TITLE: Joint Trench

Purpose

1. This standard defines the uniform process for planning, designing, scheduling, billing, coordinating, constructing, and accounting for installing the following in a joint trench:
   - Natural gas distribution and service piping.
   - Electric distribution and service conduits and cables.
   - Telephone conduits and cables.
   - Other compatible communication facilities.
2. This standard promotes installing underground facilities in a joint trench in all instances, unless circumstances make joint trench construction impractical or uneconomic.

Recision

This standard supersedes UO Standard S5453, "Joint Trench," issued 7-01.

Safety

Refer to the requirements of 49 CFR 192, General Orders 112E and 128 for specific installation safety requirements. It is imperative to adhere to the provisions for installing gas or electric facilities near steam, propane, or other "wet" utilities.

Implementation Responsibilities

The vice president of Engineering and Planning (E&P) is responsible for approving, reviewing, and distributing this standard.

The UO Operations, Maintenance and Construction (OM&C) area directors 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.

The vice president of E&P authorizes the directors of Gas Distribution and Technical Services (GD&TS) and New Customer Connections (NCC) to update and reissue any attachments and exhibits of this standard.

Compliance

Implementation and effectiveness are measured by OM&C and E&P directors. 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.

Procedure

1. This standard provides for uniform application of the Company's procedures for placing natural gas and electric distribution facilities in a common trench with municipal- or Company-owned streetlight circuits and communication circuits and/or cables. Inclusion of other types of facilities will require specific review and approval of the appropriate engineering and construction departments of the trench occupants.
2. This standard defines responsibility for joint trench coordination when the trench is the responsibility of the Company, another utility, or an applicant.
3. This standard does not address procedural details of job processing, engineering standards, and construction requirements. Existing documentation such as engineering standards, utility standard practices, gas standards, UO standards, and the *Tariff Application Guide* aptly details the requirements and should be used for reference as appropriate.
4. This standard does not assign responsibilities to specific positions within OM&C. OM&C policy should determine the most effective practice to address the requirements of joint trench engineering, coordination, and construction.

Records

Retain records per the Record Retention Schedule.

Definition of Terms

Applicant: The developer or party entering into a contract or agreement with the Company for the installation of gas and/or electric facilities or the underground conversion of the existing overhead electric facilities. For Electric Rule 20A projects or franchise relocations of Company facilities, the applicant is the requesting local government agency. For electric and gas projects initiated by the Company, i.e., electric planning or reconstruction projects, the Company is the applicant.

Authorization: "Authorization for Joint Trench Construction" (Form B) provides a billing breakdown for the various trench occupants by footage.

Billing Document Number: A number generated from NEBS used for the billing of trench occupants for work performed by the Company at the occupants' expense.

CATV: Cable television company.

Change Order: The change order forms provide a description of additional work and/or authorization to perform or delete such work for other trench occupants.

Company: Pacific Gas and Electric Company.

Competent Spoil: Backfill material as defined by California Public Utilities Code, Section 787.

Detailed Cross Section: A drawing that details the size of each trench section. It shows the size, number, and placement of buried facilities for each trench occupant.

Distribution Trench: An excavation for the placement of distribution and/or feeder facilities intended to serve one or more buildings, customers, or parcels. A distribution trench will usually be located in a private utility easement, dedicated franchise area, public utility easement, or other thoroughfare.

Imported Backfill: Soils or manmade materials not native to the specific trench location for use in backfill. These materials will be competent material to ensure that required compaction is achieved. See CGT Engineering Guideline 4123, "Backfill Sand Specification," for specific material requirements.

Intent: "Notice of Intent to Install Underground Facility" is an intent form letter and trench layout, which is used to notify and advise others that trench work is proposed in a particular area. It is an invitation to other potential trench occupants to share the benefits and costs of joint trench construction.

Joint Trench: An excavation wherein more than one trench occupant installs facilities to reduce individual costs.

Joint Trench Configuration and Occupancy Guide: This guide details the standard trench dimensions, standard trench locations, minimum cover and clearance requirements, and trench occupancy matrix. This guide supports the joint trench drawing.

Joint Trench Drawing: A detailed construction drawing, prepared by the TDC, that provides the following information:

1. The measurement of the trench route and distance from adjacent property lines or fixed objects to the trench.
2. Each trench section's size (width, depth, and length).
3. The location and size of all substructures.
4. The nonstandard trench cross-sectional configurations, showing the number of buried facilities and their sizes for each trench occupant.

The size and occupancy of the trench is specified by reference to the "Joint Trench Configuration and Occupancy Guide."

