

SOUTH CAROLINA



COORDINATED RESPONSE EXERCISE[®]

Pipeline Safety Training For First Responders



EMERGENCY RESPONSE MANUAL

Overview

Operator Profiles

Emergency Response

NENA Pipeline Emergency Operations

Signs of a Pipeline Release

High Consequence Area Identification

Pipeline Industry ER Initiatives

Pipeline Damage Reporting Law

2025

EMERGENCY CONTACT LIST

COMPANY	EMERGENCY NUMBER
Ameresco	1-866-497-2284
Carolina Gas Transmission, LLC	1-800-789-7272
Enterprise Products Operating, LLC	1-888-883-6308
Southern Natural Gas Company	1-800-252-5960
Sunoco Pipeline L.P.	1-877-839-7473

**Note: The above numbers are for emergency situations.
Additional pipeline operators may exist in your area.**

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

ONE-CALL SYSTEM	PHONE NUMBER
South Carolina 811	1-888-721-7877
National One-Call Referral Number	1-888-258-0808
National One-Call Dialing Number	811

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To: ALL EMERGENCY OFFICIALS

From: Paradigm Liaison Services, LLC

Re: Pipeline Emergency Response Planning Information

This material is provided to your department as a reference to pipelines that operate in your state in case you are called upon to respond to a pipeline emergency.

For more information on these pipeline companies, please contact each company directly. You will find contact information for each company represented throughout the material.

This information only represents the pipeline and/or gas companies who work with our organization to provide training and communication to Emergency Response agencies such as yours. There may be additional pipeline operators in your area that are not represented in this document.

For information and mapping on other Transmission Pipeline Operators please visit the National Pipeline Mapping System (NPMS) at: <https://www.npms.phmsa.dot.gov>.

For information on other Gas and Utility Operators please contact your appropriate state commission office.

Further product-specific information may be found in the US Department of Transportation (DOT) *Emergency Response Guidebook for First Responders*.

The Guidebook is available at:

<https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2024-04/ERG2024-Eng-Web-a.pdf>

Pipeline Emergency Response **PLANNING INFORMATION**

ON BEHALF OF:

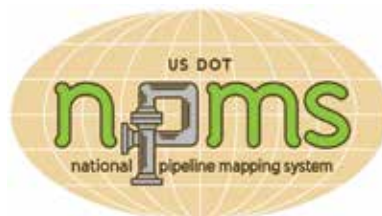
Ameresco

Carolina Gas Transmission, LLC

Enterprise Products Operating, LLC

Southern Natural Gas Company

Sunoco Pipeline L.P.



Note: The enclosed information to assist in emergency response planning is delivered by Paradigm Liaison Services, LLC on behalf of the above sponsoring companies. Visit the National Pipeline Mapping System at <https://www.npms.phmsa.dot.gov> to determine additional companies operating in your area.

Pipeline Purpose and Reliability

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

Safety Initiatives

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

Product Hazards and Characteristics**Petroleum (flow rate can be hundreds of thousands of gallons per hour)**

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

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

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

- Flammable range may be found anywhere within the hot zone
- Rises and dissipates relatively quickly
- H₂S can be a by-product of natural gas – PPM = PARTS PER MILLION
 - 0.02 PPM Odor threshold
 - 10.0 PPM Eye irritation
 - 100 PPM Headache, dizziness, coughing, vomiting
 - 200-300 PPM Respiratory inflammation within 1 hour of exposure
 - 500-700 PPM Loss of consciousness/possible death in 30-60 min.
 - 700-900 PPM Rapid loss of consciousness; death possible
 - Over 1000 PPM Unconsciousness in seconds; death in minutes
- Incomplete combustion of natural gas may release carbon monoxide
- Storage facilities may be present around populated areas/can be depleted production facilities or underground caverns
- Gas travel may be outside the containment vessel along the natural cavern between the pipe and soil

Propane, Butane and Other Similar Products

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

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

Line Pressure Hazards

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

Leak Recognition and Response

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

High Consequence Area (HCA) Regulation

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

Emergency Response Basics

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

One-Call

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

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.
- **If molten aluminum is involved, refer to GUIDE 169.**

HEALTH

- 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.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available appropriate telephone numbers can be found in the Emergency Response Guidebook.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

CAUTION: For mixtures containing alcohol or polar solvent, alcohol-resistant foam may be more effective.

Small Fire

- Dry chemical, CO₂, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.

- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

PRODUCT: Crude Oil	
DOT GUIDEBOOK ID #: 1267	GUIDE #: 128

PRODUCT: Diesel Fuel	
DOT GUIDEBOOK ID #: 1202	GUIDE #: 128

PRODUCT: Jet Fuel	
DOT GUIDEBOOK ID #: 1863	GUIDE #: 128

PRODUCT: Gasoline	
DOT GUIDEBOOK ID #: 1203	GUIDE #: 128

Refer to the Emergency Response Guidebook for additional products not listed.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE..**
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- **CAUTION: Hydrogen (UN1049), Deuterium (UN1957), Hydrogen, refrigerated liquid (UN1966) and Methane (UN1971) are lighter than air and will rise. Hydrogen and Deuterium fires are difficult to detect since they burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)**
- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating 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.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available appropriate telephone numbers can be found in the Emergency Response Guidebook.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low

- or confined areas (sewers, basements, tanks).
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED. CAUTION: Hydrogen (UN1049), Deuterium (UN1957) and Hydrogen, refrigerated liquid (UN1966) burn with an invisible flame. Hydrogen and Methane mixture, compressed (UN2034) may burn with an invisible flame.**

Small Fire

- Dry chemical or CO2.

Large Fire

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire

- Prevent spreading of vapors through sewers, ventilation systems and confined areas.

- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

PRODUCT: Propane	
DOT GUIDEBOOK ID #: 1075	GUIDE #: 115

PRODUCT: Butane	
DOT GUIDEBOOK ID #: 1075	GUIDE #: 115

PRODUCT: Ethane	
DOT GUIDEBOOK ID #: 1035	GUIDE #: 115

PRODUCT: Propylene	
DOT GUIDEBOOK ID #: 1075/1077	GUIDE #: 115

PRODUCT: Natural Gas Liquids	
DOT GUIDEBOOK ID #: 1972	GUIDE #: 115

Refer to the Emergency Response Guidebook for additional products not listed.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

• EXTREMELY FLAMMABLE.

- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.

CAUTION: Hydrogen (UN1049), Deuterium (UN1957), Hydrogen, refrigerated liquid (UN1966) and Methane (UN1971) are lighter than air and will rise. Hydrogen and Deuterium fires are difficult to detect since they burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)

- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating 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.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available appropriate telephone numbers can be found in the Emergency Response Guidebook.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low

or confined areas (sewers, basements, tanks).

- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

• DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

CAUTION: Hydrogen (UN1049), Deuterium (UN1957) and Hydrogen, refrigerated liquid (UN1966) burn with an invisible flame. Hydrogen and Methane mixture, compressed (UN2034) may burn with an invisible flame.

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.

- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

DOT GUIDEBOOK ID #: 1971 **GUIDE #:** 115

CHEMICAL NAMES:

- Natural Gas
- Methane
- Marsh Gas
- Well Head Gas
- Fuel Gas
- Lease Gas
- Sour Gas*

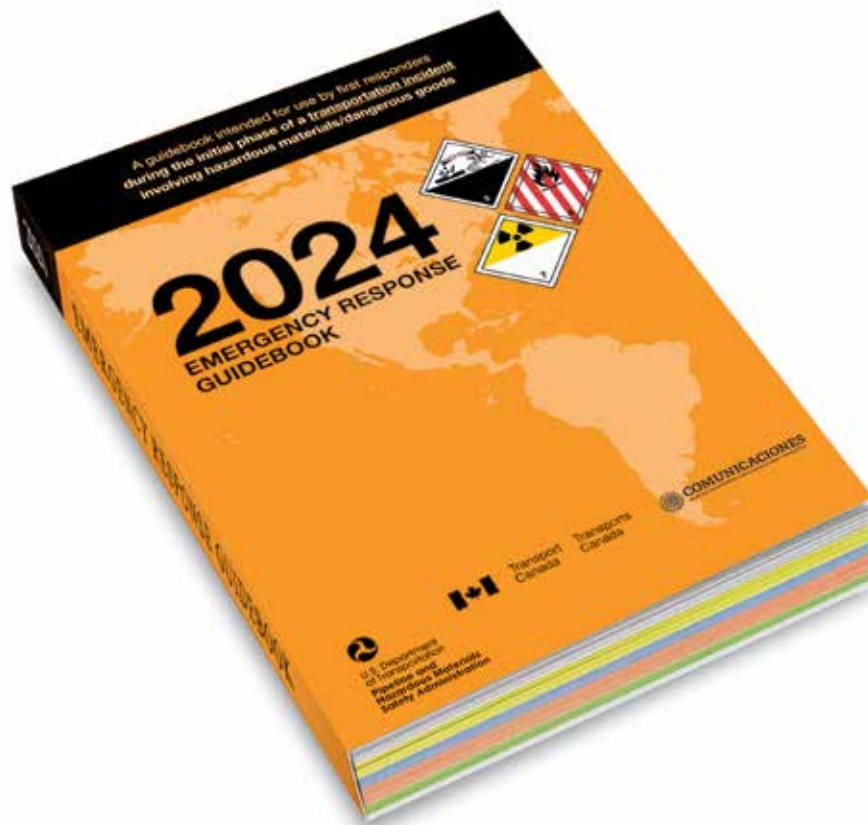
CHEMICAL FAMILY:

Petroleum Hydrocarbon Mix: Aliphatic Hydrocarbons (Alkanes), Aromatic Hydrocarbons, Inorganic Compounds

COMPONENTS:

Methane, Iso-Hexane, Ethane, Heptanes, Propane, Hydrogen Sulfide*, (In "Sour" Gas), Iso-Butane, Carbon, Dioxide, n-Butane, Nitrogen, Pentane Benzene, Hexane, Octanes

Product INFORMATION



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



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



ABOUT AMERESCO

Ameresco, Inc. headquartered in Framingham, MA, is an energy services provider of Green, Clean & Sustainable Energy.

Ameresco owns and operates pipelines throughout the United States. These pipelines are part of Ameresco's Practical Renewable Energy Solutions that takes methane from landfills and biogas from waste water treatment facilities and sends the gas to an end user.

Ameresco has pipelines in Arizona, California, Georgia, Indiana, Michigan, Missouri, South Carolina and Texas.

WHAT DOES AMERESCO DO IF A LEAK OCCURS?

In the event of a leak, Ameresco's qualified pipeline operators communicate with local emergency personnel and first responders. Upon the notification of an incident or leak, Ameresco will dispatch trained personnel to evaluate the situation, shutdown and isolate the pipeline if necessary and assist emergency personnel and first responders.

Ameresco pipeline operators, emergency personnel and first responders are trained to protect life, property & facilities in the event of an emergency.

Ameresco pipeline operators will also take steps to minimize the amount of product (gas/methane) that leaks out to the atmosphere and to isolate the pipeline if necessary.

MAINTAINING SAFETY AND INTEGRITY OF PIPELINES

Ameresco has invested significant time and capital maintaining the safety, quality and integrity of their pipeline systems. All operators have had computer based training and field training to ensure that all safety and precautions are kept to the highest industry standards.

All Ameresco pipelines are continuously monitored for changes in pressure and flow.

These pipelines are protected by multiple automatic shut-off valves, pressure relief valves and manually operated valves used in the event of emergency or excessive pressure.

Ameresco and their operators have developed supplemental hazard and assessment programs known as Integrity Management Programs (IMPs). Specific information about Ameresco may be found on our Web site or by contacting us directly.

EMERGENCY CONTACT:

1-866-497-2284

PRODUCTS/DOT GUIDEBOOK ID#/GUIDE#:

Hydrogen Sulfide	1053	117
Methane	1971	115

SOUTH CAROLINA COUNTIES OF OPERATION:

Spartanburg

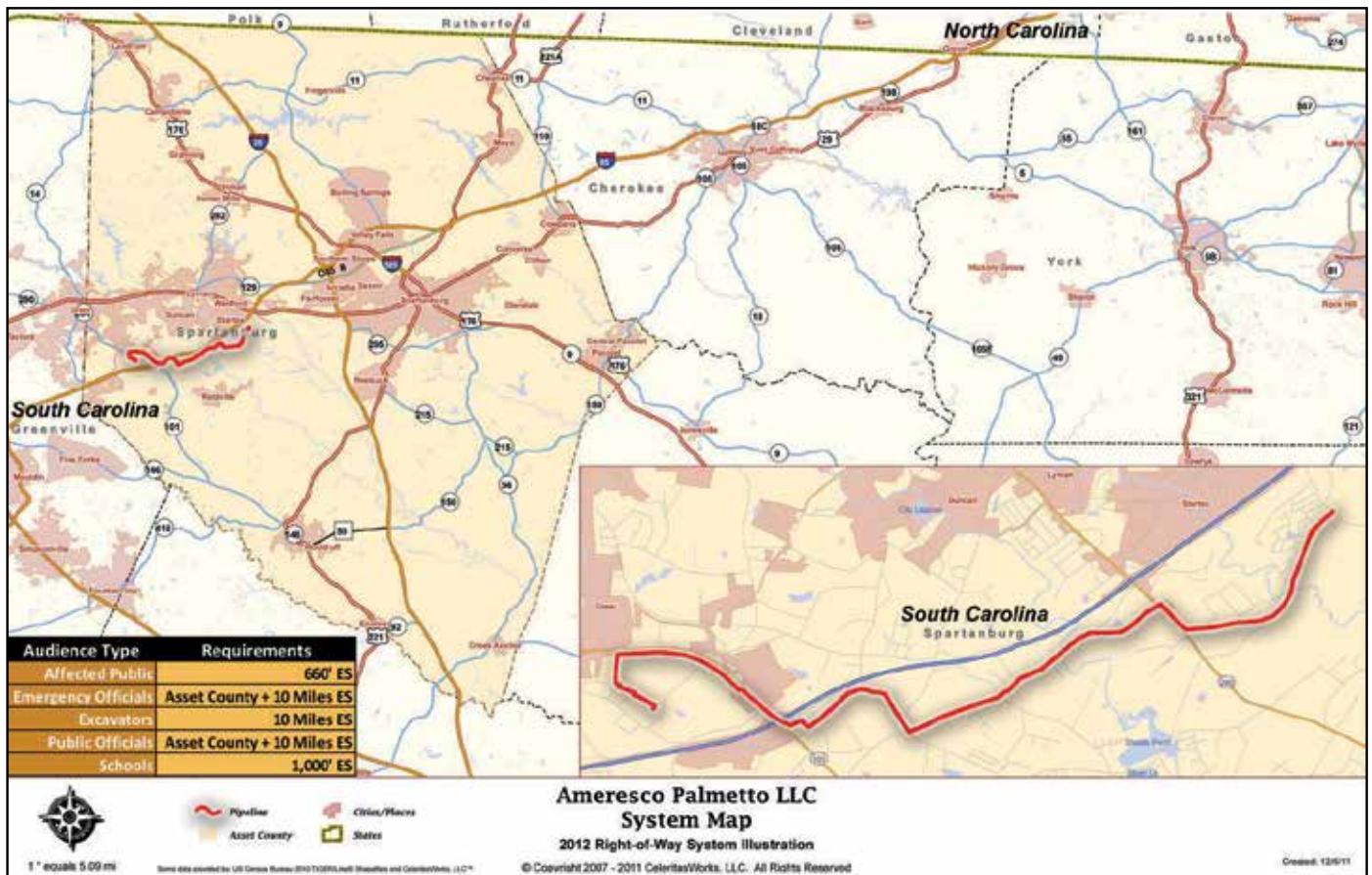
Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

HOW TO GET ADDITIONAL INFORMATION

Contact Ameresco at www.ameresco.com or 866-AMERESCO (866)-263-7372.

