



## Interactive Video Transcript Oklahoma

Welcome to **Practical Pipelines** ... a framework that connects first responders and pipeline operators TOGETHER in the crucial role of everyday public safety.

This training tool was designed for ongoing training and has content that is specific to your county. Please feel free to pause, or stop and start the video as needed for discussion or time restraints required to meet your training needs.

### **WHY WE CARE**

Preparing first responders for pipeline emergencies is a natural fit for the [Danielle Dawn Smalley Foundation](#) who recognized the need after a pipeline leak ignited and took the life of 17-year-old Danielle Dawn Smalley and her friend in 1996 while they were en route to report their concerns to authorities.

It was later recognized that if Danielle's vehicle was not the ignition source for the flammable vapors that day, it very well could have been emergency responders who were unknowingly headed down the same hazardous path in response to 911 calls.

Following is a video clip of Danny Smalley, Danielle's father:

*In 1996 Danielle and her friend Jason noticed the smell of gas in their rural neighborhood and left her home driving her pickup truck to report it to authorities. Approaching the end of her driveway, they unknowingly entered a vapor cloud and the truck stalled. When Danielle turned the key to restart her truck it became the ignition source of an explosion spanning 15 acres. Danielle and Jason instantly lost their lives.*

*I blame myself for my daughter's death. I didn't know that there was a pipeline near. Had I been aware of the hazard, and I said during court that "If I won that I was going to open a foundation for pipeline safety to teach people the hazards-"*

*I hope again that more people in the industry, more school districts, more first responders invite them in.*

*I want the foundation to grow, I want the foundation to be all over the United States.*

*They are making a difference, and America is a greater place because of this foundation.*

*Danielle had big plans. A dynamic, wonderful girl for whom a foundation is named to do powerful things in the nation for safety and awareness. The Danielle Dawn Smalley Foundation.*

## GOALS AND OBJECTIVES

Our goal is to shift your perspective about pipelines from “training for a rare emergency” to considering pipelines a practical part of everyday public safety.

We do this by providing a comprehensive view of everyone’s role in pipeline safety, damage prevention, and emergency response including pipeline operators, those digging around underground pipelines, and you... public officials and first responders.

You will leave with a fresh perspective of how the underground world of the pipeline system relates to YOUR mission of public safety, and everyday awareness techniques that can position you to prevent an emergency as well as stay primed for a pipeline-related emergency.

## SIX TRAINING FOCUSES

- **Understanding** the state of the pipeline system today
- **Reviewing** common pipeline products, leak characteristics, and hazards of a release
- **Learning** how to use markings and online tools to locate pipelines in your community
- **Realizing how you can** take a proactive role in preventing a pipeline emergency that could lead to loss of life, property, or harm the environment
- **Understanding the importance** of advance preparedness by looking at common pipeline emergency response deficiencies and failures
- And finally, **empowering your department** to successfully work with pipeline operators to respond to a pipeline emergency.

## TRAINING MATERIALS

These materials have been provided so you can better see the detail of what is being presented on the screen.

These tools are designed to take back to your agency or vehicle for ongoing learning, reference, preplanning, and response use.

During this training you will be referencing these materials. When you see one of these images appear on the screen, please explore that item.

## REGULATORY AGENCIES

Pipelines are highly regulated for safety. On a Federal level, pipelines are regulated by [PHMSA – the Pipeline and Hazardous Materials Safety Administration](#), which is a division of the Department of Transportation.

PHMSA appoints a State regulatory body, which in Oklahoma, is the Oklahoma Corporation Commission.

Both agencies have the common goal to protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives.

You can learn more about each agency by visiting their websites.

## OKLAHOMA PIPELINES

Oklahoma, as a leading U.S. energy producer, defies the notion that production and consumption don't usually occur in the same place. According to 2015 figures from the EIA, we consume almost half of the energy we produce in this state. Where does the other half go? Much of it is transported through a vast pipeline network to areas of the U.S. where oil and gas are either not produced, or in short supply. Increasingly, our energy products are also being exported for consumption in other parts of the world.

So, how does oil and gas produced at the wellhead make its way to from the field to its ultimate destination and in the form its consumed in? ...Pipelines.

## PIPELINES TODAY

The following video clip explains the state of the pipeline system today... how it's aging, growing... and how we are co-existing with pipelines more now than ever before.

