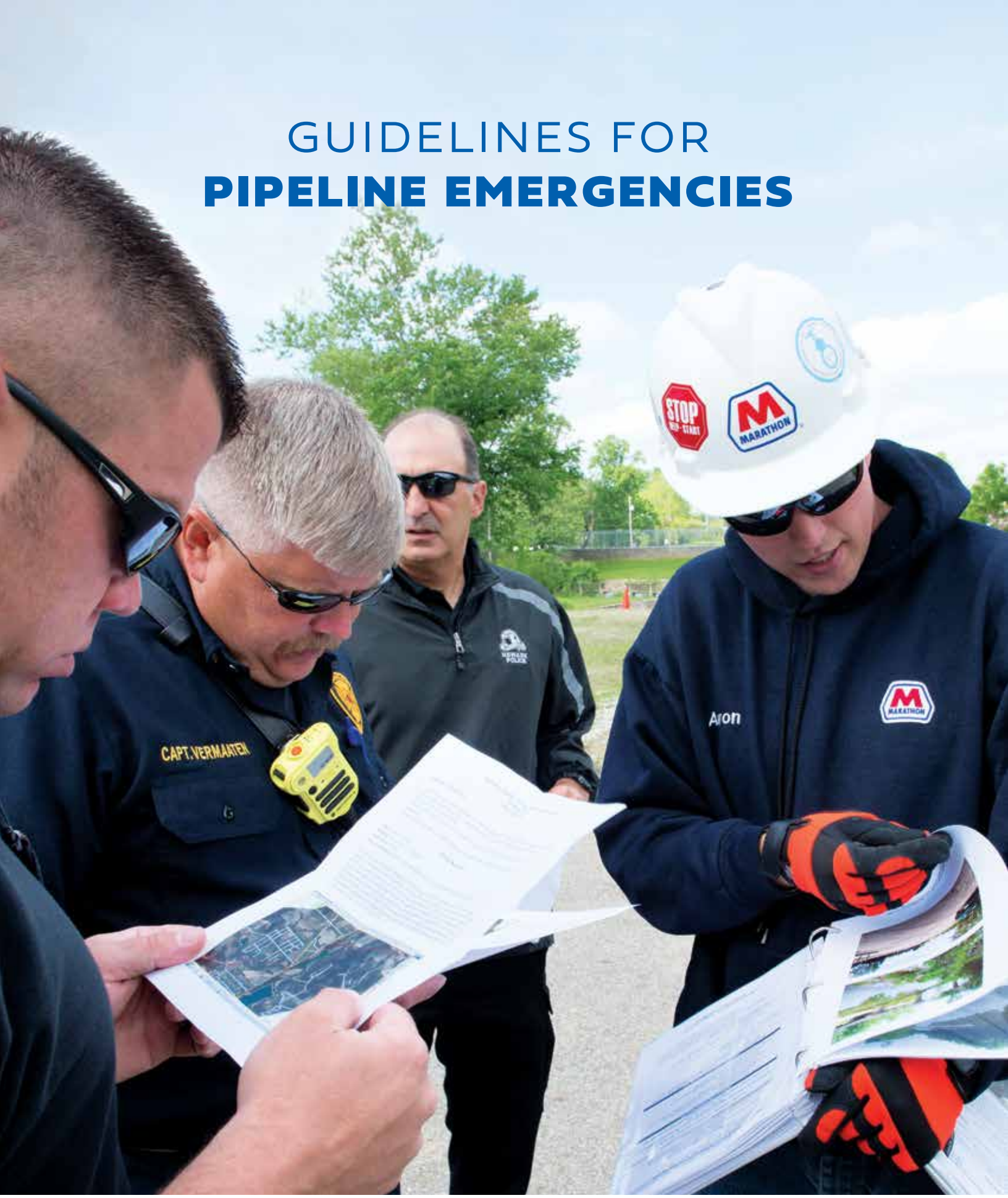
GUIDELINES FOR
PIPELINE EMERGENCIES



Marathon Pipe Line LLC

GUIDELINES FOR PIPELINE EMERGENCY RESPONSE AGENCIES

Contents

1 Introduction

2 Map of Marathon Pipe Line LLC Assets

4 Identifying a Pipeline Release

5 Incident Response Checklist

6 Hot Zones

7 Containment Techniques

9 Security

10 Products Transported

11 Pipeline Basics

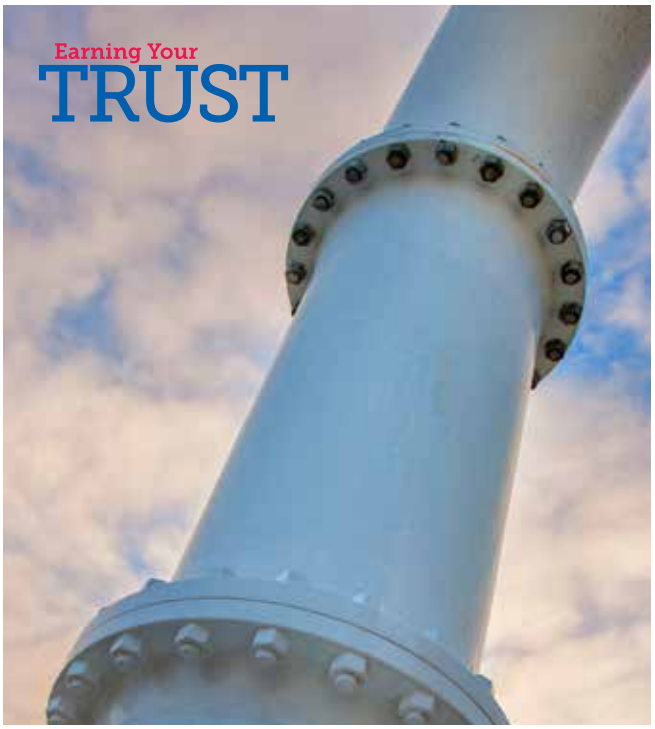
12 Additional Resources

Marathon Pipe Line LLC

