



Tailboard Scenario: Responding to a Tanker Truck Spill

Over the road transportation of fuels and other hydrocarbon based products occurs continuously in a predominately safe manner. While generally safe, motor vehicle accidents (MVAs) and operational upsets can periodically occur, resulting in product spills. When responding to a reported spill of a hydrocarbon product from a tanker truck, preplanning, effective training, and effective scene size-up are critical.

Pre-Planning

Like most incidents, response to a tanker truck spill requires pre-planning. It begins with an identification and analysis of the hydrocarbon terminals, delivery points, and primary routes used by tanker truck operators. In addition, responders should have a list of the most frequently transported hazardous materials and the associated safety data sheets (SDS). If safety data sheets are not available, responders should be familiar with the appropriate Emergency Response Guidebook (ERG) identification numbers and associated guides for the materials.

Pre-planning should ideally incorporate the use of tabletop exercises with realistic scenarios to test tactical and strategic decision making related to tanker truck spills. An overfill at a gas station that may result in the spill of a few gallons of product differs greatly from a total release from an overturned tanker spilling into a river near a drinking water intake. The decision making and associated resources needed will vary widely between the two scenarios.

Pre-planning should not be conducted in a vacuum. Responders should engage with emergency management, trucking companies, hazardous waste clean-up contractors and hazards materials response teams (HAZMAT) to share information related to response capabilities.

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Best Practices

“We work closely with Cochise County Emergency Services and attend LEPC and other meetings regarding the safety and security of our residents.”

“The LEPC holds their required annual exercises and some years additional exercises with [other] industries. Many of our responders attend the pipeline training.”

“We attend local pipeline sponsored training meetings and pay attention to articles in the Responder.”

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Effective Training

Training is fundamental to any type of hazardous materials incident, and a tanker truck spill is no exception. A key element of any hazardous materials response is for responders to not go beyond the level of their training. Be it defensive operations (diking, damming, diversion) or offensive operations (spill control or elimination at the source), responders should only perform operations for which they have been fully trained.

Effective Scene Size-Up

Upon arrival at a reported tanker truck spill, conducting an effective scene size-up is the first priority. This should include identification of the material being released through signage or the placard affixed to the tanker. The Emergency Response Guidebook (ERG) or safety data sheet (SDS) should be used to facilitate recognition of the product hazards, characteristics, and recommended personal protective equipment that must be used. Further, product spill paths and receptors should quickly be identified and tactics should be employed based on the Incident Commander's strategic goals and objectives.

A Scenario...

It's 7:30 a.m. on a Friday morning. Engine 2, Engine 5, Service 6, Ladder 2, Battalion 3, and EMS 81 are dispatched to a reported motor vehicle accident (MVA) involving a tanker truck and passenger vehicle on Valley View Parkway.



Upon arrival, your scene size-up reveals that product with the placard number 1863 is leaking from a tanker truck and is on fire. The tanker truck is partially involved in the fire and spilled burning product that is approaching the passenger vehicle with three entrapped occupants. The driver of the tanker truck appears unconscious and is still in the heavily damaged cab.

Burning product is flowing down a gully which leads to the Broad River. A drinking water intake for the City of Pinewood (population 150,000) is located ½ mile downstream from the gully.

Traffic is getting congested on Valley View Parkway as commuters are heading to work in Pinewood.

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BUXUS

For more information on BUXUS or to register, go to www.buxus.io

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!

WISER

WISER has been discontinued as part of NLM's initiative to align and consolidate information. Other sources of hazmat, chemical, biological, radiological, and nuclear weapons can be found at **CHEMM, ERG2020, DHS' Hazardous Materials Release website, NIOSH Pocket Guide.**

