

**CODE CASES**

2023

ASME Boiler and  
Pressure Vessel Code  
An International Code

**Boilers and  
Pressure Vessels**

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AN INTERNATIONAL CODE

# 2023 ASME Boiler & Pressure Vessel Code

2023 Edition

July 1, 2023

**CODE CASES**

**Boilers and Pressure Vessels**



The American Society of  
Mechanical Engineers

Two Park Avenue • New York, NY • 10016 USA

Date of Issuance: July 1, 2023

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# TABLE OF CONTENTS

List of Sections .....	i
Correspondence With the Committee .....	v
Summary of Changes .....	vi
Cross-Referencing in the ASME BPVC .....	ix
Notes to Numeric Index .....	x
Numeric Index .....	xi
Subject Index .....	xxi
Index of Material Specifications Referred to in Cases .....	xxxii

(23)

## LIST OF SECTIONS

### SECTIONS

- 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 Fusion Qualifications
  
- X Fiber-Reinforced Plastic Pressure Vessels
  
- XI Rules for In-service 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

# CORRESPONDENCE WITH THE COMMITTEE

## General

ASME codes and standards are developed and maintained by committees with the intent to represent the consensus of concerned interests. Users of ASME codes and standards may correspond with the committees to propose revisions or cases, report errata, or request interpretations. Correspondence for this Section of the ASME Boiler and Pressure Vessel Code (BPVC) should be sent to the staff secretary noted on the Section's committee web page, accessible at <https://go.asme.org/CSCcommittees>.

NOTE: See ASME BPVC Section II, Part D for guidelines on requesting approval of new materials. See Section I, Part C for guidelines on requesting approval of new welding and brazing materials ("consumables").

## Revisions and Errata

The committee processes revisions to this Code on a continuous basis to incorporate changes that appear necessary or desirable as demonstrated by the experience gained from the application of the Code. Approved revisions will be published in the next edition of the Code.

In addition, the committee may post errata and Special Notices at <http://go.asme.org/BPVCerrata>. Errata and Special Notices become effective on the date posted. Users can register on the committee web page to receive e-mail notifications of posted errata and Special Notices.

This Code is always open for comment, and the committee welcomes proposals for revisions. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent background information and supporting documentation.

## Cases

- (a) The most common applications for cases are:
- (1) to permit early implementation of a revision based on an urgent need
  - (2) to provide alternative requirements
  - (3) to allow users to gain experience with alternative or potential additional requirements prior to incorporation directly into the Code
  - (4) to permit use of a new material or process
- (b) Users are cautioned that not all jurisdictions or owners automatically accept cases. Cases are not to be considered as approving, recommending, certifying, or endorsing any proprietary or specific design, or as limiting in any way the freedom of manufacturers, constructors, or owners to choose any method of design or any form of construction that conforms to the Code.
- (c) The committee will consider proposed cases concerning the following topics only:
- (1) equipment to be marked with the ASME Single Certification Mark, or
  - (2) equipment to be constructed as a repair/replacement activity under the requirements of Section XI
- (d) A proposed case shall be written as a question and reply in the same format as existing cases. The proposal shall also include the following information:
- (1) a statement of need and background information
  - (2) the urgency of the case (e.g., the case concerns a project that is underway or imminent)
  - (3) the Code Section and the paragraph, figure, or table number(s) to which the proposed case applies
  - (4) the edition(s) of the Code to which the proposed case applies
- (e) A case is effective for use when the public review process has been completed and it is approved by the cognizant supervisory board. Cases that have been approved will appear in the next edition or supplement of the Code Cases books, "Boilers and Pressure Vessels" or "Nuclear Components." Each Code Cases book is updated with seven Supplements. Supplements will be sent or made available automatically to the purchasers of the Code Cases books until the next edition of the Code. Annulments of Code Cases become effective six months after the first announcement of the

annulment in a Code Case Supplement or Edition of the appropriate Code Case book. The status of any case is available at <http://go.asme.org/BPVCCDatabase>. An index of the complete list of Boiler and Pressure Vessel Code Cases and Nuclear Code Cases is available at <http://go.asme.org/BPVCC>.

### **Interpretations**

(a) Interpretations clarify existing Code requirements and are written as a question and reply. Interpretations do not introduce new requirements. If a revision to resolve conflicting or incorrect wording is required to support the interpretation, the committee will issue an intent interpretation in parallel with a revision to the Code.

(b) Upon request, the committee will render an interpretation of any requirement of the Code. An interpretation can be rendered only in response to a request submitted through the online Interpretation Submittal Form at <http://go.asme.org/InterpretationRequest>. Upon submitting the form, the inquirer will receive an automatic e-mail confirming receipt.

(c) ASME does not act as a consultant for specific engineering problems or for the general application or understanding of the Code requirements. If, based on the information submitted, it is the opinion of the committee that the inquirer should seek assistance, the request will be returned with the recommendation that such assistance be obtained. Inquirers may track the status of their requests at <http://go.asme.org/Interpretations>.

(d) ASME procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ASME committee or subcommittee. ASME does not “approve,” “certify,” “rate,” or “endorse” any item, construction, proprietary device, or activity.

(e) Interpretations are published in the ASME Interpretations Database at <http://go.asme.org/Interpretations> as they are issued.

### **Committee Meetings**

The ASME BPVC committees regularly hold meetings that are open to the public. Persons wishing to attend any meeting should contact the secretary of the applicable committee. Information on future committee meetings can be found at <http://go.asme.org/BCW>.

## SUMMARY OF CHANGES

The 2023 Edition of the Code Cases includes Code Case actions published through Supplement 7 to the 2021 Edition.

Changes listed below are identified on the pages by a margin note, **(23)**, placed next to the affected area. Errata, if any are identified by a margin note, **(E)**, placed next to the affected area.

<i>Page</i>	<i>Location</i>	<i>Change</i>
iv	List of Sections	(1) Under Section III, Division 4 added (2) Title of Section XI and subtitle of Section XI, Division 2 revised (3) Information on interpretations and Code cases moved to "Correspondence With the Committee"
v	Correspondence With the Committee	Added
ix	Cross-Referencing in the ASME BPVC	Updated
x	Notes to Numeric Index	Updated
xi	Numeric Index	Updated
xxi	Subject Index	Updated
xxxii	Index of Material Specifications Referred to in Cases	Updated
1 (2179-11)	2179-11	Revised
1 (2203-2)	2203-2	Revised
1 (2256)	2256	Annulled
1 (2403)	2403	Impending annulment
1 (2540-1)	2540-1	Revised
1 (2546)	2546	Annulled
1 (2570)	2570	Annulled
1 (2571-1)	2571-1	Impending annulment
1 (2586-1)	2586-1	Impending annulment
1 (2591-1)	2591-1	Revised and impending annulment
1 (2633)	2633	Impending annulment
1 (2656)	2656	Annulled
1 (2657)	2657	Annulled
1 (2710-1)	2710-1	Annulled
1 (2763-2)	2763-2	Revised
1 (2764-1)	2764-1	Annulled
1 (2765-1)	2765-1	Revised
1 (2768)	2768	Impending annulment

