

# Pipeline Safety Resources For Emergency and Public Officials



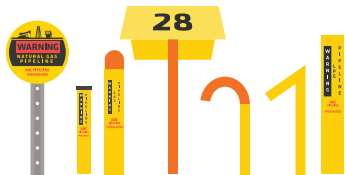
- Product Transported
- Operator Name
- Contact Number



## LOCATION OF PIPELINES

Pipeline markers are located in the pipeline right-of-way and vary in shapes, colors, and sizes. Markers indicate the approximate location, but not the depth, of a buried pipeline. These markers display the product transported in the line, name of the pipeline operator, and telephone number where the operator can be reached in the event of an emergency. Pipeline markers may also be found at road crossings, fence lines, and street intersections.

Pipeline rights-of-way are often recognizable as corridors that are clear of trees, buildings, or other structures. Keeping trees, shrubs, buildings, fences, and other structures away from the right-of-way ensures pipeline integrity and safety are maintained.



## PIPELINE PURPOSE AND RELIABILITY

Pipeline operators emphasize **PUBLIC SAFETY** and **ENVIRONMENTAL PROTECTION** as top priorities in any pipeline emergency response. You have been identified as an agency that may be called on to respond to an incident involving pipelines or facilities in your area. Pipelines operated by the companies whose fact sheet(s) accompany this booklet are part of the 2.6 million miles of transmission, gathering, and distribution pipelines in the United States and transport a variety of petroleum and natural gas products. Pipelines and facilities provide support for two-thirds of the energy we use each year. The U.S. Department of Transportation states that pipelines are the safest mode of transportation for natural gas and petroleum products.

## MAINTAINING SAFETY AND INTEGRITY OF PIPELINES

Pipeline operators have developed supplemental hazard and assessment programs known as Integrity Management Programs (IMPs). IMPs have been implemented for areas designated as “high consequence” in accordance with federal regulations. Most active pipelines are monitored 24 hours-a-day. Pipeline operators may also utilize aerial surveillance and/or on-ground observers to identify potential dangers. Pipeline operators also maintain damage prevention and public awareness programs for their pipelines and facilities to ensure appropriate educational messages and processes are being implemented. Contact the operator directly for more information.

## SIGNS OF A PIPELINE LEAK

Using your sense of sight, sound, and smell will help you recognize a potential leak. Here is what you should look for:

### **SIGHT**

Liquid pools, continuous bubbling in wet or flooded areas, an oily sheen on water surfaces, vaporous fogs or blowing dirt around a pipeline area, dead or discolored plants in an otherwise healthy area of vegetation, or frozen ground in warm weather are all signs of a potential pipeline leak. Vapor and “ground frosting” may be visible at high pressures, and there could be flames near a hole in the ground.

### **SOUND**

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

### **SMELL**

An unusual smell, petroleum or hydrocarbon odor, or gaseous odor will sometimes accompany pipeline leaks. Some are colorless, tasteless, and odorless unless commercial odorants or Mercaptan is added.

**Refer to the operator specific page included with this booklet related to products transported in your area.**

# RESPONDING TO A PIPELINE EMERGENCY

The following protocol is outside of those actions to be taken by 911 dispatch. The following guidelines are designed to ensure the safety of those in the area if a petroleum product or natural gas pipeline leak is suspected or detected:

**SECURE THE AREA AROUND THE LEAK TO A SAFE DISTANCE.** Because vapors from products transported in pipelines can migrate great distances, it is important to avoid creating ignition sources in 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.

**EVACUATE OR SHELTER IN PLACE.** Depending on the level of chemical, natural gas, or 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. The location of the incident and the evacuation route will determine which procedure is required, but both may be necessary. Evacuate people upwind of the incident, if necessary. Involving the pipeline company may be important in making this decision.

## **IF THE PIPELINE LEAK IS NOT BURNING:**

- **DO NOT** create any potential source of ignition such as an electrical switch, vehicle ignition, lighting a road flare, etc.
- **DO NOT** start motor vehicles or electrical equipment
- **DO NOT** ring doorbells. Knock with your hand instead of the door knocker to avoid potential sparks
- **DO NOT** drive into a leak or vapor cloud at any time

## **IF THE PIPELINE LEAK IS BURNING, ATTEMPT TO CONTROL THE SPREAD OF THE FIRE, BUT:**

- **DO NOT** attempt to extinguish petroleum product or natural gas fire. When extinguished, petroleum products, gas and vapor could collect and explode if reignited by secondary fire or ignition source.
- **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** come into direct contact with any escaping liquid or gas

**ESTABLISH A UNIFIED COMMAND CENTER.** Work with pipeline representatives as you develop a plan to address the emergency. The pipeline representatives will need to know:

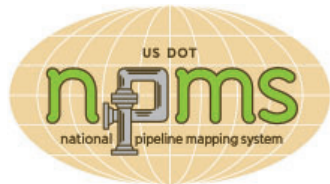
- Your contact information and the location of the emergency
- Size, characteristics, and behavior of the incident, and if there are any primary or secondary fires
- Any injuries or deaths
- The proximity of the incident to any structures, buildings, etc.
- Any environmental concerns such as bodies of water, grasslands, endangered wildlife, and fish, etc.

