



PROCESS
INDUSTRY
PRACTICES

REAFFIRMATION
October 2024

Vessel

PIP VESPMI01
Positive Material Identification Specification

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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 Form

VESF 1101-F - Positive Material Identification Report

1. Scope

This Practice provides the minimum Positive Material Identification (PMI) requirements to ensure that only the alloy materials specified in the contract documents are provided in equipment, equipment internals, piping and piping components, and weld consumables.

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.

Industry Codes and Standards

- American Petroleum Institute (API)
 - API RP 578 - *Material Verification Program (MVP) for New and Existing Assets*
- American Society of Mechanical Engineers (ASME)
 - ASME *Boiler and Pressure Vessel Code*
 - Section II – Materials
 - Part A – Ferrous Material Specifications (2 Volumes)
 - Part B – Nonferrous Material Specifications
 - Part C – Specifications for Welding Rods, Electrodes, and Filler Metals
- ASTM International (ASTM)
 - ASTM A751 - *Standard Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products*
- Pipe Fabrication Institute (PFI)
 - PFI Standard ES-22 - *Recommended Practice for Color Coding of Piping Materials*

3. Definitions

alloy material: Non-ferrous metallic material and ferrous metallic materials containing intentionally added alloying elements (other than carbon)

equipment: Pressure vessels, tanks, heat exchangers, heaters, drums, rotating machinery internals, piping and piping components, etc.

heat: The amount of a given material produced from a single finishing furnace melt and therefore has consistent chemical and physical properties

hold point: A mandatory verification point beyond which work shall not proceed without approval and release by the designated authority.