GUIDELINES

FOR RIGHT-OF-WAY ACTIVITIES

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SPECIAL THANKS

Marathon Pipe Line LLC's publication by the same name was the model for this work.

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GUIDELINES
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THE LIQUID PETROLEUM PIPELINE INDUSTRY has developed these guidelines to improve understanding and increase awareness of the nature of underground pipelines that transport oil, petroleum products, natural gas liquids and other hazardous liquids (collectively "pipelines" or "pipeline" throughout this document) and how to conduct land development and use activity near pipeline rights of way.

The guidelines are intended for use by anyone who is involved in land development, agriculture and excavation/construction activities near a pipeline. The industry's goal is to protect public safety of the people who live and work along pipeline rights of way, protect the environment along rights of way, and maintain the integrity of the pipeline so that petroleum products can be delivered to customers safely and without interruption.

A pipeline right-of-way (ROW) is property in which a pipeline company and a landowner both have a legal interest. Each has a right to be there, although each has a different type of use for the land. Pipeline companies are granted permission from private landowners to transport petroleum products across their private lands. That permission is documented in a written agreement called an easement, and it is obtained though purchase, license, or by agreement with the landowner. In cases where the land is owned by the government – whether local, state or federal – similar arrangements for easements, licenses, or occupancy agreements are obtained.

A pipeline requires regular observation, integrity assessment and maintenance to maintain the safety of its operations. Part of that task is to ensure that the pipeline ROW is kept clear of trees, structures and other encroachments that might interfere with the safe operation of the pipeline and the pipeline company's access to the line.

One of the key facilitators of ROW inspection is ROW clearing. Good communications between the pipeline operator and the public are important in minimizing any issues between the public and the pipeline operator, especially during initial clearing activities.

ROW clearing is performed for a variety of reasons with the paramount reason being safety. ROW clearing enables:

- Aerial surveillance – Patrols are completed to detect potentially harmful excavation activities along the pipeline ROW and visually assure no releases have occurred.
- Damage prevention – A clear ROW provides a visual corridor so the pipeline can be protected from unauthorized excavation and development.
- Routine maintenance access – Clear access to the pipeline is critical to completing required maintenance in a safe, efficient and effective manner.
- Emergency response access – Clear access to the pipeline allows for a prompt response in the event of an emergency.
- Corrosion protection – Tree roots can wrap around a pipeline, damaging the protective coating of the pipeline, compromising efforts to avoid pipeline corrosion.

The pipeline company and the landowner granting the pipeline easement are not the only ones who have access to the pipeline ROW. Third parties doing business along the ROW are also vital partners in protecting the environment by keeping pipelines safe and free of accidents. The cooperation of everyone involved in property development – including, but not limited to, real estate brokers, agents, developers, engineers, architects, general contractors and their subcontractors, and local elected officials and government staff – is essential. Construction work done anywhere near a pipeline, even in a homeowner's backyard, can affect the integrity and safety of underground pipelines.

The pipeline industry hopes that these guidelines will help both pipeline operators and people working and living along pipeline rights of way to better understand their respective responsibilities for maintaining the safety of this vital, but invisible, transportation system.

Please note that pipeline operators' specific guidelines should be followed as they may differ from these guidelines.

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There are multitudes of underground facilities, some transporting volatile liquids or natural gas under high pressure. Many pipelines were placed in the ground years ago. Over time, what was once pastureland may now be someone's backyard, a residential development or a new business. With advance planning and shared information, future economic development can be done safely and in the most cost-effective manner for the developer and the pipeline company.

Most damage to pipelines is avoidable through better advance planning and using the **ONE CALL SYSTEM,** which can be accessed by calling **811**, or by access through the **CALL811.com** website. The One Call System is a free public service established by state agencies, non-profit entities and public utilities to provide underground utility locating and marking for those who plan to dig or excavate in the vicinity of a utility.

Always use the One Call System in your state before undertaking a project that includes excavation or digging underground. Never assume that you know the location of pipelines. The permanent aboveground markers along the pipeline route are not exact indicators of the pipeline location – pipelines have bends and can change direction with no aboveground indication; the depths of the pipeline may vary substantially within even short distances; and more than one line or utility may exist within a single right-of-way.

