



ENERGY TRANSFER PUBLIC MEETING

Virtual Meeting
Cumberland County, PA

6 p.m. ET
Wednesday, Dec. 2, 2020



ENERGY
TRANSFER

TONIGHT'S MEETING

- **Mariner East Project Overview**
 - What is Mariner East?
 - Where do things stand in Cumberland County?
 - What are the products Mariner East transports?
- **Public Safety, Outreach and Trainings**
 - What should I do in the event of a pipeline emergency?
- **Pipeline Operations**
 - Construction is done. What happens next?
 - Safe and reliable operations
- **Resources and Contact Information**
 - Informational and public safety resources
 - Local company contacts and hotline numbers
- **Q&A**



MARINER EAST PROJECT OVERVIEW

Joe McGinn

Vice President, Public and Government Affairs

WHO ARE ENERGY TRANSFER & SUNOCO PIPELINE?



- One of the largest and most diversified midstream energy companies in the country
- Operates > 90,000 miles of natural gas, crude oil, natural gas liquids (NGLs) and refined products pipelines and related facilities, including terminalling, storage, fractionation, blending and various acquisition and marketing assets in 38 states
- Employs > 10,000 employees across United States, ~1,100 in Pennsylvania



- ET subsidiary operating Mariner East system
- Operates energy assets in 21 states including pipelines, terminals and marketing assets
- 12,000 miles of pipeline transporting NGLs, crude oil and refined products are transported



WHAT IS MARINER EAST?

- **Series of three pipelines spanning Pennsylvania, mostly in the same right of way, transporting product to Marcus Hook, Delaware County**
- **Mariner East 1**
 - 8-inch diameter, original pipeline that carried refined products from southeast PA (via ship) westward
 - Now carries natural gas liquids (propane, butane, ethane) from west to east
 - Will soon be converted back to refined products from Westmoreland County to Berks County as part of Pennsylvania Access
 - Local fuel delivery through terminal in Mechanicsburg
- **Mariner East 2 and 2X**
 - System with 20-inch and 16-inch diameter pipelines
 - Carry NGLs
 - Construction complete in Cumberland County
- **Marcus Hook Industrial Complex**
 - Former oil refinery, from which we delivered refined products westward via ME1
 - Now being transformed into an NGL processing hub, receiving NGLs from ME1, ME2 and ME2X for storage, processing and delivery to local, regional and overseas markets

**More than 11,000
Pennsylvania union
workers have worked on
the project to date**

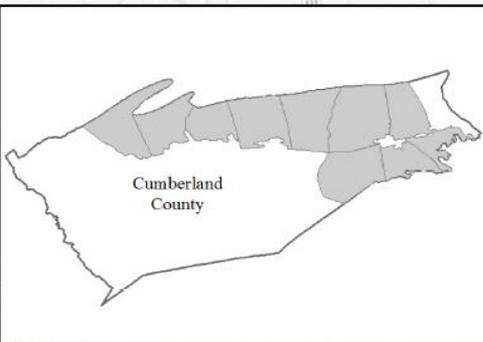
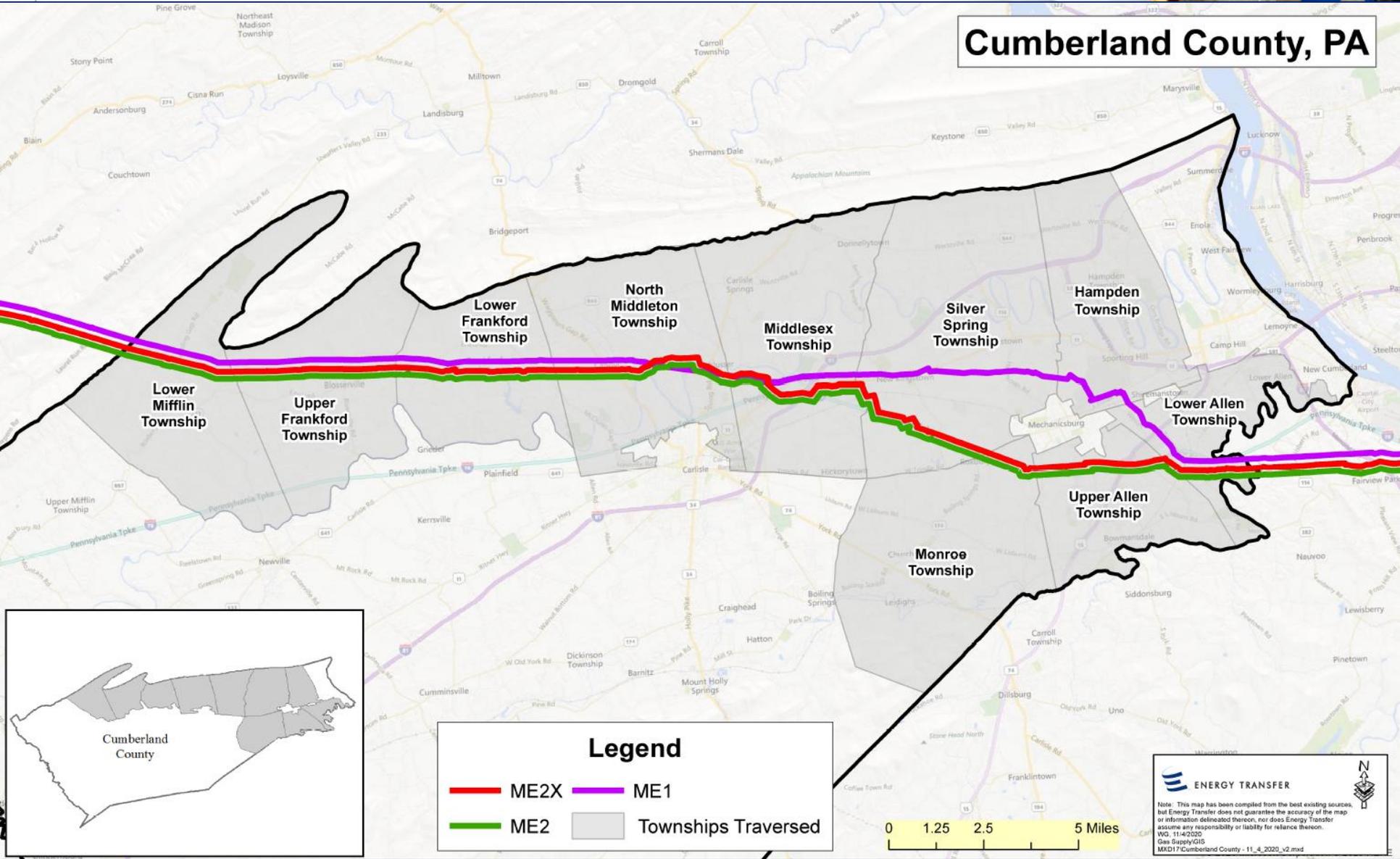
Mariner East Pipeline Project



