



## Pipeline Emergency Preparedness & Training: What Would You Do? – Responding to a Security-Related Pipeline Incident

Security threats are an ever increasing concern for public and private sector entities, including pipeline operators. Cyber-attacks on pipeline control systems and intentional damage to physical assets have occurred in the past, and continue to be a threat.



So, how is this a concern for public sector first responders? Consider the following scenario:

*Your department has been dispatched to a reported pipeline dig-in and subsequent release of natural gas. This is a fairly typical call, but in this case the details and incident specifics are significantly different. Upon arrival, you are advised by a local pipeline operator representative that a track hoe, pre-positioned for right of way maintenance, had been commandeered by an environmental extremist who intentionally ruptured the pipeline. The individual triggering the rupture was seriously injured by the force of the escaping gas.*

*The incident commander is informed by pipeline operations personnel that a mainline valve upstream from the rupture site had been previously damaged and rendered unusable in what has developed into a coordinated, multi-site domestic terrorist attack. As the incident response progresses, the Incident Commander is informed that an environmental extremist group is claiming*

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## Best Practices

“We hold day and night training monthly that includes tactics and strategies for major gas leaks.” – **Lake City Fire Dept., Chief Randy Burnham**

“We test with reality-based scenarios. Our Deputies respond to the chosen scene and scenario. They self-critique and group critique afterwards on the effectiveness of the drill.”

“I am both a Fire Chief and work at a Natural Gas utility in N.J. We have been integrating and enhancing our emergency response procedures and your articles seem to coincide with what we are doing. I like to show it’s not just me saying it, but a standard elsewhere.”

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*responsibility for the attack and is threatening further actions against the pipeline operator including placing explosive devices at pipeline facilities.*

These events may sound far-fetched, but similar incidents have occurred on pipeline systems around the world, including in the United States. As some radical opposition groups advance their causes, the potential for domestic terrorism against pipelines becomes an increasing concern.

How should public sector emergency responders prepare for and respond to acts of domestic terrorism against pipelines? First, engage in discussions regarding security with the pipeline operators located in your jurisdiction. In addition to traditional information sharing related to pipeline emergency response, conversations related to security procedures, access control, and anti-terrorism processes should be conducted. Most importantly, getting to know your local pipeline operations representatives and understanding their operations is key to effective security awareness.

From a response perspective, public sector responders should treat every dispatch to a pipeline incident as a unique event and associated set of circumstances. Thorough scene size-ups should be conducted and include identification of traditional hazards, as well as security threats. Particular attention should be paid to suspicious persons or items such as possible explosive devices. Further, vehicles near the incident site that appear abandoned may hold clues indicating signs of an intentional act.

Domestic terrorism acts on pipelines are not frequent events faced by public sector responders. However, prudence dictates that responders consider these events in their pre-planning and response coordination dialogue with pipeline operators.

### **Pipeline Emergency Response Tactics: Preparing for and Responding to Breakout Tank Fires**

Breakout tanks are found on pipeline systems transporting hazardous liquids. Consisting of various shapes, sizes, and construction types, all breakout tanks serve a common function - to relieve surges and temporarily store product transported by pipelines.

While incidents involving breakout tanks are comparatively infrequent, they can occur and do require unique pre-planning and awareness. When conducting pre-planning activities, it is important to understand the type of tank, and whether they store product at

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To view API's Pandemic Planning Guide, and other resources on oil and natural gas safety during COVID-19, go to:  
<https://www.api.org/news-policy-and-issues/pandemic-information>

### **Did you know ...**

811 is the nationally recognized three digit number to provide notification of pending excavation activity so that utilities can properly locate underground assets. Help us spread the word for safety ...**Call 811 before you dig!**



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

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atmospheric pressure or at high-pressure. It is important to be aware of the product or products that can be contained in the tanks. Pipeline operators can supply safety data sheets (SDS) for products stored on site to aid in pre-planning and response efforts.

Breakout tank construction and inspections are regulated by the Pipeline & Hazardous Materials Safety Administration (PHMSA). These regulations dictate minimum standards for assembly, materials, and inspection frequency. Pipeline operators also maintain extensive fire safety and emergency management plans that address a myriad of contingences, including breakout tank fires.



In addition to tank construction and product identification, assessment of firefighting capabilities and resources are a priority. Does the pipeline operator have an internal fire response function? If so, how are public sector emergency responders integrated into the response? Is there enough availability of firefighting water supply, foam, and other resources that may be necessary? This includes having an operational understanding of the use of facility emergency response/firefighting systems and equipment.

