INDIANA

EXCAVATOR®
PIPELINE SAFETY PROGRAM

PIPELINE SAFETY TRAINING

PROGRAM GUIDE

2025

Paradigm®

1.877.477.1162 • in.pipeline-awareness.com

EMERGENCY CONTACT LIST

Company Name	Emergency Number
Ameresco	(781) 460-0996
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 Energy	(800) 227-1376
Chrisney Municipal Gas	(911)
CITGO Petroleum Corporation	(800) 471-9191
Citizens Energy Group	(800) 458-4553
City of Rensselaer Gas Utility.	(219) 866-7602
Community Natural Gas Co. Inc.	(618) 972-4060
Countrymark Refining and Logistics, LLC	(812) 838-8500
or	ext.8500 (800) 832-5490
Duke Energy Nobleville Station	(618) 392-5502
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	(812) 875-9707
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
Kinder Morgan Kinetrex Pipeline	(800) 733-2490
Kinder Morgan (Natural Gas Pipeline Company of America)	(800) 733-2490
Linde	(800) 926-9620
Linton Municipal Utilities	(812) 847-4411
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

Company Name	Emergency Number
Montezuma Municipal Gas Utility	(765) 245-2759
or	(765) 245-2211
New Harmony (town of) Gas Utilities (Day)	(812) 682-4846
New Harmony (town of) Gas Utilities (Night)	(812) 838-8363
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
or	(877) 853-5501
Portland District: Jay County	(260) 726-8114
Portland District: Randolph County	(765) 584-5503
Connersville District	(765) 825-1149
or	(800) 326-1148
Tell City District	(812) 547-2396
or	(877) 842-2397
Sullivan District	(877) 884-6368
Owens-Illinois	(618) 392-5502
Panhandle Eastern Pipe Line	(800) 225-3913
Pembina Cochin LLC	(800) 360-4706
Poseyville Municipal Utilities	(812) 874-2212
Riverside Petroleum Indiana LLC.	(888) 871-3550
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	(877) 436-2253
TC Energy - ANR Pipeline Company	(800) 447-8066
Texas Gas Transmission, LLC	(800) 626-1948
Town of Lapel	(765) 534-3157
Town of Osgood Gas Utility	(812) 689-0178
Town of Pittsboro	(317) 892-3326
Town of Roachdale Municipal Utility	(765) 301-0828
Trunkline Gas	(800) 225-3913
Valley Rural Utility Company	(888) 784-6160
Valero Terminaling and Distribution Company	(866) 423-0898
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

Table of Contents

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

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

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

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

Pipeline Emergency Response Training

Contractor and Excavator Personnel

EXCAVATOR PIPELINE SAFETY PROGRAM

Instructor: Jeff Hayes

EXCAVATOR 811 Paradigm

Continuing Education Unit (CEU) Opportunities

Indiana Department of Environmental Management

Drinking Water Operators
Course Number: PSWG23-8121

Wastewater
Course Number: WWT24-5222-T02-G00

Well Drillers / Pump Installers
Approval Code: 20-001 – Needs to be updated

Sponsors

Indiana Utility Regulatory Commission
IURC

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

EXCAVATOR 811 Paradigm

Pipeline Operator 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

Do contractors and excavators face some of these same challenges?

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.

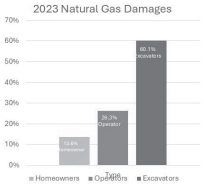
Coordinated Response Exercise®

- **Learn** your requirements and responsibilities prior to beginning excavating.
- **Acquaint** you with the operator's ability to respond to a pipeline emergency. And find out what the company responsibilities are once you notify 811 before you can dig.
- **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: Excavators, Public Officials, Emergency Responders, and Pipeline Operators

Natural Gas Excavation Damages in Indiana



Who are we?

- Our goal is to diligently assess the specific needs of our valued members while also actively **engaging** with and **educating** various stakeholder groups about the vital importance of utilizing the 811 system. Together, we aim to create a **safer community** by ensuring a thorough understanding of underground **utility safety** and the necessary steps to prevent accidental damage.

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SOUTHERN
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317-501-3811

What do we do?

- **Trainings/Member Outreach**
  - Members & Contractors
- **Community Outreach Events**
  - All over the state of Indiana
- **Exhibitors**
  - Conferences and Tradeshows

Who is Indiana 81

- Non-profit established in 1981
- Contact center operates 24/7/365
- Be mindful of holidays and weekends when submitting tickets.
- We do not locate!

