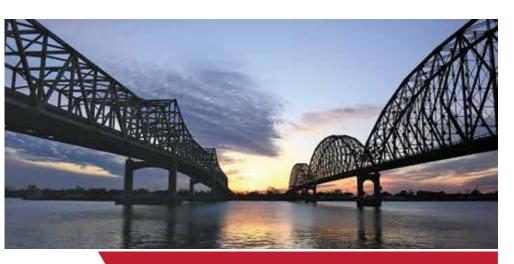




# **Coordinated Response Exercise**

PIPELINE SAFETY TRAINING FOR FIRST RESPONDERS



## **PROGRAM GUIDE**

Overview

**Pipeline Safety** 

**Exercise Outline** 

**Emergency Response Guidebook** 

**NENA Pipeline Emergency Operations** 

Signs Of A Pipeline Release

High Consequence Areas Identification

Pipeline Industry ER Initiatives

Pipeline Damage Reporting Law

2025



#### Table of Contents

Overview	4
Pipeline Safety	6
Emergency Response Guidebook	15
Emergency Response	16
NENA Pipeline Emergency Operations - Initial Intake Checklist	18
Signs Of A Pipeline Release / What To Do If A Leak Occurs / Pipeline Emergency	19
High Consequence Areas Identification / Identified Sites	20
Common Ground Alliance Best Practices / Pipelines In Our Community / Training Center	21
Damage Prevention Programs / Pipeline Markers / Call Before You Dig	22
Pipeline Damage Reporting Law / Websites	23
Operator Information	24
About Paradigm	27
Emergency Contact List	28

#### **Pipeline Purpose and Reliability**

- · Critical national infrastructure
- Over 2.7 million miles of pipeline provide 65% of our nation's energy
- · 20 million barrels of liquid product used daily
- · 21 trillion cubic feet of natural gas used annually

#### **Safety Initiatives**

- · Pipeline location
  - ° Existing right-of-way (ROW)
- · ROW encroachment prevention
  - No permanent structures, trees or deeply rooted plants
- · Hazard awareness and prevention methods
- Pipeline maintenance activities
  - ° Cleaning and inspection of pipeline system

#### **Product Hazards and Characteristics**

#### Petroleum (flow rate can be hundreds of thousands of gallons per hour)

- Flammable range may be found anywhere within the hot zone
- · H2S can be a by-product of crude oil

Type 1 Products	Flash Point	Ignition Temperature
Gasoline	- 45 °F	600 °F
Jet Fuel	100 °F	410 °F
Kerosene	120 °F	425 °F
Diesel Fuel	155 °F	varies
Crude Oil	25 °F	varies

#### Natural Gas (flow rate can be hundreds of thousands of cubic feet per hour)

- Flammable range may be found anywhere within the hot zone
- · Rises and dissipates relatively quickly
- H2S can be a by-product of natural gas PPM = PARTS PER MILLION

° 0.02 PPM	Odor threshold
<ul> <li>10.0 PPM</li> </ul>	Eye irritation
400 DDM	llaadaaba di=-

100 PPM Headache, dizziness, coughing, vomiting

200-300 PPM
 500-300 PPM
 6 Source Source Consciousness/possible death in 30-60 min.
 700-900 PPM
 8 Consciousness/possible death in 30-60 min.
 700-900 PPM
 9 Over 1000 PPM
 100 PPM</l

- · Incomplete combustion of natural gas may release carbon monoxide
- Storage facilities may be present around populated areas/can be depleted production facilities or underground caverns
- · Gas travel may be outside the containment vessel along the natural cavern between the pipe and soil

#### **Propane, Butane and Other Similar Products**

- Flammable range may be found anywhere within the hot zone
- Products cool rapidly to sub-zero temperatures once outside the containment vessel
- · Vapor clouds may be white or clear

Type 3 Products	<u>Flash Point</u>	Ignition Temperature
Propane	- 150 °F	920-1120 °F
Butane	- 60 °F	725-850 °F

#### Line Pressure Hazards

- Transmission pipelines steel (high pressure: average 800-1200psi)
- Local gas pipeline transmission steel (high pressure: average 200-1000psi)
- Local gas mains and services steel and/or plastic (low to medium pressure)
  - Mains: up to 300psi
  - · Service lines: up to regulator
    - Average 30-45psi and below
    - Can be up to 60-100psi in some areas
- · At regulator into dwelling: ounces of pressure

#### Overview

#### **Leak Recognition and Response**

- · Sight, sound, smell indicators vary depending on product
- · Diesel engines fluctuating RPMs
- Black, dark brown or clear liquids/dirt blowing into air/peculiar odors/dead insects around gas line/dead vegetation
- · Rainbow sheen on the water/mud or water bubbling up/frozen area on ground/frozen area around gas meter
- · Any sign, gut feeling or hunch should be respected and taken seriously
- · Take appropriate safety actions ASAP

#### **High Consequence Area (HCA) Regulation**

- Defined by pipeline regulations 192 and 195
- · Requires specialized communication and planning between responders and pipeline/gas personnel
- May necessitate detailed information from local response agencies to identify HCAs in area

#### **Emergency Response Basics**

- · Always follow pipeline/gas company recommendations pipeline representatives may need escort to incident site
- · Advance preparation
  - Get to know your pipeline operators/tour their facilities if possible
  - Participate in their field exercises/request on-site training where available
  - · Develop response plans and practice
- · Planning partners
  - · Pipeline & local gas companies
  - · Police local/state/sheriff
  - Fire companies/HAZMAT/ambulance/hospitals/Red Cross
  - LEPC/EMA/public officials
  - · Environmental management/Department of Natural Resources
  - · Army Corps of Engineers/other military officials
  - · Other utilities
- · Risk considerations
  - Type/volume/pressure/location/geography of product
  - · Environmental factors wind, fog, temperature, humidity
  - · Other utility emergencies
- · Incident response
  - Always approach from upwind/park vehicle a safe distance away/if vehicle stalls DO NOT attempt to restart
  - $^{\circ}\,$  Gather information/establish incident command/identify command structure
  - Initiate communications with pipeline/gas company representative ASAP
  - Control/deny entry: vehicle, boat, train, aircraft, foot traffic, media refer all media questions to pipeline/gas reps
- · Extinguish fires only
  - · To aid in rescue or evacuation
  - To protect exposures
  - · When controllable amounts of vapor or liquid present
- · Incident notification pipeline control center or local gas company number on warning marker
  - · In Pipeline Emergency Response Planning Information Manual
  - · Emergency contact list in Program Guide
  - Call immediately/provide detailed incident information
- · Pipeline security assist by noting activity on pipeline/gas facilities
  - Report abnormal activities around facilities
    - Suspicious excavation/abandoned vehicles/non-company personnel/non-company vehicles
  - Freshly disturbed soil/perimeter abnormalities