*“65 percent of the energy we use as a country is transported by pipelines. It allows us to live the life we want to, gives a certain level of prosperity that other countries don't. They're very safe and efficient. A medium-sized refined products pipeline moves in one day what it would take 225 rail cars to move. So that's why the [National Transportation Safety Board](#) says that pipelines are the cleanest, most efficient and safest way to move natural gas and hazardous liquid hydrocarbons. We have a network, and it's growing, of right now in excess of 2.6 million miles of pipe. And every bit of that product is hazardous.*

*These pipelines here were built in the '40s. During the '40s this was a farm field, but today it's a subdivision. It's important to understand that some older pipelines here in*

*the country are operating more safely today than they did 20 years ago, and that's due in great part to the technology that pipeliners have today.*

*This is an automatic valve. If there was a pipeline release downstream, personnel in the pipelines control center can automatically shut down this valve. The pipeline control center continuously watches over pipeline pressure, product flow and product temperature, always looking for any indication that there may be a problem.*

*Smart pigs are devices that are used by the pipeline company to tell what shape the pipeline is in underground. Smart pigs can detect internal and external corrosion. They can look at stress cracks. And in terms of excavation damage, smart pigs can tell where the pipeline has been dinged.*

*Anomalies occurring in populated areas become an inspection priority over other sections of the pipeline.”*

## **SAFETY OF PIPELINES**

When compared to other modes of transporting energy products, pipelines are the most safe and efficient. But when a pipeline emergency DOES occur due to a failure or human error, it has the potential for catastrophic consequences. To you, your fellow responders, the people and places within the impact zone, and community-wide.

Pipelines are a necessary component of our energy system and help deliver the resources that Americans rely on. To deliver these resources safely, pipeline operators are diligent in ensuring the integrity of their pipeline systems and the safety of the communities they operate in.

This starts with exceeding construction and engineering standards by using thick pipelines that are tested and proven strong under various pressures and conditions; using coating to protect from corrosion and other external damages; and burying new pipelines at or below minimum depths.

Then performing ongoing maintenance and monitoring that includes ground and aerial right-of-way patrols; remote pressure and flow monitoring; injecting corrosion inhibitors; and using internal pipe cleaning and inspection devices.

## **PIPELINE PRODUCTS**

As a first responder, dealing with hazardous materials can be especially challenging. There can be unseen, odorless hazards that you may be unknowingly entering.

This video clip provides an overview of common products that pipelines may be transporting through your community, how the products behave in the event of a leak and the hazards they present when they enter the atmosphere.

The [Pipeline Awareness Newsletter](#) also provides a summary of these products and more and can be kept on hand, at dispatch, or in your vehicle for quick reference.

*“Based on the type of products they carry, there are four major types of pipelines, natural gas, petroleum gas, crude oil, and refined products. There are over 325,000 miles of natural gas transmission lines in the United States. These are large diameter pipelines with pressures up to 1,900 pounds. Natural gas is the only pipeline product that’s a gas inside the pipe, and it will be a lighter-than-air gas if it’s released. Typically, the gas in these pipelines is odorless. The sense of smell is not going to be a way to detect a leak. Natural gas is generally odorized at a gate station where the local distribution company takes the gas from the gas transmission company.*

*Petroleum gases are primarily propane, ethane, butane, and natural gas liquids. Petroleum gases are liquids under pressure in the pipeline, but when they release, they’ll be a heavier-than-air gas. Crude oil is refined into nearly 50 different refined products, including various grades of gasoline, diesel fuel, jet fuel, Avgas, kerosene, home heating oil, and fuel for ocean-going vessels.*

*Not only are crude oil and refined product vapors combustible, but they may also be toxic. Crude oil can contain hydrogen sulfide, and there are many carcinogens in refined products. The hole in the pipe is not the bad thing, where that product has gone is the bad thing.*

*Pipeline products, whether vapors or liquids, can migrate below the ground through the soil, through field tile, through sewer pipe. With a crude oil or a refined product pipeline, the liquid can be transported one way on the surface but another way below ground. Natural gas migration has been responsible for some horrific accidents over the years. Natural gas, like all pipeline products, will follow the path of least resistance. When the path of least resistance leads a product towards an ignition source, that’s when disaster can happen.”*

## **TYPES OF PIPELINES**

Let’s review the three main types of pipelines and their functions:

Gathering lines gather raw product from its natural source and transport it to a processing facility, storage, or transmission line.

