Part II:

Pipeline Bursts:

Their *Causations*, and the

Deaths, Bodily Injuries, & Economic <u>and</u> Ecological Damages they Inflicted

2011 - 2012

As recorded by the U.S. Department of Transportation's Pipeline & Hazardous Materials Safety Administration

(www.phmsa.dot.gov/staticfiles/PHMSA/PipelineFailureReports)

Other sources cited, where applicable.

Compiled by Distance Everheart & Naomi Langley of Wild Willpower PAC (www.WildWillpower.org)

2011

- On January 11, personnel from Millennium Pipeline Company, L.L.C.¹ noticed that a gas transmission pipeline was leaking in Tioga County, New York. This 30-inch diameter pipeline was built only 3 years earlier in 2008. A pinhole in a rejected girth weld was found to be the cause of the failure. It appears that during the course of the construction project for the line, the subject pipe section was inadvertently picked up and subsequently installed in the pipeline. PHMSA ordered testing of this pipeline for similar flaws.²
- A 12-inch cast iron gas main leaking in Philadelphia explodes, killing a repair crew member and injuring six others on January 18.3
- Multiple gas pressure regulators failed, & caused a gas pressure surge in Fairport Harbor, Ohio, on January 24, causing gas fires in 11 houses, and one apartment. 150 gas appliances were damaged or destroyed. Gas company Dominion East Ohio⁴ says it found fluids & debris in a failed regulator. A year after the explosion, the Public Utilities Commission of Ohio recommended a \$500,000 fine for Dominion.⁵
- Five people were killed, & eight houses were destroyed, in a gas explosion and fire in Allentown, Pennsylvania on February 9. The NTSB had warned UGI about cast iron gas mains needing replacement after the 1990 gas explosion in that city. Between 1976 and the date of the letter, July 10, 1992, two more gas explosions occurred. Three people were killed, 23 injured and 11 houses were destroyed or damaged in those explosions. UGI was cited in 2012 for several safety violations, including a lack of valves on their gas system.⁶

¹ Millennium Pipeline Company, L.L.C.: http://www.millenniumpipeline.com/

² U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration, July 6th, 2011 report:

http://primis.phmsa.dot.gov/comm/reports/enforce/documents/120111013S/120111013S_NOPSO_07062011.pdf

³ U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration, "Pipeline Replacement Updates": http://opsweb.phmsa.dot.gov/pipeline_replacement/

⁴ https://www.dom.com/residential/dominion-east-ohio

^{5&}quot;**Fairport Harbor blasts probed**". **news-herald.com. February 2, 2011. Retrieved April 2,2013:** http://www.news-herald.com/general-news/20110202/fairport-harbor-blasts-probed?viewmode=fullstory

^{6 &}quot;UGI cited for multiple safety violations leading to Allentown gas explosion | Regional: Lehigh Valley – Home". Wfmz.com. June 11, 2012: http://www.wfmz.com/news/news-regional-lehighvalley/Local/UGI-cited-for-multiple-safety-violations-leading-to-Allentown-gas-explosion/14773532



PHOTO: "Firefighter crews fight the aftermath of a pipeline explosion in Allentown, Pennsylvania, in which 5 people were killed and 8 houses were destroyed – February 9, 2011": http://www.lehighvalleylive.com/allentown/index.ssf/2013/02/ugi agrees to pay 500000 fine.html

- Late on February 10, a Tennessee Gas Pipeline 36-inch gas transmission pipeline exploded & burned near Lisbon, Ohio. The cause was from stress on a girth weld on the pipeline.⁷
- On March 1, a Tennessee Gas Pipeline gas transmission pipeline failed near Cumberland, Ohio. A material or weld defect was the cause.⁸
- Early on March 17, a 20-inch steel natural gas line running through a Minneapolis, Minnesota neighborhood ruptured & gas from it ignited, caused evacuations to buildings nearby, & Interstate 35W was closed from downtown Minneapolis to Highway 62. The Minnesota Office of Pipeline Safety⁹ later found the pipe there wasn't designed to handle the weight of soil & passing cars pressing down on it, & efforts to shore up the pipeline were incorrectly carried out.¹⁰
- A farmer & rancher near White Oak Township, Michigan smelled gasoline on April 13, & discovered gasoline from a products pipeline leaking into a drainage ditch. As of late September, an estimated 460,000 gallons of gasoline contaminated the ecosystem.¹¹
- On May 7, a threaded connection failed on a Keystone Pipeline¹² pump at a station in Sargent County, North Dakota, spilling about 400 barrels of crude oil. Due to a number of other leaks on this pipeline system, Keystone's owner, TransCanada Corporation¹³, was given a Corrective Action Order by PHMSA.¹⁴

^{7 &}quot;Cause of explosion in Hanover Township determined – 21 News Now, More Local News for Youngstown, Ohio": http://www.wfmj.com/story/15677053/cause-of-explosion-in-hanover-township-determined

⁸ U.S. DOT: http://primis.phmsa.dot.gov/comm/reports/operator/OperatorIM_opid_19160.html

⁹ https://dps.mn.gov/divisions/ops/Pages/default.aspx

^{10 &}quot;Report ID's Cause of Windom Pipeline Explosion". *Southwest Minneapolis, Minnesota Patch*: http://patch.com/minnesota/southwestminneapolis/report-id-s-cause-of-windom-pipeline-explosion

