

PIPELINE EXCAVATION SAFETY GUIDE & DIRECTORY

Everyday safety



Safety every day

PIPELINE EDITION

Provided by Pipeline Association for Public Awareness





Pipeline Association for Public Awareness:

Pipeline Operators Educating the Public on Pipeline Safety

By Sally Fossum, Public Awareness Coordinator, Alliance Pipeline, and Chair, NDPA (North Dakota Pipeline Association)

Pipelines Nearby

You are probably aware of the water and sewer pipes, natural gas, cable, phone and electrical lines that cross your property and connect to your home, or petroleum and crude oil pipelines in your community. These sources help us to live comfortably and use a variety of technology.

Underground lines traverse farmlands and cities, cross under roads and rivers, follow highways and extend for miles across the nation. Pipelines are the safest, cleanest, most reliable and economic way to transport energy resources across America.

According to a Safety Study conducted by the National Transportation Safety Board:

Pipeline accidents result in fewer fatalities annually than accidents in the other modes of transportation; however, a single pipeline accident has the potential to cause a catastrophic disaster that can injure hundreds of persons, affect thousands more, and cost millions of dollars in terms of property damage, loss of work opportunity, community disruption, ecological damage, and insurance liability. Excavation and construction activities are the largest single cause of accidents to pipelines.

This vast invisible network can end up only inches from the ground's surface due to landscaping and erosion. The underground systems remain mostly unnoticed, because they are buried and the safety standards upheld by pipeline and utility companies. Facility owners in the United States go to great lengths to educate the public on matters relating to pipeline safety and emergency response, working diligently to prevent damage and protect life.

Pipeline Association for Public Awareness (PAPA)

A group of concerned and proactive pipeline representatives, dedicated to public awareness and damage prevention outreach, formed the PAPA organization. This collaboration brings together state and regional knowledge and experience. Recognizing that effective and frequent communication is key to maintaining informed stakeholders, PAPA members believe that best practices are accomplished by annual mailings to a variety of audiences, such as Emergency and Public Officials. Included in the offerings is an exceptional program utilizing the Danielle Dawn Smalley Foundation to inform school officials about pipeline safety. For more information visit: www.pipelineawareness.org.

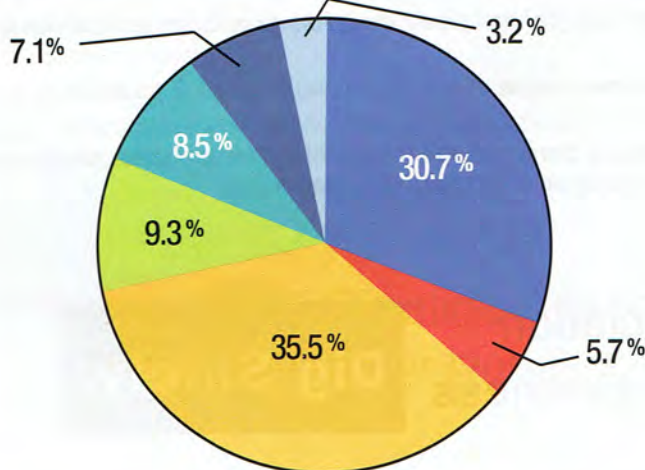
The PAPA programs focus on several key audiences including excavators. This Excavation Safety Guide is produced and sponsored by many of the nation's pipeline operators working to achieve the highest level of public safety.

Call Before You Dig!

Making the appropriate One-Call decreases the risk of damaging buried utilities. Once you call 8-1-1 or your state's One-Call Center directly, notification is made to member utilities in the impending dig site and pipeline representatives are dispatched to the area to mark the location of their underground facilities. This is a FREE service for you. Be responsible, be proactive, and Call 8-1-1 Before You Dig!

SERIOUS INCIDENT CAUSE BREAKDOWN

National, All Pipeline Systems, 1989 - 2008



- ALL OTHER CAUSES
- CORROSION
- EXCAVATION DAMAGE
- INCORRECT OPERATION
- MATERIAL/WELD/EQUIPMENT FAILURE
- NATURAL FORCE DAMAGE
- OTHER OUTSIDE FORCE DAMAGE

Source: PHMSA Significant Incidents Files October 14, 2009

Unauthorized excavation by third parties is the leading cause of pipeline damages (see chart on page iii). Every time you plan a project where you'll break ground always call 8-1-1 or your state's One-Call Center at least 48 hours (2 business days) prior to digging.

Note: Some states require 72 hours (3 business days) prior to digging, so be sure to check for your state's required notification. Refer to the One-Call directory contained within this guide. Many One-Call Centers have websites that offer you the ability to create your locate ticket online.

Know What's Below

An above-ground pipeline marker indicates there is a pipeline "nearby" and not that the pipeline is directly underneath. These markers are located at road, fence and most water crossings. There are at least three key pieces of information found on pipeline markers:

- operating company
- product being shipped
- emergency phone number

Pay attention to pipeline markers and directives given by the pipeline representatives on location.

To reference overview maps of pipelines in your area, visit the National Pipeline Mapping System (NPMS) online at www.npms.phmsa.dot.gov. **This online tool should never be used as a substitute for contacting 8-1-1 or your state's One-Call Center prior to any excavation activities.**

The descriptions below could very well indicate that a pipeline leak has occurred:

- **Sight:** Dead or discolored vegetation along a pipeline Right-of-Way, bubbles in standing water, vapor clouds or frozen soil, flames or fire coming from the ground.
- **Sound:** Anything from a slight hiss to a loud roaring, like that of a jet engine.
- **Smell:** Rotten eggs (sulphur), hydrocarbon or petroleum scents.

Many pipelines, especially local distribution lines, add a distinctive odor to natural gas to aid in the detection of leaks. Never rely solely on your sense of smell to detect a leak from a pipeline as the leaking product may be scrubbed as it travels to the ground's surface. This reduction of the enhanced scent is known as "odor fade."



If you do hit something during an excavation, **never let any damage go unreported**; even a slight scratch in the coating could corrode and lead to a leak or extreme failure months or years later. If you hit an underground facility, call 911 and the operator's emergency number immediately. Quickly move away from the area in an upwind direction, eliminate ignition sources and keep the area clear.

Digging responsibly near pipelines (and around all underground utilities) ensures that you, the excavator or homeowner, will be home with your family at the end of the day. For more information on safe digging practices check out: www.excavationsafetyonline.com



DIGGING UP MORE...

Other online resources

Call Before You Dig:
www.call811.com

Pipeline Association for Public Awareness (PAPA):
www.pipelineawareness.org

Department of Transportation, Pipeline & Hazardous Materials Safety Administration (DOT/PHMSA):
www.phmsa.dot.gov

National Transportation Safety Board (NTSB):
www.nts.gov

Pipeline 101:
www.pipeline101.com

Common Ground Alliance (CGA):
www.commongroundalliance.com