



SUBJECT: Operating Maps and Operating Diagrams

Objective

The purpose of this document is to provide a Standard for maintaining accurate Operating Maps and Operating Diagrams which will ensure the safe and reliable operation of Gas Transmission Facilities.

Scope

This CGT Standard covers the requirements and responsibilities relating to preparing Operating Maps and Diagrams. This standard does not cover plat sheets, wall maps, or construction drawings.

Rescission

All previous instructions, oral or written, that may be contrary to this Standard.

Related Policy

CGT Interim Practice IP-410.1, "Gas Construction, Reporting Installation/Alteration for Engineering Records"

CGT Recommended Practice RP-4460.1, "Operating Maps and Operating Diagrams, Preparation of "

Originator

CGT Standard Technical Committee 21 on Station Equipment

Business Risk

Inaccurate Operating Maps or Operating Diagrams can result in improper operation of CGT gas facilities thereby jeopardizing employee and/or public safety, and gas transmission reliability. In addition to damage to PG&E and/or public property, natural gas accidents may subject PG&E to fines and negative publicity.

Responsibility for Implementation

The Manager of Gas System Technical Support is responsible for ensuring compliance with this standard.

Contact for Further Information

██████████, Senior Gas Engineer
System Standards Management, Gas System Technical Support
Outside: ██████████, Co.: ██████████

Approvals and Authorizations

██████████ **1/20/98**
_____, Manager, Gas System Technical Support Date

██████████ **1/23/98**
_____, Manager, Gas System Maintenance Date

██████████ **1/28/98**
_____, Gas and Electric Transmission Date

Definitions

Operating Maps

Operating Maps are schematic drawings showing the relative location and relationships between CGT's gas transmission lines and distribution feeder mains. In addition, the Operating Maps include mainline valves, taps, cross-ties, and references to Operating Diagrams for depicted CGT facilities.

Operating Diagrams

Operating Diagrams are schematic drawings of CGT's facilities. They show all gas lines entering and leaving the facility. The schematic depicts, to the extent feasible, the actual physical layout of the piping, and includes valves, regulators, meters, compressors, filters, dehydrators, separators, and SCADA points.

CGT-Owned Gas Facilities

CGT-Owned Gas Facilities have a maximum operating pressure greater than 60 psig and include most facilities that supply other gas utilities, regardless of delivery pressure.

All stations that regulate to 60 psig or less, and the regulation and metering facilities directly feeding DCS customers, regardless of delivery pressure, are owned by DCS. Based on present Memorandums of Understanding (MOUs) between DCS and CGT, there are certain facilities which supply other gas utilities that are owned by DCS.

Transmission Line

Transmission Line is any pipeline that operates over 60 psig and is not a gathering line. Transmission lines are identified as either backbone transmission, local transmission, underground storage, or a Distribution Feeder Main (DFM).

Gathering Lines

Gathering Lines means a pipeline that transports gas from a current production facility to a transmission line.

Distribution Feeder Main (DFM)

A DFM is a branch off of a backbone or local transmission line that transports gas to large volume customers, or to distribution centers (e.g. communities), which operate at pressures equal to or below 60 psig.

Requirements

1. All CGT transmission lines, gathering lines, and distribution feeder mains shall be shown on Operating Maps.
2. All pipeline taps 2-inch and larger shall be shown on Operating Maps.
Note: Operating Maps should not be the sole source of information when preparing pipeline/station clearance procedures. Since not all pipeline taps are shown on the Operating Maps, other sources of information, such as, Geographic Information Systems (GIS), Division Plat sheets, local tap lists, service record files, etc., should be

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Responsibility

Procedures

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2. All pipeline taps 2-inch and larger shall be shown on Operating Maps. **Note:** Operating Maps should not be the sole source of information when preparing pipeline/station clearance procedures. Since not all pipeline taps are shown on the Operating Maps, other sources of information, such as, Geographic Information Systems (GIS), Division Plat sheets, local tap lists, service record files, etc., should be used for developing clearance procedures.
3. Each CGT-owned gas facility shall have its own Operating Diagram. Any DCS gas facilities located within a CGT gas facility shall be shown on the appropriate Operating Diagram.
4. The format (including valve/regulator numbering schemes) of the Operating Maps and Diagrams shall comply with CGT Recommended Practice RP4660.1, "Operating Maps and Operating Diagrams, Preparation of"
5. All pipeline valve tags or markings shall be consistent with the labeling on the respective Operating Maps and Operating Diagrams.
2. The Mapping Section of Gas System Technical Support (GSTS) shall coordinate the issuing of revised or new Operating Maps and Operating Diagrams. The Mapping Section shall maintain a current distribution list for the Operating Maps and Operating Diagrams.
3. Superintendents, District Foremen, Directors, and Engineers shall be responsible to ensure that their assigned copy(ies) of the Operating Maps and Operating Diagrams are updated and accurate.
3. Immediately after modifications to the main gas piping, the project manager shall forward a red-line markup of the appropriate Operating Map and/or Operating Diagram to: (1) Gas Control, (2) appropriate Gas Control Center, (3) the local operating personnel, and (4) Mapping Section of GSTS.
4. Requests for new, or changes to, existing Operating Maps or Operating Diagrams shall be submitted to a Senior Mapper of the Mapping Section of GSTS.
5. Any one of the following shall approve the markup changes to the Operating Map or Operating Diagram prior to forwarding to the Mapping Section: 1) District Foreman, 2) Operating Supervisor, 3) Local Transmission Superintendents, 4) local division/district Mapper, or 5) Facility/Pipeline Engineer.
6. Field markup of Operating Maps or Operating Diagrams shall include the requested modifications to the existing Operating Map or Operating Diagram, job number (if known) which resulted in the piping modification, date of request, and the name and phone number

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6. Field markup of Operating Maps or Operating Diagrams shall include the requested modifications to the existing Operating Map or Operating Diagram, job number (if known) which resulted in the piping modification, date of request, and the name and phone number of person requesting change.
7. The Mapping Section of GSTS shall keep on file the markup copy of the requested change to each Operating Map and Operating Diagram.
8. The Mapping Section of GSTS shall post requested changes onto each Operating Map and/or Operating Diagram within 5 working days of receiving a request for change.
9. Revised and new Operating Maps and Diagrams shall be distributed by the Records Section of GSTS twice monthly. Additional copies of Operating Maps and Operating Diagrams are available through the Records Section of GSTS.