Volume 19, Summer 2024

Pipeline Association for Public Awareness

PIPELINE AWARENESS

Safety Information for: Local Leaders | Community Planning | Emergency Management

HAZMAT COMMANDER SHARES BEST PRACTICES FOR PIPELINE INCIDENT RESPONSE

Collaboration between pipeline operators and emergency responders is a critical aspect of community safety. Get the tools and info you need as a public or emergency official inside! Photo credit: TC Energy

Meet Mike Wallingford, a dedicated fireman with nearly 30 years of experience serving his community. For the first 9 years of his career, Mike was part of a volunteer fire department, and for the past 20 has been a career fireman, currently serving as the Captain of the Jefferson Town Fire Department in Louisville, Kentucky. He also holds the critical role of one of Metro Louisville's HAZMAT Commanders.

Reflecting on memorable incidents, Captain Wallingford recounted the harrowing experience of responding to a high-pressure gas line leak. Although these types of incidents are rare, being prepared is critical.

"The sound of gas escaping from a high-pressure line is a sound that will stay with a responder his entire career."

...continued on back

DOWNLOAD: *Critical Information for Emergency Preparedness qrco.de/emergency_prepared*

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The Pipeline Awareness Newsletter is published annually by:

Pipeline Association for Public Awareness

8601 W Cross Dr PMB 302 Unit F5
Littleton, CO 80123-2200
www.pipelineawareness.org

Manufactured and printed in the United States of America.

If you have questions about the Pipeline Association for Public Awareness, our programs or need more information from any of our members, please visit pipelineawareness.org.

Pipeline Association *for* Public Awareness

Resources for Local Officials

Scan the QR code to view Public Official Resources

PIPELINE EMERGENCY TRAINING

The Pipeline Association for Public Awareness offers **free training and scenarios** for fire, law enforcement and 911 center personnel online at: **qrco.de/PAPA_Training**

PIPELINE MAPS FOR PUBLIC OFFICIALS

Register for access to the Pipeline Information Management Mapping Application (PIMMA) at: **qrco.de/Access_PIMMA**

PIPELINE MAPS & EVACUATION DISTANCE

Access maps that show location of pipelines and evacuation distance considerations at: **qrco.de/Access_Pipevision**

EVACUATION GUIDANCE

The Pipeline Association for Public Awareness provides emergency response technical guidance on when to shelter-in-place versus evacuate at: **qrco.de/Evacuation_Guidance**

PIPELINE MEMBER DIRECTORY

Access contact information for pipeline operators in your community who participate in the Pipeline Association for Public Awareness at: **qrco.de/Member_Directory**

Digital Publication

Download an electronic version of this publication at: **pipelineawareness.org/newsletter**

SAFETY CHECKLIST

Download an excavation safety checklist for projects near pipelines at: **qrco.de/Digging_Checklist**

COPIES OF MATERIALS PROVIDED TO THE GENERAL PUBLIC OR EMERGENCY RESPONSE OFFICIALS

Pipeline members will send you copies of the public awareness materials they provide to the general public or emergency officials in your area. Email your request to the company contact person listed in the Pipeline Member Directory. Access the directory at: **qrco.de/Member_Directory**

Follow Us on Social

PIPELINE RIGHT-OF-WAY

FIVE COMMON QUESTIONS

Want to know the location of pipelines in your community and the products they transport? Access to pipeline maps differs from state-to-state, but the following resources can assist public officials in requesting maps from pipeline operators and accessing available maps online.

The Pipeline Informed Planning Alliance (PIPA) provides information and resources for local officials at: **qrco.de/PIPA-Info**

1 What requirements are normally included in easement agreements?

Most easement agreements prohibit storing vehicles or flammable materials, require special procedures for digging and limit or prohibit building structures and planting trees on the right-of-way. Exceptions can be granted through a specific encroachment agreement with the pipeline operator.

2 Who maintains the pipeline right-of-way?

The pipeline operator is typically responsible for ensuring the right of-way is visible from the air and easily accessible on the ground. Maintenance may include mowing, trimming trees or removing trees or structures.

3 How can I help protect people living and working near pipelines?

Planning/zoning officials, city engineers and other public officials can help prevent pipeline emergencies. Encourage builders and developers to consider the location of pipeline rights-of-way in their development plans and encourage property owners to contact 811 and notify pipeline operators before building or digging near the right-of-way.