INTRODUCTION

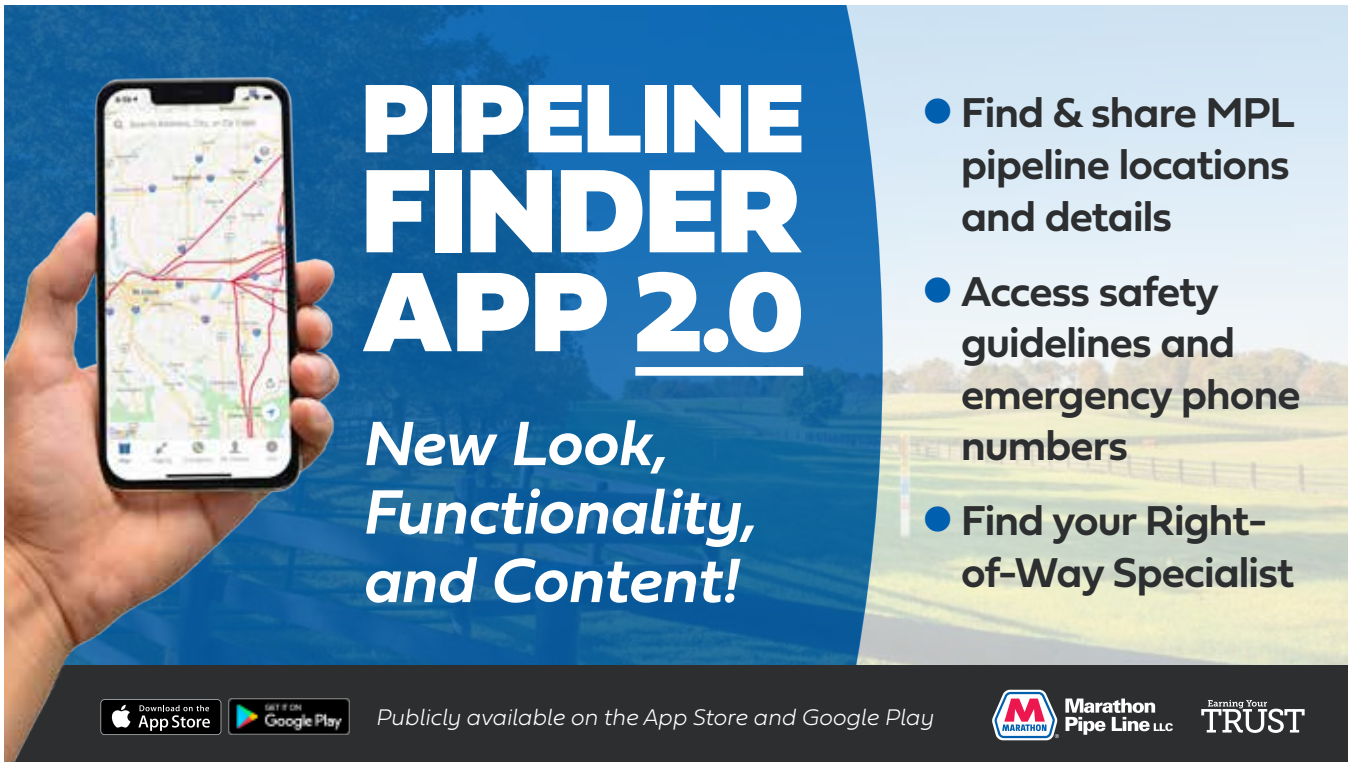
Earning Your Trust

Marathon Pipe Line LLC (MPL) operates underground pipelines that transport crude oil, petroleum products and natural gas to and from terminals, refineries and other pipelines across the nation. Movement of these liquids and gas through pipelines is the safest method of transporting energy. MPL is committed to building and maintaining strong relationships with all of our stakeholders.