Law Change! Working Day & Prevailing Time

Adds hours to the term working day. Working day is 7 am to 6 pm ET.

Added to define prevailing time as the time observed in Indianapolis, Indiana.

Law Change! Tickets

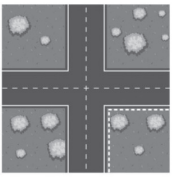
Proper notice for normal tickets are based on the hours of 7 a.m. - 6 p.m. EST, Monday through Friday, excluding state and federal holidays.

Ticket requests shall remain valid as long as markings remain, until 11:59 p.m. on the 20th day after the request was submitted.

Locate Descriptions

Your locate description should cover only the areas where you will be digging.

Example: White line the southeast corner of the intersection starting at the edge of the road 40 ft inward and note that information on the ticket. Or only request locates for the SE corners at the intersection. **Do not** request "mark entire intersection"

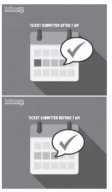


Law Change! Normal Working Hours

Ticket requests that are submitted after 7:00 a.m. will not be counted until the following working day.

- Hours: if you request a ticket on Monday after 7 a.m. your proper notice will begin on Tuesday at 7 a.m.
- If you request any time from 6 p.m. - 6:59 a.m. your proper notice will begin on 7 a.m.

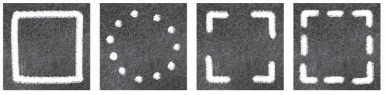
You can commence work before the two full working days if all affected operators have notified the excavator that the location has been marked or is clear of their facilities through positive response.



Law Change! White Lining

Added that electronic white lining is an acceptable form of white lining, that is approved by the association.

Onsite White Lining: Use white paint or flags to mark the intended dig site prior to contacting Indiana 811.



Law Change! Select Your Start Date

- You can select an excavation start date that is between 2 full working to 10 calendar days.
  **This does not affect your expiration and the ticket is still only valid for 20 calendar days from time of input.*
- Cannot submit a ticket for more than 10 days out and must share start date and time if known.
- Positive Response can be delayed correlating with the scheduled start dates.

Ticket Types

Normal Notice
Damage
Emergency
Additional Notice (2nd Notice)
Design Notice
Design Inquiry Tool – online only
Joint Meet

Law Change!
Positive Response

Mandatory positive response for all tickets, including design tickets, to Indiana 811 for all members.

Mandatory positive response to Indiana 811 for a "clear" ticket request.

What is Positive Response?

Positive Response is when the utility provides communication of the status of a locate request back to the excavator after they determine if their underground facilities are close to the excavation site – or not. Through the One Call System means the status is communicated to Indiana 811 instead of directly to the excavator.

Law Change!
Excavators & Positive Response

- Person responsible for excavation or design must acknowledge receipt of positive response to their ticket.
- Excavators view will be logged in the back end of the system once they view positive response. There is nothing an excavator need to select to show proof of viewing.

How does an excavator check Positive Response?

UPDATES IN THE Indiana 811 SYSTEM

NEW UPDATE

1 Mobile is now available!

No app required.

Start creating tickets from your phone today.

2 Job ID

Now available on all tickets.

NEW UPDATE

3 Completing Tickets

Check multiple tickets as completed.

4 Members can receive ticket requests via SMS (text message)

You can sign up today to receive your ticket requests via SMS.

**** This is an additional charge per transmission.***

Fines and Penalties

UPPAC

- Monthly public hearings open to the public
- May recommend fines and penalties
- Representation by facility owners, excavators, locators, one-call center

Civil Penalties

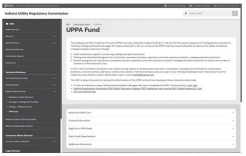
- UPPAC Meetings review all **pipeline** damage cases
- A civil penalty up to a maximum of $10,000
- Fines go into UPPA fund

UPPA Fund

This fund is a collection of all the UPPAC fines.

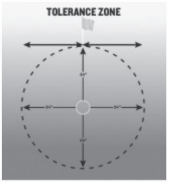
Created to fund positive outreach and education to minimize underground facility damages.