Transmission lines typically transport natural gas from a gathering, processing or storage facility to another facility, large volume customer, or distribution system. Transmission lines also transport crude oil from a gathering line to a refinery and then move the refined products from the refinery to a distribution center.

Distribution lines typically transport natural gas from storage facilities and transmission lines and deliver it to end-users or customers.

## **NATURAL GAS ODORIZATION**

By now you know that natural gas does not naturally have an odor. However, some natural gas pipelines are odorized for public safety which includes most distribution lines.

## **THE NEW LONDON SCHOOL EXPLOSION**

New London Texas, was known as the richest independent school district in the United States. Due to its oil wealth, the district was able to construct a state-of-the-art, for its time, school to house grades K-11.

On March 18, 1937 students prepared for an Inter-scholastic meet in Henderson. Then, at 3:17 p.m., an instructor in the shop class turned on a sanding machine which sparked. In an instant, a good part of the building disintegrated with an explosion that could be heard for miles. Almost 300 students and teachers died in the blast. The spark had ignited odorless natural gas that had leaked from a pipeline and accumulated in a crawl space beneath the school.

Following the tragedy, a surviving child petitioned the Texas Legislature to pass a bill requiring the addition of a mal-odorant to natural gas that provides the common rotten-egg smell that has served as a critical public safety element ever since.

*“What happened here in the community of New London, Texas a half-century ago has largely been forgotten by the rest of the world. School would be dismissed in a matter of minutes. In the basement-level shop class, teacher Limmie Butler reached for an electrical switch to turn on a saw. There was a spark. People up to 12 miles away heard the explosion; but, here at the epicenter, it was strangely quiet.*

*It just happened instantly. Everything went up, and it seemed like I was in a whirlwind. Then it all settled down, and that’s the last I remember.*

*The spark had ignited a pocket of natural gas. In an instant, almost 300 children were killed. It was the worst disaster involving children the world had ever known. Even Adolf Hitler sent his condolences. But not even a world of sympathy could soothe the grief of that spring day.*

*One of the first wire service reporters to arrive in New London that day was a 20-year-old United Press reporter assigned to the Dallas office.*

*We saw this great pile of debris. That’s all it was. You couldn’t have identified it as a building. It looked like a pile of debris that might have been bulldozed together into that*

*little area and hundreds of men, looking like ants, digging into that rubble, taking stone by stone away, trying to reach, in many cases, their own children. As we got closer, we found that tears were smearing their dirty, rough-hewn faces, as their bloodied hands were picking up these pieces piece by piece and eventually finding a body and lifting it out.*

*Walter Cronkite would go on to cover many more stories, but the New London school explosion stands in his mind as the worst peacetime disaster he's ever covered.*

*In the Pleasant Hill Cemetery, most of the tombstones read the same date: March 18, 1937, a day the rest of the world has forgotten. The explosion was blamed on a natural gas leak. To save money, the school had tapped into a pipeline carrying raw natural gas, which is odorless. No one knew the gas had leaked into a crawl space beneath the school. As a result of the explosion, laws were passed requiring gas suppliers to add that pungent odor we smell in gas today."*

## **PIPELINE PRODUCT CHARACTERISTICS**

The center page of the Pipeline Awareness Newsletter in your toolkit, provides a summary of product safety information as well as this leak, hazard, and emergency response chart. Knowing in advance what product's you may encounter is critical to knowing the situational risks.

Don't forget that the [ERG – Emergency Response Guidebook](#), is a great resource for these hazardous materials as well. You may already have the book, but you can also access this information online or install the mobile app. Here are the ERG numbers for these common products transported via pipelines.

## **MIGRATION**

Migration can be an unseen danger. Both gas and liquid products can migrate above ground and underground. In many cases, gas migrates through loose soil or follows other utility lines such as sewer lines, from its original source of a pipeline leak.

Following the path of least resistance, it can escape in or under a house or other structure which can easily be ignited by something as simple as a light switch, doorbell, or AC unit.

Remember migration when arriving on the scene and determining where to park emergency vehicles. Avoid parking near a manhole cover or sewer.

## **PIPELINE LOCATIONS**

Being aware of pipeline locations is very empowering. It can help you know what is being transported underground through your community and where, help you know where to watch

for unsafe digging activity that may result in a catastrophic emergency and help you identify if there are any high consequence areas near them.

This video demonstrates how to identify pipeline locations in your area.

