



PIPELINE SAFETY TRAINING



PROGRAM GUIDE

Overview

Pipeline Safety

Excavation Best Practices Checklist

Signs Of A Pipeline Release

What To Do If A Leak Occurs

Pipeline Emergency

Common Ground Alliance Best Practices

Pipelines In Our Community

Damage Prevention Programs

Pipeline Damage Reporting Law

2025

EMERGENCY CONTACT LIST

COMPANY	EMERGENCY NUMBER
Ameresco	1-866-497-2284
Alliance Pipeline	1-800-884-8811
Alliant Energy - Interstate Power and Light	1-800-758-1576
Alliant Energy - Interstate Power and Light (Public)	1-800-255-4268
BP Pipelines (North America) Inc	1-800-548-6482
Buckeye Partners, L.P	1-800-331-4115
CITGO Petroleum Corporation - Arlington Heights Terminal	1-800-471-9191
Countrymark Refining and Logistics, LLC	1-812-838-8500
or	(Ext. 8500) 1-800-832-5490
Dakota Access Pipeline	1-800-753-5531
Enable Mississippi River Transmission	1-800-325-4005
Enbridge Energy Company, Inc. / Platte Pipe Line Company / Texas Eastern Transmission (Liquids)	1-888-449-7539
or	1-800-858-5253
Enbridge Energy Company, Inc. / Platte Pipe Line Company / Texas Eastern Transmission (Gas)	1-800-231-7794
Energy Transfer Crude Oil	1-800-753-5531
Enterprise Products Operating LLC	1-888-883-6308
Explorer Pipeline Company	1-888-876-0036
ExxonMobil Pipeline Company	1-800-537-5200
Flint Hills Resources	1-800-688-7594
Magellan Midstream Partners, L.P	1-800-720-2417
MidAmerican Energy Company (Public)	1-800-595-5325
MidAmerican Energy Company (Emergency Responders)	1-800-275-5743
MoGas Pipeline LLC	1-800-282-4916
NuStar Pipeline Operating Partnership, L.P.	1-800-759-0033
Panhandle Eastern Pipe Line	1-800-225-3913
Patoka Terminal Company, LLC	1-618-231-4428
Pembina ASM	1-800-360-4706
Pembina Cochin LLC	1-800-360-4706
Permian Express	1-800-753-5531
Phillips 66 Pipelines LLC	1-877-267-2290
Plains Pipeline, L.P.	1-800-708-5071
or	1-800-322-7473
Shell Pipeline Company LP	1-800-922-3459
Spire	1-314-535-8508
Tallgrass (Rockies Express Pipeline)	1-877-436-2253
Texas Gas Transmission, LLC	1-800-626-1948
Trunkline Gas	1-800-225-3913
Valero Terminals and Distribution Company	1-866-423-0898
Vector Pipeline	1-888-427-7777
West Shore Pipe Line Company	1-888-625-7310
Wolverine Pipe Line Company	1-888-337-5004
Zenith Energy Terminals, Joliet Holdings LLC	1-800-436-4301

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
JULIE, INC.	1-800-892-0123
811 Chicago	1-312-744-7000
National One-Call Referral Number	1-888-258-0808
National One-Call Dialing Number	811

Table of Contents

Overview.....	2
Pipeline Safety.....	3
Excavation Best Practices Jobsite Checklist	18
Signs Of A Pipeline Release / What To Do If A Leak Occurs / Pipeline Emergency.....	19
Common Ground Alliance Best Practices / Pipelines In Our Community.....	20
Damage Prevention Programs / Pipeline Markers / Call Before You Dig / OSHA General Duty Clause.....	21
Product Characteristics	22
Pipeline Damage Reporting Law / Websites	23
Operator Information	24
About Paradigm.....	25

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



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

Pipeline Emergency Response Training

Contractor and Excavator Personnel



Instructor: Gary Denny



EXCAVATOR 811 This information is to be used as a guide only and does not constitute an offer of insurance. Coverage is provided by a third party and is not guaranteed. Coverage is subject to the terms, conditions and exclusions of the policy. Coverage is not available in all states. Coverage is not available in all states. Coverage is not available in all states. Paradigm

Continuing Education Unit (CEU) Opportunities

This course is accredited with the Illinois Environmental Protection Agency as a Dual Credit Nontechnical (DCN) course for **2.0** hours. It is approved as course ID: **13492**.