<i>Page</i>	<i>Location</i>	<i>Change</i>
1 (2769-1)	2769-1	Annulled
1 (2788)	2788	Impending annulment
1 (2801-1)	2801-1	Revised
1 (2802-1)	2802-1	Revised
1 (2850)	2850	Impending annulment
1 (2858)	2858	Annulled
1 (2885)	2885	Annulled
1 (2923)	2923	Impending annulment
1 (2962)	2962	Impending annulment
1 (3005)	3005	Impending annulment
1 (3013)	3013	Annulled
1 (3015)	3015	Annulled
1 (3061)	3061	Added
1 (3062)	3062	Added
1 (3063)	3063	Added
1 (3064)	3064	Added
1 (3065)	3065	Added
1 (3066)	3066	Added
1 (3067)	3067	Added
1 (3068)	3068	Added
1 (3069)	3069	Added
1 (3070)	3070	Added

## CROSS-REFERENCING IN THE ASME BPVC

(23)

Paragraphs within the ASME BPVC may include subparagraph breakdowns, i.e., nested lists. The following is a guide to the designation and cross-referencing of subparagraph breakdowns:

*(a) Hierarchy of Subparagraph Breakdowns*

- (1) First-level breakdowns are designated as (a), (b), (c), etc.
- (2) Second-level breakdowns are designated as (1), (2), (3), etc.
- (3) Third-level breakdowns are designated as (-a), (-b), (-c), etc.
- (4) Fourth-level breakdowns are designated as (-1), (-2), (-3), etc.
- (5) Fifth-level breakdowns are designated as (+a), (+b), (+c), etc.
- (6) Sixth-level breakdowns are designated as (+1), (+2), etc.

*(b) Cross-References to Subparagraph Breakdowns.* Cross-references within an alphanumerically designated paragraph (e.g., PG-1, UIG-56.1, NCD-3223) do not include the alphanumeric designator of that paragraph. The cross-references to subparagraph breakdowns follow the hierarchy of the designators under which the breakdown appears. The following examples show the format:

- (1) If X.1(c)(1)(-a) is referenced in X.1(c)(1), it will be referenced as (-a).
- (2) If X.1(c)(1)(-a) is referenced in X.1(c)(2), it will be referenced as (1)(-a).
- (3) If X.1(c)(1)(-a) is referenced in X.1(e)(1), it will be referenced as (c)(1)(-a).
- (4) If X.1(c)(1)(-a) is referenced in X.2(c)(2), it will be referenced as X.1(c)(1)(-a).

**NOTES TO NUMERIC INDEX**

- All Code Cases remain available for use until annulled by the ASME Boiler and Pressure Vessel Standards Committees. Code Cases will be reviewed routinely for possible incorporation into the body of the ASME Boiler and Pressure Vessel Code.
- Supplement 7 is the last supplement published for the 2021 edition. Supplement 8 is incorporated into the 2023 edition.
- Cases may be used beginning with the date of approval shown on the Case.
- Annulled Cases will remain in the Numeric Index and Subject Index until the next Edition, at which time they will be deleted.
- Newly revised cases supersede previous versions. Previous code case number will be added in the "Annulled Date/Supersedes" column next to the newly revised code case.
- The digit following a Case Number is used to indicate the number of times a Case has been revised.
- The Cases are arranged in numerical order, and each page of a Case is identified at the top with the appropriate Case Number.

*Legend of Abbreviations*

Supp. = Supplement

R = Reinstated

# NUMERIC INDEX

(23)

Case	Approval Date	Errata	Impending Annulment Date	Annulled Date/ Supersedes
1325-18	6-23-2005	...	...	...
1750-31	9-30-2021	...	...	...
1827-3	12-30-2006	...	...	...
1849-1	8-4-2004	...	...	...
1855-2	12-18-2018	...	...	...
1876-5	4-26-2013	...	...	...
1924-2	12-30-2006	...	...	...
1932-5	8-4-2006	...	...	...
1934	5-25-1983	...	...	...
1935-4	9-23-2007	...	...	...
1936-3	2-20-2002	...	...	...
1949-4	2-20-2004	...	...	...
1968-1	12-2-1990	...	...	...
1993-7	10-26-2016	...	...	...
2016-1	8-12-1996	...	...	...
2038-5	2-7-2000	...	...	...
2055-2	5-4-1999	...	...	...
2063-6	10-2-2008	...	...	...
2073-1	10-29-1999	...	...	...
2093	6-19-1990	...	...	...
2120-1	10-29-1999	...	...	...
2127-3	9-18-2006	...	...	...
2142-6	8-1-2018	...	...	...
2143-2	4-1-2014	...	...	...
2146	11-25-1992	...	...	...
2150	8-12-1993	...	...	...
2151-3	9-30-2018	...	...	...
2172	8-8-1994	...	...	...
2179-11	11-4-2022	...	...	2179-10
2180-8	8-8-2022	...	...	...
2192-10	12-10-2020	...	...	...
2195-1	2-7-2000	...	...	...
2196-5	4-2-2020	...	...	...
2197-1	2-17-2000	...	...	...
2199-9	4-6-2022	...	...	...
2203-2	12-7-2022	...	...	2203-1
2205	6-5-1995	...	...	...
2217-5	6-17-2003	...	...	...
2222-2	10-29-1999	...	...	...
2223-3	6-20-2002	...	...	...
2224-2	9-18-2006	...	...	...
2226-2	5-21-2003	...	...	...
2230-2	10-29-1999	...	...	...
2239-1	10-29-1999	...	...	...
2244-2	1-20-2000	...	...	...
2247	7-9-1998	...	...	...
2249	8-11-1997	...	...	...
2254-1	4-2-2020	...	...	...
2256	8-11-1997	...	...	6-21-2023
2260-3	12-2-2019	...	...	...
2276-1	2-17-2000	...	...	...
2286-6	10-30-2015	...	...	...
2297	11-30-1999	...	...	...
2300	9-23-1999	...	...	...

<b>Case</b>	<b>Approval Date</b>	<b>Errata</b>	<b>Impending Annulment Date</b>	<b>Annulled Date/ Supersedes</b>
2304-2	5-12-2004	...	...	...
2305-1	12-14-2009	...	...	...
2318	9-23-1999	...	...	...
2321-1	2-20-2002	...	...	...
2324-1	3-21-2012	...	...	...
2327-3	8-8-2022	...	...	...
2334	7-10-2000	...	...	...
2346-1	2-14-2003	...	...	...
2350	2-26-2001	...	...	...
2351-1	R11-30-2017	...	...	...
2353-1	10-18-2004	...	...	...
2357-2	12-30-2006	...	...	...
2359-2	6-23-2005	...	...	...
2377	1-27-2003	...	...	...
2385-1	5-4-2004	...	...	...
2397-2	8-30-2022	...	...	...
2400	2-14-2003	...	...	...
2402-1	9-25-2012	...	...	...
2403	2-13-2003	...	10-1-2025	...
2407	2-13-2003	...	...	...
2411	6-23-2005	...	...	...
2416	2-13-2003	...	...	...
2418-2	6-23-2014	...	...	...
2419	5-21-2003	...	...	...
2421	5-21-2003	...	...	...
2426	1-27-2003	...	...	...
2427	5-21-2003	...	...	...
2428-4	4-17-2020	...	...	...
2430	1-12-2005	...	...	...
2432-1	6-20-2008	...	...	...
2439	2-14-2003	...	...	...
2440	2-20-2004	...	...	...
2445-2	6-25-2010	...	...	...
2446	11-29-2004	...	...	...
2458-3	1-22-2007	...	...	...
2461-2	9-12-2017	...	...	...
2463-1	9-8-2010	...	...	...
2468-3	3-13-2020	...	...	...
2469-1	10-21-2009	...	...	...
2473-2	12-18-2018	...	...	...
2475	11-29-2004	...	...	...
2478-1	R3-13-2019	...	...	...
2481-1	11-17-2016	...	...	...
2489	2-22-2005	...	...	...
2493-1	9-12-2017	...	...	...
2494-2	3-28-2017	...	...	...
2496-4	9-30-2018	...	...	...
2498	6-20-2008	...	...	...
2500	11-2-2004	...	...	...
2511	8-3-2005	...	...	...
2512	10-27-2005	...	...	...
2514-1	7-7-2006	...	...	...
2516	8-3-2005	...	...	...
2518-2	12-8-2014	...	...	...
2520	8-4-2006	...	...	...
2523-2	8-30-2018	...	...	...
2527	4-26-2007	...	...	...
2529	10-27-2005	...	...	...
2537	10-27-2005	...	...	...
2538	1-19-2006	...	...	...
2540-1	11-4-2022	...	...	2540

