p99h0021/p99h0021.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
11. Government of Canada, Transportation Safety Board of Canada (4 February 2004). "Transportation Safety Board of Canada - Pipeline Investigation Report P00H0061" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2000/p00h0061/p00h0061.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
12. Government of Canada, Transportation Safety Board of Canada (19 December 2001). "Pipeline Investigation Report P01H0004" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2001/p01h0004/p01h0004.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
13. Government of Canada, Transportation Safety Board of Canada (6 February 2002). "Pipeline Investigation Report P01H0049" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2001/p01h0049/p01h0049.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
14. Government of Canada, Transportation Safety Board of Canada (22 April 2004). "Pipeline Investigation Report P02H0017" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2002/p02h0017/p02h0017.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
15. Government of Canada, Transportation Safety Board of Canada (7 February 2007). "Pipeline Investigation Report P05H0044" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2005/p05h0044/p05h0044.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
16. "Cleanup continues on B.C. oil spill" (<http://www.cbc.ca/news/canada/british-columbia/story/2007/07/24/bc-oils-pill.html>). *CBC News*.
17. Canada, Government of Canada, Transportation Safety Board of. "Pipeline Investigation Report P07H0014" (<http://www.tsb.gc.ca/eng/rapports-reports/pipeline/2007/p07h0014/p07h0014.asp>). www.tsb.gc.ca.
18. Government of Canada, Transportation Safety Board of Canada (23 December 2008). "Pipeline Investigation Report P07H0040" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2007/p07h0040/p07h0040.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
19. "Pipeline rupture: Alberta resident unaware of 2009 blast" (<http://www.cbc.ca/news/pipeline-rupture-alberta-resident-unaware-of-2009-blast-1.2525030>). *CBC News*.
20. Government of Canada, Transportation Safety Board of Canada (29 September 2010). "Pipeline Investigation Report P09H0074" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2009/p09h0074/p09h0074.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
21. Government of Canada, Transportation Safety Board of Canada (13 December 2010). "Pipeline Investigation Report P09H0083" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2009/p09h0083/p09h0083.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
22. "PIPELINE INVESTIGATION REPORT : P09H0084 : Crude Oil Pipeline Leak" (<http://www.tsb.gc.ca/eng/rapports-reports/pipeline/2009/p09h0084/p09h0084.pdf>) (PDF). *Tsb.gc.ca*. Retrieved 2016-10-04.
23. Government of Canada, Transportation Safety Board of Canada (21 March 2012). "Transportation Safety Board of Canada - Pipeline Investigation Report P11H0011" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2011/p11h0011/p11h0011.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
24. "Alta. oil pipeline leaked 28,000 barrels - Edmonton - CBC News" (<http://www.cbc.ca/news/canada/edmonton/alta-oil-pipeline-leaked-28-000-barrels-1.1015125>). *Cbc.ca*. 2011-05-03. Retrieved 2016-10-04.
25. "Plains Midstream criticized for pipeline leak into Red Deer River - Edmonton - CBC News" (<http://www.cbc.ca/news/canada/edmonton/plains-midstream-criticized-for-pipeline-leak-into-red-deer-river-1.2560240>). *Cbc.ca*. Retrieved 2016-10-04.

26. "Elk Point pipeline restarted after oil spill - Edmonton - CBC News" (<http://www.cbc.ca/news/canada/edmonton/elk-point-pipeline-restarted-after-oil-spill-1.1240395>). Cbc.ca. Retrieved 2016-10-04.
27. Government of Canada, Transportation Safety Board of Canada (26 September 2013). "Transportation Safety Board of Canada - Pipeline Investigation Report P12H0103" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2012/p12h0103/p12h0103.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
28. Government of Canada, Transportation Safety Board of Canada (4 June 2012). "Transportation Safety Board of Canada - Pipeline Investigation Report P12H0105" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2012/P12H0105/P12H0105.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
29. "Pennwest's Alberta Pipeline Spill Estimate Grows With Salt Water" (http://www.huffingtonpost.ca/2013/06/24/pennwest-alberta-pipeline-oil-spill_n_3491465.html). Huffingtonpost.ca. 2013-06-24. Retrieved 2016-10-04.
