



Pipeline Emergency Preparedness & Training - Using NPMS to Find Who's Operating in Your Area

Emergency responders play a role in pipeline safety and it's important to be aware of pipelines in the area. The National Pipeline Mapping System (NPMS) Public Map Viewer was created by the Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) as a free tool to help emergency responders and the general public more easily locate pipelines in their communities. Using a national geographic information system (GIS) populated with information provided by pipeline operators, NPMS allows the user to view and locate gas transmission pipelines, hazardous liquids pipelines, liquefied natural gas plants, and breakout tanks under PHMSA's jurisdiction.

Government personnel and emergency responders may apply for **Pipeline Information Management Mapping Application (PIMMA)** access, which provides more detailed information than the Public Map Viewer. PIMMA allows government officials to view several counties at a time, drill down further than the 1:24,000 scale available through the Public Map Viewer, and to print maps and pipeline operator contact information. If you would like to request GIS data layers for use in your own mapping system, please **submit a Data Request** via the NPMS.

To find the location of pipelines in your area, simply go to the **Public Map Viewer**, select your State from the drop down menu, and then the County. Once the map populates, you will be able to view different layers of the map by selecting criteria from the left side bar. If you wish to find the operator of the pipeline, go to the top right corner of the screen, select the "View Pipelines By" drop-down menu and select "Operator".

For more information on NPMS please go to <https://www.npms.phmsa.dot.gov/AboutPublicViewer.aspx> or if you are a government official and would like to apply for PIMMA access please go to <https://www.npms.phmsa.dot.gov/ApplyForPIMMAAccess.aspx>. ■

Best Practices from Emergency Response Peers

"Our members attend an annual pipeline safety and emergency awareness class in Guernsey County, OH." – Alan Killian, Cumberland Volunteer Fire Dept., Cumberland, OH

"We attend the yearly local pipeline operator-sponsored training meetings, we then put on a session for the members that could not attend."

"We attend NIPA training in the Fall and Paradigm training in the Winter."

Pipeline Emergency Response Tactics- What Would You Do? Response to a Terminals Operation Incident



It's 7:00 p.m. on a Friday evening. The maintenance staff at the Lakeshore Terminal has left for the day. Two operators are on the night shift. The terminal is a large storage and distribution facility for two products, fuel oil and liquefied petroleum gas (LPG). The products arrive by pipeline and are stored in numerous floating roof oil tanks and

bullet type LPG tanks.

Twelve fill stations provide twenty-four hour access to MC331 (high pressure tank) trucks that transport LPG to commercial users and distributors. The terminal averages 100 trucks a day loading LPG. The terminal also includes a rail siding that averages four rail shipments of LPG per month.

The terminal is adjacent to Crystal Lake, a fifty thousand acre lake providing power generation and recreation to the nearby city of Batesville, population 250,000, located a half-mile from the terminal.

Currently there are six MC331 tankers loading product at the fill stations. An MC331 tanker operated by Blue Flame Gas is pulling into the station when the driver suffers a heart attack. The driver loses control of the rig which crashes into one of the filling stations currently occupied by another tanker. The fill station sustains major damage and begins to leak LPG. In addition, the tanker currently being filled also sustains significant damage and begins to leak LPG. A large pool of LPG begins to form and a propane vapor cloud forms. Prevailing eight-knot winds are blowing the vapor cloud in the direction of Batesville.

The driver of the Blue Flame Gas tanker is fatally injured in the crash. The driver of the other tanker and a terminal operator were in the vicinity of the crash and are missing.

A reporter and camera crew from FOX 26 News has arrived on site and is requesting information about the incident. Other news affiliates are in route to the scene.

Crystal Lake is crowded with recreational boaters and swimmers.

Discussion Points

- What are the strategic goals and associated tactics for this incident?
- What resources are needed for this response?
- What responding agencies will need to be involved?
- What does the Incident Command System structure look like for the incident?
- What safety concerns should be identified as part of the "scene size-up"?
- How will the request from the news media be addressed? What will be the content of the initial press briefing?

How well would your agency handle this event if it happened today? ■

Note

If you would like to request additional information or subscribe to *The Responder*, please fill out the form found [here](#).

First Responder Online Pipeline Training

To access the API-AOPL Emergency Response Team's free First Responder Online Pipeline Training, click [here](#).

Note

To view Kinder Morgan's Pipeline Safety Videos, click [here](#).

Overview of Pipeline Systems: Moving Petroleum

The transportation of petroleum products from production to end-use consumption is a process with numerous layers. Within the network known as liquid petroleum pipelines, there are distinct pipeline segments that may carry crude oil, refined products, carbon dioxide or highly volatile liquids (HVLs).



Crude Oil Pipelines

Crude oil is first moved from its production source through gathering lines, typically 2 to 8-inches in diameter, that move the crude oil mixture from individual wellheads to processing facilities where oil, gas and water are separated. In on-shore regions, crude oil flows from oil production wells to what is known as a tank battery. Along the Gulf Coast, offshore platforms are constructed with similar processing capabilities, and after separation and processing, the crude oil may be shipped through underwater pipelines to on-shore facilities.



Transmission pipelines, usually between 8 to 24-inches in diameter, move the crude oil from producing areas to refineries. Sometimes referred to as trunk lines, this network covers approximately 60,000 miles of pipeline in the U.S. Once crude oil reaches a refinery, it is converted to a variety of products, including gasoline, diesel, aviation fuel, heating oil, solvents, lubricants and a host of raw materials used in the manufacture of petrochemicals. Refineries have different requirements for crude oil (heavy or light, high or low-sulfur grades) depending on refinery design, complexity and production schedule.