#### One-Call

- · One-Call centers are not responsible for marking lines
- Each state has different One-Call laws. Familiarize yourself with the state you are working in
- · Not all states require facility owners to be members of a One-Call
- · You may have to contact some facility owners on your own if they are not One-Call members
- · In some states, homeowners must call before they dig just like professional excavators

#### Pipeline Safety

#### **Pipeline Emergency Response Training**



First Responders and Emergency Personnel



Instructor: John Cory



#### CORE

#### Coordinated Response Exercise®

- Learn your roles and responsibilities as emergency responders should a pipeline emergency happen in your jurisdiction. As well as your access to resources.
- Acquaint you with the operator's ability to respond to a pipeline emergency
- Identify the types of pipeline emergencies.
- Plan how all parties can engage in mutual assistance to minimize hazards to life, property and the environment.

Code of Federal Regulations (CFR): 49 CFR Parts 192 and 195

the pipeline companies, to create a coordinated effort responding to pipeline incidents and accidents. These programs take place over 1,000 times in 46 states and





CERE



Pipeline Operator: Tim Jim Jones with ABC Pipeline Company. Tim selling your direct movine because time in special operators in our SCADA corner leaded in writing to Texas. We are required to give you is "Notice of Formstal Release" on one of our operator in your jurisdance.

tions transferry to the an emergency? If so, I need to transfer you to an em Pipeline Operator: We are unsure of the eract altration; we are working through the details with our local constition and need to ensure we are in communication with local responders as details while! His please therefor me to the 6-1-1 dispetcher, thenk you.

Pipeline Operator: Fin are Johns with Alic Pipeline Company I am in special consistency is our SCADA content doubled in Houston, financ, fair are required to contant your reporting a "Notice of Potential Faircase" on one of our publics in your jurisdiction. Emergency Diagrapher: CR, 4th you know the exact struction of the pokential rel

Pipeline Operator: We do not have a specific location at thic time - it could be in siberty County or Curtral County, next door to you.

ngency Singulate. What company are you with again?

Pipeline Operator: We have 10 males of pipeline in Laberty Chiefly. We have yet to confirm there is no led unlimitered. The pipeline is 20 or dismettered has an MAOP of 900 PSE. my Dispetch: What actions do you need us to take right now?

Pipeline Operator: Engage your appeline emergency imposes procedures for a potential pipeline menagency, and stand by for additional information. For got to provide notice of potential release to three additional PIAPs, so Fill be terminating that call now.

Central Dispatch Receives a call...



#### Table and / or Group Discussion



- Your dispatch has just received a NOTICE OF POTENTIAL RUPTURE. The caller represents a pipeline company following their in-house emergency response plans.
- Now, discuss with those around you how your dispatch will handle this information. What existing policies and procedures are applicable to this call? Describe, at least generally, those relevant policies and procedures.
- · Work with the pipeline operators present to discuss, evaluate and prepare for a response to a potential rupture on their facilities,

CORE



#### Virtual Scenario Manager (VSM™) Map



#### New PHMSA Rule - Impact on PSAPs

For both natural gas and hazardous liquids pipelines

- Rupture mitigation valves must be installed on all newly constructed and replaced picelines 6" in diameter or greater for onshire gas transmission and hazardous liquids 4. This does not include natural gas distribution pipelines.

  Pipeline operators must contact 9-1-1 or Emergency Management with a 'notice of potential reputs."

#### How does this rule potentially affect PSAPs

- Will your agency process this call when notified of a 'potential' release?
  Will you record it and not pass it on to your response agencies?
  Will you record and pass that information on to your response agencies?

  - Will this require your PSAP date enormation on to your response agencies?
     Will this require your PSAP and emergency services to develop written policies?
     Where, potentially, could this call be coming from?
     Pipeline control centre location.
     Contacting a PSAP through the non-emergency number (no Automatic
- Number of some country in the entire country for Automatic Number identification (Aut). No actionate Location Identification (Aut) is this number monitored 24/7?
   If public operators were required to update their Emergency Response Plans (ERP) with this requirement in October 2022.

#### CERE



#### What is the intent of this new final rule?

- To require design and equipment elements and improved operational practices for quick and efficient identification of raphares, that in turn will improve rupture immigration and shorten rupture isolating times for certain gas transmission, gathering, and hazardous liquid pipelines.
- hazardous liquid pipelines. Rupture isolation time, as it is discussed in this final rule, is the time it takes an operator to identify a upsture after notification of a potential rapture, implement response procedures, and fully dose the appropriate valves to terminate the uncontrolled flow of commodity from the ruptured pipeline segment.



CORE

#### Potential "Best Practice" for Pipelines



CORE

#### National Emergency Number Association (NENA)

#### Pipeline Emergency Operations Standard

NENA's pipeline emergency operations workground

- NEMA's pigeane company of the recommendations

  Awareness of pipelines affecting the 911 service area

  Pipeline leak recognition and initial response actions

  Additional notices to pipeline operators

Initial intake checklist

Quick reference guide in program materials

#### Pipeline emergency operations standard/model recommendations

Access the full report through nena.org

"Actions taken during this time frame aignificantly impact the effectiveness of the response and are critical to public safety"





#### CORE



#### **Pipeline Outreach to Stakeholders**

- Mailings (More than 20 Million pieces annually)
- Over 1,000 Liaison Meetings with Emergency Officials, Public Officials, and Excavators
- . Face-to-Face Meetings with Emergency Officials at their agencies
- Emergency Response Planning Portal (ERP)





#### CORE



#### **Pipeline Operators Emergency Response Plans**

#### Natural gas and hazardous liquids

- Notify appropriate fire, police, and other public officials of gas or liquid pipeline emergencies, coordinate planned responses, and actual responses during an emergency
   Identify the type of incident
- Prompt and effective response measures
- Availability of personnel and equipment
  Make safe any actual or potential hazard to life, property, and the environment Make safe any actual or potential
   Incident investigation and review