EXCAVATOR 811 This information is to be used as a guide only and does not constitute an offer of insurance. Coverage is provided by a third party and is not guaranteed. Coverage is subject to the terms, conditions and exclusions of the policy. Coverage is not available in all states. Coverage is not available in all states. Coverage is not available in all states. Paradigm

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.



EXCAVATOR 811 This information is to be used as a guide only and does not constitute an offer of insurance. Coverage is provided by a third party and is not guaranteed. Coverage is subject to the terms, conditions and exclusions of the policy. Coverage is not available in all states. Coverage is not available in all states. Coverage is not available in all states. Paradigm

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



EXCAVATOR 811 This information is to be used as a guide only and does not constitute an offer of insurance. Coverage is provided by a third party and is not guaranteed. Coverage is subject to the terms, conditions and exclusions of the policy. Coverage is not available in all states. Coverage is not available in all states. Coverage is not available in all states. Paradigm

Program Resources

<http://pipeline-awareness.com>

Meeting Materials:

- 2011 Emergency Response Manual
- 2010 O&G Program Guide
- 2009 O&G 811 Program Guide
- 2009 Excavator Program Guide
- 2008 Emergency Response Local Assistance Guide
- 2008 Excavator Local Assistance Guide

EXCAVATOR 811

811 Presentation

JULIEBeforeYouDig.com

EXCAVATOR SAFETY PRESENTATION

EXCAVATOR 811

Talking Points

- What is JULIE
- Impact of New Legislation
- Damage Prevention Advocacy Award
- Locator Training
- Online Resources
- Q&A

Illinois' **FREE & SIMPLE** Utility Notification System

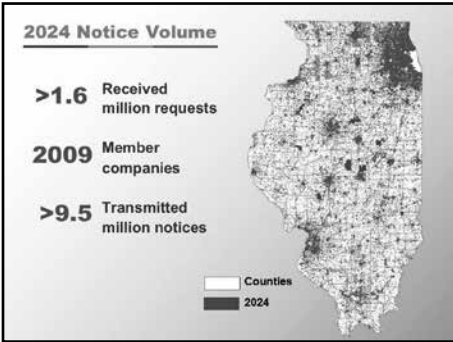
About JULIE

JULIE is a not-for-profit

JULIE does not own, operate or locate ANY underground utilities

Category	Count
NEW NORMAL LOCATE REQUESTS	38,789
EXTENSION WITH MARKS	12,226
RE-MARKS RESPECTIVELY	1,024.011

NEW NORMAL LOCATE REQUESTS EXTENSION WITH MARKS RE-MARKS RESPECTIVELY



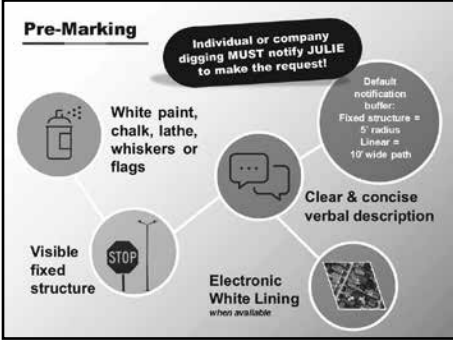
Law went into effect

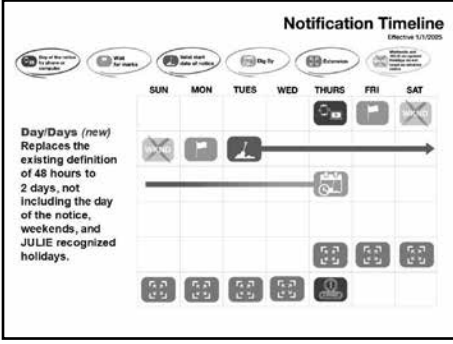
• January •

1

2025

Will the new changes impact the way you do business?