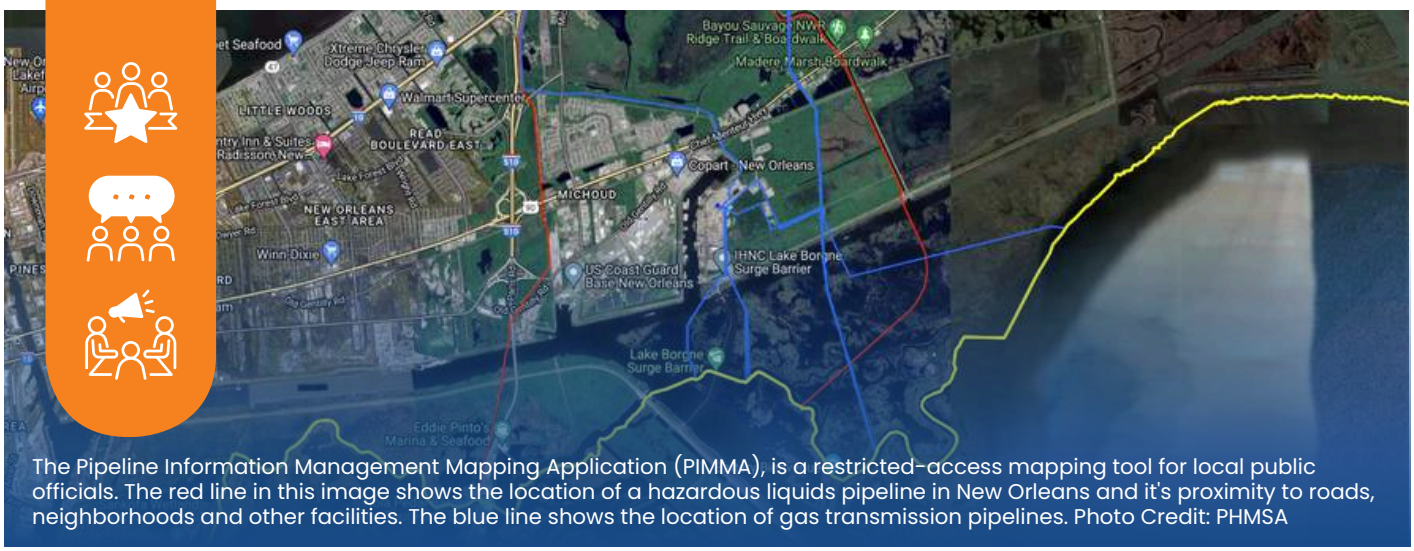
4 How do I help protect important structures, foliage or animals on a right-of-way?

In most cases, issues related to existing structures, foliage or animals on or near the right-of-way are resolved before pipeline construction and addressed within the easement agreement. If not, landowners, permitting, planning, zoning and emergency management officials should contact the pipeline operator to discuss options. This could include relocating a structure, arranging to inspect the right-of way at ground level, testing or other accommodations.

5 What special procedures may be needed to build roads or install utilities on an existing right-of-way?

Construction plans may require hydro excavation to confirm the location of existing pipelines before installing new roads or utilities. Pipeline operators may request to be onsite during construction activity. Always contact 811 before beginning a project near an existing pipeline right-of-way even if your agency is typically exempt from state One Call requirements.

811



The Pipeline Information Management Mapping Application (PIMMA), is a restricted-access mapping tool for local public officials. The red line in this image shows the location of a hazardous liquids pipeline in New Orleans and it's proximity to roads, neighborhoods and other facilities. The blue line shows the location of gas transmission pipelines. Photo Credit: PHMSA

PIPELINE MAPS ENHANCE COMMUNITY SAFETY

Want to know the location of pipelines in your community and the products they transport? Access to pipeline maps differs from state-to-state, but the following resources can assist public officials in requesting maps from pipeline operators and accessing available maps online.

NATIONAL PIPELINE MAPPING SYSTEM

The Pipeline and Hazardous Materials Safety Administration (PHMSA) provides access to maps through the National Pipeline Mapping System (NPMS). Local, state, tribal and federal officials can access detailed maps of hazardous liquid and gas transmission pipelines in their jurisdiction by registering for NPMS's Pipeline Information Management Mapping Application (PIMMA). Register for PIMMA access to view maps and request mapping files at: **qrco.de/Access_PIMMA**

PIPELINE ASSOCIATION FOR PUBLIC AWARENESS

The Pipeline Association for Public Awareness offers its more than 300 pipeline and utility operator members the ability to share pipeline location information with local, state and tribal officials online through the Pipelines Nearby and the password-protected PipeVision application. Access Pipelines Nearby at: **qrco.de/Pipelines_Nearby** and Pipe Vision at: **qrco.de/Access_PipeVision**

NATIONAL ASSOCIATION OF PIPELINE SAFETY REPRESENTATIVES

National Association of Pipeline Safety Representatives (NAPSR) provides regulatory oversight for natural gas and gas utility lines in all states, and sometimes hazardous liquids pipelines and gas utility lines in all states.

NAPSR members can help state and local government officials access and request pipeline mapping information for their jurisdiction. Contact your state's NAPSR program manager for assistance requesting pipeline maps and for access to state-specific resources at: **qrco.de/NAPSR-Resources**

STATE ONE CALL CENTERS

The 811 system and state One Call centers are a hub for connecting public works departments, community planners and other local and tribal officials with pipeline location information. Learn more about 811 in your state at: **qrco.de/One_Call_Laws**

PIPELINE MAPS & INFORMATION TOOLS

Pipeline maps are available to local emergency and public officials in a variety of online resources. The table below compares features and information available through four different information sources for local public and emergency officials. Pipeline operators are always the best resource for information about their lines in your community.

Information & Features	Public Viewer[1]	PIMMA[1]	PIPEVISION[2]	Pipeline Markers[3]
Includes evacuation distance guidance			✓	
GIS data files available for request		✓		
Includes operator emergency contact information		✓	✓	✓
Includes operator non-emergency contact information	✓	✓	✓	
Includes pipeline product information	✓	✓	✓	✓
Identifies location of transmission pipelines	✓	✓	✓	✓
Identifies location of distribution mains			✓	✓
Identifies location of gathering pipelines			✓	✓
Identifies location of offshore pipelines	✓	✓		✓
Allows local officials to help operators locate identified sites[4] near pipelines in their community		✓	✓	✓
Password-protected access to data		✓	✓	
Data is available for the public	✓			✓

1. Public Viewer and PIMMA are managed by the Department of Transportation's Pipeline and Hazardous Material Safety Administration as part of the National Pipeline Mapping System (NPMS). Information in NPMS is updated annually and limited to transmission pipelines.