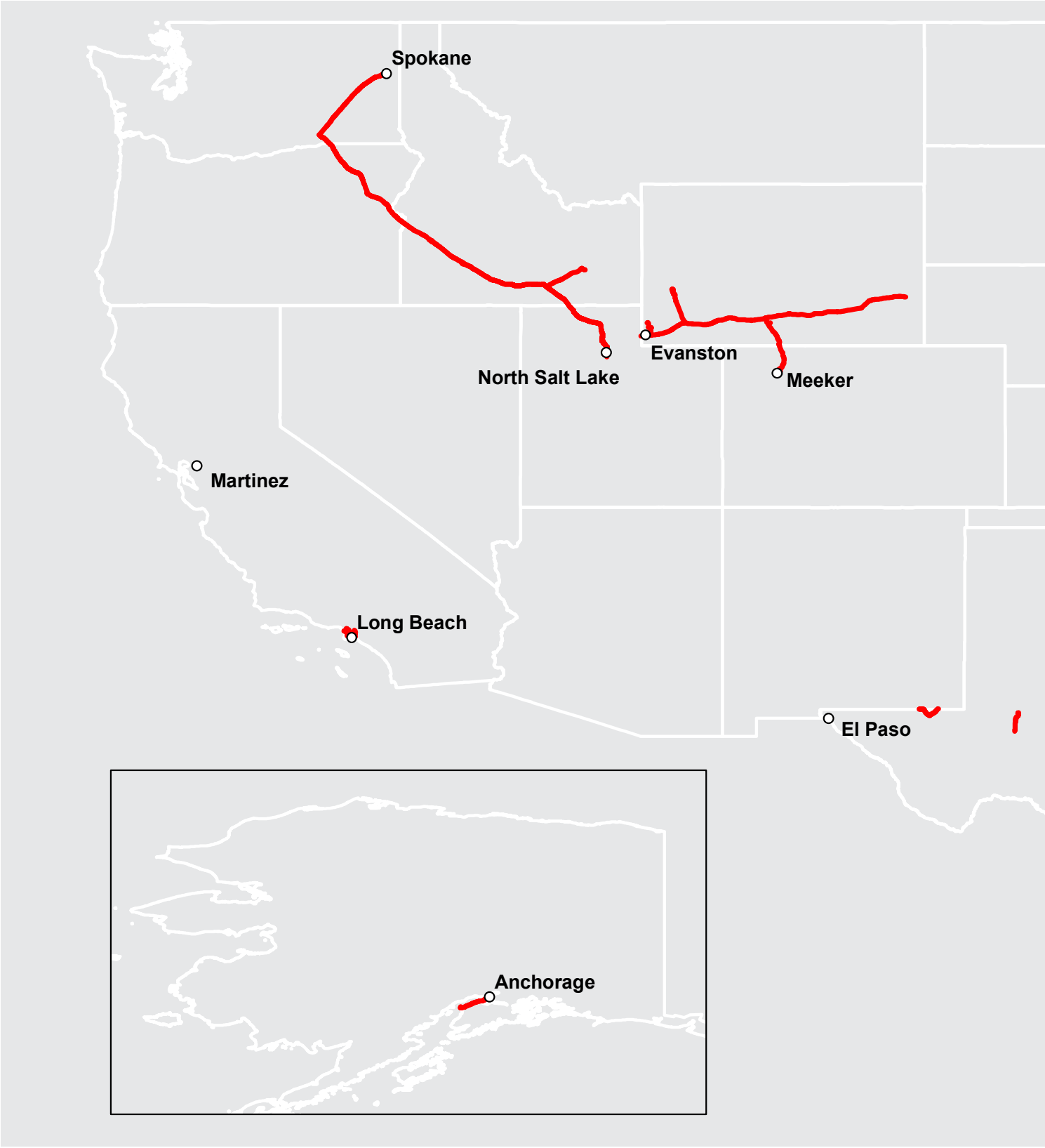


Pipeline Systems Map

To learn more about pipeline locations and products transported through them in your community, log on to www.marathonpipeline.com or download the FREE Marathon Pipeline Finder App from the App Store or Google Play.



MAP OF MARATHON PIPE LINE LLC ASSETS



Go to marathonpipeline.com for detailed maps of our assets

In case of a pipeline emergency, call Marathon Pipe Line at

1-833-MPL-1234

(1-833-675-1234)

IDENTIFYING A PIPELINE RELEASE

Signs of a Pipeline Release:

A rainbow sheen on water

A pool of liquid on the ground

A dense white cloud or fog

Dead or discolored vegetation

An unusual hissing or roaring noise

An unusual odor such as gasoline, oil, sulfur or a rotten egg smell

You Can Identify A Release By:

SIGHT

Look for – liquids on the ground, unusual ground color, patches of dead vegetation in greenery, frost on the ground, white vapor clouds, mist or heat waves in low-lying areas. Look for a pipeline right-of-way marker.

SOUND

Listen for – hissing, rumbling or roaring sounds.

SMELL