<b>Case</b>	<b>Approval Date</b>	<b>Errata</b>	<b>Impending Annulment Date</b>	<b>Annulled Date/ Supersedes</b>
2544-2	1-26-2009	...	...	...
2546	1-19-2006	...	...	12-30-2022
2554	1-3-2006	...	...	...
2556-2	9-15-2009	...	...	...
2563	12-30-2006	...	...	...
2565	12-30-2006	...	...	...
2568-1	12-21-2016	...	...	...
2570	4-2-2007	...	...	6-21-2023
2571-1	1-26-2009	...	...	...
2576	12-30-2006	...	...	...
2577	10-2-2008	...	...	...
2581	4-26-2007	...	...	...
2585-1	9-15-2009	...	...	...
2586-1	10-2-2008	...	1-1-2024	...
2587	8-6-2007	...	...	...
2588	10-19-2007	...	...	...
2591-1	12-7-2022	...	1-1-2024	2591
2594-2	9-30-2018	...	...	...
2595	1-4-2008	...	...	...
2596-1	4-6-2011	...	...	...
2597	5-21-2008	...	...	...
2598	1-29-2008	...	...	...
2603-2	4-15-2017	...	...	...
2604	10-2-2008	...	...	...
2605-4	7-24-2019	...	...	...
2606	1-26-2009	...	...	...
2607	1-26-2009	...	...	...
2608	1-26-2009	...	...	...
2609	1-26-2009	...	...	...
2610	1-26-2009	...	...	...
2611	1-26-2009	...	...	...
2613	1-30-2009	...	...	...
2616-1	9-23-2013	...	...	...
2617	5-9-2009	...	...	...
2618	7-5-2009	...	...	...
2619	6-24-2009	...	...	...
2620-3	10-6-2019	...	...	...
2624-1	12-2-2019	...	...	...
2627	9-30-2009	...	...	...
2628	9-30-2009	...	...	...
2629	1-13-2010	...	...	...
2630	1-13-2010	...	...	...
2631	12-14-2009	...	...	...
2632	10-21-2009	...	...	...
2633	12-14-2009	...	1-1-2024	...
2634	12-14-2009	...	...	...
2636	1-13-2010	...	...	...
2639	1-20-2010	...	...	...
2640-1	1-20-2011	...	...	...
2641	12-14-2009	...	...	...
2643-1	10-6-2019	...	...	...
2645	3-10-2010	...	...	...
2649	7-2-2010	...	...	...
2652-1	6-23-2014	...	...	...
2653-1	3-5-2018	...	...	...
2655	9-8-2010	...	...	...
2656	8-24-2010	...	...	12-30-2022
2657	7-28-2010	...	...	12-30-2022
2658	9-8-2010	...	...	...
2659	9-8-2010	...	...	...
2660	9-8-2010	...	...	...

<b>Case</b>	<b>Approval Date</b>	<b>Errata</b>	<b>Impending Annulment Date</b>	<b>Annulled Date/ Supersedes</b>
2661-2	4-23-2019	...	...	...
2663	12-7-2010	...	...	...
2665-1	7-13-2011	...	...	...
2666	1-12-2011	...	...	...
2668-1	1-31-2017	...	...	...
2671-2	12-18-2018	...	...	...
2672	6-16-2011	...	...	...
2673	6-16-2011	...	...	...
2674-1	9-30-2018	...	...	...
2675-1	8-30-2022	...	...	...
2676	6-16-2011	...	...	...
2677	4-6-2011	...	...	...
2678-1	9-26-2011	...	...	...
2679	6-16-2011	...	...	...
2680	6-16-2011	...	...	...
2681-1	9-30-2018	...	...	...
2682	7-13-2011	...	...	...
2683	7-13-2011	...	...	...
2684-5	8-1-2018	...	...	...
2686	8-5-2011	...	...	...
2687-1	12-18-2017	...	...	...
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2690-1	10-2-2014	...	...	...
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2692	8-19-2011	...	...	...
2693-1	4-4-2012	...	...	...
2694	9-26-2011	...	...	...
2696	7-13-2011	...	...	...
2697-1	8-1-2016	...	...	...
2698-2	4-2-2020	...	...	...
2701-1	1-10-2013	...	...	...
2702-7	4-6-2022	...	...	...
2703-1	8-1-2018	...	...	...
2704	9-26-2011	...	...	...
2705	8-9-2011	...	...	...
2706	11-7-2011	...	...	...
2707	11-7-2011	...	...	...
2708	11-7-2011	...	...	...
2710-1	1-7-2013	...	...	6-21-2023
2711-1	9-30-2018	...	...	...
2712-2	1-24-2022	...	...	...
2715	2-13-2012	...	...	...
2717	3-21-2012	...	...	...
2718	3-21-2012	...	...	...
2719	4-4-2012	...	...	...
2720	4-4-2012	...	...	...
2721	4-4-2012	...	...	...
2722-1	10-25-2012	...	...	...
2723	4-4-2012	...	...	...
2724	4-4-2012	...	...	...
2725-1	10-6-2020	...	...	...
2726	5-24-2012	...	...	...
2727-1	9-30-2018	...	...	...
2728-1	9-30-2018	...	...	...
2729-2	4-3-2019	...	...	...
2730	6-28-2012	...	...	...
2731	5-16-2012	...	...	...
2733-3	8-1-2018	...	...	...
2734-3	8-1-2018	...	...	...
2735	9-25-2012	...	...	...
2736-2	6-23-2014	...	...	...

