

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**Safety and Enforcement Division
Gas Safety and Reliability Branch**

**Resolution GSRB-3
May 15, 2025**

RESOLUTION

**RESOLUTION GSRB-3: PACIFIC GAS AND ELECTRIC WAIVER
FOR PIPE SPLITTING AND PIPE EXTRACTION METHODS
WHERE THE CLEARANCE IS AT LEAST SIX INCHES FROM
PARALLEL FACILITIES**

PROPOSED OUTCOME:

Grants Pacific Gas and Electric Company's (PG&E) request for a waiver of General Order (GO) 112-F, Section 144.3(b)(1) to use pipe splitting and pipe extraction methods to replace gas pipelines in joint trenches where the clearance is at least six inches from parallel facilities. This waiver is subject to the adoption of alternative safety conditions as specified by the Gas Safety and Reliability Branch.

SAFETY CONSIDERATIONS:

Will ensure that PG&E maintains and operates gas pipelines in a manner that is not inconsistent with gas pipeline safety requirements by adopting alternative safety conditions when using pipe splitting and pipe extraction methods to replace gas pipelines where it is possible to have less than 12 inches of clearance in parallel installations.

ESTIMATED COST:

There are no costs associated with this resolution.

SUMMARY

Pipe replacement projects traditionally are performed by excavating open trenches with an inherent risk of exposing a crew to electric shock hazard. Pipe splitting and pipe extraction methods have emerged as alternative solutions to avoid excavation along the entire length of existing gas pipelines. Both techniques involve pulling new pipe into position while simultaneously either cutting (splitting) or removing (extracting) the existing buried pipe to make room for the new pipe.

In this Resolution, the California Public Utilities Commission (Commission) grants Pacific Gas and Electric Company (PG&E) a waiver of General Order (GO) 112-F,

Section 144.3(b)(1). The waiver allows PG&E to use pipe splitting and pipe extraction methods to replace gas pipelines in joint trenches where there may be less than 12 inches of clearance in parallel installations. Specifically, the waiver allows PG&E to use pipe splitting and extraction methods in locations where the clearance is at least 6 inches from parallel facilities instead of 12 inches as required in GO 112-F. This Resolution also imposes a number of conditions that PG&E must meet on an ongoing basis in order for the waiver to continue to be valid.

BACKGROUND

On November 16, 2022, PG&E sent a letter to the Commission's Safety and Enforcement Division (SED) Gas Safety and Reliability Branch (GSRB) requesting a waiver of General Order (GO) 112-F, Section 144.3(b)(1). GO 112-F, Section 144.3(b)(1) requires that when independently installed, gas pipelines shall be separated from other utilities by a clearance of at least 12 inches when paralleling and by at least 6 inches when crossing. PG&E requested a waiver to use pipe splitting, and similarly pipe extraction, to replace gas pipelines in joint trenches where it is possible to have less than 12 inches of clearance in parallel installations as required in GO 112-F Section 144.3(b)(1).

DISCUSSION

Pipe splitting is a method for replacement of a pipeline where a specialized enclosed cutter cuts the existing pipe (the enclosed cutter prevents damage to nearby facilities), and at the same time new pipe is installed along the same path as of the existing pipe. The pipe extraction method pushes or pulls out existing pipe using ferrule and steel cable (without the use of any cutters). Both methods minimize the danger of electrical shock to installation crews, compared to the traditional method of excavation and trenching. These methods are commonly used for gas, water, sewer and other utilities.

This Resolution relates to PG&E's request for a waiver of GO 112-F, Section 144.3(b)(1) which requires that when independently installed, gas pipelines shall be separated from other utilities by a clearance of at least 12 inches when paralleling and by at least 6 inches when crossing.

PG&E requested a waiver to use pipe splitting and pipe extraction methods to replace gas pipelines in joint trenches where there may be less than 12 inches of clearance in parallel installations. This would allow PG&E to use pipe splitting and extraction methods in locations where the clearance is at least 6 inches from parallel facilities, instead of 12 inches as required in GO 112-F.

PG&E believes that pipe splitting and extraction is as safe as replacement by excavation since the new pipeline will be installed in the same path and alignment as the existing pipeline. According to PG&E, using pipe splitting and extraction installation methods

would decrease employees' exposure to electric shock hazards when compared to performing hand excavation around buried electrical lines since hand-held shovels may come into contact with live electrical lines. In addition, pipe splitting and extraction would reduce dig-in risk to subsurface facilities associated with traditional open trench construction by leveraging specialized equipment and tools that prevent damage to adjacent facilities.