PRODUCTS TRANSPORTED IN YOUR AREA

PRODUCT	LEAK TYPE	VAPORS
LANDFILL GAS/ METHANE BIO-GAS/ METHANE	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.	
PRODUCT	HEALTH HAZARDS	
HYDROGEN SULFIDE (H₂S)	Gas	Vapors from liquefied gas are initially heavier than air and spread along ground. Vapors may travel to source of ignition and flash back.
HEALTH HAZARDS	May be ignited by heat, sparks or flames. TOXIC; Extremely Hazardous. May be fatal if inhaled or absorbed through skin. Initial odor may be irritating or foul and may deaden your sense of smell. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite. Fire will produce irritating, corrosive and/or toxic gases.	



AMERESCO PALMETTO LLC FACILITY CONTACT INFORMATION

*****IN AN EMERGENCY EVENT CALL 911*****

FACILITY:

Ameresco Palmetto LLC
360 New Hope Road
Wellford, SC 29385
Facility Office Phone: 864-949-6161

OPERATOR(S):

Bill Rossi
Office: 864-949-6161
Mobile: 864-706-3336
Email: wrossi@ameresco.com

MANAGEMENT:

Jacob Quarles
Regional Manager
Office: N/A
Mobile: 903-573-5282
Email: jacob.quarles@ameresco.com

Harold Stewart
Director-Plant Operations
Office: N/A
Mobile: 847-463-0628
Email: hstewart@ameresco.com

COMPLIANCE TEAM:

Frank Terry
Manager-Pipeline Compliance
Mobile: 919-389-2076
Email: fterry@ameresco.com

Richard Peary
Compliance Manager
Mobile: 781-267-0063
Email: rpeary@ameresco.com

POLICE DEPARTMENT:

Wellford Police Department
127 Syphrit Road
Wellford, SC 29385
Phone: 864-439-2436
Emergency: 911

FIRE DEPARTMENT:

Lyman Fire Department
81 Groce Road
Lyman, SC 29365
Phone: 864-439-3453
Emergency: 911

HOSPITAL:

Spartanburg Medical Center
101 E Wood Street
Spartanburg, SC
Phone: 864-560-6000

*PCP-01 - Operations, Maintenance
and Emergency Response Manual
Ameresco Gas Pipelines
Rev. February 9, 2024*



121 Moore Hopkins Lane
Columbia, SC 29210

Website: <https://www.bhegts.com/our-businesses/CGT>

BHE GT&S, through its local operating company, Carolina Gas Transmission, LLC (CGT) owns and operates a high-pressure, interstate natural gas pipeline company providing safe, reliable and affordable natural gas transportation services to wholesale customers such as power generators, large industrials, local distribution companies, municipalities, and energy marketers. CGT's nearly 1,500 miles of pipeline throughout South Carolina and a portion of southeast Georgia provides a critical infrastructure link between end users and wholesale supply.

CGT is a transportation-only service provider. This allows CGT customers to manage their commodity risk through the wholesale supply market. CGT's pipeline system is designed to serve Firm Transportation (FT) customers. FT service ensures pipeline capacity is available to transport customers' natural gas supply whenever it is needed, 365 days per year. A map of CGT's system is on the following page.

Facts:

- Approximately 70% of the natural gas consumed in South Carolina flows through CGT's pipeline system.
- 1,472 miles of natural gas transmission lines in South Carolina and Georgia
- Seven supply interconnects, six compressor stations and 150+ delivery points
- Natural gas supplied through interconnects in the South Carolina upstate, Aiken, South Carolina and near Savannah, Georgia.
- Regulated by the Federal Energy Regulatory Commission (FERC) and the Pipeline Hazardous Material Safety Administration (PHMSA)

CONTACTS

Steve Suber
121 Moore Hopkins Lane
Columbia, SC 29210
803-360-1326
Counties of Responsibility: Calhoun, Lexington, Orangeburg, Richland

Dave Franklin
121 Moore Hopkins Lane
Columbia, SC 29210
803-360-3864
Counties of Responsibility: Aiken, Cherokee, Chester, Edgefield, Greenwood, Laurens, Newberry, Saluda, Spartanburg, Union, York

Dan Edenfield
121 Moore Hopkins Lane
Columbia, SC 29210
803-206-0820
Counties of Responsibility: Chesterfield, Darlington, Dillon, Florence, Kershaw, Lancaster, Lee, Marion, Marlboro

Christina France
121 Moore Hopkins Lane
Columbia, SC 29210
803-803-904-9389
Counties of Responsibility in SC: Jasper, Allendale, Hampton, Colleton, Barnwell
Counties in GA: Chatham & Effingham

Taylor Barker
121 Moore Hopkins Lane
Columbia, SC 29210
803-830-0393
Counties of Responsibility: Berkeley, Dorchester, Georgetown



EMERGENCY CONTACT: 1-800-789-7272

PRODUCTS/DOT GUIDEBOOK ID#/GUIDE#:
Natural Gas 1971 115

SOUTH CAROLINA COUNTIES OF OPERATION:

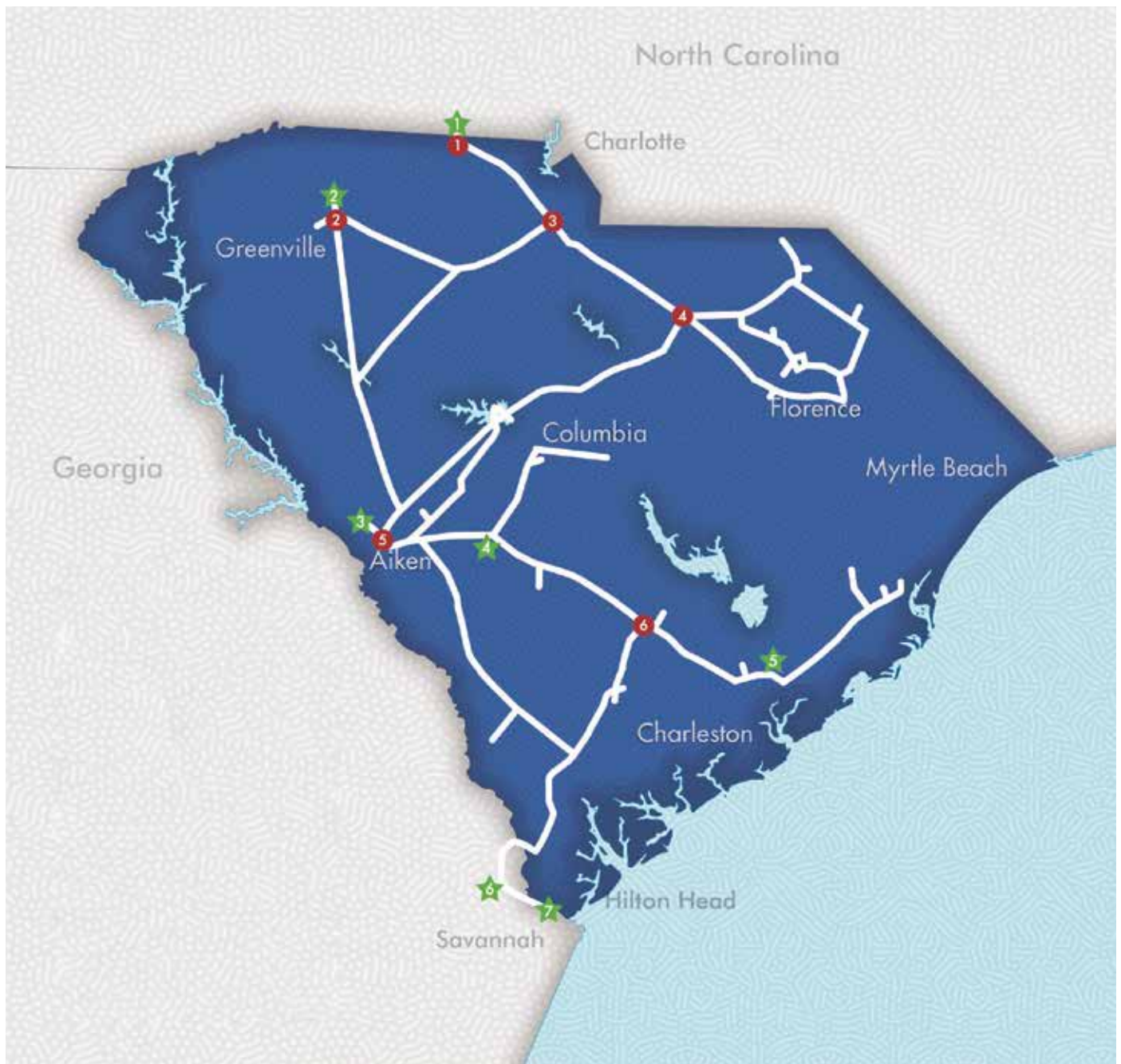
Aiken	Hampton
Allendale	Jasper
Barnwell	Kershaw
Berkeley	Lancaster
Calhoun	Laurens
Charleston	Lee
Cherokee	Lexington
Chester	Marion
Chesterfield	Marlboro
Colleton	Newberry
Darlington	Orangeburg
Dillon	Richland
Dorchester	Saluda
Edgefield	Spartanburg
Florence	Union
Georgetown	York
Greenwood	

GEORGIA COUNTIES OF OPERATION:

Chatham	Effingham
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Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.







1100 Louisiana
Houston, TX 77002
Public Awareness: 1-888-806-8152
Email: publicawareness@eprod.com
Website: www.enterpriseproducts.com

COMPANY INFORMATION, ASSETS & PRODUCTS TRANSPORTED

Enterprise Products Partners L.P. is a leading North American provider of midstream energy services to producers and consumers of natural gas, Natural Gas Liquids (NGL), crude oil, refined products and petrochemicals. Enterprise transports natural gas, NGLs, petrochemicals and crude oil through a network of pipelines throughout the United States.

Our NGL pipelines transport mixed NGLs and other hydrocarbons from natural gas processing facilities, refineries and import terminals to fractionation plants, petrochemical plants, export facilities and refineries.

We also transport Highly Volatile Liquids (HVL), Refined Products, Crude Oil and Natural Gas products.

For additional information about Enterprise, visit www.enterpriseproducts.com.

LOCATING ENTERPRISE PIPELINES – PIPELINE VIEWER TOOL

To find more information regarding location and products transported in our pipelines within one (1) mile of a specific address, visit our website at: www.enterpriseproducts.com/pipelineviewer. Please note the asset map and pipeline viewer tool are for informational purposes only.

You can also find out where other companies' pipelines are in your area by going to the National Pipeline Mapping System website at www.npms.phmsa.dot.gov.

EMERGENCY RESPONSE PLAN

An Emergency Response Plan is developed for each pipeline facility to contain, control and mitigate the various types of emergency conditions/situations that could occur at one of our facilities. For more information regarding Enterprise Products emergency response plans and procedures, contact us at publicawareness@eprod.com.

EMERGENCY RESPONSE CAPABILITIES

The Company's qualified personnel are trained in safe operations and emergency response activities and participate in exercises reflecting various types of emergency scenarios and environmental sensitivities. The Company utilizes the First Responder/Emergency Response Team concept to handle emergency incidents at its facilities. Employees receive hands on training in fire fighting, hazardous material spill response and rescue/medical/first aid training. In addition, we maintain a well trained team of employees from various Company locations as members of the Corporate Emergency Organization. This team, as well as an array of emergency response equipment (including, but not limited to, cell phones, fire extinguisher, supplied breathing air, and air monitoring equipment), can be mobilized and deployed to assist in handling emergency situations that may occur at a Company facility or pipeline location.

Enterprise Products utilizes its 24-hour/365 day a year, Pipeline Operations Control Center (888-883-6308) as a hub of communications in emergency response situations. Our manned control center monitors the flow, pressure, temperatures, and other conditions throughout the pipeline systems and is an integral part of our communication during emergency situations.

ENTERPRISEPRODUCTS'RESPONSE IN AN EMERGENCY

- We will immediately dispatch personnel to help handle the emergency at the site.
- We will provide information to public safety officials to aid in their response to the emergency.
- We will take necessary operating actions such as closing and opening valves to minimize the impact of the leak.

EMERGENCY CONTACT:

1-888-883-6308

PRODUCTS/DOT GUIDEBOOK ID#/GUIDE#:

Propane	1075	115
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SOUTH CAROLINA COUNTIES OF OPERATION:

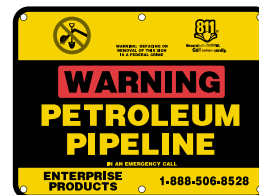
Aiken	Lexington
Chesterfield	Marlboro
Edgefield	McCormick
Kershaw	Richland

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

- Public safety personnel and others unfamiliar with the pipeline should not attempt to operate any of the valves on the pipeline, unless instructed to do so by Enterprise Products personnel. Improper operation of the pipeline valves could make the situation worse and cause other accidents to happen.

INCIDENT COMMAND SYSTEM

Enterprise Products utilizes an expandable Incident Command System. Depending upon the size and complexity of an incident, additional Company or contract personnel may be added as needed. Additional federal, state or local agencies may be integrated into the Incident Command System by utilizing a Unified Command Structure.



**SPILL RESPONSE EQUIPMENT
CAPABILITIES**

We maintain emergency response equipment at some of our facilities. We also have agreements with various oil spill response organizations to provide the appropriate level of response with spill response equipment including

trailers containing spill booms, sorbent materials, boats, motors, hand tools, power tools, pumps, hoses, personal protective equipment, first aid and miscellaneous supplies. These companies also have expert personnel trained in emergency response and cleanup methods.

