



Tailboard Scenario: Security-related Incident at a Natural Gas Facility

The Evergreen Compressor Station is undergoing final acceptance testing and commissioning before being placed into service. Line B-1 is adjacent to the station, and is a 24" natural gas transmission line that serves several electric generation plants, as well as a local distribution providing 450,000 customers in a nearby city.

During construction of the facility, anti-fossil fuel advocates and organized environmental protesters conducted an extensive social media campaign to try to stop the project. In addition to the online protests, two instances of on-site protests attempted work stoppage, which had to be addressed by local law enforcement. In the last several weeks, corporate security was made aware of several social media posts with veiled threats to the facility.

It is Wednesday afternoon at 3:00 p.m. A blustery wind blows out of the north at 20 miles per hour. The temperature is 38° with a low of 16° forecasted with moderate snow overnight. The Vice President of Operations for the natural gas transmission company has arrived on site, along with several senior officials from three large electric generating plants and two industrial customers for a facility tour. Shortly afterwards, a Ryder brand rental truck is observed approaching the main entrance gate to the facility at a high rate of speed. The truck crashes through the gate and three heavily armed men exit the vehicle and run towards the group taking the site tour. The Vice President of Operations and her guests, as well as three pipeline operator employees, are taken hostage in the control room building. Soon thereafter a domestic environmental terrorist group called "Free Earth Movement" takes responsibility for the incident via social media posts and threatens to harm the hostages and blow up the facility using explosives claimed to be in the rental vehicle.

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Best Practices

"We work with our LEPC, participate/initiate exercises/drills and attend pipeline operator provided training."

"We conduct and attend Wildland Fire Suppression classes and attend pipeline operator sponsored training once a year."

"[We hold] tabletop, functional and full-scale exercises, and support local fire departments with training."

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Law enforcement, fire department, and emergency management personnel are dispatched to the incident. A Command Post, as well as a staging area, has been established in a field a safe distance from the facility. Communication with the hostage takers is attempting to be established. News media representatives have arrived at the Command Post area and are requesting information and interviews with first responders and pipeline personnel.

Discussion Points:

- What are the safety concerns based on the initial “scene size-up”?
- What resources are needed beyond those provided in the initial dispatch?
- What would the Incident Command Structure look like for this incident?
- What information and resources are needed from the compressor station operator?
- How are requests from the news media addressed?

Considerations for Response to a Security Threat at a Pipeline Facility

- If possible, obtain current occupancy information from the facility operator
- Establish the Command Post and Staging Area a safe distance from the facility
- Review hazardous materials storage information provided by the pipeline operator
- As required, conduct evacuations and establish an isolation zone as warranted
- Request law enforcement resource support and anticipate that the FBI will respond and assume a leadership role

What is a Compressor Station?

As natural gas moves through pipelines, distance, friction, and elevation differences can slow the product. Compressor stations are facilities located strategically along pipeline routes to maintain pressure and flow rates- typically every 40-100 miles. They are critical to keeping the product flowing at the right rate and temperature.

Compressor stations essentially serve as gateways along the pipeline highway. They allow gas to enter the station yard piping where the product moves between the pipeline and compressor

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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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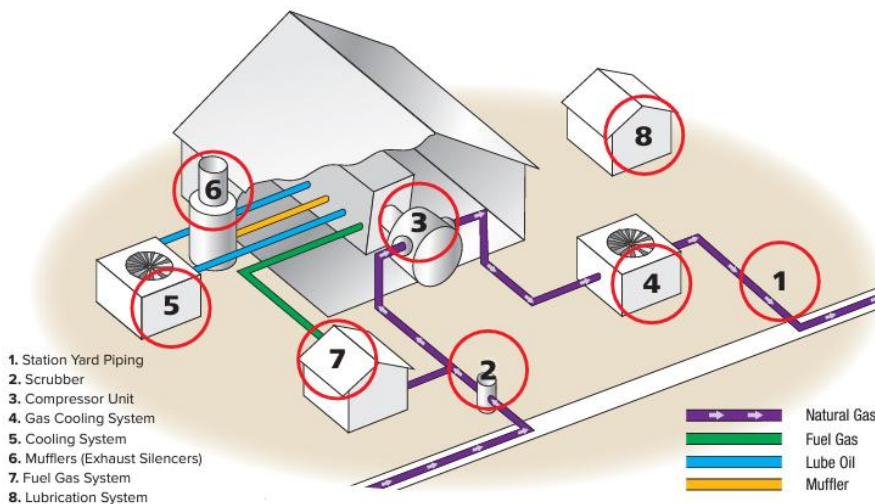
station. Once it enters the station, filter separators, strainers or scrubbers clean the gas and remove any water, hydrocarbons, or other impurities. The gas is then ready to be compressed and re-pressurized by individual compressors, or by multiple units working together. One of the most common types of compressors is the reciprocating compressor that compresses gas with a piston in a cylinder.

As natural gas is compressed, heat is produced and must then be dissipated to cool the gas stream before it leaves the station yard piping. In some cases, gas cooling systems may be required to lower the temperature before gas can exit the station. These cooling systems ensure that the gas is at a low enough temperature to protect the integrity of the pipeline and increase transmission efficiency.

