NEBRASKA PIPELINE ASSOCIATION
NPA

CORE®
COORDINATED RESPONSE EXERCISE

COORDINATED RESPONSE EXERCISE®

Pipeline Safety Training For First Responders

EMERGENCY RESPONSE MANUAL

Overview
Operator Profiles
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Signs of a Pipeline Release
High Consequence Area Identification
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Pipeline Damage Reporting Law

2025

NEBRASKA PIPELINE ASSOCIATION

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Foreword

Public safety and environmental protection are top priorities in any pipeline incident response.

While serious pipeline incidents are rare, pipeline operators appreciate the hard work and effort of those emergency officials who are involved in helping return a community affected by an incident to normal. Because pipeline operators care about the safety of the community, they developed this resource covering the critical tasks that need to be considered when responding to a pipeline incident. General information about pipelines and damage prevention is also included to help support your National Incident Management System (NIMS), National Association of State Fire Marshals (NASFM) and agency training, knowledge and other best practices.

Please become familiar with the information in this resource and be prepared to work together with the operator in the unlikely event of a pipeline incident in your community.

WHAT IS A PIPELINE?

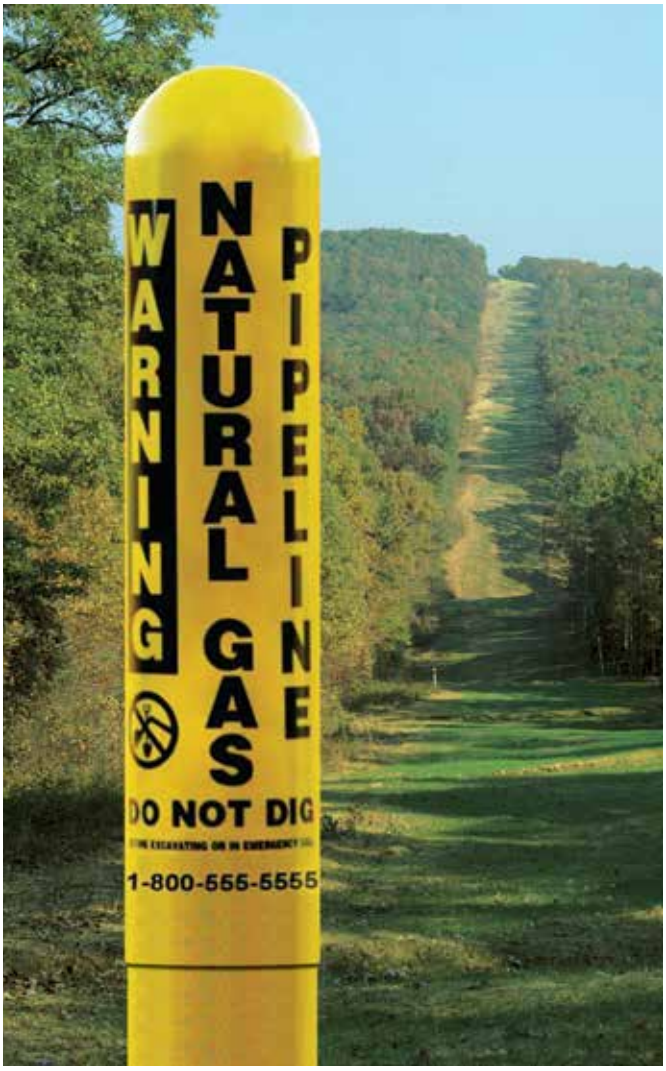
The term **pipeline** as referenced in this guide, includes **transmission, local distribution and gathering systems. Transmission** pipelines for natural gas, liquid petroleum (diesel, gasoline, or crude oil), and liquid natural gas (propane, butane, or anhydrous ammonia) move products from the production area or refinery to outlets such as bulk storage terminals or loading facilities. **Local distribution systems** may also transport liquid petroleum and natural gas. Liquid petroleum distribution systems transport product from the bulk storage facility by rail car or tank trucks. **Local natural gas distribution companies (LDCs)** use pipelines to move natural gas from a city gate or town border station to distribution systems. Local distribution systems transport natural gas through mains that are usually located along or under city streets to service lines that connect to homes and businesses. **Gathering** pipelines link the production areas to central collection points.

THE PIPELINE SYSTEM

America's energy transportation network consists of more than 2.5 million miles of pipelines operated by more than 3,000 companies, large and small. Although these pipelines are present in all 50 states, most people are unaware that the vast network even exists. This is due to the strong safety record of pipeline operators and the fact that most of the pipelines are located underground.

The U.S. Department of Transportation's (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA), which administers the nation's pipeline safety program through the Office of Pipeline Safety (OPS) along with state regulatory agencies, is responsible for the oversight of natural gas and hazardous liquid pipelines. Their mission is to ensure the safe and reliable operation of the nation's pipeline transportation system, all the while protecting the people, property and environments located around the pipelines. Pipeline operators are equally committed to public safety and environmental responsibility. As a result, pipelines are considered the safest, cleanest, and most economical way to transport large quantities of natural gas, oil, and other chemicals to businesses and homes across the United States.

In an ongoing effort to improve public safety, environmental health, and damage prevention, the pipeline operators in your state have joined together to sponsor training and educational programs that raise community awareness about pipelines. The operators' goal is to work with local emergency officials, public officials, and excavators to improve the effectiveness of pipeline safety and incident response efforts.



Pipeline marker signs are located at road, railroad, and navigable waterway crossings. These markers identify the approximate location of a pipeline at numerous points along the pipeline right-of-way. Each operator's marker may look different, but the purpose and information on the marker is the same. Markers tell you the:

- Approximate location of a pipeline
- Material transported
- Emergency phone number
- Pipeline operator

Markers are placed near pipelines, but not necessarily on top of them. The signs **do not** provide information on the exact location, depth, diameter, or number of pipelines they mark. In addition, a pipeline may not follow a straight line between adjacent markers. For these reasons, you need to look around for a pipeline marker when responding to any incident you suspect may involve a pipeline. Then contact the operator identified on the pipeline marker.

It is a federal crime to damage or remove a pipeline marker; however vandals, construction crews and others who do not recognize their significance sometimes remove, knock down or obstruct the markers. Suspect a pipeline is nearby if you see the following:

- A pipeline marker sign
- A buried pipeline that's exposed and visible
- A pipeline facility and equipment, i.e., wellhead or pump/compressor station
- A regulator or meter setting
- A refinery, processing plant, distribution station

- Painted metal or plastic posts
- Painted Metal signs
- Pipeline casing vent
- Marker for pipeline patrol airplane

A pipeline incident exists when there is a pipeline leak, fire, explosion, natural disaster, accidental release or operational failure that disrupts normal operating conditions.

Pipeline control center personnel keep a watchful eye over potential incidents by constantly monitoring the daily operation of pipelines. As a result, pipeline operators are able to minimize the impact of leaks by remotely initiating emergency shutdowns, starting and stopping pumps, and opening and closing valves.

Despite the industry's best efforts to monitor and protect pipelines, incidents can happen. Pipelines that were built years ago in rural areas may now lie beneath populated areas. A minor scrape or dent from construction and excavation activities can cause a break or leak in these pipelines.

Look for Signs of a Pipeline Release

As an emergency official, you can recognize a pipeline incident by using your senses of sight, smell and sound, or through the use of electronic detection equipment.

Sight

Smell
Strange and unusual gaseous or chemical odors

Sound
A hissing, whistling or roaring noise

Fire or explosion

Petroleum on the ground

Dying vegetation on green corridor

Mist or cloud of vapor

Sheen or film on water

CO2 vapor cloud

Water bubbling or liquid standing in unusual areas

If a pipeline incident occurs, the emergency response team needs to immediately:

- **Confirm the presence and identity the pipeline material.**
- Initiate protective actions.
- Secure the area.
- Request the assistance of qualified personnel.

Meanwhile, the pipeline operator will focus on the pipeline damage and on bringing the incident to a conclusion as quickly and safely as possible. Their personnel are trained to recognize dangers and respond appropriately to minimize and control pipeline incident hazards.

911 dispatch personnel play a critical role in effective response to pipeline incidents. For correct and prompt response in the event of a pipeline incident, it is important to know who the companies are in your respective jurisdictions, their contact information and the products being transported. Actions taken by dispatcher's can save lives, direct the appropriate emergency responders to the scene and protect our nations' pipeline infrastructure from additional issues that can be caused by an improper response. Follow these simple guidelines in the case of a pipeline incident:

- Gather the proper information (if possible) such as company, product, phone numbers on markers/signs and characteristics of any product being released.
- Know the appropriate response to each product.
- Know the wind direction at the time.
- Warn of ignition sources if possible.
- Dispatch appropriate emergency responders.
- Contact the pipeline company.

APPROACH CAUTIOUSLY FROM UPWIND

- Do not drive or enter into a leak or vapor cloud area.
- Do not park over a manhole or storm drain.

IDENTIFY THE PROBLEM

- **Pipeline type, product, and nature of incident**
  Determine the identity of the material via pipeline marker, facility documents, monitoring and detection equipment, and your senses of sight, sound and smell.
- **Exposures**
  Identify structures and occupancies in the area and any special needs for people located there.
- **Environmental conditions**
  Identify weather conditions that may affect the incident. Determine whether the pipeline product may release into a water system or environmentally sensitive area and take action to prevent contamination.
- **Safety considerations**
  Identify any unique safety hazards or considerations associated with the incident.
- **Pipeline isolation - Consult with pipeline operator to:**
  Determine whether the pipeline can be isolated.
- **Incident potential**
  Identify the potential for the incident to escalate into a more serious event.

ESTABLISH SITE CONTROL

Site management and incident control involve managing and securing the physical layout of the incident area. You may want to employ the Incident Command System (ICS). From a command post, the emergency response team can assess the situation, evaluate the hazards and risks, and **determine whether or not officials should intervene**. **Continually reassess** the situation and modify the response accordingly.

RESPOND TO PROTECT PEOPLE, PROPERTY AND THE ENVIRONMENT FROM HAZARDS

- **Employ public protective actions**
  - Evacuate or protect-in-place.
  - Provide medical assistance.
  - Refer to product information documents to identify health and fire hazards and personal safety precautions. Use monitoring equipment to evaluate atmospheric conditions and determine whether it is safe to enter the area. Do not attempt to enter the area without appropriate personal protective equipment.
- **Secure the area**
  - Set up barricades to control crowds and traffic.
  - Eliminate ignition sources. Do not light a match, start an engine, use a cell phone or a telephone, switch lights on/off, or do anything that may cause a spark.
- **Do not operate pipeline equipment**
- **Notify the railroad authority of any vapor cloud over or near a railway**

Consult product information documents and the ***Emergency Response Guidebook*** published by PHMSA/DOT to learn about the specific hazards associated with and emergency responses to the products transported through pipelines in your community.

Use the information in this resource to make initial decisions upon arrival at the scene of a pipeline incident. It should not be considered a substitute for emergency response training, knowledge, or sound judgment. Contact the pipeline operator or the National Association of State Fire Marshals to learn more about pipeline incident prevention and response. And, for emergency response to pipeline hazards, please consult the Emergency Response Guidebook.

Employ the National Incident Management System (NIMS), a consistent, nationwide approach for federal, state, tribal, and local governments to work effectively and efficiently together to prepare for and respond to all hazards, including acts of terrorism. Visit www.fema.gov/emergency/nims/index.shtm for more information.

- **Control spills (confinement) if trained:**
  - Prevent the entry of liquid products into **waterways, sewers, basements, or confined areas. Divert the spill** to an open area, if possible.
  - If flammable liquids are involved, use Class B firefighting foams for vapor suppression.
  - Conduct air monitoring.
  - Cover storm drains and sewers ahead of the release.
  - Do not touch, breathe, or make contact with leaking liquids!
- **Control leaks (containment)**
  - Do not operate pipeline equipment. Attempting to isolate or operate pipeline valves unless under the direction of the pipeline operator may create additional problems that are worse than the original event.
  - Do not touch natural gas plastic piping. It may generate a static spark that could act as an ignition source.
  - Do not ignite a vapor cloud.
- **Control fires**
  - Flammable liquids and gases give off a tremendous amount of radiant heat. Protect exposures as appropriate.
  - Never extinguish a flammable gas fire. Always control or isolate the source of the leak.
  - **Permit the fire to self-extinguish** and consume any residual fuel that may remain inside or around the pipeline.
  - Eliminate ignition sources, such as engines, electric motors, pilot lights, burn barrels, cell phones, cigarettes, ungrounded tools, and emergency radios.

When responding to a pipeline incident, you can help protect your community by understanding the hazards associated with the products transported through pipelines. Refer to product information provided with this resource or from the operator, and use the Emergency Response Guidebook.

CONTACT THE PIPELINE OPERATOR

Communication provides for timely and effective management, coordination, and dissemination of all pertinent information to all the stakeholders. Call the pipeline operator as soon as possible!

Be prepared to provide your contact information, location, and information about the incident, such as the size, characteristics and behavior of a leak. Also, notify the operator of any change in the incident conditions, such as a vapor cloud moving or enlarging.

If a pipeline leak is due to damage by an excavator, the excavator may be required by law to call the 811 call center who will notify other utilities in the area. Representatives from the other utilities may need to come on scene to locate their facility and mitigate or prevent further damage.

*Per federal requirements, pipeline companies are required to communicate important information to all agencies and departments that may respond to a pipeline emergency. In addition to educating emergency responders when to notify operators they are required to “identify the types of gas pipeline emergencies of which the operator notifies the officials”. Emergency Responders need to know that “pipeline operators will contact emergency officials in the event of an emergency”. Some examples of when an operator may notify responders include, but are not limited too: Leak, fire, explosion, natural disaster, bodily injury, accidental release or operational failure that disrupts normal operating conditions.

COORDINATE RESPONSE EFFORTS WITH THE PIPELINE OPERATOR

Work together to ensure the incident priorities are accomplished in a safe, timely and effective manner.

When the pipeline operator’s area representatives arrive, they will identify themselves, establish contact with the incident commander, and may request continued assistance with incident control. Operator representatives are trained to minimize hazards and determine when the incident is over. The pipeline operator will take the following steps to ensure public safety and environmental protection:

- Shut down the pipeline.
- Close valves to isolate the problem.
- **Identify hazardous areas.**
- Dispatch personnel to the scene.
- **Take steps to protect** the environment.
- Excavate and repair the damaged pipeline.
- **Work with emergency officials and the public** in the affected area.

PIPELINE OPERATOR EFFORTS

In response to federal regulations and in accordance with corporate commitments to protect our communities, pipeline operators use several damage prevention measures to monitor and ensure safe pipeline operation.

These include:

- Regular internal inspections and integrity tests
- Ongoing pipeline maintenance programs
- Routine patrol and visual inspection of pipeline rights of way
- Satellite and other remote communication technologies
- Constant pipeline monitoring
- Participation in state one-call underground damage prevention program
- Pipeline marker program
- Pipeline Integrity Management Plan (IMP)
- Emergency response plans

Though operational disruptions are infrequent, pipeline operators go to great efforts to be prepared for any type of incident. Pipeline operators:

- Develop emergency response and crisis management plans
- Accumulate manpower and equipment necessary to respond to incidents quickly
- Develop extensive training and drill programs
- Work closely with federal, state and local agencies to prepare for and respond effectively to an incident

As a result of regular damage prevention activities and response planning, pipeline operators are able to ensure pipeline integrity, achieve safety goals, and comply with applicable laws and regulations.

Smart Pig: An internal inspection tool

Federal codes regulate the planning, design, operation, maintenance, inspection and testing of pipelines.

Integrity Management

Operators use Integrity Management Plans (IMPs) to prevent pipeline leaks and spills, respond to emergency incidents, determine which pipelines could affect High Consequence Areas (HCAs), and identify opportunities to lower the operating risks of a pipeline. HCAs are segments along transmission pipelines that require supplemental hazard assessment and prevention programs because, in the event of a release, they could result in greater consequences to health and safety or the environment.

Contact your local pipeline operators to determine if HCAs are located in your area of responsibility.

EMERGENCY OFFICIAL EFFORTS

It's always better to prevent an accident than to respond to an incident. You can help prevent damage in your community by being aware of pipeline locations, promoting pipeline awareness and damage prevention, and watching for suspicious activities near pipelines:

- **Be aware of pipelines in your area**
  - Search the Pipeline Integrity Management Mapping Application (PIMMA) on the National Pipeline Mapping System (NPMS) website: www.npms.phmsa.dot.gov. Learn who operates pipelines in your area and know how to contact them.

  - Look for pipeline marker signs and learn who operates the pipelines.
  - Contact local pipeline operators to discuss the pipelines and emergency response plans in your area.
- **Promote the use of the state one-call**
  - In most non-emergency instances, state law requires an excavator to contact the One Call Center at least two days prior to digging, excluding Saturdays, Sundays and legal holidays!
- **Report suspicious activities on or near a pipeline, exposed pipe, or damaged facilities to the pipeline operator**
  - In our nation's time of heightened security, it is more important than ever to guard pipelines against damage or attack. Homeland Security and infrastructure protection is a shared responsibility. Help protect these valuable assets.

811
Know what's **below.**
Call before you dig.

NEBRASKA PIPELINE ASSOCIATION MEMBERS

Note: The enclosed information to assist in emergency response planning is delivered by Paradigm Liaison Services, LLC on behalf of the above sponsoring companies. Visit the National Pipeline Mapping System at **https://www.npms.phmsa.dot.gov** to determine additional companies operating in your area.

ARCHAEA ENERGY

USDI UTILITY SAFETY & DESIGN, INC.

ABOUT ARCHAEA ENERGY

Archaea Energy owns a transmission pipeline that runs from the Butler County Landfill and provides renewable natural gas to the Black Hills distribution system.

WHAT DOES ARCHAEA ENERGY DO IF A LEAK OCCURS?

To prepare for the event of a leak, pipeline companies regularly communicate, plan and train with local emergency responders. Upon the notification of an incident or leak the pipeline company will immediately dispatch trained personnel to assist emergency responders.

Pipeline operators and emergency responders are trained to protect life, property and facilities in the case of an emergency.

Pipeline operators will also take steps to minimize the amount of product that leaks out and to isolate the pipeline emergency.

MAINTAINING SAFETY AND INTEGRITY OF PIPELINES

Archaea Energy invests significant time and capital maintaining the quality and integrity of their pipeline systems.

Most active pipelines are monitored 24 hours a day via manned control centers. Archaea Energy also utilizes aerial surveillance and/or on-ground observers to identify potential dangers. Control center personnel continually monitor the pipeline system and assess changes in pressure and flow. They notify field personnel if there is a possibility of a leak. Automatic shut-off valves are sometimes utilized to isolate a leak.

Gas transmission and hazardous liquid pipeline operators have developed supplemental hazard and assessment programs known as Integrity Management Programs (IMPs). Specific information about Archaea Energy's program may be found on our Web site, or by contacting us directly.

HOW TO GET ADDITIONAL INFORMATION

For an overview of Archaea Energy's IMP, contact us at 913-730-1495.