*“A pipeline marker’s purpose is to notify excavators and the public alike, that there is a pipeline nearby. Every pipeline marker is going to contain three pieces of information, the type of product transported, the name of the operating company, and the 24/7 emergency number. The emergency number connects directly to the pipeline control center.*

*Pipeline markers are designed to be line of sight. You should be able to stand at one pipeline marker and see the next pipeline marker in either direction. Never rely on pipeline markers as a replacement for calling [811](#). Pipeline markers are not always located directly on top of pipelines. A pipeline may not run exactly straight between two pipeline markers. This is an aerial marker. The aerial marker indicates mileage, just like the signs along the side of an interstate highway.*

*Pilots who fly the line for safety, use these markers to report locations of certain circumstances to the pipeline operator on the ground.*

*Now, sometimes pipeline right-a-ways are marked. This is the swath of land that the pipeline leases from the landowner, so they can always get out to maintain or inspect their pipeline. The right-a-ways can be very narrow, or they can be wider. There’s no uniform width of a pipeline right-a-way.*

*There can be multiple pipelines in a right-a-way. The pipelines don’t have to be right in the middle of the right-a-way. They can be off to the sides. Just because you see two markers, doesn’t mean that there might not be three pipelines in a right-a-way. Remember, calling [811](#) to have pipelines marked is the only sure way to know where pipelines are located.”*

## **FINDING YOUR COUNTY PIPELINE MAPS**

County Maps and Operator Lists provided in this training SHOULD NOT BE USED to determine exact location of pipelines or as a substitute for calling 8-1-1 before digging and MAY HAVE CHANGED since the time we acquired them.

To ensure you have the most current pipeline maps possible, please obtain maps using the online National Pipeline Mapping System reviewed in this section.

Can be viewed/downloaded from your county toolkit on [www.practicalpipelines.org](http://www.practicalpipelines.org)

As mentioned in the video, [NPMS – the National Pipeline Mapping System](#), provides an online pipeline mapping tool.



It is important to note that NPMS provides information and maps for TRANSMISSION pipelines but does not include other types of pipelines such as gathering or distribution.

As an emergency responder, you can request the geospatial data for your county from NPMS, otherwise, click on “[general public](#)” for available options.

There you can either “[launch the Public Map Viewer](#)” to render a map or “Find who’s operating pipelines in your area” for a list of operators. Then select your state and county from the dropdown menu.

If you “[launch the Public Map Viewer](#)” a map will render for the location you selected. This is an example of the [map for YOUR county](#). Blue lines indicate gas (like natural gas) while red indicates liquid products (like crude oil).

This is an example of the “[list of operators” it provides for YOUR county](#). This is a good starting point in your research for advance preparedness. However, it does not provide ALL of the information you will need. It does provide a company name and contact number which can be used to obtain other details which you will need, such as the product being transported. It is important to note that pipeline companies often buy and sell assets.

Operators are requested to submit updated information to NPMS annually so do not assume that all information provided here is conclusive or up-to-date.

PIMMA – The Pipeline Information Management Mapping Application was developed by PHMSA for use by pipeline operators as well as federal, tribal, state, and local government officials, including volunteer departments. The application contains hazardous liquid and gas transmission pipelines, Liquefied Natural Gas plants and breakout tank data.

With PIMMA...

LOCAL GOVERNMENT OFFICIAL (INCLUDING ALL EMERGENCY RESPONDERS) can access all NPMS facilities in their counties

STATE GOVERNMENT OFFICIALS can access all NPMS facilities in their state

FEDERAL GOVERNMENT OFFICIALS can access all NPMS facilities in their area of interest in the entire U.S.

TRIBAL GOVERNMENT OFFICIALS can access all NPMS facilities in the counties that intersect tribal lands

See page 3 of the Pipeline Awareness Newsletter in your Toolkit for more information about PIMMA access or visit the link below for webinar recordings

<https://pipelineawareness.org/news/webinars/>

Now that you know how to recognize pipeline locations in your community, look for HCAs or High Consequence Areas. These are areas, defined by the [American Petroleum Institute](#), as being in proximity to a pipeline where a release could have greater consequence. This includes buildings containing many people (like a school, church, or hospital), that are not easy to evacuate. It also includes certain environmental areas such as critical waterways.