Notice Timeline

Effective 1/1/2025

Day of the notice to provide a response
 Dig to mark
 Workdays and JULIE response timelines do not count as advance notice
 Next day after notice

MON	TUES	WED	THURS	FRI	SAT	SUN	MON	TUES	WED	THURS	FRI	SAT
👤	👤	👤	👤	👤	👤	👤						
👤	👤	👤	👤	👤	👤	👤						
👤	👤	👤	👤	👤	👤	👤						
👤	👤	👤	👤	👤	👤	👤						
👤	👤	👤	👤	👤	👤	👤						
👤	👤	👤	👤	👤	👤	👤						
👤	👤	👤	👤	👤	👤	👤						
👤	👤	👤	👤	👤	👤	👤						
👤	👤	👤	👤	👤	👤	👤						

Timelines
 Minimum 2 days but not more than 10 days advance notice. Dig by date expires at midnight of the 19th day after the day of the notice. Extensions are allowed from the 20th with the expiration on the 29th day.

Positive Response

Positive Response is a system housed at JULIE that allows members to respond with an appropriate and accurate system code on notices with excavators having access to the information

Excavation prior to the dig start date possible

Tolerance Zone

Tolerance zone definition has been divided into subparagraphs defining with and without facility size provided, submerged, and visible utility structures

GAS

Small Pipe or Cable

20" TELEPHONE

Large Pipe or Multiple Ducts

Large Project Process

```

    graph TD
      A((Meet the Definition of Large Project)) -- YES --> B((Normal Notice Requests))
      A -- NO --> C((Planning and design notification))
      A -- NO --> D((Joint meet notification))
      B --> E((Extends & Refreshes as needed))
      E --> B
  
```

Normal Notice Requests (Submit normal notice requests based on the schedule discussed at the Joint Meets reference Joint Meet Request number on requests along with project owner name)

What is?

A Large Project

Adjective, Noun • large/project

A single excavation that exceeds the expiration date of a normal notice request

OR

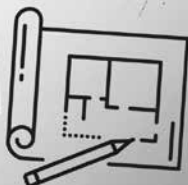
Involves a series of repetitive, related-scope excavations



Planning Design Request

Planning design process to assist in planning proposed excavation to avoid existing facilities

Facility owners and operators are required to participate



Joint Meet

Joint meet process to communicate information, plans, scope, schedule, and number of crews related to the proposed project in advance of the proposed start of the excavation

Virtual meetings allowed



Reasonable Control Measure

Facility locators may request up to 2 additional days to respond and mark or provide a no-conflict response when notice volume exceeds the historical averages within that geographic area

This additional time request **ONLY** applies to utility excavations where the project owner is a JULIE member or the members' contractors/sub-contractors

Project owner now required when requesting locates

Watch & Protect

- If notified, shall not excavate until you discuss with the facility owner
- Owners & operators are obligated to meet the excavator's schedule



Penalties

- Anyone may report an alleged violation
- The Illinois Commerce Commission, One-Call Enforcement shall inform parties involved within 20 days of receipt of the alleged violation
- All reports must be submitted within **65 days** after the discovery of the alleged violation



Damage Prevention Advocacy Award

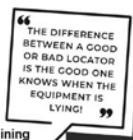
In recognition & memory of Gina Meehan-Taylor's tireless and passionate work as a damage prevention advocate in Illinois, the JULIE, Inc. Board of Directors has established this award in her honor.



