Indiana Pipeline Awareness Association

COORDINATED RESPONSE EXERCISE

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

2022

Emergency Contact List

Company Name	Emergency Number
Aurora Utilities	(812) 926-2557
Bainbridge Utilities	(765) 522-6238
Batesville Water & Gas Utility	(812) 934-3811
Boonville Natural Gas	(812) 897-2260
BP Pipelines (North America), Inc	(800) 548-6482
Buckeye Partners, L.P	(800) 331-4115
CenterPoint	(800) 227-1376
Chrisney Municipal Gas	(911)
CITGO Petroleum Corporation	(800) 471-9191
Citizens Energy Group	(800) 458-4553
Community Natural Gas Co. Inc	(618) 972-4060
Countrymark Refining and Logistics, LLC	(812) 838-8500
or	(800) 832-5490
Enbridge US Inc. / Texas Eastern LP (Gas)	(800) 231-7794
Enbridge US Inc. / Texas Eastern LP (Oil)	(800) 858-5253
Enterprise Products Operating LLC,	(888) 883-6308
Explorer Pipeline Company	(888) 876-0036
Fountaintown Gas Company, Inc.	(800) 379-1800
or	(833) 763-6393
Hoosier Energy REC, Inc	(800) 456-1096
Huntingburg Energy Department	(812) 683-2327
Indiana Natural Gas Corporation	(800) 777-0659
Indiana Utilities Corporation	(800) 589-8142
Jasonville Utilities	(812) 665-2680
or	(812) 798-5630
Jasper Municipal Gas & Water	(812) 482-9131
Lapel (town of)	(765) 534-3157
Linde	(800) 926-9620
Linton Municipal Utilities	(812) 847-4411
Louisville Gas & Electric Company	(800) 331-7370
Marathon Pipe Line LLC	(833) 675-1234
Midwest Natural Gas Corporation (Bloomfield)	(812) 384-4150
or	(800) 491-4150
Midwest Natural Gas Corporation (Scottsburg)	(812) 752-2230
or	(800) 654-2361
Midwestern Gas Transmission	(888) 417-6275
Montezuma Municipal Gas Utility	(765) 245-2759
or	(765) 245-2211
Natural Gas Pipeline Company of America (Kinder Morgan)	(800) 733-2490

Company Name	Emergency Number
New Harmony (town of) Gas Utilities (Day)	(812) 682-4846
New Harmony (town of) Gas Utilities (Night)	(812) 833-8363
NIPSCO (Northern Indiana Public Service Company)	(800) 634-3524
NuStar Pipeline Operating Partnership LP	(800) 759-0033
Ohio Valley Gas Corporation (Winchester District)	(765) 584-5503
Ohio Valley Gas Corporation (Portland District)	(260) 726-8114
or	(765) 584-5503
Ohio Valley Gas Corporation (Connersville District)	(765) 825-1149
or	(800) 326-1148
Ohio Valley Gas Corporation (Tell City District)	(812) 547-2396
or	(877) 842-2397
Ohio Valley Gas Corporation (Sullivan District)	(877) 884-6368
ONEOK North System	(888) 844-5658
Osgood (town of) Gas Utility	(812) 689-0178
Panhandle Eastern Pipeline Company	(800) 225-3913
Pembina Cochin LLC	(800) 360-4706
Pittsboro (town of)	(317) 892-3326
Poseyville Municipal Utilities	(812) 874-2212
Rensselaer (city of) Gas Utility.	(219) 866-7602
Riverside Petroleum Indiana LLC.	(888) 871-3550
Roachdale (town of) Municipal Utility	(765) 301-0828
Rockies Express Pipeline	(877) 436-2253
South Eastern Indiana Natural Gas Co. Inc.	(800) 379-1800
or	(833) 654-2444
Switzerland County Natural Gas Co Inc	(812) 427-3332
Sycamore Gas Company	(877) 544-2726
Tallgrass Energy Partners	(877) 436-2253
Texas Gas Transmission, LLC	(800) 626-1948
TC Energy / ANR Pipeline	(800) 447-8066
TC Energy / Crossroads Pipeline Company	(800) 835-7191
TC Energy / Northern Border Pipeline Company	(800) 447-8066
Trunkline Gas Company	(800) 225-3913
Valero Terminaling and Distribution Company	(866) 423-0898
Valley Rural Utility Company	(888) 784-6160
Vector Pipeline	(888) 427-7777
Vermillion Rise Mega Park	(765) 245-2415
West Shore Pipe Line Company	(888) 625-7310
Wolverine Pipe Line Company	(888) 337-5004

Note: The above numbers are for emergency situations.
Please see individual company sections for non-emergency contact information.
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
Indiana811	(800) 382-5544

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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
◦ 10.0 PPM	Eye irritation
◦ 100 PPM	Headache, dizziness, coughing, vomiting
◦ 200-300 PPM	Respiratory inflammation within 1 hour of exposure
◦ 500-700 PPM	Loss of consciousness/possible death in 30-60 min.
◦ 700-900 PPM	Rapid loss of consciousness; death possible
◦ Over 1000 PPM	Unconsciousness in seconds; death in minutes

- 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	Flash Point	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

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
  - 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

Webinar Functions

To mute/unmute: look for a mic icon
- **Red** = mute
- **Green** = unmuted

Raise hand: click icon to notify support staff to contact you directly

Questions tab: Send your questions as we go through the program for Support Staff to answer

Handout's tab: you can download electronic copies of the handouts from here

GoToWebinar*

*Use the GoToWebinar App from your play store for your mobile devices.