<b>Case</b>	<b>Approval Date</b>	<b>Errata</b>	<b>Impending Annulment Date</b>	<b>Annulled Date/ Supersedes</b>
2737-2	9-30-2018	...	...	...
2738	9-25-2012	...	...	...
2739	9-25-2012	...	...	...
2740-1	9-30-2018	...	...	...
2741	8-15-2012	...	...	...
2742	8-29-2012	...	...	...
2743	8-29-2012	...	...	...
2744	8-29-2012	...	...	...
2745-1	7-29-2014	...	...	...
2746	8-29-2012	...	...	...
2747	8-29-2012	...	...	...
2748-2	9-30-2018	...	...	...
2749-2	9-30-2018	...	...	...
2750	12-12-2012	...	...	...
2751	12-12-2012	...	...	...
2752-1	5-30-2019	...	...	...
2753-1	3-13-2019	...	...	...
2754	12-12-2012	...	...	...
2755	12-18-2012	...	...	...
2756	1-7-2013	...	...	...
2757-2	7-15-2021	...	...	...
2758	1-10-2013	...	...	...
2759	1-10-2013	...	...	...
2760-1	12-12-2019	...	...	...
2761-1	11-7-2017	...	...	...
2763-2	11-29-2022	...	...	2763-1
2764-1	9-2-2014	...	...	12-30-2022
2765-1	11-29-2022	...	...	2765
2767	6-18-2013	...	...	...
2768	8-6-2013	...	1-1-2024	...
2769-1	12-18-2017	...	...	12-30-2022
2770-1	11-2-2021	...	...	...
2771	6-18-2013	...	...	...
2772	6-18-2013	...	...	...
2773	8-27-2013	...	...	...
2774	9-18-2013	...	...	...
2775	9-18-2013	...	...	...
2776	9-18-2013	...	...	...
2777-1	9-30-2018	...	...	...
2778	9-18-2013	...	...	...
2779	9-18-2013	...	...	...
2780-1	6-1-2015	...	...	...
2781-2	8-27-2019	...	...	...
2782	10-23-2013	...	...	...
2783	9-28-2013	...	...	...
2784	11-1-2013	...	...	...
2786	11-1-2013	...	...	...
2787-1	1-31-2022	...	...	...
2788	11-1-2013	...	1-1-2024	...
2789-1	9-19-2022	...	...	...
2790	11-1-2013	...	...	...
2791	1-6-2014	...	...	...
2792	1-23-2014	...	...	...
2793	3-18-2014	...	...	...
2794	3-18-2014	...	...	...
2795	3-18-2014	...	...	...
2797	3-18-2014	...	...	...
2798	4-1-2014	...	...	...
2799-1	6-26-2018	...	...	...
2801-1	11-29-2022	...	...	2801
2802-1	11-29-2022	...	...	2802

<b>Case</b>	<b>Approval Date</b>	<b>Errata</b>	<b>Impending Annulment Date</b>	<b>Annulled Date/ Supersedes</b>
2803	5-19-2014	...	...	...
2804	6-23-2014	...	...	...
2805	5-14-2014	...	...	...
2806	6-23-2014	...	...	...
2807-1	12-30-2018	...	...	...
2808-1	4-29-2022	...	...	...
2809	10-2-2014	...	...	...
2810	10-2-2014	...	...	...
2811	11-14-2014	...	...	...
2812	12-31-2014	...	...	...
2813	1-12-2015	...	...	...
2814	1-8-2015	...	...	...
2815-1	9-30-2018	...	...	...
2816	1-8-2015	...	...	...
2817	1-8-2015	...	...	...
2820	11-29-2014	...	...	...
2821	2-24-2015	...	...	...
2822-2	12-11-2017	...	...	...
2823-1	12-18-2017	...	...	...
2824	3-23-2015	...	...	...
2825	3-6-2015	...	...	...
2826-1	8-14-2018	...	...	...
2827-2	6-29-2018	...	...	...
2830	6-1-2015	...	...	...
2831-1	9-30-2018	...	...	...
2832	7-21-2015	...	...	...
2833	7-15-2015	...	...	...
2834	7-15-2015	...	...	...
2835	9-15-2015	...	...	...
2836-4	1-6-2022	...	...	...
2837	9-15-2015	...	...	...
2838	9-15-2015	...	...	...
2839-2	5-4-2022	...	...	...
2840-1	9-30-2018	...	...	...
2841	2-17-2016	...	...	...
2843-2	12-11-2017	...	...	...
2844	12-9-2015	...	...	...
2847-1	12-12-2019	...	...	...
2848	1-20-2016	...	...	...
2849	1-20-2016	...	...	...
2850	2-23-2016	...	1-1-2024	...
2851	2-9-2016	...	...	...
2852	3-17-2016	...	...	...
2853	3-30-2015	...	...	...
2857	5-2-2016	...	...	...
2858	6-17-2016	...	...	3-30-2023
2859	6-17-2016	...	...	...
2860	9-1-2016	...	...	...
2861	9-1-2016	...	...	...
2864-3	8-8-2022	...	...	...
2865	9-30-2016	...	...	...
2866	9-30-2016	...	...	...
2867-3	12-7-2020	...	...	...
2868-1	3-20-2018	...	...	...
2869	11-28-2016	...	...	...
2870-1	3-21-2017	...	...	...
2871-1	3-21-2017	...	...	...
2872	11-30-2016	...	...	...
2873	11-30-2016	...	...	...
2874	11-30-2016	...	...	...
2875	11-30-2016	...	...	...

<b>Case</b>	<b>Approval Date</b>	<b>Errata</b>	<b>Impending Annulment Date</b>	<b>Annulled Date/Supersedes</b>
2876-1	3-21-2017	...	...	...
2877	12-12-2016	...	...	...
2878	12-22-2016	...	...	...
2879	1-10-2017	...	...	...
2880	3-21-2017	...	...	...
2881	3-8-2017	...	...	...
2882-1	7-14-2018	...	...	...
2883	4-12-2017	...	...	...
2884	4-4-2017	...	...	...
2885	6-16-2017	...	...	12-30-2022
2886	8-7-2017	...	...	...
2887-1	12-12-2017	...	...	...
2888	8-24-2017	...	...	...
2889	7-6-2017	...	...	...
2890-3	5-4-2022	...	...	...
2892	10-13-2017	...	...	...
2893	10-16-2017	...	...	...
2894	10-16-2017	...	...	...
2895	10-16-2017	...	...	...
2896	8-9-2017	...	...	...
2897-1	12-18-2018	...	...	...
2898-1	6-19-2019	...	...	...
2899-1	6-19-2019	...	...	...
2900-1	6-19-2019	...	...	...
2901	12-11-2017	...	...	...
2902	12-12-2017	...	...	...
2903-1	12-7-2020	...	...	...
2904	12-18-2017	...	...	...
2905	12-11-2017	...	...	...
2906	12-21-2017	...	...	...
2907	12-11-2017	...	...	...
2909-1	7-2-2019	...	...	...
2910	3-5-2018	...	...	...
2911	3-5-2018	...	...	...
2912	3-5-2018	...	...	...
2914	3-5-2018	...	...	...
2916	4-6-2018	...	...	...
2917	6-19-2019	...	...	...
2918	1-18-2018	...	...	...
2919-1	8-5-2022	...	...	...
2920	1-18-2018	...	...	...
2921	5-7-2018	...	...	...
2923	6-26-2018	...	1-1-2024	...
2924	9-30-2018	...	...	...
2926	9-19-2018	...	...	...
2927	8-1-2018	...	...	...
2928	9-19-2018	...	...	...
2929	8-1-2018	...	...	...
2930	8-24-2018	...	...	...
2931	8-24-2018	...	...	...
2932	9-17-2018	...	...	...
2933	10-2-2018	...	...	...
2934	10-2-2018	...	...	...
2936	9-30-2018	...	...	...
2937	12-7-2018	...	...	...
2938-1	12-7-2020	...	...	...
2939	12-17-2018	...	...	...
2941	12-17-2018	...	...	...
2942	12-18-2018	...	...	...
2943	12-30-2018	...	...	...
2946-1	6-8-2020	...	...	...