- Mariner East 2 Pipeline
- Mariner East 2X Pipeline
- Existing Third-Party Pipeline
- Mariner East 1
- Energy Transfer Facilities
- Third-Party Facilities
- Propane Delivery Points
- Truck Intake Point
- Ethane Delivery Points
- Marcellus Shale Formation

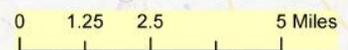


Cumberland County, PA



Legend

- ME2X
- ME1
- ME2
- Townships Traversed



ENERGY TRANSFER

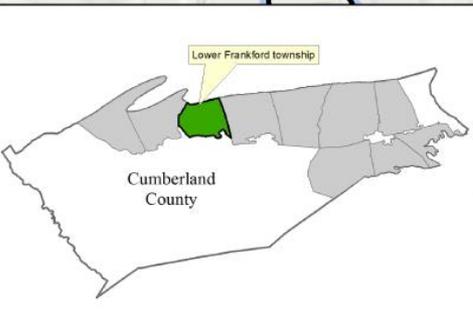
Note: This map has been compiled from the best existing sources, but Energy Transfer does not guarantee the accuracy of the map or information delineated thereon, nor does Energy Transfer assume any responsibility or liability for reliance thereon.
 WGS 114/4/2020
 Gas Supply/GIS
 MKD17\Cumberland County - 11_4_2020_v2.mxd

**Lower Frankford Township
Cumberland County, PA**

**Upper
Frankford
Township**

**Lower
Frankford
Township**

**North
Middleton
Township**



Legend

- ME2X
- ME1
- ME2
- Townships Traversed



ENERGY TRANSFER

Note: This map has been compiled from the best existing sources, but Energy Transfer does not guarantee the accuracy of the map or information delineated thereon, nor does Energy Transfer assume any responsibility or liability for reliance thereon.
WG: 11/4/2020
Gas Supply/GIS
MMD17\Lower Frankford Township-Cumberland County - 11_4_2020_v4.mxd

ADDITIONAL FACILITIES

- Trindle Road Valve Site, Silver Spring Township
- Plainfield Pump Station, Lower Frankford Township
- Mechanicsburg Terminal, Hampden Township



Trindle Road Valve Site



Plainfield Pump Station



Mechanicsburg Terminal

MARINER EAST CONSTRUCTION IN CUMBERLAND COUNTY

- All **construction is complete** in Cumberland County
- Rights-of-way restored
- Vegetation planted
- Transitioning to township closeouts and then ongoing operations
- Will maintain close communication with all affected townships including Lower Frankford Township; Cumberland County; emergency responders



Trindle Road Valve site in Silver Spring Township



Restored right-of-way in Lower Frankford Township

WHAT ARE NATURAL GAS LIQUIDS?

- **Propane, butane, ethane**, other hydrocarbons
- Components of **natural gas** found in Marcellus Shale basin
- Building blocks to many **essential items** we rely on every day



WHAT ARE THE USES AND BENEFITS OF NGLS?