EMERGENCY CONTACT:
1-855-595-5319 or 911

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:		
Natural Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

Butler

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

PRODUCT TRANSPORTED

PRODUCT	*LEAK TYPE*	*VAPORS*
NATURAL GAS	Gas	Lighter than air and will generally rise and dissipate. May gather in a confined space and travel to a source of ignition.
HEALTH HAZARDS	Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.	

5062 S 108th Street #113
Omaha, NE 68137
Phone: (402) 682-3680
Website: bioresourcedevelopment.com

ABOUT BIORESOURCE DEVELOPMENT LLC

Bioresource Development owns a transmission pipeline that runs from the county landfill on State St., South along N. 120th St. to Fort St. This pipeline supplies MUD with renewable natural gas for their distribution system.

WHAT DOES BIORESOURCE DEVELOPMENT LLC DO IF A LEAK OCCURS?

To prepare for the event of a leak, pipeline companies regularly communicate, plan and train with local emergency responders. Upon the notification of an incident or leak the pipeline company will immediately dispatch trained personnel to assist emergency responders.

Pipeline operators and emergency responders are trained to protect life, property and facilities in the case of an emergency.

Pipeline operators will also take steps to minimize the amount of product that leaks out and to isolate the pipeline emergency.

MAINTAINING SAFETY AND INTEGRITY OF PIPELINES

BioResource Development LLC invests significant time and capital maintaining the quality and integrity of their pipeline systems.

Most active pipelines are monitored 24 hours a day via manned control centers. BioResource Development LLC also utilizes aerial surveillance and/or on-ground observers to identify potential dangers. Control center personnel continually monitor the pipeline system and assess changes in pressure and flow. They notify field personnel if there is a possibility of a leak. Automatic shut-off valves are sometimes utilized to isolate a leak.

Gas transmission and hazardous liquid pipeline operators have developed supplemental hazard and assessment programs known as Integrity Management Programs (IMPs). Specific information about BioResource Development LLC's program may be found on our Web site, or by contacting us directly.

HOW TO GET ADDITIONAL INFORMATION

For an overview of BioResource Development LLC's IMP, contact us at 402-682-3680.

EMERGENCY CONTACT:
1-800-770-7282

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Natural Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

Douglas

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

PRODUCT TRANSPORTED

PRODUCT	*LEAK TYPE*	*VAPORS*
NATURAL GAS	Gas	Lighter than air and will generally rise and dissipate. May gather in a confined space and travel to a source of ignition.
HEALTH HAZARDS	Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.	

P.O. Box 83008
Lincoln, NE 68501
Website: www.blackhillsenergy.com

OPERATOR OVERVIEW

Black Hills Energy serves over 300,000 utility customers who live in 319 communities with 12, 672 miles of natural gas system infrastructure in Nebraska. Black Hills Energy is part of Black Hills Corp. a diversified energy company with a tradition of exemplary service and a vision to be the energy partner of choice based in Rapid City, S.D. Black Hills Corp.'s regulated utilities serve 1.28 million electric and natural gas utility customers in Colorado, Iowa, Kansas, Montana, Nebraska, Arkansas, South Dakota, and Wyoming. The company's non-regulated businesses generate wholesale electricity, produce natural gas, renewable natural gas, oil and coal, and market energy. Black Hills employees' partner to produce results that improve life with energy.

COMMITMENT TO SAFETY, HEALTH & ENVIRONMENT

Safety Policy

Black Hills Energy's safety mission is to be recognized as a safety leader among investor-owned electric and natural gas utilities by providing an environment that is free from recognized hazards for both employees and customers.

The Black Hills Public Awareness Program was developed to raise the general public's awareness regarding the safety of pipeline operations. We believe this program is vital to the safe operation of our pipelines and that an informed public along our pipeline routes will help reduce the likelihood and potential impact of pipeline emergencies and releases.

Black Hills Energy has detailed emergency plans and procedures and is committed to sharing this information with local officials in order to have the best coordination possible with them during an emergency situation. Black Hills Energy offers training on natural gas to all the fire departments in the communities it serves and welcomes any opportunity to educate the public about its product.

Pipeline operating conditions are monitored 24 hours a day, 7 days a week by personnel in our Gas Control Centers using Supervisory Control and Data Acquisition (SCADA) computer system. This electronic surveillance system gathers such data as pipeline pressures, volume and flow rates, the status of compressor stations and valves. Whenever operating conditions change, an alarm warns the operator on duty and the condition is investigated.

Black Hills Energy employees perform many tasks on a daily basis to assure the integrity of its pipeline system. Not only are these tasks necessary to ensure public safety, they are also a demonstration of Black Hills Energy's commitment to protecting the environment and abundant natural resources that surround us.

Emergency Response

According to National Transportation Safety Board statistics, pipelines are the safest method for transporting natural gas products. Pipelines are monitored in the field through regular patrolling and scheduled maintenance.

Integrity Management Plans are implemented to further protect zones defined by pipeline regulators as High Consequence Areas. Those include – but may not be limited to – playgrounds, hospitals, schools, day care facilities, retirement facilities and correctional facilities.

Public Awareness Program

Black Hills Energy's Public Awareness Program was developed under the guidance of API RP1162 to enhance public environmental and safety, property protection through increased public awareness and knowledge of stakeholder audiences, e.g. customers, affected public along both distribution

EMERGENCY CONTACT:
1-800-694-8989

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Natural Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

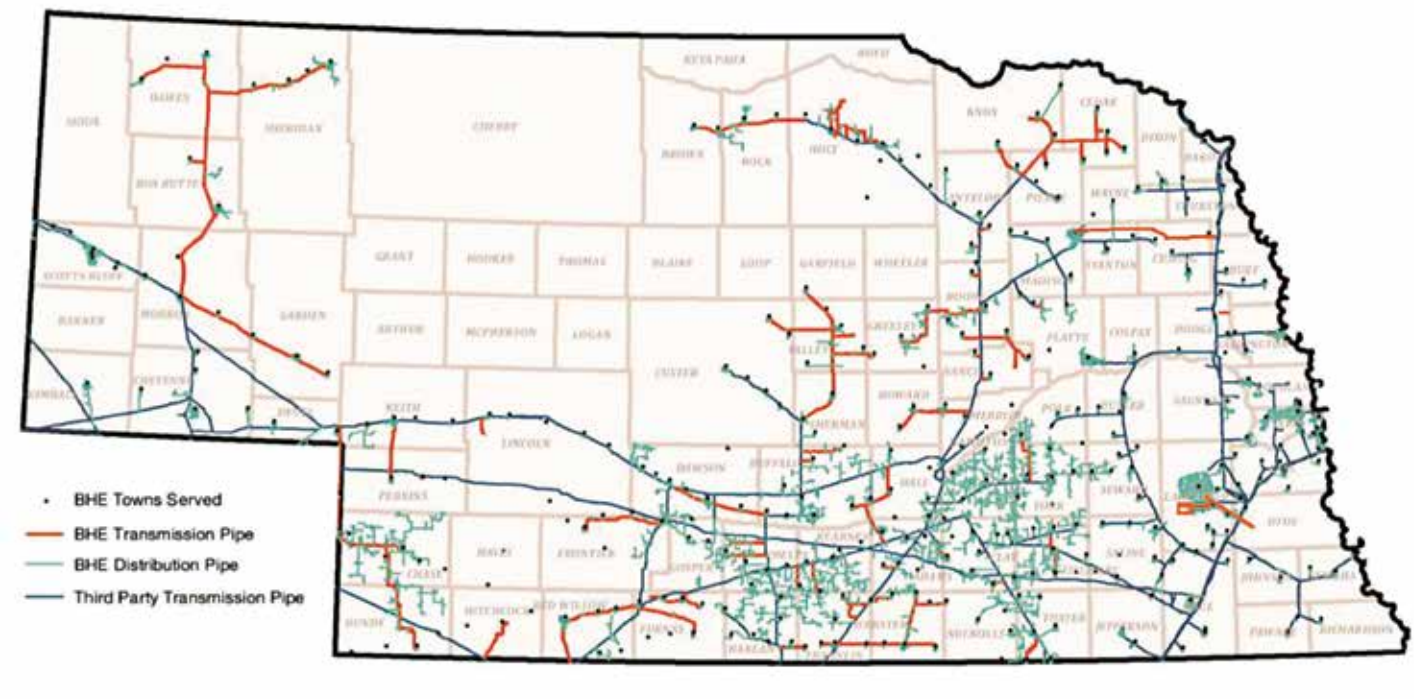
Adams	Johnson
Antelope	Kearney
Boone	Keith
Box Butte	Kimball
Brown	Knox
Buffalo	Lancaster
Burt	Lincoln
Butler	Madison
Cass	Merrick
Cedar	Morrill
Chase	Nance
Cheyenne	Nemaha
Clay	Nuckolls
Colfax	Otoe
Cuming	Pawnee
Custer	Perkins
Dakota	Phelps
Dawes	Pierce
Dawson	Platte
Deuel	Polk
Dixon	Red Willow
Dodge	Richardson
Douglas	Rock
Dundy	Saline
Fillmore	Sarpy
Franklin	Saunders
Frontier	Scotts Bluff
Furnas	Seward
Gage	Sheridan
Garden	Sherman
Garfield	Sioux
Gosper	Stanton
Greeley	Thayer
Hall	Thurston
Hamilton	Valley
Harlan	Wayne
Hitchcock	Washington
Holt	Wayne
Howard	Webster
Jefferson	York

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

and transmission pipelines, local and state emergency response and planning agencies, local public officials and governing councils, and excavators, to help prevent and recognize, report and respond to a suspected pipeline emergency.

Additional information is available on the Internet:

- For Black Hills Energy's home page, visit **www.blackhillsenergy.com**
- For a list of natural gas service operators and maps of transmission pipeline systems in your area, visit **www.npms.phmsa.dot.gov**
- For excavation practices near underground facilities, visit **www.commongroundalliance.com**



811
Know what's **below.**
Call before you dig.

Black Hills Energy
Ready

400 E. Military Avenue
Fremont, NE 68025
Phone: 402-727-2613
Website: /www.fremontne.gov

ABOUT FREMONT DEPARTMENT OF UTILITIES

The City of Fremont, Department of Utilities provides gas, electric, water, and wastewater services to the city of Fremont, Nebraska, and surrounding areas.

WHAT ARE THE SIGNS OF A NATURAL GAS PIPELINE LEAK?

- Blowing or hissing sound
- Dust blowing from a hole in the ground
- Continuous bubbling in wet or flooded areas
- Gaseous or hydrocarbon odor
- Dead or discolored vegetation in a green area
- Flames, if a leak has ignited

WHAT SHOULD I DO IF I SUSPECT A PIPELINE LEAK?

Your personal safety should be your first concern:

- Evacuate the area and prevent anyone from entering
- Abandon any equipment being used near the area
- Avoid any open flames
- Avoid introducing any sources of ignition to the area (such as cell phones, pagers, 2-way radios)
- Do not start/turn off motor vehicles/ electrical equipment
- Call 911 or contact local fire or law enforcement
- Notify the pipeline company
- Do not attempt to extinguish a natural gas fire
- Do not attempt to operate any pipeline valves

PIPELINE SAFETY

System failures occur infrequently along the nation's network of interstate natural gas pipeline facilities, and many of these are caused by damage from others digging near the pipeline. We watch for unauthorized digging, but we request your help to notify us.

ALWAYS CALL 811 BEFORE YOU DIG!

PIPELINE LOCATION AND MARKERS

Pipeline markers are used to indicate the approximate location of a natural gas pipeline and to provide contact information. Markers should never be removed or relocated by anyone other than a pipeline operator.

You can also find out where other companies' pipelines are in your area by going to the National Pipeline Mapping System website at www.npms.phmsa.dot.gov.

WHAT DOES CITY OF FREMONT DO IF A LEAK OCCURS?

To prepare for the event of a leak, pipeline companies regularly communicate, plan and train with local emergency responders. Upon the notification of an incident or leak the pipeline company will immediately dispatch trained personnel to assist emergency responders.

Pipeline operators and emergency responders are trained to protect life, property and facilities in the case of an emergency.

Pipeline operators will also take steps to minimize the amount of product that leaks out and to isolate the pipeline emergency.

MAINTAINING SAFETY AND INTEGRITY OF PIPELINES

Fremont Department of Utilities invests significant time and capital maintaining the quality and integrity of their pipeline systems.

EMERGENCY CONTACT:
1-402-727-2600

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Natural Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

Dodge	Saunders

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

Most active pipelines are monitored 24 hours a day via manned control centers. Fremont Department of Utilities also utilizes on-ground observers to identify potential dangers. Control center personnel continually monitor the pipeline system and assess changes in pressure and flow. They notify field personnel if there is a possibility of a leak.

Gas transmission and hazardous liquid pipeline operators have developed supplemental hazard and assessment programs known as Integrity Management Programs (IMPs). Specific information about Fremont Department of Utilities' program may be found by contacting us directly.

HOW TO GET ADDITIONAL INFORMATION

For an overview of Fremont Department of Utilities' IMP, contact us directly.

PRODUCT TRANSPORTED

PRODUCT	*LEAK TYPE*	*VAPORS*
NATURAL GAS	Gas	Lighter than air and will generally rise and dissipate. May gather in a confined space and travel to a source of ignition.
HEALTH HAZARDS	Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.	

1100 Louisiana
Houston, TX 77002
Public Awareness: 1-888-806-8152
Email: publicawareness@eprod.com
Website: www.enterpriseproducts.com

COMPANY INFORMATION, ASSETS & PRODUCTS TRANSPORTED

Enterprise Products Partners L.P. is a leading North American provider of midstream energy services to producers and consumers of natural gas, NGLs, crude oil, refined products and petrochemicals. Enterprise transports natural gas, NGLs, petrochemicals and crude oil through a network of pipelines throughout the United States.

PRODUCTS TRANSPORTED

The Mid-America Pipeline (MAPL) System extends over 9,000 miles of Natural Gas Liquids pipelines through 13 states. In Nebraska, it operates approximately 290 miles throughout the state. The products transported through this system include Natural Gasoline, Iso-Butane, Normal Butane, Propane and Naptha. For additional information on Enterprise, visit www.enterpriseproducts.com.

LOCATING ENTERPRISE PIPELINES – PIPELINE VIEWER TOOL

To find more information regarding location and products transported in our pipelines within one (1) mile of a specific address, visit our website at: www.enterpriseproducts.com/pipelineviewer. Please note the asset map and pipeline viewer tool are for informational purposes only.

You can also find out where other companies' pipelines are in your area by going to the National Pipeline Mapping System website at www.npms.phmsa.dot.gov.

EMERGENCY RESPONSE PLAN

An Emergency Response Plan is developed for each pipeline facility to contain, control and mitigate the various types of emergency conditions/situations that could occur at one of our facilities. For more information regarding Enterprise Products emergency response plans and procedures, contact us at publicawareness@eprod.com.

EMERGENCY RESPONSE CAPABILITIES

The Company's qualified personnel are trained in safe operations and emergency response activities and participate in exercises reflecting various types of emergency scenarios and environmental sensitivities. The Company utilizes the First Responder/Emergency Response Team concept to handle emergency incidents at its facilities. Employees receive hands on training in fire fighting, hazardous material spill response and rescue/medical/first aid training. In addition, we maintain a well trained team of employees from various Company locations as members of the Corporate Emergency Organization. This team, as well as an array of emergency response equipment (including, but not limited to, cell phones, fire extinguisher, supplied breathing air, and air monitoring equipment), can be mobilized and deployed to assist in handling emergency situations that may occur at a Company facility or pipeline location.

Enterprise Products utilizes its 24-hour/365 day a year, Pipeline Operations Control Center (888-883-6308) as a hub of communications in emergency response situations. Our manned control center monitors the flow, pressure, temperatures, and other conditions throughout the pipeline systems and is an integral part of our communication during emergency situations.

ENTERPRISE PRODUCTS' RESPONSE IN AN EMERGENCY

- We will immediately dispatch personnel to help handle the emergency at the site.
- We will provide information to public safety officials to aid in their response to the emergency.
- We will take necessary operating actions such as closing and opening valves to minimize the impact of the leak.

EMERGENCY CONTACT:
1-888-883-6308

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Iso-Butane	1969	115
Naptha	1334	128
Natural Gas	1971	115
Natural Gasoline	1203	128
Normal Butane	1075	115
Propane	1075	115

NEBRASKA
COUNTIES OF OPERATION:

Burt	Gage
Cass	Lancaster
Dodge	Saunders
Douglas	Washington

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

- Public safety personnel and others unfamiliar with the pipeline should not attempt to operate any of the valves on the pipeline, unless instructed to do so by Enterprise Products personnel. Improper operation of the pipeline valves could make the situation worse and cause other accidents to happen.

INCIDENT COMMAND SYSTEM

Enterprise Products utilizes an expandable Incident Command System. Depending upon the size and complexity of an incident, additional Company or contract personnel may be added as needed. Additional federal, state or local agencies may be integrated into the Incident Command System by utilizing a Unified Command Structure.

SPILL RESPONSE EQUIPMENT CAPABILITIES

We maintain emergency response equipment at some of our facilities. We also have agreements with various response organizations to provide the appropriate level of response with spill response equipment including trailers containing spill booms, sorbent materials, boats, motors, hand tools, power tools, pumps, hoses, personal protective equipment, first aid and miscellaneous supplies. These companies also have expert personnel trained in emergency response and cleanup methods.

CONTACTS

Eric Randall
Enterprise Products
Greenwood Area Supervisor
18805 HWY 6
Greenwood, NE 68366
Cell: 402-521-4597
Email: ecrandall@eprod.com

Counties of responsibility: Burt, Cass, Dodge, Douglas, Gage, Lancaster, Saunders, Washington

HF Sinclair MIDSTREAM

On December 1, 2023, Holly Energy Partners, L.P. (“HEP”) merged with, and is now, a wholly owned subsidiary of HF Sinclair Corporation and is headquartered in Dallas, Texas, doing business as HF Sinclair Midstream.

2323 Victory Ave.
Suite #1400
Dallas, TX 735219
Website: www.hfsinclair.com/about-us

ABOUT US - HEALTH, SAFETY AND THE ENVIRONMENT

HF Sinclair Midstream dedicates significant time, effort and resources to ensure our petroleum pipelines and terminals continue to operate safely. Ongoing efforts by our employees keep the operation of our pipelines, terminals, and other associated facilities operating efficiently and compliant under the guidance of federal, state, and local requirements.

To achieve the highest level of protection for the communities in which we operate and our employees, we focus our efforts on implementing industry standards and Best Practices in addition to compliance with applicable rules and regulations.

SYSTEM INTEGRITY AND RELIABILITY

In an effort for HF Sinclair Midstream to successfully meet our goal of protecting communities, our people and the environment, we assess risks and identify actions to mitigate those risks to ensure the highest level of integrity and reliability for our pipelines. Our Integrity Management Programs guide us in preventing releases from our facilities and pipelines. This is achieved by determining those operations which could affect High Consequence Areas (HCA’s) such as populated areas and areas that are sensitive to environmental issues. We inspect our pipelines regularly using technologically advanced inspection equipment. Our pipelines are monitored 24 hours a day 7 days a week by trained personnel in a central control center using advanced technology, communication and computer systems.