Refined Products Pipelines

After the refining process, pipelines move products from the refineries to marketing and distribution centers. There are nearly 100,000 miles of refined products pipelines nationwide, and these pipelines typically vary in size from 8 to 42-inches in diameter. Such pipelines deliver petroleum products to large fuel terminals where the products are then loaded onto rail cars, cargo tank trucks and barges for delivery to consumers.

Refined product transmission pipelines can carry several different liquids products simultaneously, such as gasoline, diesel fuel and heating oil. Refined products move as "batches" through the pipeline, at relatively low speeds, usually between 5 and 8 miles per hour depending on terrain, pipe diameter and the type of product being moved. Thus, it could take up to three weeks to move refined petroleum products by pipeline from a refinery near Houston, Texas to a terminal near New

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WISER Updates- New as of 5/2/2015!

WISER for Android 4.6

- A new, interactive **chemical reactivity capability** based on NOAA's CRW reactivity data
- New tools (Radiation Unit Converter, Radiation Dose Estimator, and two triage algorithms) have been added to WISER's toolbox.

WISER for iOS 4.0

- A new, interactive **chemical reactivity capability** based on NOAA's CRW reactivity data



NPMS

To access the National Pipeline Mapping System and locate pipelines in your area, please go to <https://www.npms.phmsa.dot.gov/default.aspx>

Note

Please add us to your trusted sites to keep *The Responder* coming to your inbox!

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York City, New York.

Carbon Dioxide and HVL Pipelines

Carbon dioxide (CO₂) and highly volatile liquid (HVL) products are transported in the pipeline as a liquid. Propane, ethane and butane are examples of HVL products. Both CO₂ and HVL liquids turn into a vapor cloud when exposed to the atmosphere. There are an estimated 60,000 miles of HVL pipelines in the U.S., while CO₂ pipelines only account for less than 2,000 miles of pipe in the U.S. and are almost exclusively used to transport CO₂ for processes that enhance oil production.

Transporting petroleum products from refinery to consumer is an intricate process, involving a nation-wide network of pipelines and storage facilities. For more information on moving petroleum products, visit the American Petroleum Institute (API) at <http://www.api.org/oil-and-natural-gas-overview/transporting-oil-and-natural-gas>. ■

Keeping Pipelines Safe/ Practices & Protocols: Local Government's Participation in Emergency Response Planning

Natural gas and hazardous liquids pipeline operators are required by federal pipeline safety regulations to conduct detailed and thorough emergency planning, and are mandated to have on-going liaison with emergency responders. Aside from the regulatory requirements, emergency preparedness planning with stakeholder partners makes solid business sense for operators. While pipelines continue to be the safest mode of transportation, weather, outside force damage and other uncontrollable events dictate the need for proactive emergency planning. In addition, the ever present risks associated with terrorism and intentional malicious acts to our nation's critical infrastructure require on-going and effective communication between pipeline operators and emergency responders.

Pipeline operator participation with Local Emergency Planning Committees (LEPC) provide an excellent means to initiate dialogue related to emergency planning for pipeline incidents. Since LEPC's are typically the focal point for hazmat incident planning and coordination at the county or parish level, most of the individuals involved in emergency planning, exercises, and response have representatives on the committee. In addition, LEPC's have mock emergency exercise objectives that pipeline operators can participate in allowing for mutually beneficial results.

Pipeline operators conduct hazard risk assessments and seek input from local emergency management and response community subject matter experts. These discussions can be very valuable in helping to target and refine both the pipeline operator's emergency plans, as well as those of the local community. These conversations should focus on response capabilities, use of the Incident Command System structure, and mitigation activities based on the various hazards that have been previously identified.

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Read more articles from past issues of "The Responder" online at www.kindermorgan.com/public_awareness/The_Responder/archive.cfm

Note

For more information on Kinder Morgan training and resources for emergency responders, or to get information on upcoming meetings in your community, please go to: http://www.kindermorgan.com/pages/public_awareness/additionalinformation/trainingmeetings.aspx

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Pipeline operators encourage emergency responders to request site visits and facility tours. In addition, pipeline construction projects offer responders the opportunity to learn more about pipeline operations and plan response tactics in the unlikely event of an incident. A call to the Kinder Morgan pipeline operator in your jurisdiction can initiate the process to establish a site visit or tour.

Emergency response plans are only effective if participants are trained and the plans are routinely exercised. Tabletop exercises and mock emergency drills are tools used to assess the effectiveness of plans and coordination between pipeline operator personnel and public sector emergency responders. When exercises are planned they should have clear objectives that are mutually agreed upon. Also, a key objective of the exercise should be an assessment of how effective the participants coordinate strategic and tactical decision making using the Incident Command System. Observations of the exercise should be shared and areas for improvement identified and implemented.

Pipeline operators recognize that effective emergency planning is best conducted as a coordinated effort with local public sector responders and welcome the opportunity to engage with responders to increase preparedness and safety.

To download an Emergency Response Self-Assessment form or Tabletop Drill Guide and Scenario documents please visit: http://www.kindermorgan.com/pages/public_awareness/additionalinformation/trainingmeetings.aspx ■

Did you know...

811 is the nationally recognized number to provide notification of pending excavation activity so that utilities can properly locate underground assets. Using 811 and having utilities located and marked is a free service. Help us spread the word for safety ...

Call 811 before you dig!



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

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