30. "Thermal expansion on elbow joint led to October 2013 pipeline rupture near Fort McMurray, Alberta" (<http://news.sys-con.com/node/3536027>). news.sys-con.com. Retrieved 2016-10-04.
31. "Chico News & Review - TransCanada pipeline explosion - Earth Watch - Green - February 6, 2014" (<http://www.newsreview.com/chico/transcanada-pipeline-explosion/content?oid=12685546>). Newsreview.com. 2014-02-06. Retrieved 2016-10-04.
32. Government of Canada, Transportation Safety Board of Canada (28 July 2015). "Pipeline Investigation Report P14H0011 - Transportation Safety Board of Canada" (<http://www.bst-tsb.gc.ca/eng/rapports-reports/pipeline/2014/p14h0011/p14h0011.asp>). www.bst-tsb.gc.ca. Retrieved 7 February 2019.
33. "Canadian Natural Resources pipeline leaks near Slave Lake - Business - CBC News" (<http://www.cbc.ca/news/business/canadian-natural-resources-pipeline-leaks-near-slave-lake-1.2597036>). Cbc.ca. 2014-04-03. Retrieved 2016-10-04.
34. "Canadian Natural Resources says pipeline spilled 60,000 litres of crude - Edmonton - CBC News" (<http://www.cbc.ca/news/canada/edmonton/canadian-natural-resources-says-pipeline-spilled-60-000-litres-of-crude-1.2855461>). Cbc.ca. 2014-11-30. Retrieved 2016-10-04.
35. Torres, Nicolas (2015-03-11). "Murphy Oil reports Alberta condensate leak now 17,000 barrels" (<http://petroglobalnews.com/2015/03/murphy-oil-reports-alberta-condensate-leak-now-17000-barrels/>). Petro Global News. Retrieved 2016-10-04.
36. "Archived - National Energy Board Responding to Pipeline Incident in Central Alberta - Canada News Centre" (<https://web.archive.org/web/20161005155531/http://news.gc.ca/web/article-en.do?mthd=advSrch&crtr.page=1&crtr.dpt1D=28&nid=971169>). News.gc.ca. 2015-05-05. Archived from the original (<http://news.gc.ca/web/article-en.do?mthd=advSrch&crtr.page=1&crtr.dpt1D=28&nid=971169>) on 2016-10-05. Retrieved 2016-10-04.
37. "UPDATE 1-Nexen pipeline leaks 31,500 bbls of emulsion at oil sands site" (<https://www.reuters.com/article/2015/07/17/nexen-pipeline-spill-idUSL2N0ZW34220150717#4UJ6DIYq1BYrB1br.97>). Reuters. 2015-07-16. Retrieved 2016-10-04.
38. "Alberta Energy Regulator responds to 100,000-litre spill in northwestern Alberta | CTV News" (<http://www.ctvnews.ca/business/alberta-energy-regulator-responds-to-100-000-litre-spill-in-northwestern-alberta-1.2524325>). Ctvnews.ca. 2015-08-19. Retrieved 2016-10-04.
39. Jan 17, CBC News · Posted: January 17, 2018 10:48 AM CT; 2018. "Judge rules 93 Husky oil spill documents to remain sealed - CBC News" (<https://www.cbc.ca/news/canada/saskatoon/judge-rules-husky-documents-sealed-pipeline-spill-1.4491223>). CBC. Retrieved 7 February 2019. Text "Last Updated:" ignored (help)
40. Board, Government of Canada, National Energy. "NEB – Incident Update: Enbridge Line 2A Pipeline Incident" (<https://www.neb-one.gc.ca/bts/nws/whtnw/2017/2017-02-21-eng.html>). www.neb-one.gc.ca.
41. "Edmonton Line 2A incident" (<https://www.enbridge.com/media-center/media-statements/strathcona-county-in-cident-response>).