<b>Case</b>	<b>Approval Date</b>	<b>Errata</b>	<b>Impending Annulment Date</b>	<b>Annulled Date/ Supersedes</b>
2947	1-7-2019	...	...	...
2949-1	9-14-2020	...	...	...
2951	3-13-2019	...	...	...
2953	5-16-2019	...	...	...
2956	3-13-2019	...	...	...
2957	4-12-2019	...	...	...
2958	7-2-2019	...	...	...
2959-1	6-24-2021	...	...	...
2960	6-19-2019	...	...	...
2961	6-19-2019	...	...	...
2962	7-18-2019	...	1-1-2024	...
2963	7-30-2019	...	...	...
2964	7-2-2019	...	...	...
2965	7-24-2019	...	...	...
2967	8-28-2019	...	...	...
2968	8-28-2019	...	...	...
2969-2	9-3-2020	...	...	...
2970	10-15-2018	...	...	...
2971-1	9-3-2020	...	...	...
2972	10-6-2019	...	...	...
2973	11-21-2019	...	...	...
2974	11-1-2019	...	...	...
2975	11-1-2019	...	...	...
2976	10-11-2021	...	...	...
2978	7-16-2020	...	...	...
2979	12-4-2019	...	...	...
2981	12-2-2019	...	...	...
2982-1	6-29-2022	...	...	...
2983	12-2-2019	...	...	...
2984-1	2-8-2022	...	...	...
2985	12-2-2019	...	...	...
2986-1	7-24-2020	...	...	...
2987	1-21-2020	...	...	...
2988	1-21-2020	...	...	...
2989	1-21-2020	...	...	...
2990	3-13-2020	...	...	...
2991	3-13-2020	...	...	...
2993	3-13-2020	...	...	...
2995	4-2-2020	...	...	...
2996-1	7-15-2020	...	...	...
2998-1	9-15-2020	...	...	...
3000	6-4-2020	...	...	...
3001	4-23-2020	...	...	...
3002	7-9-2020	...	...	...
3003	7-15-2020	...	...	...
3004	7-15-2020	...	...	...
3005	9-3-2020	...	1-1-2024	...
3006	9-3-2020	...	...	...
3007	9-8-2020	...	...	...
3008	9-15-2020	...	...	...
3010	10-6-2020	...	...	...
3012	12-9-2020	...	...	...
3013	1-4-2021	...	...	3-30-2023
3014	12-10-2020	...	...	...
3015	1-20-2021	...	...	6-21-2023
3016	1-28-2021	...	...	...
3017	2-23-2021	...	...	...
3018	3-16-2021	...	...	...
3020	5-24-2021	...	...	...
3021	4-12-2021	...	...	...
3022	6-24-2021	...	...	...

<b>Case</b>	<b>Approval Date</b>	<b>Errata</b>	<b>Impending Annulment Date</b>	<b>Annulled Date/Supersedes</b>
3023	6-24-2021	...	...	...
3024	7-22-2021	...	...	...
3025	6-24-2021	...	...	...
3026	7-15-2021	...	...	...
3027	8-9-2021	...	...	...
3028	7-15-2021	...	...	...
3029	6-24-2021	...	...	...
3030	8-19-2021	...	...	...
3031	8-20-2021	...	...	...
3032	9-2-2021	...	...	...
3033	11-27-2021	...	...	...
3034	12-15-2021	...	...	...
3035	1-3-2022	...	...	...
3036	1-6-2022	...	...	...
3037	2-7-2022	...	...	...
3038	1-10-2022	...	...	...
3039	3-3-2022	...	...	...
3040	3-17-2022	...	...	...
3041	4-1-2022	...	...	...
3042	4-1-2022	...	...	...
3043	4-1-2022	...	...	...
3044	4-6-2022	...	...	...
3045	4-6-2022	...	...	...
3046	4-26-2022	...	...	...
3047	6-4-2022	...	...	...
3048	5-4-2022	...	...	...
3049	5-4-2022	...	...	...
3050	7-12-2022	...	...	...
3051	8-22-2022	...	...	...
3052	8-29-2022	...	...	...
3053	8-30-2022	...	...	...
3054	9-6-2022	...	...	...
3055	8-5-2022	...	...	...
3056	9-6-2022	...	...	...
3057	9-16-2022	...	...	...
3058	9-6-2022	...	...	...
3059	9-6-2022	...	...	...
3060	9-2-2022	...	...	...
3061	10-17-2022	...	...	...
3062	11-29-2022	...	...	...
3063	12-7-2022	...	...	...
3064	12-21-2022	...	...	...
3065	1-2-2023	...	...	...
3066	12-7-2022	...	...	...
3067	12-12-2022	...	...	...
3068	12-7-2022	...	...	...
3069	1-23-2023	...	...	...
3070	2-7-2023	...	...	...

# SUBJECT INDEX

(23)

Subject	Case
<b>Section I</b>	
<b>Power Boilers</b>	
2.25Cr-1.6W-V-Cb Material .....	2199
2.5Cr-1Mo-V-B-Ti Material .....	2540
9Cr-1Mo-V Material .....	2864
9Cr-1Mo-1W-Cb Material .....	2327
9Cr-1Mo-V Material, UNS J84090 .....	2192
9Cr-2W, UNS K92460 Material .....	2179
9Cr-3W-3Co-Nd-B Material .....	2839
12Cr-2W-2Co-B Material .....	3001
12Cr-1.5W-1.6Co-B Material .....	2781
18Cr-11Ni-3Cu-Mo-Nb-B-N Austenitic Stainless Steel, UNS S34752 .....	2984
18Cr-9Ni-2.5W-V-Cb Austenitic Seamless Tube Steel .....	2475
18Cr-10Ni-3Cu-Ti-Cb Seamless Austenitic Stainless Steel Tube .	2512
20Cr-25Ni-1.5Mo-Cb-N Seamless Austenitic Stainless Steel Tube	2581
22Cr-15Ni-Cb-N Austenitic Stainless Steel Seamless Tubing ....	2598
22Cr-25Ni-3.5W-3Cu Austenitic Stainless Steel UNS S31035 ...	2753
25Cr-14Ni-Mo-Low C (UNS S30925) Seamless Austenitic Steel Tube .....	2639
47Ni-23Cr-23Fe-7W, UNS N06674, Alloy Seamless Pipe and Tube, and Forgings .....	2684
52Ni-22Cr-13Co-9Mo (UNS N06617) Welded Tube .....	2923
57Ni-22Cr-14W-2Mo-La Alloy (UNS N06230) .....	2665
57Ni-22Cr-14W-2Mo-La Alloy (UNS N06230) Autogenously Welded Tube and Seamless Pipe and Tube .....	2756
57Ni-22Cr-14W-2Mo-La Alloy (UNS N06230) Wrought and Welded Tubing .....	2792
57Ni-22Cr-14W-2Mo-La Alloy (UNS N06230), Subpart 3, Fig. NFN-24 Up to 1,800°F (982°C) .....	2671
58Ni-29Cr-9Fe Alloy (UNS N06690) .....	2809
Alloy UNS S30815 Up to 1,700°F (927°C) .....	2786
Alternate Rules to PG-26 for Nickel Base Alloys .....	2805
Alternate WPS Qualification .....	3021
Alternative Method for Protection Against Overpressure .....	3031
Alternative Methods for Stamping .....	2896
Alternative Rules for Access in Firetube Boilers .....	2841
Alternative Rules for Heat Treatment of Boiler External Piping.	1934
Alternative Welding Operator Performance Weld Qualification Test .....	2757
Application of the ASME Certification Mark .....	2710
ASTM A351/A351M-14 Grade HG10MnN (UNS J92604) .....	3049
ASTM A1091/A1091M-16, Grade C91 Castings .....	2917
ASTM B444-04 UNS N06852, 50Ni-21.5Cr-17.5Fe-9Mo-Nb, Solution Annealed Seamless Pipes and Tubes .....	2520
Austenitic Fe-27Ni-22Cr-7Mo-Mn-Cu-N Alloy (UNS S31277) ...	2458
Austenitic Fe-35Ni-27Cr Alloy (UNS S35045) .....	2304
Capacitor Discharge Welding of Thermocouples to Material Less Than 0.20 in. (5 mm) Minimum Wall Thickness .....	2986
Changeover Valves Installed Between Safety Valves or Safety Relief Valves and Boilers .....	2254
Corrosion-Resistant Cu-Sb Carbon Steel Tube and Seamless Pipe	2494
Cu-13Zn-1.1Ni-Si-Al Alloy Seamless Pipe and Tubing .....	2782
Design of Safety Valve Connections .....	1876