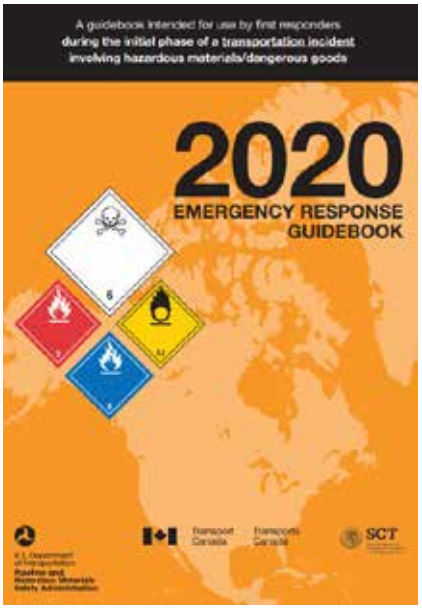
Notice – odd chemical odors such as gas or other petroleum smells, or the smell of "rotten eggs" if near crude pipelines. Keep in mind, some releases may have little or no odor at certain concentrations.

Release Overview:

To protect lives, property and the environment, it is necessary to gain control of the situation as quickly as possible.

Remember fire and explosion hazards are the greatest risk in any pipeline release. High pressure products are extremely dangerous and should be controlled only by pipeline personnel. Any attempt to operate valves by unauthorized personnel could make the situation worse.

Refer to the U.S. DOT North American Emergency Response Guidebook for information on immediate steps to take in an emergency release.



https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2020-08/ERG2020-WEB.pdf

CHECKLIST FOR INCIDENT RESPONSE

Pipeline operators will concentrate on shutting down pipeline facilities. Responders should focus on protecting the public and isolating or removing ignition sources.