Contact the UPPA fund Program Manager, Darby Miller at darbmiller@urc.in.gov



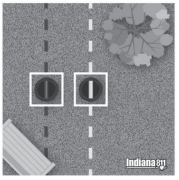
Soft Digging Techniques

- Hydro-excavation (Water)
- Pneumatic Excavation (Air Knifing)
- Hand digging with blunt objects such as a spade shovel
- Never use a spike, crowbar, or any other pointed tool within the tolerance zone



Law Change! Tolerance Zone & Soft Digging Techniques

- Potholing is when test holes are dug, usually through vacuum excavation to fully expose underground utilities after they've been marked by a locating technician.
- If you are crossing a buried facility, potholing should be done at the location where your installation will cross the existing facility.
- Defines the term "tolerance zone" and puts in law the donut radius for the tolerance zone.



Damages

What is a damage?

As defined in the law: IC 8-1-26-4 "DAMAGE"

Sec. 4. As used in this chapter, "damage" means: (1) the substantial weakening of structural or lateral support of an underground facility; (2) the penetration or destruction of a protective coating, a housing, or another protective device of an underground facility; (3) the partial or complete severance of an underground facility; or (4) rendering any underground facility inaccessible.

Steps to take?

- Protect ***life, health, and property***
- If you have struck a petroleum or gas pipeline, leave the area and call 911 from a safe location
- Notify utility owner
- Contact 811 to report the damaged utility
- *Always keep an updated list of emergency contact numbers for each excavation site you are working at.*

Resources

Late locates and emergencies document

Visit Indiana 811.org

- Navigate to Resources
- Select Late Locates and Emergencies Document

SCAN ME

Get Involved

Damage Prevention Councils

- Grassroot level damage prevention effort
- All are welcome to attend
- Meeting times and locations on Indiana811.org

Midwest Damage Prevention Training Conference (MWDPTC)

- November 11th-13th
- French Lick Resort and Casino

MIDWEST DAMAGE PREVENTION
Indiana811
TRAINING CONFERENCE
EST. 2013

Questions?

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Dredging Operations

If your company conducts dredging operations, shoreline stabilization or pile driving activities, please be aware of the following:

- Underground hazardous liquids and natural gas pipelines do traverse lakes and navigable waterways
- 811 requirements to submit a one-call ticket prior operations commencing, to include a sub-aqueous ticket option
- Identify all pipeline warning markers near the shorelines where you will be working
- Contact the pipeline company as part of your pre-planning before work begins

Logging Operator Responsibilities

- **Notify pipeline company before work begins**
- **No skidding of logs on right of way**
- **Crossing of pipeline must be approved**
- **Drop cut trees away from pipeline**
- **Do not remove existing cover**
- **Restore right of way**

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 transmission pipelines

Product Characteristics

Hazardous Liquids
ER Guide 128 (Pages 186-187)
- Crude oil, jet fuel, gasoline and other refined products
- **Liquid in and liquid out of the pipeline**

Highly Volatile Liquids
ER Guide 115 (Pages 160-161)
- Propane, Butane, Ethane and natural gas liquids
- **Liquid in and vapor out of the pipeline**

Natural Gas
ER Guide 115 (Pages 160-161)
- Gas in and gas out of the pipeline
- **Odorant Mercaptan added where required**

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 upwind and/or upstream
- Vapors are lighter than air

Hydrogen Sulfide (H_2S)

Highly toxic, colorless gas
ER Guide 117 (Pages 170-171)

Workers in oil and natural gas drilling and refining may be exposed because hydrogen sulfide may be present in oil and gas deposits and is a by-product of the desulfurization process of these fuels.
*OSHA Oil and Gas Well Drilling and Servicing eTool

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

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

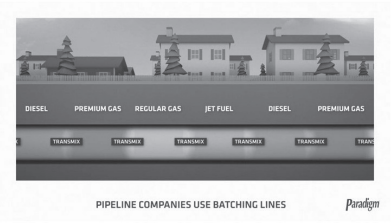
500-700ppm
Staggering, collapse in 5 minutes. Death after 30 to 60 minutes

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

*https://www.osha.gov/SLTC/etools/oilandgas/general_safety/h2s_monitoring.html

Petroleum Products Batching



PIPELINE COMPANIES USE BATCHING LINES

Paradigm

Above Ground Storage Tanks

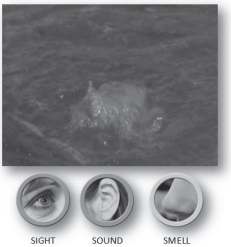
Considerations when responding to tank farms/ terminals