811 CALL BEFORE YOU DIG

HF Sinclair Midstream is a member of the One-Call system in each state in which we operate. This is a free service which informs underground utilities and pipeline owners of planned excavation activities that potentially affect our pipelines. We investigate and manage all One-Calls according State requirements and encourage the use of 8-1-1 to all excavators to promote safe digging practices.

EMERGENCY CONTACT:
1-877-748-4464

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Diesel	1202	128
Gasoline	1203	128

NEBRASKA
COUNTIES OF OPERATION:

Cheyenne	Kimball
Deuel	Lincoln
Keith	

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

EMERGENCY PREPAREDNESS AND RESPONSE

In order to maintain peak preparedness for an emergency response, HF Sinclair Midstream maintains relationships with local emergency responders and public officials. Whenever operating conditions change, we are alerted to the situation, and the condition is investigated. If warranted, we will shutdown the pipeline and isolate as necessary. In the event of an emergency, HF Sinclair Midstream personnel will take the appropriate actions to minimize the impact of a release from the pipeline to people, property and the community.

PRODUCTS TRANSPORTED IN YOUR AREA

PRODUCT	*LEAK TYPE*	*VAPORS*
HAZARDOUS LIQUIDS [SUCH AS: CRUDE OIL, DIESEL FUEL, JET FUEL, GASOLINE, AND OTHER REFINED PRODUCTS]	Liquid	Initially heavier than air and spread along ground and collect in low or confined areas. Vapors may travel to source of ignition and flash back. Explosion hazards indoors, outdoors or in sewers.
HEALTH HAZARDS	Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control or dilution water may cause pollution.	

2000 S Main
McPherson, KS 67460
Emergency Number: 1 (888)-542-9575
Non-Emergency Number: 1 (855)-4-CHSPIPE
Email: publicawareness@chsinc.com
Website: www.chsinc.com

ABOUT JAYHAWK PIPELINE, LLC

Formed in 1957, Jayhawk Pipeline is 100% owned by CHS Inc. based out of McPherson, Kansas. Jayhawk currently transports approximately 140,000 barrels per day of crude oil in both intrastate and interstate commerce, and is connected to all the major crude oil pipelines in Kansas. Jayhawk has over 70 employees. Jayhawk Pipeline, LLC operates over 1,000 miles of regulated pipeline throughout Kansas, Nebraska, Oklahoma and Texas and is the operator of Kaw Pipe Line Company and the Hooker-Clawson Pipeline.

EMERGENCY CONTACT:
1-888-542-9575

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Crude Oil	1267/3494	128/131

NEBRASKA
COUNTIES OF OPERATION:

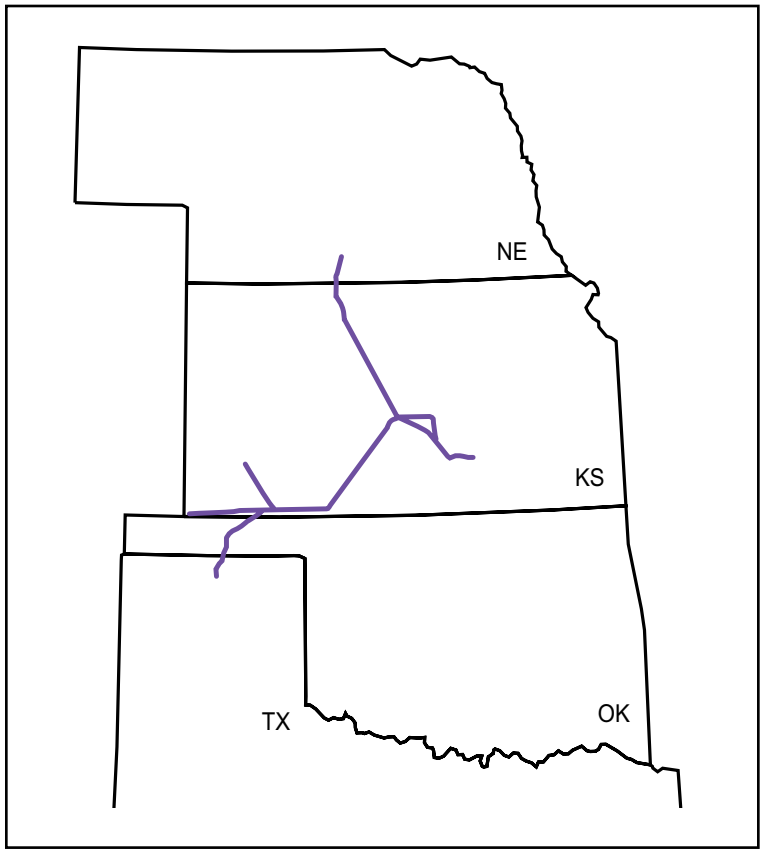
Harlan Phelps

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

COMMITMENT TO SAFETY, HEALTH & ENVIRONMENT

Jayhawk Pipeline's highest priority is the transportation of crude oil in a reliable, safe and environmentally friendly manner. Jayhawk is dedicated to these goals and follows all applicable pipeline rules and regulations. Ensuring the mechanical integrity of its pipeline system is an important ingredient toward accomplishing those goals.

To this end, Jayhawk has created and implemented a comprehensive pipeline Integrity Management Plan (IMP), Damage Prevention Plan (DP), Spill Response Plan (SRP), and Public Awareness Program (PAP). Through these efforts, the operator will enhance public safety, further protect the environment, and reduce the risk of third-party damage to the pipeline system. The company and its management provide the needed support, resources, and funding required to accomplish these goals. For additional information, contact Jayhawk Pipeline, L.L.C.



JAYHAWK PIPELINE SYTEM MAP

Lincoln Electric System

PO Box 2986
Omaha, NE 68103-2986
Phone: (402) 475-4211
Website: www.les.com

ABOUT LINCOLN ELECTRIC SYSTEM LANDFILL GAS PIPELINE

The Lincoln Electric System (LES) has a landfill gas pipeline that transports methane gas from the City of Lincoln's Bluff Road Landfill to the LES Terry Bundy Generating Station.

ABOUT LANDFILL GAS

Landfill Gas is the product of microbiological decomposition of land-filled garbage and is composed of roughly 50% methane gas (primary component of natural gas), 50% carbon dioxide (CO2), and a small amount of non-methane gas such as nitrogen, oxygen, ammonia, sulfides, hydrogen, and various other non-methane organic compound gases.

Methane is a naturally occurring gas. It is colorless and odorless. Carbon dioxide is naturally found at small concentrations in the atmosphere (0.03%). It is colorless, odorless, and slightly acidic. Nitrogen comprises approximately 79% of the atmosphere. It is odorless, tasteless, and colorless. Oxygen comprises approximately 21% of the atmosphere. It is odorless, tasteless, and colorless. Sulfides (e.g., hydrogen sulfide, dimethyl sulfide, mercaptans) are naturally occurring gases that give the landfill gas mixture its rotten-egg smell. Sulfides can cause unpleasant odors even at very low concentrations. Hydrogen is an odorless, colorless gas. Carbon monoxide is an odorless, colorless gas. Non-methane organic compounds are organic compounds may occur naturally or be formed by synthetic chemical processes.

LANDFILL GAS SYSTEM OVERVIEW

Landfill gas is collected generally through extractions wells, and then transported to processing equipment in order to convert it to usable energy. The U.S. Department of Transportation's guidelines require your landfill gas company to make you aware of certain safety recommendations regarding your underground landfill piping.

WHAT DOES LINCOLN ELECTRIC SYSTEM LANDFILL GAS PIPELINE DO IF A LEAK OCCURS?

To prepare for the event of a leak, pipeline companies regularly communicate, plan and train with local emergency responders. Upon the notification of an incident or leak the pipeline company will immediately dispatch trained personnel to assist emergency responders.

Pipeline operators and emergency responders are trained to protect life, property and facilities in the case of an emergency.

Pipeline operators will also take steps to minimize the amount of product that leaks out and to isolate the pipeline emergency.

MAINTAINING SAFETY AND INTEGRITY OF PIPELINES

Lincoln Electric System Landfill Gas Pipeline invests significant time and capital maintaining the quality and integrity of their pipeline systems.

Most active pipelines are monitored 24 hours a day via manned control centers. Lincoln Electric System Landfill Gas Pipeline also utilizes aerial surveillance and/or on-ground observers to identify potential dangers. Control center personnel continually monitor the pipeline system and assess changes in pressure and flow. They notify field personnel if there is a possibility of a leak. Automatic shut-off valves are sometimes utilized to isolate a leak.

Gas transmission and hazardous liquid pipeline operators have developed supplemental hazard and assessment programs known as Integrity Management Programs (IMPs). Specific information about Lincoln Electric System Landfill Gas Pipeline's program may be found by contacting us directly.

HOW TO GET ADDITIONAL INFORMATION

For an overview of Lincoln Electric System Landfill Gas Pipeline's IMP, contacting us directly.

EMERGENCY CONTACT:
1-800-947-7282

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:		
Landfill Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

Lancaster

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

PRODUCT TRANSPORTED

PRODUCT	*LEAK TYPE*	*VAPORS*
LANDFILL GAS	Gas	Vapors are initially heavier than air and spread along the ground and collect in low or confined areas.Vapors may travel to source of ignition and flash back.
HEALTH HAZARDS	Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.	

MAGELLAN MIDSTREAM PARTNERS, L.P.
Magellan is a wholly owned subsidiary of ONEOK

ONEOK

Magellan Pipeline Company, LP
Magellan Crude Oil Pipeline Company LP
Magellan Pipelines Holdings LP
Magellan Terminals Holdings LP
Magellan Operating Company, LLC

Oneok Plaza
100 West 5th Street
Tulsa, OK 74103-4298
(Headquarters) 918-588-7000
Website: Oneok.com

SYSTEM OVERVIEW

Name of system:
Magellan Midstream Partners, L.P.

Name of operator:
Magellan Midstream Partners, L.P.

Type of system: Transmission

List of products transported in system: Jet Fuel, Refined Petroleum Products (Butane, Diesel Fuel, Gasoline).

OPERATOR OVERVIEW

Magellan Midstream Partners, L.P., a wholly owned subsidiary of ONEOK, Inc., is a publicly traded limited partnership , principally engaged in the transportation, storage and distribution of refined products and crude oil. Magellan operates a 9,800 mile refined products pipeline system with 54 connected terminals and two marine terminals (one of which is owned through joint venture) and a 2,200 mile crude oil pipeline system.

Our pipeline markers can be typically identified by the black and red bands at the top.

COMMITMENT TO SAFETY, HEALTH & ENVIRONMENT

Magellan Midstream Partners, L.P. operates with a focus on safe, reliable, environmentally responsible, legally compliant and sustainable operations. Our pipelines are designed, installed, tested,operated, and maintained according to strict standards employed by our company, the pipeline industry and the federal government. Safety, honesty, responsibility, and efficiency are at the core of Magellan's business.

FREQUENTLY ASKED QUESTIONS

1. **How can an emergency responder or LEPC obtain maps of the pipeline?**

   Emergency responders and local planning/zoning authorities may obtain detailed maps of our system from field operations staff or contact us directly via email at: damageprevention@ magellanlp.com or call 888-945-2255. In addition, the National Pipeline Mapping System (www.npms.phsa.dot.gov) provides a list of pipeline operators in your community as well as the location of pipelines and other information.

2. **How will Magellan and response agencies work together during Pipeline Emergencies?**

   Local response agencies are expected to play a key role in the first few hours of a response, protecting the public, isolating the area and using local materials such as dirt or sand to help safely contain the event. Magellan personnel will join a Unified Command and can provide key response equipment such as air monitors, vacuum trucks, emergency spill contractors, heavy construction equipment and specialized command post contractors

EMERGENCY CONTACT:
(800) 720-2417

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Butane	1011	115
Diesel Fuel	1202/1993	128
Gasoline	1203	128
Jet Fuel	1223	128

NEBRASKA
COUNTIES OF OPERATION:

Burt	Otoe
Cass	Richardson
Douglas	Sarpy
Hall	Seward
Hamilton	Washington
Lancaster	York
Nemeha	

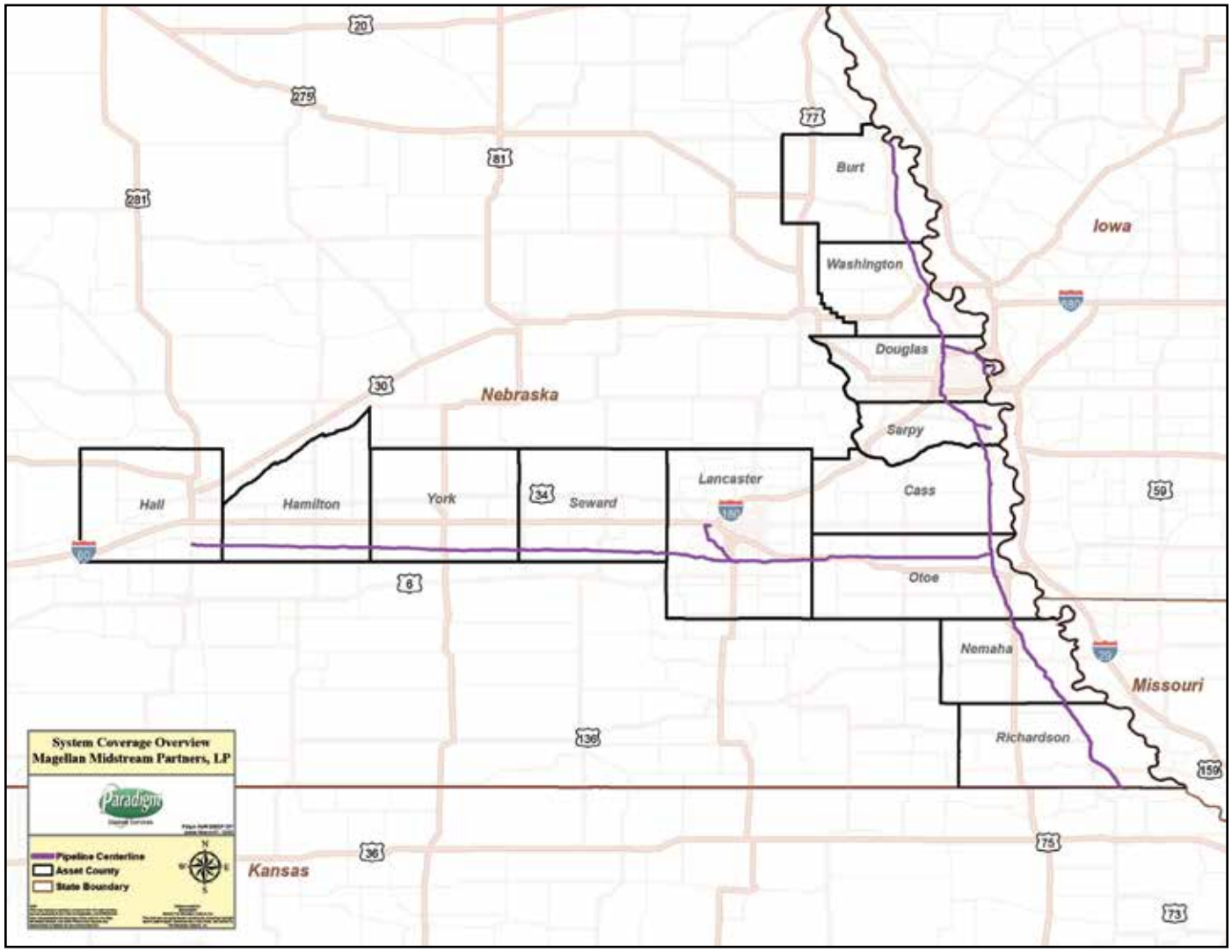
Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

3. **How can an emergency responder learn more about the company's official emergency plans?**

   If interested in learning more about our facility response plan, please contact your local Magellan field representative or contact Magellan Corporate directly via email at: damageprevention@ magellanlp. com.

4. **How can responders learn more about pipeline responding training opportunities?**

   Visit www.pipelineemergencies.com. or visit www.magellanlp.com for more information and additional resources.



Petroleum pipeline diameter: 6”,8”,10”, 12”

PO Box 657
Des Moines, IA 50306-0657
Phone: 888-427-5632
Website: www.midamericanenergy.com

COMPANY PROFILE

MidAmerican Energy is a combination gas and electric utility with its corporate office in Des Moines, Iowa. MidAmerican Energy operates over 12,700 miles of distribution main and approximately 680 miles of transmission pipeline in Iowa, Illinois, South Dakota and Nebraska. MidAmerican Energy serves over 765,000 gas customers and over 783,000 electric customers.

MidAmerican Energy receives gas from four primary pipeline transportation companies: Northern Natural, Northern Border, Natural Gas Pipeline and ANR Pipeline. MidAmerican Energy only transports natural gas and does not transport liquids. MidAmerican Energy operates three storage facilities to augment pipeline supplies during high consumption days. Liquefied natural gas plants are located in Waterloo, Des Moines and Bettendorf.

Upon request, MidAmerican Energy will provide training related to gas emergency response. The MidAmerican Energy website provides general company information, gas safety notices, and other safety related information. Specific gas safety (nonemergency) questions, requests for training, or requests to review MidAmerican's emergency response plan can be sent to PublicAwareness@midamerican.com.

COMMITMENT TO SAFETY, HEALTH & ENVIRONMENT

MidAmerican Energy is committed to the safety of its employees, customers, and the general public.

MidAmerican Energy designs, constructs, operates, and maintains its facilities in compliance with all the requirements of DOT 49 CFR 192 "Transportation of Natural and Other Gas by Pipeline: Federal Safety Standards." To assure compliance with all regulations and the operation of safe and reliable pipeline facilities, the company has an active internal auditing process that inspects and evaluates company facilities.

The primary cause of all pipeline incidents is third-party dig-ins. MidAmerican Energy is an enthusiastic and active supporter of state One Call systems.

MidAmerican Energy has trained personnel to respond to gas leaks and other gas emergencies in a timely manner. Responders are supported by an automated dispatch system, continuous contact with a 24/7 dispatch center, and an Emergency Plan that can quickly establish communication with support personnel and mobilize resources rapidly.

MidAmerican Energy believes responsible environmental management is good business; it benefits our customers and improves the quality of the environment in which we live.

All MidAmerican Energy employees are responsible and accountable for incorporating environmental compliance requirements into their daily work activities with obligation to bring issues and concerns forward for resolution.