## **DAMAGE AND EMERGENCY PREVENTION**

Utilizing online mapping tools is a great way to obtain information and maps about pipelines, but you can also use everyday observation to look for pipeline markers and colored flags and paint on the ground.

This video provides a look at how important knowing where pipelines are and how, together, we can protect them from damage that can lead to a preventable emergency.

*“When you dial 8-1-1 anywhere in the U.S. you will be connected with that state or area’s one call center. 8-1-1 is a national brand, but it is also a simplified method of dialing the one call centers. When pipeline personnel respond to an 8-1-1 request, they put a radio signal onto the pipeline. This signal is detectable by a hand-held instrument. Pipelines are marked with paint and flags. Probing permits the pipeline operator to know for sure where that pipeline is without having to expose it. When excavators dig near pipelines, hydro-excavation is used so that excavators can see the pipeline during their excavation. If excavation’s going to occur close to a pipeline, a pipeline representative will want to be there to observe the excavation. Scraping even a small section of a pipeline’s coating will result in corrosion on that pipeline, and ultimately this corrosion could be the cause of a leaking pipeline.*

*It is a federal law to call 9-1-1 whenever there is a release of a hazardous liquid or a hazardous vapor. Excavators that work with the pipeline companies, which is the great, great, great majority of them, understand the nature and the danger involved with excavating near pipeline without the pipeline company’s consent, knowledge, and observation. Pipeline leaks caused by excavation damage represent an immediate threat to your safety, the safety of your crew, general public safety, the pipeline, and these leaks could pose an immediate environmental threat.*

*While there are other causes of pipeline leaks those leaks caused by excavation damage are nearly always avoidable. Excavators using 8-1-1 and working with the pipeline companies when they excavate near the pipeline can help bring the rate of avoidable damage down to nearly zero.”*

As a first responder, you may not be out digging around pipelines each day, but excavators are, and knowing what their responsibilities are when it comes to reporting damage is an important piece of emergency response.

If an excavator makes unintended contact with a pipeline, they have a responsibility to report it instead of just covering it up... which could lead to a rupture... and a catastrophic emergency.

If damage is done that causes the release of a product, it is a FEDERAL LAW that the responsible party call 911 immediately. If possible, they should also call the pipeline operator and CAN call 811 as well. They should never try to stop the leak or repair it themselves.

Even if the damage did not cause an apparent leak of product, they must report it. They may have compromised the protective coating on the pipeline and over time corrosion will focus on that area, and sometimes even years later... a rupture could result.

### **OKLAHOMA DAMAGE STATISTICS**

Many first responders wonder how often pipeline damage occurs in their area. Luckily pipeline damage is being reported nationwide by operators to [CGA – the Common Ground Alliance](#), which is then analyzed and made available to the public.

These statistics reveal that damages are on the rise in Oklahoma... More than tripling in one year.

Increased digging activity is often correlated to population and infrastructure growth as well as other factors. Considering the number of pipelines in Oklahoma, increased digging activity elevates the risks... and heightens the need to be aware, prepared and help prevent pipeline emergencies.

Damage prevention is EVERYONE'S responsibility. From a homeowner to a professional excavator. How do you fit in? First responders are the fabric of the community. Your mission each day is public safety. Since unsafe digging is a risk to public safety ... YOU have a role.

Another fact that many first responders want to know is "WHERE are damages happening." You may have not noticed it before but digging is probably happening right in front of you. In fact, according to the DIRT Report, the #1 location damages are occurring is on public and city streets. If you see a shovel and you don't see indications that 811 has been called to mark underground pipelines, it's a risk to your community. When it comes to unsafe digging, if you see something ... say something.

### **THINGS YOU CAN DO EVERYDAY**

You can become more familiar with what's below your community and where by using your observation skills.

Watch for colored flags and paint on the ground.

Pipeline markers can be seen marking right-of-ways and contain the company name, product, and emergency number. However, they do not tell you the exact location of the pipeline.

Please be aware of pipeline construction, installation, and maintenance going on in your county. If you notice such pipeline activity, we encourage you to find out more about the project.

The No. 1 reason for pipeline damage in the U.S. is still digging. When 811 is called prior to digging, damages occur less than 1% of the time. So, what can you do to help promote it?

You can educate others in your community by speaking to schools, public works, or other stakeholders. If you see excavators digging in your community and it IS apparent that they called before digging, tell them thank you for helping keep your community safe.