- **Propane**
 - Affordable home and industrial heating, backup power
 - Agriculture, construction
 - Cooking, grilling
 - Transportation fuel → bus fleets
 - Isopropanol → hand sanitizer
 - Polypropylene → surgical masks, face shields, surgical gowns, gloves
- **Butane**
 - Petrochemical feedstock → synthetic rubber
 - Blended into gasoline → **lower prices** at the pump
- **Ethane**
 - Ethylene production → polyethylene → plastics, nylon, polyester, spandex
 - Cars, toys, clothing, electronics, health and hygiene products, detergent
 - Ethylene → oxygen masks, IV infusion sets, surgical gloves, face shields, ventilators
- A **combination of propane, butane and ethane** makes **polystyrene**, which is used to create tissue culture trays, test tubes and petri dishes

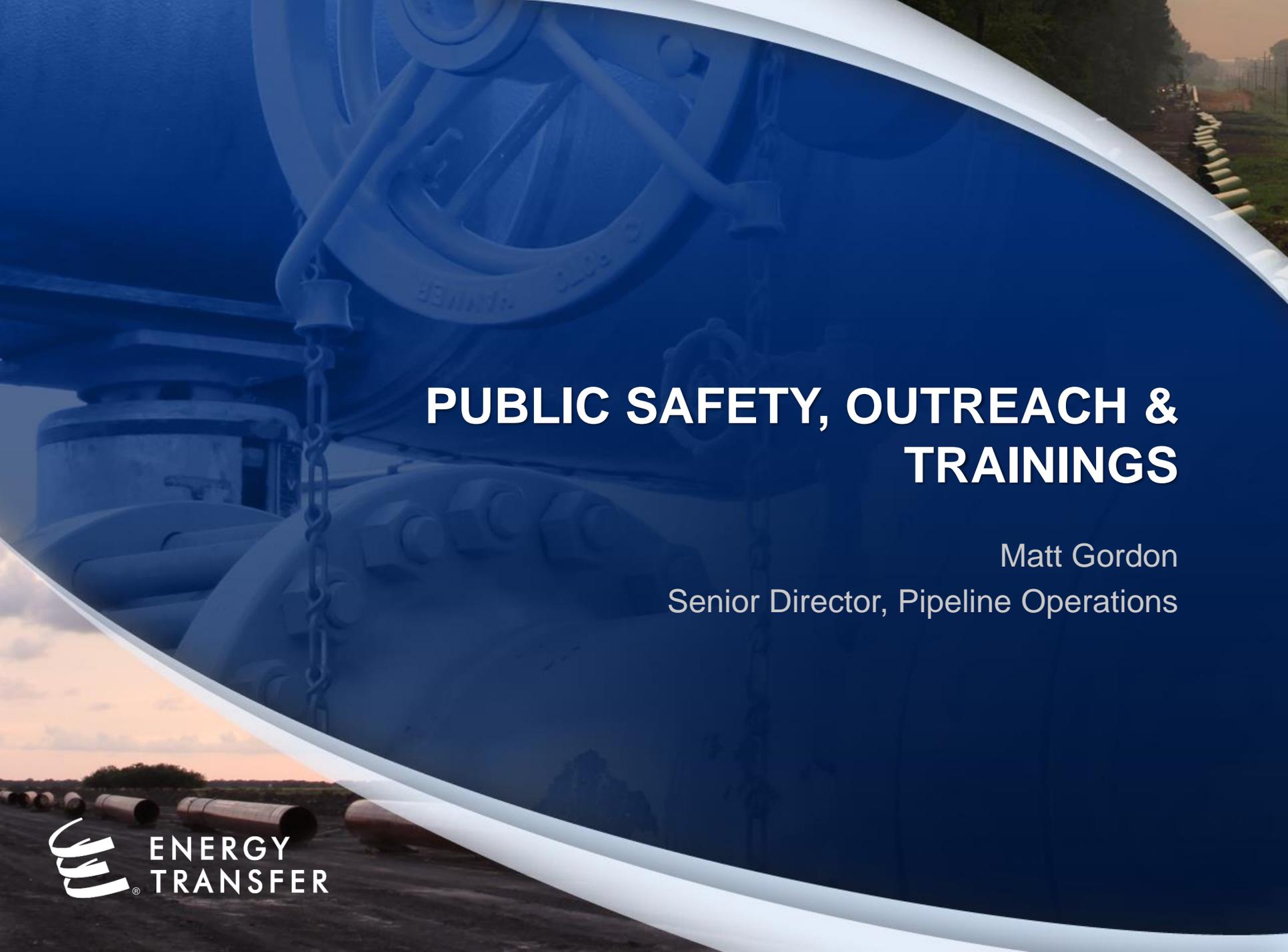
Our Marcus Hook neighbor, Braskem America, had a crew of more than 40 employees living and working at its facility for nearly a month this spring to continue making polypropylene, which is used to make N95 masks, hospital gowns and sanitary wipes



WHAT ARE REFINED PRODUCTS?