INPAA Paradigm

Pipeline Emergency Response Training

First Responders and Emergency Personnel

CORE

COORDINATED RESPONSE EXERCISE

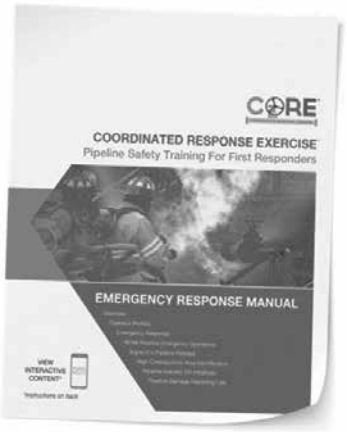
Instructor:

Paradigm

Local Operator Information*

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

*Specific jurisdictional information in handouts tab and on state websites. Information in your materials may not represent all pipeline companies in your area.



Coordinated Response Exercise®

- **Learn** specific jurisdictional information in handouts tab. Information in your materials may not represent all pipeline companies in your area.
- **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

Roll Call: Law Enforcement, Fire, EMS, Emergency Management, Division of Forest Service, State & Federal Officials, School Officials, PSAP & Pipeline Operators


CORE
Program Resources
inpaa.org
INPAA
CORE
Coordinated Response Exercise
PROGRAM GUIDE
2022
INPAA
CORE
ESPONSE EXERCISE
g For First Responders
EMERGENCY RESPONSE MANUAL
2022
Pipeline Operator Emergency Response Plans are available by request
VSM
VIRTUAL SCENARIO MANAGER
TC
TRAINING CENTER
INPAA
Paradigm


CORE
Program Resources
INPAA
Emergency Officials
Excavators
Public Officials
Pipeline Safety
Resources
About
MEETING DOCUMENTS
Access necessary materials for the 2022 Emergency Responder Meetings below.
MEETING DOCUMENTS
2022 INPAA Program Guide
2022 INPAA Emergency Response Manual
2022 INPAA Appendix Form
2022 INPAA Quick Reference Guide
2022 INPAA Sign In Sheet
INPAA
Paradigm

INPAA

Damage Prevention and the Indiana Emergency Responder

INPAA Paradigm

Lauryn Luckey

INPAA Program Manager at Indiana 811

Who is INPAA?

- Indiana Pipeline Awareness Association
- Committee of Indiana 811
- Comprised of 64 pipeline opperators around Indiana
- Reinforces streamlined messaging statewide
- Outreach to First Responders, Public Officials, Affected Public, Excavators

INPAA Paradigm

Indiana 811

- 811 is the nationwide Call (811) Before You Dig notification system
- 811 member utilities *shall* respond within 2 full working days and mark the approximate location of their lines
- 811 is all inclusive (all excavators are require to call and all underground facility owners are required to be a member)
- Utilizing Indiana 811 is free, easy, and the law!