PUBLIC EMERGENCY CONTACT:
1-800-595-5325

EMERGENCY REPONDERS:
1-800-275-5743

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:		
Natural Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

Dakota

IOWA
COUNTIES OF OPERATION:

Adair	Franklin	Montgomery
Audubon	Fremont	Muscatine
Black Hawk	Guthrie	O'Brien
Boone	Harrison	Page
Bremer	Humboldt	Palo Alto
Buchanan	Ida	Plymouth
Buena Vista	Jackson	Polk
Butler	Jasper	Pottawattamie
Calhoun	Johnson	Poweshiek
Cass	Keokuk	Sac
Cedar	Kossuth	Scott
Cerro	Lee	Shelby
Gordo	Linn	Sioux
Cherokee	Lyon	Union
Chickasaw	Madison	Wapello
Clinton	Mahaska	Warren
Dallas	Marion	Washington
Dubuque	Mills	Webster
Emmet	Monona	Woodbury
Floyd	Monroe	Wright

ILLINOIS
COUNTIES OF OPERATION:

Henry	Rock Island

SOUTH DAKOTA
COUNTIES OF OPERATION:

Clay	Turner	McCook
Moody	Lincoln	Yankton
Lake	Union	Minnehaha

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

1111 South 103rd Street
Omaha, NE 68124
Emergency: 888-367-6671
Website: www.northernnaturalgas.com

Please share this important information with others in your organization

COMPANY PROFILE

Northern Natural Gas (Northern) is a subsidiary of Berkshire Hathaway Energy, based in Omaha, Nebraska, and operates an interstate natural gas high pressure, transmission pipeline system extending from Texas to the upper Midwest. The system includes over 14,200 miles of natural gas pipeline, capable of 6.3 billion cubic feet per day (Bcf/d) of market area capacity, plus 1.7 Bcf/d of field capacity. Northern has a total of five natural gas storage facilities, three of which are underground facilities and the other two are Liquefied Natural Gas (LNG) facilities. All five total 79 Bcf which includes 4 Bcf of liquefied natural gas. At times, Northern's pipelines may be odorized, please check with your Northern Natural Gas representative to learn more. Northern provides transportation and storage services to approximately 81 utilities and numerous end-use customers in the upper Midwest. Pipeline pressures can reach as high as 1,600 pounds per square inch gauge. Pipeline sizes range from 2 inches to 36 inches in diameter. The maximum potential impact radius (PIR) is 1,000 feet.

Call 811 before digging. A pipeline representative must be present when excavating within 25 feet of the pipeline.

HOW CAN YOU TELL WHERE A PIPELINE IS LOCATED?

Since natural gas pipelines are built underground, line markers are used to indicate the approximate location of the pipelines. However, these markers do not indicate how deep the pipeline is buried. Also the route can take twists and turns between markers. It is a crime for any person to deliberately damage, destroy, or remove any pipeline sign or right-of-way marker. Never assume the pipeline lies in a straight line. Always call your state One Call Center before digging. Pipelines can lose cover by natural erosion or other forces. Certain types of deep farming activities require advanced notification before disturbing the soil. Some examples are: chisel plowing, waterway work and drain tiling. If you observe indications that a pipeline is shallow, exposed or damaged, immediately contact the Northern Natural Gas 24-hour Operations Communication Center at 1-888-367- 6671. Call 811 or visit NPMS at: www.npms.phmsa.dot.gov to learn more.

WHO SHOULD I CALL IF I DETECT A GAS LEAK IN MY HOME?

If you suspect a natural gas leak inside your home or on your service line, immediately evacuate and contact 911 and your local gas company from a safe location. Northern operates the pipeline that delivers gas to local distribution companies. The distribution companies then deliver the gas to homes and businesses.

IF YOU ARE A PUBLIC SAFETY OFFICIAL:

A public safety official must take whatever steps are necessary to safeguard the public in the event of a pipeline emergency. The following points are offered as a guide.

- Notify the appropriate pipeline company. Report the type (leak, rupture, fire) and the location of the emergency. If it is a Northern Natural Gas pipeline, call the toll-free 24-hour Operations Communication Center: 1-888-367-6671.
- Establish a safety zone around the emergency site and control access.
- Use initial evacuation of 1,320 feet (1/4 mile) until advised further.
- If gas is not burning, avoid doing anything that may ignite it. Be aware of wind direction and remove potential ignition sources.

While emergency response agencies are doing their part, Northern employees will do what needs to be done to protect lives and property.

EMERGENCY CONTACT:
1-888-367-6671

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Natural Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

Burt	Fillmore	Polk
Butler	Gage	Richardson
Cass	Jefferson	Saline
Colfax	Johnson	Sarpy
Cuming	Lancaster	Saunders
Dakota	Nemaha	Seward
Dixon	Otoe	Thurston
Dodge	Pawnee	Washington
Douglas	Platte	Wayne

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

- They will first protect people.
- If a fire does not already exist, they will remove all sources of ignition.
- They will help people in distress.
- They will eliminate the natural gas source. If it is possible to do so from the location of the emergency, they will. In many cases, the natural gas must be shut off at a remote location. It is important for you to know that Northern employees are responsible for operating the valves that isolate the affected facilities.
- Is your group or agency interested in a presentation or additional information? Call the Northern Operations Communication Center at 1-888-367-6671 and ask to establish a public education liaison. Together we will determine the appropriate Northern field location nearest you and then provide you a means to contact Northern's local representative for more details.
- For more information visit www.pipelineawareness.org/training

www.call811.com

SUNOCO LP
NuStar Pipeline Operating Partnership LP

NuStar Energy - Central East Region
7340 W. 21st North, Suite 200
Wichita, KS 67205
Phone: 316-773-9000
PublicAwarenessCE@nustarenergy.com
Website: www.nustarenergy.com

ABOUT NUSTAR PIPELINE OPERATING PARTNERSHIP L.P.

You may be aware of Sunoco LP's recent acquisition of NuStar Energy L.P through an allstock purchase. All NuStar operating companies, including NuStar Pipeline Operating Partnership LP, still own and operate the same assets as before the transaction. In other words, no asset transfer or change of operational control has occurred. For the sake of clarity, this information only references NuStar; however, our communications going forward will be on Sunoco letterhead and from the Sunoco.com email domain.

Our business unit consists of pipeline systems that transport refined petroleum products, including gasoline, diesel and propane throughout Kansas, Nebraska, Iowa, South Dakota, North Dakota and Minnesota. We also operate an anhydrous ammonia pipeline system in Louisiana, Arkansas, Missouri, Illinois, Indiana, Iowa and Nebraska. Anhydrous ammonia is primarily used as agricultural fertilizer and used as a feedstock for a number of industrial applications.

NuStar has comprehensive Public Awareness and Damage Prevention Programs in place. The goal of each Program is to enhance safety and environmental protection through increased public awareness and knowledge. Public awareness programs should raise the awareness of the affected public and key stakeholder audiences of the presence of pipelines in their communities and increase their understanding of the role of pipelines in transporting energy.

Please read and keep these important safety messages located in the brochure and company profile provided in the event you need to reference them in the future.

Contact us for more information about our Integrity Management Program or Emergency Response Plan.

COMMITMENT TO SAFETY, HEALTH & ENVIRONMENT

At NuStar, the health and safety of our personnel, customers, and neighbors and the protection of the environment are core business values. NuStar is committed to achieving health, safety and environmental (HSE) excellence throughout the organization. NuStar emphasizes its HSE commitment through internal audits, public awareness, damage prevention, pipelines integrity management, emergency response preparedness, and other programs. In addition, most of NuStar's pipelines are operated via satellite communication systems from a central control room located in San Antonio, TX. This control center is equipped with state-of-the-art computer systems designed to continuously monitor real-time operational data, operate equipment associated with the delivery of crude oil, refined products, and anhydrous ammonia, and control safety measures to ensure smooth and safe operation of our pipelines.

EMERGENCY CONTACT:
1-800-759-0033

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:		
Anhydrous Ammonia	1005	125
Gasoline	1203	128
Diesel Fuel	1203	128
Fuel Oil	1202	128
Natural Gasoline	1203	128
Propane	1075	115

NEBRASKA
COUNTIES OF OPERATION:

Ammonia System

Burt	Douglas	Saunders
Butler	Hamilton	Washington
Dodge	Polk	York

Refined Products

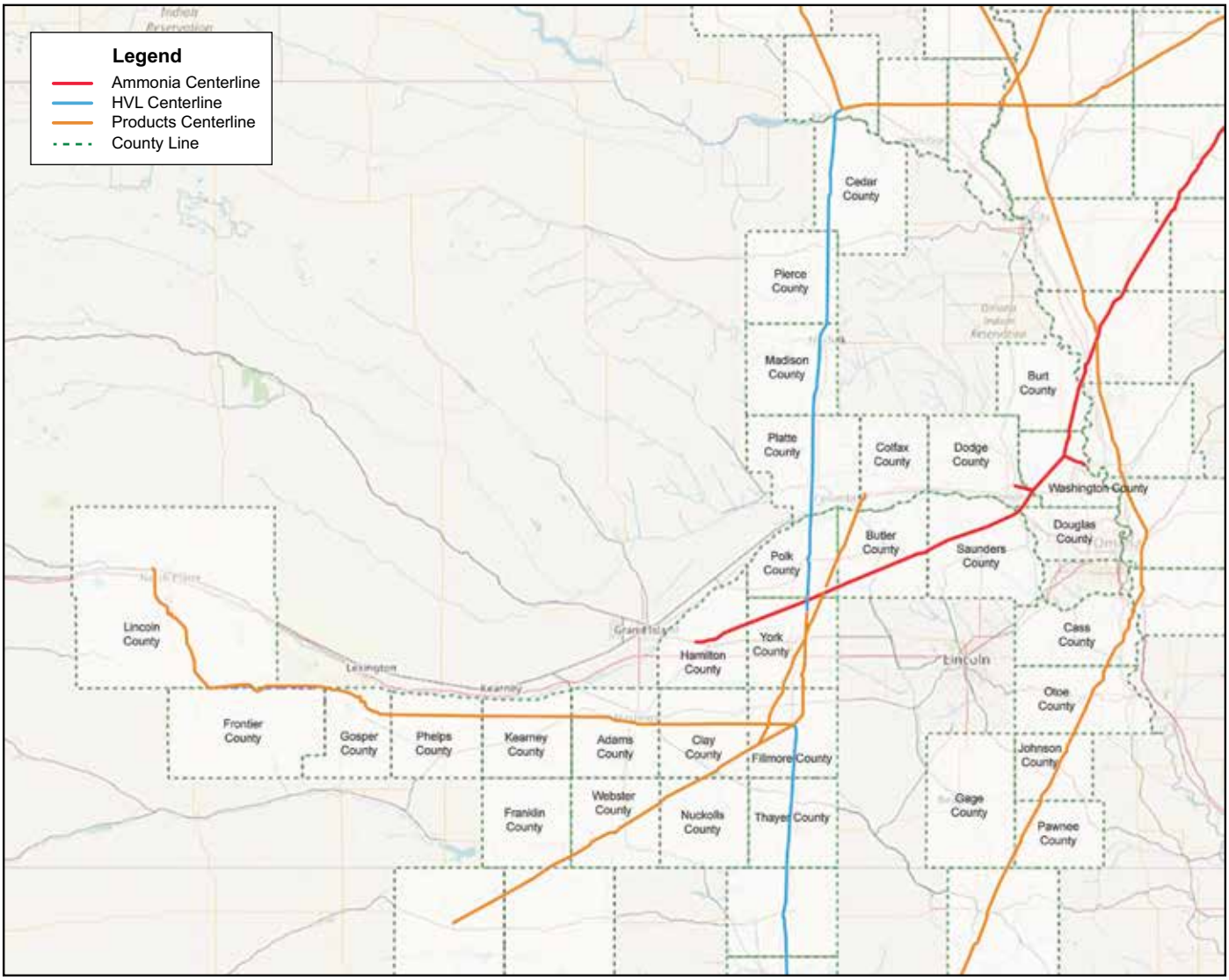
Adams	Gage	Phelps
Butler	Gosper	Pierce
Cass	Johnson	Platte
Cedar	Kearney	Polk
Clay	Lincoln	Thayer
Colfax	Madison	York
Fillmore	Otoe	
Frontier	Pawnee	

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

ERP™
EMERGENCY RESPONSE PORTAL

BE PREPARED

Please visit Emergency Response Portal to register for access to more information about NuStar's Emergency Response Plan including how to contact us directly from the site. If you are already registered, you will receive email notifications when there are additional resources in your area of jurisdiction.



Base map courtesy of openstreetmap.org

PHILLIPS 66 PIPELINE LLC

Corporate Headquarters:
Phillips 66 Pipeline LLC
2331 Citywest Blvd
Houston, TX 77042
www.phillips66pipeline.com

PHILLIPS 66 PIPELINE LLC OWNS OR OPERATES APPROXIMATELY 1 MILE OF PIPELINE AND 1 STORAGE TERMINAL IN NEBRASKA.

Operating with Integrity

Pipelines are one of the most reliable methods to move energy products, helping to meet our nation's growing economic and energy needs. They operate under many government regulations and industry standards. These measures address all aspects of pipeline operation, such as where and how they are built, operated and maintained -- and Phillips 66 Pipeline LLC applies best practices that often exceed requirements.

Committed to Safety and Reliability

Our commitment to safety goes further, with the goal that everyone who lives or works near our assets is aware of our lines and facilities, adopts safe digging practices, learns the signs of a potential pipeline leak and knows how to quickly respond if he or she suspects a problem. As part of our on-going damage prevention program, we employ many tactics to ensure the safety of our communities.

Emergency Response Capabilities

Phillips 66 Pipeline LLC has committed resources to prepare and implement its emergency response plans and has obtained, through contract, the necessary private personnel and equipment to respond to a worst case discharge, to the maximum extent practical.

Communications

Phillips 66 Pipeline LLC employs a 24-hour Control Center as a hub of communication in emergency response situations. On-site communications are conducted using cellular phones; and portable radios and/or land-line telephone systems from facilities and offices.

Incident Command System

Phillips 66 Pipeline LLC utilizes an expandable Incident Command System. Personnel and federal, state and local agencies may be integrated into the Unified Command Structure, scalable to the size and complexity of an incident.

Spill Response Equipment

Phillips 66 Pipeline LLC maintains emergency response trailers and equipment at strategically-located facilities. Response equipment may include spill boom (as needed and of various types, sizes and lengths), absorbent materials, boats, motors, hand and power tools, pumps, hoses, personal protective equipment (PPE), first aid and miscellaneous supplies. Each trailer is inspected; equipment is deployed during drills on a regular basis.

Oil Spill Contractors

Certified Oil Spill Response Organizations (OSROs) are under contract by Phillips 66 Pipeline LLC for use in this area. Oil Spill Response Limited (OSRL) and associated STAR Contractors are used globally.

The Phillips 66 Pipeline LLC Emergency Response Action Plan (ERAP) contains specific contact and resource information for these companies. In addition, these OSROs are invited to participate in training and pre-planning exercises with Phillips 66 Pipeline LLC local and regional response teams. OSROs and Co-Ops can be relied upon for an appropriate level of response, with spill response equipment and trained personnel.

EMERGENCY CONTACT:
1-877-267-2290

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:		
Diesel Fuel	1202	128
Ethanol	1170	127
Gasoline	1203	128

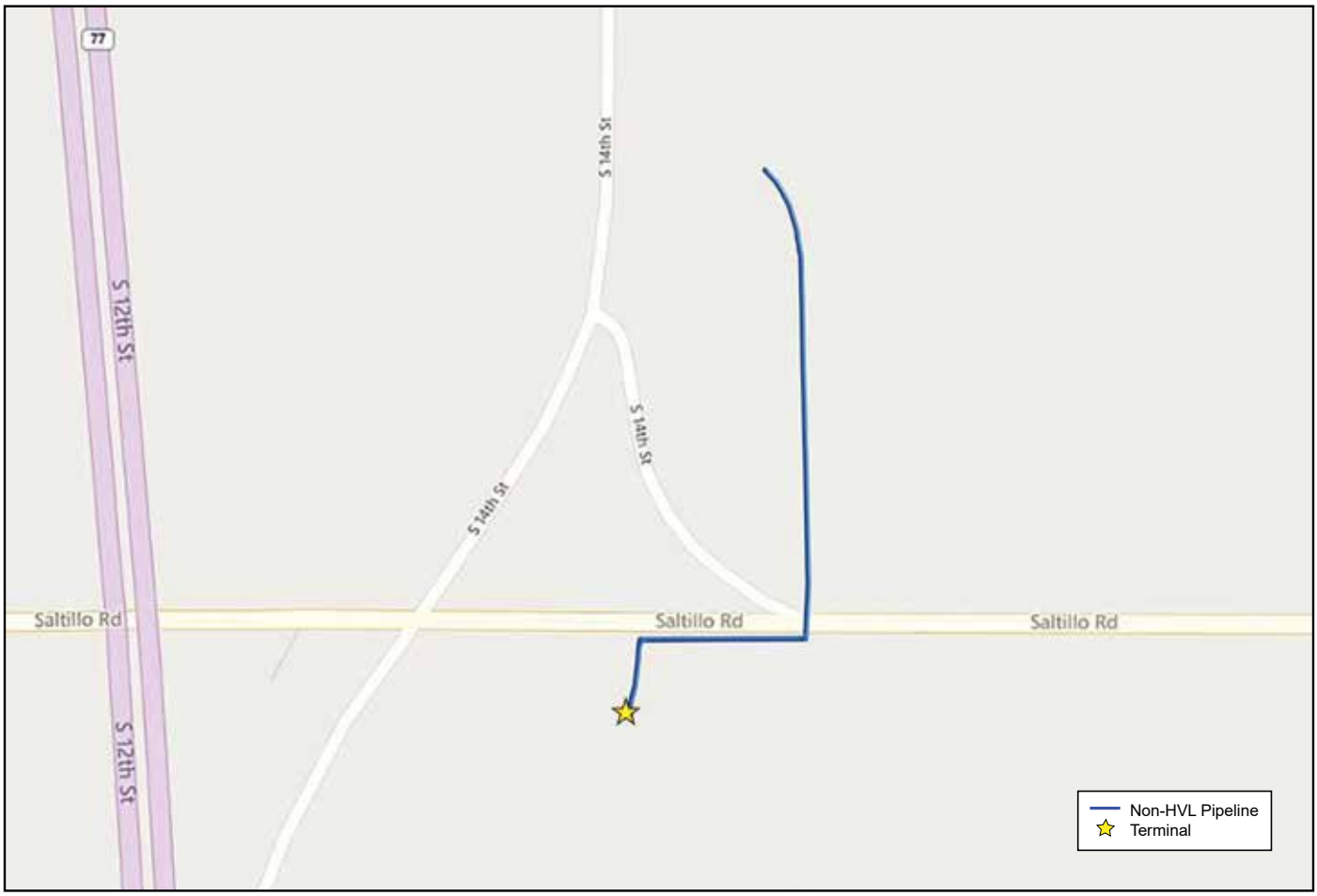
NEBRASKA
COUNTIES OF OPERATION:

Lancaster

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

Response Plans and Maps

To view and download emergency response plans and procedures, visit https://my.spatialobjects.com/erpp/home. To view and obtain GIS map files of our locations, visit https://www.phillips66pipeline.com/maps/



Base map courtesy of openstreetmap.org

ADDITIONAL INFORMATION AND RESOURCES

Visit the following industry and government sites for important safety references and educational materials.