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GUIDELINES

FOR CROSSING PIPELINES, GAS TRANSMISSION LINES, MAINS AND SERVICE CONNECTIONS ON OR NEAR PIPELINES, FACILITIES AND RIGHTS OF WAY

COMMON GUIDELINES

"Foreign pipeline" means any hazardous liquid pipeline, gas transmission line, main, service connection, and utility pipe such as water line, sewer line or any other pipeline installed within the right-of-way (ROW) of an existing hazardous liquid pipeline.

A foreign pipeline crossing should cross perpendicular, or as close as possible to 90 degrees to the existing pipeline and its designated ROW.

A foreign pipeline should not run parallel or nearly parallel to an existing pipeline within the boundaries of the ROW for the existing pipeline, or within 25 feet of the existing pipeline without specific written approval from the company operating the existing pipeline. The placement of the foreign pipeline should also be consistent with the existing easement agreement.

A foreign pipeline should cross underneath an existing pipeline with a minimum clearance of 24 inches. This elevation should be maintained across the entire width of the ROW for the existing pipeline. Clearance of at least 24 inches should also be maintained between the existing pipeline and any other buried structure.

If the existing pipeline is unusually deep at the crossing location, the operator of the existing pipeline may consider allowing the foreign pipeline to cross over the existing pipeline as long as the facility is protected in some other manner acceptable to the operator of the existing pipeline.

Pipeline markers or identifying markers should be located to indicate the route of the foreign pipeline across the ROW of an existing pipeline. Such markers should adhere to regulatory standards and API Recommended Practice 1109, *Line Markers and Signage for Hazardous Liquid Pipelines and Facilities.*

METALLIC PIPELINES

Foreign pipelines, other than utility lines, should install cathodic protection bonds and potential leads at all crossings and terminate them at aboveground locations. The operator of the existing pipeline will install all test leads on the existing pipeline.

The foreign pipeline should be coated with a suitable pipe coating for a distance of at least 50 feet on either side of the crossing.

A warning tape, or warning mesh, should be used to indicate the location of a foreign pipeline for a distance of 25 feet on either side of the existing pipeline.

NONMETALLIC PIPELINES

A tracer wire for a nonmetallic foreign pipeline should be installed to assist in locating it in addition to the above-mentioned warning tape.

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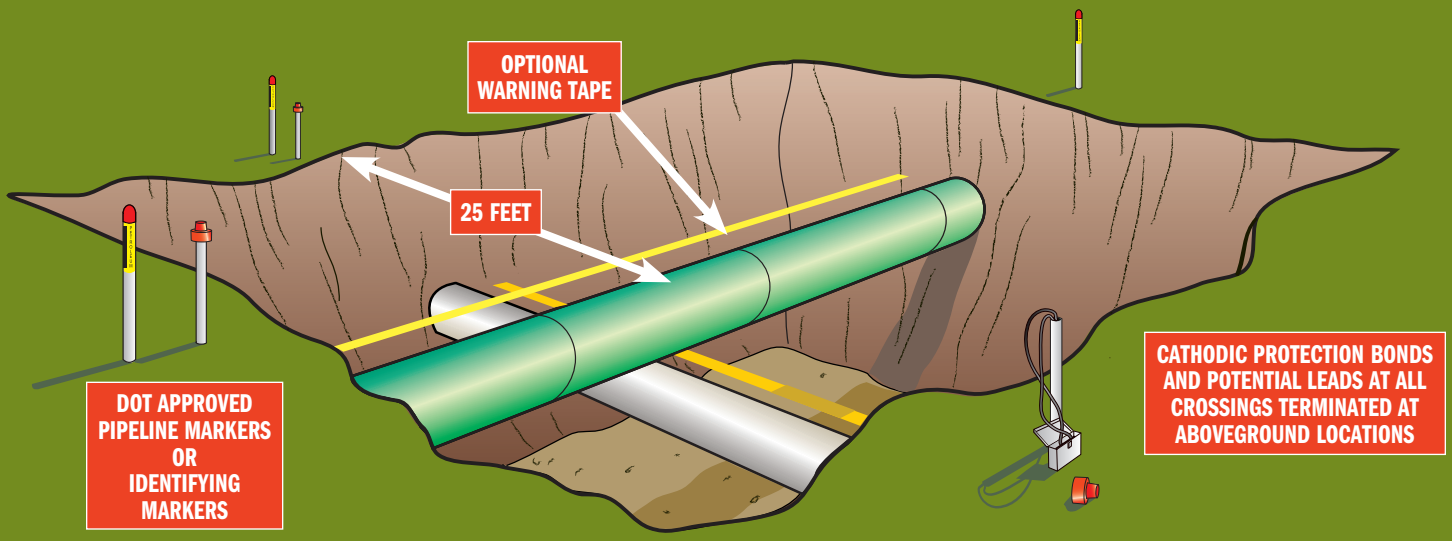

