



# Summary of Significant Changes in the 2023 ASME Boiler and Pressure Vessel Code

Section IV  
Section II  
Section V  
Section IX  
Section XIII

**ASME BPVC.SSC.IV.II.V.IX.XIII-2023**

# **Summary of Significant Changes in the 2023 ASME Boiler and Pressure Vessel Code**

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**Sections IV, II, V, IX, and XIII**



**The American Society of  
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# LIST OF SECTIONS IN THE ASME BOILER AND PRESSURE VESSEL CODE

- I Rules for Construction of Power Boilers
- II Materials
  - Part A — Ferrous Material Specifications
  - Part B — Nonferrous Material Specifications
  - Part C — Specifications for Welding Rods, Electrodes, and Filler Metals
  - Part D — Properties (Customary)
  - Part D — Properties (Metric)
- III Rules for Construction of Nuclear Facility Components
  - Subsection NCA — General Requirements for Division 1 and Division 2
  - Appendices
  - Division 1
    - Subsection NB — Class 1 Components
    - Subsection NCD — Class 2 and Class 3 Components
    - Subsection NE — Class MC Components
    - Subsection NF — Supports
    - Subsection NG — Core Support Structures
  - Division 2 — Code for Concrete Containments
  - Division 3 — Containment Systems for Transportation and Storage of Spent Nuclear Fuel and High-Level Radioactive Material
  - Division 4 — Fusion Energy Devices
  - Division 5 — High Temperature Reactors
- IV Rules for Construction of Heating Boilers
- V Nondestructive Examination
- VI Recommended Rules for the Care and Operation of Heating Boilers
- VII Recommended Guidelines for the Care of Power Boilers
- VIII Rules for Construction of Pressure Vessels
  - Division 1
  - Division 2 — Alternative Rules
  - Division 3 — Alternative Rules for Construction of High Pressure Vessels
- IX Welding, Brazing, and Fusing Qualifications
- X Fiber-Reinforced Plastic Pressure Vessels
- XI Rules for Inservice Inspection of Nuclear Reactor Facility Components
  - Division 1 — Rules for Inspection and Testing of Components of Light-Water-Cooled Plants
  - Division 2 — Requirements for Reliability and Integrity Management (RIM) Programs for Nuclear Reactor Facilities
- XII Rules for Construction and Continued Service of Transport Tanks
- XIII Rules for Overpressure Protection

## FOREWORD

This book is a companion to the 2023 ASME Boiler and Pressure Vessel Code (BPVC). It explains only significant changes to Code requirements that will be published in the 2023 Edition. It covers the following ASME BPVC Sections:

- Section IV
- Section II, Parts A, B, C, and D
- Section V
- Section IX
- Section XIII

For each of the above Sections, an Introduction describes the historical background, scope of coverage, and commercial application of that Section. The list of changes follows the Introduction. The "Explanation" for each change provides the reason for the action and the value to the Code user. The sequence of the changes follows the order of the Code requirements.

## ACKNOWLEDGMENTS

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- Carlton R. Ramcharran, *S&C Project Engineering Manager*, Sections IV and V
- Colleen E. Rodrigues, *S&C Project Engineering Manager*, Section II, Parts A, B, and D; and Section XIII
- Ray Rahaman, *S&C Project Engineer*, Section II, Part C; and Section IX

ASME Press's *Online Companion Guide to the ASME Boiler and Pressure Vessel Codes: Criteria and Commentary on Selected Aspects of the Boiler & Pressure Vessel and Piping Codes* (January 2020) provided source material for the Introduction preceding each list of changes. The complete Guide is available in the ASME Digital Collection at <https://asmedigitalcollection.asme.org/ebooks/pages/onlinecompanionguide>.

ASME gratefully acknowledges the members of the following volunteer committees, who are responsible for development of the ASME Boiler and Pressure Vessel Code Sections noted in this book:

- BPV Committee on Heating Boilers (IV)
- BPV Committee on Materials (II)
- BPV Committee on Nondestructive Examination (V)
- BPV Committee on Welding, Brazing, and Fusing (IX)
- BPV Committee on Overpressure Protection (XIII)

# SECTION IV

## Introduction

Section IV of the ASME Boiler and Pressure Vessel Code (BPVC) provides requirements for the design, fabrication, installation, and inspection of steam heating, hot water heating, and hot water supply boilers that are directly fired with oil, gas, electricity, coal, or other solid or liquid fuels, and for operation of these boilers at or below the pressure and temperature limits set forth in Section IV. Similar requirements for potable water heaters are also included. Section IV is divided into five Parts. Part HG covers general requirements for all materials and construction. Part HF covers requirements for boilers constructed of wrought materials. It is divided into two Subparts. Subpart HW contains requirements for boilers fabricated by welding, and Subpart HB contains requirements for boilers fabricated by brazing. Part HC contains requirements for boilers constructed of cast iron. Part HA contains requirements for boilers constructed of cast aluminum. Finally, Part HLW contains requirements for potable water heaters.

Section IV also includes Mandatory Appendices, which contain specific requirements that are not covered elsewhere in that Code, and Nonmandatory Appendices, which provide information and suggested good practices.