National Association of State Fire Marshal's "Pipeline Emergencies"
www.pipelineemergencies.com

PHMSA Emergency Response Guidebook
www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg

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

Phillips 66 Pipeline LLC ERAP Portal
https://my.spatialobjects.com/erpp/home

Pipelines and Informed Planning Alliance
http://primis.phmsa.dot.gov/comm/pipa/landuseplanning.htm

CONTACT
PHILLIPS 66 PIPELINE LLC

Phillips 66 Pipeline LLC Headquarters
2331 CityWest Blvd.
Houston, TX 77042
www.phillips66pipeline.com

Non-Emergency Phone Number
800-231-2566

Emergency Phone Number
877-267-2290

Non-Emergency Email
Resource.Publicawareness@p66.com

This document is for informational purposes only and does not replace, substitute or preempt any interaction or agreements with Phillips 66 Pipeline LLC or its representatives. For specific information, including state-specific questions, contact 800-231-2566.

915 N. Eldridge Parkway, Suite 1100
Houston, TX 77079
Public Awareness: 1-877-799-2650
Email: uspublicawareness@enbridge.com
Website: www.enbridge.com

Life takes energy: to heat our homes, to feed our families, to fuel our vehicles. Enbridge connects people to the energy they need to help fuel their quality of life.

In the United States alone, more than two million miles of pipelines deliver petroleum and natural gas products. Every year, Enbridge invests in the latest technology and training to meet the high environmental and safety standards our neighbors expect, and to keep pipelines the safest, most efficient and most reliable way to move energy resources.

Call or click before you dig
811 and **ClickBeforeYouDig.com** are free services designed to keep you safe when digging. Calling or clicking is always the safest option anytime you are moving dirt. At least two to three business days before your project (depending on state law), simply call 811 or visit **www.ClickBeforeYouDig.com** with important details about your work, including:

- The type of work you'll be doing and a description of the area
- The date and time your project will begin
- Your worksite's address, the road on which it's located and the nearest intersection
- Driving directions or GPS coordinates
- Within two to three business days, professional locators will mark underground utility lines—including pipelines (marked with yellow flags or paint)—so you can work around them, saving yourself from possible injury or property damage.

Pipeline location and markers
All pipeline markers provide the name of the pipeline operator, product being transported and a telephone number for reporting pipeline emergencies. These markers should never be used as a reference for a pipeline's exact location. You can also find out where other companies' pipelines are in your area by going to the National Pipeline Mapping System website at **https://www.npms.phmsa.dot.gov.**

Emergency responder education program

Enbridge offers a free online education program to provide public safety and local public officials with the information needed to safely and effectively respond to a pipeline emergency. This program focuses on information specific to the disciplines of firefighting, law enforcement, 9-1-1 dispatch, emergency medical services, emergency management and local government. Additionally, course completion may count for state-level continuing education (CE) credits. Register for the training at **www.mypipelinetraining.com**.

Marker appearance may vary in your area.

What if there is an emergency?
Enbridge facilities are designed to be quickly isolated with block valves for rapid containment in the event of an emergency. We have pre-arranged plans with local emergency personnel and periodically conduct emergency drills with these groups.

EMERGENCY CONTACT:
1-800-858-5253

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Crude Oil	1267	128

NEBRASKA
COUNTIES OF OPERATION:

Banner	Gosper	Perkins
Cheyenne	Jefferson	Phelps
Deuel	Kearney	Scotts
Franklin	Keith	Bluff
Frontier	Lincoln	Thayer
Gage	Morrill	Webster
Garden	Nuckolls	

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

Incident Command System
Enbridge utilizes the Incident Command System (ICS) for managing a response to an emergency.

The ICS organizational structure is designed to coordinate with other responding agencies and to include those agencies inside a unified Command Post for a coordinated response.

In the event of an emergency
1. Abandon any equipment being used in or near the area, moving upwind of the product release
2. Warn others to stay away
3. **If emergency services have not been notified, call 911 and then call the 24-hour pipeline emergency number for your area**
4. Follow instructions given to you by local emergency responders and Enbridge

Actions Specific to Emergency Officials
1. Secure the site and determine a plan to evacuate or shelter in place
2. Monitor for hazardous atmospheres
3. Control and redirect traffic as needed
4. Provide immediate access to Enbridge Pipeline representatives
5. Implement your local emergency plan

Website: www.summitmidstream.com

SUMMIT MIDSTREAM PARTNERS, LP

ABOUT SUMMIT MIDSTREAM PARTNERS, LP

Headquartered in Houston, TX, Summit currently owns and operates midstream energy infrastructure assets consisting of natural gas gathering and crude oil gathering systems positioned in the core areas of Western & North Western Colorado, North Eastern Colorado, North Central Texas, North Western North Dakota, South Eastern New Mexico and South Eastern Ohio. Our assets comprise of approximately 1,900 miles of pipeline and 295,000 horsepower of compression which enable us to provide gathering, compression and dehydration services to some of the largest natural gas and crude oil producers in North America.

Summit operates gas pipelines in your area. Because you live or work near a Summit gas pipeline we request you please read this information and share it with your family, friends, co-workers and community. Everyone plays a role in pipeline safety so it is vital that you are informed about the safety messages that are tied to the energy that plays an important role in our lives.

What you should learn and know from reading this communication:

- General pipeline information.
- How to contact Summit and the safety measures we take to maintain safe operations.
- How to identify where Summit gas pipelines are located near you.
- Safe digging procedures and how to ensure others around you are using safe digging practices.
- How to recognize and respond in the event of a pipeline emergency.

PIPELINE PURPOSE AND RELIABILITY

Pipelines are the safest and most efficient means of transporting natural gas and petroleum products, according to National Transportation Safety Board statistics. Pipelines transport natural gas, which provides about 24 percent of all the energy used in the United States, and over 700 million gallons of petroleum products per day.

MAINTAINING SAFETY AND INTEGRITY OF PIPELINES

Summit invests significant time and capital maintaining the quality and integrity of our pipeline systems to maintain public safety, minimize environmental impact, and minimizing customer outages.

- Pipelines are monitored through aerial and ground surveillance to verify the integrity of the pipeline and to detect potential threats along the pipeline right-of-way.
- Pipelines are monitored 24 hours a day via Summit's Operation Control Center.
- Control center personnel continually monitor our pipeline systems and assess any changes in pressure and flow outside of normal operations.
- Control center personnel notify and dispatch trained local field operations personnel if there is a possibility of a product release or of an incident requiring emergency action.
- Some pipeline systems are equipped with automatic shut-off valves which can be utilized to isolate a section of the pipeline system in the event of a product release or emergency condition.
- Summit has developed a comprehensive Integrity Management Program (IMP) in accordance with State and Federal regulations in order to maintain the safety, reliability and integrity of our pipeline assets.
- As part of the IMP, Summit has identified all pipeline segments that are considered a "High Consequence Area" (HCA). Integrity assessment methods are applied to all pipelines that contain an HCA. An overview of our IMP is available upon request.

24 HOUR CONTACT:
1-888-643-7929

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:		
Natural Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

Cheyenne

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

DAMAGE PREVENTION IS IMPORTANT TO SUMMIT MIDSTREAM

Summit Midstream maintains a Damage Prevention Program in accordance with state and federal guidelines. The purpose of this program is to prevent damage to our pipelines and facilities from excavation activities.

CALL BEFORE YOU DIG. IT'S FREE, AND IT'S THE LAW!

Most pipeline accidents occur when individuals are not aware of a pipeline's location before they begin their work. You can help prevent pipeline incidents by contacting your state one call agency before you dig. One easy phone call to 811 gets the approximate location of underground utility lines marked for free. The new 811 number eliminates the confusion of multiple "Call Before You Dig" numbers because it's easy to use and remember, and is the same in every state. Calls will be routed to the respective One Call Centers which will then notify Summit Midstream when the excavation is near one of our pipelines.

FARM AND EXCAVATION SAFETY IS A SHARED RESPONSIBILITY

No one digs more dirt than America's farmers, ranchers, and excavators, which is why many agricultural operations such as chisel plowing, deep ripping or soil sampling, drain tile installation and other deep excavation activities can benefit from calling 811.

Accidentally striking a pipeline can lead to serious injury or death, making it critical for farmers and excavators to follow appropriate safety procedures. If your farming activities consist of DEEP PLOWING, POST HOLE DIGGING, LEVELING, MAINTAINER USE, DIGGING, TRENCHING, or any other below surface use of equipment, it is critical for you to make a One-Call.

Over time, the depth of the pipeline can change due to natural causes, erosion, and other factors. Always call 811 to have the lines marked so that you can be sure to stay safe.

HOW WOULD YOU KNOW WHERE A SUMMIT MIDSTREAM PIPELINE IS?

Pipeline markers are typically seen where a pipeline intersects a street, highway or railway. They are placed along pipeline routes to identify the approximate—NOT EXACT—location of the pipeline. They contain information about Summit Midstream, the product transported, and our emergency telephone number. For any person to willfully deface, damage, remove, or destroy any pipeline marker is a federal crime.

Markers do not indicate pipeline burial depth, which will vary.

Pipeline Marker — This marker is the most common. It contains Summit Midstream's information, product, and emergency contact number. Size, shape and color may vary.

Aerial Marker — These skyward facing markers are used by patrol planes that monitor Summit Midstream pipeline routes.

Casing Vent Marker — This marker indicates that a Summit Midstream pipeline (protected by a steel outer casing) passes beneath a nearby roadway, rail line or other crossing.

WHAT TO DO IN CASE OF DAMAGING/DISTURBING A SUMMIT MIDSTREAM PIPELINE

If you cause or witness even minor damage to our pipeline or its protective coating, please notify Summit Midstream immediately. Even a small disturbance to the pipeline may cause a future leak. A gouge, scrape, dent or crease is cause enough for us to inspect the damage and make repairs.

Excavators must notify Summit Midstream through the One-Call Center immediately but not later than two hours following the damage incident.

WHAT IS A RIGHT-OF-WAY AND CAN I BUILD OR DIG ON IT?

Summit Midstream works diligently to establish written agreements, or easements, with landowners to allow for ease of construction and maintenance when our pipelines cross private property. Rights-of-way are often recognizable as corridors that are clear of trees, buildings or other structures except for the pipeline markers. A right-of-way may not have markers clearly present and may only be indicated by cleared corridors of land, except where farm land or crops exist. County Clerk's Offices also have record of easements which are public record.

HOW WOULD YOU RECOGNIZE A PIPELINE LEAK?

SIGHT
Liquid pools, discolored or dead vegetation, continuous bubbling in wet or flooded areas, an oily sheen on water surfaces, or blowing dirt around a pipeline area can all be indicative of a pipeline leak.

SOUND
Volume can range from a quiet hissing to a loud roar depending on the size of the leak and pipeline system.

SMELL
Natural gas is odorless, but in certain circumstances there is an unusual smell, or petroleum odor, which will sometimes accompany pipeline leaks but not indication there is a leak.

WHAT TO DO IN THE EVENT OF A LEAK:

- Turn off any equipment and eliminate any ignition sources without risking injury.
- Leave the area by foot immediately. Try to direct any other bystanders to leave the area. Attempt to stay upwind.
- Notify Summit Midstream and call 911 or your local emergency response number.

WHAT NOT TO DO IN THE EVENT OF A LEAK:

- ***DO NOT*** cause any open flame or other potential source of ignition such as an electrical switch, vehicle ignition, light a match, etc. Do not start motor vehicles or electrical equipment.
- ***DO NOT*** come into direct contact with any escaping liquids.
- ***DO NOT*** drive into a leak while leaving the area.
- ***DO NOT*** attempt to operate any pipeline valves yourself. You may inadvertently route more product to the leak or cause a secondary incident.
- ***DO NOT*** attempt to extinguish a petroleum product fire. Wait for local firemen and other professionals trained to deal with such emergencies.

WHAT DOES SUMMIT MIDSTREAM DO IF A LEAK OCCURS?

In order to prepare for potential leaks, Summit Midstream regularly communicates, plans, and trains with local emergency personnel such as fire and police departments. Upon the notification of an incident or leak, either by Summit Midstream's internal control center or by phone, we will immediately dispatch trained personnel to assist public safety officials in their response to the emergency. Summit Midstream will also take steps to minimize the amount of product that leaks out and to isolate the pipeline.

Summit Midstream's control center may:

- Stop or reduce the flow of product
- Dispatch pipeline emergency response personnel and equipment to the emergency site
- Inform you of any special precautionary recommendations
- Act as a liaison between emergency response agencies and Summit Midstream personnel
- Help bring the incident to conclusion as quickly and safely as possible

HOW CAN YOU HELP?

While accidents pertaining to pipeline facilities are rare, awareness of the location of the pipeline, the potential hazards, and what to do if a leak occurs can help minimize the number of accidents. A leading cause of pipeline incidents is third-party excavation damage. Summit Midstream is responsible for the safety and security of our pipelines. Here's what you can do to help:

- Become familiar with Summit Midstream and Summit Midstream pipelines and pipeline facilities in the area (marker signs, fence signs at gated entrances, etc).

- Record Summit Midstream's contact information and any pipeline information from nearby marker/ facility signs and keep in a permanent location near the telephone.
- Be aware of any unusual or suspicious activities or unauthorized excavations taking place within or near the Summit Midstream pipeline right-of-way or pipeline facility; report any such activities to Summit Midstream and the local law enforcement.

RESPONDING TO A PIPELINE EMERGENCY

The following guidelines are designed to ensure the safety of those in the area if a petroleum product leak is suspected or detected:

- **Secure the area around the leak to a safe distance.**

Because vapors from the products carried in pipelines can migrate great distances, it is important to remove all ignition sources from the area. Keep in mind, Highly Volatile Liquid (HVL) vapors are heavier than air and can collect in low areas such as ditches, sewers, etc. If safe, evacuating people from homes, businesses, schools and other places of congregation, as well as controlling access to the site may be required in some incident scenarios. Sheltering in place may be the safest action if the circumstances make going outdoors dangerous.

- If the pipeline leak is not burning ***DO NOT*** cause any open flame or other potential source of ignition such as an electrical switch, vehicle ignition, light a match, etc. ***DO NOT*** start motor vehicles or electrical equipment.
- If the pipeline leak is burning attempt to control the spread of the fire, but ***DO NOT*** attempt to extinguish a petroleum product fire. When extinguished, petroleum products could collect and explode if reignited by secondary fire.
- ***DO NOT*** attempt to operate any pipeline valves yourself. You may inadvertently route more product to the leak or cause a secondary incident.
- **Establish a command center.** Work with Summit Midstream as you develop a plan to address the emergency. We will need to know:
  - Your contact information and the location of the emergency
  - Size, characteristics and behavior of the incident, and if there are any primary or secondary fires
  - Any injuries or deaths
  - The proximity of the incident to any structures, buildings, etc.
  - Any environmental concerns such as bodies of water, grasslands, endangered wildlife and fish, etc.
- **Evacuate or shelter in place.** Depending on the level of product, and whether or not the product was released, or other variables, it may be necessary to evacuate the public or have the public shelter in place. Evacuation route and the location of the incident will determine which procedure is required, but both may be necessary. Evacuate people upwind of the incident if necessary. Involving Summit Midstream may be important in making this decision.

NATIONAL PIPELINE MAPPING SYSTEM

Transmission Pipeline Mapping

The U.S. Department of Transportation's Office of Pipeline Safety has developed the National Pipeline Mapping System (NPMS) to provide information about gas transmission and liquid transmission operators and their pipelines. The NPMS Web site is searchable by zip code or by county and state, and can display a county map that is printable. For a list of pipeline operators with pipelines in your area and their contact information, go to www.npms.phmsa.dot.gov. Operators of production facilities, gas/liquid gathering piping and distribution piping, are not represented by NPMS nor are they required to be.

PLANNING, ZONING AND PROPERTY DEVELOPMENT

It is crucial to coordinate with Summit Midstream to take the location of pipelines into consideration in land use plans, zoning, and property development activities. Developments can make use of pipeline easements as open spaces and greenway connectors. Pipeline depth is a crucial consideration during development planning to ensure costs for lowering or relocation are identified. Changes to the topography on either side of the pipeline may impose unacceptable stresses on the pipeline. Summit Midstream would like to coordinate the development of site plans where large numbers of people congregate, including schools, churches, etc.

SUMMIT MIDSTREAM PRODUCTS TRANSPORTED

Natural Gas (Gas)

Lighter than air and will generally rise and dissipate. May gather in a confined space and travel to a source of ignition.

Health Hazards
Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

Pony Express Pipeline
Rockies Express Pipeline
Tallgrass Interstate Gas Transmission
Trailblazer CO2 Pipeline

TALLGRASS

PONY EXPRESS PIPELINE

The approximately 900-mile Pony Express (PXP) crude oil pipeline originates in Guernsey, Wyo., and runs through Colorado, Nebraska and Kansas, connecting with three refineries before terminating in Cushing, Oklahoma. PXP sources oil from the Bakken, Denver Julesburg and Powder River plays, delivering five distinct common streams for our customers – Bakken Light Sweet, Mixed Sweet, Niobrara, Pony Express Light and Central Kansas Uplift – to the Cushing oil hub for distribution to markets across the country. Placed in service in 2014, Pony Express can transport more than 400,000 barrels a day. The pipeline is constructed of 22- and 24-inch steel pipe and has an average MAOP of 900.

ROCKIES EXPRESS PIPELINE

Rockies Express Pipeline (REX) is one of the United States' largest pipelines and is the nation's northernmost bi-directional natural gas header system. REX became fully operational in 2009 and stretches about 1,700 miles from northwestern Colorado and Wyoming to eastern Ohio. Built with 42- and 36-inch diameter steel pipe, REX taps major supply basins in the Rocky Mountain and Appalachian regions and serves energy markets across a vast segment of North America. REX has a long-haul capacity of 4.4 billion cubic feet per day of natural gas and an MAOP of 1,480.

TALLGRASS INTERSTATE GAS TRANSMISSION

Tallgrass Interstate Gas Transmission (TIGT) owns and operates approximately 4,650 miles of natural gas transportation pipelines in Colorado, Wyoming, Kansas, Nebraska and Missouri. To help balance seasonal loads, TIGT also owns the Huntsman natural gas storage facility, located in Cheyenne County, Neb., which has approximately 16 billion cubic feet of storage capacity. The pipeline is constructed of between 2- and 24-inch steel pipe, and has an average MAOP of 750. TIGT serves, through local distribution companies (LDCs), largely rural residential, commercial and agricultural customers in Colorado, Kansas, Nebraska, Wyoming and Missouri. TIGT also delivers natural gas for a significant number of commercial and industrial loads, including ethanol and power plants.

TRAILBLAZER CO2 PIPELINE

Tallgrass is advancing a project to convert its Trailblazer natural gas pipeline to a CO2 transportation service, establishing an approximately 400-mile CO2 pipeline to serve as the backbone of a regional CO2 transportation system. This project will allow us to capture, transport and permanently sequester over 10 million tons of CO2 per year from industries in Nebraska, Colorado, and Wyoming. In support of this investment, Tallgrass is developing a commercial-scale CO2 sequestration hub in southeastern Wyoming, partially funded by a grant from the Wyoming Energy Authority.

