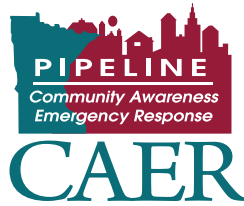


2019 PIPELINE EMERGENCY QUICK REFERENCE GUIDE - MINNESOTA PIPELINE CAER ASSOCIATION



EMERGENCY CONTACT LIST

COMPANY	EMERGENCY NUMBER
Alliance Pipeline LP.....	1-800-884-8811
Andeavor.....	1-651-768-5000
Austin Utilities.....	1-507-433-8886
BP Pipelines (North America), Inc.	1-800-548-6482
Centennial Utilities.....	1-763-427-1212
CenterPoint Energy (Twin Cities).....	1-612-321-5464
CenterPoint Energy (Toll Free).....	1-888-944-4564
Cities of Fairfax-Gibbon.....	1-877-868-3636
City of Brownston Municipal Natural Gas / Operated by Hutchinson Utilities.....	1-877-593-3973
or.....	1-320-587-4745
City of Duluth Public Works and Utilities Dept.....	1-218-730-4100
City of Hallock (Business Hours).....	1-218-843-2737
City of Hallock (After Hours).....	1-218-843-2559
City of Stephen.....	1-218-478-3614
or.....	1-218-478-3803
City of Tyler.....	1-507-247-5176
Community Co-ops of Lake Park.....	1-888-935-2281
Dooley's Natural Gas.....	1-320-235-2466
Enbridge Energy Company, Inc. / North Dakota Pipeline Company LLC.....	1-800-858-5253
Enterprise Products Operating LLC.....	1-888-883-6308
Flint Hills Resources.....	1-800-688-7594
Great Plains Natural Gas Company.....	1-877-267-4764
Greater Minnesota Gas, Inc. / Greater Minnesota Transmission, LLC.....	1-888-931-3411
Hibbing Public Utilities.....	1-218-262-7700
Hutchinson Utilities Commission.....	1-877-593-3973
Kinder Morgan Cochin LLC.....	1-800-265-6000
Lake Region Energy Services.....	1-888-295-8976
Magellan Midstream Partners, L.P.....	1-800-720-2417
Minnesota Office of Pipeline Safety (Duty Officer Statewide).....	1-800-422-0798
Minnesota Office of Pipeline Safety (Duty Officer Metro).....	1-651-649-5451
Minnesota Office of Pipeline Safety (MN Office of Pipeline Safety).....	1-651-201-7230
New Ulm Public Utilities Commission.....	1-877-868-3636
or.....	1-507-359-8264
Northern Natural Gas Company.....	1-888-367-6671
Northwest Gas (North).....	1-800-620-1748
Northwest Gas (South).....	1-800-367-6964
NuStar Pipeline Operating Partnership L.P.....	1-800-759-0033
Owatonna Public Utilities.....	1-507-451-1616
Sheehan's Gas Company.....	1-800-243-3047
Southern Company Pipelines.....	1-844-357-4656
Suburban Propane.....	1-800-776-7263
TransCanada / Great Lakes Gas Transmission.....	1-800-447-8066
TransCanada / Northern Border Pipeline Company.....	1-800-447-8066
United Natural Gas.....	1-888-832-5734
or.....	1-507-647-6602
Viking Gas Transmission Company, a subsidiary of ONEOK Partners, L.P.....	1-888-417-6275
WBI Energy Transmission.....	1-888-859-7291
Xcel Energy (Gas).....	1-800-895-2999
Xcel Energy (Electric).....	1-800-895-1999

To learn more about your local pipeline operators, please visit mncaer.com

Note: The above numbers are for emergency situations. Additional pipeline operators/companies may exist in your area. Visit the National Pipeline Mapping System at www.npms.phmsa.dot.gov for transmission companies not listed above.