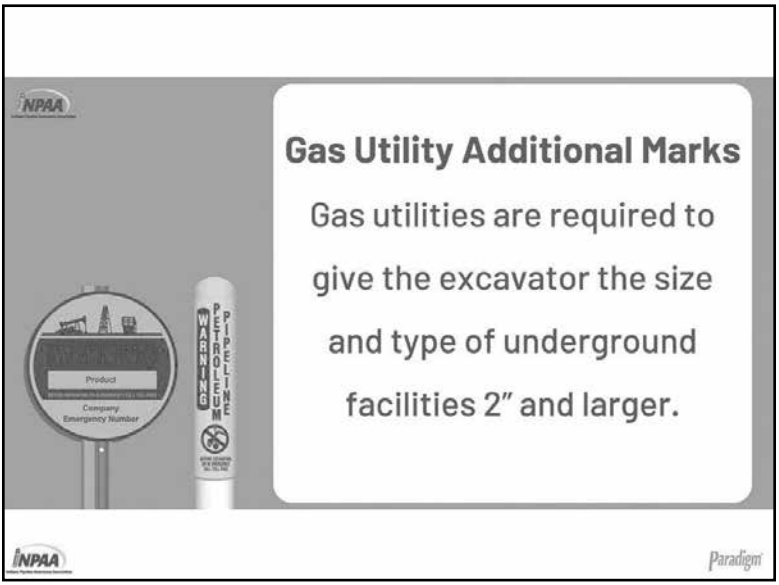
INPAA Paradigm

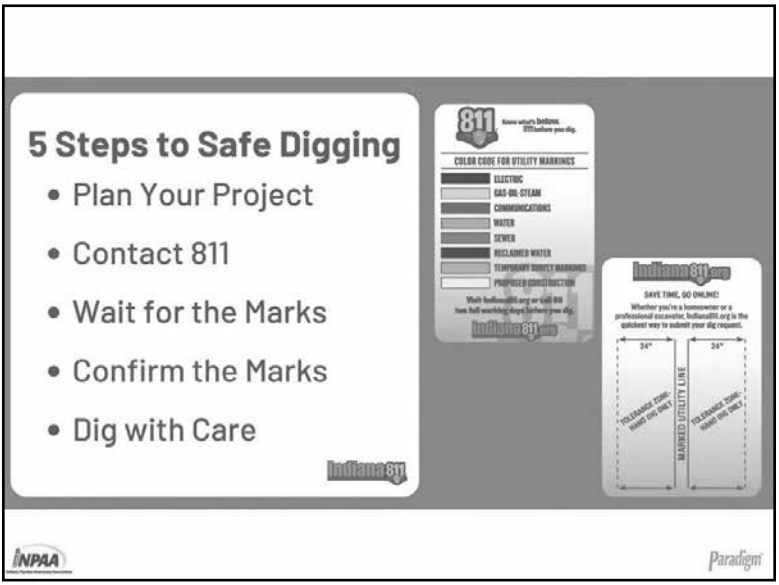
Web Ticket Entry

www.indiana811.org

- Indiana 811 launches Exactixs in March of 2021. We have seen over 64% of our locate request utilizing web entry!

INPAA Paradigm


INPAA
Gas Utility Additional Marks
Gas utilities are required to give the excavator the size and type of underground facilities 2" and larger.
Product
Company Emergency Number
WARNING
PETROLEUM
PIPELINE
INPAA
Paradigm


5 Steps to Safe Digging
• Plan Your Project
• Contact 811
• Wait for the Marks
• Confirm the Marks
• Dig with Care
Indiana811
811
COLOR CODE FOR UTILITY MARKINGS
ELECTRIC
GAS-OIL-STEAM
COMMUNICATIONS
WATER
SEWER
RECLAIMED WATER
TEMPORARY SURVEY MARKINGS
PROPOSED CONSTRUCTION
Indiana811.org
SAVE TIME, GO ONLINE!
24"
24"
TOLERANCE ZONE-HAND DIG ONLY
MARKED UTILITY LINE
TOLERANCE ZONE-HAND DIG ONLY
INPAA
Paradigm

Damage Prevention Councils

- A grassroots-level damage prevention effort.
- All are welcome to attend the monthly meetings.
- Four DPCs in Indiana:
  - Northern Indiana DPC
  - Central Indiana DPC
  - Southwest Indiana DPC
  - Southeast Indiana DPC
- For meeting times and more information go to: www.indiana811.org/dpc

INPAA

INPAA Paradigm

INPAA Paradigm

INPAA Indiana Pipeline Awareness Association

Indiana 811

THANK YOU

Thank you...For responding to the cut lines and odor calls...For working coordinated responses with your local pipeline operators...For being an advocate for 811 in your communities to help keep them safe.

INPAA

Paradigm

CORE

Exercise Objectives

- Analyze the elements of our scenario that involve emergency plans, response procedures, and tactics.
  - Estimate the potential for a leak or release based on the scenario data
- Based on the information presented, assess what agencies / entities need to be notified
- Identify the top priorities at the scene
- Analyze the need for specialized resources and their location
- Identify if it is necessary for emergency responders to shut down the pipeline
- Evaluate the appropriate protective action for public for this scenario
- Evaluate the need for outside assistance

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Paradigm

Block I: Initial Call and Notifications

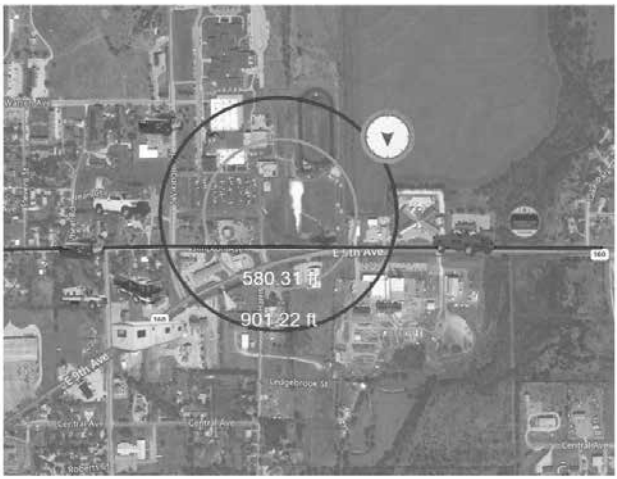
- **A massive half-mile wide tornado** has leveled structures and traveled down the center of the city, separating it into halves
- **911 Operators** are overwhelmed with emergency calls – Two fire stations have been destroyed and the local hospital has lost its commercial electric supply, natural gas supply, and water. Most of its windows were blown out
- **There are widespread reports** of an odor of natural gas – particularly where structures have been destroyed. Power lines and debris are blocking the streets and public safety radio operation is spotty
- **A citizen** reports an unknown storage tank has been damaged and is currently releasing a substance onto the ground

Block I: Initial Call and Notifications

Discussion questions for Block I

- Emergency Services Personnel: You have "one minute" to conduct a discussion and write down your top three response priorities for these incidents.
- In responding to the calls for help from the public, how will calls be prioritized?
- How will responders (and mutual aid partners) communicate with each other since the main public safety radio system is not operating correctly?
- How will emergency responders identify the owner / operator of the local distribution system and the damaged tank? How will initial communications be established?