illinois1call.com/advocacy-award/

One Day Locator Training

- 2 to 3 classes per region
- Volunteer to host safe site
- Bring your own equipment for hands-on training
- \$25 non-refundable fee
- Training time is 7:30am to 3:30pm
- Limit 20 participants per location
- Certificates mailed upon completion



Online Resources

JULIEBEFOREYOU.DIG.COM

Online Self Service Tools

E-REQ RTE REV

Map Check

Education Materials

Toolbox Talks

Excavation Safety Resource

JULIE Law

@julie1call

Online Training

JULIE LAW MODULES

And JULIE essentials

For Locators and Excavators
(and a course for out-of-state excavators too)

JULIE Damage Prevention Managers

Northern Illinois Region
David Van Wy
dvanwy@julie1call.com

Northern Illinois Region/Bilingual
Lucy Martinez
lmartinez@julie1call.com

Central Illinois Region
Brian MacKenzie
bmackenzie@julie1call.com


Southern Illinois Region
Roger Watwood
rwatwood@julie1call.com

Thank you for your time!

Contact a Damage Prevention Manager with any additional questions!


www.JULIEbeforeyoudig.com

JULIE



Illinois Commerce Commission
One-Call Education & Enforcement

<https://www.icc.illinois.gov/home/one-call-enforcement>



STAFF INTRODUCTIONS

Matt Smith
 Assistant Director Safety and Reliability Division
 Matt.Smith@illinois.gov

Bill Daniel
 One-Call Education & Enforcement Interim Supervisor
 217-785-8423
 Bill.Daniel@illinois.gov


INVESTIGATORS

Carl Parks
 217-524-4060
 carl.parks@illinois.gov

Mike Regnier
 217-557-1286
 Michael.Regnier@illinois.gov

Daniel Allen
 217-782-5911
 Daniel.Allen@illinois.gov


Carly Kuntzi
 Administration
 Carly.Kuntzi@illinois.gov



ABOUT THE ICC

What We Do

- **Enforce Illinois Underground Utility Facilities Damage Prevention Act (220 ILCS 50/)**
 - "The Act"
 The legislative rules that govern the digging process across the state of Illinois with the exception of the city of Chicago and gives ICC enforcement powers.
- **Enforce Part 265 - Illinois Administrative Code**
 - ICC's rules for enforcing the Act.



ABOUT THE ICC

Responsibilities


- **Receive complaints of alleged violations of the Act.**
 - Anyone can submit a suspected violation
 - Frequent from Excavators are No Shows
 - Frequent from Facility Operators are No Valid Ticket or Due Care
- **Investigate alleged violation**
 - Determine if violation of Act occurred
 - Issue Penalty or Warning
 - Advisory Committee appeals
- **Other**
 - Provide opinions of the Act & proposed legislation



FIELD VISITS


In The Field

- Visiting excavators across the state
- Encouraging pre-marking
- Providing white paint/flags
- Observing excavation practices
- Observing locating practices
- Advising on current & changing Act requirements




Updates to the Act

- On July 1, 2024, new updates to the Act were signed into law
- Portions of the Act are effective January 1, 2025, while others are effective January 2026




Act Highlights

- Actual individual excavating or their excavation company must process/submit the locate request
- "Excavation" definition expanded to include saw cutting, but only when penetrating into the base or subbase




Act Highlights

- During widespread emergency situations (i.e. storm restorations) facility owners or operators allowed to submit emergency notices for their contractors or subcontractors, but must assume liability, unless the contractor or subcontractor obtains their own emergency notice
- Facility markings will not be allowed to indicate a width of a facility that is greater than the width of the actual facility or the width of the paint mark approximately 2"




Act Highlights

- New penalties for requesting false “no show” or “incomplete” requests
- Use the joint meet process to communicate information, scope, schedule, and number of crews related to the proposed project in advance of the proposed start of the excavation




