
**PIPELINE PATROLS/LEAK
INSPECTION**

ENGINEERING PROCEDURE

1.0 Purpose :

To provide a consistent procedure for the purpose of patrolling the “Right-of-Way” area of all DOT regulated pipelines originating in the units to points of destination for possible leaks or hazardous conditions. Secondly, to provide for identification of these pipelines to the public.

2.0 Scope :

This procedure covers the identification for both gas and liquid DOT regulated pipelines and a mechanism of “Patrolling” pipelines for inspection purposes.

3.0 References :

DOT Regulations 49 CFR (192.613, 192.705, 192.707, 195.410, 195.412)

4.0 Definitions :

Pipeline - All parts of those physical facilities through which gas or hazardous liquids (HVL) is moved in transportation, including pipes, valves, and other appurtenances attached to pipe, compressor units, meter stations, regulator stations, holders and fabricated assemblies.

Ethylene Terminal Manager - shall be responsible for patrolling the Ethylene Dome lines that ENGINEERING SERVICES, LP owns or operates and provide copies of the Patrol Reports to the DOT Coordinator.

Unit Manager - For the purpose of this procedure, the Unit Manager shall refer to the individual/s responsible for the activities of the operating unit from which the DOT pipeline originated.

Approved: _____ **Signature on File** **Date:** _____
Manager Safety, Health, and Environmental

Approved: _____ **Signature on File** **Date:** _____
Environmental Manager

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Point of Destination - The ENGINEERING SERVICES, LP Ethylene Terminal/Unit Manager or designee shall walk the pipeline from the point of origination, the source of pressure or *pressure limiting device*, to the point where the pipeline terminates.

5.0 Responsibilities :

It shall be the responsibility of all ENGINEERING SERVICES, LP employees who have been trained in this procedure to recognize and adhere to the provisions set forth in this procedure.

5.1 Dot Coordinator - shall maintain records of pipeline patrols and review/audit the records annually.

5.2 Ethylene Terminal/Unit Managers - Ethylene Terminal/Unit Manager or designee shall have the responsibility for patrolling/walking the lines ensuring their operating units (point of origin) to the destination point is patrolled and provide the patrol report to the DOT Coordinator on a timely basis.

6.0 Procedure :**6.1 Gas Pipelines:**

6.1.1 The Ethylene Terminal/Unit Manager or designee shall patrol/walk the Right-of-Ways and observe for the following conditions:

6.1.1.1 Leaks - Using a %LEL (lower explosion limit) or other instrumentation that is capable of detecting releases for ethylene, vinyl chloride monomer (VCM), and hydrogen. Visually look for discoloration of vegetation, ice balls, etc.

6.1.1.2 Construction activity

6.1.1.3 Any other activity that could affect a safe operation.

6.1.1.4 Highway/railway markings

6.1.1.5 Class location changes

6.1.2 Patrols shall be conducted a minimum of one each quarter of the year (every three months, four (4) times per year), not to exceed 4 1/2 months between patrols.

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6.1.3 Leak surveys shall be conducted using a %LEL (Lower explosion limit) or other instrumentation that is capable of detecting releases.

6.1.3.1 This leak survey shall be conducted at a minimum of twice per year not to exceed 71/2 months between inspections.

6.1.3.2 The survey is to be conducted by the Ethylene Terminal/Unit Manager or a trained designee.

6.1.4 The inspection shall include:

6.1.4.1 Pipeline markers are present at each crossing of public roads and railroads. Below are the appropriate pipeline markers.

6.1.4.2 Pipeline markers are present at locations where deemed necessary to identify locations of transmission lines to reduce the possibility of damage.

WARNING
ETHYLENE
PIPELINE

WARNING
GAS
PIPELINES

6.1.5 The inspection shall be recorded on the "Patrolling of Liquid and Gas Pipelines" report form. (See attachment A)

6.1.6 The original shall be maintained on file by the DOT Coordinator with copies maintained at the unit control rooms or the Ethylene Storage Terminal.

6.2 Liquid Pipelines :

6.2.1 Leak Detection Inspection/Right-of-Way patrols shall be conducted every other week, minimum of 26 inspections per year not to exceed three weeks between inspections.

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- 6.2.2 The inspection shall be scheduled/conducted by the Unit Manager or designee of the unit the line originates.
- 6.2.3 Inspections shall be recorded on the “Patrolling of Liquid and Gas Pipelines” report form. (See attachment A)
- 6.2.4 The original shall be maintained on file by the DOT Coordinator with copies maintained at the unit control rooms or the Ethylene Storage Terminal.
- 6.2.5 The inspection shall include:
- 6.2.5.1 Pipeline markers are located at public roads and railways. Below is the appropriate pipeline marker.
 - 6.2.5.2 Pipeline markers are present at locations where deemed necessary to identify locations of transmission lines to reduce the possibility of damage.
 - 6.2.5.3 Construction activity
 - 6.2.5.4 Any other activity that could affect a safe operation.
 - 6.2.5.5 Class location changes
 - 6.2.5.6 The sign shall be blue with 1” white lettering and shall read:



WARNING
PETROLEUM
PIPELINES