2. PipeVision is managed by the Pipeline Association for Public Awareness. PipeVision is limited to data submitted by members of the Association.

3. Pipeline markers indicate the approximate, but not exact location of underground lines. Permanent pipeline markers are located along transmission pipelines, but they may not be located continuously along gathering, distribution or offshore pipelines.

4. "Identified Sites" refers to indoor or outdoor places near a pipeline where a large number of individuals regularly gather (i.e. parks, stadiums, shopping malls, etc.)

SAFEGUARDING COMMUNITIES

Promoting Safe Horizontal Directional Drilling (HDD) Practices

In the wake of the Infrastructure Bill, communities nationwide are poised for a surge in construction projects aimed at fortifying our nation's infrastructure. Amidst this wave of progress, it's important to bring safety to the forefront, particularly when it comes to Horizontal Directional Drilling (HDD), a vital technique for installing pipelines and utilities underground.

Horizontal Directional Drilling (HDD) is a construction technique where a borehole is drilled horizontally under a designated area and a utility is pulled through that borehole. A drill head guides the drilling pipe electronically to ensure angle, depth, and the exit point adhere to designed engineering plans.

HDD allows for the installation of underground pipes and conduits with minimal surface disruption, offers numerous benefits, including reduced environmental impact and less disruption to communities. However, it also presents unique safety challenges, especially when conducted near existing pipelines and utilities.

Public officials play a pivotal role in promoting safe work practices within their communities, especially in the context of HDD operations. One of the most critical steps in ensuring safety during HDD projects is by calling or clicking 811, the national "Call Before You Dig" service, before excavation begins. This initiates the process of locating and marking underground pipelines and utilities, allowing contractors to work with confidence and avoid accidental damage.

Furthermore, public officials must advocate for robust coordination between contractors and utility operators throughout the HDD process.

Clear communication and collaboration are essential to prevent conflicts and ensure that construction activities proceed smoothly. By facilitating dialogue between stakeholders, public officials can help mitigate risks and address any concerns that may arise during the course of the project.

In addition to coordination and communication, ongoing education and training are crucial components of promoting safety in HDD operations. Public officials should work to raise awareness within their communities about the potential hazards associated with HDD and the importance of following established safety protocols. By empowering residents with knowledge, public officials can foster a culture of safety that extends beyond the construction site and into the community at large.

As stewards of public safety, public officials must lead by example, prioritizing safety in all infrastructure projects, including HDD. By advocating for the responsible use of HDD techniques, promoting adherence to safety guidelines, and facilitating collaboration between stakeholders, public officials can ensure that development projects proceed safely and sustainably, benefiting both present and future generations.

Points of Consideration:

- **Public Safety Risk:** Damaged underground utilities from HDD accidents endanger first responders and the public.
- **Lack of Awareness:** Firefighters and other emergency responders may not be familiar with HDD operations and potential hazards.
- **Importance of Safe Procedures:** Following safety measures like locating and marking underground utilities before digging is crucial.
- **State Legislation:** Some states are considering legislation to empower responders to stop unsafe HDD operations.
- **Focus on Prevention:** Accidents are preventable by prioritizing safety over speed during HDD projects.

Recommendations:

- **Educate Emergency Responders:** Train responders on HDD operations and how to identify potential safety risks.
- **Collaboration is Key:** Open communication between HDD operators and emergency services is essential.
- **Prioritize Safety:** Always prioritize safety procedures over expediency during HDD projects.

By working together, educating, and keeping the lines of communication open, HDD operators and public officials can ensure the safety of both the public and emergency responders.

PRE-EXCAVATION CHECKLIST

Download an excavation safety checklist for projects near pipelines at: **qrco.de/ES_Checklist**

ONE CALL LAW UPDATES

State-specific One Call laws outline requirements for notification systems and set standards for locating and marking pipelines and underground facilities. This guide, produced by the Pipeline Association for Public Awareness, includes updates on laws in 18 states. **qrco.de/Law_Updates**

EXCAVATION SAFETY

TIPS FOR PUBLIC WORKS, MUNICIPAL & COUNTY OFFICIALS

Public Works and other municipal excavation activities often require coordination with pipeline and utility companies. Encourage work crews to adopt the following critical safety steps when excavating near underground lines.

ALWAYS CALL OR CLICK 811 BEFORE DIGGING

Call or click 811 or contact your state's One Call center at least 2-3 days before digging, grating or excavating in compliance with state law to request a "dig ticket." For large or unusual projects, request planning, design and meet tickets before starting your project. These tickets are available in most states and can be requested during the project planning phase.

PRE-MARK THE AREA & WAIT FOR OPERATORS TO MARK LINES

Identify the excavation area for line locators by pre-marking or white-lining using white marking paint. Wait to start your job until all pipeline and utility operators mark the location of their lines or indicate "all clear."

DIG WITH CARE & BACKFILL PROPERLY

Dig with care using appropriate hand and vacuum-digging tools near pipelines and utility lines. Backhoes, augers and other mechanical equipment should not be used to expose underground lines. Maintain temporary flags, stakes or paint marks until you have finished digging. If you expose a pipeline, a pipeline or utility representative will typically request to be onsite to inspect the pipe before you backfill and compact the soil.