When responding to a breakout tank fire, the Incident Command System should be employed, and an effective scene size-up conducted. Response considerations should include:

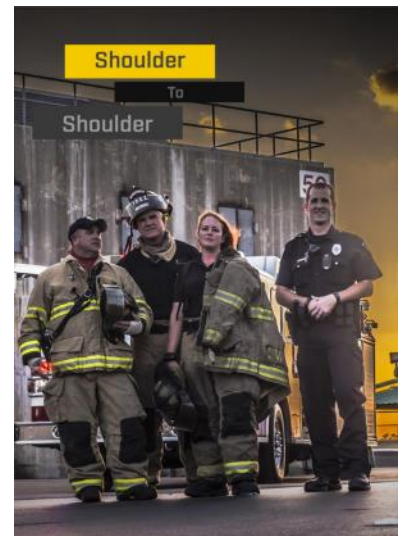
- Are there personnel rescue issues in the immediate incident area? Are all facility personnel accounted for?
- Is it possible to isolate facility operations to eliminate or reduce the flow of the fuel source feeding the fire?
- Does the pipeline operator have internal or contract resources trained and equipped to fight the fire?
- What are the physical characteristics of the product involved in the fire and does it require the use of any specialized personal protective equipment?
- Is product being released from the tank, and if so what containment measures should be employed?

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## First Responder Training Video Series

Learn how to safely and effectively respond to a pipeline emergency, how pipelines work, how different products impact response, response leading practices, how to better prepare to respond to pipeline incidents and roles in pipeline response. Videos feature interviews with pipeline and emergency response experts, covering a wide variety of emergency response disciplines.

\* Videos available at [https://www.youtube.com/channel/UCLQv4arPbGluPt7j\\_JuETWw](https://www.youtube.com/channel/UCLQv4arPbGluPt7j_JuETWw)



## First Responder Online Pipeline Training

To access the API-AOPL Emergency Response Team's free online training, click <https://nasfm-training.org/>

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- Is there adequate water supply to fight the fire and/or protect adjacent exposures?
- From a risk management perspective, is the response going to be offensive, defensive, or non-intervention based on the nature of the incident?

Pipeline operators employ on-going efforts to educate and train with local public sector responders for incidents such as breakout tank fires. In addition to providing data such as safety data sheets, pipeline operators encourage pre-planning coordination activities and joint training opportunities including tabletop exercises and mock emergency drills.

## Overview of Pipeline Systems: a Detailed Look at Terminal Operations

Terminals are a critical component of our nation's energy infrastructure. The purpose of terminals is to store vital products needed to support our energy demands. Terminals receive products from ship, rail and pipeline, and store them until they are ready to be sent via tanker truck, rail, barge or pipelines to end-use customers.



All terminals are equipped with a variety of containers that accept different products. The type of product being stored, dictates the shape of the container.

Liquefied Natural Gas (LNG), and other cryogenic liquids are stored in insulated tanks built to withstand temperatures in excess of minus two hundred and fifty degrees Fahrenheit. Flammable liquids are commonly stored in aboveground, low pressure type tanks with either cone-shaped, covered, or floating top lids. Liquefied Petroleum Gases (LPG), such as propane, are stored in bullet-style tanks that are constructed to accommodate the high pressures required to keep the product in liquid state.

Terminals include equipment, such as scrubbers and filters needed to receive materials by pipeline. Filters and scrubbers assist with removing any contaminants that may have been picked up during the transportation process. Valves are also commonly used in

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## Suggest an Article for *The Responder!*

Is there a topic you'd like to see featured in the next issue?! Please click **here** to suggest your topic for *The Responder* newsletter!

For more information on Kinder Morgan, please go to: **[www.kindermorgan.com](http://www.kindermorgan.com)**

## WISER

WISER 5.4 Release Includes:

- \*More detailed bibliographies for much of the substance data
- \*Protective distance mapping now supports the export of KML (Keyhole Markup Language) on the WISER for Windows and WebWISER version
- \*Redesigned the WISER for Windows protective distance mapping capability

A set of WISER tutorial videos can be viewed **here** and videos can also be found in the training section of the **[NLM YouTube Channel](#)**.



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terminals to direct product flow. After leaving the tank, the product is loaded onto racks that can accommodate trucks or rail cars to move the product to its end-stage consumer. Products can also be moved to ships and barges to be transported to various ports throughout the United States. If the product is to be moved by pipeline, compressors or pumps are used to raise the pressure of the product to a level suitable for re-introduction to the pipeline.