Act Highlights

- Up to 2 additional days may be requested from facility owners or operators to complete a normal notice request when call volume in a place exceeds the reasonable control measurement. **IMPORTANT NOTE:** This notice **ONLY** impacts those excavations where the project owner is a JULIE member & contractors.
- A request from a facility operator or contract locator to reschedule a ticket is not a mandatory obligation
- ICC reporting timelines established
 - 65
 - 20
 - 195



Stay Compliant & Avoid Risk

- The number one cause of utility damages in the country is failing to notify/request One Call locate
- ZERO tolerance for excavating without a locate request
- MANDATORY Violation



Stay Compliant & Avoid Risk

- **Provide the best extent possible** — better information results in a better executed ticket. *You are required to pre-mark, actual or verbal, the work area prior to providing notification through JULIE.*
- Prior to performing any type of excavation, **complete a site inspection** to look for clear evidence of unmarked/incomplete marked facilities.
- **Have a copy of the locate request**, paper or electronic, on the job site.

Stay Compliant & Avoid Risk

- **Always pot-hole** underground utility facilities down to the depth of the excavation prior to excavating with machinery in the tolerance zone.
 - ☐ Penalty if damage occurs without potholing.
- **Photograph or video the locate markings and entire job site** prior to the start of excavation paying particular attention to offset, laterals and service connections.
 - ☐ Could help support your case during an ICC investigation or payment of repairs.

IF A DAMAGE OCCURS

What to do After a Damage

- **Stop working** – Protect lives before property and equipment
- **Shut down equipment** if this can be safely accomplished
- **Maintain a safe distance** from the damage
- **Maintain a barrier** to keep the general public from the damaged utility.
- **Never crimp, clamp, tape fold** or otherwise attempt to stop the flow of natural gas once the line has been hit.



IF A DAMAGE OCCURS

Who You Going to Call??



- **Notify JULIE**
- **Notify utility owner**
 - ☐ *Ask agent for assistance*
- **Notify 911** if a hazardous gas or liquid is escaping.
 - ☐ *Remain on site until first responder or utility company arrives to the incident location.*

FAILURE TO LOCATE FACILITIES

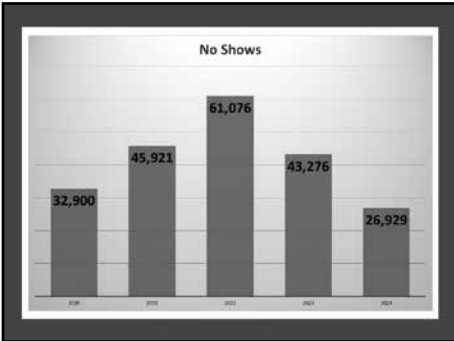
- **If a failure to mark dig site occurs, contact JULIE and submit a No-show Locate Request**
 - ☐ Utility has two (2) hours to respond
 - ☐ If utility fails to respond, contact JULIE to inform them you will begin excavating
 - ☐ CAN Proceed with caution
- **Reach out to utility owner if you encounter issues**
 - ☐ Large facility owners contact list is maintained on the One-Call Education & Enforcement website.
- **Call One-Call Education & Enforcement for support**
- **Submit a No-Show Report**

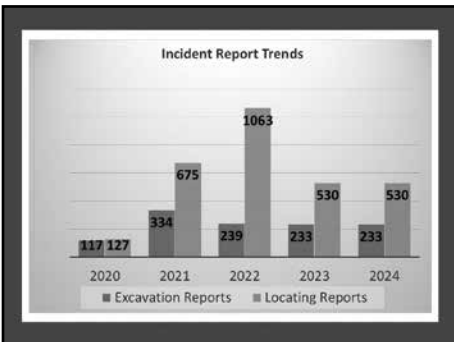
FAILURE TO LOCATE FACILITIES

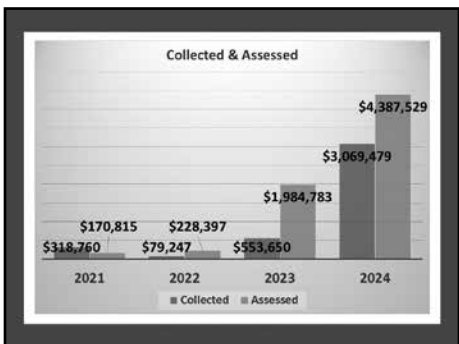
No-Show Report

One-Call Enforcement Website

Where can you learn more?







