Gas Facility Deactivation Procedures

1. Transmission Line, Gathering Line, and Distribution Main Deactivation

A. All pipe sections to be deactivated shall be physically disconnected from all gas sources.

B. Long lengths of main shall be sectionalized at intervals of approximately 1,000 feet. This provision may be waived or altered, if authorized by the manager of Gas Engineering and Planning (GE&P) or the manager of Pipeline Engineering for GSM&TS, for pipes in the following circumstances:

- In rural areas.
- In private rights-of-way.
- For known third-party reuse.
- Other appropriate circumstances.

Sectionalizing may be performed by closing a valve (distribution only) or by removing a section of pipe and sealing the ends.

C. All pipe sections to be deactivated shall be purged in accordance with Gas Standard A-38. When deactivating GSM&TS pipelines, follow CGT Standard 4131, "Pipeline Shutdown and Tie-in."

D. Cathodic protection (CP) and pipeline markers may be removed from deactivated facilities. Ensure that CP and pipeline markers are maintained as required on all piping remaining in service. If there is the potential for future use for gas transportation, CP, patrolling, and pipeline markers must be maintained. If CP is removed, the pipeline may not be used for transporting natural gas unless an extensive evaluation is performed to verify pipeline integrity and the reuse is approved by the manager of Pipeline Engineering.

E. In the deactivation of pipe 8 inches or larger in diameter, (2 inches for gas gathering lines), consideration should be given to the following:

- Purging with inert gas.
- Filling the pipe with slurry or controlled low-strength material.
- Removing the pipe from the ground.

F. For river and significant waterway crossings: Consider the effects of buoyancy when choosing a deactivation method. See the original installation permit conditions regarding potential navigation or dredging hazards, or special deactivation or removal requirements. Slurry filling or removal is required for GSM&TS pipelines where no future use is expected. Under special circumstances, the manager of Pipeline Engineering in GSM&TS may authorize exceptions to this requirement.

G. For Caltrans crossings: Filling pipelines with sand, two-sack slurry, or controlled low-strength material may be required to protect the highway when pipes are deactivated in place. This requirement is mandatory for metal pipes 12 inches in diameter or larger. See Section 613 of the *Caltrans Encroachment Permit Manual*.

H. For paved surfaces, restore any bellholes or other excavations in accordance with the latest edition of the *California Inter-Utility Site Restoration Guidelines*.

I. The last operator of each deactivated pipeline facility that crosses over, under, or through a commercially navigable waterway must file a report upon deactivation of the facility, as required by 49 CFR 192.727(g). The Company shall file these reports for all gas transmission and distribution lines by using the Company's submittal to the National Pipeline Mapping System (NPMS).

J. Upon deactivation of any pipeline that is within a commercially navigable waterway, the responsible GSM&TS engineer or local mapping group shall send the date of the deactivation, the diameter of pipe and method of deactivation to the GSM&TS Mapping supervisor who will enter the deactivation in CGT's Geographic Information System (GIS). The Company will include these deactivated sections in its annual submittal for gas transmission pipelines, as required by the NPMS, "Standards for Pipeline and Liquefied Natural Gas Operator Submissions."

K. In levees, slurry filling or removal is required for GSM&TS pipelines where there is no expected future use and where the pipeline is not being maintained per General Order 112-E.

L. Consideration should be given to the removal of all aboveground pipelines.

2. Environmental and Health

A. All known or identified pipeline liquids, including drips, shall be removed from gas gathering and transmission lines by pigging or purging before deactivation.

B. If liquids (drips, etc.) are encountered during deactivation at sectionalizing points, contact the local environmental specialist (coordinator). Follow CGT RP 4710, "Production Fluid/Pipeline Liquid – Leak Response and Contaminated Soil Handling Procedure," as applicable.

C. Employees handling natural gas pipe must have Cal/OSHA mandated hazard communication training, which covers PCBs, pipe wrap, natural gas, and natural gas liquids. Employees handling pipe that contained free liquids must wear solvex gloves. If the potential for clothing contact with contamination exists, employees must wear disposable coveralls.

D. Pipe wrap shall be handled and removed in accordance with CGT Standard 4711, "Natural Gas Pipe Wrap: Removal, Handling, and Disposal," or DCS Standard D-S0443, "Natural Gas Distribution Pipe Wrap Removal, Handling, & Disposal Procedure," as applicable.

E. If the deactivated pipeline is determined to have no future use, follow the additional environmental requirements in Attachment 2.1.

F. If facilities are to be leased, appropriate environmental considerations will be considered in the lease agreements.

3. Service Deactivation

The procedure for deactivating services is as follows:

A. Except as provided in Paragraphs C and D, below, the pipe shall be cut as close to the main connection as practicable, and the open end of the deactivated pipe shall be sealed.

B. The riser shall be removed to below ground level and the remaining pipe sealed. Or, if the service passed through or under the building foundation, the pipe shall be cut outside the building and both ends sealed.

C. When a distribution service is deactivated along with the main, or when only a portion of the service is deactivated, the service shall be cut at the property line, the riser and meter shall be removed (per 3.B.), and both ends sealed. This cut should be made at the most economical location, such as in unpaved parking strips or lawn areas.

D. When a service supplied by a rear easement main is deactivated, the riser and meter shall be removed (per 3.B.), and the service shall be cut and sealed at the main.

E. For stub service deactivation, if a stub cannot be found after two attempts to locate the it, document both attempts and place documentation with the service order. Place the appropriate symbol on the plat map. No further action is required.