- **Gasoline**
 - **Diesel fuel**
 - **Heating oil**
 - **Jet fuel**
- ET operates ~2,200 miles of refined products pipelines and ~35 active marketing terminals
 - The mix of refined products delivered via our pipelines varies seasonally, corresponding with peaks in demand for various products or with weather conditions



The background features a large, semi-transparent blue circular graphic on the left side. Behind this graphic, there is a photograph of industrial machinery, including a large flywheel and various pipes and valves. In the bottom left corner, a photograph shows a construction site with several large pipes laid out on the ground under a clear sky.

PUBLIC SAFETY, OUTREACH & TRAININGS

Matt Gordon
Senior Director, Pipeline Operations

PUBLIC AWARENESS MAILERS



- Since September 2018, Energy Transfer has sent **363,248 pipeline safety brochures** to:
 - Residents
 - Businesses
 - Churches
 - Schools
 - Public and emergency officials
 - Excavators
 - Others along the Mariner East and Mariner West pipelines in PA

Know what's below. Call before you dig.

Don't ever assume you know where the underground utilities are located.

One of the greatest single challenges to safe pipeline operations is the accidental damage caused by excavation. In accordance with state and federal guidelines, a damage prevention program has been established to prevent damage to our pipelines from excavation activities, including mechanical and non-mechanical equipment, explosives and activities below existing grade. Laws vary by state, but most require a call to 811 between 48 to 72 hours before you plan to dig. Check with your local One-Call Center for specific guidelines in your state. Your local One-Call Center will let you know if there are any buried utilities in the area, and the utility companies will be notified to identify and clearly mark the location of their lines at no cost to you. Company personnel must be present for all excavation near our facilities.

- ALWAYS CALL 811 BEFORE YOU DIG.**
- WAIT THE REQUIRED AMOUNT OF TIME.**
- RESPECT THE MARKS.**
- DIG WITH CARE.**

If you should happen to strike the pipeline while working in the area, it is important that you call us immediately from a safe location. Even seemingly minor damage, such as a dent or chipped pipeline coating, could result in a future leak if not promptly repaired.

What should I do if I suspect a leak?

- Leave the area immediately, on foot, if possible, in an uphill, upwind direction. Follow direction of local emergency response agencies.
- Abandon any equipment being used in or near the area.
- Avoid any open flame or other sources of ignition.
- Warn others to stay away.
- From a safe location, call 911 or local response agencies, and notify the pipeline company.
- Do not attempt to extinguish a pipeline fire.
- Do not attempt to operate pipeline valves.

Wait for the site to be marked. Marking could be either by paint, flags or stakes.

APWA Color Code

- Proposed excavation
- Temporary survey markings
- Electric power lines, cables, conduit and lighting cables
- Gas, oil, steam, petroleum or gaseous materials
- Communication, alarm or signal lines, cables or conduit
- Potable water
- Reclaimed water, irrigation and slurry lines
- Sewers and drain lines

Pipelines are typically made of steel, covered with a protective coating and buried several feet underground. For your safety, markers are used to indicate the approximate location of pipelines. The markers contain the name of the pipeline operator, products transported and emergency contact information. Keep in mind that pipelines may not follow a straight line between markers, nor do markers indicate the exact location and depth of the pipeline.

Leaks from pipelines are unusual, but you should know what to do in the unlikely event one occurs. The table below describes the types of products transported by our pipelines. Refer to the Contact page to find out which products may be transported in your area. You may be able to recognize a leak by the following signs:

	Natural Gas	Natural Gas Liquids (Butane, Ethane, Propane, Olefins)	Petroleum (Crude Oil, Gasoline, Diesel, Jet Fuel, Kerosene, Vacuum Oil Gas)	Hydrogen Sulfide (H ₂ S)
Hazards	<ul style="list-style-type: none"> • Natural gas is flammable and can ignite when it comes into contact with an ignition source. In confined spaces, exposure can cause dizziness or asphyxiation and may be toxic, if inhaled at high concentrations. Natural gas may contain hydrogen sulfide (H₂S). 	<ul style="list-style-type: none"> • NGL is flammable and can ignite when it comes into contact with an ignition source. Exposure can cause moderate irritation including headaches and dizziness. NGL may contain hydrogen sulfide (H₂S). 	<ul style="list-style-type: none"> • Petroleum is a flammable liquid and can ignite when it comes into contact with an ignition source. Exposure can cause skin irritation, dizziness or asphyxiation and may be toxic, if inhaled at high concentrations. Fire may produce irritating and/or toxic gases. Requires use of positive pressure self-contained breathing apparatus (SCBA) or supplied air. Runoff may cause pollution or other hazards. 	<ul style="list-style-type: none"> • H₂S is flammable and can ignite when it comes into contact with an ignition source. Exposure can affect both oxygen utilization and the central nervous system of the human body. H₂S exposure may result in asphyxiation. The severity of health effects can vary depending on the level and duration of exposure however, exposure to low concentrations can deaden the sense of smell. Requires use of positive pressure SCBA or supplied air.
By Sight	<ul style="list-style-type: none"> • Continuous bubbling in wet or flooded areas. • Dead or discolored vegetation in a green area. • Dust blowing from a hole in the ground. • Flames, if a leak has ignited. 	<ul style="list-style-type: none"> • Continuous bubbling in wet or flooded areas. • Dead or discolored vegetation in a green area. • Dust blowing from a hole in the ground. • Flames, if a leak has ignited. • Pool of liquid on the ground. • Ice around a leak. • Vapor cloud or mist. 	<ul style="list-style-type: none"> • Continuous bubbling in wet or flooded areas. • Dead or discolored vegetation in a green area. • Flames, if a leak has ignited. • Pool of liquid on the ground. • Rainbow sheen on the water. • Vapor cloud or mist. 	<ul style="list-style-type: none"> • Continuous bubbling in wet or flooded areas. • Dead or discolored vegetation in a green area. • Dust blowing from a hole in the ground. • Flames, if a leak has ignited.
By Sound	<ul style="list-style-type: none"> • Blowing or hissing sound. 	<ul style="list-style-type: none"> • Blowing or hissing sound. 	<ul style="list-style-type: none"> • Blowing or hissing sound. 	<ul style="list-style-type: none"> • Blowing or hissing sound.
By Smell	<ul style="list-style-type: none"> • Odorless unless mercaptan, a chemical odorant, is added to give it a distinctive smell. 	<ul style="list-style-type: none"> • Odorless in its natural state, however a faint smell may be present. 	<ul style="list-style-type: none"> • An unusual smell or gaseous odor. 	<ul style="list-style-type: none"> • Foul sulfur odor, similar to rotten egg. • H₂S exposure may result in asphyxiation (suffocation) and exposure to low concentrations can deaden the sense of smell.

CONTACT
KNOW
RECOGNIZE
RESPOND

PIPELINE SAFETY

- **Pipelines are the safest, most efficient way** to transport energy resources, according to U.S. Department of Transportation – compared to truck and rail
- According to U.S. DOT, a typical pipeline moves the equivalent of **750 tanker trucks every 2 minutes, 24/7**



PIPELINE SAFETY: ABOVE AND BEYOND

- Energy Transfer/Sunoco Pipeline **meets or exceed all federal safety regulations**
 - Inspect **100% of pipeline welds**, above the 10% required
 - Integrity testing and right-of-way patrol **more frequently** than required
 - Bury pipelines **deeper** than required in most cases
 - **Heavier pipe-wall thickness** than required by U.S. DOT
- **Monitor pipeline operations 24/7/365** from our central monitoring facility
- **Special protective measures** in high-population and environmentally sensitive areas, including installing casing
- We have **trained more than 2,200 PA first responders** and public officials along Mariner East route for pipeline emergency response
- **See something, say something**
 - Neighbors can help keep communities safe by alerting us to problems before they are emergencies
 - Suspicious persons, vehicles or activities near our pipeline facilities
 - If you see someone tampering with our equipment, **please call our emergency number: 800-786-7440 or 877-839-7473**
 - In the event of emergency or immediate threat, **call 911**

WHAT TO DO IN THE EVENT OF A LEAK

- **How do I know where the pipelines are and who operates them?**
 - National Pipeline Mapping System – www.npms.phmsa.dot.gov
 - Yellow or red pipeline markers
- **How do I recognize a leak? (natural gas liquids)**
 - By sight: Continuous bubbling from the ground, dead or discolored vegetation in a green area, dust blowing from a hole in the ground, flames, ice around a leak, vapor cloud or mist
 - By sound: Blowing or hissing sound
 - By smell: Odorants are not added to natural gas liquids, but a faint petroleum smell may be present
- **What if I suspect a leak?**
 - Leave the area immediately, on foot if possible, in an uphill, upwind direction
 - Follow direction of local emergency response agencies
 - Abandon any equipment being used in or near the area
 - Avoid any open flame or other sources of ignition
 - From a safe location, call 911 or local response agencies, and call us
- **Is it safe to use a cell phone?**
 - Yes, from a safe distance, according to PEMA and PHMSA
- **What is the safe distance for evacuation?**
 - This varies based on many factors. It is best to refer to your emergency responders and to move to a distance where you feel safest.

**24/7 Emergency Hotline:
800-786-7440 or
877-839-7473**

**Non-Emergency
Number:
877-795-7271**



www.papipelinesafety.com

@PApipelinesafety

@PApipelinesafety

@PApipelinesafety

PA Pipeline Safety
October 8 at 6:38 PM · 🌐

Pipeline operators monitor their pipelines from a central control room 24 hours a day, 7 days a week, 365 days a year.

Specially trained controllers keep a watchful eye over systems monitoring pipeline pressure, flow and volume. From their central control centers, pipeline operators can remotely stop pumps and isolation valves.

