

Basic Pipeline Information

Tallgrass Operations, LLC pipelines are typically underground, but they are located aboveground in select climates and at compressor stations, pumping stations, valve sites and terminals.

Tallgrass Operations, LLC operates pipelines in your community. Pipelines are the backbone of our nation's energy transportation infrastructure. According to the National Transportation Safety Board, pipelines are the safest mode of fuel transportation, both for the public and the environment.

Pipelines are constructed in a corridor of land called the **pipeline right-of-way** that includes the land over and around the pipeline, typically 25 feet on each side. Right-of-way agreements limit how the corridor is used to protect the pipeline and allow operators to monitor and inspect the pipeline.

Tallgrass Operations, LLC monitors its pipeline system 24-hours a day from its state-of-the-art System Control Center. We ensure public safety and safe pipeline operations through employee training, regular testing, aerial and right-of-way foot patrols and adherence to our comprehensive Integrity Management plan and procedures.

There are three primary types of pipelines: gathering, transmission and distribution. **Gathering pipelines** transport natural gas, CO2 and petroleum products from the wellhead and production areas to processing facilities. **Transmission pipelines**, like those operated by Tallgrass Operations, LLC, transport natural gas, CO2 and hazardous liquids to marketing and distribution terminals. Transmission pipelines are typically large, high-pressure pipelines.

Distribution systems for natural gas and hazardous liquids differ. Liquids products are stored and transported to their final destination by tanker trucks. Natural Gas is transported from storage locations to residential and business customers by smaller, low-pressure pipelines.

Locating Pipelines in Your Community

Pipeline markers are located along the right-of-way, at road intersections, waterways, railroad crossings and all aboveground facilities. Markers identify the area, but not the exact location or depth of the pipeline. They specify the type of product transported, the operator's name and emergency contact number.

The federal government provides access to maps of transmission pipelines in your community through the **National Pipeline Mapping System** at www.npms.phmsa.dot.gov. Government and safety officials can access additional information and download electronic files to import into emergency preparedness GIS mapping systems.



Examples of Tallgrass Operations, LLC pipeline markers.

Please ensure that the following phone numbers are included in your emergency contact system

When calling a non-toll free number, call collect.

Natural Gas

Tallgrass Interstate Gas Transmission, LLC
888-763-3690

Rockies Express Pipeline, LLC
877-436-2253

Trailblazer Pipeline Company
866-299-3050

Corporate Headquarters

NON-EMERGENCY INQUIRIES ONLY

Tallgrass Operations, LLC

Attn: Public Awareness Coordinator

370 Van Gordon St.

Lakewood, CO 80228

(303) 763-2950

PIPELINE SAFETY INFORMATION

for Emergency Response Officials



FOR MORE INFORMATION PLEASE VISIT
WWW.TALLGRASSENERGYLP.COM/PUBLIC_AWARENESS

Tallgrass Operations, LLC Public Awareness Program; developed under the guidance of federal public awareness, damage prevention and integrity management regulation; is a single administered program for all applicable business units or entities. The Program is administered by Tallgrass Operations, LLC DOT Technical Working Group. For more information regarding Tallgrass Operations, LLC Public Awareness Program visit www.tallgrassenergylp.com/public_awareness.

Keep with emergency response training and reference materials.

Tallgrass Operations, LLC Cares About Your Safety

We want you to be aware of our pipelines and ask for your help in preventing damage to pipelines. Tallgrass Operations, LLC supports the Nation's Homeland Security efforts and encourages you to immediately report any suspicious persons and/or activities near the pipeline to your local law enforcement authorities by calling 911.

Working Together To Protect Pipelines & Right-of-Ways

In addition to 24-hour monitoring and on-going safety and security procedures, Tallgrass Operations, LLC relies on you, the local emergency responder, to notify Tallgrass Operations, LLC when you observe potential right-of-way restriction violations or potential damage to our facilities, which could endanger public safety. We support your enforcement of "Call Before You Dig" requirements in states where they apply.

Excavation activity is the most common cause of serious pipeline damage. In most states, residents, excavators and farmers are required by law to call 811 or their local One-Call center at least two or three working days before starting an excavation project to have underground utilities marked. Refer to your state-specific One-Call laws for more information.

Additionally, some emergencies may require excavation and/or use of heavy equipment that could damage underground utilities. Call 811 to identify and notify utilities in the area that may be impacted by these emergency activities.

Unauthorized use, such as building or planting, in the pipeline right-of-way is known as encroachment. Tallgrass Operations, LLC regularly conducts maintenance to trim trees and remove shrubs or structures that prohibit the company from clearly viewing the pipeline corridor during aerial or foot patrols and regular maintenance activities.

Please contact us if you know of places where trees, plants or structures are located on the pipeline right-of-way or if you see individuals digging in areas where underground utilities are not marked with flags.

Signs of a Pipeline Leak or Rupture

The following are indications of a possible pipeline leak:

- Brown or discolored vegetation amid healthy plants
- Dirt being blown into the air
- Colorful sheens on water surfaces
- Fire at or below ground level
- Stains or pools of hydrocarbons not usually present in the right-of-way
- Bubbles coming from bodies of water
- A loud roar or hissing sound
- Distinctive petroleum type odors, the smell of mercaptan, sulfur (rotten eggs), or a mild fragrant odor
- A dense white cloud or fog

On occasion, a pressure-relieving device may activate at a natural gas or CO2 aboveground pipeline facility. **These devices are acting as designed to relieve pressure on the system to prevent over pressurization.** Under no circumstances should a pressure relieving device be capped or valved off.

