

MICHIGAN



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

2024

EMERGENCY CONTACT LIST

<u>COMPANY</u>	<u>EMERGENCY NUMBER</u>
Bluewater Gas Storage, LLC.....	1-877-427-2583
BP Pipelines (North America), Inc.	1-800-548-6482
Buckeye Partners, L.P.	1-800-331-4115
CITGO Petroleum Corporation.....	1-800-471-9191
DCP Operating Company, LP.....	1-888-233-8360
or	1-989-939-8360
DTE Gas Company	1-800-363-9541
DTM Gas Storage Company	1-800-363-9541
DTM Michigan Lateral Company.....	1-800-363-9541
Enbridge (US), Inc.	1-800-858-5253
Energy Transfer Liquids.....	1-800-753-5531
Holland Board of Public Works.....	1-616-355-1200
Kinder Morgan Utopia, LLC.....	1-800-265-6000
Lambda Energy Gathering LLC / Lambda Gathering LLC	1-877-258-3219
Michigan Gas Utilities.....	1-800-401-6451
Mid-Valley Pipeline	1-800-753-5531
Midland Cogeneration Venture.....	1-877-246-5100
NEXUS Gas Transmission, LLC (Operated by Enbridge).....	1-855-329-1781
NGL Supply Terminal Company, LLC.....	1-888-529-5558
Northern Natural Gas	1-888-367-6671
NOVA Chemicals Corporation.....	1-800-278-0584
Panhandle Eastern Pipe Line.....	1-800-225-3913
Pembina Cochin LLC.....	1-800-360-4706
Plains Pipeline, L.P.	1-800-708-5071
Rover Pipeline.....	1-800-225-3913
Semco Energy Gas Company.....	1-888-427-1427
Sunoco Pipeline L.P. (NGL).....	1-877-839-7473
Sunoco Pipeline L.P. (Refined Products).....	1-800-786-7440
Upper Michigan Energy Resources Corp. (Menominee County).....	1-800-450-7280
Upper Michigan Energy Resources Corp. (Dickinson & Iron County)	1-800-261-5325
VCP Michigan, LLC	1-989-732-8499
Vector Pipeline.....	1-888-427-7777
Wolverine Pipe Line Company	1-888-337-5004
Xcel Energy	1-800-895-2999

Note: The above numbers are for emergency situations.

Additional pipeline operators may exist in your area.

Visit the National Pipeline Mapping System at www.npms.phmsa.dot.gov for companies not listed above.

<u>ONE-CALL SYSTEM</u>	<u>PHONE NUMBER</u>
MISS DIG System, Inc.....	1-800-482-7171
National One-Call Referral Number.....	1-888-258-0808
National One-Call Dialing Number	811

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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

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.**



EXCAVATOR Pipeline Emergency Response Training

Contractor and Excavator Personnel



EXCAVATOR
PIPELINE SAFETY PROGRAM

Instructor:






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EXCAVATOR 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?

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EXCAVATOR 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.




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EXCAVATOR 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



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Place a dig notice

At least 3-business days

No more than 14 calendar days

Prior to beginning your work

MISS DIG 811

Start Date Delayed?

If you're not digging within 14-calendar days...

Contact MISS DIG 811 again to place a new ficket

MISS DIG 811

Marks and Flags can be

- ✓ Removed
- ✓ Concealed
- ✓ Damaged

MISS DIG 811

Ticket Life

Tickets are valid for


21-days

MISS DIG 811

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

21-Day Rule

- ✓ If digging goes beyond 21-days
- ✓ Facility owners will treat any damage as though a ticket was never placed



MISS DIG

Whose responsibility is it anyway?



- ✓ When multiple excavators are on the same site
- ✓ Each excavator must place their own dig notice!


MISS DIG

Positive Response



MISS DIG

Positive Response



- ✓ Positive Response is the system used by facility owners and hired contract locators to post a status on their marking of a ticket
- ✓ All facilities must indicate that it is safe to dig before an excavator can begin their project

MISS DIG



Positive Response

- Participation is required by law for BOTH the excavator and the
- Facility owner/operator!
- Facility owner/operator!

MISS DIG 01



Check Positive Response through OneCallAccess (OCA)

- Check Positive Response through OneCallAccess (OCA)
- Click "Positive Response" in the left navigation menu


MISS DIG 01



Scroll through the list and select an open ticket

- Scroll through the list and select an open ticket
- Tickets remain "Open" until designated that the work is done
- Once closed, you may still access the ticket, but utilities may not respond in the future

MISS DIG 01



Response Codes

- 001 – No Conflict
- 002 – Marked
- 003 – Not Complete
- 004 – Marked, facility owner/operator needed on site

MISS DIG 01

Additional Assistance

When should an excavator contact MISS DIG 811 to request additional assistance?



MISS DIG 811



Additional Assistance

An excavator shall provide immediate additional notice to the NoM.I.C. call system and stop excavation in the immediate vicinity if the excavator has reason to suspect the presence of an unmarked facility due to any of the following:

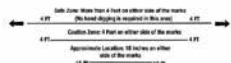
1. One or more facilities show "HAS NOT RESPONDED" on status in Positive Response.
2. Presence of facility is indicated, but no marks are visible.
3. Visible evidence of a facility, but no marks are visible.