Learn more at <https://www.papipelinesafety.com/Prevention.htm>



WHAT INFORMATION ARE PIPELINE COMPANIES REQUIRED TO PROVIDE THE PUBLIC?

Federal pipeline safety regulations require pipeline operators to develop and implement a continuing Public Awareness Programs that follows the guidance provided by the American Petroleum Institute (API) Recommended Practice (RP) 1162. The programs must provide pipeline safety information to four stakeholder audiences: affected public, emergency officials, local public officials, and excavators.

Baseline communication to residents along a pipeline right-of-way, for example, include mailing print materials. For more information on RP 1162, visit PHMSA's website.

WHO DEVELOPS THE EMERGENCY EVACUATION PLANS FOR RE...

WHAT INFORMATION IS SHARED WITH FIRST RESPONDERS TO RESPONSE?

DO PIPELINE OPERATORS HAVE EARLY-DETECTION AND WARN SYSTEMS?

HOW SAFE ARE NATURAL GAS LIQUIDS PIPELINES?

ARE CELL PHONES SAFE TO USE IF THERE IS AN INCIDENT?

RECOGNIZING A LEAK

Natural gas is transported in its gaseous form by pipeline from wells and processing facilities to distribution centers (or distribution pipeline systems). Natural gas is odorless, colorless, tasteless and nontoxic in its natural state. When transported via transmission pipelines, natural gas typically does not have odorant added. An odorant is added when it is delivered to a distribution system.

Natural gas liquids (NGLs) are liquids separated from natural gas and include propane, butane and ethane. These products are commonly used for cooking and heating, and are the building blocks for manufacturing thousands of products we use every day. They are easily liquefied under pressure and normally will not have odorant added when transported via transmission pipelines.

Petroleum liquids is a broad term covering many products, including: crude oil, gasoline, diesel fuel, jet fuel, fuel oil, and other refined products. Odorant is not added to these products because they have a natural odor.



CALL 811 BEFORE YOU DIG



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

Don't ever assume you know where the underground utilities are located.

One of the greatest single challenges to safe pipeline operations is the accidental damage caused by excavation. In accordance with state and federal guidelines, a damage prevention program has been established to prevent damage to our pipelines from excavation activities, including mechanical and non-mechanical equipment, explosives and activities below existing grade. Laws vary by state, but most require a call to 811 between 48 to 72 hours before you plan to dig. Check with your local One-Call Center for specific guidelines in your state. Your local One-Call Center will let you know if there are any buried utilities in the area, and the utility companies will be notified to identify and clearly mark the location of their lines at no cost to you. Company personnel must be present for all excavation near our facilities.



ALWAYS CALL 811 BEFORE YOU DIG.



WAIT THE REQUIRED AMOUNT OF TIME.



RESPECT THE MARKS.



DIG WITH CARE.

If you should happen to strike the pipeline while working in the area, it is important that you call us immediately from a safe location. Even seemingly minor damage, such as a dent or chipped pipeline coating, could result in a future leak if not promptly repaired.

What should I do if I suspect a leak?

- Leave the area immediately, on foot, if possible, in an uphill, upwind direction. Follow direction of local emergency response agencies.
- Abandon any equipment being used in or near the area.
- Avoid any open flame or other sources of ignition.
- Warn others to stay away.
- From a safe location, call 911 or local response agencies, and notify the pipeline company.
- Do not attempt to extinguish a pipeline fire.
- Do not attempt to operate pipeline valves.

Wait for the site to be marked. Marking could be either by paint, flags or stakes.

APWA Color Code

-  Proposed excavation
-  Temporary survey markings
-  Electric power lines, cables, conduit and lighting cables
-  Gas, oil, steam, petroleum or gaseous materials
-  Communication, alarm or signal lines, cables or conduit
-  Potable water
-  Reclaimed water, irrigation and slurry lines
-  Sewers and drain lines

OUTREACH & MEETINGS – BEFORE AND THROUGHOUT CONSTRUCTION

- **Well over 125 in-person meetings** in Dauphin, York and Cumberland Counties with township, borough and county staff
 - Introductory meetings with townships when construction restarted in early 2020
 - Now communicating on road reviews, working toward township close-outs
- **Thousands of phone calls and emails** to answer questions about Mariner East and address construction-related questions or issues
 - Shared weekly construction updates, HDD progress, road impacts, lane restrictions
 - Worked to resolve construction-related complaints or concerns from residents and township
- Attended **township public meetings** (Lower Allen, Silver Spring, etc.) for construction-related requests and updates including road use agreements, work-hour requests and to address any issues
- Working with townships on **emergency response plans**

MARINER EMERGENCY RESPONDER OUTREACH (MERO)