¹¹ Southern Illinoisians Against Fracturing the Environment, "List of pipeline accidents in the United States in the 21st century": http://www.dontfractureillinois.net/2013/10/list-of-pipeline-accidents-in-the-united-states-in-the-21st-century/

¹² **Keystone XL Pipeline:** http://www.keystone-xl.com/

¹³ TransCanada Corporation: http://www.transcanada.com/

¹⁴ U.S. DEPARTMENT OF TRANSPORTATION PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION OFFICE OF PIPELINE SAFETY WASHINGTON, D.C.: http://primis.phmsa.dot.gov/comm/reports/enforce/documents/320115006H/320115006H_Amended %20CAO_06282011_text.pdf



PHOTO: "March 17, 2011 - Gas line explosion in Minneapolis, Minnesota - the line was found to not have been constructed properly in order to hold the weight of soil and cars passing over it, and it ruptured while being shored up": http://finance-commerce.com/2011/03/natural-gas-explosion-hits-south-minneapolis/

- An 8-inch NGL pipeline failed in Romeoville, Illinois on May 14, leaking about 4200 gallons of butane. Corrosion inside a casing under a road was the cause of the failure. Corrosion only 2.5 feet from the failure had been seen by a smart pig run in 2007, but was not within action limits at the time. 15
- On May 19, a 10-inch crude oil pipeline ruptured near Maysville, Oklahoma. Over 42,000 US gallons (160,000 L) of crude contaminated the ecosystem. Internal pipeline corrosion was the cause. 16
- **A 2-inch lateral on a crude oil pipeline ruptured** in Huntington Beach, California on July 1.¹⁷
- Late on July 1, a 12-inch Exxon Mobil crude oil pipeline— also known as the Silvertip Pipeline— ruptured, & spilled about 63,000 gallons of oil into the Yellowstone River in south-central Montana. There was confusion in the pipeline control room, causing a delayed pipeline shutdown. The break near Billings fouled the riverbank & forced municipalities & irrigation districts to close intakes. Speculation involves high water flow in the Yellowstone River may have scoured the river bed & exposed the pipe. 20
- On July 20, a six-month-old, 30-inch natural gas pipeline exploded near Gillette, Wyoming, creating a 60-foot (18 m) crater. Construction or installation issues caused the failure. 21 22
- 15 U.S. DEPARTMENT OF TRANSPORTATION PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION OFFICE OF PIPELINE SAFETY CENTRAL REGION KANSAS CITY, MISSOURI: http://primis.phmsa.dot.gov/comm/reports/enforce/documents/320115008S/320115008S_Notice %20of%20Proposed%20Safety%20Order 06152011 text.pdf
- 16 McGurty, Janet (January 20, 2011). "UPDATE 2-Sunoco shuts Oklahoma crude line after Weds. leak". Reuters: http://uk.reuters.com/article/pipeline-outage-sunoco-oklahoma-idUKN2014891220110120
- 17 **KTLA.com, "Major Huntington Beach Street Closed After Oil Pipe Bursts":** https://web.archive.org/web/20120902094232/http://www.ktla.com/news/landing/ktla-southwest-oilleak,0,7386337.story
- 18 Cause of explosion in Hanover Township determined 21 News Now, More Local News for Youngstown, Ohio": http://www.wfmj.com/story/15677053/cause-of-explosion-in-hanover-township-determined
- 19 "Exxon Oil Spill in Montana River Prompts Evacuations". *Fox News.* July 3, 2011: http://www.foxnews.com/us/2011/07/03/exxon-oil-spill-in-montana-river-prompts-evacuations/#ixzz1R8GNIrB2
- 20 "Lawsuits against Exxon Mobil mount over big oil pipeline spills", Dallas News: http://www.dallasnews.com/business/energy/20130914-lawsuits-against-exxon-mobil-mount-over-big-oil-pipeline-spills.ece
- 21 **United Press International, July 24th, 2011:** http://www.upi.com/Business_News/2011/07/24/Wyoming-nat-gas-pipeline-out-of-commission/UPI-87131311487780/
- 22 Charles Rusnell Timothy Sawa and Joseph Loiero, of CBC News, October 24th, 2012: http://www.cbc.ca/news/canada/quality-concerns-arose-before-transcanada-pipeline-blast-1.1276144



PHOTO: **"63,000 gallons of oil spilled by ExxonMobil into the Yellowstone River on July 1, 2011":** http://www.nytimes.com/2011/07/03/us/03oilspill.html