# PREPAREDNESS EFFORTS

Pipeline companies regularly communicate, train, and plan with emergency responders. Responders are trained to protect life, property, and facilities. Pipeline personnel will take steps to minimize the amount of product leaking and isolate the emergency area. The pipeline company'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 pipeline company personnel
- Help bring the emergency to conclusion as quickly and safely as possible





## NATIONAL PIPELINE MAPPING SYSTEM (NPMS)

NPMS is a geographic database and map viewer that depicts transmission pipelines in the United States and is available at [www.npms.phmsa.dot.gov](http://www.npms.phmsa.dot.gov). It is important to note that other types of pipelines such as distribution and gathering are not included in NPMS, so it is important to always practice safe digging by calling 811 prior to any digging activities.

## CAPABILITIES

It is important for pipeline companies to understand what resources and capabilities emergency response agencies have in the event of a pipeline emergency. By providing your capabilities, pipeline companies can better plan and respond in the event of an emergency. Any information you provide will only be used for pipeline companies' communication and planning information. It is not sold, nor is it used for marketing purposes. Please go to [survey.pdigm.com/capabilities/pls/eo](http://survey.pdigm.com/capabilities/pls/eo) and tell us what your capabilities are.

## EMERGENCY RESPONSE PLANS

Federal regulations for both gas and hazardous liquid pipelines require companies to have written procedures for responding to emergencies involving their pipeline facilities. Because pipelines are often located in public space, the regulations further require that companies include procedures for planning with emergency and other public officials to ensure a coordinated response. You can also register for access to Emergency Response Plan Portal at [my.spatialobjects.com/admin/register/ERPP](http://my.spatialobjects.com/admin/register/ERPP) and check periodically for new information pipeline companies make available to you. You can contact your local pipeline companies directly for information regarding their company-specific emergency response plan.

## TRAINING

Pipeline companies regularly host local emergency responder and local public official liaison training events. A list of training events available in your state can be found at [www.pdigm.com/State\\_Programs\\_Website.html](http://www.pdigm.com/State_Programs_Website.html). Select your state from the map and review and register for meetings you wish to attend. If there is not currently training in your area, additional resources and training are available online at [trainingcenter.pdigm.com/tc/login](http://trainingcenter.pdigm.com/tc/login). This can also serve as a resource for all personnel within your department. Once you complete the registration, you will receive an email with a username and password and access to the most current training scenario in your state. The training will provide:

- Great supplemental training
- Access to your local pipeline sponsor information
- Review the entire course or specific sections of the course
- Users can pause and continue training at any point in time
- Download the same documents presented in training programs from your area
- Certificate of completion provided upon completion of course

The links to these websites and more can also be accessed by scanning the QR code on the back of this safety communication.



# 911 DISPATCH\*

Dispatch personnel play a critical role in effective response to pipeline incidents. A dispatcher's actions can save lives, direct the appropriate emergency responders to the scene, as well as help protect our environment and our nations' infrastructure. The National Emergency Number Association (NENA) recommends a focus regarding three critical areas:

- Awareness of pipelines affecting 911 service areas
- Pipeline leak recognition and initial response actions
- Additional notifications to pipeline operators

## **GOALS FOR INITIAL INTAKE:**

- Obtain and verify incident location, callback, and contact information
- Maintain control of the call
- Communicate the ability to assist the caller
- Methodically and strategically capture information through systematic inquiry to be captured in the agency's intake format
- 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
- Perform all information entries and disseminations, both initial and updated

## **FIRST RESPONSE CALL INTAKE CHECKLIST:**

- Determine location
- Determine exactly what has happened
- Determine if immediate danger exists
- Initiate public response resources
- Contact the pipeline company as soon as practical

## **ADDITIONAL NOTIFICATIONS:**

- Valve closure
  - Should be performed only by pipeline company personnel
  - Many pipeline companies also have the ability to perform these actions remotely
- If pipeline emergency contact information is unknown
  - Call 811 to obtain operator emergency information
  - Ask emergency responders to look for pipeline markers in the area
  - Local gas distribution companies are often times aware of other operators in their service area and may have contact information for these companies

*\*NENA 56-007, September 28, 2010*



## HIGH CONSEQUENCE AREAS (HCA)

Pipeline safety regulations use the concept of 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.