1. ASSESS THE situation

- ☐ **Approach with caution from upwind/crosswind location**
  - Do not walk or drive into a vapor cloud or puddle of liquid
  - Do not park over manhole or storm drain
  - Use air-monitoring equipment
  - Note conditions of hazard, weather, surrounding community and available resources
- ☐ **Secure the scene, deny entry to unauthorized persons**
- ☐ **Employ NIMS and Incident Command System**
- ☐ **Identify hazards**
  - Locate pipeline marker sign: product, operator, 24-hour emergency phone number
  - Contact pipeline operator: provide location, your name and phone number
  - Refer to DOT Emergency Response Guidebook

2. PROTECT PEOPLE, PROPERTY AND THE ENVIRONMENT

- ☐ **Establish isolation zones and set up barricades**
  - Refrain from the use of flares for traffic control around any incident involving release or potential for release from lines containing flammable liquids or gases.
- ☐ **Rescue and evacuate people**
  - Evacuate or shelter-in-place
  - Administer first aid
- ☐ **Eliminate ignition sources**
- ☐ **Control fire, vapor and/or leak**
  - Let primary fire burn
  - Cool surrounding structures
  - Beware of hot spot reignition

3. CALL FOR ASSISTANCE OF TRAINED PERSONNEL

- ☐ **Contact your organization**
- ☐ **Call the pipeline operator**
  - Call Marathon Pipe Line's 24-hour **Emergency Number** at **1-833-MPL-1234 (1-833-675-1234)**
  - Provide the following information:
  - Exact location of the pipeline release
  - Name and phone number of the primary contact person

4. WORK TOGETHER WITH THE PIPELINE OPERATOR

HOT ZONES

Beware Of Hot Zones – They May Be Moving Around

A pipeline leak can cause life-threatening hazards such as toxic gases or the danger of explosion and fire.

Be alert to the fact that petroleum products often produce vapors that are heavier than air. These vapors move with air currents and often seek low-lying areas in the terrain where they concentrate. They do not always move in concentric circles out from the point of the release. Sloping hillsides, running water, sewers and forested areas collect vapors – often a long distance from the actual site of the release.

Think about how vapors might follow the topography, the influence of wind, trees, etc.

In short, be alert to the hazards. Do not go into a hot zone without proper equipment and training.

Remember, your nose and other senses may not warn you in time. Wait for trained personnel and monitoring equipment to accurately define the hot zone.

Evacuate any area which is or could be affected. Stay out until an expert has sampled the area. Do not extinguish fires unless vapors and liquids can be controlled. Do not open or close pipeline valves.

Based on the topography of the area, the product released from a liquid pipeline spill can travel a considerable distance from the point of the release.

CONTAINMENT TECHNIQUES

Confining and Containment Techniques

Do not enter the hot zones unless properly trained and equipped. Remember, vapors move with air currents and often seek low-lying areas.

Do not extinguish fires unless vapors and liquids can be controlled.

Do not open or close pipeline valves.

Many hydrocarbon fires can safely be left to burn themselves out, thereby reducing the risk of a dangerous vapor cloud and reignition. Before the decision is made to extinguish a flammable liquid fire, the following questions should be evaluated:

- **Can the fire continue to burn safely?**
- **Will there be uncontrollable vapors after extinguishment?**
- **What is the potential for reignition?**
- **Are there structures that can be saved?**

Extinguish Fires:

- To aid in rescue or evacuation
- To protect exposures
- When controllable amounts of vapor or liquid are present

Control Ignition Sources Such as:

- Work that produces sparks
- Static electricity
- Smoking or open flames
- Non-intrinsically safe equipment
- Electrical switches
- Home utilities

Starting or Restarting Vehicles

If a car or truck stops or chokes out in a high vapor area, do not attempt to restart the vehicle. Starting an engine provides a dangerous ignition source and could result in an explosion.

