



Asset Type: **Gas and Electric Transmission and  
Distribution**

Effective Date: **August 2009**

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Function: **Operations**

**Title: Preventing Damage to Underground Facilities**

**Purpose**

This standard and its associated work procedures establish Pacific Gas and Electric Company (Company) compliance with all regulations, rules, and laws that govern damage prevention, including the referenced sections of the [Code of Federal Regulations Title 49 \(CFR 49\)](#), [California State Government Code §4216](#), and [California Code of Regulations Title 8](#).

The work procedures provide step-by-step procedures for the following actions:

- Responding to external requests to locate and mark Company underground (UG) facilities using the one-call notification center, Underground Service Alert (USA).
- Preventing damage to Company UG facilities by third parties.
- Requesting information and avoiding damage to UG facilities when the Company is the excavator.
- Responding to requests from public agencies and other third-party entities for Company UG facilities information.
- Identifying and handling excavators, contractors, and the public working unsafely around Company facilities.

**Safety**

Failure to locate and mark Company UG facilities in a timely and accurate manner poses a risk to Company employees, excavators, and the public. Without accurate surface markings, excavators may damage Company UG facilities during excavation projects. Employees performing locating and marking shall comply with all personal protective equipment (PPE) and work area protection requirements as outlined in applicable Company standards, work procedures, guidelines, the [Code of Safe Practices](#), and the [Joint Work Area Protection and Traffic Control Manual](#).

**Requirements**

When performing locating and marking activities, employees shall follow the detailed requirements and procedures in the *Damage Prevention Manual*.

**Approved by** Glen Carter  
Senior Director

**Implementation Responsibilities** The senior director of engineering responsible for gas transmission and distribution is responsible for approving, reviewing, and distributing this standard.

All maintenance and construction (M&C) directors, division and transmission superintendents, and field supervisors are responsible for ensuring that employees are trained and comply with the requirements of this standard. In addition, they are responsible for providing sufficient resources to achieve the requirements of this standard.

All employees involved in damage prevention or excavation are responsible for following the requirements of this standard and its associated work procedures.

Employees are responsible for carrying out their assigned tasks. For their own safety and that of the general public, employees are responsible for performing only the tasks for which they are trained, knowledgeable, and qualified.

Employees shall notify their supervisor of any additional training, equipment, or resources needed to perform their assigned tasks.

**Compliance** Implementation and effectiveness are measured by responsible directors, managers, superintendents, and supervisors. Periodic audits may be conducted by internal Company departments. The California Public Utilities Commission (CPUC) may conduct compliance reviews on the application of this standard.

**Definition of Terms**

**Company:** Pacific Gas and Electric Company.

**Excavator:** Person performing any operation in which earth, rock, or other material in the ground is moved, removed, or otherwise displaced by means of tools, equipment, or explosives in any of the following ways: grading, trenching, digging, ditching, drilling, augering, tunneling, scraping, cable or pipe plowing and driving, or any other way.

**One-call notification center:** An entity that administers a system through which a person can notify owners/operators of underground lines or facilities of proposed excavations that could affect those lines or facilities.

**Public agency:** The government of the United States; the government of a state or political subdivision of a state; or an agency of the United States, a state, or a political subdivision of a state, or any interstate governmental agency.

**Third party:** Any person or entity not directly or contractually employed by the utility. Examples of third parties include building contractors, agricultural workers, excavators, etc.

**Underground Service Alert (USA):** Regional one-call notification centers for the Company service territory. There are two centers serving the Company: [Underground Service Alert of Central/Northern California and Nevada \(USA North\)](#) and [Underground Service Alert of Southern California \(USA South\)](#).

**Recision** This standard supersedes Utility Standard S4412, "Protection of Underground Infrastructure," dated January 2005.

**Reference Documents** [California Business and Professions Code, Section §7110](#)

California Code of Regulations:

- [Title 8, Subchapter 4, "Construction Safety Orders," Article 3, "General," Section 1509, "Injury and Illness Prevention Program"](#)
- [Title 8, Subchapter 4, "Construction Safety Orders," Article 6, "Excavations," Section 1541, "General Requirements"](#)

[California Government Code, Section §4216](#)

Code of Federal Regulations (CFR):

- [CFR 49 §192.614, "Damage Prevention Program"](#)
- [CFR 49 §192.616, "Public Awareness"](#)
- [CFR 49 §192.705 "Transmission Lines: Patrolling"](#)
- [CFR 49, §192.707, "Line Markers for Mains and Transmission Lines"](#)

[Code of Safe Practices](#)

Gas Numbered Documents:

- [A-90, "Plastic Main and Service Installation"](#)
- [M-60 through M-62, "Mark and Locate"](#)
- [O-10, "Electrolysis Test Station Connection to Main"](#)
- [O-10.1, "Electrolysis Test Stations"](#)

Manuals:

- [Damage Prevention Manual](#)
- [Horizontal Directional Drilling Manual](#)

- *Joint Work Area Protection and Traffic Control Manual*

Safety, Health and Claims (SH&C) Procedures:

- Procedure 103, “Public Safety Information Program”
- Procedure 104, “Observed Hazard Notification: Third Parties Working Unsafely Around Utility Facilities”

Utility Policies:

- 3-7, “Gas and Electric Operation, Maintenance, and Construction”
- 3-8, “Installation of Gas and Electric Facilities”
- 3-10, “Reconstruction of Gas and Electric Facilities”

Utility Standard Practice (USP) 21, “Damage Claims Collection”

USP 22, “Safety and Health Program”

Work Procedures:

- WP4412-01, “Operating Procedures for Locating Instruments”
- WP4412-02, “Locating Instruments Calibration Verification and Repair Procedures”
- WP4412-03, “Marking and Locating PG&E Underground Facilities”
- WP4412-04, “Field Meets and Standby – Damage Prevention”
- WP4412-05, “Excavation Procedures for Damage Prevention”
- WP4412-06, “Handling Excavators, Contractors, and the Public Working Unsafely Around Utility Facilities”
- TD-4412P-07, “Patrolling Pipelines and Mains”
- TP-4412P-09, “Pipeline Markers”