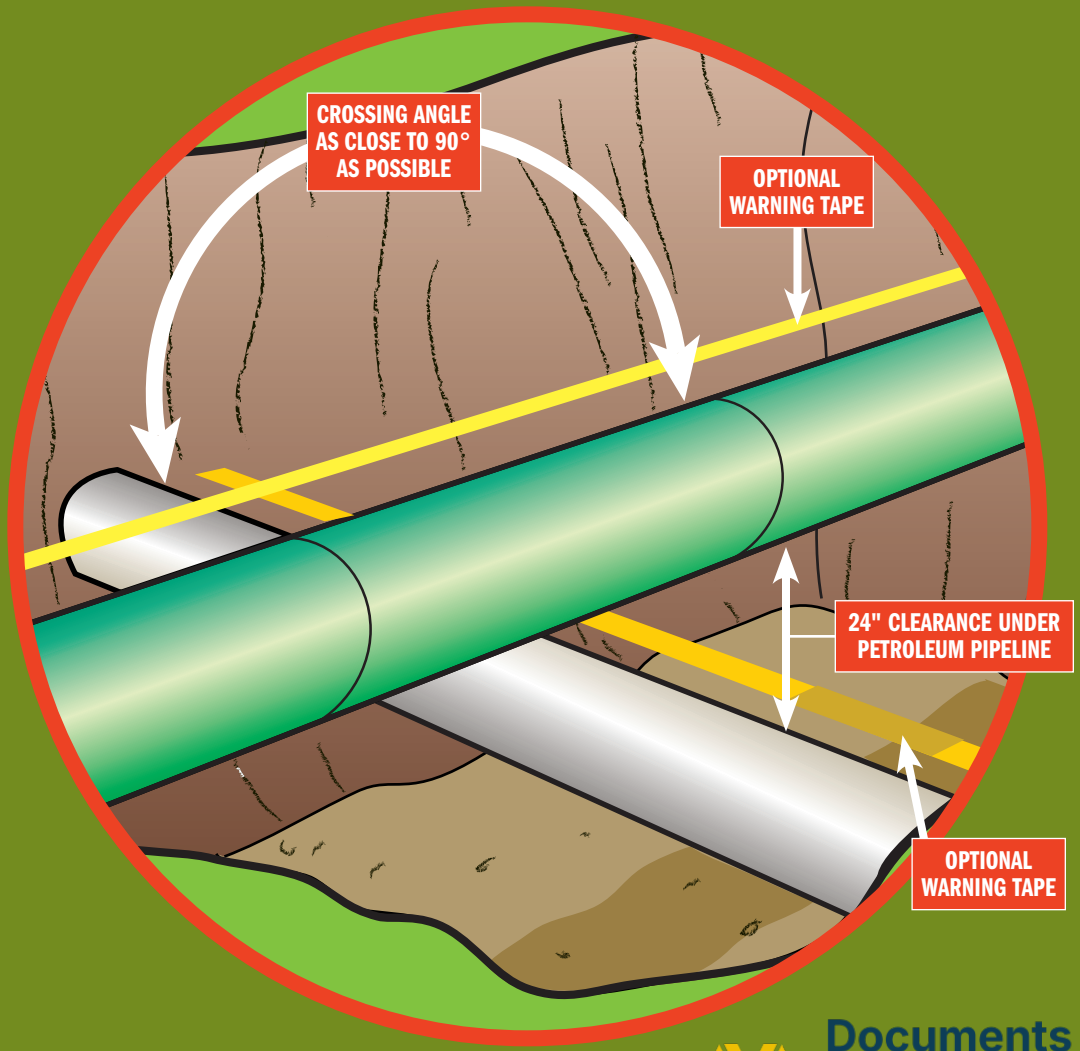

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GUIDELINES

FOR AGRICULTURE: FIELD TILE DITCHING AND DEEP PLOWING ON OR NEAR PIPELINES, FACILITIES, AND RIGHTS OF WAY

FIELD TILE GUIDELINES

This Guideline is intended to guide the field tile installer and the pipeline operator's representative on the safe installation of agricultural drainage tile around a pipeline system.

1. The project should be planned in advance. A representative of the pipeline operator or utility will help prevent dangerous and costly accidents and help avoid surprises during the work. The project plan should be followed. Many states establish required time frames for advance planning. Ample time is required to review the design and verify pipeline depths and operational requirements. Prior to the installation of any field tile within the pipeline right-of-way (ROW), the installer should communicate and plan the project with the pipeline operator. The pipeline operator should coordinate the safe installation within their ROW.

2. When working within 50 feet of the pipeline, the pipeline operator's representative should monitor the activity. This practice will provide adequate time and distance to maintain a safe operation.

3. The pipeline should be located and a depth analysis or pipeline depth profile performed by a representative of the pipeline operator. The pipeline should be marked in accordance with the APWA Uniform Color Code. Yellow flags should be placed at sufficient intervals, following company guidelines, to mark the pipeline. The pipeline operator's representative should prepare a Depth Survey Report, which should include photographs showing the yellow flags.

4. It is recommended that long runs of parallel tile and pipeline should be spaced 25 feet from the existing pipeline. If a closer distance is necessary, the pipeline operator should be contacted for prior approval.

5. The pipeline should be crossed carefully, and only when the pipeline operator's representative is on site and able to observe the work. The crossing should be as near to perpendicular (ninety [90] degrees) as possible and clear the pipeline by a minimum of 24 inches.