- Developed in 2013 to provide **emergency response training** for natural gas liquids incidents in communities surrounding Mariner East
- We have now **trained more than 2,200 Pennsylvania first responders** along the Mariner East pipeline corridor
- Hosted recent trainings in **Carlisle Sept. 14, 2020**, and **New Cumberland Nov. 18, 2020**
- Greg Noll is facilitator – **award-winning hazmat response expert** who authored *Pipeline Emergencies* textbooks
- We also routinely offer trainings to county and **township emergency managers, school districts**



FIRST RESPONDER FUND

- Energy Transfer First Responder Fund **launched in 2016 to assist first responder organizations** near our pipeline assets, including fire departments, EMS, county emergency management agencies, police departments and other eligible agencies
- Grants **enhance rescue capabilities** through upgrading or replacing rescue equipment, gear, etc. to meet increasingly stringent federal standards
- **One part of our ongoing partnerships** with first responders along the pipeline
- Have now awarded **more than \$1 million in grants** to Pennsylvania first responders
- Recently awarded over **\$11,000 to Lisburn Community Fire Company**



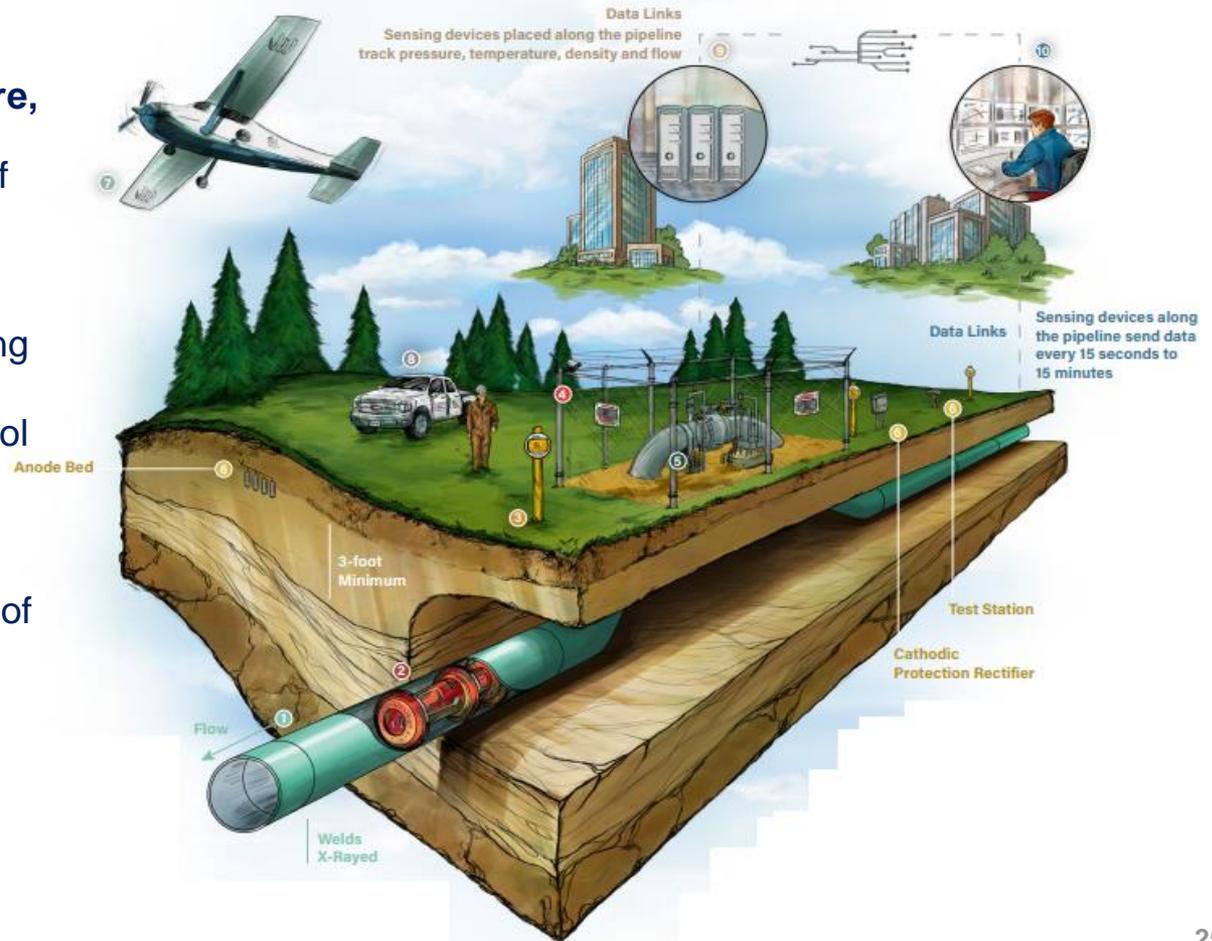