REPORT DAMAGE OR LEAKS

If a pipeline is dented, scraped or damaged while digging or you suspect a pipeline leak, immediately leave the area and warn others to stay away. From a safe location, call 9-1-1 and notify the pipeline or utility owner. In some states, you may be required to also notify the One Call center. Do not operate mechanical equipment in an area where you suspect a leak.

KNOW THE HAZARDS

PRODUCTS AND FACILITIES SAFETY INFORMATION FOR PUBLIC OFFICIALS

Scan here for our Emergency Response Checklist

NATURAL GAS
is a naturally occurring resource formed millions of years ago because of heat and pressure acting on decayed organic material. It is extracted from wells and transported through gathering pipelines to processing facilities. From these facilities, it is transported through transmission pipelines to distribution pipeline systems. The main ingredient in natural gas is methane (approximately 94 percent).

Natural gas is odorless, colorless, tasteless and nontoxic in its natural state. An odorant (called mercaptan) is normally added when it is delivered to a distribution system. At ambient temperatures, natural gas remains lighter than air. However, it can be compressed (CNG) under high pressure to make it convenient for use in other applications or liquefied (LNG) under extremely cold temperatures (-260° F) to facilitate transportation.

PETROLEUM GAS
is a mixture of gaseous hydrocarbons, primarily propane, butane and ethane. These products are commonly used for cooking, heating and other industrial applications. They are easily liquefied under pressure and are often stored and transported in portable containers labeled as Liquified Petroleum Gas (LPG). When transported in transmission pipelines they may also be identified as Highly Volatile Liquids (HVLs) or Natural Gas Liquids (NGLs). Vaporized LPG may also be found in smaller gas distribution systems. Typically, LPG is a tasteless, colorless and odorless gas. When transported via transmission pipelines it normally will not have odorant added. Odorant is added when LPG is offloaded to a distribution pipeline system or transport tanks to facilitate leak detection. Ethylene and propylene do have a faint natural odor like petroleum.

PETROLEUM LIQUIDS
is a broad term covering many products, including: crude oil, gasoline, diesel fuel, aviation gasoline, jet fuel, fuel oil, kerosene, naphtha, xylene and other refined products. Crude oil is unrefined petroleum that is extracted from beneath the Earth's surface through wells. As it comes from the well, crude oil contains a mixture of oil, gas, water and other impurities, such as metallic compounds and sulfur. Refinement of crude oil produces petroleum products that we use every day, such as motor oils and gasoline. Crude oil is transported from wells to refineries through gathering or transmission pipelines. Refined petroleum products are transported in transmission pipelines to rail or truck terminals for distribution to consumers. Odorant is not added to these products because they have a natural odor.

ANHYDROUS AMMONIA
is the liquefied form of pure ammonia gas. It is a colorless gas or liquid with an extremely pungent odor. It is normally transported through transmission pipelines and is used primarily as an agricultural fertilizer or industrial refrigerant.

CARBON DIOXIDE
is a heavy gas that is normally transported in transmission pipelines as a compressed fluid. It is a naturally occurring, colorless, odorless and tasteless gas used in various industries, including meat packaging, produce, petroleum, beverage industries. Under normal conditions, carbon dioxide is stable, inert and nontoxic. However, it acts as asphyxiant when released in large concentrations to the atmosphere.

ETHANOL
(also called ethyl alcohol) is a colorless liquid that is widely used as an additive to automotive gasoline. It may be transported in buried transmission pipelines. Ethanol has a natural odor similar to gasoline and will mix easily with water.

HYDROGEN GAS
is commonly produced from the steam reformation of natural gas. It is frequently used near its production site, with the two main uses being petrochemical processing and ammonia production. Hydrogen is a flammable gas that is colorless, odorless and lighter than air. It is nontoxic, but can act as an asphyxiant.

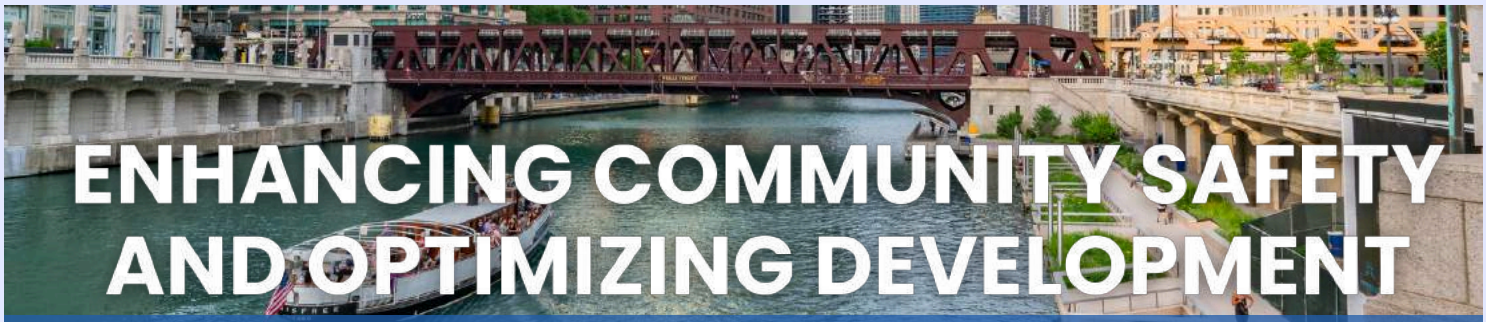
"SOUR' CRUDE OIL & "SOUR"GAS
refer to products containing high concentrations of sulfur and hydrogen sulfide. Products containing little or no sulfur are often referred to as "sweet." Hydrogen sulfide (H2S) is a toxic, corrosive contaminant found in natural gas and crude oil. It has an odor like the smell of rotten eggs or a burnt match. Exposure to relatively low levels of hydrogen sulfide (500 ppm) can be fatal.

