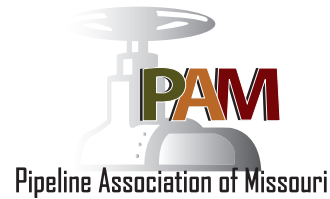


2017 PIPELINE EMERGENCY QUICK REFERENCE GUIDE

Date:	Time:
Temperature:	Wind Direction:
Location	



Case Number:

EMERGENCY CONTACT LIST

Company Name	Emergency Number
BP Pipelines (North America)	1-800-548-6482
Buckeye Partners, L.P.	1-800-331-4115
City of Fulton (Between 7:30 AM and 4:00 PM CST)	1-573-592-3170
City of Fulton (After hours or on weekends)	1-573-592-3180
Empire District Gas Company	1-800-406-9220
Enable Gas Transmission, LLC	1-800-474-1954
Enable Mississippi River Transmission, LLC	1-800-325-4005
Enbridge Energy Partners, L.P.	1-800-858-5253
Enterprise Products Operating LLC	1-888-883-6308
Explorer Pipeline	1-888-876-0036
Laclede Gas Company (Eastern Missouri)	1-314-342-0800
Laclede Gas Company (Western Missouri/Missouri Gas Energy)	1-800-582-0000
Liberty Utilities	1-855-644-8134
Marathon Pipe Line LLC	1-800-537-6644
MoGas Pipeline LLC	1-800-282-4916
NuStar Pipeline Operating Partnership, L.P.	1-800-759-0033
Omega Pipeline Company, LLC	1-573-329-3382
ONEOK North System	1-888-844-5658
Panhandle Eastern Pipe Line	1-800-225-3913
Permian Express Partners, LLC operated by Sunoco Pipeline L.P.	1-800-753-5531
Platte Pipe Line Company - Enbridge	1-888-449-7539
Razorback Pipeline LLC	1-800-732-8140
Sinclair Transportation Company	1-800-321-3994
Summit Natural Gas	1-800-927-0787
Tallgrass Energy (Rockies Express Pipeline)	1-877-436-2253
Tallgrass Energy (Tallgrass Interstate Gas Transmission)	1-888-763-3690
Texas Eastern Transmission LP - Enbridge	1-800-231-7794
TransCanada / ANR Pipeline	1-800-447-8066
TransCanada Keystone Pipeline	1-800-447-8066

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
Missouri One Call System	1-800-344-7483 or 811

2017 PIPELINE EMERGENCY QUICK REFERENCE GUIDE - PAM

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

RISK CONSIDERATIONS

- Type/volume/pressure/location/geography of product
- Environmental factors – wind, 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/dead vegetation
- Rainbow sheen on the water/mud or water bubbling up/frozen area on ground/frozen area around gas meter
- Other utility emergencies

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 road, railroad, and navigable waterway crossings. Markers are also posted along 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) **TYPE 1**

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

Type 1 Products	Flash Point	Ignition Temperature
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) **TYPE 2**

- Flammable range may be found anywhere within the hot zone between 3.5% 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
- Lower/Upper Explosive Limit depends on characteristics of gas (SDS)

Propane, Butane and Other Similar Products - **TYPE 3** (*e.g. Carbon Dioxide / Anhydrous Ammonia)

- 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

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

- * Caustic - Can freeze/burn skin
- * Expands Rapidly
- * Liquid to a fog gas state!