You can include an 811 message in your safety meetings, hand out 811 information in your community, place an 811 decal on your agency door or vehicle, and add it to your website, just to name a few.

Over time, you can strengthen the safety culture in your community when it comes to protecting underground infrastructure which could reduce the likelihood of a pipeline emergency.

### **ADVANCE PREPAREDNESS**

According to the [Transportation Research Board](#), minor pipeline incidents occur frequently and are handled safely and effectively by pipeline operators and the emergency response community. However, there are also pipeline emergency scenarios, such as those involving transmission pipelines, which have the potential to quickly escalate into high consequence events.

As low frequency/high consequence events, first responders and pipeline operators are sometimes not adequately prepared to successfully respond this type of event, which can be inherently complex and require the coordination of multiple response agencies and organizations and that have both short-term and long-term impacts that go well beyond the response phase of the incident.

As an effort to improve the outcome of future incidents, the [Transportation Research Board](#) conducted [a study of MAJOR pipeline incidents in the U.S.](#) – major meant that they included significant loss, injuries, or deaths.

The Danielle Dawn Smalley incident was included in the study.

[The report](#) identified recurring challenges and response failures.

### **THE 911 CALL**

This was over 20 years ago.

As you listen: What dynamics would be different today? What dynamics may be the same? How can we be more prepared?

*Speaker 1: We had a man call about a pipeline break. Have you been contacted?*

*Speaker 2: Yes. Is it a pipeline break?*

*Speaker 1: Yes ma'am.*

*Speaker 2: Okay. Hold on just a second. Let me get all this information. I know we've got ...*

*Speaker 1: Well, I don't ...*

*Speaker 2: There's a major gas problem going on.*

*Speaker 1: A what?*

*Speaker 2: Okay ... And there is a gas break?*

*Speaker 1: Yes.*

*Speaker 2: Okay.*

*Speaker 1: I told him to evacuate because it was getting pretty bad.*

*Speaker 2: Okay. Well, we've got the location, sir.*

*Speaker 1: Okay. I need that, please.*

*Speaker 2: It's out in Lively area, at ... Oh, let's see here.*

*Speaker 1: Where is it? I don't see that on my map anywhere.*

*Speaker 2: Okay. Hold on one second.*

*Speaker 1: Going to be down around Lively. Do you know where that is? Do you want to head that way?*

*Speaker 2: Okay. We've had a major gas blow.*

*Jerry: I'm going to head that way right now.*

*Speaker 1: Just a minute.*

*Jerry: Have you got ahold of him at all?*

*Speaker 1: No, I've been paging him and trying everything.*

*Jerry: Okay. Well ...*

*Speaker 2: Okay.*

*Speaker 1: Okay, Jerry. I've got the county sheriff. What you said.*

*Speaker 2: Girl, I'll handle 9-1-1. I'll handle it. I'll handle this, you do that radio.*

*Speaker 1: Okay, hang on, Jerry.*

*Speaker 2: Okay.*

*Speaker 1: Okay ma'am, go ahead.*

*Speaker 2: Okay. Hold on a minute, sir.*

*Speaker 1: Okay.*

*Speaker 2: Kaufman County, Kaufman County 9-1-1, what's your emergency? Yes, ma'am. Yes, ma'am, we're aware of it. Yes, we are. Our 9-1-1 is going nuts here.*

*Speaker 1: Oh, I bet.*

*Speaker 2: Kaufman County 9-1-1, what's your emergency? Yes, ma'am, it's out in lively*

area in...

Speaker 1: *Make your calls. Can you just head that way and call me when you get over here?*

Speaker 2: *Okay, we've had a major gas break out there. Okay, uh-huh. Another one?*

Speaker 1: *No.*

Speaker 2: *Kaufman County 9-1-1 what's your emergency? Yes, yes, we've got, here? Yes, we got it. Uh-huh. Oh, God. Sir, I'm gonna have to let you go, I'm sorry.*

Speaker 1: *Well, I ...*

Speaker 2: *Well, okay, okay.*

Speaker 1: *Go down on 34, take and go towards 148. Go to Lively store, to Lively store and take a right and take two miles.*