LEAK, HAZARD & EMERGENCY RESPONSE INFORMATION

	NATURAL GAS	PETROLEUM GAS	PETROLEUM LIQUIDS	ANHYDROUS AMMONIA	CARBON DIOXIDE	ETHANOL	HYDROGEN GAS	SOUR CRUDE OIL (H_2S)	SOUR GAS (H_2S)
INDICATIONS OF A LEAK									
SEE – liquid pooling on the ground			●			●		●	
SEE – a white vapor cloud that may look like smoke		●		●					
SEE – fire coming out of or on top of the ground	●	●					●		●
SEE – dirt blowing from a hole in the ground	●	●		●	●		●		●
SEE – a sheen on the surface of water		●	●					●	
SEE – an area of frozen ground in the summer	●	●			●		●		●
SEE – an unusual area of melted snow in the winter	●	●			●		●		●
SEE – an area of dead vegetation	●	●	●			●	●	●	●
SEE – bubbling in pools of water	●	●			●		●		●
HEAR – a loud roaring sound like a jet engine	●	●							●
HEAR – a hissing or whistling noise	●	●		●	●		●		●
SMELL – an odor like rotten eggs or a burnt match	[1]	[1]						●	●
SMELL – an odor like petroleum liquids or gasoline		●	●			●		●	
SMELL – an irritating and pungent odor				●				●	●
HAZARDS OF A RELEASE									
Highly flammable and easily ignited by heat or sparks	●	●	●			●	●	●	●
Will displace oxygen and can cause asphyxiation	●	●		●	●		●		●
Vapors are heavier than air and will collect in low areas		●	●	●	●	●		●	●
Contact with skin may cause burns, injury or frostbite		●	●	●	●	●	●		●
Initial odor may be irritating and deaden the sense of smell								●	●
Toxic and may be fatal if inhaled or absorbed through skin				●				●	●
Vapors are extremely irritating and corrosive				●				●	●
Fire may produce irritating and/or toxic gases	●	●	●	●		●	●	●	●
Runoff may cause pollution			●	●		●		●	
Vapors may form an explosive mixture with air	●	●	●			●	●	●	●
Vapors may cause dizziness or asphyxiation without warning	[1]	[1]			●		●		
Is lighter than air and can migrate into enclosed spaces	●						●		
EMERGENCY RESPONSE									
Avoid any action that may create a spark	●	●	●			●	●	●	●
Do NOT start vehicles, switch lights or hang up phones	●	●	●			●	●	●	●
Evacuate the area on foot in an upwind and/or uphill direction	●	●	●	◆[2]	◆[2]	●	●	◆[2]	◆[2]
Alert others to evacuate the area and keep people away	●	●	●	◆[2]	◆[2]	●	●	◆[2]	◆[2]
From a safe location, call 911 to report the emergency	●	●	●	●	●	●	●	●	●
Call the pipeline operator and report the event	●	●	●	●	●	●	●	●	●
Wait for emergency responders to arrive	●	●	●	●	●	●	●	●	●
Do NOT attempt to close any pipeline valves	●	●	●	●	●	●	●	●	●
Take shelter inside a building and close all windows				◆[2]	◆[2]			◆[2]	◆[2]

[1] The majority of these products are naturally odorless and only certain pipeline systems may be odorized. Odorant can also fade or be scrubbed out when leaking products migrate through soil.

◆[2] Sheltering in place is an alternative to evacuation when the products are toxic or the risk of fire is very low. Refer to "Shelter-In-Place or Evacuate Guidance Document" provided online at: **qrco.de/Evacuation**



ENHANCING COMMUNITY SAFETY AND OPTIMIZING DEVELOPMENT

Chicago Achieves 50% Reduction in Utility Damages Through Effective Partnerships

By Matthew Peterson, Assistant Commissioner, CDOT-Division of Infrastructure Management, Chicago DOT
Jai Kalayil, Deputy Commissioner, CDOT-Division of Infrastructure Management, Chicago DOT

The Chicago Department of Transportation (CDOT) has achieved a remarkable 50% reduction in utility damages since 2017 through implementing a comprehensive workflow and collaborative approach to projects that impact underground infrastructure. This case study is being provided as an opportunity for public officials who want to lead the way in safe, efficient community development.

Project Design Review. The workflow begins when a project owner submits a project for review to CDOT's Office of Underground Coordination (OUC). All new installations in the public way must receive OUC approval before moving forward. OUC staff distribute the project to 29 utility owners for review. If a utility owner determines that the proposed installation encroaches upon existing infrastructure, they ask the project owner to redesign the project. OUC approves the plan only after all utility owners agree that it can proceed. In this way, Division of Infrastructure Management (DIM) reduces the likelihood of damage before excavation begins.

Right of Way Permitting. Following project review, the project owner can apply for a work permit. Only licensed contractors with approved OUC projects can request work permits. Permits incorporate and codify the OUC requirements. For example, the permit address range is limited to the specific sections of the right-of-way and address range is reviewed by OUC members.