CONTACTS

Ron Bolt
4609 Augusta Rd
Lexington, SC 29073
Phone: 803-358-4117

Mark Holland
1521 E Williams St
Apex, NC 27539
Phone: 919-290-2213



**Southern Natural Gas
Company, L.L.C.**
a Kinder Morgan company

Joel Mittendorf

Southern Natural Gas Company
Savannah Area Manager

5675 Arkwright Rd

Macon, GA 31210

Phone: (478) 477-1221 ext. 2022

Website: www.kindermorgan.com

OUR EMERGENCY RESPONSE

KEY COMPONENTS OF KINDER MORGAN'S SAFETY PROGRAM

Kinder Morgan invests substantial human and financial resources in efforts to ensure the integrity of its system. We feel the best emergency response system begins with prevention and continuous monitoring. However, in the event of an emergency, we implement well-defined and extensively tested response plans. Here's an outline of Kinder Morgan's emergency response preparedness program:

WHAT DOES KINDER MORGAN DO IN AN EMERGENCY?

We first determine necessary steps to protect life and property, and we call 911. Our immediate next step is to isolate the affected section of pipe, shut off the flow of gas, and allow the remaining gas, which is lighter than air, to dissipate. Concurrently, we assemble a team of experts from various areas of our company to address the emergency. Our main concern is the safety of the community and the response team. Once all safety issues are addressed, we begin assessing any property damage resulting from the incident. Further, we preserve the integrity of the site and work closely with local, state, and federal agencies to determine the cause of the incident and appropriate remedial measures.

WHAT DO KINDER MORGAN'S EMERGENCY RESPONSE PLANS COVER?

The plans outline the steps to be taken in the event of a fire, rupture, major leak, or serious incident occurring at or near one of our facilities. The plans are developed to prepare our employees and local emergency response personnel to handle emergency situations involving our facilities and to protect the public. The plans outline the roles and responsibilities of company, contractor, and local response personnel. Communication and cooperation with local organizations are key components of the emergency response plans, and the feedback from these interactions is used in the development and revision of these plans.



EMERGENCY CONTACT:

1-800-252-5960

PRODUCTS/DOT GUIDEBOOK ID#/GUIDE#:

Natural Gas 1971 115

SOUTH CAROLINA COUNTIES OF OPERATION:

Aiken Jasper
Anderson

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

HOW DOES KINDER MORGAN'S SAFETY RECORD COMPARE TO OTHERS IN THE NATURAL GAS PIPELINE BUSINESS?

Kinder Morgan is a leader in safety and compliance. The company's efforts include continuous computer monitoring, ongoing visual surveillance, corrosion protection, and public awareness education. The company dedicates thousands of hours a month to maintaining safe and reliable pipelines.

With security concerns raised after 9/11, Kinder Morgan Pipeline Group is limiting distribution of detail maps. However, you may obtain access to view maps for these pipelines by following the instructions on <http://www.npms.phmsa.dot.gov/>. For more information on the location of Kinder Morgan Pipeline Group (Colorado Interstate Gas, El Paso Natural Gas, Southern Natural Gas and Tennessee Gas Pipeline Company) pipelines, please contact the local pipeline company office in your area.



SUNOCO PIPELINE

An ENERGY TRANSFER Partnership

1300 Main St.
Houston, TX 77002
Phone: (713) 989-7000
Website: www.energytransfer.com

Energy Transfer, a Texas based energy company founded in 1996 as a small intrastate natural gas pipeline company, is now one of the largest and most diversified master limited partnerships in the United States.

Strategically positioned in all of the major U.S. production basins, the company owns and operates a geographically diverse portfolio of energy assets, including midstream, intrastate and interstate transportation and storage assets. Energy Transfer, or one of its affiliates, operates more than 130,000 miles of natural gas, crude oil, natural gas liquids and refined products pipelines and related facilities, including terminalling, storage, fractionation, blending and various 44 states.

Sunoco Pipeline operates a geographically diverse portfolio of energy assets including, pipelines, terminalling and marketing assets. Crude oil, refined products, natural gas and natural gas liquids are transported through a 6,000-mile pipeline system that traverses 11 states.

For more information about local operations of **Sunoco Pipeline**, please contact us:

Chester, Kershaw, Lancaster and York counties:

Shawn Marion
Operations Supervisor
803-902-3300 (w), 803-720-7000 (m)
shawn.marion@energytransfer.com

EMERGENCY CONTACT:

1-877-839-7473

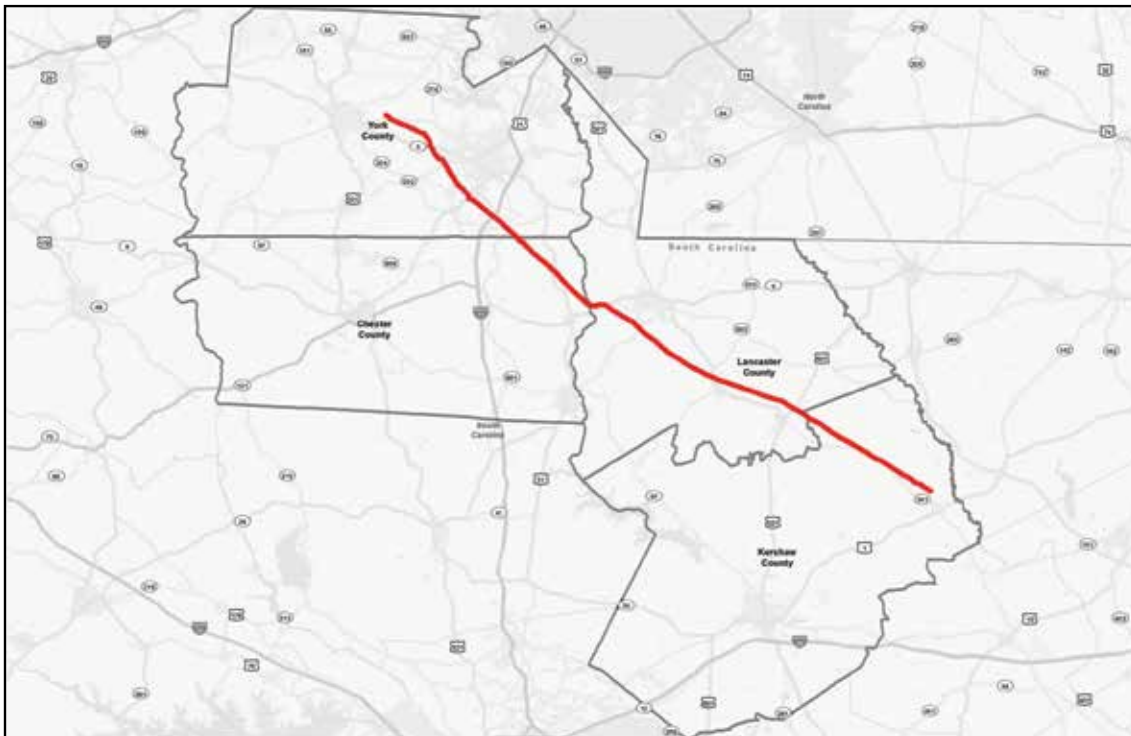
PRODUCTS/ DOT GUIDEBOOK ID#/ GUIDE#:

Propane 1075/1978 115

**SOUTH CAROLINA
COUNTIES OF OPERATION:**

Chester Lancaster
Kershaw York

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.