In addition to the compressors at the facility, most stations are equipped with backup generators, metering equipment, gas filtration systems, and system monitoring and safety controls. Nearly all compressor stations are remotely monitored and can be shut down from a gas control center that is monitored 24/7. Emergency shutdown systems (ESDs) are designed to safely and quickly shutdown a pipeline segment or station, if any operational abnormalities are detected. Federal regulations require that these ESDs are routinely tested. During an ESD, a loud noise lasting anywhere from one to four minutes may be heard as gas is evacuating the system and dissipating into the atmosphere.

For more information on ESDs, compressor stations, or to take a tour of a facility in your area, please contact <http://PAinforequest.kindermorgan.com>

The Parts of a Compressor Station



Courtesy of INGAA

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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



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Pipeline Emergency Response Resources for Emergency Responders and Public Officials

Pipeline operators and first responders know that ample training is critical in safely and effectively responding to pipeline incidents. In recent years, the availability and prevalence for online training resources has dramatically increased. Pipeline operators and various organizations recognize the need for these resources and training to be offered gratis to first responders.

One such program that is widely available to emergency responders is BUXUS. This program is designed to facilitate emergency response to high impact, low frequency pipeline incidents through a supplemental app that can be downloaded to cell phones and iPads to instantly access pipeline information. The app is paid for by pipeline operators, and once downloaded it grants emergency responders access to the following:

- Information on the commodity being transported (for those operators that subscribe to BUXUS)
- Emergency contact information for operators
- Hazards posed by the commodity
- Emergency response actions to be taken or to be avoided
- Interactive maps
- Access to a portal to request additional information

BUXUS does not require Wi-Fi or cell phone coverage to work once downloaded. To download the free app, go to Google Play or Apple's app store. For more information go to www.buxus.io

Another resource for emergency responders to use when responding to pipeline emergencies is Chemical Hazards Emergency Medical Management (CHEMM). The site is sponsored by the Department of Health and Human Services, targeted at providing emergency responders and healthcare providers with information for quick response to and to mitigate the effects of mass-casualty incidents involving chemicals. In addition to first response guides, the site offers specific guidelines for responding to a transportation incident, hazard identification and reporting to a release. To access information on transportation incidents, go to: **Transportation Accident - CHEMM (hhs.gov)**

The National Association of State Fire Marshals' (NASFM) "Pipeline Emergencies" training program is another tool for first responders. This initiative, developed by the American Petroleum Institute (API) and the Liquid Energy Pipeline Association (LEPA) assists first responders with techniques and skills to address a hazardous liquids or natural gas pipeline incident. The site offers training

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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.

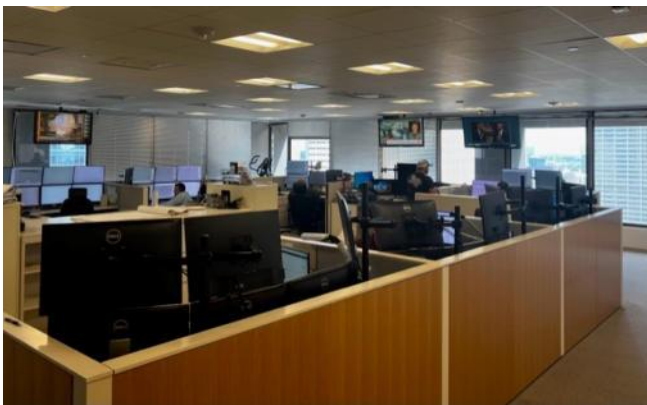
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specific to each individual emergency responders' role, be it first responder, hazmat technician, community planner, or emergency response coordinator.

The Pipelines and Informed Planning Alliance (PIPA) was developed by PHMSA and the Federal Energy Regulatory Commission (FERC) to better understand issues related to land-use planning. This resource is valuable for public officials and community planners. Over 150 participants, working in three different task teams considered and developed guidance and recommended practices related to protecting communities and transmission pipelines, while encouraging communications with all stakeholder groups. The final PIPA report complete with recommended practices, can be found at [PIPA-Report-Final-20101117.pdf \(pstrust.org\)](#).

How Does a Control Center Work?

Monitoring many miles of interstate pipelines requires sophisticated technology within a control center and trained controllers to look for minor system disruptions, pressure changes, or flow rate variations. Control centers are staffed 24/7 and utilize technology called supervisory control and data acquisition systems, or SCADA.



SCADA systems allow pipeline operators to remotely monitor pressures and flow rates of the natural gas or highly volatile liquids flowing through the pipeline in real time, from a location that may

be very far away from a given pipeline segment. SCADA systems allow for certain operational thresholds to be established and if an anomaly is noted, an alarm signals a controller who can quickly assess the situation.

Federal pipeline safety regulations for control room management stipulate that the control center controllers monitoring and analyzing the SCADA systems must complete extensive training and certification. Controllers receive frequent, on-going training that can include participation in mock emergency exercises, requiring them

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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

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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to simulate SCADA response. These controllers are responsible for keeping track of the entire pipeline system, facilities and plants on multiple screens and telecommunications equipment.

Pipelines are part of our country's critical infrastructure, and as such they could be a potential terrorist target. Since SCADA systems serve as the "nerve center" for pipelines, it is critical that they be protected from cyber security threats. SCADA systems typically operate on standalone servers that are isolated from the rest of a pipeline operator's system to reduce the risk of a cyber attack.

In the event of a pressure drop, compressor failure, or other abnormality, SCADA systems and the controllers are the first individuals who are typically aware. Control centers are a vital component to ensuring safe and quick incident mitigation. For more information on Kinder Morgan's control centers, please email publicawarenesscoord@kindermorgan.com. ■

NOTE

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