Virtual Scenario Manager (VSM ™) Map



INPAA Paradigm

Block II: On Scene Response

- **Fire units** are having difficulty reaching incident scenes due to streets blocked by debris and downed power lines. Citizens are approaching these units and reporting people trapped in the homes.
  - They are requesting immediate assistance
- **EMS** has been assigned to provide aid at the damaged hospital
  - Calls for help continue coming in for injured citizens
- **Law Enforcement** is providing aid with some entrapments and injuries but is limited in its ability to respond.
- **Mutual Aid** responders are moving toward the area, but citizens requesting aid are preventing them from reporting to the Incident Command Post (ICP)
- **The wide-spread presence** of the odor of natural gas is still being reported to 911. A light-colored substance giving off petroleum vapors is now reported as being released from the storage tank, where people are filling non-approved containers with what they believe to be gasoline. Pipeline operators at both locations report their monitors indicate product vapors / fumes at explosive levels
- **Emergency Management (EM)** indicates the National Weather Service is advising they will issue a high wind warning for the area shortly. EM also advises they are working fulfilling requests from other agencies for resources

INPAA Paradigm

Block II: On Scene Response

Discussion questions for Block II

- What are the roles and responsibilities of the responding emergency services?
- Will emergency responders operate pipeline gate valves? Why or why not?
- What resources can you use to find information about the pipeline product, its hazards, and characteristics?
- Pipeline Operators: With what information is forwarded to you at this time, what action(s) will you and / or your control center (SCADA Center) take?

Block III: Governmental Coordination

- **Unified Command and Emergency Management** have evaluated the situation and determined a declaration of local disaster emergency is necessary. Additional resources are necessary to help our jurisdiction recover.
- **Local elected officials** (city and county) have arrived on scene and are requesting to speak with command staff
- **Local television** crews are requesting to speak with command staff and broadcasting live from the storage tank flying drones over many of the areas damaged by the storm

Block III: Governmental Coordination

Discussion questions for Block III

- Emergency Management: How do we access State and Federal assistance when we have exhausted all our local resources?
- Pipeline personnel: Will it be possible to predict when it will be safe to enter the damaged neighborhoods and the area around the gasoline tank?
- Pipeline personnel: Will you be using drones as a part of your response?
- Emergency responders and Pipeline personnel: How will information be shared with the media?

Exercise Objectives Review

- ✓ Analyzed the elements of the scenario with respect to:
  - ✓ Emergency plans, Response procedures, and tactics
- ✓ Estimated the potential for a leak or release
- ✓ Assessed the appropriate agencies / entities to notify
- ✓ Identified top priorities at the scene
- ✓ Analyzed the need for specialized resources and their location
- ✓ Identified the necessity for emergency responders to shut down the pipeline
- ✓ Evaluated the appropriate protective action for the public in the scenario
- ✓ Evaluated the need for outside assistance

Pipeline System Types

Transmission

Can vary in size and have greater flow and pressure than other types of pipelines. They can transport natural gas or other refined products from a gathering, processing, or storage facility to processing, or additional storage facilities

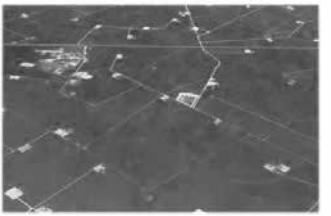
Distribution

Are unique to natural gas systems. These pipelines are used to deliver product to end users or customers and are mostly found in populated areas

Pipeline System Types

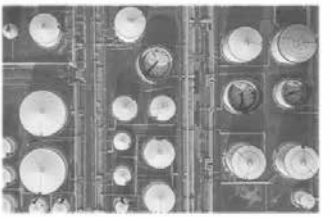
Gathering

Transport gas and liquids, such as oil or natural gas from the commodity's source to processing and/or storage facilities



Storage facilities

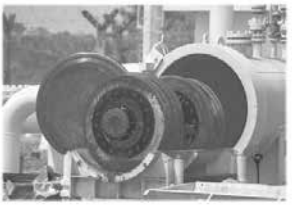
Above or underground facilities used to receive and store hazardous liquid or natural gas transported by a pipeline for reinjection and continued transportation



Integrity Management

Pipeline companies are required to have an Integrity Management program 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



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
- 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 controls
- Use instrumentation to assess vapor cloud coverage and determine hazardous areas

National Emergency Number Association

Pipeline Emergency Operations Standard

NENA's pipeline emergency operations workgroup recommendations

- Awareness of pipelines affecting the 911 service area
- Pipeline leak recognition and initial response actions
- Additional notices to pipeline operators