Speaker 4: *Yeah.*

Speaker 1: *And, he'll come to ...*

Speaker 4: *You see it when you get there.*

Speaker 1: *Okay. Is there ...*

Speaker 4: *They say the flames are about 200 feet.*

Speaker 1: *Flames?!*

Speaker 4: *Yeah.*

Speaker 1: *What caught on fire?*

Speaker 4: *It's a gas main broke, blew up.*

Speaker 1: *Good God.*

Speaker 4: *Okay?*

Speaker 1: *Yeah, but something had to spark the fire.*

Speaker 4: *I don't know sir, but I've got a lot of 9-1-1's to get. Is there anything else you need?*

Speaker 1: *No, sir do you need my number though to get ...*

Speaker 4: *Okay*

## **NENA PIPELINE EMERGENCY OPERATIONS STANDARD**

In the aftermath of [a pipeline incident in 2007 that killed two and injured seven](#), the [NTSB – National Transportation Safety Board](#) recommended that 911 emergency personnel receive regular training and participate in regional exercises and drills pertaining to pipeline safety.

As a result, [NENA – the National Emergency Number Association](#) developed a standard that focuses on the FIRST MINUTE of the call intake process since “actions during that time significantly impact the effectiveness of the response and are critical to public safety.”

Please turn to the “What Can Go Wrong” tab in your training booklet for the next few slides.

In total, [the study](#) revealed the following inadequate incident-management areas:

- Delayed notification to the pipeline operator
- Delayed notification to emergency responders
- On-scene coordination problem between the pipeline operator and emergency services
- Delayed action by the pipeline operator
- Emergency service on-scene problem
- Pipeline operator on-scene problem
- Other deficiencies

*Some incidents experienced multiple deficiencies.*

Taken from the [NENA Pipeline Emergency Operations Standard](#), we have provided this list in the [Training Booklet](#) to aide dispatchers during the call intake process. Dispatchers may duplicate this list for ongoing use (or ask for more copies).

This [checklist](#) was created as a consumable document to equip dispatchers to:

- Ask and document leak indications described by the caller
- Quickly determine if a pipeline may be involved communicate steps the caller needs to take for immediate safety
- Disseminate the facts reported set the response effort up for success

As learned in the Smalley 911 video, the best thing you can do today is prepare for tomorrow. Waiting until it happens and then trying to figure out who to notify goes back to the #1 response failure... losing critical time and contributing to additional loss and injury. This is a list of a few things you can NOW do to avoid experiencing response deficiencies:

- Increase the information you have about the pipelines in your area – include as many details as you can, especially who operates them, their emergency number, and what product is being transported
- Develop skills, such as learning leak indicators, so that you can quickly determine if a pipeline may be involved
- Ensure that dispatch is properly trained and prepared for pipeline emergency calls and knows what to tell callers who are in immediate danger of hazardous materials
- Attend pipeline training that is offered in your area
- Reach out to your local pipeline companies and establish communications before they are needed
- Conduct drills and exercises with your local pipeline companies
- Once you do these things, keep doing them so that your planning and training always remains current and in-mind.

The [chart](#) provided under the “Preparing Your Agency” tab of your [Training Booklet](#) is an example of how you can organize your preplanning research; however, you can use any spreadsheet or chart that works best for you. Remember, there are many sources for this information available including:

- The [National Pipeline Mapping System website](#)
- You can contact the companies listed on nearby pipeline markers and ask for information or look at their websites

## **PIPELINE EMERGENCY RESPONSE**

In pipeline emergency response, the No. 1 priority is public safety and environmental protection!

In this video clip, you will see footage from the Danielle Dawn Smalley pipeline incident and hear first-hand accounts recorded at the scene.

*“In August 1996, Smalley was home with his daughter, Danielle, and her friend, Jason Stone. Danielle was packing to leave for school the next day, the first person in her family to go to college.*

*She and Jason started smelling gas, and they were complaining to me that it was making them nauseated.*

*It was butane, pouring from a corroded Koch Industries high-pressure pipeline 200 yards from their home. Jason and Danielle set out in a pickup truck to find help.*

*No sooner than I had shut the door than I heard a giant explosion. I ran around, hoping that it wasn't my child and Jason that had been hurt in it, that maybe they made it through, and then I started running in the direction that they had been going, and there was a wall of flame and smoke.*

*Their truck set off the butane.*

*Like a lot of neighborhoods in Texas, Lively, 45 miles southeast of Dallas, has a pipeline running through its heart. It carried potentially explosive liquified petroleum gas under very high pressure, and like a lot of communities, there was a lot the people in Lively did not know about their neighbor, the pipeline. For instance, that it had a 30-inch crude oil pipeline running right alongside.*

