



UO Guideline G14272

ISSUING DEPARTMENT: **Gas Engineering**
UO SPONSOR: **Director – Gas Engineering**

EFFECTIVE DATE: **6-06**
REVIEW DATE: **6-11**
PAGE NO.: **1** OF **2**

TITLE: Selecting Instrument and Control Wires, and Tagging Wires, Cables, and Conduits for GT&D Facilities

Purpose This guideline establishes procedures to ensure that all cable and wire type selections and tagging are performed uniformly and in accordance with the best engineering practices.

These procedures apply to new wires, cables, and conduits to be installed for instruments and controls (I&C) connections at Gas Transmission and Distribution (GT&D) facilities.

Recision This is a new guideline.

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 guideline may result in station equipment malfunctions, causing safety and/or gas reliability issues, and may delay resolving instrument and controls malfunctions in a timely manner.

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

The manager of Gas Engineering, Station Engineering is responsible for training employees and ensuring compliance with this guideline.

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

Definition of Terms **I&C** – instruments and controls.

TSP - twisted shielded pair.

General Information

This procedure does not apply to the following situations:

- a) Wiring for the communication devices, which fall under the jurisdiction of Information Systems and Security (ISS).
- b) Existing wiring and conduits that are not being replaced as part of the new installation.
- c) Wiring and conduits supplied as part of the original equipment manufacturer (OEM) package.

Date Issued/Updated

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Signed,

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Director
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Contact for Further Information

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Reference Documents

American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) Code C37.2

National Electrical Code (NEC) 2005

Instrumentation Society of America (ISA) Code S5.1

General Electric (GE) Manual GEK-90486

Attachments

[Attachment 1, "Selecting I&C Wire and Cable"](#)

[Attachment 2, "Tagging Conventions for I&C Wire, Cable, and Conduit"](#)