TITLE: Procedure for Revising Application Software for Microprocessor-Based Controls

Purpose

This UO guideline establishes procedures to ensure that all revisions made to application software or application programs are performed in a uniform manner and are properly documented and filed.

Recision

This guideline cancels and supersedes Recommended Practice (RP) 4281, "Procedure for Revising, Documenting, and Filing Application Software for Microprocessor-Based Controls Equipment," effective January 1998.

Safety

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

Failing to comply with this UO guideline may result in station equipment malfunctions, causing safety and/or gas reliability issues, and may delay resolving any control difficulty in a timely manner.

Implementation Responsibilities

The director of Gas Engineering is responsible for approving, revising, and distributing this guideline within the organization.

Compliance

Implementation and effectiveness are measured by the responsible managers and supervisors. In addition, periodic internal audits may be conducted by Company representatives.

General

These procedures apply to application software or application programs for any microprocessor-based control device that is programmed, owned, operated, and maintained by Gas Transmission and Distribution (GT&D). Such devices include the following equipment:

- Programmable logic controllers (PLC).
- Flow computers used for control or interface with control systems.
- Human-machine interfaces (HMI).
- Operator interface terminals (OIT).
- Single- and multi-loop controllers, etc.

These procedures **do not apply** to the following equipment:

- Devices which only can be programmed by the original equipment manufacturer (OEM) due to warranty or manufacturer restrictions.
- Equipment having programs that cannot be downloaded to an electronic storage device (e.g., older model Cutler-Hammer Panelmate OIT).
- Stand-alone flow computers (e.g., TotalFlow flow computers used for wellhead calculations).
- Application software relating to Supervisory Control and Data Acquisition (SCADA).
- Other microprocessor-based devices that are programmed and maintained by other departments (e.g., Gas System Operations [GSO]).

Definition of Terms

Application software or application programs: Refers to the code developed for (or supplied with) any microprocessor-based device. This includes logic, configuration, field parameters, alarm limits, etc.

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Signed,

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Attachments

Attachment 1, "Responsibilities, Procedures, and Software Distribution"