Locating. After the Permit Office issues the work permit, the contractor can request a dig ticket by calling (or clicking) "811." Chicago is unique in that CDOT operates Chicago's One Call center known as 811 Chicago. The upshot of having the One Call affiliated with CDOT is that staff, technology, and laws are aligned. For example, the 811 system will not allow staff to issue a public right of way dig ticket without a valid permit. And, since the permit is considerate of OUC proscriptions, the dig ticket would necessarily be limited to the approved address and time parameters.

Enforcement. The final step in the CDOT's workflow is enforcement. CDOT has two dedicated inspection units: **public way inspections** and **811 inspections**. Public way inspectors ensure contractors comply with permit terms, while 811 inspections investigate every reported utility damage in Chicago. Both units have the authority to revoke permits and issue sanctions if necessary.

CDOT's comprehensive workflow has proven effective in reducing utility damages by 50% over five years. By adopting similar strategies, public officials can enhance the safety and efficiency of infrastructure development in their own communities. Collaborative project design, stringent permitting, integrated locating systems, and effective enforcement are key elements that can contribute to safer and more efficient utility management.

Key Takeaways for Public Officials

1. Collaborative Design Review: Involve all relevant utility stakeholders in the project design phase to preemptively identify and resolve potential conflicts. This collaborative approach can significantly reduce the risk of utility damages.

2. Stringent Permitting Processes: Ensure that permits are only issued to licensed contractors with approved projects. Integrating project review criteria into the permitting process helps maintain high safety and compliance standards.

3. 811 Every Time: Require utilization of the 811/One Call system. This ensures that excavation activities are authorized and monitored, reducing the likelihood of accidental utility damages.

4. Effective Enforcement: Establish dedicated inspection units with the authority to enforce compliance and address violations. Effective enforcement ensures that contractors adhere to safety protocols and project specifications.

To learn more about CDOT's damage prevention workflow, please read the CGA's case study: **The Path to 50-in-5: 811 Chicago Reduced Damages by 50% Over Five Years**
https://qrco.de/pathto50

PROPOSED RULEMAKING TO ENHANCE EXISTING REGULATIONS FOR THE SAFE TRANSPORTATION OF CARBON DIOXIDE (CO2)

What is CO2?

Carbon dioxide (CO2) is a naturally occurring heavy gas that is colorless, odorless, and tasteless. It is utilized across various industries, including meat packaging, produce, petroleum, and beverages. Under normal conditions, CO2 is stable, inert, and nontoxic. However, it can act as an asphyxiant when released in large concentrations into the atmosphere. When CO2 is released into the air, it naturally vaporizes into a gas that is heavier than air and dissipates.

How is it Transported?

CO2 is typically transported in transmission pipelines as a compressed fluid.

Is it Regulated?

Yes, carbon dioxide has long been subject to regulatory oversight to ensure its safe transportation through pipelines.

Existing Safety Regulations:

Before the new proposed rulemaking, several safety regulations have been in place to promote the safe transportation of CO2 through pipelines. These regulations are similar to the standards in place for all regulated pipeline systems.

Proposed Rulemaking Update:

On February 1, 2024, PHMSA submitted a Notice of Proposed Rulemaking (NPRM) to the White House Office of Management and Budget (OMB) for pre-publication review. This proposed NPRM aims to enhance existing safety standards for CO2 pipelines in anticipation of an increase in the number and volume of CO2 transported.
The proposed rulemaking includes updated requirements for emergency preparedness and response, ensuring the regulations continue to protect public safety and the environment effectively.

Process for the Proposed Rule to Become Law: To become law, the proposed rule undergoes several steps: PHMSA submits the NPRM to the OMB for review. Once approved, it is published in the Federal Register for public comment. After reviewing feedback, PHMSA finalizes the rule, and upon OMB approval, it is published with an effective date.

EXISTING CO2 SAFETY REGULATIONS

1 Pipeline Safety Standards:

- The Pipeline and Hazardous Materials Safety Administration (PHMSA) has established comprehensive safety standards for the design, construction, operation, and maintenance of CO2 pipelines.
- These standards include requirements for materials, welding, pressure testing, and corrosion protection to ensure the integrity and safety of the pipelines.

2 Leak Detection and Monitoring:

- CO2 pipelines must be equipped with systems to detect leaks and monitor pipeline integrity.
- Operators are required to conduct regular inspections and maintenance to identify and repair any potential issues that could compromise pipeline safety.

3 Emergency Preparedness

- Pipeline operators are mandated to conduct public awareness programs to inform communities about CO2 pipelines, potential risks, and safety measures.
- These programs aim to educate the public on how to recognize and respond to CO2 pipeline emergencies.

4 Public Awareness and Education:

- Pipeline operators are mandated to conduct public awareness programs to inform communities about CO2 pipelines, potential risks and safety measures.
- These programs aim to educate the public on how to recognize and respond to CO2 pipeline emergencies.

5 Regulatory Oversight and Enforcement:

- PHMSA conducts regular inspections and audits of CO2 pipelines to ensure compliance with safety regulations.
- Non-compliance can result in penalties and enforcement actions to maintain high safety standards.

Pipeline Emergency Preparedness Best Practices

The Six P's of Emergency Planning

Emergency Response Community:

For over 40 years I have been involved in emergency response, planning, and training. I was a fire officer and HAZMAT instructor -- and my community, Wallingford, CT, has more than 14 major chemical institutions.