Reporting to ICC One Call Enforcement Suspected Violations

Suspected Violations: <https://www.lv.com/one-call/one-call-reporting/one-call-violations>

Reporting to ICC One Call Enforcement No Shows

No Shows: <https://www.lv.com/one-call/one-call-reporting/one-call-no-shows>

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.

EXCAVATOR 811 Partners

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



EXCAVATOR 811

Paradigm

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



EXCAVATOR 811

Paradigm

Anhydrous Ammonia (NH₃)

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 200 ft in all directions
- Keep unauthorized personnel away
- Stay upwind and/or upstream
- Vapors are lighter than air



EXCAVATOR 811

Paradigm

Petroleum Products Batching



PIPELINE COMPANIES USE BATCHING LINES

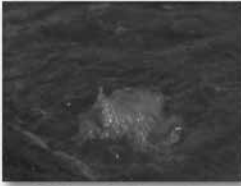
Paradigm

EXCAVATOR 811

Paradigm

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



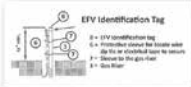
EXCAVATOR 811

Peacem

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
- Methanapt 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

EXCAVATOR 811

Peacem

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



EXCAVATOR 811

Peacem

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.

PHD Coordinator: Excellent course material, explanation and instruction.

Safety Manager: This is 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 811

Peacem

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



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

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



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).



**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



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:



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 Characteristics

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/comeo

Wireless Information System for Emergency Responders (WISER)

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



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)

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





JULIE, Inc.

State of Illinois (outside the City of Chicago)

Assistance in Damage Prevention, Underground Locate Requests, & Emergency Notification (Center is open 24/7, 365 days a year)

1-800-892-0123 or 811

For additional information: JULIE, Inc.
 3275 Executive Drive
 Joliet, IL 60431
juliebeforeyoudig.com

Services: Center provides state-wide one-call coverage (outside the City of Chicago) for the free locating and marking of underground facilities by its utility members. JULIE, Inc. neither owns nor marks any underground facilities.

Within the city limits of Chicago, contact 811 Chicago at 312-744-7000

ILLINOIS

JULIE, Inc.: 800-892-0123
Website: juliebeforeyoudig.com
Hours: 24 hours, 7 days

Advance Notice: 2 days but no more than a 10 days advance notice prior to the start of excavation. A day does not include weekends, JULIE recognized holidays and the day of the notice.

Marks Valid: 25 days (Ticket Life). A day does not include weekends, JULIE recognized holidays and the day of the notice.

Law Link:
<http://primis.phmsa.dot.gov/comm/DamagePreventionSummary.htm>

811 Chicago: 312-744-7000
Website: <https://ipi.cityofchicago.org/Digger>
Hours: 6:00 AM - 10:00 PM
Tickets Fax: 312-742-0950
Advance Notice: 48 hours
Marks Valid: 28 days

Law Link:
<http://primis.phmsa.dot.gov/comm/DamagePreventionSummary.htm>

* When possible

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	Y	N	Y	Y	Y	N	Y*	Y	Y	Y	N	N	Y	Y	N	Y	Y	Y	N	N	18*

Y	Y	N	N	Y	Y	Y	Y	Y*	Y	Y	Y	N	N	N	Y	N	Y	N	Y	N	N	18*
---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---	---	---	---	---	-----



1.877.477.1162 • il.pipeline-awareness.com