Remember the Hazards

The hazards usually associated with petroleum hydrocarbons are:

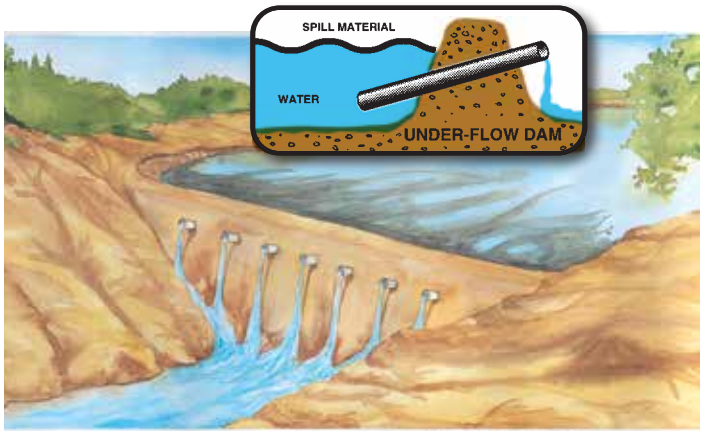
- **FIRES OR EXPLOSIONS:** are possible whenever flammable or combustible liquids are present.
- **ASPHYXIATION:** Petroleum vapors are often heavier than air which can displace breathable air and act as an ASPHYXIANT.
- **IRRITANT:** Petroleum products which contact the skin or mucous membranes can act as an IRRITANT causing dermatitis and inflammation.
- **TOXIC MATERIALS:** Petroleum products can contain toxic materials such as hydrogen sulfide or benzene.
- **FROSTBITE:** Skin contact with LPGs (propane, butane) can cause FROSTBITE.
- **A BLEVE** (Boiling Liquid, Expanding Vapor Explosion) potential exists any time you have a flammable liquid in a sealed vessel (including a closed in pipeline) with an impinging fire.

CONTAINMENT TECHNIQUES

Dams and Dikes

Underflow dams are very effective in confining materials which float on water. The design consists of a length of pipe or culvert placed parallel with the direction of the flow, with the upstream end lower than the downstream end. The objective is to pass water through the pipe but retain the floating product.

The number and size of pipe(s) required to be installed is determined by allowing water to pass without backing up to a depth greater than the dam.



Containment Booms

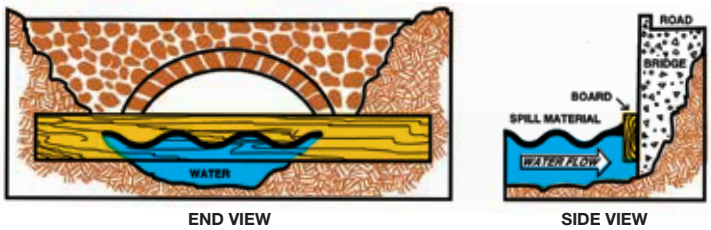
A containment boom is a floating barrier designed with sufficient freeboard and draft to confine or deflect material floating on the surface of water. A commercially made boom can be expensive, but there are alternatives which include improvising with field fabricated containment devices. An improvised boom can be constructed with fiberglass, plywood, or metal sheeting, straw and even a fire hose.

A boom can be deployed for three purposes: to confine or contain a material, to divert the flow of the material or to prohibit the material from entering an area.

Board Weir

A simple device which can often be used along small streams and road ditches is the board weir. The board weir is constructed by placing a sheet of material across a culvert, allowing the floating product to be collected behind the board. The water is permitted to pass under the edge of the board.

BOARD WEIR



END VIEW SIDE VIEW

SECURITY

Security for Pipelines

Petroleum pipelines provide a safe method of transporting and delivering highly valued products across the country, making them a critical component of the nation's transportation infrastructure. Disruption of pipeline operations caused by security threats can have significant impacts on public health, the environment, and the economy.

Security threats to pipelines could include, but are not limited to:

- **Improvised Explosive Device (IED)**
- **Vehicle Born Improvised Explosive Device (VBIED)**
- **Arson**
- **Sabotage**
- **Vandalism**
- **Information systems hacking**
- **Workplace violence**

MPL employs security programs and physical security measures to prevent, deter, and mitigate these threats.