#### Natural gas (49 CFR 192.615)

- Establish and maintain communication with fire, police, and other public officials Direct actions to protect people, then property Emergency shutdown to minimize hazard to life, property, and the environment

- Safely restore service

#### Hazardous liquid (49 CFR 195.402)

- Take necessary actions, such as emergency shutdown and pressure reduction Control of released hazardous liquid or carbon dioxide at scene to minimize hazards
- Minimize public exposure to injury by taking appropriate actions such as evacuations or traffic
- Use instrumentation to assess vapor cloud coverage and determine hazardous areas



#### **Emergency Response and 811**

Derailments, car accidents, excavating/farming mishaps, natural disasters, and wildfires

#### PHMSA Advisory Bulletin (2012-08)

- Based on National Transportation Board
- recommendation Inform emergency responders about the benefits of 811
- Identify underground utilities in the area
- · Notify underground utilities in the area
- Louisiana 🖥





#### Integrity Management

Pipeline companies are required to have Integrity Management programs to insure safe

- and efficient operations: Internal and external cleaning and inspection, of the pipeline and affected areas
  - Rights of Way and valves Supervisory Control and Data Acquisition (SCADA)
- Identification of High Consequence Areas (HCA)
- · Aerial Rights-of-Way Patrols
- · Public Awareness Outreach to stakeholders
- Participation as a member of 811 Operator Qualification (OQ) Training
- Local Distribution Company (LDC)
  - . Meter Testing
  - Leak Surveys
    - May also be utilized on transn



#### **Natural Disasters**

CPRE

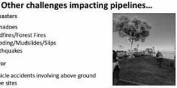
- Tornadoes
- Wildfires/Forest Fires Flooding/Mudslides/Slips
- Earthquakes

#### Human Error

- Vehicle accidents involving above ground valve sites
- · Third party strikes by contractors and excavators
- · Agricultural activities, field tiling

#### **National Security Threats**

- · Cyberterrorism involving pipeline systems
- IED's on pipeline assets





#### CORE

#### Pipeline Operator / Responder Challenges

- Timely notification of the incident
- Denied entry at scene of incident
- Quick access to remote valves/ICP
- Getting equipment into the area
- Communications with incident command
- Clear lines of communication (both ways)
- Face to face meetings with local officials
- Pre-planning with emergency services



#### CERE

#### Pipeline Company - Internal Responsibilities

- Regular pressure testing of the pipeline
- Smart pigging in a timely manner of the pipeline
- Personnel logistics Drive time and other factors
- Personnel training Actual practice of closing a Pipeline
- Tool placement / positioning
- Human reaction to working under stress
- Working with local Public officials and First Responders



#### CERE

#### Pipeline Safety

#### Local Operator Information\*

- Operator and/or company name
- Pipeline systems and products
- Location of pipelines
- Pipeline size/operating pressure(s)
- Operator Response(s) to a pipeline emergency

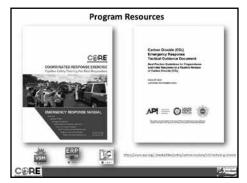
\*Information in the materials may not represent all pipeline companies in your area.

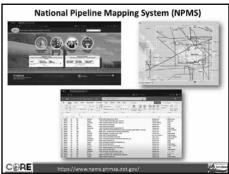


#### C@RE

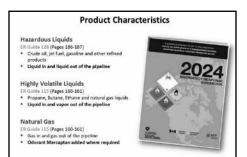
CORE



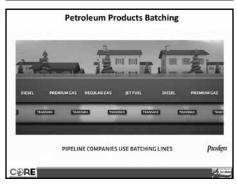




#### Pipeline Safety









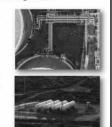
#### **Above Ground Storage Tanks**

Considerations when responding to tank farms/ terminals

- Work with your local operator to: Develop an effective response plan
- Identify products and hazards
- Determine evacuation radius

#### Response recommendations:

- Cool tank(s) or nearby containers by flooding with water
- Use unmanned hase holders/monitor nazzles
- . Do not direct water at safety devices or icing
- Let product burn, even after air supply line/system is closed
- Beware of the potential for Boiling Liquid Expanding Vapor Explosion (BLEVE)



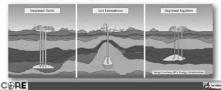




#### **Underground Storage Fields**

#### Emergency response "non-intervention"

- Emergency contact information found on pipeline markers and all wellhead locations
- Always be aware of wind direction; walk into the wind, away from hazardous fumes
- Do not drive into a leak or vapor cloud
- Monitor combustible atmosphere
- Determine hazardous area and escape routes



#### **Leak Recognition**

- Pools of liquid on the ground near a
- . Dense white cloud or fog over a pipeline
- Discolored vegetation surrounding a
- · Unusual dry spot in an otherwise moist field
- Dirt blowing up from the ground
- · Bubbling in marshland, rivers or creeks
- Oily sheen appearing on water
- Frozen ground near a pipeline
- Unusual noise coming from a pipeline
- · Unusual smell or gaseous odor





CORE

#### **Local Distribution Systems**

- Be aware, not all natural gas leaks are from excavation, unintended leaks from stoves, water, heaters, furnaces, etc. can occur When called out on natural gas leak events,
- use combustible gas indicators
- Mercaptan can be stripped as it travels
- through soil
- Frost heaves, breaking pipes
- Gas meter breaks due to snow buildup from melting snow falling from roofs

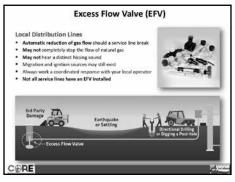
#### Excess flow valve meter tags

#### identification tags [192.381(c)]

The presence of an excess flo service lines may or may not be marked with an identification tag. The identification tag (if present) will typically be located at the top of the service riser below the meter stop valve



CORE



# Explosive Limits Explosive Limits Vs. Percent of Gas in Air Natural Gas Percent of Gas in Air Note Light September 1994 (See In Air 1994





#### Horizontal Directional Drilling (Cross Bore) NATURAL GAS LINE FIBER OPTIC LINE SEWAGE LINE THROUGH A SEWAGE LINE, LOCAL DISTRIBUTION, TRANSMISSION Paradigm CORE InfraGard - Protecting Critical Infrastructure 16 Critical Infrastructure InfraGard is a partnership between the FBI Chemical Commercial Facilities and members of the private sector for the protection of U.S. Critical Infrastructure. Communications Critical Manufacturing Dams Defense Industrial Base **Emergency Services** Energy Financial Services Food and Agriculture Government Facilities Healthcare and Public Health Information Technology Nuclear Reactors, Materials, and Waste Transportation Services Water & Wastewater https://infragard.org Systems CDRE Emergency Response Portal (ERP) PHMSA Advisory Bulletin issued October 2010 https://my.spatialobjects.com/admin/register/ERPP es secure access to participating pipeline operator profiles incl Contact information Counties of operation · Product(s) transported rmation updated CERE **Pipeline Preparedness Training Center** Share with others in your agency unable to attend today's program · Access to your local pipeline sponsor information Download the same documents presented in this program Certificate of completion provided upon completion of course <u>trai</u> Use Code: 2025CORE 911 Communications Director: Appreciate the opportunity to do this online and have it available for my staff. Very informative! Battalion Chief: Thank you for the information: I also like the fact of being able to take the course online when I cannot make the live sessions.