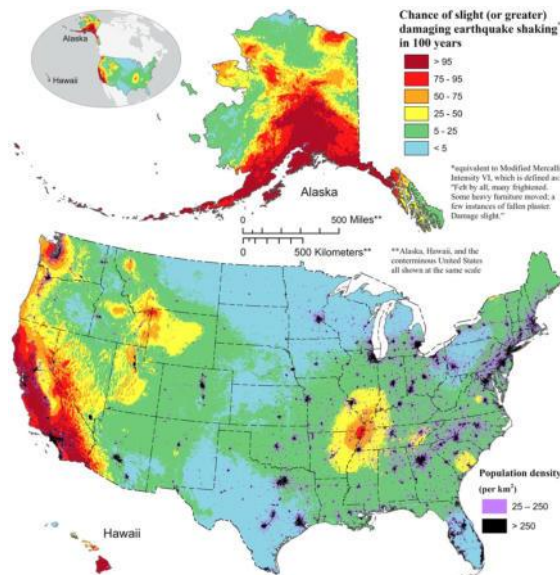


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- What are the strategy and objectives for this incident?
- Based on the scene size-up, what are the tactical response priorities?
- What additional resources are needed?
- What product is leaking? What are the associated hazards and required PPE?
- What are the area isolation/ evacuation considerations?

Responding to a Products Pipeline Release During an Earthquake

There are 1,000 documented earthquake faults in the United States and every state has experienced an earthquake at one time or another. California is often thought of as the primary setting for major earthquakes, however, the risk exists in several other locations throughout the country. Underground facilities are susceptible to damage from the shifting and torsion of the ground during a significant earthquake, and products pipelines are no exception.



Credit: USGS.GOV

When responding to initial reports of significant damage from an earthquake, be mindful of the signs of a potential pipeline release. This includes, liquids or vapors being released into the air under pressure, large liquid spills accumulating on the ground, strong hydrocarbon odors in a localized area, and fires being fed at or just above ground level. It's important to recognize that pipelines may be damaged during a seismic event but not be breached.

During initial scene-size up, first responders identify a suspected products pipeline release. The next step is to identify the pipeline operator, if possible. Pipelines are required by federal law to be marked with signage that contains the name of the product being transported, the name of the pipeline operator, and a telephone number that is answered by a person twenty-four hours a day. It's important to understand that some pipelines transport products in

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_JuE TWw



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Credit: USGS.GOV

to identify the product hazards, recommended mitigation actions, and appropriate personal protective equipment for response.

Controlling the leak should be executed by those with proper training, equipment, and authorization. Pipeline valves should never be operated by emergency responders unless there is full approval from, and coordination with, the pipeline operator. Defensive operations such as diking, damming, and diversion of flowing product can be implemented by first responders who have been trained to the hazardous materials operations level. Offensive operations must only be conducted by responders trained to the hazardous materials technician or specialist level.

The most prudent method for pre-planning response to product releases from pipelines following an earthquake is to have on-going dialogue with the pipeline operators in your jurisdiction. They can provide information regarding the location of their below and above-ground assets, as well as their specific response procedures following natural disasters including earthquakes.

Overview of Pipeline Markers

With the vast majority of pipeline systems buried underground, it is imperative that pipeline operators utilize pipeline markers along their rights-of-way (ROW) for the public to be aware of pipelines in the area. In addition to clearly marking the approximate location of the pipeline route, markers provide key information that residents and first responders may need to quickly access in an emergency.

Federally regulated pipelines must have a marker placed intermittently along the pipeline ROW and should appear at every road and railroad crossing and aboveground facilities. Markers can

batches so establishing contact with the pipeline operator is critical to discover what product is actually leaking. Use the Emergency Response Guidebook (ERG) or safety data sheet (SDS)

To Access the NASFM Training Portal, Please Go To:

<https://nasfm-training.org/>

NPMS and PIMMA Updates

NPMS website and documentation updated to reflect Phase 0 changes to data submittal requirements. OSAVE is available for CY2023 reporting, including updates to reflect NPMS data submittal requirements. In summary, Phase 0 implements

- Abandoned pipeline facilities are required.
- Breakout tank submittals are required.
- Pipeline diameter attributes are required (reported in Nominal Pipe Size, NPS).

Please refer to the January 2024 **NPMS Operator Standards** manual for details on submissions and required attribute information.