Emergency Response Plans for Gas and Hazardous Liquid Pipeline Operators

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

Natural Gas

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

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

**Reference 49 CFR 192.615*

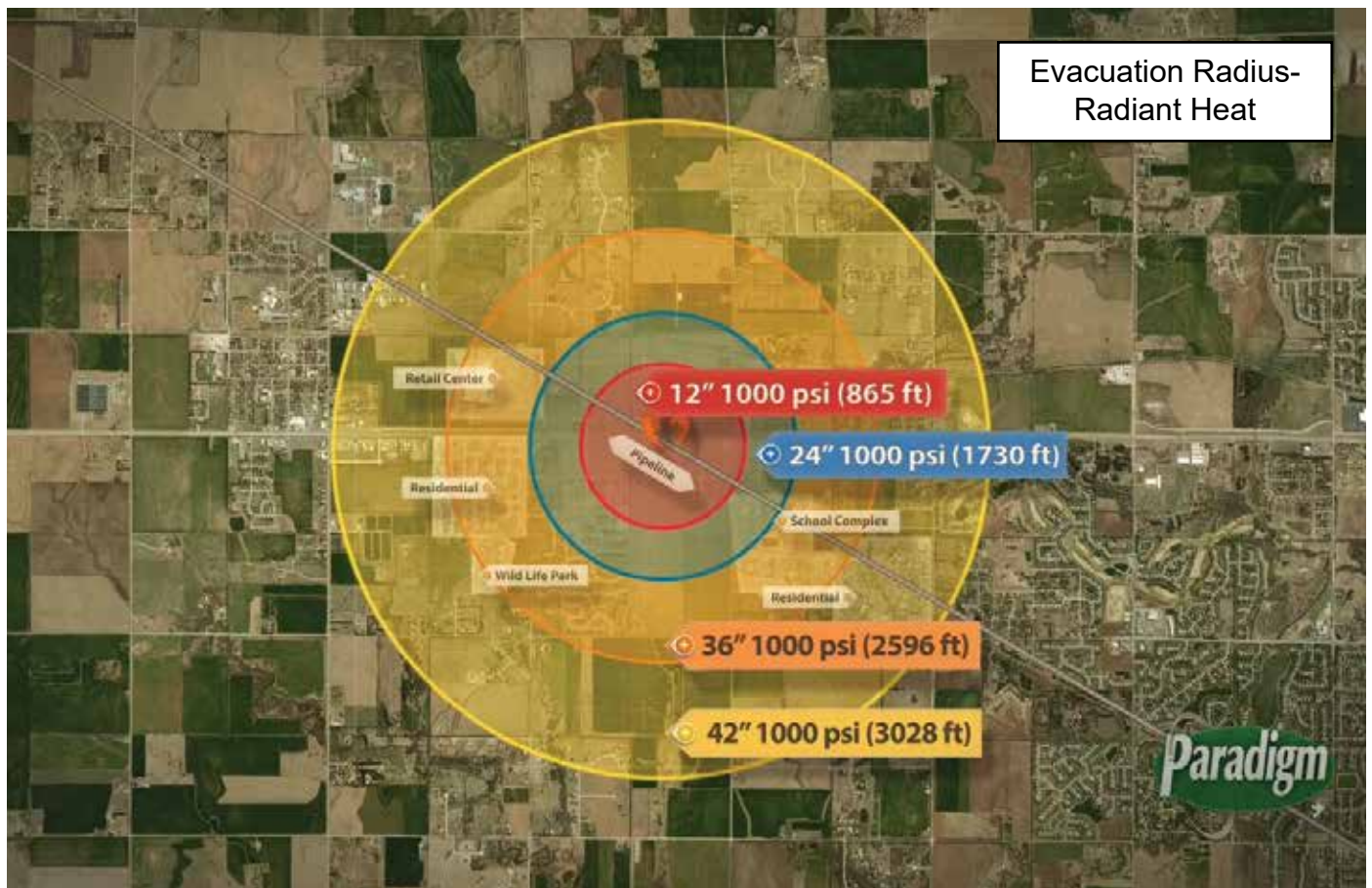
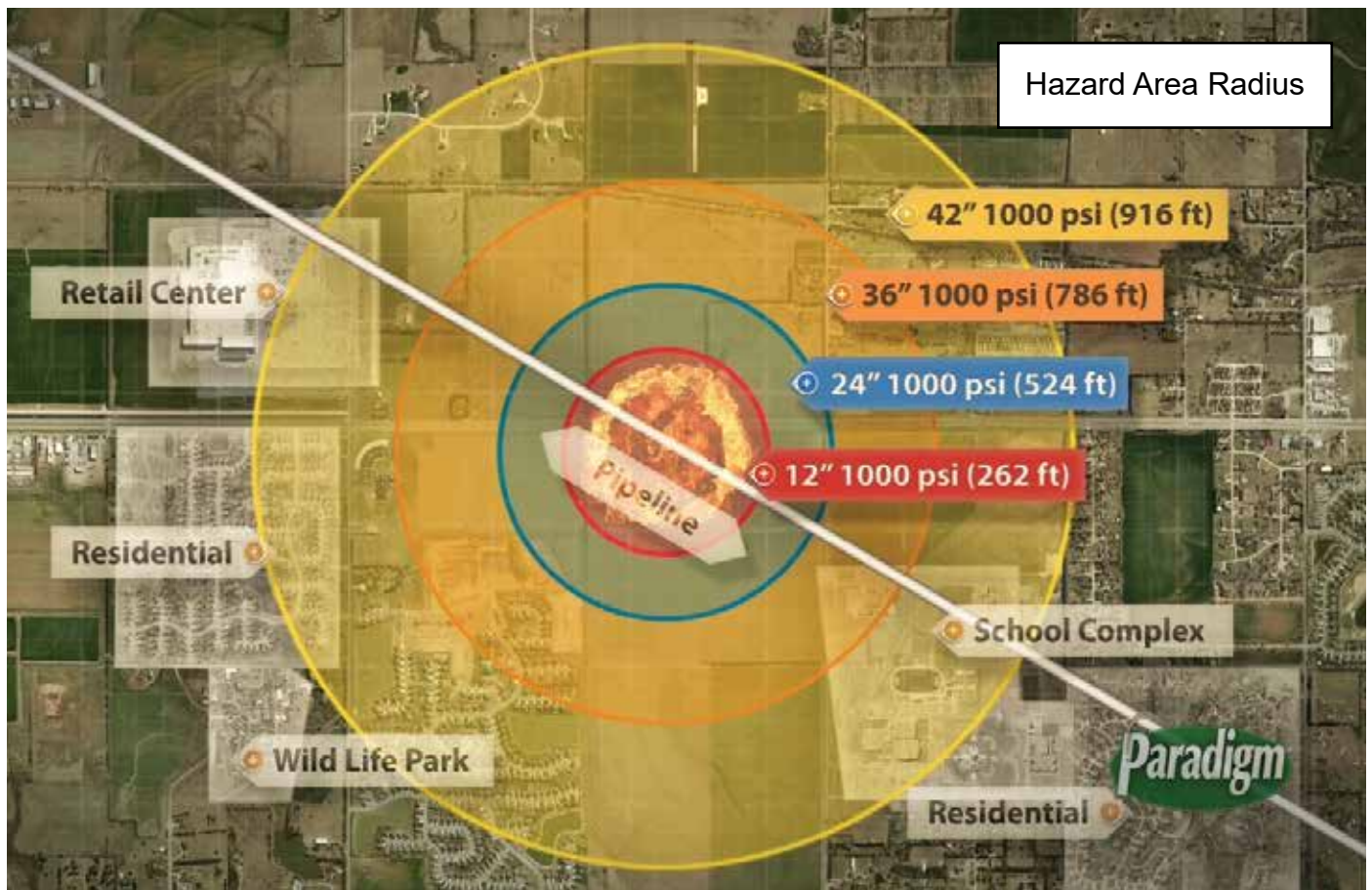
Hazardous Liquids

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

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

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

**Reference 49 CFR 195.402*



NENA Pipeline Emergency Operations - Call Intake Checklist

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

GOALS FOR INITIAL INTAKE:

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

FIRST RESPONSE CALL INTAKE CHECKLIST

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

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

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

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

Location:

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

Determine Exactly What Has Happened:

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

TABLE 1
Common Indications of a Pipeline Leak

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

From April Heinze at NENA October 2022

A recent change made at the federal level will begin to impact your Emergency Communications Center (ECC) very soon. In April 2022, the Pipeline and Hazardous Materials Safety Administration (PHMSA), a subset of the National Highway Traffic Safety Administration (NHTSA), updated a rule for Pipeline Operators. The rule went into effect on October 5, 2022. The PHMSA rule is 49 CFR § 192.615(a)(8) and § 195.402(e)(7). It requires pipeline operators to contact the appropriate PSAP immediately upon notification of a potential rupture. The rule specifies the following:

A Notification of Potential Rupture is an observation of any unanticipated or unexplained:

- Pressure loss outside of the pipeline's normal operating pressure
- Rapid release of a large volume of a commodity (e.g., natural gas or hazardous liquid)
- Fire or explosion in the immediate vicinity

ECCs will begin to receive calls from pipeline operators for situations that may not be dispatchable. Of the three potential rupture notifications, the "pressure loss outside of the pipeline's normal operating pressure" will be the most difficult for responders to locate and mitigate. The operators will contact the ECC at the same time they are sending a technician to check the potential problem and determine the actual location. Many pipeline segments span an extensive area that could cross multiple ECC and Fire Department boundaries. Based on recent discussions with pipeline operators, they will call ECCs to fulfill the rule requirements to place the ECC on standby for a potential problem. They also want the ECC to contact them if the ECC receives any calls that may confirm there is a problem.

PHMSA and pipeline operators lack an understanding of local ECC and first responder policies and procedures. Some pipeline operators have already sent letters to ECCs that serve the areas their pipeline infrastructure is located. It does not appear that PHMSA engaged the ECC community before adopting the rule, nor have they communicated this information to the responder community.

So, what does this mean for your ECC? ECCs are responsible for intaking information and dispatching appropriate resources. They are not in the habit of intaking details of a potential emergency and doing nothing with it. To do nothing creates liability issues for your ECC. ECC Managers should work with local Fire Departments to develop local policy regarding handling these calls. The policy will need to address whether to hold the information until further information is provided from the pipeline operator or, if a dispatch is to be made, what resources need to be sent. The policy should also address how to properly notify the pipeline operator if the ECC or responders discover that a potential rupture is, in fact, an actual rupture. ECC management should incorporate pipeline maps into their local GIS systems or maintain a map easily accessible to call-takers of the pipeline infrastructure within their jurisdiction. PHMSA has a pipeline mapping system that ECCs can use, <https://www.npms.phmsa.dot.gov/>. In addition, the ECC should consider specific questions within their call intake guides.

Specific Questions that ECCs may want to incorporate for potential rupture situations include:

1. What commodity might be leaking, and how severe does the potential leak appear?
2. What is the point-to-point location span of the potential rupture?
3. Is any special equipment needed for responders to mitigate the potential problem?

To comply with the new PHMSA rule, pipeline operators must contact ECCs reliably. Some pipeline operators are local or regional companies with existing relationships with the ECCs in their area. However, many pipeline operators serve a large geographic area and may not have established relationships with every ECC within their service area. Those pipeline operators may utilize the NENA Enhanced PSAP Registry and Census (EPRC) to obtain PSAP contact information. NENA strongly encourages you to verify the accuracy of your PSAP's contact information in the EPRC database. ECC 24/7/365 emergency contact number(s) should be 10-digit lines answered as quickly as possible. Callers should not be required to interact with a phone tree or wait on hold if possible. Access to the EPRC is free for ECCs. To learn more and to request user accounts if you do not already use the EPRC, visit nena.org/eprc.

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).

Pipeline Markers

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

The markers display:

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

MARKER INFORMATION

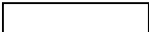







- Indicates area of pipeline operations
- May have multiple markers in single right-of-way
- May have multiple pipelines in single right-of-way
- DOES NOT show exact location
- DOES NOT indicate depth (*never assume pipeline depth*)
- DOES NOT indicate pipeline pressure



Call Before You Dig

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

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

American Public Works Association (APWA) Uniform Color Code	
	WHITE - Proposed Excavation
	PINK - Temporary Survey Markings
	RED - Electric Power Lines, Cables, Conduit and Lighting Cables
	YELLOW - Gas, Oil, Steam, Petroleum or Gaseous Materials
	ORANGE - Communication, Alarm or Signal Lines, Cables or Conduit
	BLUE - Potable Water
	PURPLE - Reclaimed Water, Irrigation and Slurry Lines
	GREEN - Sewers and Drain Lines

National One-Call Dialing Number:



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

For More Details Visit: www.call811.com

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
- Mud or water bubbling up
- Frozen area on ground

*Signs vary based upon product

SMELL

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

OTHER - NEAR PIPELINE OPERATIONS

- Burning eyes, nose or throat
- Nausea

SOUND

- A hissing or roaring sound

What To Do If A Leak Occurs

- Evacuate immediately upwind
- Eliminate ignition sources
- Advise others to stay away
- **CALL 911** and the pipeline company – number on warning marker
 - Call collect if necessary
- Make calls from safe distance – not “hot zone”
- Give details to pipeline operator:
 - Your name
 - Your phone number
 - Leak location
 - Product activity
 - Extent of damage
- DO NOT drive into leak or vapor cloud
- DO NOT make contact with liquid or vapor
- DO NOT operate pipeline valves (*unless directed by pipeline operator*):
 - Valve may be automatically shut by control center
 - Valve may have integrated shut-down device
- Valve may be operated by qualified pipeline personnel only, unless specified otherwise
- Ignition sources may vary – a partial list includes:
 - Static electricity
 - Metal-to-metal contact
 - Pilot lights
 - Matches/smoking
 - Sparks from telephone
 - Electric switches
 - Electric motors
 - Overhead wires
 - Internal combustion engines
 - Garage door openers
 - Firearms
 - Photo equipment
 - Remote car alarms/door locks
 - High torque starters – diesel engines
 - Communication devices

Pipeline Emergency

Call Gas Control Or Pipeline Control Center

Use ***Pipeline Emergency Response Planning Information Manual*** for contact information
Phone number on warning markers
Use state One-Call System, if applicable

Control Center Needs To Know

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

Injuries, Deaths, Or Property Damage

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

Traffic & Crowd Control

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

Fire

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

Evacuations

Primary responsibility of emergency agency
Consult with pipeline/gas company

Fire Management

Natural Gas – DO NOT put out until supply stopped
Liquid Petroleum – water is NOT recommended;
foam IS recommended
Use dry chemical, vaporizing liquids, carbon dioxide

Ignition Sources

Static electricity (*nylon windbreaker*)
Metal-to-metal contact
Pilot lights, matches & smoking, sparks from phone
Electric switches & motors
Overhead wires
Internal combustion engines
Garage door openers, car alarms & door locks
Firearms
Photo equipment
High torque starters – diesel engines
Communication devices – not intrinsically safe

High Consequence Areas Identification*

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

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

What criteria define HCAs for pipelines?

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

HCAs for hazardous liquid pipelines:

- Populated areas include both high population areas (called “urbanized areas” by the U.S. Census Bureau) and other populated areas (areas referred to by the Census Bureau as a “designated place”).
- Drinking water sources include those supplied by surface water or wells and where a secondary source of water

supply is not available. The land area in which spilled hazardous liquid could affect the water supply is also treated as an HCA.

- Unusually sensitive ecological areas include locations where critically imperiled species can be found, areas where multiple examples of federally listed threatened and endangered species are found, and areas where migratory water birds concentrate.