CDRE

Commissioner: Very informative and increased my awareness of the resources available to our county leadership in case of an emergency.

Deputy femergency Management Coordinator: Excellent presentation, Thank you for the resources and useful web pages.

Director of Public Safety: Excellent presentation. Thank you for the ability to take class online due to scheduling conflict.

Fine Chafe: Thank you for providing this informative course, I would like to see more courses like this. It is a very good review and helps us tremendously.

Police Chafe: The training is very informative, and will pass this onto our Fire Department and out was findereemt Supervisor. Sercia jobil 11

# Product INFORMATION



The Emergency Response Guidebook is available at: <a href="https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2024-04/ERG2024-Eng-Web-a.pdf">https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2024-04/ERG2024-Eng-Web-a.pdf</a>







This app is only available on the App Store for iOS devices.

#### Emergency Response

#### **EMERGENCY RESPONSE PLANS FOR GAS AND HAZARDOUS LIQUID PIPELINE OPERATORS**

Federal regulations for both gas and hazardous liquid pipelines require operators to have written procedures for responding to emergencies involving their pipeline facility. Because pipelines are often located in public space, the regulations further require that operators include procedures for planning with emergency and other public officials to ensure a coordinated response. Please contact your local pipeline operators for information regarding their company specific emergency response plan.

#### **Natural Gas**

Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

- · Receiving, identifying, and classifying notices of events which require immediate response by the operator.
- Establishing and maintaining adequate means of communication with appropriate fire, police, and other public
  officials.
- Prompt and effective response to a notice of each type of emergency, including the following:
  - Gas detected inside or near a building.
  - 2. Fire located near or directly involving a pipeline facility.
  - 3. Explosion occurring near or directly involving a pipeline facility.
  - Natural disaster.
- The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency.
- · Actions directed toward protecting people first and then property.
- Emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property.
- Making safe any actual or potential hazard to life or property.
- Notifying appropriate fire, police, and other public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency.
- Safely restoring any service outage.
- Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:
  - Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;
  - 2. Acquaint the officials with the operator's ability in responding to a gas pipeline emergency;
  - 3. Identify the types of gas pipeline emergencies of which the operator notifies the officials; and
  - 4. Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property.

\*Reference 49 CFR 192.615

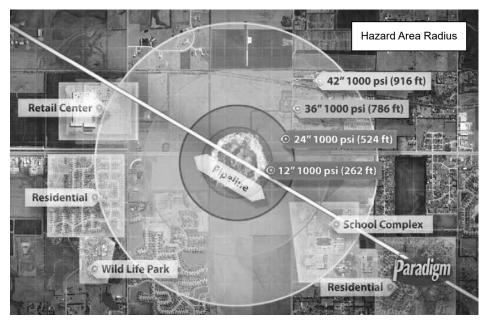
#### **HAZARDOUS LIQUIDS**

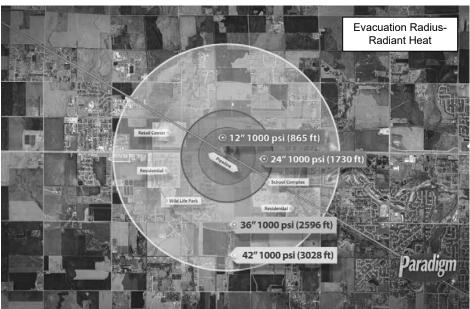
(a) General: Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

**Emergencies.** The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs:

- Receiving, identifying, and classifying notices of events which need immediate response by the operator or notice
  to fire, police, or other appropriate public officials and communicating this information to appropriate operator
  personnel for corrective action.
- Prompt and effective response to a notice of each type emergency, including fire or explosion occurring near or directly involving a pipeline facility, accidental release of hazardous liquid or carbon dioxide from a pipeline facility, operational failure causing a hazardous condition, and natural disaster affecting pipeline facilities.
- · Having personnel, equipment, instruments, tools, and material available as needed at the scene of an emergency.
- Taking necessary action, such as emergency shutdown or pressure reduction, to minimize the volume of hazardous liquid or carbon dioxide that is released from any section of a pipeline system in the event of a failure.
- Control of released hazardous liquid or carbon dioxide at an accident scene to minimize the hazards, including
  possible intentional ignition in the cases of flammable highly volatile liquid.
- Minimization of public exposure to injury and probability of accidental ignition by assisting with evacuation of residents and assisting with halting traffic on roads and railroads in the affected area, or taking other appropriate action.
- Notifying fire, police, and other appropriate public officials of hazardous liquid or carbon dioxide pipeline
  emergencies and coordinating with them preplanned and actual responses during an emergency, including
  additional precautions necessary for an emergency involving a pipeline system transporting a highly volatile liquid.
- In the case of failure of a pipeline system transporting a highly volatile liquid, use of appropriate instruments to
  assess the extent and coverage of the vapor cloud and determine the hazardous areas.
- Providing for a post accident review of employee activities to determine whether the procedures were effective in
  each emergency and taking corrective action where deficiencies are found.

#### Emergency Response





#### NENA Pipeline Emergency Operations - Initial Intake Checklist

In accordance with NENA Pipeline Emergency Operations Standard/Model Recommendation NENA 56-007 (https://www.nena.org/?page=PipelineEmergStnd)

#### **GOALS FOR INITIAL INTAKE:**

- 1. Obtain and Verify Incident Location, Callback and Contact Information
- 2. Maintain Control of the Call
- 3. Communicate the Ability to HELP the Caller
- Methodically and Strategically Obtain Information through Systematic Inquiry to be Captured in the Agency's Intake Format
- Recognize the potential urgency of situations involving the release of dangerous gases or liquids related to pipelines or similar events of this nature and immediately begin the proper notifications consistent with agency policy
- 6. Perform all Information Entries and Disseminations, Both Initial and Update

#### FIRST RESPONSE CALL INTAKE CHECK LIST

The focus of this Standard is on the first minute of the call intake process. Actions taken during this time frame significantly impact the effectiveness of the response and are critical to public safety.