GO 112-F is the "State of California Rules Governing Design, Construction, Testing, Operation, and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems." These rules incorporate and supplement the Federal Pipeline Safety Regulations, specifically, Title 49 of the Code of Federal Regulations (49 CFR), Parts 191, 192, 193, and 199. The purpose of these rules is to establish, in addition to the Federal Pipeline Safety Regulations, minimum safety requirements for gas operators under the Commission's jurisdiction. More specifically, in addition to other guidelines, gas operators are required to install pipelines meeting the clearance requirements per section 144.3 of GO 112-F which states, in part:

(b) All natural gas distribution pipelines (main and service) must be installed in conformance with the requirements of 49 CFR, Part 192, §192.325 and the following:

(1) Independently Installed: Gas pipelines, when independently installed, shall be separated, where practicable from electrical supply systems, water, oil, communication, or other pipe systems or other foreign substructures, by a clearance of at least 12 inches when paralleling and by at least 6 inches when crossing. New gas pipelines inserted within, and utilizing as conduit, pipeline facilities installed prior to the effective date of this rule are exempt from the paralleling requirements of this paragraph but not the requirements related to crossings.

Section 101.3 of GO 112-F allows a utility, in special circumstances, to submit an application to the Commission to waive compliance with specific rules in accordance with Section 3(e) of the Natural Gas Pipeline Safety Act of 1968.

Pursuant to section 101.3 of GO 112-F, PG&E submitted a waiver request to use pipe splitting and pipe extraction methods to replace gas pipelines in joint trenches where it is possible to have less than 12 inches of clearance in parallel installations, allowing PG&E to use pipe splitting and extraction methods in locations where the clearance is at least 6 inches from parallel facilities instead of 12 inches as required in GO 112-F.

GSRB staff reviewed PG&E's waiver request to ensure the request was made in the best interest of public and employee safety and that PG&E was taking sufficient measures to mitigate associated risk factors. GSRB considered the following factors:

1. PG&E reported that in the 36 months prior to 11/30/23, it documented 23 dig-ins to electrical facilities across 807 miles of installing gas facilities by first party crews and second party contractors using hand tools. PG&E has not recorded any safety incidents or damage to other utilities in joint trenches when using pipe extraction across 1 mile of installing gas facilities. Similarly, it has not recorded any safety incidents or damage to other utilities in joint trenches when using the specialized enclosed cutter with pipe splitting across 13 miles of installing gas facilities.
2. Since the pipe splitting method uses an enclosed cutter that cuts pipe inward and has no outward sharp faces that can cause damage to nearby utilities and substructures, the likelihood of damage to adjacent utilities and substructures is minimal.
3. The Pipe Extraction method does not use any cutter and hence its use also has a low likelihood of damage to adjacent utilities and substructures.
4. PG&E has been using Pipe Splitting and Pipe Extraction for pipe replacements for the situations where clearances between utilities are at least 12-inches and there have been no incidents.

Based on those considerations, GSRB determined a waiver of GO 112-F, Section 144.3(b)(1) is warranted. However, PG&E must adopt and implement an alternative safety condition similar to the requirements in GO 112-F, Section 144.3(b)(1), requiring a clearance of at least 6 inches from other utilities when paralleling using pipe splitting and/or extraction installation techniques.

Furthermore, PG&E shall provide SED with an update on its pipe splitting, extraction, and hand digging statistics on an annual basis along with its annual report as required by GO 112-F, Section 123.1. These statistics should include at minimum:

- (a) Pipe Splitting: Number of projects (identify parallel or crossing), two columns/check boxes indicating distance from adjacent utilities (i.e. (1) equal to or greater than 12-inches and (2) at least 6-inches and less than 12-inches), mileage, incidents (if any).
- (b) Pipe Extraction: Number of projects (identify parallel or crossing), two columns/check boxes indicating distance from adjacent utilities (i.e. (1) equal to or greater than 12-inches and (2) at least 6-inches and less than 12-inches), mileage, incidents (if any).

- (c) Hand Digging: Number of projects (identify parallel or crossing), two columns/check boxes indicating distance from adjacent utilities (i.e. (1) equal to or greater than 12-inches and (2) at least 6-inches and less than 12-inches), mileage, incidents (if any).

In granting this waiver, PG&E is reminded that this waiver applies only to the activities or facilities set forth in this Resolution. This waiver requires PG&E to adopt and implement additional safety conditions as recommended by GSRB to maintain consistency with pipeline safety standards.

SED and the Commission retain discretion to rescind the right to delay inspection or other required activity. Further, SED or the Commission may cancel or modify the permission given in this Resolution at any time.