42. "Oil company facing scrutiny after butane leak in Saint John - CTV News Atlantic" (<https://atlantic.ctvnews.ca/oil-company-facing-scrutiny-after-butane-leak-in-saint-john-1.3764293>). *atlantic.ctvnews.ca*. Retrieved 7 February 2019.
43. "Trans Mountain pipeline spill much larger than B.C. government first reported" (<https://www.northislandgazette.com/news/trans-mountain-pipeline-spill-much-larger-than-b-c-government-first-reported/>). *North Island Gazette*. 10 June 2018. Retrieved 7 February 2019.
44. "Prince George pipeline explosion not 'criminal in nature': RCMP - BC - Globalnews.ca" (<https://globalnews.ca/news/4538358/prince-george-pipeline-explosion-not-criminal-in-nature-rcmp/>). *globalnews.ca*. 11 October 2018. Retrieved 7 February 2019.
45. Huangdao, Qingdao, Shandong Province disaster (<https://www.reuters.com/news/pictures/slideshow?articleId=USRTX15OM8#a=1>) accessdate=2013-11-22
46. "22 wouldn't have died in pipeline blast had GAIL installed safety features: Probe report" (<http://indianexpress.com/article/india/india-others/22-would-not-have-died-in-pipeline-blast-had-gail-installed-safety-features-as-it-had-promised-probe-report/>). *The Indian Express*. 2014-09-08. Retrieved 2017-12-02.
47. "India gas pipeline blast kills 14" (<https://www.bbc.com/news/world-asia-india-28052104>). *BBC News*. 2014-06-27. Retrieved 2017-12-02.
48. Reporter, Staff (2017-04-29). "Fire breaks out on road following leak in GAIL gas pipeline" (<http://www.thehindu.com/news/cities/bangalore/fire-breaks-out-on-road-following-leak-in-gail-gas-pipeline/article18314848.ece>). *The Hindu*. ISSN 0971-751X (<https://www.worldcat.org/issn/0971-751X>). Retrieved 2017-12-02.
49. "IOC pipeline ruptured near Jamnagar, oil spreads on agricultural land" (<http://indianexpress.com/article/india/ioc-pipeline-ruptured-near-jamnagar-oil-spreads-on-agricultural-land-4709205/>). *The Indian Express*. 2017-06-17. Retrieved 2017-12-02.
50. Bonner, Raymond; Suhartono, Muklita (2006-10-23). "Indonesia gas blast linked to volcanic mud - Asia - Pacific - International Herald Tribune" (<https://www.nytimes.com/2006/11/23/world/asia/23iht-blast.3642098.html>). *The New York Times*. ISSN 0362-4331 (<https://www.worldcat.org/issn/0362-4331>). Retrieved 2017-06-14.
51. "Blast rips Sabah-Sarawak gas pipeline - Nation | The Star Online" (<http://www.thestar.com.my/News/Nation/2014/06/11/Blast-rips-SabahSarawak-gas-pipeline-No-one-hurt-in-2am-explosion-fire-is-out/>). *Thestar.com.my*. 2014-06-11. Retrieved 2016-10-04.
52. "St. Joseph News-Press - Google News Archive Search" (<https://news.google.com/newspapers?id=4SBUAAAIAIAJ&sjid=MzoNAAAAIAIAJ&pg=2424,272599&dq=pipeline%20explosion&hl=en>). *google.com*. Retrieved 4 October 2016.
53. "The Sydney Morning Herald - Google News Archive Search" (<https://news.google.com/newspapers?id=9PhjAAAAIAIAJ&sjid=AuUDAAAAIAIAJ&pg=5618,7145313&dq=pipeline%20explosion&hl=en>). *google.com*. Retrieved 4 October 2016.
54. "The Telegraph - Google News Archive Search" (<https://news.google.com/newspapers?nid=2209&dat=19781103&id=uhxSAAAAIAIAJ&sjid=JjUNAAAAIAIAJ&pg=4978,558758>). *google.com*. Retrieved 4 October 2016.
55. "Mexican pipeline explosion all but wipes out tiny town," UPI, *Morning News* (Wilmington, Delaware), November 4, 1978, p. 2.