The following protocol is intended as a solid framework for call intake, but should not in any manner rescind or override agency procedures for the timing of broadcasts and messaging.

These procedures are established as recommended practices to consider with existing agency policy and procedure to ensure the most swift and accurate handling of every incident involving the release of dangerous gases or hazardous liquids.

All information should be simultaneously entered, as it is obtained by the telecommunicator, into an electronic format (when available) that will feed/populate any directed messages which will be sent to emergency responders in conjunction with on-air broadcasts.

#### Location:

Request exact location of the incident (structure addresses, street names, intersections, directional identifiers, mile posts, etc.) and obtain callback and contact information.

#### **Determine Exactly What Has Happened:**

Common signs of a pipeline leak are contained in Table 1 below. If any of these conditions are reported, THIS IS A PIPELINE EMERGENCY.

TABLE 1
Common Indications of a Pipeline Leak

Condition	Natural Gas (lighter than air)	LPG & HVL (heavier than air)	Liquids
An odor like rotten eggs or a burnt match	X	Х	
A loud roaring sound like a jet engine	X	Х	
A white vapor cloud that may look like smoke		Х	
A hissing or whistling noise	X	Х	
The pooling of liquid on the ground			Х
An odor like petroleum liquids or gasoline		Х	Х
Fire coming out of or on top of the ground	X	Х	
Dirt blowing from a hole in the ground	Х	Х	
Bubbling in pools of water on the ground	Х	Х	
A sheen on the surface of water		Х	Х
An area of frozen ground in the summer	Х	Х	
An unusual area of melted snow in the winter	Х	Х	
An area of dead vegetation	Х	Х	Х

#### Signs Of A Pipeline Release

#### SIGHT\*

- · Liquid on the ground
- · Rainbow sheen on water
- Dead vegetation in an otherwise green area
- · Dirt blowing into the air
- · White vapor cloud
- · Frozen area on ground
- \*Signs vary based upon product

#### SMFII

- · Odors such as gas or oil
- · Natural gas is colorless and odorless
  - Unless Mercaptan has been added (rotten egg odor)

#### OTHER - NEAR PIPELINE OPERATIONS

- · Burning eyes, nose or throat
- Nausea

### What To Do If A Leak Occurs

- · Evacuate immediately upwind
- Eliminate ignition sources
- Advise others to stav away
- CALL 911 and the pipeline company number on warning marker
  - · Call collect if necessary
- Make calls from safe distance not "hot zone"
- Give details to pipeline operator:
  - Your name
  - Your phone number
  - Leak location
  - Product activity
  - Extent of damage
- · DO NOT drive into leak or vapor cloud
- · DO NOT make contact with liquid or vapor
- DO NOT operate pipeline valves (unless directed by pipeline operator):
  - Valve may be automatically shut by control center
  - $\circ$  Valve may have integrated shut-down device
  - Valve may be operated by qualified pipeline personnel only, unless specified otherwise

· Ignition sources may vary – a partial list includes:

SOUND

· A hissing or roaring sound

- Static electricity
- Metal-to-metal contact
- · Pilot lights
- Matches/smoking
- Sparks from telephone
- Electric switches
- Electric motors
- Overhead wires
- Internal combustion engines
- Garage door openers
- Firearms
- · Photo equipment
- · Remote car alarms/door locks
- · High torque starters diesel engines
- · Communication devices

#### Pipeline Emergency

#### <u>Call Gas Control Or Pipeline Control Center</u> Use *Pipeline Emergency Response Planning Information Manual* for contact information

Phone number on warning markers Use state One-Call System, if applicable

#### **Control Center Needs To Know**

Provide City, County and State

Your name & title in your organization
Call back phone number – primary, alternate
Establish a meeting place
Be very specific on the location (use GPS)

#### Injuries, Deaths, Or Property Damage

Have any known injuries occurred? Have any known deaths occurred? Has any severe property damage occurred?

#### **Traffic & Crowd Control**

Secure leak site for reasonable distance Work with company to determine safety zone No traffic allowed through any hot zone Move sightseers and media away Eliminate ignition sources

#### **Fire**

Is the leak area on fire?
Has anything else caught on fire besides the leak?

#### **Evacuations**

Primary responsibility of emergency agency Consult with pipeline/gas company

#### Fire Management

Natural Gas – DO NOT put out until supply stopped Liquid Petroleum – water is NOT recommended; foam IS recommended

Use dry chemical, vaporizing liquids, carbon dioxide

#### **Ignition Sources**

Static electricity (nylon windbreaker)

Metal-to-metal contact

Pilot lights, matches & smoking, sparks from phone Electric switches & motors

Overhead wires

Internal combustion engines

Garage door openers, car alarms & door locks Firearms

Photo equipment

High torque starters - diesel engines

Communication devices – not intrinsically safe

#### High Consequence Areas Identification\*

Pipeline safety regulations use the concept of "High Consequence Areas" (HCAs), to identify specific locales and areas where a release could have the most significant adverse consequences. Once identified, operators are required to devote additional focus, efforts, and analysis in HCAs to ensure the integrity of pipelines.

Releases from pipelines can adversely affect human health and safety, cause environmental degradation, and damage personal or commercial property. Consequences of inadvertent releases from pipelines can vary greatly, depending on where the release occurs, and the commodity involved in the release.

#### What criteria define HCAs for pipelines?

Because potential consequences of natural gas and hazardous liquid pipeline releases differ, criteria for HCAs also differ. HCAs for natural gas transmission pipelines focus solely on populated areas. (Environmental and ecological consequences are usually minimal for releases involving natural gas.) Identification of HCAs for hazardous liquid pipelines focuses on populated areas, drinking water sources, and unusually sensitive ecological resources.