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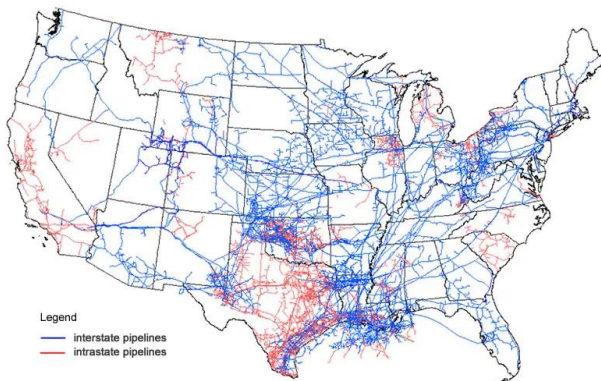


appear as placards, signs, or stakes in the ground. Pipelines transporting gas, oil, petroleum or gaseous materials are typically yellow, but sometimes these markers may be orange, white, or red. Pipeline markers will provide the name of the pipeline operator, the operator's 24-hour emergency phone number and the product being transported in the pipeline.

Although pipeline markers indicate there is a pipeline in the area, they should never be used to determine the exact location of the pipeline. Nor does the presence of a pipeline marker replace the

need to call 811 prior to excavation activity. A pipeline ROW can be over 50-feet across and the marker could be placed to the right or left of the pipeline and not necessarily on top of the pipeline itself. Pipeline markers play an important role in notifying the residents.

In addition to containing critical emergency response information, aerial pipeline markers are also placed over the pipeline ROW with numbers on top of them that are visible to patrol pilots. The numbers usually indicate a mile marking and are used by the pilot as a reference if reporting the location of an issue such as an encroachment, damage or a downed tree along the pipeline ROW. More commonly, aerial patrol pilots use GPS to reference the location of the pipeline and potential encroachments or other issues identified along the pipeline corridor. If a pilot conducting an aerial patrol of the pipeline notices a potential ROW encroachment, such as construction equipment or lumber, it will be reported to the pipeline operator for further investigation.



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Understanding the Different Types of Pipelines

The United States has an intricate pipeline system comprised of millions of miles of pipe. The products transported are moved through three

types of pipelines: transmission, gathering and distribution.

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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.**



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 <http://PA-inforequest.kindermorgan.com>

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Each type of pipeline serves an important purpose in our country's energy infrastructure.

Gathering

Gathering pipelines are typically small-diameter, lower-pressure pipelines (2-20 inches) that transport crude oil or natural gas from the wellhead, or production and drilling areas, to gas processing facilities or refineries. Some of the largest production areas in our country are the Marcellus Shale, Eagle Ford Shale, Barnett Shale, Haynesville, and Bakken regions. Pipelines in the newer supply basins can be larger diameter and operate at higher pressures than historical gathering pipelines. Sub-sea pipelines that collect product from deepwater platforms may be considered gathering lines as well. Jurisdictional onshore and offshore gathering pipelines account for approximately 110,000 miles of pipe. Once these products are prepared at the processing facilities or refineries, they are fed into larger, mainline transmission pipelines.

Transmission

Transmission pipelines are large, wide-diameter pipelines (typically 20-48 inches) and traverse relatively long distances. These pipelines are typically found in more rural and suburban areas. Transmission pipelines transport natural gas, crude oil, or refined petroleum products from processing areas to market areas in preparation for consumers. Transmission pipelines generally operate at higher pressures than other types of pipelines and utilize compressor stations at varying intervals to continuously move product through the pipeline. Transmission pipelines can range from a few feet to hundreds of miles in length. There are over 300,000 miles of transmission pipelines in the United States. As transmission pipelines near an urban or heavily populated area, they typically transition to distribution pipelines.

Distribution

Distribution pipelines are generally small-diameter, low pressure pipelines that feed directly to residential and commercial customers. These are the lines that go directly into residences and businesses throughout our country. With over two million miles of pipe in the United States, distribution pipelines are by far the most common. ■

Pipelines in Your Area:

For more information on locating pipelines in your area and pipeline markers, please visit: **Public Awareness | Pipeline Facilities in your Communities | Kinder Morgan**

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