Land Rights: A legal right to use the property of others.

Native Soil: All soils specific to the existing trench location.

NEBS: Non-Energy Billing System. A computer system used to process non-energy billing payments to the Company.

New Business Job: A prepared job for extending or rearranging utility service to a customer under Rules 15 and 16.

Non-Utility Facilities: Subsurface facilities not owned by any person, corporation, partnership, business, trust, or public agency belonging to a regional one-call notification system.

Operator: Any person, corporation, partnership, business, trust, public agency, or entity that owns, operates, or maintains a subsurface installation and belongs to a regional one-call notification center.

Permit: A written warrant or license for work granted by the agency having authority.

PUE: Public Utility Easement granted by the property owner.

Reconstruction Job: A prepared job for which the applicant is not financially responsible under the new business rules.

SBC: Southwestern Bell Communications Company.

Service Trench: A trench that extends from a distribution trench to a service termination point.

Stub Service: Service tubing and conduit extended from distribution facilities to provide for a future service completion.

Trench Configuration: The cross-sectional trench design specified to provide trench occupants with the minimum facility clearance and cover as required per Exhibit B, "Joint Trench Configuration and Occupancy Guide."

Trench Construction Coordinator (TCC): The person or entity responsible for performing and/or coordinating the overall field excavation, substructure facility installation, backfill, and surface restoration work.

Trench Design Coordinator (TDC): The person or entity responsible for designing the trench, specifying the substructure location, issuing intents, and coordinating design and location of all joint trench occupants.

Trench Layout: A sketch showing the proposed joint trench route submitted as part of the intent.

Trench Occupant: Any participating operator installing facilities in a common

trench with others.

Undisturbed Earth: In situ, hard compact soils unaffected by any manmade cut, cavity, trench, or depression in the earth's surface.

Utilities: Operators, public or private, that provide gas, electric, or telecommunications services intended for general public, municipal, or private use.

Wet Utilities: Includes but not limited to water, storm sewer, sanitary sewer, steam, liquid fuels, oil, diesel, sprinkler, irrigation, drain or leach lines, propane, or lines for other liquids or volatile, heavier-than-air gases.

Work: All labor, materials, equipment, and any other job-related requirements necessary to perform the trenching, substructure excavation, coordination of facility installation, and/or placement thereof, backfilling, spoil handling, compaction, and/or trench restoration.

WRO: Work at the Request of Others. This includes reimbursable and nonreimbursable work. Consult the *Tariff Application Guide* for guidance.

Date Issued/Updated

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Review Date: September 2008

Signed,

Shan Bhattacharya

Vice President
Engineering and Planning

Reference Documents

California Public Utilities Commission, General Orders 112-E and 128

California Public Utilities Code, Section 787

Electric Rules 15, 15.1, 15.2, 16, and 20

Gas Rules 15 and 16

Gas Standard A-93.1, "Plastic Gas Distribution System Construction and Maintenance"

Engineering Document 038193, "Minimum Requirements for the Design and Installation of Conduit and Insulated Cable"

Engineering Document 062288, "Underground Conduits"

Engineering Document 062000, "Primary Electric Underground Equipment Enclosures"

Engineering Document 028028, "Boxes for Electric Underground"

Gas Estimator Manual

Electric Estimate Manual

Tariff Application Guide

CGT Engineering Guideline 4123, "Backfill Sand Specification"

UO Guideline 11020, "Contaminated Soils Management"

UO Standard S4412, "Protection of Underground Infrastructure"

UO Standard S7433, "Tariff Compliance - Uniform Tariff Application"

UO Standard D-S0203, "Project Management"

USP 20, "Contracting Requirements and Procedures"

Service Planning Bulletin 2002-05, “New Business Project Inspection Process”

Attachments

Attachment 1, “Detailed Procedures”

Exhibits

Exhibit A, “Joint Trench Drawing”

Exhibit B, “Joint Trench Configurations and Occupancy Guide”

Exhibit C, “Agreement to Perform Tariff Schedule Related Work,” Form 62-4527

Exhibit D, “Intent Letter”

Exhibit E, “Authorization for Joint Trench Construction,” Form B

Exhibit F, “Change Order - Additional Joint Trench Work Authorization,” Form 62-3283

Exhibit G,“General Terms and Conditions for Gas and Electric Extension and Service Construction by Applicant,” Form 79-716

Exhibit H, “Distribution Service and Extension Agreement,” Form 62-0980

Exhibit I, “Change Order,” Form 62-0579

Revision Notes

Where?	What Changed?
2016 Editorial Correction	Added Records section, including record retention statement.