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)**

Leak Recognition

- Pools of liquid on the ground near a pipeline
- Dense white cloud or fog over a pipeline
- Discolored vegetation surrounding a pipeline
- 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 surfaces
- Frozen ground near a pipeline
- Unusual noise coming from a pipeline
- Unusual smell or gaseous odor



Local Distribution Systems

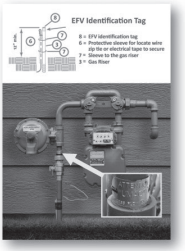
Caution

- 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)]

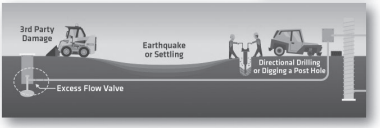
- The presence of an excess flow valve on the service lines must be marked with an identification tag. The identification tag will typically be located at the top of the service riser below the meter stop valve



Excess Flow Valve (EFV)

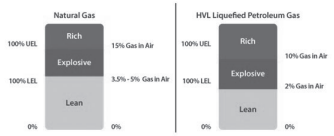
Local Distribution Lines

- **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**



Explosive Limits

Explosive Limits vs. Percent of Gas in Air

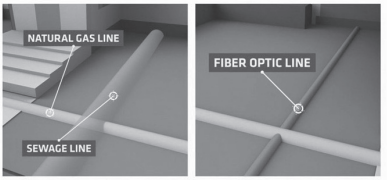


Lower / Upper explosive limits depend on characteristics of specific products

Farm Taps

- Mainly in 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 company from a safe distance
- The lines after a farm tap or residential meter may or may not be PRIVATE LINES, be aware of these

Horizontal Directional Drilling (Cross Bore)

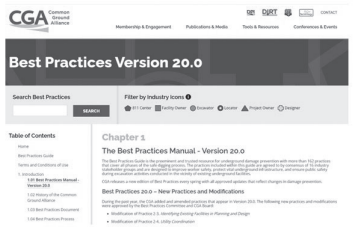


THROUGH A SEWAGE LINE, LOCAL DISTRIBUTION, TRANSMISSION Paradigm

Program Resources

Safe Digging Practices and Resources

https://bestpractices.commongroundalliance.com/1-Introduction/101-Best-Practices-Manual-Version-200



Pipeline Awareness Training Center

Share with others in your crew, company, or 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

trainingcenter.pdigm.com
Use Code: 2025EX

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

Geologist: Concise, Informative, appreciate the audio and visual components, and the course documents provided.

Laborer: Great course, as a reminder of what's out there and how to deal with it.

PHEP Coordinator: Excellent course material, explanation and instruction.

Safety Manager: This s a good course to add to our Excavation Safety Program Training and New Hire Training Package.

Technician: Very informative and ESSENTIAL to anyone doing or planning to do any kind of excavation work!

EXCAVATOR RESPONSIBILITIES:

- ❑ Call Before You Dig - It's the Law!
- ❑ Wait the required time for the markings! (state specific time – check your local One Call Law)
- ❑ Tolerance Zones – May vary by state and/or company!
- ❑ Respect the marks!
- ❑ Dig with care!

RISK CONSIDERATIONS

- ❑ Type/volume/pressure/location/geography of product
- ❑ Environmental factors – wind, fog, temperature, humidity
- ❑ Sight, sound, smell – indicators vary depending on product
- ❑ 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
- ❑ Other utility emergencies

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. Markers may not be located directly over the pipeline it marks.

The markers display:

- ❑ The product transported
- ❑ The name of the pipeline operator
- ❑ The operator's emergency number

- ❑ White Lining (Pre-marking)
- ❑ One Call Facility Request
- ❑ One Call Access
- ❑ Locate Reference Number

- ❑ Separate Locate Request
- ❑ Pre-excavation Meeting
- ❑ Facility Relocations
- ❑ One Call Reference Number at Site
- ❑ Contact Names and Numbers
- ❑ Positive Response
- ❑ Facility Owner/Operator Failure to Respond
- ❑ Locate Verification
- ❑ Work Site Review with Company Personnel
- ❑ Documentation of Marks
- ❑ Facility Avoidance
- ❑ Marking Preservation
- ❑ Excavation Observer
- ❑ Excavation Tolerance Zone
- ❑ Excavation within the Tolerance Zone
- ❑ Vacuum Excavation
- ❑ Mismarked Facilities
- ❑ Exposed Facility Protection
- ❑ Locate Request Updates
- ❑ Facility Damage Notification
- ❑ Notification of Emergency Personnel
- ❑ Emergency Coordination with Adjacent Facilities
- ❑ Emergency Excavation
- ❑ Backfilling
- ❑ As-built Documentation
- ❑ Trenchless Excavation
- ❑ No Charge for Providing Underground Facility Locations
- ❑ Federal and State Regulations

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

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

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
- 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.