Subject	Case
<b>Section I</b>	
<b>Power Boilers (Cont'd)</b>	
Design Rules for Creep Strength Enhanced Ferritic (CSEF) Steels Which Are Creep Intolerant for Construction .....	3048
Exemption From Mandatory Requirement for Fusible Plug in Hand-Fired Boilers .....	2731
Exemption From Postweld Heat Treatment for SA-268 TP439 P-No. 7 Tube to SA-790 Alloy UNS S31803 P-No. 10H Header Welds .....	2666
Exemption from Preheat and PWHT for Autogenous Butt welding of SA-213/SA-213M T22 Seamless Tubing .....	2755
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Co-26Cr-9Ni-5Mo-3Fe-2W Alloy (UNS R31233) Filler Metal .....	2969
F-Number Grouping for Cr-Fe-Ni-Mo-Cu, Classification UNS R20033 Filler Metal .....	2473
F-Number Grouping for Ni-Cr-Fe Filler Metals .....	2142
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Electrode .....	2734
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Filler Metal .....	2733
Fe-10.5Cr-0.5Mo-V-Nb Material .....	2890
Fillet Welded Staybolts in Locomotive-Type Boilers Not Covered Under Part PL .....	3045
Forgings of Nickel-Iron-Chromium Alloys N08800 and N08810	1949
Grade 91 Steel, 9%Cr-1%Mo (UNS K90901) .....	2770
Gray Cast Iron Castings .....	1849
Instrumented Indentation Testing as Alternative Hardness Test for QW-290 Temper Bead Welding .....	2703
Low Power Density Laser Beam Welding .....	2827
Materials for Bodies, Bonnets, Yokes, Housings, and Holders of Pressure Relief Devices .....	1750
Method for Basing Design Values on Material Properties Affirmed by Material Manufacturers .....	2556
Ni-22Cr-14W-2Mo-La Alloy (UNS N06230) .....	2063
Ni-25Cr-9.5Fe-2.1Al Alloy (UNS N06025) .....	2359
Ni-25Cr-20Co Material, UNS N07740 .....	2702
Ni-Cr-Co-Mo Alloy (UNS N06617) .....	2439
Ni-Cr-Co-Mo-Ti Precipitation Hardened Alloy UNS N07208 ....	3024
Ni-Cr-Mo Alloy UNS N06022 for Code Construction for Temperatures up to 1250°F .....	2226
Ni-Fe-Cr Alloy N08801 for Water-Wetted Service .....	2357
Nickel-Chromium-Iron (Alloy N06600) for Water-Wetted Service .....	1827
Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625) .....	1935
Nickel-Iron-Chromium Alloys 800 and 800H (UNS N08800 and N08810) and Nickel-Iron-Chromium-Molybdenum-Copper Low-Carbon Alloy (UNS N08028) .....	1325
Nickel-Iron-Chromium-Molybdenum-Copper Alloy (UNS N08825) for Water Wetted Service .....	1936

Subject	Case
<b>Section I</b>	
<b>Power Boilers (Cont'd)</b>	
Nickel-Molybdenum-Chromium Alloy (UNS N10276) .....	1924
Pilot-Operated Pressure Relief Valves for PG-67.2.6 Applications .....	2446
Postponement of Mandatory Date for Compliance .....	2640
Precipitation-Hardening Nickel Alloy (UNS N07718) Used as Bolting Material .....	1993
Preheat of Dissimilar Metal Welds .....	3044
Pressure Relief Valves That Exceeded the Capability of Testing Laboratories .....	2397
PW-39.2.1, PWHT Requirements for P-No. 4 Material Welded to Lower P-Number Material .....	2741
PWHT Exemption When Using Laser Beam Welding to Attach Fins to P-No. 15E Pipe and Tube Materials .....	2927
Qualification of Partial-Penetration Groove Welds Using Laser or Electron Beam Welding .....	2868
Requirements for Use of an Alternative Test Method Under PG-73.4.2.2 .....	2511
SA-487 Grade CA6NM Class A .....	2073
SB-407 UNS N06811, 42Ni-29Cr-28Fe-Mo-N, Seamless Pipes and Tubes .....	2518
Seamless 1.15Ni-0.65Cu-Mo-Cb Material .....	2353
Seamless 11Cr-2W Material .....	2180
Section VIII, Division 1 Plate-and-Frame Heat Exchanger in Section I Feedwater System .....	2817
Section VIII, Division 1, Unfired Steam Boiler in Section I System .....	1855
Sizing Pressure Relief Valves for Economizers .....	3067
Substitution of Base Metals for Weld Metal Overlay .....	2897
Table PW-39-1, Exemptions From Postweld Heat Treatment for P-No. 1 Group 1 Materials With CE Greater Than 0.45 .....	2906
UNS N06696 Seamless Pipe, Tube, and Plate .....	2652
Unstayed Flat Head Constructed From Forged Material .....	2697
Use of A213/A213M-04 UNS S31060 Austenitic Stainless Steel Seamless Tubing and A240/A240M-04a <sup>1</sup> UNS S31060 Austenitic Stainless Steel Plate .....	2430
Use of ASME B31.1, 2014 Edition .....	2851
Use of ASTM A106/A106M-08 as SA-106/SA-106M .....	2663
Use of ASTM A672-06 and A691-98(R2002) Electric-Fusion-Welded Pipe .....	2576
Use of ASTM A988/A988M-17 Hot Isostatically Pressure Consolidated Powder Metallurgy .....	2930
Use of ASTM A989/A989M-15 Hot Isostatically Pressure Consolidated Powder Flanges, Fittings, Valves, and Parts .....	2931
Use of ASTM B834-15, Pressure Consolidated Powder Metallurgy .....	2916
Use of B43 Seamless Red Brass Pipe (UNS C23000) With Drawn General Purpose Temper (H58) for Threaded Piping for Construction of PMB and PEB Miniature Electric Boilers .....	2172
Use of Backing in Helical Butt-Welded Joints Under External Pressure .....	2957
Use of Capacitive Discharge Welding for Joining Non-Load-Bearing Attachments to P-No. 15E Group No. 1 Materials .....	2649
Use of Carbon and Low Alloy Steel Plate, AS 1548-2008 Grades PT430N/PT430NR, PT460N/PT460NR, and PT490N/PT490NR .....	2645
Use of Eccentric Crossings in Construction .....	2995
Use of Glass Bull's-Eye Water Level Indicators on Electric Boilers .....	2715
Use of Magnetically Impelled Arc Butt Welding (MIABW) .....	2694
Use of Manual Ultrasonic Examination of Welds .....	3026
Use of Materials in a Current Code Edition for a Boiler Constructed to an Earlier Code Edition .....	2595
Use of Metric Units .....	2523