56. Ellingwood, Ken (December 20, 2010). "27 die in oil pipeline explosion in Mexico" (<http://www.latimes.com/news/nationworld/world/la-fg-1220-mexico-oil-explosion-20101220,0,5059943.story>). *The Los Angeles Times*. Retrieved December 22, 2010.
57. Cameron Langford, "Kinder Morgan on Hook for Blast That Killed 22" (https://www.workerscompensation.com/news_read.php?id=24257), Courthouse News Service, July 15, 2016, accessed 2018-01-07.
58. "Kinder Morgan must defend fatal Mexican gas pipeline explosion court case," Hazardex, 2016.07.19, <http://www.hazardexonthenet.net/article/121852/Kinder-Morgan-must-defend-fatal-Mexican-gas-pipeline-explosion-court-case.aspx>, accessed 2018.01.07.

59. Mark Stevenson, "Mexico blast a blow to Pemex's improving safety," *Deseret News*, September 20, 2012, at <https://www.deseretnews.com/article/765605627/Mexico-blast-a-blow-to-Pemexs-improving-safety.html>, accessed 2018.01.07.
60. "Sube a 96 cifra de muertos por explosión en Tlahuelilpan" (<http://www.milenio.com/estados/sube-96-cifra-muertos-explosion-tlahuelilpan>). *Milenio* (in Spanish). 23 January 2019.
61. *Se ajusta la cifra de muertos tras explosión en Tlahuelilpan, Hidalgo* (<https://capital21.cdmx.gob.mx/se-ajusta-la-cifra-de-muertos-tras-explosion-en-tlahuelilpan-hidalgo/>) 2019-01-23
62. "Death toll in Mexico gasoline pipeline blast climbs to 96" (<https://www.reuters.com/article/us-mexico-fuel-theft-casualties/death-toll-in-mexico-gasoline-pipeline-blast-climbs-to-96-idUSKCN1PG1NB>). Reuters. Jan 22, 2019. Retrieved March 10, 2019.
63. "A chronology of pipeline fires in Nigeria" (<http://www.thenationonlineng.com/dynamicpage.asp?id=51129>). *Thenationonlineng.com*. The Nation (Lagos), Friday, May 16, 2008. Retrieved 2008-05-20.
64. Probe ordered after Nigeria blast (<http://news.bbc.co.uk/1/hi/world/africa/4768159.stm>), May 13, 2006, BBC News
65. Up to 500 killed in Lagos fuel blast (<http://uk.news.yahoo.com/26122006/325/500-killed-lagos-fuel-blast.html>), December 26, 2006, Yahoo News
66. Niyi (January 22, 2016). "Itsekiri Group Condemns Attacks On Emami Over Support To FG On Tracking Down Pipeline Vandals" (<http://www.informationng.com/2016/01/itsekiri-group-condemns-attacks-on-emami-over-support-to-fg-on-tracking-down-pipeline-vandals.html>). *Information Nigeria*. Retrieved 2 March 2017.
67. Daniel, Ayodele (July 29, 2016). "Military Launches Attack On Militants' Base In Ogun Coastal Communities" (<http://www.informationng.com/2016/07/military-launches-attack-on-militants-base-in-ogun-coastal-communities.html>). *Information Nigeria*. Retrieved 2 March 2017.
68. "The Farewell Dossier" (<https://www.nytimes.com/2004/02/02/opinion/the-farewell-dossier.html>). *The New York Times*. 2 February 2004. Retrieved 4 October 2016.
69. "Observer-Reporter - Google News Archive Search" (<https://news.google.com/newspapers?id=9M5dAAAAIBAJ&sjid=UV0NAAAAIBAJ&pg=1104,1780217&dq=propane%20pipeline%20leak&hl=en>). *google.com*. Retrieved 4 October 2016.
70. "Wall of fire: Oil pipe leak sparks huge blaze in Russian village (VIDEO)" (<https://www.rt.com/news/416339-russia-pipeline-village-blaze/>). *RT International*. Retrieved 7 February 2019.