Initial intake checklist

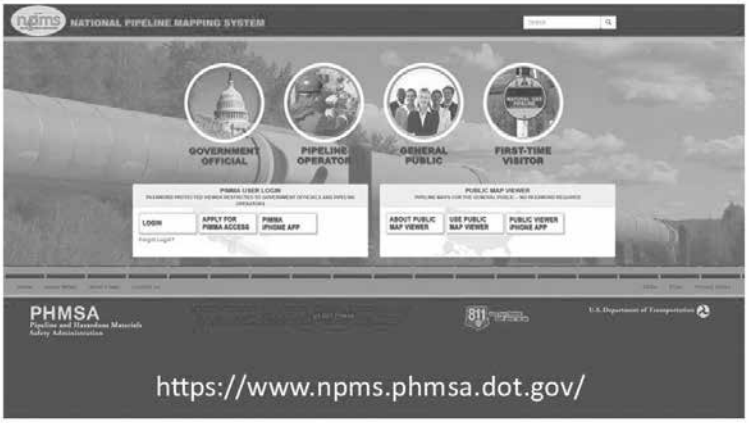
- Quick reference guide in program materials

Pipeline emergency operations standard/model recommendations

- Access the full report through **nena.org**

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

National Pipeline Mapping System (NPMS)



Pipeline Mileage Resource by State/County

Product Characteristics

Hazardous Liquids
ER Guide 128 (Pages 192-193)
- Crude oil, jet fuel, gasoline and other refined products
- **Liquid in and liquid out of the pipeline**

Highly Volatile Liquids
ER Guide 115 (Pages 166-167)
- Propane, Butane, Ethane and natural gas liquids
- **Liquid in and vapor out of the pipeline**

Natural Gas
ER Guide 115 (Pages 166-167)
- **Gas in and gas out of the pipeline**
- Odorant added if needed

Product Characteristic Resources

Mobile Applications

Android & iPhone

ERG 2020

National Library of Medicine

Designed for iPad

#132 in Reference

★★★★½ 4.5 • 21 Ratings

Free

WISER Response

National Library of Medicine

Designed for iPad

★★★★½ 3.6 • 37 Ratings

Free

NPMS Public Viewer

Pipeline and Hazardous Materials Safety Administration

Free

CAMEO Chemicals

National Oceanic and Atmospheric Administration

Designed for iPad

★★★★½ 4.1 • 17 Ratings

Free

Anhydrous Ammonia (NH_3)

ER Guide 125 (Pages 186-187)

Potential Hazards

- Toxic; may be fatal if inhaled, ingested or absorbed through skin
- Cloud may not be visible
- Vapors are initially heavier than air and spread along ground
- Wear full protective clothing/SCBA

Health Hazards

- Vapors may cause dizziness or suffocation
- Vapors are extremely irritating and corrosive
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite
- Fire will produce irritating, corrosive and/or toxic gases
- (LEL) 15% to (UEL) 28% (NIOSH Pocket Guide to Chemicals)

Public Safety

- Immediate precautionary measure, isolated spill or leak area at least 330 ft all directions
- Keep unauthorized personnel away
- Stay uphill, upwind and/or upstream
- Vapors are initially heavier than air and will spread along ground and collect in low lying areas (sewers, basements, tanks)

Hydrogen Sulfide (H_2S)

Highly toxic, colorless gas

ER Guide 117 (Pages 170-171)

One of the leading causes of work-related deaths in the petroleum industry and most noticed in crude oil operations

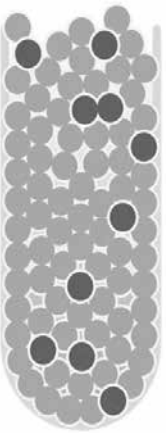
2-5ppm
Prolonged exposure may cause nausea and tearing of the eyes

100-150ppm
Loss of smell (olfactory fatigue or paralysis)

500-700ppm
Staggering, collapse in 5 minutes. Death after 30 to 60 minutes

700-1,000ppm
Rapid unconsciousness, "knockdown" or immediate collapse within 1 to 2 breaths, breathing stops, death within minutes

1,000-2,000ppm
Nearly instant death



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

811

Above Ground Storage Tanks

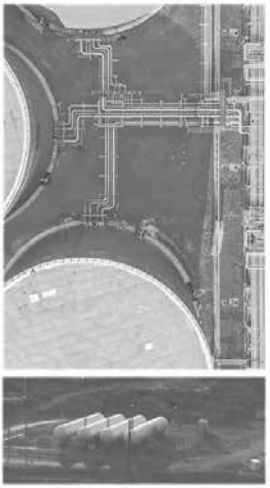
Considerations when responding to tank farms/ terminals

Work with your local operator to:

- Develop an effective response plan
- Identify products and hazards
- Determine evacuation radius

Response recommendations:

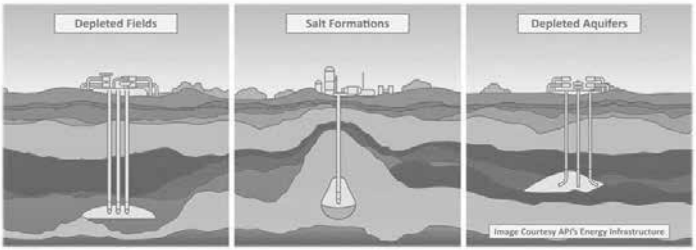
- Cool tank(s) or nearby containers by flooding with water
- Use unmanned hose holders/monitor nozzles
- Do not direct water at safety devices or icing may occur
- Let product burn, even after air supply line/system is closed
- Beware of the potential for **Boiling Liquid Expanding Vapor Explosion (BLEVE)**



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



Local Distribution Systems

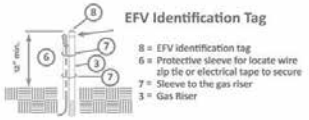
Caution

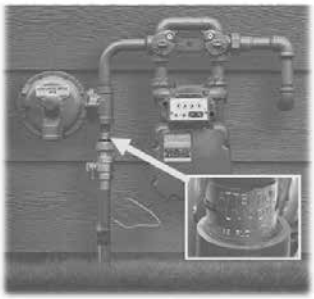
- Be aware, not all natural gas leaks are from excavation; unintended leaks from stoves, water, heaters, furnaces, etc. can occur
- When called out on natural gas leak events, use combustible gas indicators
- Mercaptan can be stripped as it travels through soil
- Frost heaves, breaking pipes
- Gas meter 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 flow valve on the service lines must be marked with an identification tag. The identification tag will typically be located at the top of the service riser below the meter stop valve





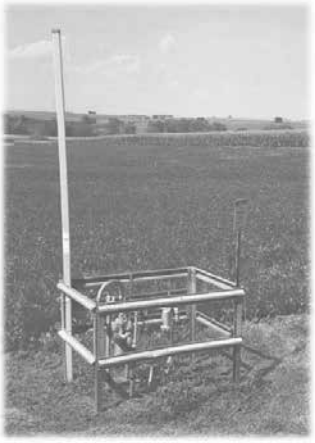
Excess Flow Valve (EFV)

Local Distribution Lines

- **Automatic reduction of gas flow** should a service line break
- **May not** completely stop the flow of natural gas
- **May not** hear a distinct hissing sound
- Migration and ignition sources may still exist
- Always work a coordinated response with your local operator
- **Not all service lines have an EFV installed**

Farm Taps

- In mainly rural areas, some natural gas pipeline companies may have facilities commonly referred to as "farm tap"
- These natural gas settings are made up of valves, pipes, regulators, relief valves and a meter. It may be located near the home or within the general vicinity
- To report the smell of gas near a farm tap, call 911 and the local gas distribution company from a safe distance



Training Center

Interaction achieved through face-to-face and virtual programs is invaluable!

In the event others couldn't meet operators virtually, check out Training Center

- Great supplemental training
- Similar to the information in this presentation
- Access to your local pipeline sponsor information
- Review the entire course or specific sections of the course
- Users can pause and continue training at any point in time
- Download the same documents presented in this program
- Certificate of completion provided upon completion of course

Training Center is now live!

trainingcenter.pdigm.com **use code: 2022CORE**

Block I: Initial Call and Notifications

Scenario

- **A massive half-mile wide tornado** has leveled structures and traveled down the center of the city, separating it into halves.
- **911 Operators** are overwhelmed with emergency calls – Two fire stations have been destroyed and the local hospital has lost its commercial electric supply, natural gas supply, and water. Most of its windows were blown out.
- **There are widespread reports** of an odor of natural gas – particularly where structures have been destroyed. Power lines and debris are blocking the streets and public safety radio operation is spotty.
- **A citizen** reports an unknown storage tank has been damaged and is currently releasing a substance onto the ground.

Discussion Questions

- Emergency Services Personnel: You have "one minute" to conduct a discussion at your table and write down your top three response priorities for these incidents.
- In responding to the calls for help from the public, how will calls be prioritized? Are the natural gas odors an issue now?
- How will responders (and mutual aid partners) communicate with each other since the main public safety radio system is not operating correctly?
- At what point will the report of the damaged storage tank be checked by responders?

Block II: On Scene Response

Briefing Update

- **Fire units** are having difficulty reaching incident scenes due to streets blocked by debris and downed power lines. Citizens are approaching these units and reporting people trapped in the homes.
  - They are requesting immediate assistance.
- **EMS** has been assigned to provide aid at the damaged hospital.
  - Calls for help continue coming in for injured citizens.
- **Law Enforcement** is providing aid with some entrapments and injuries but is limited in its ability to respond.
- **Mutual Aid** responders are moving toward the area, but citizens requesting aid are preventing them from reporting to the Incident Command Post (ICP).
- **The wide-spread presence** of the odor of natural gas is still being reported to 911. A light-colored substance giving off petroleum vapors is now being reported as being released from the storage tank.
- **Emergency Management (EM)** indicates the National Weather Service is advising they will issue a high wind warning for the area shortly. EM also advises they are working fulfilling requests from other agencies for resources.

Discussion Questions

- What would help determine the appropriate actions for this incident and what to expect from the pipeline industry?
- What resources can you use to find information about the pipeline product, its hazards, and characteristics?
- Pipeline Operators: With what information is forwarded to you at this time. what action will you and/or your control center (SCADA Center) take in response to this information?
- How will the emergency responders and pipeline operators stay in communication?