Subject	Case
<b>Section I</b>	
<b>Power Boilers (Cont'd)</b>	
Use of Mn- $\frac{1}{2}$ Mo- $\frac{1}{2}$ Ni (UNS K12039) Pipe .....	2440
Use of PRT I Designator .....	3028
Use of SA-36/SA-36M and SA-675/SA-675M, Rectangular Carbon Steel Bars for Stiffening Rings .....	2929
Use of SA-240/SA-240M UNS S41003 Plates in the Construction of Boilers .....	2696
Use of SA-268/SA-268M, UNS S43932 Seamless and Welded Tubes .....	3014
Use of SA-350, Grade LF2, Class 1 Steel Forgings .....	2606
Use of SA-420, Grade WPL6 and Welded Steel Fittings .....	2607
Use of SA-508 Class 1, Grades 2 and 3 Forgings .....	2489
Use of Ultrasonic Examination in Lieu of Radiography for Material Thickness Less Than $\frac{1}{2}$ in. (13 mm) But Greater Than or Equal to $\frac{1}{4}$ in. (6 mm) .....	2816
Use of UNS N06625 Nickel Alloy (60Ni-22Cr-9Mo-3.5Cb) Annealed Grade 1 in Welded Tube, Plate, Sheet, and Strip .....	2632
Use of UNS N08367 Material for Construction .....	2810
Use of UNS S31042 Austenitic Stainless Steel in the Form of ASTM A213/A213M-21b Seamless Tube in Construction .....	3061
<b>Section II</b>	
<b>Materials Part A — Ferrous</b>	
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
<b>Section II</b>	
<b>Materials Part B — Nonferrous</b>	
57Ni-22Cr-14W-2Mo-La Alloy (UNS N06230) Wrought and Welded Tubing .....	2792
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
Use of 5052-H32, 6061-T6, and 6061-T651 Temper Aluminum Alloys in Part HF of Section IV, for Construction of Heating Boilers .....	2432
<b>Section II</b>	
<b>Welding Specifications — Part C</b>	
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
Welding Filler Metals .....	2798
<b>Section II</b>	
<b>Material Properties — Part D</b>	
57Ni-22Cr-14W-2Mo-La Alloy (UNS N06230), Subpart 3, Fig. NFN-24 Up to 1,800°F (982°C) .....	2671
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
<b>Section IV</b>	
<b>Heating Boilers</b>	
Allowance to Use Provisions of HG-402.5 as Alternative to Using Steam to Determine Set Pressure for "Pressure Only" Safety Relief Valves During Capacity Certification Testing .....	2692
Allowing Burst Testing to Determine MAWP of HLW Water Heaters and Storage Tanks .....	2937
Allowing Nameplate to Be Placed in Alternate Location Due to Insufficient Space .....	2876
Allowing Nameplates With Thinner Nominal Thickness .....	2993
Allowing the Use of SB-543 Alloy UNS C70600 Tube .....	2768
Alloy SUS 430J1L/JIS G 4305:2005 Plates for Part HF .....	2763
Alloy SUS 430J1L/JIS G 4305:2005 Plates for Part HLW .....	2765

<u>Subject</u>	<u>Case</u>	<u>Subject</u>	<u>Case</u>
<b>Section IV</b>		<b>Section IV</b>	
<b>Heating Boilers (Cont'd)</b>		<b>Heating Boilers (Cont'd)</b>	
Alloy SUS 430J1LTB/JIS G 3463:2006 Tubes for Heating Boilers	2801	UNS S31635 Tubing	2687
Alloy SUS 430J1LTB/JIS G 3463:2006 Tubes for Water Heaters	2802	UNS S31635 Tubing for Construction of Water Heaters	2723
Alternate Brazing Requirements for Pressure and Nonpressure Parts	2886	Use of 5052-H32, 6061-T6, and 6061-T651 Temper Aluminum Alloys in Part HF of Section IV, for Construction of Heating Boilers	2432
Alternate Safety Relief Valve Mounting for Low Mass Watertube Boilers and Water Heaters	2887	Use of Alloy SUS304TB Tube in Accordance With JIS G 3463:2012 in the Construction of Heating Boilers Under Part HF	2989
Alternative Minimum Thickness Requirements for Part HLW Water Heaters and Storage Tanks	3025	Use of Alloy SUS304TP Pipe in Accordance With JIS G 3459:2016 in the Construction of Heating Boilers Per Part HF	2976
Alternative Rules for Access and Inspection of a Water Boiler 60 in. (1 500 mm) or Over in Diameter	3051	Use of Alloy SUS315J1TB Tube in Accordance With JIS G 3463:2012 in the Construction of Heating Boilers Per Part HF	2960
Alternative Rules for Design Temperature of Plain Furnaces	2963	Use of Alloy SUS315J1TP Pipe in Accordance With JIS G 3459:2016 in the Construction of Heating Boilers Per Part HF	2953
Alternative Rules for Drain Valve Requirements on Modular Hot Water Boilers, HG-716(a)(3)(-b)	2873	Use of Alloy SUS444TB Tubing in Accordance With JIS G 3463:2012 in the Construction of Heating Boilers Per Part HF	2933
Application of the ASME Certification Mark	2710	Use of Alloy SUS444TP Pipe in Accordance With JIS G 3459:2016 in the Construction of Heating Boilers Per Part HF	2934
Attaching Nozzles and Fittings to Headers and Vessels	2690	Use of Aluminum Alloy EN AW-6060 T1 Extruded (Integrally) Finned Tube in the Manufacture of Hot Water Heating Boilers	2627
Attaching Tubes to Tubesheets Using GTAW Welding	3062	Use of Aluminum Alloy EN AW-6060 T66 Extruded Tube in the Manufacture of Hot Water Heating Boilers	2978
Attaching Tubes to Tubesheets Using Laser Beam Welding Without Full Penetration	2760	Use of an Automatic Pressure Decay Test for Part HLW Water Heaters	3023
Automatic Pressure Decay Test in Lieu of Hydrostatic Testing	2826	Use of ASTM A106/A106M-08 as SA-106/SA-106M	2663
Burst Testing Per HG-502.3 in Lieu of Proof Testing Per HLW-500 to Determine MAWP of HLW Items	2850	Use of ASTM A576 Hot-Wrought Carbon Steel Bars for Forming Fittings for HLW Construction	2500
Combination Boilers	3010	Use of Austenitic Stainless Steel Material With Minimum Thickness of 0.020 in. (0.5 mm) for Hot Water Heating Boilers	2688
Copper Alloys	2570	Use of Austenitic Stainless Steel on HLW Water Heaters for Potable Water Applications	2656
Corner Weld With Partial Penetration for Construction of Stainless Steel Hot Water Heating Boiler	3004	Use of Austenitic Stainless Steel SA-312/SA-312M Type 316Ti (UNS S31635) in the Construction of Heating Boilers	2849
Depth of Bevel for Tubes Attached by Welding	2947	Use of EN 10025-2 Gr. S235JR Plate in the Construction of Boilers	2720
Drain Valve on Horizontal Helical Coil Watertube Boilers	2529	Use of EN 10088-2 Gr. X6CrNiMoTi 17-12-2 Sheet, Plate, and Strip in the Construction of Boilers	2719
Exemption from Minimum Required Thickness, HF-301.1	2885	Use of EN 10217-1 Gr. P235TR2 Tubes in the Construction of Boilers	2721
Extension of Joining Personnel's Qualification Continuity	2996	Use of ER310 Filler Metals to Weld UNS S43035, Grades 439 and TP439 Materials to Austenitic Grades 304, 304L, 316, 316L, and 316Ti for the Construction of Heating Boilers	2724
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable	2297	Use of JIS G 4305:2012 Alloy SUS304L in the Construction of Heating Boilers Under Part HF	2900
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes	2143	Use of JIS G 4305:2012 Alloy SUS315J1 in the Construction of Heating Boilers Under Part HF	2899
HG-701.1 Permissible Mounting Safety Relief Valves for Coil-Type Water Boilers	2568	Use of JIS G 4305:2012 Alloy SUS444 in the Construction of Heating Boilers Under Part HF	2898
HLW-401.4(a), Distortion in Lined Vessels	2904	Use of Materials from the 2019 Edition	3033
Joining of SB-283, UNS C37700 Fittings to SB-75 Tubing	2791	Use of Metric Units	2523
Laser Marking of Welded Hot Water Heating Boilers	2813	Use of Nickel Alloy UNS N08367 in Construction of Boilers	2693
Locating Drain Fitting in Location Other Than That Specified in HLW-810(a)	2852	Use of Nickel Alloy UNS N08367 in the Manufacture of Part HLW Water Heaters and Storage Tanks	2973
Mandatory Appendix 5, Alternative Pressure Relief Device	2968	Use of Pneumatic Testing on Individual Cast Aluminum Sections	2604
Marking by Laser Annealing of Part HLW Water Heaters and Storage Heaters	2902	Use of Polymer Material for Bolted Box Headers	2411
Marking for Small Parts 5 in. (125 mm) O.D. and Under	2972	Use of SA-240 Grade 904L (UNS N08904)	2546
Modular Hot Water Boiler Certified as a Single Boiler	2874	Use of SA-240 Types 316Ti, 316L, 439 (UNS S43035), and UNS S43932 to Construct Water Heating Boilers With Cylindrical Parts Larger Than 38 in. (950 mm) Outside Diameter	2769
Modular Hot Water Supply Boilers	2893		
Modular Potable Water Heaters	2882		
Mounting Safety and Safety Relief Valves for Coil Type Heating Boilers	2565		
Part Marking for Small Parts 5 in. (125 mm) O.D. and Under	2962		
Phenolic Lining Material in HLW-200 Application	2613		
Pneumatic Testing	2469		
Pneumatic Testing in Lieu of Hydrostatic Test	2883		
Pneumatic Testing of Welded Hot Water Heating Boilers	2812		
Polymer Material for Heating Boiler Components	2725		
Qualification of Partial and Full Penetration Corner Joints Using Laser Beam Welding	3003		
Resistance Welding for Fittings and Nozzles	2848		
Revised Manufacturer's Data Reports	2691		
SA/EN10028-2 Grades P235GH, P265GH, P295GH, and P355GH	2779		
Tubes Attached by Welding	2657		