71. Gladys Tsai; Ralph Jennings (2014-08-02). "Taiwan explosions probe focuses on petrochem firm" (<https://news.yahoo.com/taiwan-explosions-probe-focuses-petrochem-firm-084259627.html>). News.yahoo.com. Retrieved 2016-10-04.
72. 直播◆活動. "高雄驚傳嚴重氣爆意外 死傷人數攀升至28人、286傷 | 首頁 | 三立新聞網 SETN.COM" (<http://www.setnews.net/News.aspx?PageGroupID=1&NewsID=33335&PageType=1>). Setnews.net. Retrieved 2016-10-04.
73. "Economics minister urges Kaohsiung to offer new routes for gas pipes | Economics | FOCUS TAIWAN - CNA ENGLISH NEWS" (<http://focustaiwan.tw/news/aeco/201408060012.aspx>). Focustaiwan.tw. Retrieved 2016-10-04.
74. "PHMSA: Stakeholder Communications - Serious Pipeline Incidents" (http://primis.phmsa.dot.gov/comm/reports/safety/serpsi.html?nocache=5339#_ngdistrib). Primis.phmsa.dot.gov. Retrieved 2016-10-04.
75. "PHMSA: Stakeholder Communications - Serious Pipeline Incidents" (http://primis.phmsa.dot.gov/comm/reports/safety/serpsi.html?nocache=5339#_ngtrans). Primis.phmsa.dot.gov. Retrieved 2016-10-04.
76. "Oracle Business Intelligence" (<https://hip.phmsa.dot.gov/analyticsSOAP/saw.dll?Portalpages>). Hip.phmsa.dot.gov. Retrieved 2016-10-04.

77. Sider, Alison (2014-01-20). "Monitors Often Miss Oil Pipeline Leaks - WSJ" (<https://online.wsj.com/news/articles/SB10001424052702303754404579310920956322040?mg=reno64-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB10001424052702303754404579310920956322040.html>). *Online.wsj.com*. Retrieved 2016-10-04.
78. "TransCanada natural gas pipeline explodes near Winnipeg | Al Jazeera America" (<http://america.aljazeera.com/articles/2014/1/25/transcanada-naturalgaspipelineexpodesnearwinnipeg.html>). *America.aljazeera.com*. 2014-01-25. Retrieved 2016-10-04.
79. "Natchitoches, LA Gas Pipeline Explosion, Mar 1965 - GenDisasters ... Genealogy in Tragedy, Disasters, Fires, Floods" (<http://www.gendisasters.com/louisiana/53/natchitoches-la-gas-pipeline-explosion-mar-1965>). *www.gendisasters.com*.
80. "Letter to Bill Cope" (https://primis.phmsa.dot.gov/comm/reports/enforce/documents/420101007H/420101007H_CAO_12032010.pdf) (PDF). *primis.phmsa.dot.gov*. US Dept of Transportation. December 3, 2010.
81. Olympic Pipeline explosion
82. Kira Millage (2009-06-07). "Timeline of Bellingham pipeline explosion" (<http://www.bellinghamherald.com/2009/06/07/938966/timeline-of-bellingham-pipeline.html>). *Bellingham Herald*. Retrieved 2016-10-04.
83. "Natural Gas Pipeline Rupture and Fire Near Carlsbad, New Mexico, August 19, 2000." Pipeline Accident Report NTSB/PAR-03/01" (<http://www.nts.gov/investigations/AccidentReports/Reports/PAR0301.pdf>) (PDF). *Ntsb.gov*. February 11, 2003. Retrieved 2016-10-04.
84. "Wear caused gas leak in Olympic pipeline" (<http://www.seattlepi.com/local/article/Wear-caused-gas-leak-in-Olympic-pipeline-1145599.php>). *Seattlepi.com*. 2004-05-24. Retrieved 2016-10-04.
