



**Pacific Gas and
Electric Company**

Gas Transmission & Distribution Information Bulletin

**Title: Gas Numbered Document O-16, Clarification of
Requirements for Overprotection of Cathodically Protected
Gas Pipelines**

Check all appropriate boxes

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| <input type="checkbox"/> SAFETY ALERT | <input checked="" type="checkbox"/> GAS | <input checked="" type="checkbox"/> DISTRIBUTION | <input type="checkbox"/> SUBSTATION ENGR. |
| <input type="checkbox"/> MANDATORY COMPLIANCE | <input type="checkbox"/> ELECTRIC | <input checked="" type="checkbox"/> TRANSMISSION | <input type="checkbox"/> TRANS./SUB. M&C |
| <input type="checkbox"/> RECOMMENDED ACTIONS | <input type="checkbox"/> ESTIMATING | <input type="checkbox"/> OPERATIONS | <input type="checkbox"/> APPLICANT DESIGNER / |
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Purpose

This bulletin clarifies the requirements of Gas Numbered Document O-16 regarding the "Overprotection" of cathodically protected gas pipelines.

This bulletin affects Gas Numbered document O-16, General Information Note 3; Cathodic Protection Maintenance and Operation, Subpart A; Cathodic Protection Criteria, Item (3); Overprotection.

Communication Plan

The information contained in this bulletin will be included in Gas Numbered Document O-16, along with other revisions to be published in 2010.

Division Gas T&R Supervisors and District Gas Maintenance Supervisors will provide training regarding the contents of this bulletin to all employees who perform cathodic protection maintenance work for gas distribution and gas transmission pipelines.

Impacted classifications include corrosion mechanics, gas control technicians, transmission mechanics and operator mechanics.

An e-mail will be sent to all Division Gas T&R Supervisors and District Gas Maintenance Supervisors to communicate this bulletin.

Policy on Overprotection of Cathodically Protected Gas Pipelines

In order to minimize the possibility that gas pipeline coatings will be damaged by the operation of cathodic protection systems, the pipe-to-soil potentials of gas distribution and transmission pipelines must be controlled. Except for the situations described in the 2 paragraphs below, the pipe-to-soil potential of cathodically protected pipelines with impressed cathodic protection current applied (rectifiers on) should not be more electronegative than -1600 Mv.

Short pieces of isolated gas distribution piping protected by galvanic anodes, referred to as Annual Systems and 10%ers in Gas Numbered Document O-16, may be maintained at pipe-to-soil potentials more electro-negative than -1600 Mv.

Policy on Overprotection of Cathodically Protected Gas Pipelines (continued)

The pipe-to-soil potential of a gas pipeline may be maintained at a pipe-to-soil potential more negative than -1600 mV, with impressed cathodic protection current applied (rectifier on), if an instant-off test is performed and the test demonstrates that the IR drop free pipe-to-soil potential of the pipeline is equal to, or more electro-positive than, -1200 Mv. An example of where this may be applicable is at a pipe-to-soil monitoring point near a rectifier.

When impressed cathodic protection current applied (rectifier on), and pipe-to-soil potentials more electro-negative than -1600 mV are discovered, employees should take appropriate steps to correct the condition within a reasonable amount of time. Normally, this will mean adjusting nearby rectifiers to reduce the rectifier on pipe-to-soil potentials to be more electro-positive than -1600 Mv. If it is suspected that excessively negative pipe-to-soil potentials are the result of interference from foreign cathodic protection systems, the Corrosion Engineering group must be contacted.

Approved by:

[Redacted]

Date: 5/6/10

Author:

[Redacted]

If you have any questions about this bulletin, please call the employee(s) listed below:

Contact(s):

LAN ID(s):

Phone(s):

[Redacted]