- A pipeline carrying jet fuel ruptured in Mango, Florida on July 22. About 31,500 US gallons (119,000 L) of fuel spilled.²³
- On August 13, an 8-inch NGL pipeline ruptured near Onawa, Iowa at a Missouri River crossing, during flooding conditions. About 818 barrels of Natural Gasoline contaminated the ecosystem.²⁴ ²⁵ ²⁶ ²⁷
- On August 17, Kinder Morgan's Natural Gas Pipeline Company of America had a flash fire and explosion at a plant south of Herscher, Illinois. Five employees went to the hospital. Kinder Morgan was later cited for pipeline and workplace safety violations.²⁸ 29
- A pipeline carrying heating oil was hit by construction workers in East Providence, Rhode Island on August 31, spraying oil on roofs, trees, and pavement, and flowed into storm drains. At least 56,000 US gallons (210,000 L) of oil were spilled.³⁰
- A 10-inch liquid petroleum gas ("LPG") pipeline failed on September 8 in Mitchell County, Texas. The escaping gas ignited, starting a small brush fire. The cause of the failure was a crack in the weld of a repair sleeve from bending and heat hardening.³¹
- 23 **Kevin Brady, of Brandon Patch, July 24th, 2011:** https://web.archive.org/web/20120328041114/http://brandon.patch.com/articles/officials-probe-leak-of-31500-gallons-of-jet-fuel-near-mango-cleanup-ongoing
- 24 **U.S. DOT, Pipeline & Hazardous Materials Safety Administration, September 16th, 2011:** http://primis.phmsa.dot.gov/comm/reports/enforce/documents/320115010H/320115010H_CAO_09162011.p
- 25 **U.S. DOT, Pipeline & Hazardous Materials Safety Administration, August 19th, 2011:** http://primis.phmsa.dot.gov/comm/reports/enforce/documents/320115009H/320115009H_CAO_08192011.p df
- 26 **The Associated Press, August 14th, 2011:** http://www.wowt.com/home/headlines/Gas_Leaking_Into_Missouri_River_From_Pipeline_127693933.html
- 27 **The United States Department of Justice, Office of Public Affairs, May 29th, 2012:** https://www.justice.gov/opa/pr/mid-america-pipeline-company-and-enterprise-products-operating-pay-1-million-spills-iowa
- Natural Gas Watch.org, August 17th, 2011: http://www.naturalgaswatch.org/?p=817
- 29 **Hazardex, August 17th, 2011:** http://www.hazardexonthenet.net/article/44270/Gas-plant-explosion-injures-five.aspx?AreaID=2
- 30 **Alisha A. Pina, of The Providence Journal, September 3rd, 2011:** https://web.archive.org/web/20111016024958/http://www.projo.com/news/environment/content/OIL_SPILL_UPDATE_09-03-11_SKQ4BP2_v15.64660.html
- 31 U.S. DOT, Pipeline & Hazardous Materials Safety Administration, April 19th, 2012: http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Pipeline/Failure %20Reports/Chevron%20HL%20TX%202011-09-08%20508.pdf



PHOTO: **"Pipeline explosion in Gillette, Wyoming":** http://www.gillettenewsrecord.com/news/article_888580dc-4235-5cb8-b187-47b771963691.html

- On September 20, a farmer digging to lay drainage tile hit a 10-inch gasoline pipeline near Aurelius, New York, spilling about 3,300 US gallons (12 m³) of gasoline.³²
- A 2-inch crude oil gathering pipeline failed in Oklahoma on October 12, spilling about 120 barrels of oil.³³
- Early on November 3, an explosion and fire hit a gas Columbia Gas Transmission pipeline³⁴ compressor station at Artemas in Mann Township, Bedford County, Pennsylvania. The cause was internal corrosion.³⁵ ³⁶
- On November 8, a contractor for Vectren Corp.³⁷ working on a bare gas main replacement project broke a "short stub" on the main, then failed to notify New Albany, Indiana authorities about the leak. Gas migrated through the soil, and built up in a nearby house, then exploded. Five people had to be hospitalized.³⁸
- A crew working on a waterline hit a gas distribution pipeline in Fairborn, Ohio on November 12, leading to a gas explosion that killed one man, and injured five others, including children.³⁹
- On November 16, a Tennessee Gas Pipeline 36-inch gas transmission pipeline exploded and burned near Glouster, Ohio. Two people were injured, with three houses and a barn destroyed, and a barn damaged. The pipeline failed at a girth weld, with landsliding causing more stress on the weld.⁴⁰
- 32 **Scott Rapp, of The Post-Standard, September 23rd, 2011:** http://www.syracuse.com/news/index.ssf/2011/09/ruptured_gasoline_pipeline_fix.html
- 33 **Reuters, Oil Report, October 24th, 2011:** http://uk.reuters.com/article/pipeline-operations-blueknight-idUKN1E79N0V720111024
- 34 Columbia Gas Transmission pipeline: http://www.columbiapipeinfo.com/infopost/
- Steve Bittner, of the Cumberland Times-News, November 3rd, 2011: http://www.times-news.com/news/local_news/link-to-video-of-artemas-gas-explosion-at-bottom-of/article 55f5bbab-5bbf-5082-91a7-1a53441ea878.html
- 36 U.S. DOT, Pipeline & Hazardous Materials Safety Administration: http://primis.phmsa.dot.gov/comm/reports/operator/OperatorIM_opid_2616.html? nocache=7677# Incidents tab 4
- 37 **Vectron Corps.** *Website:* https://www.vectren.com/
- Daniel Suddeath, of News and Tribune, September 25th, 2012: http://www.newsandtribune.com/news/business/vectren-agrees-to-settlement-in-gas-explosion/article a54ecf8e-5bc6-56ed-aeb3-2a7242a1c58c.html
- 39 **Fox News U.S., November 13th, 2011:** http://www.foxnews.com/us/2011/11/12/ohio-house-explosion-injures-6-1-missing-officials-say.html? test=latestnews
- 40 **U.S. DOT, Pipeline & Hazardous Materials Safety Administration, November 17th, 2011:** http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/320111018H_CAO_11172011%20-%20Tennessee%20Gas.pdf



PHOTO: "Aftermath of a gas line explosion in Fariborn, Ohio which resulted in the death of a 75 year old man": http://www.foxnews.com/us/2011/11/12/ohio-house-explosion-injures-6-1-missing-officials-say.html

