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INDUSTRY
PRACTICES

REAFFIRMATION
August 2024

Vessels

PIP VECQ1001
Pressure Vessel Shop Qualification Procedure

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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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Data Forms

PIP VECQ1001-F1 – Commercial Information Form
PIP VECQ1001-F2 – Engineering and Fabricating Capabilities Form
PIP VECQ1001-F3 – QA/QC Inspection Form
PIP VECQ1001-F4 – Supplier List of Equipment Form
PIP VECQ1001-F5 – On-Site Technical Qualification Audit Form
PIP VECQ1001-F6 – Pressure Vessel Capability Matrix Form

1. Scope

This Practice describes procedures for shop qualification of manufacturers of shop-built pressure vessels, tanks, and heat exchangers in general accordance with the *ASME Boiler and Pressure Vessel Code*, Section VIII, Division 1 or 2. This Practice may also be used to qualify shops in accordance with foreign or other US codes, but the references given in this Practice are intended for *ASME Code* construction. This Practice does not include qualification of field-erected tank manufacturers.

2. References

Applicable parts of the following 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 Industry Codes and Standards

- American Society of Mechanical Engineers (ASME)
 - ASME Boiler and Pressure Vessel Code
 - Section II - *Materials*
 - Parts A - *Ferrous Material Specifications*
 - Parts B - *Nonferrous Material Specifications*
 - Parts C - *Specifications for Welding Rods, Electrodes, and Filler Metals*
 - Parts D - *Properties*
 - Section V - *Nondestructive Examination*
 - Section VIII - *Rules for Construction of Pressure Vessels, Division 1 and 2*
 - Section IX - *Welding, Brazing, and Fusing Qualifications*
- American Society for Nondestructive Testing (ASNT)
 - ASNT Recommended Practice No. SNT-TC-1A

3. Definitions

Code: *ASME Boiler and Pressure Vessel Code* Section VIII, Division 1 or 2, and any Code Cases permitted by the user and the authorizing agencies

manufacturer: Party who designs and constructs the vessels. In accordance with the Code definition, manufacturer is party that possesses a valid certificate of authorization to manufacture pressure vessels with the ASME Mark.

National Board: The National Board of Boiler and Pressure Vessel Inspectors, an organization comprised of chief inspectors of various governmental jurisdictions in the US and Canada

purchaser: Party who selects and specifies mechanical design requirements (e.g., Vessel Drawing/Data Sheet), consistent with user criteria, for use by the