



***UO Standard D-S0353
CGT Standard S4112***

ISSUING DEPARTMENT: **Gas Distribution**
UO SPONSOR: **VP - E&P**
CGT SPONSOR: **VP - CGT**

EFFECTIVE DATE: **5-00**
REVIEW DATE: **5-05**
PAGE NO.: **1** OF **3**

TITLE: Physical Inspection of Pipelines, Mains and Services

Purpose

To facilitate compliance with 49 CFR 192.459 by:

- providing procedures to document the required physical inspections of gas facilities, and
- providing the applicable procedures for correcting abnormal conditions found.

Implementation Responsibilities

Responsibility for physical inspection of gas facilities shall rest with the line organization manager/superintendent who directs the maintenance and operation of the facilities. Responsibility includes determining scope, issuing special instructions, training in points to observe, scheduling inspections, initiating special inspections, reviewing and maintaining inspection records and correcting conditions requiring attention.

Inspecting these gas facilities and preparing the necessary inspection records shall be the responsibility of the UO Operations, Maintenance and Construction (OM&C) and/or the CGT Gas System Maintenance and Technical Support department supervisors in the performance of assigned work within the PG&E gas system. Copies of all inspection reports generated by implementing this standard shall be forwarded to the facility owner or filed as directed by the facility owner.

The vice president of Engineering and Planning (E&P) authorizes the manager of Gas Distribution (GD) to update and reissue the procedures attached to this standard.

Compliance

Implementation and effectiveness shall be measured by responsible managers and supervisors. In addition, periodic audits can be conducted by internal company departments. The CPUC also conducts compliance reviews on the requirements of this standard. Physical pipe inspection reports indicating the need for corrective actions will be reviewed and acted upon by responsible supervisors.



Contacts For additional information, please contact the Gas Engineering and Planning section of the Gas Distribution Department (223-8180 or PT&T 415-973-8180) or the Gas System Maintenance and Technical Support Department (583-4312 or PT&T 925-974-4312).

Copies of this standard are available on the DCS Intranet at URL:
<http://www/DCSStandards>

Procedure See Detailed Procedures starting on Page 1 of the attachment.

Definition of Terms **Plastic Piping:** Consists of piping made from Aldyl-A, TR418, or polyethylene plastic materials.

Metallic Piping: Consists of piping made of steel, copper, cast iron, or wrought iron metallic materials.

Regulatory Reference:

“§ 192.459 External corrosion control: Examination of buried pipeline when exposed.

Whenever an operator has knowledge that any portion of a buried pipeline is exposed, the exposed portion must be examined for evidence of external corrosion if the pipe is bare, or if the coating is deteriorated. If external corrosion requiring remedial action under §§ 192.483 through 192.489 is found, the operator shall investigate circumferentially and longitudinally beyond the exposed portion (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the exposed portion.”



Date Issued/Updated

Effective: **May 2000**

Review Date: **May 2005**

Signed,

Signed,

Shan Bhattacharya
Vice President
Engineering & Planning

Michael A. Katz
Vice President
California Gas Transmission

Reference Documents

- 49 CFR 192.459, "External Corrosion Control: Examination of buried pipeline when exposed"
- 49 CFR 192.483, "Remedial Actions: General"
- 49 CFR 192.485, "Remedial Actions: Transmission lines"
- 49 CFR 192.487, "Remedial Actions: Distribution lines other than cast iron or ductile"
- 49 CFR 192.489, "Remedial Actions: Distribution lines cast iron and ductile iron pipelines"
- USP 22, "Safety and Health Program"
- Code of Safe Practices, "Basic Safety Requirements," Sections 1, 2, 3, 13 and 15
- UO Standard D-S0205, "Replacement of Deteriorated or Damaged Facilities"
- UO/CGT Standard D-S0350/S4110, "Leak Survey and Repair of Gas Transmission and Distribution Facilities"
- UO/CGT Standard D-S0352/S4111, "Patrolling Pipelines and Mains"
- UO Standard, D-S0333, "Material Problem Reporting"
- Gas Construction Document 089819 (O-16), "Corrosion Control of Gas Facilities"
- Electric Construction Document 032911, "Corrosion Areas Overhead Lines"

UO Standard

April 17, 2000

Attachment - Detailed Procedures**I. Applicable Facilities**

- A. All exposed piping, including but not limited to: pipe supports, expansion devices, hangers, expansion devices at compressor stations, terminal stations, other major control or regulation stations, on bridges, wharves and aerial pipe crossings.
- B. Aboveground piping located in the atmospheric corrosion areas identified in Electric Construction Document 032911, as specified by Gas Standard O-16.
- C. Buried piping when exposed during routine or emergency work.

II. Frequency of Inspections, Procedures, Required Follow-up Actions and Documentation:

In DCS, procedures for taking follow-up actions and completing documentation shall be in agreement with the requirements of DCS Standard D-S0205, "Replacement of Deteriorated or Damaged Facilities."

A. Exposed Piping (Any Location)

For exposed piping listed in Paragraph 1.A. above in the Applicable Facilities Section, UO/CGT Standard D-S0352/S4111, "Patrolling Pipelines and Mains," contains the physical inspection requirements for:

- 1. physical inspection frequency;
- 2. procedures;
- 3. required follow-up actions; and
- 4. documentation.

B. Aboveground Piping In Atmospheric Corrosion Areas

For exposed, aboveground piping listed in Paragraph I.B. above in the Applicable Facilities Section, Gas Standard O-16 contains the physical inspection requirements for:

- 1. physical inspection frequency;
- 2. procedures;
- 3. required follow-up actions; and
- 4. documentation.

C. Buried Gas Facilities

For buried gas facilities listed in Paragraph I.C. above in the Applicable Facilities Section, this standard contains the physical inspection requirements.

1. Frequency

Physical inspections on buried gas facilities shall be performed when the buried gas facilities are exposed.

2. Procedures

The exposed portion of any buried metallic piping must be examined for external corrosion, if it is bare or if the coating is deteriorated. If external corrosion requiring remedial action is found, investigate circumferentially and longitudinally beyond the exposed portion to determine whether additional corrosion requiring remedial action exists in the vicinity of the exposed portion.

3. Follow-up Actions

Any conditions found during the inspection that require immediate attention shall be reported immediately to the responsible supervisor, who will develop an action plan to address the condition promptly.

4. Documentation

The "Leak Survey, Repair, Inspection, and Gas Quarterly Incident Report," Form 62-4060, shall be used for all buried gas distribution and transmission facilities. Detailed instructions for filling out this form are located in UO/CGT Standard D-S0350/S4110, "Leak Survey and Repair of Gas Transmission and Distribution Facilities." Each physical inspection associated with a leak repair shall be turned into the operating headquarters and entered into the physical inspection recording computer system within 10 working days of the date of the physical inspection.

5. Exceptions

It is not necessary to document the physical inspection of buried plastic stub gas services in good condition on the above referenced report form when they are uncovered for the purpose of installing stub completions. The Material Problem Reporting System should be used to report plastic stub service material problems, according to procedures listed in UO Standard, D-S0333, "Material Problem Reporting."



III. Internal Inspections

Internal inspections shall be documented in a format compatible with the method of inspection, such as using the form, "Leak Survey, Repair, Inspection, and Gas Quarterly Incident Report," Form 62-4060.

IV. Facility Design Confirmation

A gas transmission pipeline may be uncovered that is operating at, or is designed to operate at, a stress level at or above 20% of the specified minimum yield strength of the pipe material. If the original design data can only be assumed because of incomplete records, then the Gas System Maintenance and Technical Support Department shall be informed in advance of the proposed work in order to determine the unknown data.