- Late on November 21, a Tennessee Gas Pipeline 24-inch gas transmission pipeline exploded and burned near Batesville, Mississippi. The pipeline failed at a sleeve over a wrinkle bend.⁴¹
- On December 3, a Williams Companies⁴² gas transmission pipeline exploded and burned in Marengo County, Alabama. A 47-foot section of the pipe was hurled more than 200 feet from the failure area. The gas burned for several hours, and a nearby pipeline was damaged. External corrosion was the cause of the failure, due to issues with the pipeline coating, the cathodic protection level, and the local soil corrosiveness.⁴³ 44
- On December 6, explosions and fire erupted at a natural gas pipeline compressor station in Sublette County, Wyoming. Two workers were injured.⁴⁵
- On December 10, a landowner using a bulldozer hit an 8-inch and a 12-inch petroleum pipelines near Nemaha, Nebraska, rupturing both lines. The spill size was estimated to be 119,000 gallons of gasoline, jet fuel, and Diesel fuel. Some of the fuels flowed into a creek leading into Jasper Creek. There were questions about the depth of soil coverage for this pipeline.^{46 47 48}

http://www.wsfa.com/story/16181245/pipeline-explodes-in-marengo-county-causes-massive-fire

44 **Jason Cannon, of the Demopolis Times, February 21st, 2012:** http://www.demopolistimes.com/2012/02/21/corrosion-cited-in-pipeline-explosion/

45 Jeremy Fugleberg of Star-Tribune, December 6th, 2011:

 $http://trib.com/news/state-and-regional/two-injured-in-fire-explosions-at-wyoming-natural-gas-site/article_1e7e73ac-e3a0-563a-bff1-0b6a716457da.html$

46 Lincoln Journal Star, December 12th, 2011:

http://journalstar.com/business/local/magellan-pipeline-fixed-near-nemaha-fuel-pumping-to-resume/article a9db6a3a-2ddb-5d7c-af11-3b329c4576b0.html

47 Algis J. Laukaitis, of the Lincoln Journal Star, December 12th, 2011:

 $http://journal star.com/news/local/clean-up-begins-on-pipeline-spill-in-nemaha-county/article_97ce305c-051f-5e9f-a93a-34f7ab9e00c2.html\\$

48 Paul Burkhardt, of the Bloomberg Business Week, December 13th, 2011:

https://web.archive.org/web/20131028144724/http://www.businessweek.com/news/2011-12-13/magellan-reduces-nebraska-line-spill-estimate-to-2-834-barrels.html

⁴¹ **U.S. DOT, Pipeline & Hazardous Materials Safety Administration, November 28th, 2011:** http://primis.phmsa.dot.gov/comm/reports/enforce/documents/220111010H/220111010H_CAO_11282011.p df

⁴² Williams Company: http://co.williams.com/

⁴³ WSFA 12 News, 2011:

- A 42-inch natural gas transmission pipeline failed and ignited at a valve on December 10 in Cache County, Utah. 49 50
- On December 27, controllers for Enterprise Pipeline received an alarm for a leak on an LPG pipeline, a leak found in Loving County, Texas. The cause was a full girth weld failure. During the pipeline repair, a flash fire involving residual pipeline product in the soil occurred, injuring 3 employees. The rupture was attributed to the complete circumferential separation of an acetylene girth weld dating to 1928, and the flash fire was attributed to operator error. 51



PHOTO: "Pipeline explosion in Batesville, Mississippi caused by faulty construction": http://fuelfix.com/files/2011/11/Gas-Line-Explosion_Coha-306x229.jpg

Bloomberg News, December 12th, 2011: http://www.denverpost.com/2011/12/12/el-paso-says-no-estimate-for-return-of-ruby-gas-line-in-utah/

⁵⁰ **Ruby Pipeline LLC, December 11th, 2011:** http://ebb.cigco.com/ebbmasterpage/Notices/NoticesAutoTable.aspx?

⁵¹ U.S. DOT, Pipeline & Hazardous Materials Safety Administration, September 12th, 2013: http://www.phmsa.dot.gov/staticfiles//PHMSA/PipelineFailureReports/Failure_Investigation_Report_Enterprise Rio Grande Final.pdf

2012

- A 30-inch gas pipeline exploded and burned, in Estill County, Kentucky, on the evening of January 2. The rupture created a crater approximately 86 feet long by 22 feet wide, and expelled a number of pieces of pipe as far as 800 feet from the rupture center. Flames were reported reaching over 1,000 feet high. Residents up to a mile away from the failure were evacuated. The cause was overstress from land movement.⁵²
- A forest fire caused a gas pipeline to explode and burn in Floyd County, Kentucky on January 7.53
- On January 9, a man was killed, and another person injured, in a fiery house explosion from a leaking 4-inch cast iron gas main installed in 1950 in Austin, Texas. Gas had been smelled in the area for several weeks prior to this. Gas company crews had looked along the affected property for a leak, but were unable to find it. 54 55
- A Sunoco pipeline ruptured and spilled about 117,000 gallons of gasoline, in Wellington, Ohio, late on January 12.56
- On January 13, an 8-inch gas pipeline exploded and burned, in a vacant agricultural field, in Rio Vista, California, *contaminating the ecosystem*.⁵⁷
- A Tennessee Gas Pipeline **gas compressor had a major leak** "that sounded like a rocket" in Powell County, Kentucky, forcing evacuations of nearby residents on January 14.⁵⁸

https://web.archive.org/web/20120106210254/http://www.wkyt.com/wymtnews/headlines/136548983.html

http://www.statesman.com/news/news/local/man-feared-dead-in-home-explosion-had-hoped-to-m-1/nRjcb/