#### **HCAs for hazardous liquid pipelines:**

- Populated areas include both high population areas (called "urbanized areas" by the U.S. Census Bureau) and other populated areas (areas referred to by the Census Bureau as a "designated place").
- Drinking water sources include those supplied by surface water or wells and where a secondary source of water supply is not available. The land

- area in which spilled hazardous liquid could affect the water supply is also treated as an HCA.
- Unusually sensitive ecological areas include locations where critically imperiled species can be found, areas where multiple examples of federally listed threatened and endangered species are found, and areas where migratory water birds concentrate.

#### **HCAs for natural gas transmission pipelines:**

- An equation has been developed based on research and experience that estimates the distance from a potential explosion at which death, injury or significant property damage could occur. This distance is known as the "potential impact radius" (or PIR), and is used to depict potential impact circles.
- Operators must calculate the potential impact radius for all points along their pipelines and evaluate corresponding impact circles to identify what population is contained within each circle.
- Potential impact circles that contain 20 or more structures intended for human occupancy; buildings housing populations of limited mobility; buildings that would be hard to evacuate. (Examples are nursing homes, schools); or buildings and outside areas occupied by more than 20 persons on a specified minimum number of days each year, are defined as HCA's.
- \* https://primis.phmsa.dot.gov/comm/FactSheets/FSHCA.htm

#### Identified Sites\*

Owners and companies of gas transmission pipelines are regulated by the US Department of Transportation (DOT). According to integrity management regulations, gas pipeline companies are required to accept the assistance of local public safety officials in identifying certain types of sites or facilities adjacent to the pipeline which meets the following criteria:

- (a) A small, well-defined outside area that is occupied by twenty or more persons on at least 50 days in any twelve-month period (the days need not be consecutive). Examples of such an area are playgrounds, parks, swimming pools, sports fields, and campgrounds.
- (b) A building that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12 month period (the days and weeks need not be consecutive). Examples included in the definition are: religious facilities, office buildings, community centers, general stores, 4-H facilities, and roller rinks.
- (c) A facility that is occupied by persons who are confined, are of impaired mobility, or would be difficult to evacuate. Examples of such a facility are hospitals, schools, elder care, assisted living/ nursing facilities, prisons and child daycares.

#### **Identified Site Registry**

Pipeline operators need your help keeping people and property safe.

Identified Sites - locations where many people occupy an area near a pipeline asset or facility. These are places where people may gather from time to time for a variety of reasons.



Some of these sites are very difficult for companies to obtain without help from those with local knowledge of the area.

Please use the following website to gain secure access, so you can assist in identifying sites where people congregate in your community:

my.spatialobjects.com/admin/register/ISR

Pipeline operators are required by law to work with public officials who have safety or emergency response, or planning responsibilities that can provide quality information regarding identified sites.

#### Common Ground Alliance Best Practices

In 1999, the Department of Transportation sponsored the Common Ground Study. The purpose of the Common Ground Study was to identify and validate existing best practices performed in connection with preventing damage to underground facilities. The collected best practices are intended to be shared among stakeholders involved with and dependent upon the safe and reliable operation, maintenance, construction, and protection of underground facilities. The best practices contain validated experiences gained that can be further examined and evaluated for possible consideration and incorporation into state and private stakeholder underground facility damage prevention programs.

The current Best Practices Field Manual is divided into nine chapters that provide a collection of current damage prevention best practices. The nine chapters include:

- 1. Planning & Design Best Practices
- 2. One Call Center Best Practices
- 3. Location & Marking Best Practices
- 4. Excavation Best Practices
- 5. Mapping Best Practices
- 6. Compliance Best Practices
- 7. Public Education Best Practices
- Reporting & Evaluation Best Practices
- 9. Miscellaneous Practices

To view the latest version of the Best Practices please visit www.commongroundalliance.com

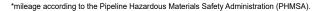


#### Pipelines In Our Community

According to National Transportation Safety Board statistics pipelines are the safest and most efficient means of transporting natural gas and petroleum products, which are used to supply roughly two-thirds of the energy we use. These pipelines transport trillions of cubic feet of natural gas and hundreds of billions of ton/miles of liquid petroleum products in the United States each year.

This system is comprised of three types of pipelines: transmission, distribution and gathering. The approximately 519,000 miles of transmission pipeline\* transport products, including natural gas and petroleum products, across the country and to storage facilities. Compressor stations and pumping stations are located along transmission and gathering pipeline routes and help push these products through the line.

Approximately 2.2 million miles of distribution pipeline\* is used to deliver natural gas to most homes and businesses through underground main and utility service lines. Onshore gathering lines are pipelines that transport gas from a current production operation facility to a transmission line or main. Production operations are piping and equipment used in production and preparation for transportation or delivery of hydrocarbon gas and/or liquids.





#### Training Center

Supplemental training available for agencies and personnel that are unable to attend:

- · Train as your schedule allows
- Download resources including pipeline operator specific information
  - · Sponsoring pipeline operator contact information
  - · Product(s) transported
- Submit Agency Capabilities Survey
- Receive Certificate of Completion

Visit https://trainingcenter.pdigm.com/ to register for training



#### Damage Prevention Programs

Pursuant to 49 CFR Parts 192.614 (c)(2)(i) and 195.442 (c)(2)(i) pipeline operators must communicate their Damage Prevention Program's "existence and purpose" to the public in the vicinity of the pipeline and persons who normally engage in excavation activities in the area in which the pipeline is located.

State and federally regulated pipeline companies maintain Damage Prevention Programs. The purpose of which is to prevent damage to pipelines and facilities from excavation activities, such as digging, trenching, blasting, boring, tunneling, backfilling, or by any other digging activity.

#### Pipeline Markers

The U.S. Department of Transportation (DOT) requires the use of signs to indicate the location of underground pipelines. Markers like these are located on road, railroad, and navigable waterway crossings. Markers are also posted along the pipeline right-of-way.

#### The markers display:

- · The material transported
- The name of the pipeline operator
- The operator's emergency number

#### MARKER INFORMATION

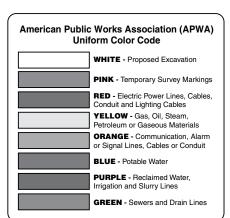
- · Indicates area of pipeline operations
- · May have multiple markers in single right-of-way
- · May have multiple pipelines in single right-of-way
- · DOES NOT show exact location
- DOES NOT indicate depth (never assume pipeline depth)
- DOES NOT indicate pipeline pressure



#### Call Before You Dig

Statistics indicate that damage from excavation related activities is a leading cause of pipeline accidents. If you are a homeowner, farmer, excavator, or developer, we need your help in preventing pipeline emergencies.