EMERGENCY CONTACT:

Pony Express Pipeline
1-855-220-1762
Rockies Express Pipeline
1-877-436-2253
Tallgrass Interstate Gas Transmission
1-888-763-3690
Trailblazer CO2 Pipeline
1-866-295-4841

PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Carbon Dioxide	1013	120
Carbon Dioxide Ref Liq	2187	120
Crude Oil	1267	128
Natural Gas	1971	115

NEBRASKA
COUNTIES OF OPERATION:

Pony Express Pipeline (PXP)

Banner	Hitchcock
Dundy	Kimball

Rockies Express Pipeline (REX)

Dawson	Jefferson	Perkins
Franklin	Kearney	Phelps
Gage	Lincoln	Thayer
Gosper	Nuckolls	Webster

Tallgrass Interstate Gas Transmission (TIGT)

Adams	Garden	Nuckolls
Antelope	Gospher	Perkins
Boone	Hall	Phelps
Buffalo	Hamilton	Pierce
Cheyenne	Harlan	Platte
Clay	Holt	Red Willow
Cuming	Kearney	Saline
Custer	Keith	Scotts Bluff
Dawson	Kimball	Sherman
Deuel	Lincoln	Sioux
Fillmore	Madison	Stanton
Franklin	Merrick	Thayer
Furnas	Morrill	Webster
Gage	Nance	York

Trailblazer CO2 Pipeline

Adams	Gosper	Perkins
Buffalo	Hall	Phelps
Butler	Hamilton	Platte
Clay	Kearney	Polk
Dawson	Kimball	York
Fillmore	Lincoln	
Frontier	Merrick	

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

COMMITMENT TO SAFETY, HEALTH, AND ENVIRONMENT

At Tallgrass, we prioritize the health and safety of our employees, the public, and the environment with the highest level of commitment. We adhere to all federal, state, and local regulations, and strive to surpass the industry's standards and best practices by setting the benchmark for excellence. Our team of highly trained and experienced professionals monitors our pipeline network around the clock, utilizing advanced Supervisory Control and Data Acquisition (SCADA) systems to ensure we have real-time insights into their safety and integrity. Additionally, we conduct thorough patrols on foot, by vehicle, and from the air to proactively address any potential issues, such as encroachments.

Our emergency shutdown systems are designed to quickly and safely isolate any anomalies within our pipeline network. As part of our ongoing commitment to safety, we regularly collaborate with first responders through tabletop exercises and hands-on mock drills. These training sessions help ensure that first responders are familiar with our assets and know how to react in the unlikely event of an emergency. Furthermore, Tallgrass actively participates in the Common Ground Alliance, working together to educate stakeholders on pipeline safety and advocate for safe excavation practices.

For more information about our commitment to safety and our public awareness, damage prevention and emergency preparedness activities and resources, visit tallgrass.com.

Map is available upon request.

Pipeline Purpose and Reliability

- Critical national infrastructure
- Over 2.7 million miles of pipeline provide 65% of our nation's energy
- 20 million barrels of liquid product used daily
- 21 trillion cubic feet of natural gas used annually

Safety Initiatives

- Pipeline location
  - Existing right-of-way (ROW)
- ROW encroachment prevention
  - No permanent structures, trees or deeply rooted plants
- Hazard awareness and prevention methods
- Pipeline maintenance activities
  - Cleaning and inspection of pipeline system

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

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)

- Flammable range may be found anywhere within the hot zone
- 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 cavern between the pipe and soil

Propane, Butane 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

Type 3 Products	Flash Point	Ignition Temperature
Propane	- 150 °F	920-1120 °F
Butane	- 60 °F	725-850 °F

Line Pressure Hazards

- Transmission pipelines – steel *(high pressure: average 800-1200psi)*
- Local gas pipeline transmission – steel *(high pressure: average 200-1000psi)*
- Local gas mains and services – steel and/or plastic *(low to medium pressure)*
  - Mains: up to 300psi
  - Service lines: up to regulator
    - Average 30-45psi and below
    - Can be up to 60-100psi in some areas
- At regulator into dwelling: ounces of pressure

Leak Recognition and Response

- Sight, sound, smell – indicators vary depending on product
- Diesel engines – fluctuating RPMs
- 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
- Any sign, gut feeling or hunch should be respected and taken seriously
- Take appropriate safety actions ASAP

High Consequence Area (HCA) Regulation

- Defined by pipeline regulations 192 and 195
- Requires specialized communication and planning between responders and pipeline/gas personnel
- May necessitate detailed information from local response agencies to identify HCAs in area

Emergency Response Basics

- Always follow pipeline/gas company recommendations – pipeline representatives may need escort to incident site
- Advance preparation
  - Get to know your pipeline operators/tour their facilities if possible
  - Participate in their field exercises/request on-site training where available
  - Develop response plans and practice
- Planning partners
  - Pipeline & local gas companies
  - Police – local/state/sheriff
  - Fire companies/HAZMAT/ambulance/hospitals/Red Cross
  - LEPC/EMA/public officials
  - Environmental management/Department of Natural Resources
  - Army Corps of Engineers/other military officials
  - Other utilities
- Risk considerations
  - Type/volume/pressure/location/geography of product
  - Environmental factors – wind, fog, temperature, humidity
  - 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 reps
- Extinguish fires only
  - To aid in rescue or evacuation
  - To protect exposures
  - When controllable amounts of vapor or liquid present
- Incident notification – pipeline control center or local gas company number on warning marker
  - In ***Pipeline Emergency Response Planning Information Manual***
  - Emergency contact list in ***Program Guide***
  - Call immediately/provide detailed incident information
- Pipeline security – assist by noting activity on pipeline/gas facilities
  - Report abnormal activities around facilities
  - Suspicious excavation/abandoned vehicles/non-company personnel/non-company vehicles
  - Freshly disturbed soil/perimeter abnormalities

One-Call

- One-Call centers are not responsible for marking lines
- Each state has different One-Call laws. Familiarize yourself with the state you are working in
- Not all states require facility owners to be members of a One-Call
- You may have to contact some facility owners on your own if they are not One-Call members
- In some states, homeowners must call before they dig just like professional excavators

Pipeline Emergency Response Training

First Responders and Emergency Personnel

CORE

Instructor: Warren King

Coordinated Response Exercise®

- **Learn** your roles and responsibilities as emergency responders should a pipeline emergency happen in your jurisdiction. As well as your access to resources.
- **Acquaint** you with the operator's ability to respond to a pipeline emergency.
- **Identify** the types of pipeline emergencies.
- **Plan** how all parties can engage in mutual assistance to minimize hazards to life, property and the environment.

Code of Federal Regulations (CFR): 49 CFR Parts 192 and 195

By attending this session today, you are preparing, along with the pipeline companies, to create a coordinated effort in responding to pipeline incidents and accidents. These programs take place over 1,000 times in 46 states annually.

Sponsoring Companies

Nebraska Pipeline Association NPA

ARCHAEA ENERGY · BioResource Developments LLC · Black Hills Energy · ENBRIDGE Platte Pipe Line Company

Enterprise Products · Jayhawk Pipelines · LES Lincoln Electric System

MAGELLAN · MidAmerican Energy · Northern Natural Gas · PHILLIPS 66 PIPELINE LLC

SUMMIT Midstream · SUNOCO LP · TALLGRASS

Liberty County Emergency Communications Secretary: Liberty County Emergency Communications, how may I direct your call?

Pipeline Operator: I'm Jim Jones with ABC Pipeline Company. I'm calling your direct number because I am in special operations in our SCADA center located in Houston Texas. We are required to give you a "Notice of Potential Release" on one of our pipelines in your jurisdiction.

Liberty County Emergency Communications Secretary: Is this an emergency? If so, I need to transfer you to an emergency call taker.

Pipeline Operator: We are unsure of the exact situation; we are working through the details with our local operations and need to ensure we are in communication with local responders as details unfold. Yes, please transfer me to the 9-1-1 dispatcher, thank you.

Emergency Dispatcher: Liberty County 9-1-1 – What is your emergency?

Pipeline Operator: I'm Jim Jones with ABC Pipeline Company. I am in special operations in our SCADA center located in Houston, Texas. We are required to contact you regarding a "Notice of Potential Release" on one of our pipelines in your jurisdiction.

Emergency Dispatcher: Ok, do you know the exact location of the potential release?

Pipeline Operator: We do not have a specific location at this time – it could be in Liberty County or Central County, next door to you.

Emergency Dispatch: What company are you with again?

Pipeline Operator: ABC Pipeline, our SCADA center is in Houston, Texas but the potential release could be on line 2144 which runs through 30 miles of Liberty County and 20 miles of Central County – in the jurisdiction next to you. We want to ensure we make you aware and open the line of communication if response is needed.

Emergency Dispatcher: So, what emergency services do you need and in what location?

Pipeline Operator: We are unsure at this time because we are required by PHMSA to give you this "notice of potential release" before we have actual confirmation. We will keep your EOAP informed when information becomes available. We want you to be aware of this situation in case you get other calls.

Emergency Dispatch: Where is pipeline 2144 located?

Pipeline Operator: We have 30 miles of pipeline in Liberty County. We have yet to confirm there is an actual release. The pipeline is 20 inches in diameter and has an MAOP of 800 PSI.

Emergency Dispatch: What actions do you need us to take right now?

Pipeline Operator: Engage your pipeline emergency response procedures for a potential pipeline emergency...and stand by for additional information. I've got to provide notice of potential release to three additional PSAP's, so I'll be terminating this call now.

Central Dispatch Receives a call...

Table and / or Group Discussion

- Your dispatch has just received a NOTICE OF POTENTIAL RUPTURE. The caller represents a pipeline company following their in-house emergency response plans.
- Now, discuss with those around you how your dispatch will handle this information. What existing policies and procedures are applicable to this call? Describe, at least generally, those relevant policies and procedures.
- Work with the pipeline operators present to discuss, evaluate and prepare for a response to a potential rupture on their facilities.

Virtual Scenario Manager (VSM™) Map

New PHMSA Rule – Impact on PSAPs

For both natural gas and hazardous liquids pipelines

- Rupture mitigation valves must be installed on all newly constructed and replaced pipelines 6" in diameter or greater for onshore gas transmission and hazardous liquids
  - This does not include natural gas distribution pipelines
- Pipeline operators must contact 9-1-1 or Emergency Management with a 'notice of potential rupture'

How does this rule potentially affect PSAPs

- How will your agency process this call when notified of a 'potential' release?
  - Will you record it and not pass it on to your response agencies?
  - Will you record and pass that information on to your response agencies?
  - Will this require your PSAP (and emergency services) to develop written policies?
  - Where, potentially, could this call be coming from?
  - Pipeline control center locations
    - Contacting a PSAP through the non-emergency number (no Automatic Number Identification (ANI), No Automatic Location Identification (ALI)
    - Is this number monitored 24/7?
- Pipeline operators were required to update their Emergency Response Plans (ERP) with this requirement in October 2022

What is the intent of this new final rule?

- To require design and equipment elements and improved operational practices for quick and efficient identification of ruptures, that in turn will improve rupture mitigation and shorten rupture isolating times for certain gas transmission, gathering, and hazardous liquid pipelines.
- Rupture isolation time, as it is discussed in this final rule, is the time it takes an operator to identify a rupture after notification of a potential rupture, implement response procedures, and fully close the appropriate valves to terminate the uncontrolled flow of commodity from the ruptured pipeline segment

Potential "Best Practice" for Pipelines

National Emergency Number Association (NENA)

Pipeline Emergency Operations Standard

NENA's pipeline emergency operations workgroup recommendations
- Awareness of pipelines affecting the 911 service area
- Pipeline leak recognition and initial response actions
- Additional notices to pipeline operators

Initial intake checklist
- Quick reference guide in program materials

Pipeline emergency operations standard/model recommendations
- Access the full report through **nena.org**

"Actions taken during this time frame significantly impact the effectiveness of the response and are critical to public safety"

Pipeline Outreach to Stakeholders

- Mailings (More than 20 Million pieces annually)
- Over 1,000 Liaison Meetings with Emergency Officials, Public Officials, and Excavators
- Face-to-Face Meetings with Emergency Officials at their agencies
- Emergency Response Planning Portal (ERP)

Pipeline Operators Emergency Response Plans

Natural gas and hazardous liquids
- Notify appropriate fire, police, and other public officials of **gas** or **liquid** pipeline emergencies, coordinate planned responses, and actual responses during an emergency
- Identify the type of incident
- Prompt and effective response measures
- Availability of personnel and equipment
- Make safe any actual or potential hazard to life, property, and the environment
- Incident investigation and review

Natural gas (49 CFR 192.615)
- Establish and maintain communication with fire, police, and other public officials
- Direct actions to protect people, then property
- Emergency shutdown to minimize hazard to life, property, and the environment
- Safely restore service

Hazardous liquid (49 CFR 195.402)
- Take necessary actions, such as emergency shutdown and pressure reduction
- Control of released hazardous liquid or carbon dioxide at scene to minimize hazards
- Minimize public exposure to injury by taking appropriate actions such as evacuations or traffic controls
- Use instrumentation to assess vapor cloud coverage and determine hazardous areas

Emergency Response and 811

Derailments, car accidents, excavating/farming mishaps, natural disasters, and wildfires

PHMSA Advisory Bulletin (2012-08)

- Based on National Transportation Board recommendation
- Inform emergency responders about the benefits of 811
- Identify underground utilities in the area
- Notify underground utilities in the area

811

CORE

Integrity Management

Pipeline companies are required to have Integrity Management programs to insure safe and efficient operations:

- Internal and external cleaning and inspection, of the pipeline and affected areas
  - Rights-of-Way and valves
- Supervisory Control and Data Acquisition (SCADA)
- Identification of High Consequence Areas (HCA)
- Aerial Rights-of-Way Patrols
- Public Awareness Outreach to stakeholders
- Participation as a member of 811
- Operator Qualification (OQ) Training
- Local Distribution Company (LDC)
  - Meter Testing
  - Leak Surveys
    - May also be utilized on transmission pipelines

CORE

Other challenges impacting pipelines...

Natural Disasters

- Tornadoes
- Wildfires/Forest Fires
- Flooding/Mudslides/Slips
- Earthquakes

Human Error

- Vehicle accidents involving above ground valve sites
- Third party strikes by contractors and excavators
- Agricultural activities, field tiling

National Security Threats

- Cyberterrorism involving pipeline systems
- IED's on pipeline assets

CORE

Pipeline Operator / Responder Challenges

- Timely notification of the incident
- Denied entry at scene of incident
- Quick access to remote valves/ICP
- Getting equipment into the area
- Communications with incident command
- Clear lines of communication (both ways)
- Face to face meetings with local officials
- Pre-planning with emergency services

CORE

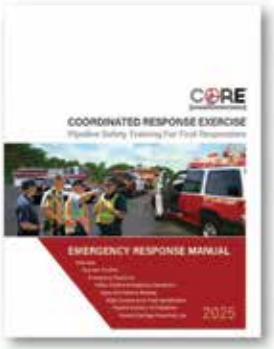
Pipeline Company - Internal Responsibilities

- Regular pressure testing of the pipeline
- Smart pigging in a timely manner of the pipeline
- Personnel logistics – Drive time and other factors
- Personnel training – Actual practice of closing a Pipeline
- Tool placement / positioning
- Human reaction to working under stress
- Working with local Public officials and First Responders

Local Operator Information*

- **Operator and/or company name**
- **Pipeline systems and products**
- **Location of pipelines**
- **Pipeline size/operating pressure(s)**
- **Operator Response(s) to a pipeline emergency**

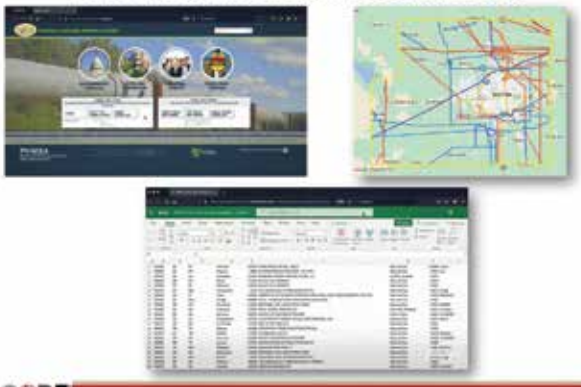
*Information in the materials may not represent all pipeline companies in your area.



Program Resources

Program Resources

National Pipeline Mapping System (NPMS)



https://www.npms.phmsa.dot.gov/

Product Characteristics

Hazardous Liquids
ER Guide 128 (Pages 186-187)
- Crude oil, jet fuel, gasoline and other refined products
- **Liquid in and liquid out of the pipeline**

Highly Volatile Liquids
ER Guide 115 (Pages 160-161)
- Propane, Butane, Ethane and natural gas liquids
- **Liquid in and vapor out of the pipeline**

Natural Gas
ER Guide 115 (Pages 160-161)
- Gas in and gas out of the pipeline
- **Odorant Mercaptan added where required**

Product Characteristics Resources

Mobile Applications: Android and iPhone

Anhydrous Ammonia (NH_3)

ER Guide 125 (Pages 186-187)

Potential Hazards
- Toxic; may be fatal if inhaled, ingested or absorbed through skin
- Cloud may not be visible
- Vapors are initially heavier than air and spread along ground
- Wear full protective clothing/SCBA

Health Hazards
- Vapors may cause dizziness or suffocation
- Vapors are extremely irritating and corrosive
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite
- Fire will produce irritating, corrosive and/or toxic gases
- (LEL) 15% to (UEL) 28% (NIOSH Pocket Guide to Chemicals)

Public Safety
- Immediate precautionary measure, isolated spill or leak area at least 330 ft all directions
- Keep unauthorized personnel away
- Stay upwind and/or upstream
- Vapors are lighter than air

Hydrogen Sulfide (H_2S)

Highly toxic, colorless gas

ER Guide 117 (Pages 170-171)

Workers in oil and natural gas drilling and refining may be exposed because hydrogen sulfide may be present in oil and gas deposits and is a by-product of the desulfurization process of these fuels.
*OSHA Oil and Gas Well Drilling and Servicing eTool

2-5ppm
Prolonged exposure may cause nausea and tearing of the eyes

100-150ppm
Loss of smell (olfactory fatigue or paralysis)

500-700ppm
Staggering, collapse in 5 minutes. Death after 30 to 60 minutes

700-1,000ppm
Rapid unconsciousness, "knockdown" or immediate collapse within 1 to 2 breaths, breathing stops, death within minutes

1,000-2,000ppm
Nearly instant death

*https://www.osha.gov/SLTC/etools/oilandgas/general_safety/h2s_monitoring.html

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Benzene (C_6H_6)

ER Guide 130 (Pages 196-197)

Potential Hazards

- Extremely flammable
- May form explosive mixtures with air
- Vapors are initially heavier than air and spread on ground
- Vapors may travel to source of ignition and flash back
- Vapor explosion hazard indoors, outdoors or in sewers

Health Hazards

- Vapors may cause toxic effects if inhaled or absorbed through skin
- Inhalation or contact with material may irritate or burn skin/eyes
- Vapors may cause dizziness or suffocation
- Fire will produce irritating, corrosive and/or toxic gases