Michael Baldwin of News Channel 5, January 21st, 2012: https://web.archive.org/web/20131027232258/http://www.newsnet5.com/dpp/news/local_news/oh_lorain/wel lington-may-have-answers-in-the-coming-weeks

57 **Rick Hurd, of The Mercury News, January 13th, 2012:** http://www.mercurynews.com/2012/01/13/no-injuries-damage-after-gas-line-explodes-in-rio-vista/

58 **Lex18.com**, **January 14th**, **2012**: https://web.archive.org/web/20120119085823/http://www.lex18.com/news/gas-leak-in-powell-county

⁵² WYMT News, January 2nd, 2012:

⁵³ Maryland Citizens for Safe Gas Pipelines: http://www.ceds.org/gas.html

⁵⁴ U.S. DOT, Pipeline & Hazardous Materials Safety Administration: http://opsweb.phmsa.dot.gov/pipeline_replacement/

⁵⁵ Statesman, January 11th, 2012:

- A contractor excavating for a communications company caused a massive gas
 explosion and fire at a condominium complex on January 16 in West Haverstraw,
 New York, injuring two firefighters and two utility workers. Afterwards, it was found
 that the excavator's insurance will be insufficient to cover all of the property
 damage of the incident.⁵⁹
- On January 18, the original Colonial Pipeline mainline failed in Belton, South Carolina, spilling about 13,500 gallons of petroleum product into the ecosystem. The failure was caused by internal corrosion. 60



PHOTO: "Pipeline rupture in Estill County, Kentucky which was caused by overstress from land movement": http://www.kentucky.com/news/local/crime/article44148285.html

⁵⁹ **Akiko Matsuda, of The Journal News, January 20th, 2012:** https://web.archive.org/web/20150223060211/http://www.lohud.com/article/20120121/NEWS03/301200069/Cortlandt-contractor-gas-explosion-may-lack-enough-insurance-lawyer-homeowners-says

⁶⁰ **Pipeline Safety Tracker by Pro Publica, January 18th, 2012:** http://projects.propublica.org/pipelines/incidents/273705

- Workers in Topeka, Kansas were installing a yard sprinkler system on January 30, hit a gas line. Gas from the leak later on exploded in a nearby house, burning a 73-year-old woman, who died several weeks later.⁶¹
- On January 31, a Shell Oil Company fuel pipeline to the Milwaukee, Wisconsin Mitchell International Airport was found to be leaking. Jet fuel had been smelled for about two weeks in the area, and was found in runoff water in the area. The cause was from external corrosion. About 9,000 gallons of fuel were spilled. In 2014, a Shell employee was scheduled to plead guilty to charges of falsifying records of the pipeline. 62
- A Florida Gas Transmission Company 30-inch gas transmission pipeline burst near Baton Rouge, Louisiana on February 13.⁶³ 64
- On February 15th, 2012 in Arenac County, Michigan, oil was discovered in the soil around a 30-inch Enbridge crude oil pipeline. **About 800 gallons of crude oil was spilled**.65

⁶¹ **Giang Nguyen and Marques White of WIBW 13, January 31st, 2012:** http://www.wibw.com/home/headlines/Building_Explosion_138335069.html

⁶² **Bruce Vielmetti of the Journal Sentinel, November 17th, 2014:** http://archive.jsonline.com/news/milwaukee/ex-shell-pipeline-monitor-to-plead-guilty-in-airport-leak-b99392450z1-282987621.html

⁶³ **U.S. DOT, Pipeline & Hazardous Materials Safety Administration, June 24th, 2013:** http://primis.phmsa.dot.gov/comm/reports/enforce/documents/420131014H/420131014H_Corrective %20Action%20Order 06242013.pdf

⁶⁴ U.S. DOT, Pipeline & Hazardous Materials Safety Administration: http://primis.phmsa.dot.gov/comm/reports/operator/OperatorIM_opid_31174.html? nocache=2826# Incidents tab 3

⁶⁵ U.S. DOT, Pipeline & Hazardous Materials Safety Administration: http://primis.phmsa.dot.gov/comm/reports/operator/OperatorIM_opid_11169.html? nocache=3470# Incidents tab 3



PHOTO: "The remnant of a pipeline explosion in Topeka, Kansas which resulted in the death of a 73 year old woman": https://www.greatbendpost.com/2012/02/06/topeka-woman-dies-in-house-explosion/)

- Two cars that were drag racing went off the road they were on, and crash through a fence and into a crude oil pipeline in New Lenox, Illinois on March 3. The pipeline was ruptured, and the crude oil ignited. Two men from the vehicles were killed, and three others seriously burned. 66 67
- A crude oil pipeline leaked near Grand Isle, Louisiana on March 17, spilling as much as 8,400 gallons of crude oil. 68
- On March 29, an employee accidentally left a valve open during maintenance work on a Williams Companies gas compressor station near Springville Township, Pennsylvania. Later, gas leaked through the valve, causing alarms to evacuate workers in the compressor building. Later, the gas exploded and burned. It was found there were no agencies enforcing rules on rural gas facilities in Pennsylvania at the time.^{69 70}
- On April 2, Transcontinental Gas Pipeline Company, reported a leak on their 72nd Street Interstate Transmission Lateral located in North Bergen, New Jersey. Workers discovered a rock in contact with the bottom of the pipe. Upon removing the rock, the pipeline began to leak.⁷¹
- A 12-inch gas pipeline exploded and burned for five hours near Gary, Texas on April 4. The rupture site was only 200 feet from that pipeline's compressor station.⁷²

