



PROCESS
INDUSTRY
PRACTICES

COMPLETE REVISION
October 2022

Pipeline Systems

**PIP PLSC0021
Pressure Testing of
ASME B31.4 & B31.8 Metallic Piping**

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PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular materials or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

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Table of Contents

1. Scope2

2. References 2

 2.1 Process Industry Practices..... 2

 2.2 Industry Codes and Standards.....2

3. Definitions3

4. Requirements3

 4.1 General Requirements3

 4.2 Preparation for Testing.....4

 4.3 Pressure Tests11

 4.4 Post-Pressure Test Requirements .13

5. Documentation.....14

 Final Reporting14

1. Scope

This Practice provides pressure testing procedures for pipelines designed and constructed to *ASME B31.8 Gas Transmission and Distribution Piping Systems*, hereinafter referred to as *B31.8*, and in accordance with *DOT CFR 49 Part 192 Subpart J* and *ASME B31.4 Pipeline Transportation Systems for Liquids and Slurries*, hereinafter referred to as *B31.4* and in accordance with *DOT CFR 49 Part 195*. This Practice describes the procedures, practices, and precautions to be used in pressure testing metallic pipelines in accordance with the Code, and describes requirements that are in addition to those of the Code.

2. References

Applicable parts of the following Practices and industry codes and standards shall be considered an integral part of this Practice. The edition in effect on the date of contract award shall be used, except as otherwise noted. Short titles are used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP PLE00012 - *Piping Examination and Leak Testing Guide - B31.8 Pipelines*

2.2 Industry Codes and Standards

- American Petroleum Institute (API)
 - API 1110 - *Recommended Practice for the Pressure Testing of Steel Pipelines for the Transportation of Gas, Petroleum Gas, Hazardous Liquids, Highly Volatile Liquids or Carbon Dioxide*
 - API 1104 - *Welding of Pipelines and Related Facilities*
- American Society of Mechanical Engineers (ASME)
 - ASME B31.4 - *Transportation Systems for Liquids and Slurries*
 - ASME B31.8 - *Gas Transmission and Distribution Piping Systems (the Code)*
 - ASME B31.8S - *Managing System Integrity of Gas Pipelines*
 - ASME PCC-2 - *Repair of Pressure Equipment and Piping*
 - ASME B16.5 - *Pipe Flanges and Flanged Fittings NPS ½ through NPS 24 Metric/Inch Standard*
 - ASME B16.48 - *Line Blanks*
- Pipeline Research Council International (PRCI)
 - *Pipeline Repair Manual*