Pipeline Incident Response Tactics

The list below summarizes emergency response tactics to implement when you respond to a pipeline incident.

1. Assess the situation

- ❑ Approach with caution from upwind location.
- ❑ Isolate and secure the area.
- ❑ Employ ICS.
- ❑ Identify hazards.
- ❑ Identify and contact the pipeline operator using the emergency number listed on the pipeline marker.

2. Protect people, property & the environment

- ❑ Establish isolation zones and set up barriers.
- ❑ Rescue and evacuate people (if needed).
- ❑ Eliminate ignition sources.
- ❑ Stage apparatus and equipment based on atmospheric monitoring and weather conditions.
- ❑ If liquid products are involved, use appropriate defensive Hazardous Waste Operations & Emergency Response (HAZWOPER) procedures such as installing dikes and dams, if trained and equipped.
- ❑ Control fires, vapor and leaks. Do not extinguish burning fires. Protect exposures and coordinate isolation operations with pipeline personnel.
- ❑ Do not operate (open or close) valves or other pipeline equipment.
- ❑ Employ containment techniques if personnel are trained, equipped and it is safe to do so.
- ❑ Designate a safe location for bystanders and the media.

3. Call for assistance as needed

- ❑ Contact your local emergency response organization and/or national resources if needed.

Refer to PHMSA's Emergency Response Guidebook at www.phmsa.dot.gov/hazmat/library/erg for additional information.

Additional Information:

National Pipeline Mapping System
www.npms.phmsa.dot.gov

NASFM's "Pipeline Emergencies"
www.pipelineemergencies.com

PHMSA Emergency Response Guidebook
www.phmsa.dot.gov/hazmat/library/erg

Tallgrass Operations, LLC Public Awareness
www.tallgrassenergyllp.com/public_awareness

Potential Hazards Associated With Pipeline Leaks

The following chart outlines potential hazards associated with the release of specific products that may be transported by pipelines. Tallgrass Operations, LLC pipelines transport Natural Gas (Compressed Gas, Residue gas, sales gas) and as a result of the transportation may also contain Natural Gas Condensate."

Product	Description	Fire Hazard	Health Hazard	Response (Extinguishing Method)
Benzene – Typical	Colorless liquid, characteristic odor	Extremely flammable. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical or foam. Cover liquid spills with foam.
Butane – Typical (Butane, Normal Butane, Isobutane Mix)	Colorless liquid, characteristic odor	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, carbon dioxide (CO2)
CO2 – Typical	Colorless, odorless gas	Nonflammable gas	Avoid direct contact with liquid product. Can cause frostbite. Vapors are nontoxic but can serve as an asphyxiant.	Isolate the area and monitor oxygen levels.
Crude – Heavy	Amber to black liquid with a mild hydrocarbon odor – like rotten eggs if mercaptan is present.	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, foam
Crude – Sour	Amber to black liquid with a mild hydrocarbon odor – like rotten eggs if mercaptan is present.	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, foam
Crude – Sweet	Amber to black liquid with a mild hydrocarbon odor – like rotten eggs if mercaptan is present.	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, foam
Denatured Ethanol-Typical	Colorless, water white liquid, with a mild fragrant odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Alcohol resistant foam, dry chemical or carbon dioxide
Ethane – Typical	Colorless, odorless gas	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, carbon dioxide (CO2)
Ethane/Propane Mix – Typical (E/P Mix)	Colorless, odorless gas	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, foam or carbon dioxide (CO2)
Gasoline – Typical (Unleaded Gasoline)	Clear (may be dyed) liquid with a gasoline odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, foam, carbon dioxide (CO2) or water fog
High Sulfur Diesel – Typical (petroleum hydrocarbons)	Clear (may be dyed) liquid with a hydrocarbon odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin	Dry chemical, foam, carbon dioxide (CO2) or water fog. Water may be ineffective but should be used to keep fire exposed containers cool.
Kerosene – Typical	Clear (may be dyed) liquid with a petroleum or solvent odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, foam or carbon dioxide (CO2). For larger fires, use water spray or fog.
Low Sulfur and Ultra Low Sulfur Diesel – Typical	Clear yellow liquid with a petroleum odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, foam, carbon dioxide (CO2) or water fog
Natural Gas (Compressed Gas, Residue gas, sales gas) – Typical	Colorless, odorless gas. Hydrocarbon odor, like rotten eggs, if mercaptan is present.	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin. Vaporizing gas may cause frostbite.	Dry chemical or carbon dioxide (CO2)
Natural Gas Condensate – Typical	Colorless liquid with a hydrocarbon odor — like rotten eggs if mercaptan is present	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical, foam or carbon dioxide (CO2)
Propane – Typical (HD-5, Liquefied Propane Gas, LP-Gas, LPG)	Colorless, odorless liquefied gas	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin	Dry chemical or carbon dioxide (CO2)
Transmix – Typical (T-034; T-035; OHSU545)	Pink to bronze liquid with a gasoline odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin	Dry chemical, foam, carbon dioxide (CO2) or water fog
Turbine Fuel – Typical	Clear watery-white liquid with a faint hydrocarbon odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin	Dry chemical, foam, carbon dioxide (CO2), water fog or vaporizing liquid type extinguishing agents

For additional information about the potential hazards and safety recommendations visit [www.tallgrassenergyllp.com/public_awareness/Additional Information/erg](http://www.tallgrassenergyllp.com/public_awareness/Additional%20Information/erg)