⁶⁶ Brian Stanley and Steve Metsch of The Chicago Sun-Times, March 6th, 2012: http://www.firerescue1.com/fire-attack/articles/1247826-2-killed-by-Ill-oil-pipeline-explosion/

⁶⁷ **K.T. Arasu of Reuters, March 7th, 2012:** http://af.reuters.com/article/energyOilNews/idAFL2E8E7FYA20120307?sp=true

⁶⁸ **Paul Purpura of The Times-Picayune, March 21st, 2012:** http://www.nola.com/environment/index.ssf/2012/03/officials finish cleaning crud.html

⁶⁹ **Joseph Tanfani of the Inquirer, April 8th, 2012:** http://articles.philly.com/2012-04-08/news/31308559_1_gas-safety-gas-explosion-natural-gas

⁷⁰ **Laura Legere of The Times-Tribune, March 30th, 2012:** http://thetimes-tribune.com/news/explosion-rocks-natural-gas-compressor-station-1.1292502#axzz1qWyVU1UF

⁷¹ **U.S. DOT, Pipeline & Hazardous Materials Safety Administration, July 12th, 2013:** http://www.phmsa.dot.gov/staticfiles/PHMSA/PipelineFailureReports/139107_Williams_Gas_Pipeline_Nort h Bergen NJ 2012[Redacted for Internet].pdf

⁷² **KSLA, April 4th, 2012:** http://apmobile.worldnow.com/story/17329411/early-morning-pipeline-explosion-rocks-homes-in-carthage-area

- On April 6, two gas company workers were mildly burned when attempting to fix a leak on a 4-inch gas pipeline in DeSoto County, Mississippi. The pipeline exploded and burned during the repairs.⁷³
- A gas pipeline exploded and burned in Terrebonne Parish, Louisiana, on April 9.74
- Two men escaped with only minor burns after a bulldozer they were using hit a 24-inch gas pipeline near Hinton, Iowa on April 25th. Authorities later announced the men did not call 811 for an underground utility locate.⁷⁵



PHOTO: "The aftermath of the fiery car wreck of New Lenox, Illinois. While the men may have been drag racing, it was the pipeline that caused them to burst into flames - the two men died": http://www.triblocal.com/new-lenox/2012/03/05/accident-shuts-down-new-lenox-pipeline/

⁷³ **Natural Gas Watch.org, April 9th, 2012:** http://www.naturalgaswatch.org/?p=1332

⁷⁴ **Rebecca Mowbray of The Times-Picayune, April 11th, 2012:** http://www.nola.com/business/index.ssf/2012/04/natural_gas_pipeline_ruptures.html

⁷⁵ **Siouxland's News Channel 4 KTIV, April 26th, 2012:** http://www.ktiv.com/story/17797831/northern-natural-gas-men-did-not-check-for-line

- On April 28, an ExxonMobil 20/22-inch-diameter pipeline ruptured near Torbert in Pointe Coupee Parish, Louisiana, about 20 miles west of Baton Rouge, and crude oil spilled into the surrounding area, and flowed into an unnamed tributary connected to Bayou Cholpe. About 117,000 gallons of crude were spilled, with about 37,000 gallons permanently contaminating the water & surrounding ecosystem. The pipeline failed due to a manufacturing defect.⁷⁶
- A 26-inch gas transmission pipeline ruptured on June 6 in a compressor station near Laketon in northeastern Gray County, Texas. Gas escaped from the 50-foot-long rupture, igniting, leaving a crater 30 feet in diameter, burning two acres of agricultural area and telephone poles.⁷⁸
- On June 8, near Canadian, Texas, a trackhoe operator suffered burns, after a fire from leaking 4-inch gas-gathering pipeline that was undergoing maintenance. Fumes entered the engine of the trackhoe and ignited.⁷⁹
- A contractor was killed and two others injured after an explosion at a BP gas compressor station in Durango, Colorado on June 25. BP, Halliburton, and the other contractors were fined \$7,000 each for safety violations in that work.⁸⁰

⁷⁶ U.S. DOT, Pipeline & Hazardous Materials Safety Administration: http://primis.phmsa.dot.gov/comm/reports/operator/OperatorIM_opid_4906.html?nocache=4538#_Incidents_tab_4

⁷⁷ **US Environmental Protection Agency, August 26th, 2014:** http://www.wateronline.com/doc/exxonmobil-pipeline-company-resolves-clean-water-act-violation-stemming-spill-0001

⁷⁸ **NH Pipeline Awareness:** http://nhpipelineawareness.org/violations/

⁷⁹ **News West 9:** http://www.newswest9.com/story/18740938/man-injured-in-pipeline-explosion-in-hemphill-county

⁸⁰ **Hazardex**, **June 26th**, **2012**: http://www.hazardexonthenet.net/article/51303/BP-gas-compressor-station-explosion-in-Colorado-kills-one.aspx

⁸¹ **KCFR-FM, January 24th, 2013:** https://web.archive.org/web/20130201232344/http://www.krqe.com/dpp/news/colorado/ap_colorado/BP-Halliburton-fined-in-fatal-pipeline-explosion 54659132