I am writing this letter to share an important message that I hope you will take away:

Any community with hazardous materials or pipelines within its boundaries NEEDS to have a plan and be ready to respond to an accident or release. With more than 2.6 million miles of pipelines in the United States, this likely includes your community.

Problems normally occur with hazardous materials when a community says, "I was unaware they were located here."

Emergency planners and pipeline operators must know the chemicals, hazards, and risks. In over 40 years associated with emergency response planning, I believe there are six critical fundamentals of planning. I refer to them as ***The Six P's of Emergency Planning:***

POLICY

Policy serves as a guiding principle and a defined course of action. In the context of hazardous materials and pipeline transportation, it mandates a proactive approach, emphasizing the anticipation and prevention of incidents rather than merely reacting to them.

PROCEDURES

One of the stumbling blocks I have seen in many procedures is in 4-inch binders. They are often extensive and used only to be compliant. Compliance does not mean competence. How can you strive for procedures that go beyond compliance to provide practical guidance in a pipeline emergency?

PREVENTION

The more time we spend preventing emergencies from happening, the safer our community will be. The ultimate prevention in pipelines and utilities is 811 – "Call or Click Before You Dig." Community leaders can prevent accidents by promoting and requiring the use of this free service within their jurisdiction.

PERFORMANCE

Performance means approaching your duties with dedication and a sense of responsibility. High-quality performance is the result of thorough preparation and consistent practice, ensuring that every task is executed with excellence and precision.

PREPAREDNESS

This step is all about getting ready. Do you know the pipeline operators in your area and the products they transport in their pipelines? Do you have the resources and capabilities to respond and mitigate the emergency you are planning for? Have you received training or participated in drills or tabletops around pipeline emergencies? We must be prepared, and this is bolstered by all other P's as well.

PRACTICE

Doing a task repeatedly is exercise. The more we perform a skill, the more competent we are. Successful performance requires successful practice.

By embracing the six P's, we lay the groundwork for a safer community. It's crucial that pipeline operators, emergency planners, and local emergency community planners come together at the table. As technology advances rapidly, fostering strong liaisons among these stakeholders will enhance our collective success in safeguarding our communities.

The moment we begin to prioritize and communicate safety is the moment we start building a safer community. The time is now to turn this into reality by developing best practices and forging strong working relationships between pipeline operators and the community.

I would like to invite you – emergency responders, emergency planners and public officials – to join me at a very special event where we will be creating open dialogue about best practices for pipeline emergency response. Find out more about this special webinar event on page 5.

Sincerely,
Mike Callan
HAZMAT Trainer

24/7 UTILITY SAFETY

Pipeline Association for Public Awareness

pipelineawareness.org/247safety

Aerial Patrols

Operators regularly survey their pipeline rights-of-way from the sky

Ground Patrols

Operators monitor their pipelines from the ground and respond to potential issues along their rights-of-way

Communicating with Neighbors

Operators regularly communicate with the community and their customers about safety around their pipelines and facilities

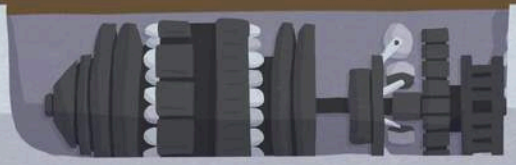
One Call

One Call centers communicate with utility locators after a One Call ticket has been submitted so appropriate utilities are properly marked before excavation

811 Click Before You Dig

In-Line Inspection

Technology allows operators to monitor their utilities from the inside out



Pipeline Integrity

Pipelines are rigorously inspected and tested to ensure they are operating safely. Pipeline pressure, movement, vibration, and temperatures are analyzed

Preventative Maintenance

If in-line inspections identify anything abnormal, pipelines are exposed, examined, and if necessary, repairs are made

SHARE WITH YOUR COMMUNITY

PIPELINES IN YOUR COMMUNITY

Gathering, transmission and distribution pipeline networks safely transport natural gas, gasoline, crude oil and other energy products across the country and to homes and businesses in your community. Gathering lines transport natural gas and other energy products from production sites to processing facilities and connect to transmission lines that carry energy products from one part of the state to another and across the country. Distribution lines are located throughout communities and connect to homes and businesses.

PIPELINE MAPS

Use the National Pipeline Mapping System, **bit.ly/PHMSA-NPMS** or Pipelines Nearby **pipelinesnearby.org** to learn more about the pipelines in your community. Pipeline and utility operators also maintain maps of their pipeline system.

PIPELINE MARKERS & METERS

Pipeline markers and gas meters identify the general location of underground pipelines. Markers include the pipeline operator's name, emergency number and product transported. Some but not all distribution lines are identified by pipeline marker signs including curb markers. Gathering lines are generally located in rural areas and may or may not be identified with permanent pipeline markers.

SUSPECT A PIPELINE LEAK?

If you suspect a pipeline leak, leave the area, call 9-1-1 and notify the pipeline or utility operator. Do not operate any device that might cause a spark near a pipeline leak.

Signs of a leak can include:

- Smell of "rotten eggs" (if odorant is added) or a chemical smell
- Hissing, whistling, or roaring sound near pipeline or gas appliance
- Sheen on water or continuous bubbling, dying vegetation, dirt spraying in air

KEEPING PIPELINES SAFE

Pipeline and utility operators protect underground lines and host communities through employee training, regular maintenance and testing, corrosion protection, system monitoring, cybersecurity protocols and inspections to check for leaks or other damage. Operators also conduct regular maintenance activities within the pipeline easement, including mowing, trimming and tree removal. Pipeline Integrity Management plans are available for review and outline an operator's ongoing safety and maintenance activities.

