

**CES/GS STANDARD**

CES STANDARD: C-T&CS-S0352

GS STD. PRACTICE: 460.2-1

ISSUING DEPARTMENT: T&CS, DISTRIBUTION

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CES OFFICER: V.P. T&CS

EFFECTIVE DATE: 08-95

GS OFFICER: V.P. Gas Services & Operations

REVIEW DATE: 01-00

**TITLE:** Patrolling Pipelines and Mains

**Purpose:**

To establish a uniform procedure for patrolling company facilities for the purpose of observing conditions on and adjacent to the right-of-way or route that could be expected to affect the operation and safety of company facilities.

**Responsibility:**

Responsibility for patrolling company facilities shall rest with the line organization manager/superintendent who directs the maintenance and operation of those facilities. Performance includes determining specific scope and any special considerations, assigning patrolling frequency, reviewing and maintaining patrol records, and initiating action to correct conditions found during patrols.

**Definition of Terms:**

**Class location:** The density of buildings as defined in General Order 112, paragraph 192.5.

**Distribution Line:** A pipeline that serves as a common source of supply for more than two service lines.

**Gathering Line:** A pipeline that transports gas from a current production facility to a transmission line or main. This term shall include collection lines taking gas from wells.

**Transmission Line:** All lines operating over 60 psig. This term shall include gas underground storage field injection and withdrawal lines and lines that transport gas within a storage field.

**Facilities to be Patrolled:**

1. All gathering lines.
2. All transmission lines operating at or over 20% SMYS.
3. Any distribution, transmission, or gathering lines in places or on structures where anticipated physical movement or external loading could cause leakage or failure.
4. Locations requiring special attention including pipelines at highway or railroad crossings, on bridges, expansion joints in pipelines, or in areas subject to atmospheric corrosion, or to any other condition where routine patrols may be inadequate.

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**TITLE: Patrolling Pipelines and Mains****Points to Observe and Report:**

- 1 Landslides or threatened slides
- 2 Erosion by streams, wave action, rain, etc
- 3 Land subsidence
- 4 Construction or maintenance work being performed by others
- 5 Encroachments on the right-of-way by buildings or structures or construction of levees, roads, wells, etc , for which no prior permission has been granted by the company
- 6 Evidence of gas leakage
- 7 Needed repairs to company-owned facilities including fences, pipeline markers, exposed crossings, etc
- 8 Needed repairs to highway structures and other facilities not owned by the company where public safety is a factor
- 9 Presence of survey parties or other indications of possible future work that might jeopardize company facilities or cause a change in its class location
- 10 Any other factors affecting the operation or safety of the pipeline or main or other company facilities such as slope erosion, blocked culverts, casing vents, and access road washouts
- 11 Evidence of atmospheric corrosion Atmospheric corrosion areas are designated in Electric Construction Document 032911
- 12 Access roads occasionally used by others or in areas visible to the general public that may be impassible
- 13 Any activity which could create an unsightly condition in aesthetically sensitive areas
- 14 Signs of severe seismic displacement (fault zones)

**Patrolling Methods:**

- 1 All patrols may be made on the ground or by aerial observation Aerial patrols shall be supplemented by ground patrols whenever any of the conditions listed above cannot adequately be observed by aerial patrol and as required by paragraph 4 below
- 2 Ground patrols may be performed in conjunction with other work as long as the necessary functions of patrolling, including reports, are accomplished
- 3 Aerial patrols shall be coordinated with Gas Services and Operations
- 4 Highway and railroad crossings must be carefully monitored for leak indications Aerial patrols shall be supplemented by ground patrols Vents shall be checked using a leak detector

**TITLE: Patrolling Pipelines and Mains****Frequency of Patrolling:**

- 1 The required frequency of patrolling for transmission lines operating at or over 20% SMYS and gathering lines is as follows

<u>Location Description</u>	<u>Highway and Railroad Crossings</u>	<u>All Other Locations</u>
Class 1 and Class 2	Semiannually	Annually
Class 3	Quarterly	Semiannually
Class 4	Quarterly	Quarterly

- 2 Distribution, transmission, and gathering lines in places or on structures where anticipated physical movement or external loading could cause failure or leakage must be patrolled at intervals not exceeding three months
- 3 Patrol frequency of distribution mains other than required by paragraph #2 above must be determined by the severity of the conditions which could cause failure or leakage and the consequent hazards to public safety
- 4 More frequent patrols may be scheduled by the operating department as local conditions warrant
- 5 Facilities shall be patrolled as circumstances deem prudent or necessary during or after heavy rainstorms or extended rainfall, earthquakes, and other natural disasters in those areas where damage is likely to occur

**Periodic Reviews:**

- 1 The roster of lines to be patrolled shall be reviewed annually.
- 2 Patrol methods for each section of line shall be reviewed annually

**Reports:**

- 1 All patrols shall be documented The report shall be completed so that it indicates the date and area patrolled, conditions requiring correction, and any work done in conjunction with the patrol In addition, the report shall record either the corrective action taken, or a reference to other documents recording the corrective action Each report shall be signed or initialed by the patroller and by the reviewing supervisor Form 62-4648 is available for ground patrols and supplementary investigations to aerial patrols Form 11-038 is available for aerial patrols
- 2 Ground and aerial patrol reports for transmission and gathering facilities shall be kept for the life of the facility Patrol reports for distribution facilities shall be kept for a minimum of three years
- 3 Any conditions found during the patrol, which require immediate attention and cannot be corrected by the patrol, shall be reported to the responsible supervisor as soon as possible
- 4 Evidence of construction activity or other signs of possible encroachments on rights-of-way shall be immediately reported to the operating department head who will in turn report it to the Land Department

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- 5 A roster of facilities patrolled and those locations requiring special attention shall be maintained and updated as changes occur
- 6 Documentation for periodic reviews shall include the date of the review, the name of the reviewer, and indicate the material reviewed

**Date Issued/Updated:**Effective Date **August 1, 1995**Review Date **January 1, 2000**

Signed,

Signed,



William R. Mazotti  
Vice President, GS&O

  
 Vice President, T&CS
**Distribution:**

CES Vice Presidents  
 Gas Services and Operations Managers  
 Gas Services and Operations Superintendents  
 Technical and Construction Services Managers  
 Division Managers  
 Division Capital Investment Directors  
 Division Construction, Maintenance and Operations Directors

**Reference Documents:**

CES Standard C-T&CS-S0350/GS S P 460 21-4, "Periodic Leakage Surveys of Gas Transmission and Distribution Facilities"  
 CES Standard C-T&CS-S0353/GS S P 460 2-2, "Physical Inspection of Pipelines, Mains and Services"  
 S P 460-1, "Location Class Changes Pipelines and Mains"  
 S P 463-5, "Location of Pipeline Markers"  
 CPUC General Order 112D  
 Gas Construction Document 089819 (O-16), "Corrosion Control of Gas Facilities"  
 Electric Construction Document 032911, "Corrosion Areas-Overhead Lines"

**For Further Information:**

For additional information or copies of this standard please contact the Distribution Department