85. San Bruno Explosion: Photos Of The Fire's Aftermath Paint A Bigger Picture. *Huffingtonpost.com*. Retrieved on November 8, 2011
86. Emmanuel, Adeshina (10 July 2012). > "Preventable Errors Led to Pipeline Spill, Inquiry Finds" " (http://green.blogs.nytimes.com/2012/07/10/preventable-errors-led-to-pipeline-spill-inquiry-finds/?_php=true&_type=blogs&_r=0). *The New York Times*. Retrieved 2016-10-04.
87. Cooper, Aaron (2012-07-11). "Feds: Operator knew of pipeline problems years before Michigan oil spill" (<http://www.cnn.com/2012/07/10/us/michigan-oil-spill-ntsb-findings/index.html?iref=allsearch>). *CNN.com*. Retrieved 2016-10-04.
88. "No Alarm Sounded When The West Virginia Pipeline Exploded : The Two-Way" (<https://www.npr.org/blogs/thetwo-way/2012/12/13/167169109/no-alarm-sounded-when-the-west-virginia-pipeline-exploded>). *NPR*. 2012-12-13. Retrieved 2016-10-04.
89. "WV MetroNews – NTSB releases details about Sissonville pipeline explosion investigation" (<http://wvmetronews.com/2013/06/07/ntsb-releases-details-about-sissonville-pipeline-explosion-investigation/>). *Wvmetronews.com*. 2012-12-11. Retrieved 2016-10-04.
90. Edward Mills (2013-12-11). "WV MetroNews – Remembering the Sissonville pipeline explosion" (<http://wvmetronews.com/2013/12/11/remembering-the-sissonville-pipeline-explosion/>). *Wvmetronews.com*. Retrieved 2016-10-04.
91. "Eight settle claims over gas pipeline explosion - WOWK 13 Charleston, Huntington WV News, Weather, Sports" (<http://www.wowktv.com/story/23266781/eight-settle-claims-over-gas-pipeline-explosion>). *Wowktv.com*. 2016-09-29. Retrieved 2016-10-04.
92. "Nisource gas pipeline explodes near Charleston, West Virginia" (<https://www.reuters.com/article/2012/12/11/us-usa-blast-westvirginia-idUSBRE8BA16B20121211>). *Reuters*. 2012-12-11. Retrieved 2016-10-04.
93. National Transportation Safety Board (February 19, 2014). *Columbia Gas Transmission Corporation Pipeline Rupture Sissonville, West Virginia December 11, 2012 Accident Report* (<https://www.nts.gov/investigations/AccidentReports/Reports/PAR1401.pdf>) (PDF). National Transportation Safety Board. p. 50. Retrieved 11 August 2017.

94. "W.Va. gas explosion burns homes, shuts I-77" (<https://www.usatoday.com/story/news/nation/2012/12/11/west-virginia-gas-explosion/1761757/>). Usatoday.com. 2012-12-11. Retrieved 2016-10-04.
95. "Exxon faces Wednesday deadline for Ark. oil spill documents" (http://www.upi.com/Business_News/Energy-Resources/2013/04/10/Exxon-faces-deadline-for-oil-spill/UPI-56081365598614/). UPI.com. 2013-04-10. Retrieved 2016-10-04.
96. Shea, Paul (2013-08-20). "Nat Gas Pipeline Explosion Reported In Oklahoma" (<http://www.valuwalk.com/2013/08/nat-gas-pipeline-explosion-reported-in-oklahoma/>). Valuwalk.com. Retrieved 2016-10-04.
97. Walker, Jade (October 9, 2013). "Pipeline Explodes In Oklahoma" (http://www.huffingtonpost.com/2013/10/09/oklahoma-pipeline-explosion_n_4068377.html). *Huffington Post*.
98. Pioneer Press. "Northwestern Minnesota gas pipeline explosion: 'It was just hell on earth' – Twin Cities" (http://www.twincities.com/localnews/ci_25838227/gas-pipeline-explodes-northwestern-minnesota-none-hurt). Twincities.com. Retrieved 2016-10-04.
99. "TransCanada natural gas pipeline explodes near Winnipeg | Al Jazeera America" (<http://america.aljazeera.com/articles/2014/1/25/transcanada-naturalgaspipelineexplodesnearwinnipeg.html>). America.aljazeera.com. 2014-01-25. Retrieved 2016-10-04.