Block III: Governmental Coordination

Briefing Update

- **Local pipeline operator** has advised that the process of closing remote valves and "drawing down" the product in the affected area has begun.
- **People** have been observed filling various non-approved containers with the leaking petroleum substance, assuming it is gasoline. After filling their various containers, they're leaving the area either by foot or vehicle.
- **Local elected officials** (city and county) have arrived on scene and are requesting to speak with command staff.
- **Local television** crews are requesting to speak with command staff and broadcasting live from the storage tank flying drones over many of the areas damaged by the storm.

Discussion Questions

- Pipeline personnel: Will it be possible to predict when it will be safe to enter the damaged neighborhoods and the area around the gasoline tank?
- Should emergency responders be concerned regarding citizen evacuation from the impacted areas right now?
- How will the use of drones by the media be handled by emergency responders?
- Will there be outside agencies (for example State or Federal Government) present at this incident?
- How will emergency responders and the pipeline operator coordinate to inform the media?

Product INFORMATION

The Emergency Response Guidebook is available at:

https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2020-08/ERG2020-WEB.pdf

ANDROID APP ON Google play

Download on the App Store

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

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:
  1. 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.
  4. 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:
  1. 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*

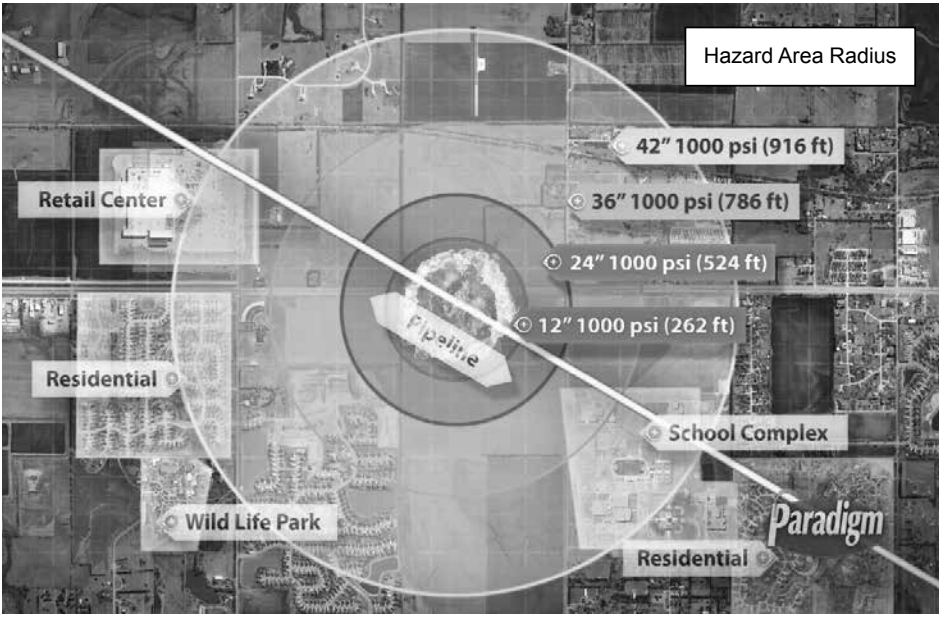
HAZARDOUS LIQUIDS

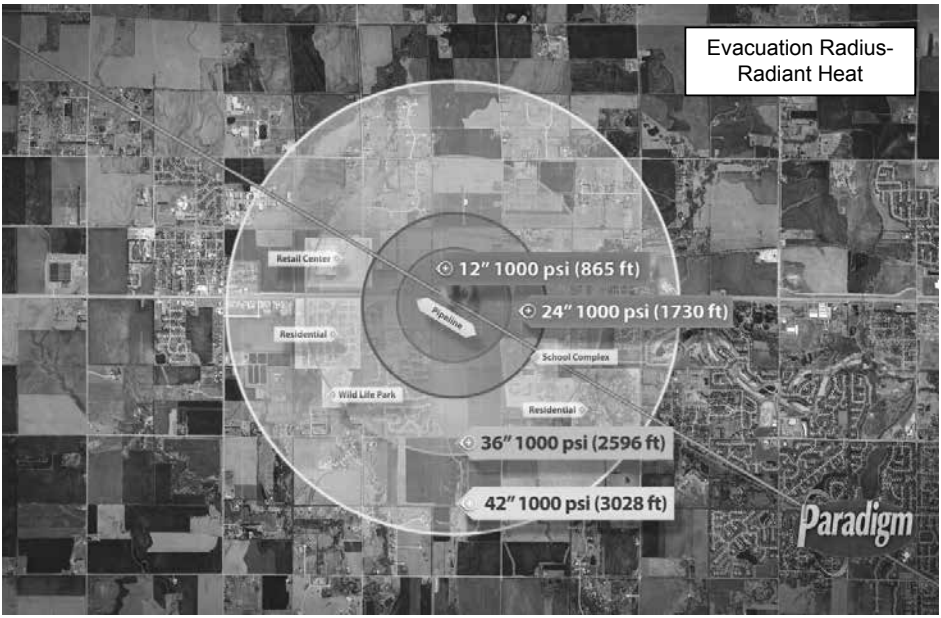
(a) General: Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once 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.