Sophisticated leak detection and emergency alert systems are utilized in terminal facilities to provide early notification of any possible product spill or release. In areas where there is an ignition risk, advanced fire detection and suppression systems are installed. In addition to these safety measures, terminal operators have very detailed facility emergency response plans, and their personnel are highly trained on all of the products found within the facility.

Emergency responders are encouraged to reach out to terminal operators to discuss their emergency response plans and to conduct joint tabletop or full-scale exercises. Facility tours may also be offered by the operator, providing emergency responders the opportunity to become familiar with these unique facilities, and its personnel, prior to any potential incident. If you would like to request a facility tour or information conducting a drill with Kinder Morgan, please fill out the form found here <http://PA-Inforequest.KinderMorgan.com>

## Keeping Pipelines Safe/Practices & Protocols: the Role LEPCs and Local Government Play in Emergency Response Planning

Kinder Morgan seeks to maintain a strong working relationship with Local Emergency Planning Committee's (LEPCs) on pipelines and facilities within its geographic footprint. LEPCs are organizations that provide a mechanism for local governments, citizens and industry to work together in planning for an integrated response to emergency incidents.

While no two LEPCs are structured exactly the same, by law they must consist of representatives from the following sectors: elected state and local officials; law enforcement; emergency management organizations; firefighters; first aid and other health organizations; local environmental and transportation agencies; hospitals; broadcast and print media; key community groups; and representatives of facilities subject to the emergency planning community right-to-know requirements. According to the Environmental Protection Agency (EPA), there are more than 3,000 known LEPCs in the U.S.

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## NPMS iPhone app for PIMMA and Updates

The National Pipeline Mapping System (NPMS) now includes Offshore gas transmission and hazardous liquids pipeline maps. Instructions are also available for requesting updated Drinking Water and Ecological USA data from the NPMS.

### NOTE

If you would like to request additional information, or to schedule a presentation or tabletop drill with Kinder Morgan, please fill out the form found at [PA-inforequest.kindermorgan.com](http://PA-inforequest.kindermorgan.com)



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Emergency plans for LEPCs must include:

- The identity and location of hazardous materials
- Procedures for immediate response to a chemical release
- Ways to notify the public about actions they must take
- Contact information of coordinators at facilities/plants
- Schedules, plans and steps for testing the plan

Once the plan is established, LEPCs must promote it through such means as public meetings, newspaper announcements, soliciting public comments and periodically testing the plan by conducting response exercises. LEPC plans must be reviewed and if necessary updated at least annually. This review should include findings gleaned from exercises, actual incident responses, as well as other sources such as hazmat commodity flow studies. As with other activities related to effective preparedness, training is a vital component for LEPCs.

In April 2019, Dan Eggleston, head of the International Association of Fire Chiefs (IAFC) testified before Congress the need for LEPCs and the pipeline industry to have a close relationship, especially in regards to training and testing. "A public/private partnership is critical to ensuring that a response goes smoothly in case of a pipeline incident," Eggleston said. "It is important that local officials and the pipeline operators do not meet for the first time at the incident scene. They must develop emergency response plans ahead of time and share information on how they will operate in an emergency. These plans are not just bureaucratic documents; they set out important lifesaving operations in a moment of crisis."

Eggleston laid out what both the response and pipeline community should specifically do. "It is important that all local authorities, including the local fire department leadership, work with regional pipeline operators to prepare for a rupture or leak", he said. "The pipeline operator must develop an emergency response plan that addresses the potential hazards that may occur and how to respond to these incidents in an effective manner. The local fire department will have to identify where pipelines are in their community and familiarize themselves with the possible risks. The fire department also will have to preplan how it will respond to an incident, including by working with emergency managers and local law enforcement about how to carry out an evacuation order; working with local hospitals and public health officials in case of a mass casualty incident; and with local elected officials and the

To locate Kinder Morgan emergency contact numbers, go to:  
**[www.kindermorgan.com/pages/public\\_awareness/AdditionalInformation/EmergencyNumbers.aspx](http://www.kindermorgan.com/pages/public_awareness/AdditionalInformation/EmergencyNumbers.aspx)**

### NOTE

To read past issues of *The Responder*, please go to the archived issues at  
**[http://www.kindermorgan.com/pages/public\\_awareness/The\\_Responder/archive.aspx](http://www.kindermorgan.com/pages/public_awareness/The_Responder/archive.aspx)**

### NOTE

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**[publicawarenesscoord@kindermorgan.com](mailto:publicawarenesscoord@kindermorgan.com)**

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news media to ensure that the appropriate messaging is given to the public.”

Kinder Morgan welcomes the opportunity to discuss its response plans and forge better relationships with LEPCs and emergency response organizations. ■

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