Security Programs

- Security Risk Assessments
- Regulatory Inspections
- Intelligence Monitoring
- Security Incident Investigations
- Active Attacker Training and Exercises
- Community Emergency Preparedness Workshops

Physical Security Measures

- Access Control Systems
- CCTV
- Intrusion Detection Systems
- Security Guards
- Fencing/Crash Gates/Vehicle Barriers
- Security Lighting

Though MPL takes many steps to ensure its assets are safe and secure, we rely on the public and first responders to serve as our eyes and ears along our pipelines. Always be aware of any suspicious activity around pipelines and associated facilities which can include loitering, abandoned vehicles, or surveillance activities.

If you witness any suspicious activity along the pipeline right of way or at a pipeline facility, please report it immediately by contacting 1-877-MAPLINE (1-877-627-5463).

When reporting pipeline security concerns, be sure include to as much information as possible, such as:

- Activity observed
- Location and time
- Number of individuals involved
- Personal characteristics (age, gender, hair color, height, weight, clothing, tattoos, etc.)
- Vehicle characteristics (make, model, color, license plate state/number, bumper stickers, body damage, etc.)

Products Transported

The following chart outlines potential hazards associated with the release of specific products transported by Marathon Pipe Line LLC:

Product	Description	Fire Hazard	Health Hazard	Response (Extinguishing Method)
Benzene - Typical	Colorless liquid, characteristic odor	Extremely flammable. Keep away from heat,sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical or foam. Cover liquid spills with foam.
Butane - Typical (Butane, Normal Butane, Isobutane Mix)	Colorless liquid, characteristic odor	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, carbon dioxide (CO2)
CO2 – Typical	Colorless, odorless gas	Nonflammable gas.	Avoid direct contact with liquid product. Can cause frostbite. Vapors are nontoxic but can serve as asphyxiant.	Isolate the area and monitor oxygen levels
Crude - Heavy	Amber to black liquid with a mild hydrocarbon odor – like rotten eggs if mercaptan is present	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam
Crude - Sour	Amber to black liquid with a mild hydrocarbon odor – like rotten eggs if mercaptan is present	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam
Crude - Sweet	Amber to black liquid with a mild hydrocarbon odor – like rotten eggs if mercaptan is present	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam
Denatured Ethanol – Typical	Colorless, water white liquid, with a mild fragrant odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Alcohol resistant foam, dry chemical or carbon dioxide (CO2)
Ethane - Typical	Colorless, odorless gas	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin.	Dry chemical, carbon dioxide (CO2)
Ethane/Propane Mix – Typical (E/P Mix)	Colorless, odorless gas	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin.	Dry chemical, foam or carbon dioxide (CO2)
Fuel Oil	Brown to black viscous liquid with a hydrocarbon/tar odor	Combustible liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam, or carbon dioxide (CO2)
Gas Oil	Brown to black liquid with a hydrocarbon odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam, or carbon dioxide (CO2)
Gasoline – Typical (Unleaded Gasoline)	Clear (may be dyed) liquid with a gasoline odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin.	Dry chemical, foam, carbon dioxide (CO2) or water fog
High Sulfur Diesel – Typical (Petroleum Hydrocarbons)	Clear (may be dyed) liquid with a hydrocarbon odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin.	Dry chemical, foam, carbon dioxide (CO2) or water fog. Water may be ineffective but should be used to keep fire exposed containers cool.
Kerosene - Typical	Clear (may be dyed) liquid with a petroleum or solvent odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam or carbon dioxide (CO2). For larger fires, use water spray or fog.
Low Sulfur and Ultra Low Sulfur Diesel - Typical	Clear yellow liquid with a petroleum odor	Flammable Liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam, carbon dioxide (CO2) or water fog
Naphtha	Colorless liquid, hydrocarbon odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam, or carbon dioxide (CO2)
Natural Gas (Compressed Gas, Residue gas, sales gas) – Typical	Colorless and odorless gas with a hydrocarbon odor − like rotten eggs, if mercaptan is present	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin. Vaporizing gas may cause frostbite.	Dry chemical or carbon dioxide (CO2)
Natural Gas Condensate - Typical (Y-Grade)	Colorless liquid with a hydrocarbon odor – like rotten eggs if mercaptan is present	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam or carbon dioxide (CO2)
Propane - Typical (HD-5, Liquefied Propane Gas, LP-Gas, LPG)	Colorless, odorless liquefied gas	Flammable gas. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical or carbon dioxide (CO2)
Sulfuric Acid	Red to brown liquid with a slight hydrocarbon odor	Nonflammable liquid.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical or carbon dioxide (CO2)
Transmix - Typical (T-034; T-035; OHSDU545)	Pink to bronze liquid with a gasoline odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam, carbon dioxide (CO2) or water fog
Turbine Fuel - Typical	Clear watery-white liquid with a faint hydrocarbon odor	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed, inhaled or absorbed through skin.	Dry chemical, foam, carbon dioxide (CO2), water fog or vaporizing liquid type extinguishing agents