EMERGENCY RESPONSE COORDINATION

A pipeline leak can ignite or contaminate water or soil. While first responders secure the area, assess the scene and respond to immediate medical and safety needs, pipeline and utility personnel will restrict the flow of gas or other products and will take action to minimize the impact of the emergency and protect the public. Public safety personnel should not attempt to operate pipeline valves.

ALWAYS CONTACT 811 BEFORE DIGGING

Call or click 811 to request a "dig ticket" at least 2-3 days before starting work in compliance with state law. Wait until all lines are marked and dig with care using non-mechanical tools near underground lines. If a pipeline is damaged, immediately report the damage from a safe location. For more information, visit **clickbeforeyoudig.com** or **call811.com**.

This page is available in English, Vietnamese, Mandarin Chinese, and Spanish!

qrco.de/Pipelines_Community

PIPELINE MARKER ANATOMY

WHAT TO KNOW

- Pipeline markers **vary in size, shape and color**, but always include common information about the pipeline or utility line.
- Pipeline markers **do not** identify the exact location, depth or number of pipelines in the area.
- Pipelines **do not** always run in a straight line between markers.
- Pipeline markers are located along transmission pipelines, but they **may not** be located continuously along gathering or distribution lines.
- Pipeline markers **are not** typically used to identify the location of natural gas service lines that connect directly to homes or businesses.
- Pipeline markers **are protected by federal law**, and intentionally damaging or removing one can result in a fine.
- Report missing or damaged pipeline markers to the pipeline operator so they **can be replaced**.

REQUEST INFO

We want to hear from you. Contact us online or by email to request additional information from pipeline companies. Your request will be forwarded to all pipeline member companies operating facilities in your state/county.

ONLINE
pipelineawareness.org/request-info

EMAIL
admin@pipelineawareness.info

FEEDBACK

Complete a short survey and tell us what you found useful in this publication and any topics you'd like us to include in the future. **qrco.de/2024-Survey**

Pipeline Association *for* Public Awareness

DID YOU KNOW?

Failure to notify/contact 811 continues to be the most persistent singular damage root cause year-over-year (CGA's DIRT Annual Report for 2022).

SAFETY TIP:

Focus 811 outreach and education on behavior change – particularly consistent and effective use of 811 (call or click).

811 Vs 911

Primary Responsibility: Coordinates pipelines/utility line locating and marking prior to excavation projects

During Emergencies: Can alert operators who are near but not directly involved

Contact Instructions: Call prior to excavating, grating or ditch clearing and to comply with damage reporting requirements

Primary Responsibility: Coordinates pipeline emergency notifications and initial response actions

During Emergencies: Can access pipeline maps, pipeline product information and pipeline emergency contact information

Contact Instructions: Call 911 immediately and notify the pipeline operator if you suspect a pipeline leak or witness intentional damage or pipeline vandalism

...continued from cover

"We responded to such an event, and upon arrival we were thankful there was no fire or explosion. However, the pressure of trying to stay calm while blocking traffic and evacuating nearby buildings with that screaming sound, reminded me time was not on our side. We were fortunate that day, as the event was controlled without loss of life. Reflecting on how effective my team was on that run reminded me how important relationships with operators are."

Captain Wallingford emphasized the importance of clear communication among all response parties. He noted, "Not just the pipeline operator, but excavators and 911 dispatchers also need to be trained on the information emergency responders need. Rest assured, when the 911 call is received, we're rolling. It would be helpful to know how many crews are needed, what special equipment may be needed, especially in the rural areas where many of the long-distance [transmission] pipelines are located."

"We all want the same thing. We have the same goal as the pipeline operators. We want to protect the public and reduce line strikes. I can tell you that life safety is the first priority for emergency responders. The main reason for building relationships with operators is to find ways to achieve our common goal more effectively. We teach our new recruits that utility operators and emergency responders are an extended team, but we have different responsibilities when we meet onsite at an incident. If we do our job and allow the operators to do their job, we have fulfilled our mission."

There are specific pieces of information that are critical for emergency responders to be aware of in advance of a potential incident response, in order to fulfill the mission of a safe and effective response:

- The names of companies operating pipelines in your community along with their emergency and non-emergency contact information
- The approximate location of the pipelines and the products they carry
- The physical indications of a leak and the possible hazards associated with a release
- The potential impact on the community and what steps should be taken to protect the public
- The response capabilities of the pipeline companies and how to engage in mutual assistance with operators

This information can be obtained through utilizing the mapping resources on page 4 of this newsletter and by contacting and meeting with the operators in your area. Additionally, the Pipeline Association for Public Awareness offers free training and resources for emergency responders, including a Pipeline Incident Response Checklist. There is also a guidance document for the 9-1-1 centers. You can find all this and more at pipelineawareness.org/training.

Thank you to Captain Wallingford for underscoring the critical importance of communication, training, and collaboration between emergency responders and pipeline operators to ensure public safety.

BEST PRACTICES: UNDERGROUND SAFETY & DAMAGE PREVENTION

The Common Ground Alliance provides free access to best practices for underground safety and damage prevention. Download a copy at: **qrco.de/CGA_BP**

ONE CALL REQUIREMENTS

Download a summary of One Call requirements for all states at: **qrco.de/One_Call_Laws**