



## **Pipeline Emergency Preparedness & Training: Online Training Resources for Emergency Responders**

Many free online training resources are readily available to Emergency Responders. The following are just a few examples.

The Pipeline Emergency Response Training program, developed by the National Association of State Fire Marshals and Pipeline Hazardous Material Safety Administration, offers courses that include pipeline and liquefied natural gas emergency response overview modules, and detailed intermediate and comprehensive modules. All courses are available at no charge. The training enables first responders to learn effective techniques to respond to a hazardous liquid or natural gas pipeline incident. Upon completion of this course, first responders are able to print a certificate that may be used to demonstrate continuing education units (CEUs). To access the training go to <https://nasfm-training.org/pipeline/>.

Pipeline industry associations collaborated with Emergency Responders to develop Shoulder2Shoulder training videos. The videos show 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 [www.shoulder2shoulder.tv](http://www.shoulder2shoulder.tv)

One of the best ways to prepare for an emergency is to learn from previous incidents. The National Near Miss website is a free, one-stop shop for a wide array of emergency response case studies. The site has two separate access points, one for fire departments and the other for law enforcement officials. The organization, Near Miss, along with the International Association of Fire Chiefs,

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## **Best Practices**

“We hold annual exercises and attend pipeline operator sponsored training meetings and we have added a layer with pipeline information on the county’s GIS that is available to first responders, but not the general public.”

**–Tom Debaun, LEPC  
Chairman, Shelby County, IN**

“We attend local pipeline training and we hold tabletop exercises.”

**- Patrick Dooley, Rusk County  
OEM, Henderson, TX**

“We attend the training put on by local and national companies that are responsible for the pipelines and customer delivery.”

**- Keith Spangler, Benson Fire  
Dept., Benson, AZ**

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developed this user-friendly site allowing first responders to submit incident reports as case studies for other emergency responders. Emergency responders have the ability to browse reports through keyword searches if there is a specific emergency they are targeting for additional training. The website also offers additional resources for emergency responders, including fire department reports, Near Miss implementation kits, equipment reports and much more. For more information, or to visit National Near Miss, go to: [www.nationalnearmiss.org](http://www.nationalnearmiss.org).

Training resources such as the First Responder Online Pipeline Training and National Near Miss provide excellent training enhancements at no charge to registered emergency responders. For more information on training resources, tabletop drill guides and scenarios, please go to [http://www.kindermorgan.com/public\\_awareness/additionalinformation/trainingmeetings.aspx](http://www.kindermorgan.com/public_awareness/additionalinformation/trainingmeetings.aspx)

## Pipeline Emergency Response Tactics: How Response Tactics Differ in Urban and Rural Areas

Virtually all emergency response jurisdictions in the country have natural gas, CO<sub>2</sub> or hazardous liquid pipelines traversing their geographic areas. While incidents involving these pipelines are extremely rare, they can occur and, depending on the setting, response priorities and tactics can differ.

### Rural Pipeline Emergency Response Tactics

Response to pipeline emergencies in rural areas can present specific challenges for emergency responders. Often in rural areas, emergency response organizations have limited resources which can hamper tactical operations, such as incident area isolation and exposure protection. In addition, emergency response departments may not have access to atmospheric monitoring equipment such as combustible gas indicators (CGIs). When a pipeline emergency occurs, the most prudent response tactic for rural emergency responders is to quickly notify the pipeline operator and coordinate the appropriate response.



Resource limitations for rural responders drive the need for solid pre-planning, robust mutual aid agreements, and coordination with pipeline operators with assets in the jurisdiction. The most effective

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## NEW - 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 [www.shoulder2shoulder.tv](http://www.shoulder2shoulder.tv)



[www.shoulder2shoulder.tv](http://www.shoulder2shoulder.tv)

## WISER

The Wireless Information System for Emergency Responders (WISER) is offered as a standalone application on Microsoft Windows PCs, Apple iPhone and iPod Touch, Google Android devices and Blackberry devices.