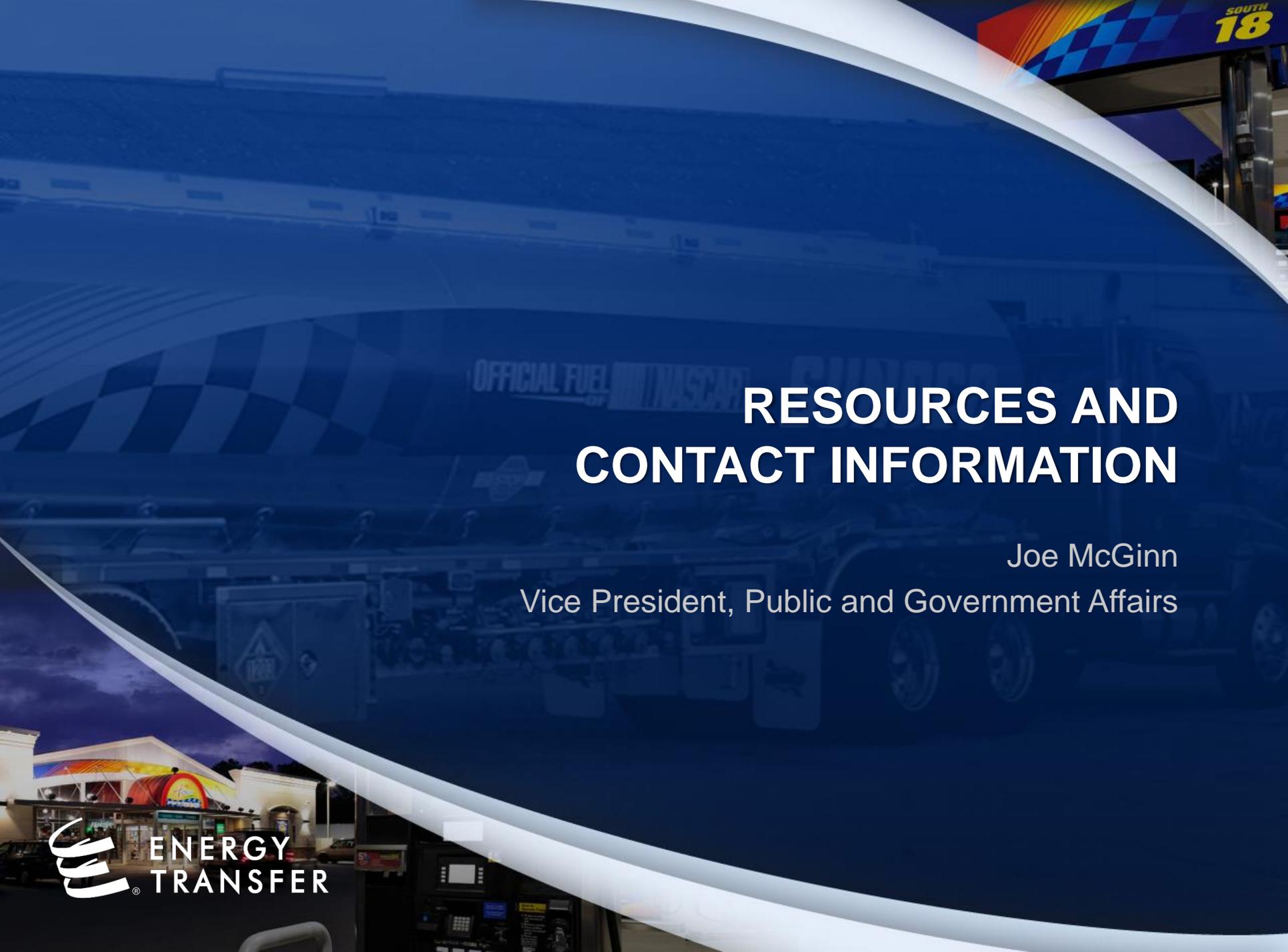
PIPELINE OPERATIONS

Matt Gordon
Senior Director, Pipeline Operations

PIPELINE OPERATIONS

- **Monitor pipelines 24/7/365** via a computerized supervisory control and data acquisition (SCADA) system
- SCADA system tracks **pressure, flow, temperature, other operating data** with a series of field instruments to ensure **normal, safe operations**
- **Security** fencing and monitoring
- Ground **patrol** and aerial control
- In-line **inspection tools**
- **Pressure-testing** at minimum of 125% maximum operating pressure
- Cathodic **protection**
- **Valves**





RESOURCES AND CONTACT INFORMATION

Joe McGinn

Vice President, Public and Government Affairs





LOCAL CONTACTS

Josh Snyder – Lead Specialist, Public Affairs

- joshua.snyder@energytransfer.com
- 717-236-1731

24/7 Emergency Hotline: 800-786-7440 or 877-839-7473

Non-Emergency Number: 877-795-7271



ADDITIONAL RESOURCES

Mariner East project information, resources, FAQs, news, blog:

- www.marinerpipelinefacts.com
- Sign up for blog updates from home page
- Find @MarinerEast2 on Facebook, Twitter, Instagram, LinkedIn

Pipeline safety information and guidance:

- www.PApipelinesafety.com
- Find @PAPipelineSafety on Facebook, Twitter, Instagram

Q&A