HCAs for natural gas transmission pipelines:

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

* <https://primis.phmsa.dot.gov/comm/FactSheets/FSHCA.htm>

Identified Sites*

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

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

Sites within your jurisdiction will fit the above requirements, please go to my.spatialobjects.com/admin/register/ISR to provide this valuable information to pipeline companies.

* 49 CFR §192.903.

IDENTIFIED SITE REGISTRY

Pipeline operators need your help keeping people and property safe.

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

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

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

my.spatialobjects.com/admin/register/ISR

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



Maintaining Safety and Integrity of Pipelines

Pipeline companies invest significant time and capital maintaining the quality and integrity of their pipeline systems. Most active pipelines are monitored 24 hours a day via manned control centers. Pipeline companies also utilize aerial surveillance and/or on-ground observers to identify potential dangers. Control center personnel continually monitor the pipeline system and assess changes in pressure and flow. They notify field personnel if there is a possibility of a leak. Automatic shut-off valves are sometimes utilized

to isolate a leak. Gas transmission and hazardous liquid pipeline companies have developed supplemental hazard and assessment programs known as Integrity Management Programs (IMPs). IMPs have been implemented for areas designated as "high consequence areas" (HCAs) in accordance with federal regulations. Specific information about companies' programs may be found on their company web sites or by contacting them directly.

How You Can Help Keep Pipelines Safe

While accidents pertaining to pipeline facilities are rare, awareness of the location of the pipeline, the potential hazards, and what to do if a leak occurs can help minimize the number of accidents. A leading cause of pipeline incidents is third-party excavation damage. Pipeline companies are responsible for the safety and security of their respective pipelines. To help maintain the integrity of pipelines and their right-of-way, it is essential that pipeline and facility neighbors protect against unauthorized excavations or other destructive activities. You can help by:

- Being aware of any unusual or suspicious activities or unauthorized excavations taking place within or near the pipeline right-of-way or pipeline facility.
 - Develop contacts and relationships with pipeline company representatives, i.e. participate in mock drill exercises with your local pipeline company.
 - Share intelligence regarding targeting of national infrastructure, and specific threats or actual attacks against pipeline companies.

- Assist with security steps for pipeline facilities during heightened national threat levels, i.e., increased surveillance near facilities.
- Monitor criminal activity at the local level that could impact pipeline companies, and anti-government/pipeline groups and other groups seeking to disrupt pipeline company activities.
- Keeping the enclosed fact sheets for future reference.
- Attending an emergency response training program in your area.
- Familiarizing yourself and your agency with the Pipelines and Informed Planning Alliance (PIPA) best practices regarding land use planning near transmission pipelines.
- Completing and returning the enclosed postage-paid survey.
- Report to the pipeline company localized flooding, ice dams, debris dams, and extensive bank erosion that may affect the integrity of pipeline crossings.

National Pipeline Mapping System (NPMS)

The National Pipeline Mapping System (NPMS) is a geographic information system created by the U.S. Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS) in cooperation with other federal and state governmental agencies and the pipeline industry to provide information about companies and their pipelines. The NPMS web site is searchable by ZIP Code or by county and state, and can display a printable county map.

Within the NPMS, PHMSA has developed the Pipeline Integrity Management Mapping Application (PIMMA) for use by pipeline companies and federal, state, and

local government officials only. The application contains sensitive pipeline infrastructure information that can be viewed via internet browsers. Access to PIMMA is limited to federal, pipeline companies. PIMMA access cannot be given to any person who is not a direct employee of a government agency.

For a list of companies with pipelines in your area and their contact information, or to apply for PIMMA access, go to npms.phmsa.dot.gov. Companies that operate production facilities, gas/liquid gathering piping, and distribution piping are not represented by NPMS nor are they required to be.

Training Center

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

- Train as your schedule allows
- Download resources including pipeline operator specific information
 - Sponsoring pipeline operator contact information
 - Product(s) transported

- Submit Agency Capabilities Survey
 - Receive Certificate of Completion
- Visit <https://trainingcenter.pdigm.com/> to register for training



PIPELINE DAMAGE REPORTING LAW AS OF 2007

H.R. 2958 Emergency Alert Requirements

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

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

Websites:

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

www.apcointl.org/

Common Ground Alliance

www.commongroundalliance.com

Federal Emergency Management Agency

www.fema.gov

Federal Office of Pipeline Safety

www.phmsa.dot.gov

Government Emergency Telecommunications

www.dhs.gov/government-emergency-telecommunications-service-gets

Infrastructure Protection – NIPC

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

National Emergency Number Association

www.nena.org/

National Fire Protection Association (NFPA)

www.nfpa.org

National Pipeline Mapping System

<https://www.npms.phmsa.dot.gov>

National Response Center

www.nrc.uscg.mil or 800-424-8802

Paradigm Liaison Services, LLC

www.pdigm.com

United States Environmental Protection Agency (EPA)

www.epa.gov/cameo

Wireless Information System for Emergency Responders (WISER)

www.wiser.nlm.nih.gov

FOR MORE INFORMATION ON THE NASFM PIPELINE EMERGENCIES PROGRAM

www.pipelineemergencies.com

FOR EMERGENCY RESPONSE INFORMATION, REFER TO DOT GUIDEBOOK.

FOR COPIES: (202) 366-4900

www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg

About Paradigm

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

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

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

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

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

Contact Paradigm for more information regarding custom public awareness solutions.

Contact us:

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



HSEEP

Homeland Security Exercise
and Evaluation Program

Presenter/Contact Information:		Key Take-Aways:	
		✓	
		✓	
		✓	
		✓	
		✓	
Comments to Remember			
Questions to Ask			
New Concepts to Explore			



South Carolina 811 is the state's centralized notification center that alerts member underground facility operators of a planned excavation in their service area. SC811's mission is to be the innovative communication resource for damage prevention of underground infrastructure, dedicated to the education, success and safety of our stakeholders and the public. Formed by member facility operators in 1978, Palmetto Utility Protection Service (DBA South Carolina 811) currently operates under the Underground Facility Damage Prevention Act to protect buried facilities and keep excavators and the general public safe.

Submitting a locate request to have underground utility lines marked is a free service to anyone doing large or small digging projects. SC811 does not physically mark the underground utility lines, but notifies the member facility operators and they are responsible for having the lines located. Facility Operators only mark the lines they install and maintain, which does not include privately owned lines. For a normal notice, the locate must be requested three full business days, not including the day the notice was submitted, before digging may begin.

Safe digging is everyone's responsibility. Notifying SC811 of your planned excavation can help prevent damages that can result in fines, utility service interruption and physical injury – even death. Call 811 or 888-721-7877 or visit www.sc811.com to request your locate online.

www.sc811.com

SOUTH CAROLINA

South Carolina 811 888-721-7877

Website: www.sc811.com

Hours: 7:30AM - 5:30PM, M-F; 24/7 for Emergencies

Advance Notice: 3 to 12 full working days (10-20 full working days notice subaqueous)

Marks Valid: 15 working days

Law Link: <https://sc811.com/state-law/>

* Mandatory when excavation site can't be clearly or adequately identified.

** Damages must be reported to the facility operator, if known, as well as the One-Call Center.

*** Exemptions for agricultural tilling or plowing less than 12"; homeowners have a 10" non-mechanized depth exception provided the ROW/Easement not encroached. SCDOT exception for specific work activities only.

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	DOT	Homeowner	Railroad	Agriculture	Depth	Damage	Design	Emergency	Overhead	Large Projects	Tolerance Zone
N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	24"



1.877.477.1162 • sc.pipeline-awareness.com