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tool for addressing concerns related to rural pipeline emergency response efforts is face-to-face discussion with pipeline operators prior to an incident. Pipeline operators are very open to participating in pre-planning meetings in which operational response priorities can be discussed and response action plans developed prior to an emergency. Through continuous dialogue with local emergency response agencies, pipeline operators may be able to better provide resources to assist first responders during an incident. For example, pipeline operators have gas detection and leak monitoring equipment that can be used by emergency responders to execute area isolation operations.

The best emergency response tactic is prevention. Outside force damage continues to be a leading cause of pipeline incidents across the nation. Rural settings present unique challenges when it comes to pipeline damage prevention. In many cases, pipelines traverse farm fields. In the course of conducting routine farming operations, pipelines can be placed at risk from primary tillage (harrowing, plowing), drain tile installation and other agricultural activities. Maintenance activities such as drainage ditch cleaning can equally be a problem in rural locations. Emergency responders, as our partners in pipeline safety, can help us spread the word about the need to prevent pipeline excavation damage and the importance of calling 811 prior to any excavation activity, including traditional farming that involves soil disturbance. The Pipeline Safety Ag Alliance (<http://www.pipelineagsafetyalliance.com/>) has resources available to help educate farmers on how to work safely around pipelines.

### Urban Pipeline Emergency Response Tactics

Response to pipeline incidents in urban areas has its own distinctive set of issues for emergency responders. Typically, resources for response are more abundant in urban areas, however, population density and urban sprawl can escalate the severity of pipeline incidents.



As with rural pipeline emergency response tactics, emergency responders should immediately notify the pipeline operator of a suspected pipeline emergency.

In situations where a pipeline has been damaged and is leaking, migration of the product to sewer systems should be a primary concern. Using atmospheric monitoring equipment such as a

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### NPMS Launches iPhone app for PIMMA

The National Pipeline Mapping System has launched an iPhone app for PIMMA. It can be accessed by searching for "pipeline information" on the App store. You will need your PIMMA username and password to use the PIMMA iPhone app. To access the National Pipeline Mapping System online and locate transmission pipelines in your area, please go to <https://www.npms.phmsa.dot.gov/>

### 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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multi-gas detector or CGI, the extent of any product migration should be quickly determined and tactical operations implemented accordingly. In the event flammable gas or combustible liquids enter sewer systems, consideration should be given to executing immediate evacuations in the affected area. Sewer systems can also be impacted by a pipeline leak due to a “cross bore.” A cross bore is where directional drilling operations result in damage to underground pipelines, releasing product into other utilities such as sewer and storm water lines.

In urban areas, preventing excavation damage to pipelines is also a key element of pipeline safety. Emergency responders can help prevent damage by promoting 811 prior to any excavation activities. Public sector emergency responders are usually aware of new development and construction occurring in the urban or high consequence areas (HCAs) that they serve, and should always be mindful of excavation activities that may be creating a risk to underground pipelines.

### Rural and Urban Pipeline Emergency Response Tactics

Whether rural or urban, successful pipeline emergency response has one important commonality, the need for pre-planning and exercising of tactical response procedures prior to an incident occurring. Pipeline operators stand ready to assist public sector emergency responders with information sharing, education, and a willingness to participate in drills and exercises to enhance response capabilities. Pipeline operators are your best source of information concerning the physical characteristics and hazards associated with the products that they transport. To obtain more information on joint training opportunities with Kinder Morgan operations in your area, please go to <http://PA-inforequest.kindermorgan.com>.

### Overview of Pipeline Systems: Terminal Operations at a Glance

Fuel terminals are a key component of the energy distribution system that provides the fuel needed to power the nation’s economy. Regardless of the type of product transported and stored via terminals, they all have some common properties. Terminals are



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### Note

If you would like to request additional information, schedule a presentation or tabletop drill, or subscribe to *The Responder*, please fill out the form found at <http://PA-inforequest.kindermorgan.com>

### April is National Safe Digging Month!

Please help us spread awareness and reduce the risk of excavation damage. If you are planning to dig or excavate, or notice any activity along a pipeline Right-of-Way, please call 811.