- A West Shore Pipe Line petroleum products pipeline burst near Jackson, Wisconsin on July 17, contaminating the surrounding ecosystem with approximately 54,000 gallons of gasoline. At least one family self evacuated due to the leak. At least 44 water wells nearby were contaminated from benzine in the gasoline, including a municipal well. A LF-ERW seam failure was suspected as the cause. Further testing revealed that at least 26 other areas on this pipeline needed repairs, with 22 within the Jackson Marsh Wildlife Area. 82 11 11 11
- A 14-inch gas gathering pipeline exploded and burned on July 18 near Intracoastal City, Louisiana.86



PHOTO: **"ExxonMobil's Oil Spill in Louisiana":** https://eponline.com/articles/2014/08/27/exxonmobil-to-pay-large-fine-for-2012-oil-spill-in-louisiana.aspx

82 Don Behm of the Journal Sentinel, July 4th, 2013:

http://archive.jsonline.com/news/ozwash/tests-reveal-chemicals-in-23-more-jackson-wells-b9946404z1-214289551.html

83 Don Behm of the Journal Sentinel, July 26th, 2013:

http://archive.jsonline.com/news/ozwash/fuel-company-seeks-to-divert-cedar-creek-for-pipeline-fixes-b9960569z1-217100831.html

84 Don Behm of the Journal Sentinel, September 15th, 2013:

http://archive.jsonline.com/news/fuel-pipeline-repairs-force-closure-of-parts-of-jackson-marsh-b9997333z1-223827051.html

85 Don Behm of the Journal Sentinel, October 8th, 2013:

http://archive.jsonline.com/news/ozwash/large-gasoline-spill-linked-to-benzene-detected-in-village-of-jackson-well-b99115765z1-226939341.html

86 The Eunice News, October 3rd, 2016:

https://web.archive.org/web/20120815051857/http://www.eunicetoday.com/view/full_story/19367444/article -Gas-line-blows-in-Intracoastal-City--no-one-hurt?instance=secondary news left column

- On July 23, a compressor station operated by Williams Companies in Windsor, New York was venting gas in a "routine procedure" during a lightning storm when the vent was ignited by lightning, causing a fireball "hundreds of feet into the air".87 □□
- An Enbridge crude oil pipeline ruptured in Grand Marsh, Wisconsin, releasing an estimated 1,200 barrels of crude oil. The pipeline had been installed in 1998 (6 years earlier). Flaws in the longitudinal welds had been seen during X-ray checks of girth welds.⁸⁹
- Four contract workers were injured during a flash fire at a Wyoming gas processing plant on August 22.90
- A jet fuel pipeline near Chicago began leaking on August 27. The burst pipeline spilled an estimated 42,000 gallons of jet fuel into a ditch that empties into the Calumet Sag Channel in Palos Heights, Illinois. External corrosion was the cause of the pipeline failure. 91 92

⁸⁷ **Natural Gas Watch, July 31st, 2012:** http://www.naturalgaswatch.org/?p=1459

⁸⁸ **Erica Mahoney of WBNG 12 Action News, July 23rd 2012:** http://www.wbng.com/news/local/Lightning-Causes-Compressor-Explosion-163497506.html

⁸⁹ **Brendan O'Brien, Reuters, July 9th, 2012:** http://www.reuters.com/article/enbridge-pipeline-idUSL2E8IT1AL20120729

⁹⁰ **Jeremy Fugleberg of Star-Tribune, August 23rd, 2012:** http://trib.com/business/energy/burned-in-lost-cabin-gas-plant-explosion/article_3f7c4b8a-f89a-5de1-9afe-ea88e8bf25f9.html

⁹¹ Environment News Service, August 28th, 2012: http://ens-newswire.com/2012/08/28/jet-fuel-spill-near-chicago-closes-canal-highway/

⁹² Nick Swedberg of Palos Patch, November 21st, 2012: http://patch.com/illinois/palos/pipeline-in-palos-park-was-corroded-company-rep



PHOTO: **"In Windsor, New York, a Williams Company was venting a pipeline during a lightning storm - lightning struck the pipe and ignited the gas":**http://www.pressconnects.com/story/news/2016/02/05/fracking-natural-gas-pipeline-growth-feeds-demand-rattles-neighbors/79137962/

- On August 28, a Atmos Energy repair crew struck an 8-inch gas main in McKinney, Texas, causing a fire. Four Atmos workers were treated for injuries. 93 94
- On September 6, a 10-inch gas gathering pipeline exploded & burned near Alice, Texas. Flames reached 100 feet high, and caused a 10-acre brush fire. 95
- An explosion and fire hit a Crestwood Midstream Partners gas compressor station in Hood County, Texas on September 6. Heavy damage to a sheet metal building resulted. 96
- A Colorado Interstate Gas gas compressor in Rio Blanco County, Colorado caught fire on September 11.97
- On September 24, an excavator struck a 4-inch natural gas line on Route 416 in Montgomery, New York. Escaping gas ignited, and it took 90 minutes before the gas was shut off. 98
- The operator of an excavator machine narrowly escaped serious injury in Lewiston, Idaho on November 19, when his machine hit a gas pipeline during road work. The resulting fire destroyed a railroad signal, along with several telephone poles, and road construction equipment. The depth of the pipeline has been misjudged at that location. 99
- On November 20, about 38,000 gallons of crude oil spilled from an Enbridge pipeline at a tank farm in Mokena, Illinois.¹⁰¹