National One-Call Dialing Number:

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

For More Details Visit: www.call811.com

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

OSHA General Duty Clause

Section 5(a)(1) of the Occupational Safety and Health Act (OSHA) of 1970, employers are required to provide their employees with a place of employment that "is free from recognizable hazards that are causing or likely to cause death or serious harm to employees."

https://www.osha.gov/laws-regs/oshact/section5-duties

PRODUCT	*LEAK TYPE*	*VAPORS*
HIGHLY VOLATILE LIQUIDS [SUCH AS: BUTANE, PROPANE, ETHANE, PROPYLENE, AND NATURAL GAS LIQUIDS (NGL)]	Gas	Initially heavier than air, spread along ground and may travel to source of ignition and flash back. Product is colorless, tasteless and odorless.
HEALTH HAZARDS	Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite. Fire may produce irritating and/or toxic gases.	

PRODUCT	*LEAK TYPE*	*VAPORS*
NATURAL GAS	Gas	Lighter than air and will generally rise and dissipate. May gather in a confined space and travel to a source of ignition.
HEALTH HAZARDS	Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.	

PRODUCT	*LEAK TYPE*	*VAPORS*
HAZARDOUS LIQUIDS [SUCH AS: CRUDE OIL, DIESEL FUEL, JET FUEL, GASOLINE, AND OTHER REFINED PRODUCTS]	Liquid	Initially heavier than air and spread along ground and collect in low or confined areas. Vapors may travel to source of ignition and flash back. Explosion hazards indoors, outdoors or in sewers.
HEALTH HAZARDS	Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control or dilution water may cause pollution.	

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:

Call Before You Clear
www.callbeforeyouclear.com

Common Ground Alliance
www.commongroundalliance.com

Federal Office of Pipeline Safety
www.phmsa.dot.gov

National One-Call Dialing Number: 811
www.call811.com

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

Occupational Safety & Health Administration (OSHA)
www.osha.gov

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/

TC
TRAINING CENTER

Register for access to
Training Center
Code: EX

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)

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

Indiana 811

SAFETY IS IN YOUR HANDS.
EVERY DIG. EVERY TIME.

SAFE DIGGING STARTS HERE

Notifying Indiana 811 about your excavation plans is one of the most important steps in the safe digging process -- but it's not the only step! It's important for you to follow all of the Five Steps to Safe Digging.

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
PLAN YOUR PROJECT	CONTACT INDIANA811	WAIT FOR THE MARKS	CONFIRM THE MARKS	DIG WITH CARE

Tickets	
Fax	N
Online	Y
Mobile	Y
State Laws and Provisions	
Statewide Coverage	Y
Civil Penalties	Y
Emergency Clause	Y
Mandatory Membership	Y
Excavator Permits Issued	N
Mandatory Premarks	N
Positive Response	Y
Hand Dig Clause	Y
Damage Reporting	Y
Notification Exemptions	
DOT	N
Homeowner	Y
Railroad	Y
Agriculture	Y
Depth	N
Notifications Accepted	
Damage	Y
Design	Y
Emergency Clause	Y
Overhead	N
Large Projects	N
Tolerance Zone	
24" + 1/2 the width of the facility on all sides	

Access the Indiana Dig Law:

INDIANA 811 INFO:

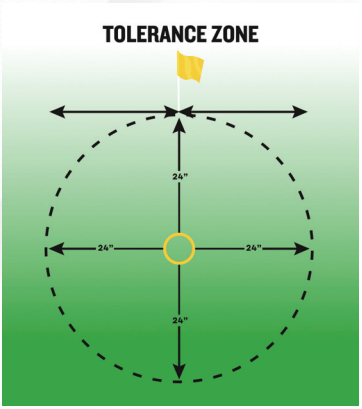
Phone: 800-382-5544 or 811

Website: www.indiana811.org

Hours: 24 hours, 365 days

RESPECT THE TOLERANCE ZONE

2 FT plus half the width of the facility on all sides



Paradigm®

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