- 1. Call your state's One-Call center before excavation begins regulatory mandate as state law requires.
- 2. Wait the required amount of time.
- 3. A trained technician will mark the location of the pipeline and other utilities (private lines are not marked).
- 4. Respect the marks.
- 5. Dig with care.



National One-Call Dialing Number:



For More Details Visit: www.call811.com

#### Pipeline Damage Reporting Law As Of 2007

#### **H.R. 2958 Emergency Alert Requirements**

Any person, including a government employee or contractor, who while engaged in the demolition, excavation, tunneling, or construction in the vicinity of a pipeline facility;

- A. Becomes aware of damage to the pipeline facility that may endanger life or cause serious bodily harm or damage to property; or
- B. Damages the pipeline facility in a manner that may endanger life or cause serious bodily harm or damage to property, shall promptly report the damage to the operator of the facility and to other appropriate authorities.

#### Websites:

# Association of Public-Safety Communications Officials - International (APCO)

www.apcointl.org/

#### **Common Ground Alliance**

www.commongroundalliance.com

# Federal Emergency Management Agency www.fema.gov

Federal Office of Pipeline Safety

www.phmsa.dot.gov

#### **Government Emergency Telecommunications**

www.dhs.gov/government-emergencytelecommunications-service-gets

#### Infrastructure Protection - NIPC

www.dhs.gov/national-infrastructure-protection-plan

#### **National Emergency Number Association**

https://www.nena.org/?

#### National Fire Protection Association (NFPA)

www.nfpa.org

#### National Pipeline Mapping System

www.npms.phmsa.dot.gov

#### **National Response Center**

https://www.epa.gov/emergency-response/national-response-center or 800-424-8802

#### Paradigm Liaison Services, LLC

www.pdigm.com

#### United States Environmental Protection Agency (EPA)

www.epa.gov/cameo

# Wireless Information System for Emergency Responders (WISER)

https://wiser.nlm.nih.gov/

# FOR MORE INFORMATION ON THE NASFM PIPELINE EMERGENCIES PROGRAM

www.pipelineemergencies.com

# FOR EMERGENCY RESPONSE INFORMATION, REFER TO DOT GUIDEBOOK.

FOR COPIES: (202) 366-4900

www.phmsa.dot.gov/hazmat/erg/emergency-responseauidebook-era



Register for access to Training Center Code: CORE





Register for access to the Emergency Response Portal



#### Operator Information

Operator Name(s) / Contact Information	Type(s) of Pipeline Systems Operating	Location within County	Pipe Size and Operating Pressure Range(s)	Average Emergency Response Time(s)

Notes

Notes

#### **About Paradigm**

Paradigm is public awareness. We provide public awareness and damage prevention compliance services to assist with the regulatory requirements of 49 CFR 192 and 195, as well as API RP 1162. Since 2001, the oil and gas industry has worked with Paradigm to fulfill public education and community awareness requirements.

Our history of implementing public awareness programs and compliance services pre-dates API RP 1162. Most of the pipeline industry's large, mid-sized and small operators, as well as many local distribution companies utilize Paradigm's compliance services.

In serving our clients, Paradigm performs full-scope compliance programs from audience identification through effectiveness measurement. In addition, we offer consulting services for plan evaluation and continuous improvement. At the completion of each compliance program, we provide structured documentation which precisely records all elements of the program's implementation to assist with audits.

Paradigm leads the way in industry service. Pipeline operators and local distribution companies trust in Paradigm to implement their public awareness and damage prevention programs. Each year we:

- · Distribute 25 million pipeline safety communications
- · Compile and analyze roughly 250,000 stakeholder response surveys
- · Facilitate over 1,200 liaison programs
- Implement approximately 1,000 public awareness compliance programs
- Provide audit support and assistance with over 50 public awareness audits

Contact Paradigm for more information regarding custom public awareness solutions.

#### Contact us:

Paradigm Liaison Services, LLC PO Box 9123 Wichita, KS 67277 (877) 477-1162 Fax: (888) 417-0818 www.pdigm.com











# **EMERGENCY CONTACT LIST**

Acadian Gas Pipeline System	
Aethon Energy Operating LLC	
Aethori officed Fiperifie LF	
or	
Air Products, LLC	
Arcadia Gas Storage, LLC (Toll Free)	
or	
Atmos Energy	1-866-322-866
Avocet LNG, LLC	1-713 345-106
Bayou Bridge	1-800-753-553
Black Bear Transmission LLC	
Boardwalk Ethane Pipeline Company, LLC	
Boardwalk Louisiana Gas Transmission, LLC	
Boardwalk Louisiana Midstream, LLC	
Boardwalk Petrochemical Pipeline, LLC	
Bobcat Gas Storage / (Operated by Enbridge)	1-800-231-779
Buckeye Development & Logistics	1-866-514-838
Cadeville Gas Storage	
Calcasieu Refining Company	
Calumet Specialty Products	
Cameron Interstate Pipeline	
Cheniere Energy Inc	
Chevron Pipe Line Company / Whitecap Pipe Line Co., LLC	1-200-762-340
CITGO Pipeline Company	1-800-702-340
CITGO Pipeline Company (Lake Charles Manufacturing Complex)	1-337-708-623
City of Gonzales	
Collins Pipeline Company	
Comstock Oil & Gas	
Crescent Midstream, LLC	
DCP Operating Company, LP	1-800-435-167
Delek Logistics Partners, LP	
Denbury Inc	
Delta Utilities	
or	
Diversified Gas & Oil Corporation	
Dow Pipeline Company	
or	
DTM Louisiana Gathering, LLC	
Egan Hub	
Empire Midstream LLC	1-844-252-989
Enable Gas Transmission/ Pine Pipeline	
Enable Mississippi River Transmission	
Enbridge Offshore (Gas Gathering), LLC	
Energy Transfer Crude Oil Energy Transfer Gas	
or	
Or	
Energy Transfer Liquids	
or	
or	
or	
or	
EnLink Midstream	
Enterprise Products Operating LLC	
ExxonMobil Pipeline Company	
Florida Gas Transmission Company	
FP Balboa LA Midstream, LLC	1-844-509-576
Genesis Energy, L.P	1-800-806-546
Gillis Hub Pipeline	1-866-279-609