93 Frank Heinz of NBC 10, August 28th, 2012:

http://www.nbcphiladelphia.com/news/national-international/Gas-Line-Explodes-in-McKinney-167677095.html

94 Travis Hudson, The Dallas Morning News, august 2012:

http://www.dallasnews.com/news/news/2012/08/28/gas-line-explodes-in-mckinney

95 **Luke Johnson, Upstream, September 7th 2012:** http://www.upstreamonline.com/live/article1265011.ece

96 **Hood County News, September 14th, 2012:**

http://hcnews.com/pages/archive/updates-archived/cause-of-sept-6-explosion-at-gas-plant-still-being-investigated/

97 Reuters, September 12th, 2012:

http://in.reuters.com/article/kindermorgan-cig-fire-idINL1E8KC7PZ20120912

98 James Nani, Times Herald-Record, 9-24-2012

http://www.recordonline.com/article/20120924/NEWS/120929866

99 **Idaho Press-Tribune**, 11-19-2012:

http://www.idahopress.com/news/state/gas-explosion-lights-the-sky-in-downtown-lewiston/article 64ad1772-32d5-11e2-9ddc-0019bb2963f4.html

100 Claims Journal, 6-6-2013:

http://www.claimsjournal.com/news/west/2013/06/06/230308.htm

101 Aaron Clark, Bloomberg News, 11-21-2012

https://web.archive.org/web/20131028143734/http://www.businessweek.com/news/2012-11-21/bp-chicap-pipe-spilled-oil-at-illinois-tank-farm-filing-shows

• Two men were injured in an explosion and fire at a natural gas production facility east of Price, Utah on November 20. 102



A ruptured gas line that caught fire and sent flames 50-feet into the air Tuesday morning in McKinney is now out. (Published Tuesday, Aug. 28, 2012)

PHOTO: "Fire from a pipeline explosion in McKinney, Texas in which four workers were injured": http://www.nbcdfw.com/news/local/Gas-Line-Explodes-in-McKinney-167677095.html

¹⁰² **The Oklahoman, 12-20-2012:** http://newsok.com/2-workers-hurt-in-natural-gas-explosion-near-price/article/feed/465555

- On November 23, a gas company worker looking for the source of a reported gas leak in a Springfield, Massachusetts strip club pierced a gas line. The gas later exploded, injuring 21, devastating the strip club, and damaging numerous nearby buildings. 103
- On November 30, a heavy equipment operator punctured a 12-inch gas transmission pipeline, near the city of Madera, California. The adjacent highway, along with several rural roads, was shut down for hours, while houses and businesses in the area were evacuated. 104
- A malfunction in a gas compressor caused a fire on December 4, north of Fort Worth, Texas. 105
- On December 5, a 16-inch gas pipeline at 500 psi of pressure exploded and burned near a natural gas plant in Goldsmith, Texas. A fireball 250 feet high was created after the explosion, destroying 12 to 15 utility poles, and caliche and rocks the size of bowling balls damaged a road. 106
- On December 11, a 20-inch gas pipeline owned by NiSource Inc., parent of Columbia Gas, exploded along I-77 between Sissonville and Pocatalico, West Virginia. Several people suffered minor injuries, four houses were destroyed, and other buildings were damaged. Early reports announced the NTSB was investigating as to why alarms in the control room for this pipeline did not sound for this failure. 107 108 109
- On December 26, a **20-inch Florida Gas Transmission Company pipeline ruptured** near Melbourne, Florida, **ejecting a 20-foot section of the pipeline**. ¹¹⁰

¹⁰³ Peter Goonan, Mass Live, 12-27-2012:

http://www.masslive.com/news/index.ssf/2012/11/claims for losses continue to.html

¹⁰⁴ Sara Sandrik, ABC 30 Action News, 12-30-2012: http://abc30.com/archive/8904603/

¹⁰⁵ **Justin Hill, Hill Law Firm, 01-22-2013:** http://www.rhlawgroup.com/blog/pipeline-safety-and-injuries-death/

¹⁰⁶ **Mark Sterkel, OA Online, 12-6-2012:** http://www.oaoa.com/news/fire_and_rescue/article_834541cc-3f60-11e2-9c44-001a4bcf6878.html

¹⁰⁷ **The State Journal, 12-12-2012:** http://www.statejournal.com/story/20328434/explosion-highlights-pipeline-safety

¹⁰⁸ John Raby and Vicki Smith, Huff Post Green, 12-11-2012:

https://web.archive.org/web/20121212045355/http://www.huffingtonpost.com/2012/12/11/sissonville-west-virginia-explosion n 2279577.html?ir=Green

¹⁰⁹ **John Raby and Vicki Smith, The Register-Herald 12-11-2012:** http://www.register-herald.com/news/updated-gas-line-explodes-burns-homes-and-roads/article_adb166e8-26f5-5684-84f9-87b4a1836095.html

¹¹⁰ **Space Coast Daily, 12-26-2012:** http://spacecoastdaily.com/2012/12/natural-gas-pipeline-fails-in-west-melbourne/



PHOTO: "The aftermath of a pipeline explosion in Springfield, Massachusetts - 21 people were injured": https://www.bostonglobe.com/metro/2012/11/24/springfield-explosion-injures-least-levels-strip-club/SX7MmBHvdfePUBkpyCgG6L/story.html