Public Safety

- Isolate spill or leak area for at least 150 ft in all directions
- Keep unauthorized personnel away
- Stay uphill, upwind and/or upstream
- Ventilate closed spaces before entering

CORE

Petroleum Products Batching

PIPELINE COMPANIES USE BATCHING LINES

Paradigm

CORE

Temporary Containment Strategies

- Booming
- Culvert blocking
- Drain blocking
- Pallett Containment

CORE

Above Ground Storage Tanks

Considerations when responding to tank farms/ terminals

Work with your local operator to:

- Develop an effective response plan
- Identify products and hazards
- Determine evacuation radius

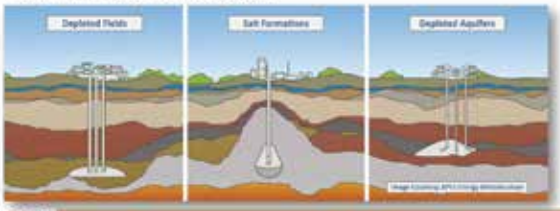
Response recommendations:

- Cool tank(s) or nearby containers by flooding with water
- Use unmanned hose holders/monitor nozzles
- Do not direct water at safety devices or icing may occur
- Let product burn, even after air supply line/system is closed
- Beware of the potential for **Boiling Liquid Expanding Vapor Explosion (BLEVE)**

Underground Storage Fields

Emergency response "non-intervention"

- Emergency contact information found on pipeline markers and all wellhead locations
- Always be aware of wind direction; walk into the wind, away from hazardous fumes
- Do not drive into a leak or vapor cloud
- Monitor combustible atmosphere
- Determine hazardous area and escape routes



Leak Recognition

- Pools of liquid on the ground near a pipeline
- Dense white cloud or fog over a pipeline
- Discolored vegetation surrounding a pipeline
- Unusual dry spot in an otherwise moist field
- Dirt blowing up from the ground
- Bubbling in marshland, rivers or creeks
- Oily sheen appearing on water surfaces
- Frozen ground near a pipeline
- Unusual noise coming from a pipeline
- Unusual smell or gaseous odor

Local Distribution Systems

Caution

- Be aware, not all natural gas leaks are from excavation; unintended leaks from stoves, water, heaters, furnaces, etc. can occur
- When called out on natural gas leak events, use combustible gas indicators
- Mercaptan can be stripped as it travels through soil
- Frost heaves, breaking pipes
- Gas meter breaks due to snow buildup from melting snow falling from roofs

Excess flow valve meter tags

Identification tags [192.381(c)]

- The presence of an excess flow valve on the service lines may or may not be marked with an identification tag. The identification tag (if present) will typically be located at the top of the service riser below the meter stop valve

Excess Flow Valve (EFV)

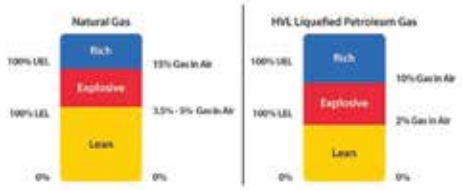
Local Distribution Lines

- **Automatic reduction of gas flow** should a service line break
- **May not** completely stop the flow of natural gas
- **May not** hear a distinct hissing sound
- Migration and ignition sources may still exist
- Always work a coordinated response with your local operator
- **Not all service lines have an EFV installed**

CORE

Explosive Limits

Explosive Limits vs. Percent of Gas in Air



Lower/Upper Explosive Limit depends on characteristics of gas (SDS)

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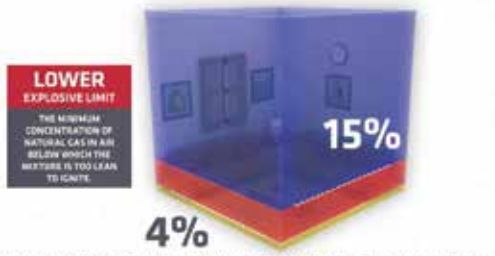
Explosive Limits



FOR NATURAL GAS RANGES BETWEEN ROUGHLY FOUR PERCENT

Paradigm

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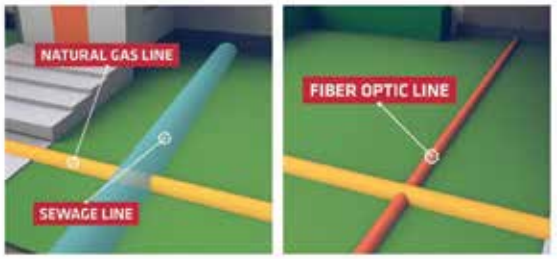
Farm Taps

- Mainly in rural areas, some natural gas pipeline companies may have facilities commonly referred to as "farm tap"
- These natural gas settings are made up of valves, pipes, regulators, relief valves and a meter. It may be located near the home or within the general vicinity
- To report the smell of gas near a farm tap, call 911 and the local gas company from a safe distance
- The lines after a farm tap or residential meter may or may not be PRIVATE LINES, be aware of these

CORE

Horizontal Directional Drilling (Cross Bore)



THROUGH A SEWAGE LINE, LOCAL DISTRIBUTION, TRANSMISSION Paradigm

CORE

InfraGard – Protecting Critical Infrastructure

InfraGard is a partnership between the FBI and members of the private sector for the protection of U.S. Critical Infrastructure.

https://infragard.org

16 Critical Infrastructure Sectors:

- Chemical
- Commercial Facilities
- Communications
- Critical Manufacturing
- Dams
- Defense Industrial Base
- Emergency Services
- Energy
- Financial Services
- Food and Agriculture
- Government Facilities
- Healthcare and Public Health
- Information Technology
- Nuclear Reactors, Materials, and Waste
- Transportation Services
- Water & Wastewater Systems

CORE

Emergency Response Portal (ERP)

PHMSA Advisory Bulletin issued October 2010

https://mypatialobjects.com/admin/register/ERPP

Provides agencies secure access to participating pipeline operator profiles include:*

- Contact information
- Counties of operation
- Product(s) transported

*Additional information updated to share pipeline mapping, emergency response plans.

CORE

Pipeline Preparedness Training Center

Share with others in your agency unable to attend today's program

- Access to your local pipeline sponsor information
- Download the same documents presented in this program
- Certificate of completion provided upon completion of course

trainingcenter.pdigm.com

Use Code: 2025CORE

911 Communications Director: Appreciate the opportunity to do this online and have it available for my staff. Very informative!

Battalion Chief: Thank you for the information; I also like the fact of being able to take the course online when I cannot make the live sessions.

Commissioner: Very informative and increased my awareness of the resources available to our county leadership in case of an emergency.

Deputy Emergency Management Coordinator: Excellent presentation, Thank you for the resources and useful web pages.

Director of Public Safety: Excellent presentation. Thank you for the ability to take class online due to scheduling conflict.

Fire Chief: Thank you for providing this informative course. I would like to see more courses like this. It is a very good review and helps us tremendously.

Police Chief: The training is very informative, and I will pass this onto our Fire Department and our Law Enforcement Supervisors. Great job!!!

CORE

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.
- **If molten aluminum is involved, refer to GUIDE 169.**

HEALTH

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available appropriate telephone numbers can be found in the Emergency Response Guidebook.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

CAUTION: For mixtures containing alcohol or polar solvent, alcohol-resistant foam may be more effective.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.

PRODUCT: Crude Oil	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1267	128
PRODUCT: Diesel Fuel	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1202	128
PRODUCT: Jet Fuel	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1863	128
PRODUCT: Gasoline	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1203	128

Refer to the Emergency Response Guidebook for additional products not listed.

- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE..**
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground. **CAUTION: Hydrogen (UN1049), Deuterium (UN1957), Hydrogen, refrigerated liquid (UN1966) and Methane (UN1971) are lighter than air and will rise. Hydrogen and Deuterium fires are difficult to detect since they burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)**
- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available appropriate telephone numbers can be found in the Emergency Response Guidebook.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED. CAUTION: Hydrogen (UN1049), Deuterium (UN1957) and Hydrogen, refrigerated liquid (UN1966) burn with an invisible flame. Hydrogen and Methane mixture, compressed (UN2034) may burn with an invisible flame.**

Small Fire

- Dry chemical or CO2.

Large Fire

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed. **CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

PRODUCT: Propane	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1075	115
PRODUCT: Butane	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1075	115
PRODUCT: Ethane	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1035	115
PRODUCT: Propylene	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1075/1077	115
PRODUCT: Natural Gas Liquids	
DOT GUIDEBOOK ID #:	**GUIDE #:**
1972	115

Refer to the Emergency Response Guidebook for additional products not listed.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE.**
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground. **CAUTION: Hydrogen (UN1049), Deuterium (UN1957), Hydrogen, refrigerated liquid (UN1966) and Methane (UN1971) are lighter than air and will rise. Hydrogen and Deuterium fires are difficult to detect since they burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)**
- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available appropriate telephone numbers can be found in the Emergency Response Guidebook.**
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- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED. CAUTION: Hydrogen (UN1049), Deuterium (UN1957) and Hydrogen, refrigerated liquid (UN1966) burn with an invisible flame. Hydrogen and Methane mixture, compressed (UN2034) may burn with an invisible flame.**

Small Fire

- Dry chemical or CO2.

Large Fire

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed. **CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

DOT GUIDEBOOK ID #: 1971 **GUIDE #:** 115

CHEMICAL NAMES:

- Natural Gas
- Methane
- Marsh Gas
- Well Head Gas
- Fuel Gas
- Lease Gas
- Sour Gas*

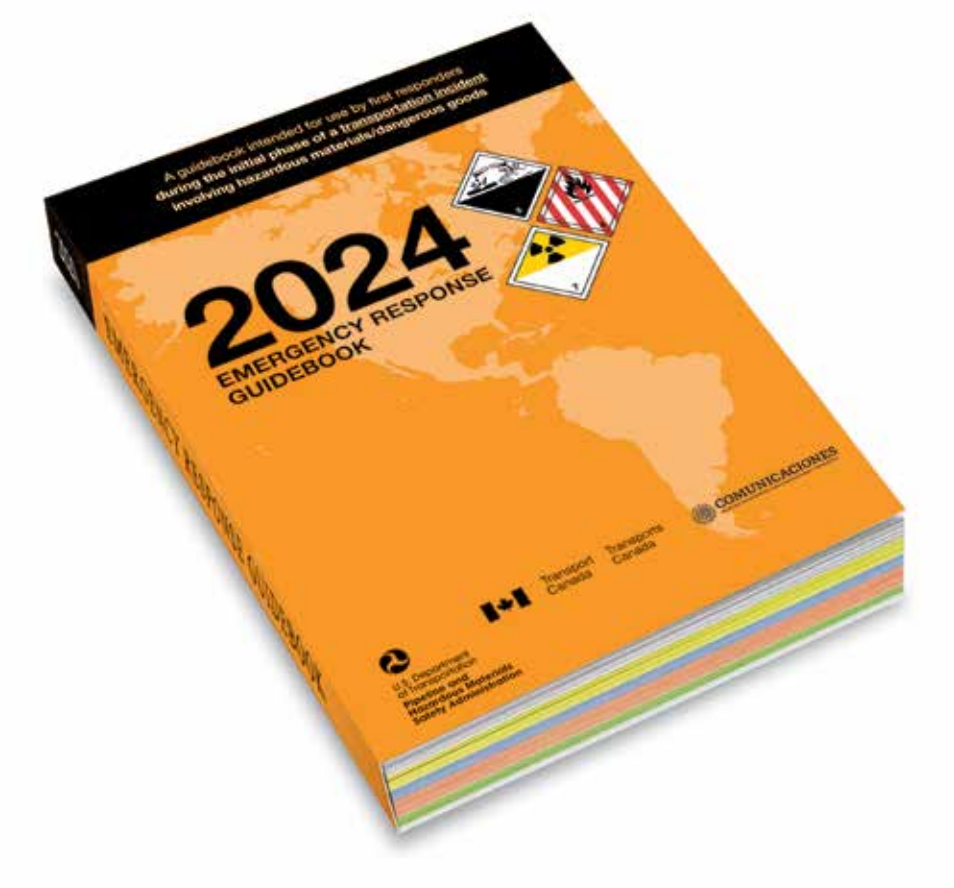
CHEMICAL FAMILY:

Petroleum Hydrocarbon Mix: Aliphatic Hydrocarbons (Alkanes), Aromatic Hydrocarbons, Inorganic Compounds

COMPONENTS:

Methane, Iso-Hexane, Ethane, Heptanes, Propane, Hydrogen Sulfide*, (In "Sour" Gas), Iso-Butane, Carbon, Dioxide, n-Butane, Nitrogen, Pentane Benzene, Hexane, Octanes

Product INFORMATION



The Emergency Response Guidebook is available at:
https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2024-04/ERG2024-Eng-Web-a.pdf

ANDROID APP ON Google play

Download on the App Store

This app is only available on the App Store for iOS devices.

In accordance with NENA Pipeline Emergency Operations Standard/Model Recommendation NENA 56-007 (https://www.nena.org/?page=PipelineEmergStnd)

GOALS FOR INITIAL INTAKE:

1. Obtain and Verify Incident Location, Callback and Contact Information
2. Maintain Control of the Call
3. Communicate the Ability to HELP the Caller
4. Methodically and Strategically Obtain Information through Systematic Inquiry to be Captured in the Agency's Intake Format
5. Recognize the potential urgency of situations involving the release of dangerous gases or liquids related to pipelines or similar events of this nature and immediately begin the proper notifications consistent with agency policy
6. Perform all Information Entries and Disseminations, Both Initial and Update

FIRST RESPONSE CALL INTAKE CHECKLIST

The focus of this Standard is on the first minute of the call intake process. Actions taken during this time frame significantly impact the effectiveness of the response and are critical to public safety.

The following protocol is intended as a solid framework for call intake, but should not in any manner rescind or override agency procedures for the timing of broadcasts and messaging.

These procedures are established as recommended practices to consider with existing agency policy and procedure to ensure the most swift and accurate handling of every incident involving the release of dangerous gases or hazardous liquids.

All information should be simultaneously entered, as it is obtained by the telecommunicator, into an electronic format (when available) that will feed/populate any directed messages which will be sent to emergency responders in conjunction with on-air broadcasts.

Location:

Request exact location of the incident (structure addresses, street names, intersections, directional identifiers, mile posts, etc.) and obtain callback and contact information.

Determine Exactly What Has Happened:

Common signs of a pipeline leak are contained in Table 1 below. If any of these conditions are reported, THIS IS A PIPELINE EMERGENCY.

TABLE 1

Common Indications of a Pipeline Leak

Condition	Natural Gas (lighter than air)	LPG & HVL (heavier than air)	Liquids
An odor like rotten eggs or a burnt match	X	X	
A loud roaring sound like a jet engine	X	X	
A white vapor cloud that may look like smoke		X	
A hissing or whistling noise	X	X	
The pooling of liquid on the ground			X
An odor like petroleum liquids or gasoline		X	X
Fire coming out of or on top of the ground	X	X	
Dirt blowing from a hole in the ground	X	X	
Bubbling in pools of water on the ground	X	X	
A sheen on the surface of water		X	X
An area of frozen ground in the summer	X	X	
An unusual area of melted snow in the winter	X	X	
An area of dead vegetation	X	X	X

PSAP - Notification of Potential Rupture Rule

From April Heinze at NENA October 2022

A recent change made at the federal level will begin to impact your Emergency Communications Center (ECC) very soon. In April 2022, the Pipeline and Hazardous Materials Safety Administration (PHMSA), a subset of the National Highway Traffic Safety Administration (NHTSA), updated a rule for Pipeline Operators. The rule went into effect on October 5, 2022. The PHMSA rule is 49 CFR § 192.615(a)(8) and § 195.402(e)(7). It requires pipeline operators to contact the appropriate PSAP immediately upon notification of a potential rupture. The rule specifies the following:

A ***Notification of Potential Rupture*** is an observation of any unanticipated or unexplained:

- Pressure loss outside of the pipeline's normal operating pressure
- Rapid release of a large volume of a commodity (e.g., natural gas or hazardous liquid)
- Fire or explosion in the immediate vicinity

ECCs will begin to receive calls from pipeline operators for situations that may not be dispatchable. Of the three potential rupture notifications, the "pressure loss outside of the pipeline's normal operating pressure" will be the most difficult for responders to locate and mitigate. The operators will contact the ECC at the same time they are sending a technician to check the potential problem and determine the actual location. Many pipeline segments span an extensive area that could cross multiple ECC and Fire Department boundaries. Based on recent discussions with pipeline operators, they will call ECCs to fulfill the rule requirements to place the ECC on standby for a potential problem. They also want the ECC to contact them if the ECC receives any calls that may confirm there is a problem.

PHMSA and pipeline operators lack an understanding of local ECC and first responder policies and procedures. Some pipeline operators have already sent letters to ECCs that serve the areas their pipeline infrastructure is located. It does not appear that PHMSA engaged the ECC community before adopting the rule, nor have they communicated this information to the responder community.

So, what does this mean for your ECC? ECCs are responsible for intaking information and dispatching appropriate resources. They are not in the habit of intaking details of a potential emergency and doing nothing with it. To do nothing creates liability issues for your ECC. ECC Managers should work with local Fire Departments to develop local policy regarding handling these calls. The policy will need to address whether to hold the information until further information is provided from the pipeline operator or, if a dispatch is to be made, what resources need to be sent. The policy should also address how to properly notify the pipeline operator if the ECC or responders discover that a potential rupture is, in fact, an actual rupture. ECC management should incorporate pipeline maps into their local GIS systems or maintain a map easily accessible to call-takers of the pipeline infrastructure within their jurisdiction. PHMSA has a pipeline mapping system that ECCs can use, https://www.npms.phmsa.dot.gov/. In addition, the ECC should consider specific questions within their call intake guides.

Specific Questions that ECCs may want to incorporate for potential rupture situations include:

1. What commodity might be leaking, and how severe does the potential leak appear?
2. What is the point-to-point location span of the potential rupture?
3. Is any special equipment needed for responders to mitigate the potential problem?

To comply with the new PHMSA rule, pipeline operators must contact ECCs reliably. Some pipeline operators are local or regional companies with existing relationships with the ECCs in their area. However, many pipeline operators serve a large geographic area and may not have established relationships with every ECC within their service area. Those pipeline operators may utilize the NENA Enhanced PSAP Registry and Census (EPRC) to obtain PSAP contact information. NENA strongly encourages you to verify the accuracy of your PSAP's contact information in the EPRC database. ECC 24/7/365 emergency contact number(s) should be 10-digit lines answered as quickly as possible. Callers should not be required to interact with a phone tree or wait on hold if possible. Access to the EPRC is free for ECCs. To learn more and to request user accounts if you do not already use the EPRC, visit nena.org/eprc.

Emergency Response Plans for Gas and Hazardous Liquid Pipeline Operators

Federal regulations for both gas and hazardous liquid pipelines require operators to have written procedures for responding to emergencies involving their pipeline facility. Because pipelines are often located in public space, the regulations further require that operators include procedures for planning with emergency and other public officials to ensure a coordinated response. Please contact your local pipeline operators for information regarding their company specific emergency response plan.

