

## **SECTION I**

### **KEY CHANGES**

- Section I, Parts Fabrication Certificate Program
- Addition of Part PFE - Requirements for Feedwater Economizers
- Section I, Part PL Requirements for Locomotive Boilers
- Section I, Alternate Rules in Section I for the Design of Electric Immersion Heater Element Support Plates
- PWT-12, Construction of Box Headers and Waterlegs
- Preamble, Section I, Addition of Solar Heated Steam Generator
  - Added Part PFE on Requirements for Feedwater Economizers
  - Added Part PL on Requirements for Locomotive Boilers
  - Added a new paragraph PEB-8.3 allowing the use of Section VIII rules for the design of electric immersion heater element support plates (unstayed flat heads)

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## **SECTION II**

### **KEY CHANGES**

- Revised Appendix 5 in Section II, Part D. A number of testing requirements were added to Appendix 5 in Section II, Part D that are intended to apply to advanced alloys like the CSEF steels.
  - Over 25 ferrous specifications were adopted or revised in Section II, Part A
  - More than 10 nonferrous specifications were adopted or revised in Section II, Part B
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## **SECTION III**

### **KEY CHANGES**

- Definitions of Local Primary Membrane Stress Intensity and Local Thin Areas
  - Incorporate Code Case N-755 into Section III
  - 12-8, 12-372, 12-374, 12-375: Update Appendix W
  - Section III updated Design by Analysis rules for reversing Dynamic Loads
  - Stress Indices for Branch Connections for  $r/R \leq 0.5$
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## **SECTION IV**

### **KEY CHANGES**

- Section IV; Parts Fabrication Certificate Program
  - Section IV - HG-401.1, Safety Valve Sizing
  - Section IV - Manufacturers with Multiple Locations
  - Section IV - HG-530 Marking of Boilers
  - BPV IV - Mandatory Appendix 2
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## **SECTION V**

### **KEY CHANGES**

- Section V: APR Technology.
  - Section V: Adoption of New Article 18 on Guided Wave UT
  - Section V: Mandatory Appendix to Article 4 for the Examination of HDPE
  - 10-1576, 11-1196, 11-1197, 11-1198, 11-1199, 11-1975, 12-1986, 12-189, 12-1995, 12-1996, 12-1997, 12-1998, 12-1999, 12-2042, 13-1981, 13-904, 13-905, 13-906: 15 ASTM specifications related to nondestructive examination and referenced in Section V were adopted or revised.
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## **SECTION VIII, DIVISION 1**

### **KEY CHANGES**

- Section VIII, Division 1; Incorporation of Code Case 2560
  - Section VIII, Division 1; U-2(b) and U-2(e); Clarifying Inspector Responsibility for Review of Calculations
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## **SECTION VIII, DIVISION 2**

### **KEY CHANGES**

- Section VIII, Division 2; Review Environmental Factor for Structural Stress Method in Division 2
  - Section VIII, Division 2; Equations for Calculating Forming Strains in Table 6.1 and Code Case 2804
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## **SECTION VIII, DIVISIONS 1 and 2**

### **KEY CHANGES**

- Section VIII, Division 1; Intent interpretation with revision to UCL-11; and revision to VIII-2; Part 3.3.6.2.
  - Section VIII, Division 1 UHA-51/Div.2 3.11.4 revisions and interpretations
  - Section VIII, Division 1; UG-40(e) and Section VIII, Division 2, 4.5.2
  - Section VIII, Division 1; UW-3(a) and UW-11(a) and Section VIII, Division 2; Table 4.2.1 and Table 7.2
  - Section VIII, Division 2; Paragraph 3.11.2.2(b) and Section VIII, Division 1; Paragraph UCS-66(f)
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## **SECTION VIII, DIVISION 3**

### **KEY CHANGES**

- Section VIII, Division 3; Moving KD-240 Linear Elastic Analysis into a New Mandatory Appendix
  - Section VIII, Division 3; Incorporation of final revisions to Code Case 2579, Incorporation to Sec VIII Division 3 (related to 10-811)
  - Section VIII, Division 3; Revisions to KM-211.2 (a), (b), and (d) for the Manufacture of Large Vessels from Single Piece Forgings
  - Section VIII, Division 3; Rupture Disk Devices
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## SECTION IX

### KEY CHANGES

- SC IX; Friction Stir Welding Procedure Qualification
  - SC IX; Part QF – Electrofusing
  - SC IX; New Nonmandatory Appendix on Qualification of Welders under ISO rules
  
  - Section II, Part C, Adoption of AWS A5.16/A5.16M:2013 as SFA-5.16/SFA-5.16M – *This is a revision to an existing specification.*
  - Section II, Part C, Adoption of AWS A5.11/A5.11M:2010 as SFA-5.11/SFA-5.11M – *This is a revision to an existing specification.*
  - Section II, Part C, Adoption of AWS A5.34/A5.34M:2013 as SFA-5.34/SFA-5.34M – *This is a revision to an existing specification.*
  - Section II, Part C, Adoption of AWS A5.01/A5.01M:2013 as SFA-5.01/SFA-5.01M – *This is a revision to an existing specification.*
  - Section II, Part C, Adoption of AWS A5.1/A5.1M:2012 as SFA-5.1/SFA-5.1M – *This is a revision to an existing specification.*
  - Section II, Part C, Adoption of AWS A5.4/A5.4M:2012 as SFA-5.4/SFA-5.4M – *This is a revision to an existing specification.*
  - Section II, Part C, Adoption of AWS A5.9/A5.9M:2012 as SFA-5.9/SFA-5.9M – *This is a revision to an existing specification.*
  - Section II, Part C, Adoption of AWS A5.22/A5.22M:2012 as SFA-5.22/SFA-5.22M – *This is a revision to an existing specification.*
  - Section II, Part C, Adoption of AWS A5.5/A5.5M:2014 as SFA-5.5/SFA-5.5M – *This is a revision to an existing specification.*
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**SECTION X**

**KEY CHANGES**

- BPVC Section X, Code Case 2820 Composite Pressure Vessels for High Pressure Fluids



## **SECTION XI**

### **KEY CHANGES**

- Section XI - Revision to Appendix D.
  - Revision to Article A-3000 for K Calculation Methods for Surface and Subsurface Flaws.
  - Acceptance of Through-Wall or Through-Weld Leakage in Class 1 Components.
  - New Code Case to Replace N-629 and Revision to Appendix A, A-4200 for  $K_{Ia}$  Fracture Toughness Determination.
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## **SECTION XII**

### **KEY CHANGES**

- Revise Paragraphs in Part PR of Section XII
  - Revised Paragraphs in Part PR concerning requirements for pressure relief devices
  - Revised 1-1.4(a), revised 1-1.4(c)(3) and deleted 1-1.4(d)(11). Add a definition of "Material Test Report" to Mandatory Appendix III, III2. Also the definition for "Dynamic Load Condition" is revised in 1-1.4(c)(3).
- Section XII, Modal Appendix 1 Allowable Stress Criteria