ONE-CALL SYSTEM	PHONE NUMBER
Gopher State One-Call Center.....	1-800-252-1166
National One-Call Referral Number.....	1-888-258-0808
National One-Call Dialing Number.....	811

2019 PIPELINE EMERGENCY QUICK REFERENCE GUIDE - MINNESOTA PIPELINE CAER ASSOCIATION

RISK CONSIDERATIONS

- Product type/pressure/location of release
- Environmental factors – wind direction, fog, temperature, humidity
- Sight, sound, smell – indicators vary depending on product
- Black, dark brown or clear liquids/dirt blowing into air/peculiar odors/dead insects around gas line or dead vegetation
- Rainbow sheen on the water/mud or water bubbling up/frozen area on ground/frozen area around gas meter
- Other utility emergencies

INCIDENT RESPONSE

- Always approach from upwind/park vehicle a safe distance away/if vehicle stalls – DO NOT attempt to restart
- Gather information/establish incident command/identify command structure
- Initiate communications with pipeline/gas company representative ASAP
- Control/deny entry: vehicle, boat, train, aircraft, foot traffic, media – refer all media questions to pipeline/gas representatives
- Use lower explosive limit (LEL) or other gas detecting monitors to determine extent of vapor release
- Establish hot-warm-cold zones
- Do not enter hot zone without proper PPE including respiratory equipment

PIPELINE MARKERS

The U.S. Department of Transportation (DOT) requires the use of signs to indicate the location of underground pipelines. Markers like these are located on public roads, railroad, and navigable waterway crossings. Markers are also posted along other areas of the pipeline right-of-way. Markers may not be located directly over the pipeline it marks.

The markers display:

- The product transported
- The name of the pipeline operator
- The operator's emergency number



PRODUCT HAZARDS AND CHARACTERISTICS

Petroleum (flow rate can be hundreds of thousands of gallons per hour)

- Flammable range may be found anywhere within the hot zone
- H2S can be a by-product of crude oil

<u>Type 1 Products</u>	<u>Flash Point</u>	<u>Ignition Temperature</u>
Gasoline	- 45 °F	600 °F
Jet Fuel	100 °F	410 °F
Kerosene	120 °F	425 °F
Diesel Fuel	155 °F	varies
Crude Oil	25 °F	varies

Natural Gas (flow rate can be hundreds of thousands of cubic feet per hour)

- Flammable range may be found anywhere within the hot zone between 4% and 15%
- Rises and dissipates relatively quickly
- H2S can be a by-product of natural gas – PPM = PARTS PER MILLION
 - 0.02 PPM Odor threshold
 - 10.0 PPM Eye irritation
 - 100 PPM Headache, dizziness, coughing, vomiting
 - 200-300 PPM Respiratory inflammation within 1 hour of exposure
 - 500-700 PPM Loss of consciousness/possible death in 30-60 min.
 - 700-900 PPM Rapid loss of consciousness; death possible
 - Over 1000 PPM Unconsciousness in seconds; death in minutes
- Incomplete combustion of natural gas may release carbon monoxide
- Storage facilities may be present around populated areas/can be depleted production facilities or underground caverns
- Gas travel may be outside the containment vessel along the natural space between the pipe and soil

HIGHLY VOLATILE LIQUIDS (HVL)

(Propane, Anhydrous Ammonia and other similar products)

- Flammable range may be found anywhere within the hot zone
- Products cool rapidly to sub-zero temperatures once outside the containment vessel
- Vapor clouds may be white or clear

<u>Type 3 Products</u>	<u>Flash Point</u>	<u>Ignition Temperature</u>
Propane	- 150 °F	920-1120 °F
Butane	- 60 °F	725-850 °F
Anhydrous Ammonia	- 51 °F	1204-1560 °F

- * Caustic - Can freeze/burn skin
- * Significant expansion properties
- * Liquid in and gas out of pipeline

The above information has been obtained from the 2008 DOT ER Guidebook

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