Natural Gas

Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

- Receiving, identifying, and classifying notices of events which require immediate response by the operator.
- Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials.
- Prompt and effective response to a notice of each type of emergency, including the following:
  1. Gas detected inside or near a building.
  2. Fire located near or directly involving a pipeline facility.
  3. Explosion occurring near or directly involving a pipeline facility.
  4. Natural disaster.
- The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency.
- Actions directed toward protecting people first and then property.
- Emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property.
- Making safe any actual or potential hazard to life or property.
- Notifying appropriate fire, police, and other public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency.
- Safely restoring any service outage.
- Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:
  1. Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;
  2. Acquaint the officials with the operator's ability in responding to a gas pipeline emergency;
  3. Identify the types of gas pipeline emergencies of which the operator notifies the officials; and
  4. Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property.

**Reference 49 CFR 192.615*

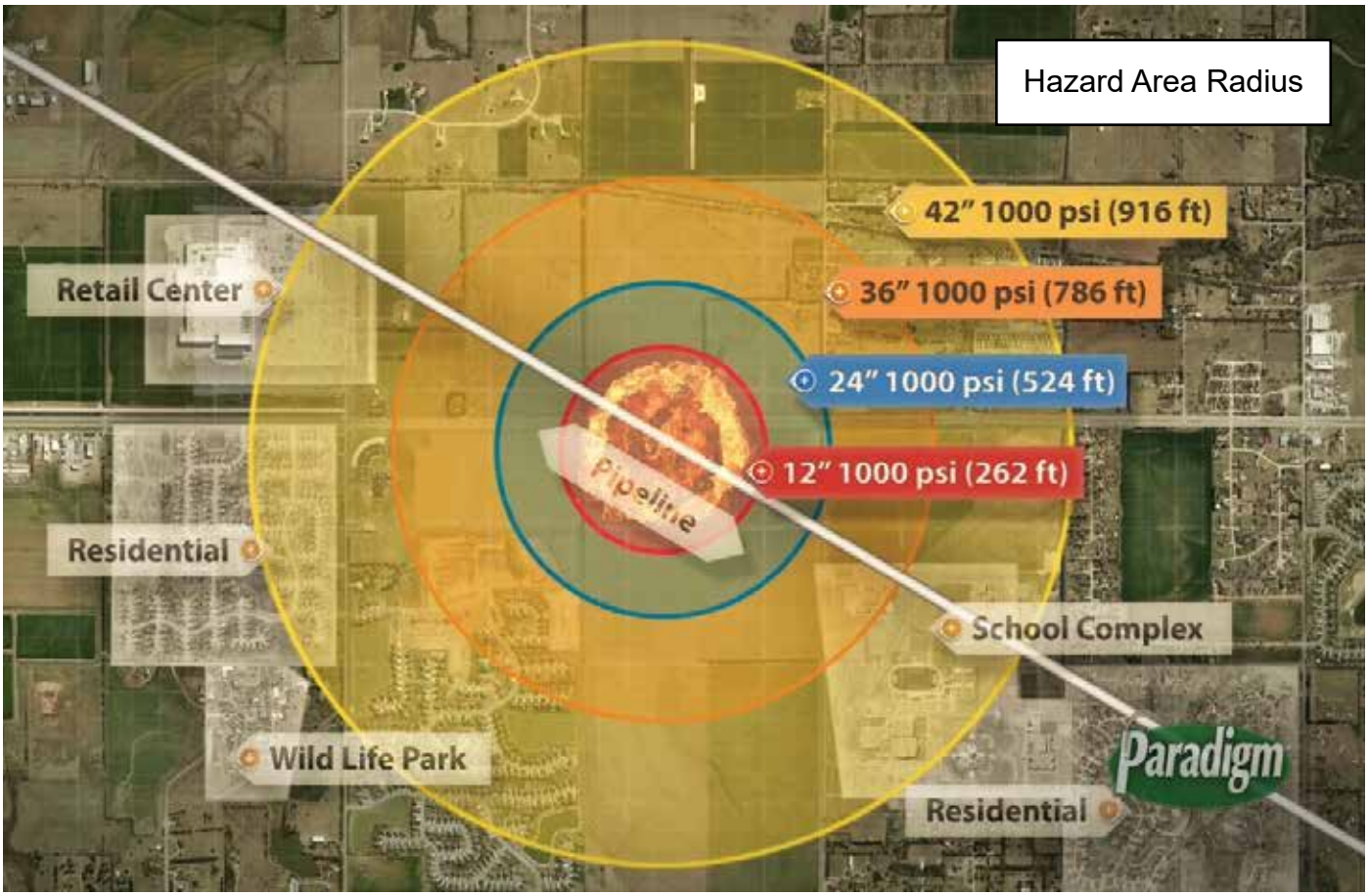
Hazardous Liquids

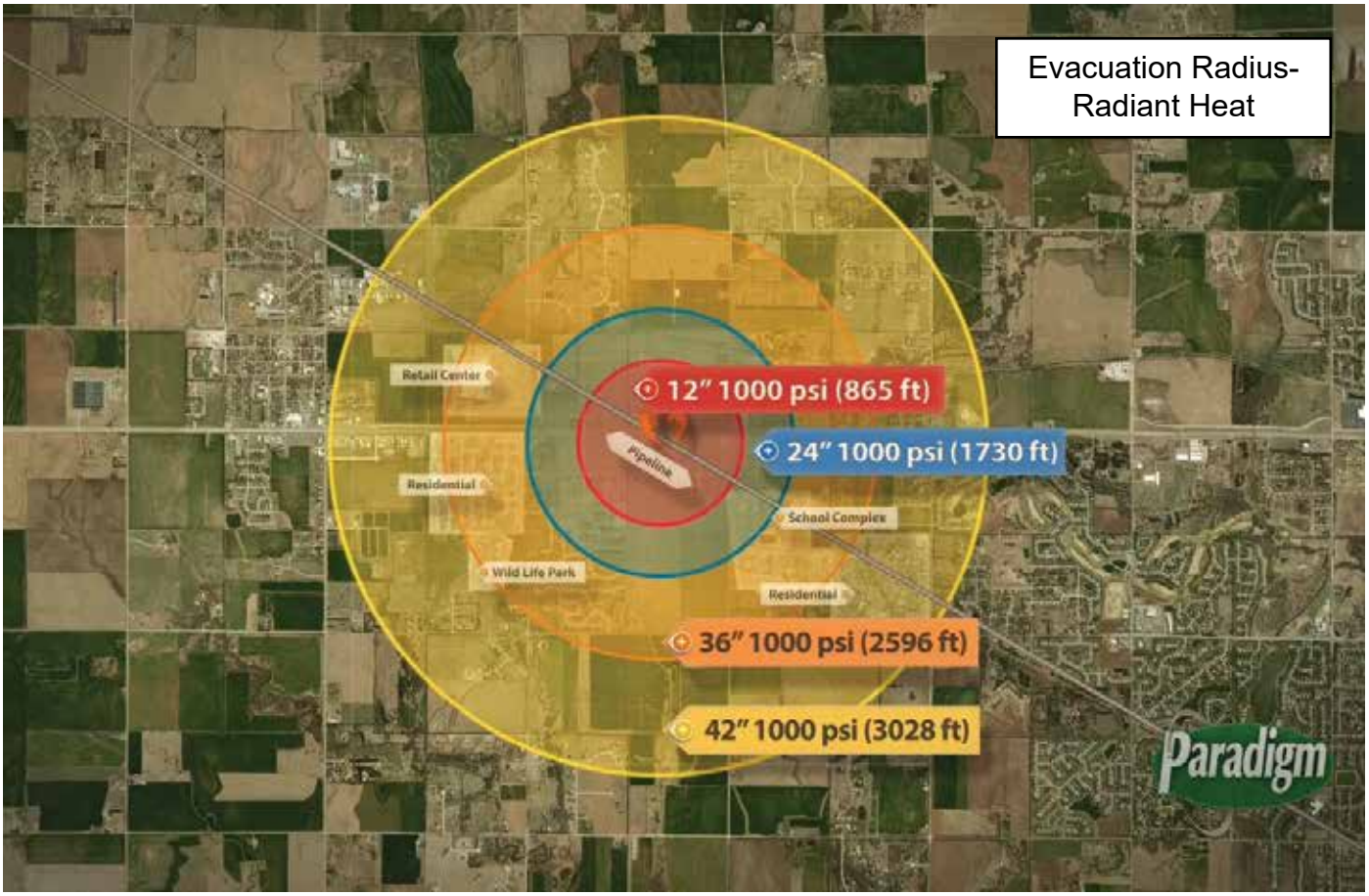
(a) General: Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

Emergencies. The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs:

- Receiving, identifying, and classifying notices of events which need immediate response by the operator or notice to fire, police, or other appropriate public officials and communicating this information to appropriate operator personnel for corrective action.
- Prompt and effective response to a notice of each type emergency, including fire or explosion occurring near or directly involving a pipeline facility, accidental release of hazardous liquid or carbon dioxide from a pipeline facility, operational failure causing a hazardous condition, and natural disaster affecting pipeline facilities.
- Having personnel, equipment, instruments, tools, and material available as needed at the scene of an emergency.
- Taking necessary action, such as emergency shutdown or pressure reduction, to minimize the volume of hazardous liquid or carbon dioxide that is released from any section of a pipeline system in the event of a failure.
- Control of released hazardous liquid or carbon dioxide at an accident scene to minimize the hazards, including possible intentional ignition in the cases of flammable highly volatile liquid.
- Minimization of public exposure to injury and probability of accidental ignition by assisting with evacuation of residents and assisting with halting traffic on roads and railroads in the affected area, or taking other appropriate action.
- Notifying fire, police, and other appropriate public officials of hazardous liquid or carbon dioxide pipeline emergencies and coordinating with them preplanned and actual responses during an emergency, including additional precautions necessary for an emergency involving a pipeline system transporting a highly volatile liquid.
- In the case of failure of a pipeline system transporting a highly volatile liquid, use of appropriate instruments to assess the extent and coverage of the vapor cloud and determine the hazardous areas.
- Providing for a post accident review of employee activities to determine whether the procedures were effective in each emergency and taking corrective action where deficiencies are found.

**Reference 49 CFR 195.402*


Hazard Area Radius
42" 1000 psi (916 ft)
36" 1000 psi (786 ft)
24" 1000 psi (524 ft)
12" 1000 psi (262 ft)
Pipeline
Retail Center
Residential
School Complex
Wild Life Park
Residential
Paradigm


Evacuation Radius-
Radiant Heat
12" 1000 psi (865 ft)
24" 1000 psi (1730 ft)
36" 1000 psi (2596 ft)
42" 1000 psi (3028 ft)
Pipeline
Retail Center
Residential
School Complex
Wild Life Park
Residential
Paradigm

High Consequence Areas Identification*

Pipeline safety regulations use the concept of "High Consequence Areas" (HCAs), to identify specific locales and areas where a release could have the most significant adverse consequences. Once identified, operators are required to devote additional focus, efforts, and analysis in HCAs to ensure the integrity of pipelines.

Releases from pipelines can adversely affect human health and safety, cause environmental degradation, and damage personal or commercial property. Consequences of inadvertent releases from pipelines can vary greatly, depending on where the release occurs, and the commodity involved in the release.

What criteria define HCAs for pipelines?

Because potential consequences of natural gas and hazardous liquid pipeline releases differ, criteria for HCAs also differ. HCAs for natural gas transmission pipelines focus solely on populated areas. (Environmental and ecological consequences are usually minimal for releases involving natural gas.) Identification of HCAs for hazardous liquid pipelines focuses on populated areas, drinking water sources, and unusually sensitive ecological resources.

HCAs for hazardous liquid pipelines:

- Populated areas include both high population areas (called "urbanized areas" by the U.S. Census Bureau) and other populated areas (areas referred to by the Census Bureau as a "designated place").
- Drinking water sources include those supplied by surface water or wells and where a secondary source of water supply is not available. The land area in which spilled hazardous liquid could affect the water supply is also treated as an HCA.
- Unusually sensitive ecological areas include locations where critically imperiled species can be found, areas where multiple examples of federally listed threatened and endangered species are found, and areas where migratory water birds concentrate.

HCAs for natural gas transmission pipelines:

- An equation has been developed based on research and experience that estimates the distance from a potential explosion at which death, injury or significant property damage could occur. This distance is known as the "potential impact radius" (or PIR), and is used to depict potential impact circles.
- Operators must calculate the potential impact radius for all points along their pipelines and evaluate corresponding impact circles to identify what population is contained within each circle.
- Potential impact circles that contain 20 or more structures intended for human occupancy; buildings housing populations of limited mobility; buildings that would be hard to evacuate. (Examples are nursing homes, schools); or buildings and outside areas occupied by more than 20 persons on a specified minimum number of days each year, are defined as HCA's.

** https://primis.phmsa.dot.gov/comm/FactSheets/FSHCA.htm*

Identified Sites*

Owners and companies of gas transmission pipelines are regulated by the US Department of Transportation (DOT). According to integrity management regulations, gas pipeline companies are required to accept the assistance of local public safety officials in identifying certain types of sites or facilities adjacent to the pipeline which meets the following criteria:

(a) A small, well-defined outside area that is occupied by twenty or more persons on at least 50 days in any twelve-month period (the days need not be consecutive). Examples of such an area are playgrounds, parks, swimming pools, sports fields, and campgrounds.

(b) A building that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12 month period (the days and weeks need not be consecutive). Examples included in the definition are: religious facilities, office buildings, community centers, general stores, 4-H facilities, and roller rinks.

(c) A facility that is occupied by persons who are confined, are of impaired mobility, or would be difficult to evacuate. Examples of such a facility are hospitals, schools, elder care, assisted living/nursing facilities, prisons and child daycares.

Sites within your jurisdiction will fit the above requirements, please go to my.spatialobjects.com/admin/register/ISR to provide this valuable information to pipeline companies.

** 49 CFR §192.903.*

IDENTIFIED SITE REGISTRY

Pipeline operators need your help keeping people and property safe.

Identified Sites - locations where many people occupy an area near a pipeline asset or facility. These are places where people may gather from time to time for a variety of reasons.

Some of these sites are very difficult for companies to obtain without help from those with local knowledge of the area.

Please use the following website to gain secure access, so you can assist in identifying sites where people congregate in your community:

my.spatialobjects.com/admin/register/ISR

Pipeline operators are required by law to work with public officials who have safety or emergency response, or planning responsibilities that can provide quality information regarding identified sites.

Pipeline Damage Reporting Law As Of 2007

H.R. 2958 Emergency Alert Requirements

Any person, including a government employee or contractor, who while engaged in the demolition, excavation, tunneling, or construction in the vicinity of a pipeline facility;

A. Becomes aware of damage to the pipeline facility that may endanger life or cause serious bodily harm or damage to property; or

B. Damages the pipeline facility in a manner that may endanger life or cause serious bodily harm or damage to property, shall promptly report the damage to the operator of the facility and to other appropriate authorities.

Websites:

Call Before You Clear
www.callbeforeyouclear.com

CAMEO
www.epa.gov/cameo

Common Ground - Nebraska
www.ne-cga.com

Federal Emergency Management Agency
www.fema.gov

Federal Office of Pipeline Safety
www.phmsa.dot.gov

Government Emergency Telecommunications
www.dhs.gov/government-emergency-telecommunications-service-gets

Infrastructure Protection – NIPC
www.dhs.gov/national-infrastructure-protection-plan

National Fire Protection Association
www.nfpa.org

National One-Call Dialing Number: 811
www.call811.com

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

National Response Center
www.nrc.uscg.mil or 800-424-8802

Nebraska Pipeline Association
www.nebraskapipeline.com

Nebraska State Fire Marshal
https://sfm.nebraska.gov/

Nebraska APCO and NENA
www.neapconena.org

Nebraska 811
www.ne1call.com

NIMS ICS Toolbox
www.ics-toolbox.com

Occupational Safety & Health Administration
www.osha.gov

Online Emergency Response Awareness Courses
www.nasfm-training.org/pipeline

Paradigm Liaison Services, LLC
www.pdigm.com/liaison_meetings/overview

Pipeline Safety Trust
www.pstrust.org

Pipelines and Informed Planning Alliance
http://primis.phmsa.dot.gov/comm/landuseplanning.htm

Wireless Information System for Emergency Responders (WISER)
www.wiser.nlm.nih.gov

FOR MORE INFORMATION ON THE NASFM *PIPELINE EMERGENCIES* PROGRAM
www.pipelineemergencies.com

FOR EMERGENCY RESPONSE INFORMATION, REFER TO DOT GUIDEBOOK.
FOR COPIES: (202) 366-4900
phmsa.dot.gov/hazmat/outreach-training/erg

Presenter/Contact Information:	Key Take-Aways:
	✓
	✓
	✓
	✓
	✓

Comments to Remember

Questions to Ask

New Concepts to Explore

Additional Notes

EMERGENCY CONTACT LIST

COMPANY	EMERGENCY NUMBER
Archaea Energy	911 or 1-855-595-5319
BioResource Development LLC	1-800-770-7282
Black Hills Energy	1-800-694-8989
Enterprise Products Operating LLC	1-888-883-6308
Fremont Department of Utilities	1-402-727-2600
HF Sinclair Midstream	1-877-748-4464
Jayhawk Pipeline, L.L.C.	1-888-542-9575
Lincoln Electric System.	1-800-947-7282
Magellan Midstream Partners, LP	1-800-720-2417
MidAmerican Energy Company (Public Emergency)	1-800-595-5325
MidAmerican Energy Company (Emergency Responders)	1-800-275-5743
Northern Natural Gas Company	1-888-367-6671
NuStar Pipeline Operating Partnership L.P.	1-800-759-0033
Phillips 66 Pipeline LLC	1-877-267-2290
Platte Pipe Line Company (Enbridge)	1-800-858-5253
Summit Midstream Partners, LP	1-888-643-7929
Tallgrass (Pony Express Pipeline)	1-855-220-1762
Tallgrass (Rockies Express Pipeline)	1-877-436-2253
Tallgrass (Tallgrass Interstate Gas Transmission)	1-888-763-3690
Tallgrass (Trailblazer CO2 Pipeline)	1-866-295-4841

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

ONE-CALL SYSTEM	PHONE NUMBER
Nebraska 811	1-800-331-5666 or 811
National One-Call Referral Number	1-888-258-0808

LOCATING PIPELINE OPERATORS IN YOUR AREA

There are various resources available for Emergency Officials to use to identify the pipeline operators in their area of responsibility.

- Use the Department of Transportation's National Pipeline Mapping System (NPMS) to determine the pipeline operators in your area. Log on to www.npms.phmsa.dot.gov and search by (1) State, (2) County or (3) Zip Code.
- Reference the Pipeline Operator Guide for operator listings, contact information and areas of operation. Please keep in mind that this information may change and ensure that you are referencing the most current version available. The Nebraska Pipeline Association will update and distribute this information annually for the operators participating in the Nebraska Pipeline Association.
- Contact the pipeline operators directly to request information specific to them.

NEBRASKA PIPELINE ASSOCIATION

NPA

1.877.477.1162 • nebraskapipeline.com