# **EMERGENCY CONTACT LIST**

GOM Shelf, LLC	1-337-415-1040
Gulf Run Transmission, LLC	1-800-325-4005
Gulf South Pipeline Company, LLC	
Haynesville Gathering LP	
Harvest Midstream Company	
Hilcorp Energy Company	
Ibex Midstream	
Indorama Ventures Olefins LLC	
Intercontinental Terminals Company (Ext 12)	
or	
or	
KinderHawk Field Services LLC	
Kinder Morgan Energy Partners, LP (Cypress Pipeline)	
Kinetica Partners LLC	
KM Louisiana Pipeline	
Linde	
or	
Livingston Parish GUD #1	
LOCAP, LLC	
LOOP. LLC	
M6 Midstream LLC	
Mardi Gras Midstream LLC	
or	
Matador Production Company	
Midcontinent Express Pipeline	
Mid-Valley Pipeline Company	
MOEM Pipeline, L.L.C.	
Momentum Midstream	
Natural Gas Pipeline Company of America	
Nadel & Gussman	
NGL Crude Terminals LLC	
Nustar Pipeline Operating Partnership L.P.	1 900 750 0022
Olin Chlor Alkali Products (Chemtrec)	
Olin Chlor Alkali Products (Chemidec)	
Olin Chlor Alkali Products (St. Gabrier Control Room)	
Permian Express Partners	
Perryville Gas Storage	
Phillips 66 Pipeline LLC	1_977_267_2200
Pierre Part South Coast Gas	1.085.537.5281
or	
Pine Prairie Energy Center, LLC	
Pipeline Technology	
Placid Midstream LLC - Bourre' Pipeline	
Placid Pipeline Company LLC	
Rosefield Operating, LLC	
Saber Midstream	
Sasol	
Sea Robin Pipeline CompanySentinel Midstream Operating, LLC	1 000 202 2460
Sentiner Midstream Operating, LLC	1.000.000.2450
South Coast Gas Co., Inc	
Southeast Supply Header	
Southern Natural GasStabilis LNG Port Allen, LLC	
Stingray Pipeline	
Talos Energy	
Targa Resources Inc Gas	
Targa Resources Inc Liquid	
Tennessee Gas Pipeline	
Terrebonne Parish Utilities	
Texas Eastern Transmission L.P. (Enbridge)	1-800-231-7794

# **EMERGENCY CONTACT LIST**

Texas Gas Transmission, LLC	1-200-626-10//2
TO National Designation 11.0	4.044.000.0540
TG Natural Resources LLC	1-844-888-9549
Third Coast Midstream	
Tiger Pipeline	1-888-844-3735
Tiger Pipeline Trunkline Gas Company	1-800-225-3913
Valero Partners Operating Co., LLC	1-866-423-0898
Valero Refining – Meraux LLC	1-504-278-5211
Valero Refining - New Orleans, L.L.C - St Charles Refinery	
Venice Gas Gathering	
Voyager Midstream	1-833-601-7473
Washington Parish Gas Utility District #2	1-985-839-5026
Westlake	1-800-375-4629
Westlake Petrochemicals LLC	1-337-583-3182
Weyerhaeuser	1-318-263-2529
Williams Gas Pineline / Atlantic Gulf	1-855-945-5762
Williams Gas Pipeline / Atlantic GulfXTO Energy Inc	1-832-625-1100
ATO LITERS INC.	1-002-023-1100

Note: The above numbers are for emergency situations. Additional pipeline operators may exist in your area. Visit the National Pipeline Mapping System at www.npms.phmsa.dot.gov for companies not listed above.

ONE-CALL SYSTEM	PHONE NUMBER
Louisiana One-Call Center	1-800-272-3020 or 811



1-800-272-3020 www.louisiana811.com

#### **Brent Saltzman**

Executive Director 225-275-3700 Ext 404

#### Cole Vanderlick

Manager, Damage Prevention 225-275-3700 Ext 401

Louisiana 811 2215 West Boardwalk Drive Baton Rouge, LA 70816

#### What We Do

Louisiana 811 allows you to simultaneously notify many underground utilities operators or facilities of your intent to dig or demolish. You can call 811, toll-free at **1-800-272-3020**, or use our internet ticketing service (Next Gen) to submit a locate request.

When you call or click to file a locate request, we use a sophisticated computerized mapping system to notify members whose facilities are likely to be affected by your excavation or demolition.

Our members respond by marking their cables, pipelines, and similar systems so that you can avoid them. We record all notification calls and keep them on file for three years in case disputes arise.

Contacting Louisiana 811 before you dig saves money for everyone by reducing the possibility of damage, eliminating construction delays and contributing to public safety. We are funded by our members who operate underground systems, and our service is free to everyone.

#### History

Law Link: http://www.louisiana811.com/index.php/dig-law

The Louisiana Damage Prevention Law became effective in 1988. This law requires excavators and demolishers to call a regional notification center at least two full business days before they begin their work.

The law also requires owner/operators of underground facilities to mark locations or supply information that will enable excavators and demolishers to locate underground utilities and facilities. At the time the law passed, a non-profit notification program called DOTTIE (Dial One Time To Inform Everyone) had already been at work protecting vital underground facilities for more than a decade.

Today that program is known as Louisiana 811. Our service is free to anyone who disturbs the soil, individuals or companies, whether they work with heavy equipment or hand tools.

#### NOTIFICATION NOTIFICATIONS TICKETS STATE LAWS & PROVISIONS EXEMPTIONS ACCEPTED ssued Membership Mandatory Premarks Statewide Coverage Clause Damage Reporting Excavator Permits Positive Response Hand Dig Clause Civil Penalties Large Projects Louisiana 811: 800-272-3020 or 811 Emergency Emergency Mandatory Agriculture Overhead Tickets Fax: 225-272-2770 Railroad Damage Design Online Depth 둼 Website: www.louisiana811.com Hours: Normal Calls - 7:00 AM - 6:00 PM Emergency Locates - 24/7 365 days a year Advance Notice: 48 to 120 hours Marks Valid: 20 Days/30 Days for Forestry or Agricultural Excavation



# THE TIME TO PLAN FOR A PIPELINE EMERGENCY IS BEFORE YOU NEED IT

Emergency Response Portal (ERP™) provides:

- A secure web and mobile-friendly portal to access important response-planning information for participating pipeline companies
- The opportunity to PRE-PLAN with pipeline operators in your area
- The ability to contact pipeline companies instantly if more information is needed
- Access to:
  - Participating pipeline company profiles
  - State-Level emergency response manual
  - Important contact information