6. Where the field tile crosses the pipeline, it is recommended that solid tile be used and that pea gravel be used to prevent settling. The pipeline operator should conduct a field inspection of this work verifying pipeline depths and installation clearances.

7. Plastic pipe is preferred when crossing the pipeline.

DEEP PLOWING

"Deep Plowing" is defined as the ripping or other cultivation method where the ground is disturbed at a depth of 16 inches or more.

Prior to any Deep Plowing, the pipeline operator should be notified well in advance. The pipeline should be located and a depth analysis or pipeline depth profile performed by a representative of the pipeline operator. Yellow flags should be placed to mark the pipeline. These flags should be placed at sufficient intervals, following company guidelines.

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The pipeline operator's representative should prepare a Depth Survey Report, which should include photographs showing the yellow flags.

When working within 50 feet either side of the pipeline, the pipeline operator's representative should monitor the activity verifying pipeline depths and installation clearances.

Due to erosion and the removal of earthen cover in some areas, the existing depth of the pipeline may not support Deep Plowing. The pipeline operator should not allow Deep Plowing in areas where the integrity of the pipeline may be compromised.

OTHER LAND CONTOUR MODIFICATIONS

Projects near the pipeline that involve altering the land contour, including the installation of ponds, lakes and drainage ditches, require expert engineering in planning and implementation to ensure pipeline integrity. A plan should be developed and provided to the pipeline operator well in advance and take into consideration the integrity and safety of the pipeline system. There may be a conflict between the current location of the pipeline and the needs of the land modification project. The project planning process may indicate the need to relocate the pipeline or alter the land modification project. When planning the project, please call the pipeline operator. The operator should assign a pipeline expert to help with the planning process and advise on matters of pipeline safety. Ample time is required to review the design and verify pipeline depths and operational requirements.

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