4. Documentation of Deactivated Gas Services

A. The estimating/mapping departments shall stamp the Utility's Gas Service Record (original, or copy of the original) with the **Gas Service Deactivation Stamp** (Figure 1) and send it to the local gas construction department for action. To document the actions taken, the deactivation stamp shall include the following elements:

1) A line for the name of the person requesting the cut-off (usually a mapper).

2) The date of the request.

3) The required completion date (no later than 12 months from the date that Mapping designates the service line for deactivation).

4) Confirmation (name and signature) from the foreman whose crew completed the work (to be signed **only** by the foreman).

5) The date the work was completed.

B. In addition, the stamp shall include a check-list to indicate the actions taken:

1) Whether the line was cut off (Service C/O): Yes/No

2) If Yes, was the line cut off at the main or at the pipeline? (@ Main or P/L)

3) If No, see below

a. The site was excavated and the pipe could not be located: Yes/No (if No, see below).

b. The site not excavated, gas line not deactivated. Further action required: Yes/No. Briefly explain why excavation did not take place (e.g. Moratorium street, special paving requirements, located in decorative driveway or landscaped area, etc.).

C. The stamp shall be completed in ink.

D. The job site foreman must complete a stamp to document each gas service deactivation.

E. The Mapping supervisor is responsible providing stamps to the local mapper who is responsible for service deactivation.

F. The Estimating/Mapping supervisor and the Gas supervisor are responsible for holding tailboards with mapping and construction personnel on the proper completion of the stamp.

G. It is the responsibility of the gas supervisor to ensure that the stamps include the required data and the crew foreman's signature.

GAS SERVICE DEACTIVATION
REQUESTED BY:
DATE:
REQUIRED COMPLETION DATE:
[ ] SERVICE C/O --- [ ] @ MAIN or [ ] @ P/L
[ ] SITE EXCAVATED-NOT LOCATABLE
[ ] NOT EXCAVATED-NOT DEACTIVATED
REASON:
FOREMAN'S NAME:
FOREMAN'S SIGNATURE:
DATE COMPLETED:

Figure 1. Gas Service Deactivation Stamp

5. Valves on Deactivated Facilities

A. When valves are deactivated as a result of the deactivation of the attached main or service, the following procedures apply:

1) Valves and curb valves may be removed and salvaged if the cost of removal is justified. All equipment within 24 inches of the proposed grade must be removed (see Section 6.C.1). The open ends of the pipe or valve shall be sealed.

2) Deactivated transmission valves shall be removed.

3) If deactivated in place, the valve or curb valve shall be left in the closed position.

4) Valve boxes shall be removed or broken-in and the hole filled, whether a valve or curb valve is deactivated or removed.

6. Vault Abandonment

A. Before vault abandonment, water from utility enclosures must be discharged in compliance with regulations. See National Pollutant Discharge Elimination System General Permit CAG990002.

B. Vaults up to 24 inches deep shall be removed.

1) Frame assemblies shall be removed.

2) All piping, valves, and equipment in the vault shall be removed. Valves and equipment are to be salvaged if the cost is justified.

3) Backfill with sand or other suitable material, and compact up to 24 inches from the existing or proposed finished grade. Backfill and compact the remaining excavation per *California Inter-Utility Site Restoration Guidelines*.

C. Vaults and pits with depths greater than 24 inches shall be broken down below the existing or proposed finished grade.

1) All piping, valves, and equipment in the vault within 24 inches from the existing or proposed finished grade shall be removed. Valves and equipment shall be salvaged, if the cost is justified.

2) Piping, valves, and equipment in the vault below 24 inches in depth shall remain in the abandoned vault or pit if there is no salvage value. All oil- and grease-containing equipment shall be removed.

3) Frame assemblies, manhole casings, and manhole extensions shall be removed.

4) Walls and ceiling shall be broken up and removed to a minimum depth of 24 inches below the existing or proposed finished grade.

5) All exposed structural steel and rebar shall be removed.

6) A portion of the floor shall be broken up to allow for adequate underground water drainage.

7) Deactivated vaults or pits 24 inches below the existing or proposed finished grade shall be backfilled with wet sand or other suitable material to allow for flow.

8) The remaining 24 inches to the existing or proposed finished grade shall be backfilled and compacted, per *California Inter-Utility Site Restoration Guidelines*.

7. Pipe-End Seal Methods

A. In every case where a cut is necessary in Paragraphs 1 and 3 of Attachment 1, a section of pipe shall be removed, the ends sealed, and the backfill thoroughly compacted in its place.

B. Permanent electronic marker system (EMS) devices shall be placed at all cut-off ends and sectionalizing points (see Gas Information Bulletin 141) on distribution pipe. GSM&TS will consider use of EMS or GPS to mark cut-off and sectionalizing points for CGT-owned pipe.

C. Open ends of deactivated pipes shall be sealed by the most appropriate method. Methods shown in the following table are approved. Additional sealing methods may be used if approved by the responsible engineer.

Table 1. Approved Pipe Sealing Methods

Method	Transmission/ Gathering	Distribution
Crush or flatten the pipe-end and seal-weld the opening.	x	x
Weld a plate or a weld a cap over the opening.	x	x
Seal with concrete or mortar products.	x	x
Securely seal with a tightly driven redwood plug (2 inches or smaller). See GS&S A-81.		x
For copper pipe, flatten and bend to 180 degrees.		x
Seal with polyurethane foam cast in place.		x
For plastic pipe, use either fusion or mechanical caps to seal pipe or use methods 3., 4., and 6. above (see GS&S A-90 and A-93.2).		x
For low-pressure cast iron or steel pipe, install a mechanical blanking head.		x
Securely seal with a tightly fitting, outside-diameter-seal plastic end cap.		x