**More information on HCAs in your area may be available upon request from your local pipeline operator(s).**

# PLANNING, ZONING, AND PROPERTY DEVELOPMENT

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



## LAND USE PLANNING AND TRANSMISSION PIPELINES

The Pipelines and Informed Planning Alliance (PIPA) is a broad stakeholder initiative led and supported by the US Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). The goal of PIPA is to reduce risks and improve the safety of affected communities and transmission pipelines through implementation of recommended practices related to risk-informed land use and development near transmission pipelines. The PIPA recommended practices describe actions that can be taken by stakeholders when there are proposed changes in land use or new development adjacent to existing transmission pipelines.

PIPA has developed recommended practices to assist in making decisions about what, where, and how to build safely near transmission pipelines. The decisions you make can impact the safety of the community surrounding the pipeline.

- Have you consulted with the pipeline company?
- Have you considered access for pipeline maintenance and emergency response?
- Is enhanced fire protection needed?
- How will excavation damage to the pipeline be prevented?

For more information, please go to <https://primis.phmsa.dot.gov/comm/pipa/landuseplanning.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: 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.**

If you know of sites within your jurisdiction that fit any of the above requirements, please go to [my.spatialobjects.com/isr/home](http://my.spatialobjects.com/isr/home) to provide this valuable information to pipeline companies.

**\*49 CFR §192.903**

## HELP KEEP PIPELINES SAFE

Pipeline accidents are rare, but it is important to be aware of the location of pipelines and facilities, potential hazards, and what to do if a leak occurs. To help maintain the integrity of pipelines and their right-of-way, you can help by:

- Being aware of any unusual or suspicious activities or unauthorized excavations on or near a pipeline right-of-way or facility
  - Developing contacts and relationships with pipeline company representatives
  - Sharing intelligence regarding national infrastructure and specific threats or actual attacks against pipeline assets
  - Monitoring criminal activity at the local level that could impact pipelines such as anti-pipeline groups
- Keeping the enclosed **fact sheet(s)** for future reference
- Attending pipeline safety trainings in your area
- Familiarizing yourself with the Pipeline and Informed Planning Alliance (PIPA) best practices regarding land use planning new transmission pipelines
- Completing and returning the enclosed survey to help identify training opportunities
- Reporting localized flooding, ice dams, debris dams, and extensive bank erosion that may affect the integrity of pipeline crossing to the pipeline company

## ONE-CALL STEPS

All persons performing digging activities are responsible for understanding their state's damage prevention laws and local ordinances. Information can be obtained by contacting the applicable state One-Call Center or visiting the state's 811 website.

Before digging, always:

- CALL 811 or contact the One-Call Center
- Wait for the site to be marked or for positive response from the operator
- Respect the marks and dig or excavate with care



## DAMAGE PREVENTION

The leading cause of pipeline incidents is third-party digging without the proper notifications to 811. Even smaller projects including installing mailboxes, fences, flag poles, placing signs, plowing, and basic landscaping can damage a pipeline or underground utilities.

## ENCROACHMENT

Some activities may require you to work on or use a pipeline right-of-way (ROW) including temporary structures or the passage of equipment. This is referred to as ROW Encroachment. Contact the pipeline operator before beginning any activities involving a ROW. Refer to the enclosed information sheet(s) for contact information. In addition to calling 811, provide the pipeline operator the following information:

- Proposed activity
- Location of the activity
- The equipment to be used including axle load weight

This color code chart will help determine which utilities have marked their underground utility lines.

 WHITE – Proposed excavation	 ORANGE – Communications, alarm or signal lines, cables or conduit
 PINK – Temporary survey markings	 BLUE – Potable water lines
 RED – Electric power lines, cables, conduit and lighting cables	 PURPLE – Reclaimed water, irrigation and slurry lines
 YELLOW – Gas, oil, steam, petroleum or gaseous materials	 GREEN – Sewer lines

## WANT TO KNOW MORE?

- American Petroleum Institute: [www.api.org](http://www.api.org)
- American Gas Association: <https://www.aga.org/>
- Pipeline and Hazardous Materials Safety Administration: <https://www.phmsa.dot.gov/>
- Pipeline Safety Information: [www.pipeline101.org](http://www.pipeline101.org)
- Capabilities Survey: [survey.pdigm.com/capabilities/pls/eo](http://survey.pdigm.com/capabilities/pls/eo)
- Emergency Response Portal Register: <https://my.spatialobjects.com/admin/register/ERPP>
- Training Center: <https://trainingcenter.pdigm.com/tc/user/registration>



- Scan here to visit these websites and see additional videos and pipeline industry information
- Public Officials can find materials distributed within their communities by scanning the QR Code