

OPERATION AND MAINTENANCE

Reference: [192.705, 192.721, KAR 82-11-4-\(cc\) \(a\) \(b\), 2020 PIPES Act Section 114](#)

OSHA Link: N/A

Chapter 10: Pipeline Patrolling

10) PIPELINE PATROLLING

I. Purpose / Code Requirements

10.1.1 Purpose

This section sets forth the standards, procedures, and reports for conducting pipeline patrols over certain distribution and transmission lines. These patrols are intended to be observational only, and leak detection instruments may not be required. Leak surveys may be conducted, as appropriate, in conjunction with these patrols to facilitate efficient operations. The pipeline patrol inspection will be documented on the appropriate form.

10.1.2 Pipeline Patrolling

Atmos Energy patrols transmission pipelines and selected distribution mains to, among other things, observe surface conditions that could potentially affect safety and/or operations.

- A. For transmission pipelines, as practical and as accessible, patrol on and adjacent to the facility right-of-way and associated aboveground facilities, including measuring/city gate stations, mainline block valves, launchers/receivers, farm taps, etc., to observe for –
- 1) Construction activities/signs of excavation
 - 2) Proper signage
 - 3) Line markers visible
 - 4) Depth of cover changes
 - 5) Exposure or movement of pipeline facilities
 - Critical locations of possible exposure or movement of pipeline facilities should be identified on the appropriate documentation.
 - 6) Changes in topography or soil movement that may have an effect on pipeline facilities
 - Changes in topography are evaluated on a case-by-case basis taking into consideration, for example, constructed features such as highways and railroads. Pipeline facilities affected by topography changes should be identified in the pre-construction phase of the project. Other topography changes potentially affecting pipeline facilities should be noted during appropriate, periodic surveys and patrols.
 - 7) Indications of leaks or potential leaks on transmission pipelines, rights of way, and aboveground facilities.

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- 8) When observing for indications of leaks, employees should use all of their senses (sight, smell, and hearing) as appropriate. Leaks or potential leaks discovered will be promptly eliminated or referred to appropriate Company personnel.
 - 9) Encroachments
 - Indications of unmonitored encroachments should be referred to a supervisor for appropriate action.
 - 10) Population density changes
 - Indication of changes in population density should be referred to a supervisor for appropriate action.
 - 11) Potential for and/or evidence of tampering, vandalism, or damage
 - 12) Whether additional maintenance is called for
 - 13) Other circumstances that could potentially affect safety and/or operations
- B. For selected distribution mains, as practical and as accessible, patrol along the route of the main and associated aboveground facilities, including district regulator stations, aboveground valves, service lines, meters, etc., to observe for –
- 1) Conditions and/or circumstances that could potentially affect safety and/or operations, such as conditions which could contribute to natural gas leakage.
 - 2) Indications of leaks on distribution mains including aboveground facilities. When observing for indications of leaks, employees should use all of their senses (i.e., smell and hearing in addition to vision).
 - 3) Potential for and/or evidence of soil or water accumulation in vaults or pits.
- C. For locations of inaccessibility (for example, swamp areas and large river crossings), conduct the patrol as practical and document the locations of inaccessibility.

10.1.3 Pipeline Patrolling Documentation

Documentation of items observed during a pipeline patrol may include:

- Proper signage
- Line markers visible
- Signs of excavation
- Depth of cover changes
- Encroachments

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- Population density changes
- Whether additional maintenance may be called for
- Whether information changes are needed
- Indications of leaks or potential leaks
- Changes in topography or soil movement

10.1.4 Pipeline Patrolling and Other Associated Records

The Company utilizes electronic programs to record and maintain records of required inspections to assist Company personnel in identifying any deficiencies and complying with regulatory requirements. These recordkeeping programs are capable of creating reports listing, for example, the frequencies and locations of failures, leak histories, corrosion, and changes in cathodic protection.

If a condition to be addressed is determined and identified, it is the responsibility of the appropriate Company department (Engineering, Operations, and/or Compliance) to initiate the appropriate and/or necessary action criteria as may be needed.

10.1.5 Code Requirements

Transmission Line Patrolling

- A. The frequency of patrols is determined by the size of the line, operating pressures, class location, terrain, weather conditions and other relevant factors, but intervals between patrols may not be longer than set forth in the following table:

Class	Highway & R.R. Crossings	Other Places
1&2	Maximum 7 1/2 months but at least twice each calendar year.	Maximum 15 months but at least once each calendar year.
3	Maximum 4 1/2 months but at least four times each calendar year.	Maximum 7 1/2 months but at least twice each calendar year.
4	Maximum 4 1/2 months but at least four times each calendar year.	Maximum 4 1/2 months but at least four times each calendar year.

- B. Methods of patrolling include walking, driving, flying or other appropriate means of traversing the right-of way.

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- C. Under the Atmos Energy Transmission Integrity Management Plan additional patrols may be required. See the plan for frequency of patrols.
- D. For pipeline segments traversing area(s) identified as being prone to large earth movement, including but not limited to slope instability, subsidence, frost heave, soil settlement, erosion, earthquakes, and other dynamic geological conditions, increased patrols may be necessary due to potential hazards identified and existing/pending weather conditions.

Distribution Lines Patrolling

- A. Frequency of patrolling is determined by the conditions and/or circumstances that could potentially affect safety and/or operations, such as conditions which could contribute to natural gas leakage.
- B. Mains in places or on structures where anticipated physical movement or external loading could cause failure or leakage must be patrolled. Examples may include, but are not limited to – highways, railroads, bridges, canals, rivers, wetlands, exposed mains, etc.

Location	Frequency
Inside Business District	4 ½ Months, But At Least 4 Times Each Calendar Year.
Outside Business District	7 ½ Months, But At Least Twice Each Calendar Year.