*They didn't think much about the pipeline until the afternoon of August 24th. Rick spotted the breach.*



*You ever seen Old Faithful, of Yellowstone? That's about what it looked like. I mean, it was spewing a good, probably, I'd say 60 feet in the air.*

*The liquefied natural gas had turned into a vapor and settled in low areas. When ignited, it became a virtual vapor bomb, burning everything in its path. 400 miles away, at a control room in Wichita, Kansas, a technician at Koch Industries, which owns the pipeline, could see the disaster taking shape. Like many pipelines, this system is remotely monitored hundreds of miles from its end.*

*The first caller we got was we had 21 911 calls in this area, from the fumes, so terrible that they were scared to turn their lights on, scared to leave, to start their cars.*

*Emergency crews were just arriving when the flames shot up.*

*We're responding to the smell of natural gas. I was down here. There was an explosion. Came around the corner, saw this wall of fire.*

*I stuck my head out the door and smelled it. I said, "Let's get out of here." We got in the van, went around the corner, and it died. Got out of the van and ran.*

*And while I was sitting there, it ignited. The flames came almost up to the front door of my house, and then went around behind it. And I mean, when I came out the front door, probably about 150 degrees on the porch.*

*The section that blew up was 15 years old. It was corroded and split apart lengthwise in a one-foot gash."*

Remember that hazardous materials emergencies, like a pipeline leak, can escalate in the blink of an eye. Sudden changes can occur such as an unexpected change in wind direction or vapors erupting into a fire without warning.

## **DO**

- Approach the site cautiously, from an upwind direction and park a safe distance away.
- Identify product vapors and other hazards (remembering that some hazards may be unseen and odorless), and avoid introducing ignition sources of any kind.
- Secure the area and deny entry by blocking roads.
- If an evacuation is necessary, ensure that it is by foot, in the opposite direction of the pipeline, and upwind if possible.
- Call for backup or medical help if needed.

- Pipeline Company employees should report to the incident commander upon arriving on the scene and will coordinate with first responders to mitigate the incident.

### **DO NOT**

- First and foremost, never rush in.
- Do not attempt to close any valves without direction from pipeline company personnel. Doing so can cause pressure problems and worsen the situation.
- Do not attempt to extinguish a pipeline fire unless instructed by pipeline company personnel. Perimeter fires can be extinguished. If the pipeline leak is on fire, it is contained. Be aware that there can be more than one leak on the pipeline.
- Do not attempt to cover or repair any leaks or damage on a pipeline and do not allow a contractor to go into an excavated trench.

### **IF AN EVACUATION IS NECESSARY**

Use minimum manpower, wear full bunker gear and avoid ignition sources such as vehicles, doorbells and field apparatus including radios and mobile devices (unless it is intrinsically safe).

Evacuees should not switch off lights or use mobile phones while exiting structures.

### **RESPONSE MODES**

When determining the appropriate response mode, there are three common options:

- Taking a defensive mode is a less aggressive spill and fire control tactic and would be appropriate when certain areas may be conceded to the emergency with response efforts directed towards limiting the overall size or spread of the problem. This includes evacuations, air monitoring, and exposure protection.
- Taking an offensive mode may be needed when the leak, spill or fire needs to be controlled quickly.
- Sometimes a nonintervention mode is taken for a period of time, where observation is done, but no action is taken at that time.

Water Fog and dry chemicals can be used to disperse gas vapors.

Never straight-stream hydrocarbons.

- If the leak has been ignited resulting in a fire, it is contained. Do not attempt to put it out unless advised by pipeline company personnel. A natural-gas-fed fire should only try

to be extinguished if the gas flow is under control first. Wait for the pipeline technicians to arrive and shut off the gas to starve the fire safely.

- If you have been advised that it is safe to extinguish a pipeline fire, use appropriate firefighting techniques to do so.

## **THANK YOU**

First responders are the fabric of their communities. You can help improve the underground safety culture by educating others in your department, agency, organization or affiliated groups. In addition, you can share life-saving messages in your home, schools, churches, businesses and with local excavators. The Smalley Foundation can help equip you with free resources for sharing pipeline safety information!

YOU are why we exist! Thank you for participating in Practical Pipelines and helping us advance our mission by training today. Be sure to “report your training completion” by clicking the button on your county page of [practicalpipelines.org](http://practicalpipelines.org).