COMMENTS ON DRAFT RESOLUTION

Public Utilities Code section 311(g)(1) provides that this Resolution must be served on all parties and subject to at least 30 days public review. Any comments are due within 20 days of the date of its mailing and publication on the Commission's website and in accordance with any instructions accompanying the notice. Section 311(g)(2) provides that this 30-day review period and 20-day comment period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day review and 20-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments on April 8, 2025, and will be placed on the Commission's agenda no earlier than 30 days from today. No comments were received.

FINDINGS AND CONCLUSIONS

1. General Order (GO) 112-F is the "State of California Rules Governing Design, Construction, Testing, Operation, and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems" which incorporate and supplement the Federal Pipeline Safety Regulations, specifically, Title 49 of the Code of Federal Regulations (49 CFR), Parts 191, 192, 193, and 199 to set minimum safety requirements for gas operators.
2. GO 112-F, Section 144.3(b)(1) requires that when independently installed, gas pipelines shall be separated from other utilities by a clearance of at least 12 inches when paralleling and by at least 6 inches when crossing.
3. On November 16, 2022, PG&E sent a letter to the Commission's Safety and Enforcement Division (SED), Gas Safety and Reliability Branch requesting a waiver

of GO 112-F, Section 144.3(b)(1). GO 112-F, Section 144.3(b)(1) requires that when independently installed, gas pipelines shall be separated from other utilities by a clearance of at least 12 inches when paralleling and by at least 6 inches when crossing. PG&E requested a waiver to use pipe splitting, and similarly pipe extraction, to replace gas pipelines in joint trenches where it is possible to have less than 12 inches of clearance in parallel installations as required in GO 112-F Section 144.3(b)(1).

4. Section 101.3 of GO 112-F allows a utility, in special circumstances, to submit an application to the Commission to waive compliance with specific rules in accordance with Section 3(e) of the Natural Gas Pipeline Safety Act of 1968.
5. Pipe splitting and extraction installation methods should decrease employees' exposure to electric shock hazards compared to performing hand excavation around buried electrical lines and reduce dig-in risk to subsurface facilities associated with traditional open trench construction.
6. PG&E has not recorded any safety incidents or damage to other utilities in joint trenches when using pipe extraction across 1 mile of installing gas facilities.
7. PG&E has not recorded any safety incidents or damage to other utilities in joint trenches when using the specialized enclosed cutter with pipe splitting across 13 miles of installing gas facilities.

THEREFORE, IT IS ORDERED that:

1. The request of PG&E for a waiver from GO 112-F, Section 144.3(b)(1) is granted.
2. PG&E shall adopt and implement an alternative safety condition similar to the requirement in GO 112-F, Section 144.3(b)(1), requiring a clearance of at least 6 inches from other utilities when paralleling using pipe splitting and/or extraction installation techniques.
 - a. PG&E shall avoid the use of pipe splitting and extraction installation at locations which present more complex conditions such as under buildings, or other locations where PG&E deems additional caution is required.
 - b. PG&E shall provide SED with an update on its pipe splitting, extraction, and hand digging statistics on an annual basis along with its annual report as required by GO 112-F, Section 123.1. These statistics should include at minimum:

- i. Pipe Splitting: Number of projects (identify parallel or crossing), two columns/check boxes indicating distance from adjacent utilities (i.e. (1) equal to or greater than 12-inches and (2) at least 6-inches and less than 12-inches), mileage, incidents (if any).
 - ii. Pipe Extraction: Number of projects (identify parallel or crossing), two columns/check boxes indicating distance from adjacent utilities (i.e. (1) equal to or greater than 12-inches and (2) at least 6-inches and less than 12-inches), mileage, incidents (if any).
 - iii. Hand Digging: Number of projects (identify parallel or crossing), two columns/check boxes indicating distance from adjacent utilities (i.e. (1) equal to or greater than 12-inches and (2) at least 6-inches and less than 12-inches), mileage, incidents (if any).
3. The waiver granted herein does not extend to activities or facilities not set forth in this Resolution.
 4. The Commission or the Safety and Enforcement Division may rescind, cancel or modify the permission given in this Resolution at any time.
 5. This Resolution is effective today.

The foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on May 15, 2025; the following Commissioners voting favorably thereon:

ALICE REYNOLDS
 President
 JOHN REYNOLDS
 KAREN DOUGLAS
 MATTHEW BAKER
 Commissioners

Commissioner Darcie L. Houck, being absent, did not participate in the vote of this item