MISS DIG 811

Work Zones



MISS DIG 811



MISS DIG 811



Once Soft Excavation is complete...

It is the excavator's responsibility to protect service lines once exposed...

With support or bracing of the facilities or trench walls...

The excavator is still responsible for damages to underground facilities!

MISS DIG 811

Public Act 174 Penalties

- ✓ Knowingly damage underground facility & fail to promptly notify
- ✓ Knowingly damage facility & conceal damage
- ✓ Willfully remove marks, unless work is done, or work removes marks



MISS DIG 811



Partner with MISS DIG 811 to keep your community safe & protect your infrastructure!

Remind your citizens to contact us using marquees, municipal websites, or social media!

MISS DIG 811



5 Steps to Safe Digging

- ✓ Contact MISS DIG 811 on-line or by phone
- ✓ Wait 3-business days for utilities to be marked
- ✓ Check the status on-line to confirm all utilities have been marked
- ✓ Hand dig when digging within 4-feet of paint or flags
- ✓ Dig with care

MISS DIG 811



Questions?

248-724-5851
education@missdig811.org

MISS DIG 811

EXCAVATOR Three Seconds Later...



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EXCAVATOR 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



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EXCAVATOR 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



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EXCAVATOR 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 valves
 - 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

 Pradipco

EXCAVATOR 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


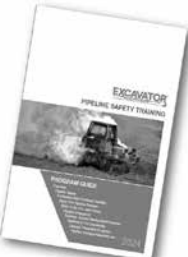
Highly Volatile Liquids
ER Guide 115 (Pages 106-107)*

- Propane, Butane, Ethane and natural gas liquids
- Liquid in and vapor out of the pipeline

Natural Gas
ER Guide 115 (Pages 106-107)*

- Gas in and gas out of the pipeline
- Odorant Mercaptan added where required

*These ER Guides and page numbers come from the 2020 version of the Emergency Response Guidebook

 Pradipco

EXCAVATOR 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 limit/system is closed
- Beware of the potential for Boiling Liquid Expanding Vapor Explosion (BLEVE)

 Pradipco

EXCAVATOR Local Distribution Systems


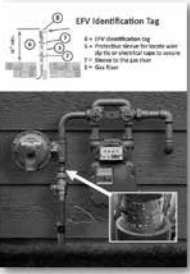
Caution

- 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 [192.383(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

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EXCAVATOR 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

911 *Paragon*

EXCAVATOR Explosive Limits

Explosive Limits
vs.
Percent of Gas in Air

Natural Gas		LPG / Liquefied Petroleum Gas	
Rich	15% Gas in Air	Rich	10% Gas in Air
Explosive	3-7% Gas in Air	Explosive	2% Gas in Air
Lean	0%	Lean	0%
100% LEL	100% LEL	100% LEL	100% LEL
0%	0%	0%	0%

Lower / Upper explosive limits depend on characteristics of specific product

911 *Paragon*

EXCAVATOR 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 distribution company from a safe distance.
- The lines after a farm tap or residential meter are PRIVATE LINES. Be mindful of these.



911 *Paragon*

EXCAVATOR 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.pdfem.com
Use Code: 2024EX

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.

PHSEP 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 Packages.

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

911 *Paragon*

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

<i>PRODUCT</i>	<i>LEAK TYPE</i>	<i>VAPORS</i>
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.	

<i>PRODUCT</i>	<i>LEAK TYPE</i>	<i>VAPORS</i>
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.	

<i>PRODUCT</i>	<i>LEAK TYPE</i>	<i>VAPORS</i>
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: 2024EX



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





Utility Damage Prevention Notification Center

(Open 24/7, 365 days a year)

For additional information: MISS DIG 811
 3212 Sjoquist Dr
 Gladstone, MI 49837
 Email: education@missdig811.org

Services:

Michigan's utility notification system provides state-wide one-call coverage. *In the event of a damaged line, please contact the facility owner/operator immediately.*

www.missdig811.org

MICHIGAN

MISS DIG 811: Call 811

Website: www.missdig811.org

Hours: 24 hours, 7 days

Advance Notice: 3 business days (excluding weekends and holidays)

Marks Valid: 21 days or 180 days

Law Link:

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

TICKETS			STATE LAWS & PROVISIONS							NOTIFICATION EXEMPTIONS				NOTIFICATIONS ACCEPTED									
FAX	Online	Mobile	Statewide Coverage	Civil Penalties	Emergency Clause	Mandatory Membership	Excavator Permits Issued	Mandatory Remarks	Positive Response	Hand Dig Clause	Damage Reporting	MIDOT	Homeowner	Railroad	Agriculture	Depth	Marine Option	Damage	Design	Emergency	Overhead	Large Projects	Caution Zone
N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N	N	N	N	N	Y	Y	Y	Y	N	Y	48"



1.877.477.1162 • mi.pipeline-awareness.com