For more information about Marathon Pipe Line visit www.marathonpipeline.com

To view Safety Data Sheets visit www.marathonpipeline.com/safetydatasheets

PIPELINE BASICS

Why do we need pipelines?

Few people are aware of the critical work done by millions of miles of liquid and natural gas pipelines in the U.S. to deliver these products safely and reliably to American homes and businesses. We can get where we need to go by car, by bus or by plane because pipelines deliver the gasoline, diesel and jet fuel that make fueling up quick, convenient and affordable – at the gas station, bus depot or airport. The shelves of our local stores are lined with healthy food and affordable goods that are able to be grown or made because of raw materials delivered by pipeline.

Where are pipelines located?

There are 218,970 miles of U.S. oil, refined products and natural gas liquids pipelines. According to National Transportation Safety Board statistics, pipelines are the safest method of transporting petroleum products. The majority of transmission pipelines are made of steel, covered with a protective coating and buried underground. They are tested and maintained through the use of cleaning devices, diagnostic tools and cathodic protection.

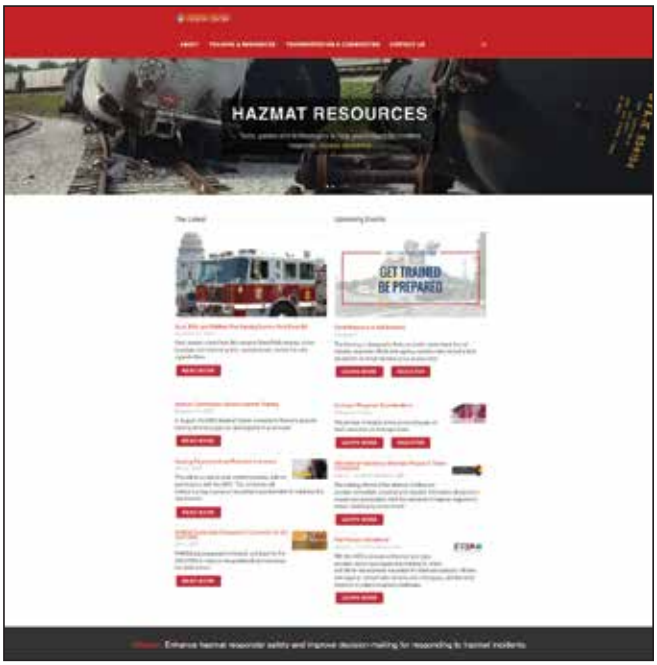
For more information about pipelines, visit www.pipeline101.com.

To view a list of pipeline operators in your area, visit https://www.npms.phmsa.dot.gov/.

ADDITIONAL RESOURCES

Pipeline Emergency Response Training
www.nasfm-training.org

IAFC National Near Miss Program
http://www.firefighternearmiss.com/



National Hazardous Materials Fusion Center
www.hazmatfc.org


MAYVILLE
GOMEZ
DAVIS
TCC
TCC

In case of a pipeline emergency, call Marathon Pipe Line at

1-833-MPL-1234

(1-833-675-1234)

Marathon Pipe Line LLC

Earning Your TRUST

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

539 South Main Street
Findlay, OH 45840

1-855-888-8056
marathonpipeline.com