

Revising Setpoints of Overpressure Protection Devices

Summary

This procedure covers requirements for revising the setpoints of overpressure protection devices protecting gas transmission pipeline facilities.

These requirements apply to setpoints of all devices used in providing overpressure protection of gas transmission lines.

This procedure does not apply to overpressure protection of auxiliary systems (e.g., lube oil, air, and hydraulic systems, natural gas operated control systems, etc.), or to gas field collection relief valves that act as the primary automatic pressure control into a gathering/transmission line.

Level of Use: Information Use

Target Audience

Gas maintenance and construction (M&C) mechanics, gas transmission mechanics, and gas engineer.

Safety

Improper overpressure protection changes can lead to unsafe operation of a pipeline system, jeopardize employee and/or public safety, and destabilize system reliability.

Non-compliance with applicable federal and state regulations may subject PG&E to fines.

Perform all work in compliance with <u>Utility Standard Practice (USP) 22, "Safety and Health Program,"</u> and the <u>Code of Safe Practices</u>.

Before You Start

Employees must know the gas systems involved in the setpoint revisions, the gas system operations, and the federal codes governing maximum allowable operating pressures (MAOP) and overpressure protection (OPP) requirements.

Employee qualifications: Employees performing inspections or maintenance in accordance with this procedure must first receive proper training and qualification under the applicable operator qualification (OQ) tasks:

- 14-02.00 Inspect/Test Pressure Regulation and Limiting Devices.
- <u>16-01.00 Test/Maintain Relief Devices.</u>

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Procedure Steps

1 Revising Setpoints

- 1.1 Whenever an OPP device setpoint requires revision to a value higher or lower than that shown on Drawing No. 183018, "Overpressure Protection Device Maximum Settings," the superintendent, supervisor, or designee must submit Form TD-4125P-06-F01, "Request to Revise Setpoint on Overpressure Protection Device for Gas Transmission Lines," to the responsible gas engineer.
- 1.2 The responsible gas engineer must review the request and forward a recommendation to the appropriate manager for approval. The manager must evaluate and then either approve or disapprove the request.
- 1.3 Upon approval of the request form, the manager approving the form must forward the document to system integrity personnel for distribution. System integrity personnel must send copies of the completed forms to gas control, the appropriate gas engineering managers, and to the requester.
- 1.4 If approval is granted, the gas engineer must reference <u>Numbered Document H-70</u>, "Pressure Relief Devices," for additional actions.
- 1.5 A temporary change to the OPP setpoint due to maintenance or construction activities does not require Form TD-4125P-06-F01. However, each OPP device must be set to ensure that in the event of a pressure control failure, the pressure in a transmission system will not exceed the lower of the following pressures:
 - The maximum allowable operating pressure plus 10%.
 - The pressure that produces a hoop stress of 75% of specified minimum yield stress (SMYS) under any possible operating condition.
- 1.6 For temporary changes, use <u>Utility Procedure WP4100-10</u>, "Gas Clearance Procedures for Facilities Operating Over 60 PSIG."

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2 Annual Verification/Test

The setpoints of the OPP device must receive field verification and annual tests as required by Utility Procedure TD-4430P-02, "Gas Transmission Stations Inspection, Testing, and Maintenance Procedures."

3 Records

All completed forms requesting OPP device setpoint revision (<u>Form TD-4125P-06-F01</u>) must remain on file for the life of the facilities at the Walnut Creek Records Section. These forms must be kept in the appropriate station files.

END of Instructions

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Definitions

NA

Implementation Responsibilities

Transmission and distribution (T&D) engineering and gas M&C implement the requirements of this work procedure.

Governing Document

<u>Utility Standard TD-4125S, "Maximum Allowable Operating Pressure</u>
Requirements for Gas Distribution Systems and Transmission and Gathering

Lines."

Compliance Requirement/ Regulatory Commitment CFR Title 49, §192.195, "Protection Against Accidental Overpressuring."

CFR Title 49, § 192.199, "Requirements for Design of Pressure Relief and Limiting Devices."

CFR Title 49, § 192.201, "Required Capacity of Pressure Relieving and Limiting Stations."

Reference Documents

Developmental References:

Code of Safe Practices.

PG&E Drawing No. 183018, "Overpressure Protection Device Maximum Settings."

Numbered Document H-70, "Pressure Relief Devices."

<u>Utility Procedure TD-4430P-02, "Gas Transmission Stations Inspection, Testing, and Maintenance Procedures."</u>

<u>Utility Procedure WP4100-10. "Gas Clearance Procedures for Facilities Operating Over 60 PSIG."</u>

Utility Standard Practice (USP) 22, "Safety and Health Program."

Supplemental References:

CFR Title 49, § 192.195, "Protection Against Accidental Overpressuring."

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CFR Title 49, § 192.199, "Requirements for Design of Pressure Relief and Limiting Devices."

CFR Title 49, § 192.201, "Required Capacity of Pressure Relieving and Limiting Stations."

<u>Utility Standard TD-4125S, "Maximum Allowable Operating Pressure</u>
Requirements for Gas Distribution Systems and Transmission and Gathering Lines."

<u>Utility Procedure TD-4125P-07, "Establishing Setpoints on Overpressure Protection Devices."</u>

Utility Procedure WP4540P-01, "District Regulator Station Maintenance."

<u>Utility Procedure TD-4540P-04, "Pilot-Operated Regulator Station Maintenance (Outlet Pressures > 60 psig)."</u>

<u>Utility Standard S4431, "Operation and Maintenance Instructions Requirements for Major Gas Facilities."</u>

<u>Utility Standard S4433, "Gas Pressure Relief Devices - Responsibility for Annual Inspection and Verification of Capacity."</u>

Appendices

NA

Attachments

Attachment 1 Form TD-4125P-06-F01, "Request to Revise Setpoint on Overpressure Protection Device for Gas Transmission Lines."

Document Recision

Document supersedes Utility Standard S4125.1 Rev 1, "Setpoint, Overpressure Protection Devices" issued November 1998.

Approved By

Manager

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Revising Setpoints of Overpressure Protection Devices

Document Owners

Senior Gas Engineer

Document Contact

Senior Gas Engineer

Revision Notes

Where?	What Changed?
NA	This is a new document.

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