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used to receive products by pipeline, rail or ship, and store them until they are transported out of the terminal by rail, tanker truck, ship/barge, or pipeline to end users or customers.

The type of storage tanks utilized at terminals is dictated by the physical characteristics of the product being stored at the facility. Flammable liquids are usually stored in above ground tanks that may have cone, covered, and floating tops. In addition, low pressure type tanks are used to store flammable liquids. Liquefied Petroleum Gases (LPG), such as propane, are usually stored in high pressure, "bullet" style tanks that are manufactured to accommodate the pressures required for maintaining the product's liquid state. Cryogenic liquids, such as Liquefied Natural Gas (LNG), are stored in insulated tanks specially constructed to handle temperatures in excess of minus two hundred and fifty degrees Fahrenheit.

While products may differ, there are components that are common to all terminals. Each terminal has equipment for receiving materials by pipeline which include valves and filters/scrubbers to direct product flow and remove any contaminants that may have accumulated during the transportation process. Once the product leaves the storage vessels, it is transported to loading racks that can accommodate trucks, and rail cars. Product is also transported from the terminal to ships and barges from the storage vessels along dock lines for transport to other U.S. ports, or to other countries. In the case of transportation of the product by pipeline from the terminal, pumps (liquids) and compressors (gases) are employed to raise the pressure of the material to a suitable pressure for re-introduction into the line.

Also common to all terminals are inherent safety systems. Terminals employ leak detection devices and associated alerting systems to ensure timely notification of any product releases. In addition, fire detection and suppression systems are installed in areas where there is a risk of product ignition. Lastly, but most importantly, terminals are staffed by well-trained personnel who have extensive experience in handling the products that are transported and stored by the facility on a daily basis. These individuals have undergone response training and response drills to ensure they are properly prepared to handle emergencies that can occur.

Emergency responders are encouraged to reach out to terminal operators to engage in facility pre-planning and incident response coordination. Periodic facility tours and walk-throughs are useful tools to ensure keen understanding of the operations of the terminal, as well as proper response in the unlikely event of an emergency.

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## First Responder Online Pipeline Training

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

### 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)

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## Keeping Pipelines Safe/Practices & Protocols: Public Awareness Program Outreach to Emergency Responders and Public Officials

Public awareness programs are multi-faceted and involve various forms of outreach. Effective two-way communication with emergency responders and public officials is one of the cornerstones of any public awareness program.



One way to ensure important information is provided to emergency responders and public officials is through pipeline safety brochure mailings. These brochures provide information specific to a pipeline operator's operations, leak detection and emergency response procedures. In addition to brochures, local personnel personally contact emergency responders and public officials to discuss pipeline safety and emergency response tactics, as appropriate.

Pipeline operators also welcome joint training opportunities, such as tabletop exercises or emergency drills with emergency responders and public officials. These activities are a great way to test strategic and tactical responses and allow operations personnel and first responders to become familiar with each other's response capabilities prior to an incident.

In addition, emergency responders and public officials can schedule tours of pipeline facilities. Facility tours typically begin with a presentation or safety briefing, followed by a high-level overview of the products being transported, pipeline size and pressure, and leak detection techniques. Typically attendees are provided with public awareness materials, business cards, emergency phone numbers, Safety Data Sheets (SDS), and other materials.

As well as facility tours, field personnel regularly attend countywide third party sponsored emergency response meetings, and provide presentations on their specific facilities and operations in the area. ■

## Kinder Morgan Social Media

Facebook:

<https://www.facebook.com/KinderMorganInc?rf=108038462610747>

Twitter:

<https://twitter.com/KinderMorgan>