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COMPLETE REVISION
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Piping

PIP PNE00012

Piping Examination and Leak Test Guide

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PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

This Practice has been prepared by harmonizing technical requirements from existing standards of major industrial operators, contractors, and standards development organizations. While this Practice is intended to incorporate the majority of requirements, individual applications may have requirements which take precedence over this Practice. Determinations concerning fitness for purpose or application of this Practice to specific project or engineering situations should not be made solely on information contained in this Practice. All Practices are intended to be consistent with applicable laws and regulations. Should this Practice conflict with 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 this Practice.

Use of trade names should not be viewed as an expression of preference. Other brands having the same specifications are equally correct and may be substituted for those named.

This Practice is subject to revision at any time. For more information refer to PIP ADG001, *Specification for Developing Practices*.

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1. Scope

This Practice provides guidelines for specifying the requirements for examination and leak testing of metallic, lined metallic, and nonmetallic piping systems designed in accordance with *ASME B31.3 Process Piping*, hereinafter referred to as the *Code*. The requirements include examination of piping materials, components, fabrication, assembly, installation, and associated documentation. This Practice also covers the extent of examination, criteria for acceptance, and correction of defective work. It describes the types of leak tests, bases for selecting the appropriate tests, and arrangements for testing piping.

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 PNSC0001 - *ASME B31.3 Metallic Piping Fabrication and Examination Specification*
- PIP PNSC0021 - *Leak Testing of Piping Systems*

2.2 Industry Codes and Standards

- American Society of Mechanical Engineers (ASME)
 - ASME B16.5 - *Pipe Flanges and Flanged Fittings*
 - ASME B31.3 - *Process Piping (Code)*
 - ASME PCC-2 - *Repair of Pressure Equipment and Piping*

3. Definitions

For definitions of terms used in this Practice, see the *Code*, Paragraph 300.2.

4. Scope of Examination

- 4.1 The *Code* requires that each piping system be examined to the extent specified using the methods specified.
- 4.2 The purpose of this Practice is to specify the minimum leak tightness requirements for post-fabrication testing of process piping systems, and to obtain consistency in the leak testing process.