**Reference 49 CFR 195.402*


Hazard Area Radius
42" 1000 psi (916 ft)
36" 1000 psi (786 ft)
24" 1000 psi (524 ft)
12" 1000 psi (262 ft)
Retail Center
Residential
Pipeline
School Complex
Wild Life Park
Residential
Paradigm


Evacuation Radius-
Radiant Heat
Retail Center
12" 1000 psi (865 ft)
24" 1000 psi (1730 ft)
Pipeline
Residential
School Complex
Wild Life Park
Residential
36" 1000 psi (2596 ft)
42" 1000 psi (3028 ft)
Paradigm

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
4. Methodically and Strategically Obtain Information through Systematic Inquiry to be Captured in the Agency's Intake Format
5. 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	X	
A loud roaring sound like a jet engine	X	X	
A white vapor cloud that may look like smoke		X	
A hissing or whistling noise	X	X	
The pooling of liquid on the ground			X
An odor like petroleum liquids or gasoline		X	X
Fire coming out of or on top of the ground	X	X	
Dirt blowing from a hole in the ground	X	X	
Bubbling in pools of water on the ground	X	X	
A sheen on the surface of water		X	X
An area of frozen ground in the summer	X	X	
An unusual area of melted snow in the winter	X	X	
An area of dead vegetation	X	X	X

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*

SMELL
- 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

SOUND
- A hissing or roaring sound

What To Do If A Leak Occurs

- Evacuate immediately upwind
- Eliminate ignition sources
- Advise others to stay 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
  - 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:
  - 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

Call Gas Control Or Pipeline Control Center
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
Your name & title in your organization
Call back phone number – primary, alternate
Establish a meeting place
Be very specific on the location ***(use GPS)***
Provide City, County and State

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.

** 49 CFR §192.903.*

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
8. Reporting & Evaluation Best Practices
9. Miscellaneous Practices

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

CGA Common Ground Alliance℠

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.

*mileage according to the Pipeline Hazardous Materials Safety Administration (PHMSA).

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

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

TC TRAINING CENTER

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.

American Public Works Association (APWA) Uniform Color Code

	WHITE - Proposed Excavation
	PINK - Temporary Survey Markings
	RED - Electric Power Lines, Cables, Conduit and Lighting Cables
	YELLOW - Gas, Oil, Steam, Petroleum or Gaseous Materials
	ORANGE - Communication, Alarm or Signal Lines, Cables or Conduit
	BLUE - Potable Water
	PURPLE - Reclaimed Water, Irrigation and Slurry Lines
	GREEN - Sewers and Drain Lines

National One-Call Dialing Number:

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

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-emergency-telecommunications-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-response-guidebook-erg

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

Paradigm®

VSM™
VIRTUAL SCENARIO MANAGER

HSEEP
Homeland Security Exercise and Evaluation Program

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

Indiana 811

Know what's **below.** **811** before you dig.

Call or Click Before You Dig!

Residential Web Entry

811NOW.com

OR

Professional Web Entry

www.indiana811.org

Indiana 811

OR

Simply Dial

811

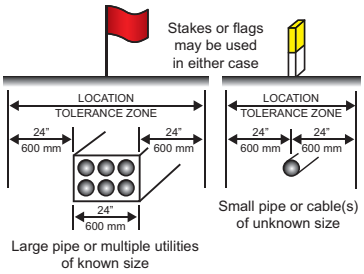
Follow these four simple guidelines to insure a safe excavation process.

Call Before You Dig

Allow time for the utilities to mark their lines.

Respect the markings

Excavate with Care



Large pipe or multiple utilities of known size

Small pipe or cable(s) of unknown size

INDIANA

Indiana 811: 800-382-5544

Website: www.indiana811.org

Hours: 24 hours, 365 days

Advance Notice: 2 full working days, but no more than a 20-calendar day advance notice prior to the start of excavation

Marks Valid: 20 calendar days

Law Link: https://indiana811.org/resources/law/

* Homeowners are exempted from calling when digging with hand tools less than 12 inches deep.

** Railroads are exempted from calling when doing routine maintenance except at public grade crossings.

*** Agriculture is exempt from calling when using normal farming implements, except for using sub-soilers.

TICKETS			STATE LAWS & PROVISIONS									NOTIFICATION EXEMPTIONS					NOTIFICATIONS ACCEPTED					
FAX	Online	Mobile	Statewide Coverage	Civil Penalties	Emergency Clause	Mandatory Membership	Excavator Permits Issued	Mandatory Premarks	Positive Response	Hand Dig Clause	Damage Reporting	DOT	Homeowner	Railroad	Agriculture	Depth	Damage	Design	Emergency	Overhead	Large Projects	Tolerance Zone
N	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	N	Y *	Y **	Y ***	N	Y	Y	Y	N	N	24"

1.877.477.1162 • www.inpaa.org