



ISSUING DEPARTMENT: **Gas Transmission and
Distribution Gas Engineering**

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TITLE: **Gas Transmission and Distribution Design Change Procedure**

Overview This work procedure (WP) establishes the process for initiating, approving, and documenting design changes for gas transmission facilities designed and engineered by gas engineering. This applies to deviations from approved construction drawings for facilities under construction and physical modifications to existing facilities made by maintenance employees.

Governing Document None.

Safety Perform all work in compliance with Pacific Gas and Electric Company's Code of Safe Practices and Utility Standard Practice (USP) 22, "Health and Safety Program."

Detailed Procedure

1. Design Change Procedure

- A. Maintenance and construction personnel must obtain approval from the responsible engineer (RE) before making any design change to gas facilities.
- B. The RE approves or denies a proposed design change. The RE assesses the design change in the following manner:
 1. If approved, the RE provides the appropriate documentation to execute and document the design change.
 2. If denied, the RE communicates reason for the denial and documents the denial via email.
- C. Manage supporting documentation for design changes in one of the following ways:
 1. Category 1
The RE can give verbal approval for a "minor" design change that does not require drawing mark-ups or revision, sketches, or material specifications to execute the design change. The RE issues a follow-up email to document the approval. Examples include the following:
 - Minor horizontal or vertical pipeline offsets in franchise areas that require "as-built" changes to the plan view or profile alignment.

- Re-sizing auxiliary and instrument piping, conduits, or conductors.
- Significant changes in conduit, piping, or tubing/ conduit routing changes that cross hazardous classification boundaries.
- Minor adjustments to main gas piping or equipment layout (e.g., adjustments to pipe spool lengths).
- Minor main gas or auxiliary piping functionality changes (e.g., addition of instrument taps).
- Equipment replacement or material substitutions using Pacific Gas and Electric Company (Company) approved equivalent equipment or materials.

2. Category 2

The RE completes a Form F-4900-1; "GT&D Design Change Notice" (Attachment 1) to document a design change when drawing mark-ups or revisions, sketches, and/or material specifications are necessary to execute an approved design change. Examples include the following:

- Significant pipeline re-alignment that affects right-of-way or permit conditions.
- Significant main gas station piping or equipment layout changes.
- Equipment replacement or material substitutions other than replacement-in-kind or Company approved equivalent substitutions (see the "Category 1" section on Page 1 for information related to minor modifications).

Definition of Terms **Design Change:** For construction projects, any change in materials or physical arrangement that deviates from approved construction drawings. For maintenance activities, any physical modification made to an existing facility, except for the following:

- Replacement-in-kind of components or equipment
- Temporary modifications to systems or equipment under an approved clearance.

Definition of Terms (continued) **Gas Transmission Facilities:** Natural gas station and pipeline facilities operating at greater than 60 psig, including Distribution Feeder Mains (DFM) and local transmission pipelines, and all auxiliary and control systems associated with station facilities.

Responsible Engineer (RE): For project work, the RE is the engineer responsible for managing all engineering activities on a specific project. For non-project work, the RE is the engineer responsible for the specific gas asset being modified.

Revision This is a new work procedure.

Attachments Attachment 1, Form F-4900-1; "GT&D Design Change Notice"

Contact for More Information [REDACTED]
GT&D Engineering Manager

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Approved by Glen E. Carter
Director
GT&D Gas Engineering

Revision History

Chg No.	Date	Description	By (LAN ID)
01	July 2007	Initial work procedure version.	[REDACTED]