100. "Natural Gas Pipeline Explosion Levels Homes In Kentucky Town" (<http://thinkprogress.org/climate/2014/02/13/3287531/kentucky-natural-gas-explosion/>). Thinkprogress.org. Retrieved 2016-10-04.
101. JESSICA HOLDMAN (2014-02-11). "Natural gas explosion reported near Tioga | Bakken News" (http://bismarcktribune.com/bakken/natural-gas-explosion-reported-near-tioga/article_d4f90b48-9333-11e3-a757-0019bb2963f4.html). *bismarcktribune.com*. Retrieved 2016-10-04.
102. "No injuries reported in Neb. gas pipeline blast | Local News - KETV Home" (<http://www.ketv.com/news/report-s-of-natural-gas-line-explosion-north-of-fremont/24975672#ixzz34hwP9olw>). Ketv.com. 2014-03-14. Retrieved 2016-10-04.
103. "Archived copy" (<https://web.archive.org/web/20140529205938/http://www.startribune.com/local/260672051.html>). Archived from the original (<http://www.startribune.com/local/260672051.html>) on 2014-05-29. Retrieved 2014-06-15.
104. Press, Associated. "Keystone pipeline leaks 210K gallons of oil in South Dakota" (<http://www.chicagotribune.com/news/nationworld/ct-keystone-pipeline-leak-20171116-story.html>). *chicagotribune.com*. Retrieved 2017-11-17.
105. {{https://en.wikipedia.org/wiki/Massachusetts_gas_explosions}}
106. "Archived copy" (<https://web.archive.org/web/20121209035221/http://www.dumgal.gov.uk/CHttpHandler.ashx?id=3067&p=0>). Archived from the original (<http://www.dumgal.gov.uk/CHttpHandler.ashx?id%3D3067%26p%3D0>) on 2012-12-09. Retrieved 2012-06-25.

External links

- "PHMSA: Stakeholder Communications - Summary of Enforcement Case Status" (http://primis.phmsa.dot.gov/comm/reports/enforce/CaseStatus_opid_0.html?nocache=3500). *Primis.phmsa.dot.gov*. Retrieved 2016-10-04.
- "PHMSA - Home" (<https://web.archive.org/web/20161005135355/http://www.phmsa.dot.gov/portal/site/PHMSA/menuitem.ebdc7a8a7e39f2e55cf2031050248a0c/vgnextoid%3Dfdd2dfa122a1d110VgnVCM1000009ed07898RCRD%26vgnnextchannel%3D3430fb649a2dc110VgnVCM1000009ed07898RCRD%26vgnnextfmt%3Dprint>). *Phmsa.dot.gov*. 2012-12-13. Archived from the original (<http://www.phmsa.dot.gov/portal/site/PHMSA/menuitem.ebdc7a8a7e39f2e55cf2031050248a0c/vgnextoid=fdd2dfa122a1d110VgnVCM1000009ed07898RCRD&vgnnextchannel=3430fb649a2dc110VgnVCM1000009ed07898RCRD&vgnnextfmt=print>) on 2016-10-05. Retrieved 2016-10-04.
- "Blast rips Sabah-Sarawak gas pipeline - Nation | The Star Online" (<http://www.thestar.com.my/News/Nation/2014/06/11/Blast-rips-SabahSarawak-gas-pipeline-No-one-hurt-in-2am-explosion-fire-is-out/>). *Thestar.com.my*.

2014-06-11. Retrieved 2016-10-04.

Retrieved from "https://en.wikipedia.org/w/index.php?title=List_of_pipeline_accidents&oldid=892768637"

This page was last edited on 16 April 2019, at 19:08 (UTC).

Text is available under the [Creative Commons Attribution-ShareAlike License](#); additional terms may apply. By using this site, you agree to the [Terms of Use](#) and [Privacy Policy](#). Wikipedia® is a registered trademark of the [Wikimedia Foundation, Inc.](#), a non-profit organization.