Subject	Case
<b>Section IV</b>	
<b>Heating Boilers (Cont'd)</b>	
Use of SA-240, Grades 304L and 316L in Thickness Less Than 1/4 in. (6 mm) . . . . .	2571
Use of SA-240/SA-240M Plate Material, UNS S31635, Grades 316Ti and 439, UNS S43932 and UNS S43940, With Minimum Thickness of 0.0394 in. (1.0 mm) After Forming . . . . .	2946
Use of SA-240/SA-240M Types 304L, 316Ti, 316L, 439 (UNS S43035), and UNS S43932 to Construct Water Heating Boilers for a Maximum Pressure of 160 psi (1 100 kPa) . . . . .	2764
Use of SA-240/SA-240M UNS S41003 Plate in the Construction of Boilers . . . . .	2707
Use of SA-240/SA-240M UNS S43035 (Grade 439) and UNS S43932 Less Than 1/4 in. (6 mm) in Thickness for the Construction of Water Boilers Intended for Working Pressures Up to 160 psi (1 100 kPa) Under Part HF . . . . .	2708
Use of SA-240/SA-240M, Alloys 439 and UNS S43932, and SA-268, alloy TP439 Up to 210°F (99°C) in Heating Boiler Construction . . . . .	2722
Use of SA-240/SA-240M, Plate Alloy Steel, Grades 304L and 316L With Thickness Less Than 1/8 in. (3 mm) . . . . .	2872
Use of SA-240/SA-240M, Types 316Ti, 316L, 439, and UNS S43932 With Thickness Less Than 3/32 in. (2.5 mm) . . . . .	2871
Use of SA-268 Grades UNS S43932 and UNS S43940 Conforming to SA-268 in the Manufacture of Heating Boilers . . . . .	2668
Use of Sand Cast Aluminum Alloy EN AC-43000, AlSi10Mg(a), F Temper . . . . .	2773
Use of SB-148 C95500, As-Cast Temper, in the Manufacture of Heating Boilers, Part HF and Potable-Water Heaters, Part HLW . . . . .	2618
Use of SB-241/SB-241M Grade 6063 T1 (UNS A96063) Aluminum Alloy Extruded (Integrally) Finned and Coiled Tube in the Manufacture of Hot Water Heating Boilers . . . . .	2628
Use of SB-584 (UNS C87500) Copper Alloy Sand Castings in the Manufacture of Nonstandard Pressure Parts for Hot Water Heating Boilers and Potable Water Heaters . . . . .	2706
Use of Silicone Rubber O-Rings for Installing Tubes in Hot Water Heating Boilers and Potable Water Heaters . . . . .	2888
Use of Stainless Steel Material With a Minimum Thickness of 0.0157 in. (0.4 mm) for Hot Water Heating Boilers . . . . .	2869
Use of Stainless Steel Plate and Tube for Hot Water Heating Boilers . . . . .	2870
Use of Stud Welding for Fitting Attachment of Part HG Boilers Fabricated by Welding . . . . .	2967
Use of Stud Welding for Fitting Attachment of Part HLW Water Heaters and Storage Heaters . . . . .	2961
Use of Thermometers With Minimum Full-Scale Range of 50°F to 250°F (10°C to 120°C) . . . . .	2803
Use of UNS C12200 ASTM B359/B359M-18 With O62 Temper in the Manufacture of Part HLW Water Heaters and Part HF Boilers . . . . .	2987
Use of UNS C69300 Copper-Zinc-Silicon Alloy Rod in the Manufacture of Pressure Parts for Hot Water Heating Boilers and Potable-Water Heaters . . . . .	2880
Use of UNS N08904 (904L) Austenitic Stainless Steel Plate, Sheet, Strip in the Manufacture of Part HLW Water Heaters and Storage Tanks . . . . .	2875
Use of UNS N08926 Austenitic Stainless Steel Plate, Sheet, and Strip in the Welded Construction of Hot Water Heating Boilers and Hot Water Supply Boilers . . . . .	3030
Use of UNS R50400 Titanium Seamless and Welded Tube . . . . .	2824

Subject	Case
<b>Section IV</b>	
<b>Heating Boilers (Cont'd)</b>	
Use of UNS S31254 Austenitic Stainless Steel Plate, Sheet, Strip, and Tube in the Manufacture of Part HLW Water Heaters and Storage Tanks . . . . .	2895
Use of UNS S31254 Austenitic Stainless Steel Plate, Sheet, Strip, and Tube in the Welded Construction of Hot Water Heating Boilers . . . . .	2894
Use of UNS S31635 (316Ti) Austenitic Stainless Steel in SA-312/SA-312M Seamless and Welded Pipe in the Manufacture of Part HLW Water Heaters and Storage Tanks . . . . .	2988
Use of UNS S32003 Ferritic/Austenitic Stainless Steel Plate, Pipe, and Tube . . . . .	2643
Use of UNS S32003 Ferritic/Austenitic Stainless Steel Plate, Pipe, and Tube for Boilers . . . . .	2823
Use of UNS S32101 Ferritic/Austenitic Stainless Steel Plate, Sheet, Strip, Pipe, and Tube . . . . .	2603
Use of UNS S32101 Ferritic/Austenitic Stainless Steel Plate, Sheet, Strip, Pipe, and Tube in the Manufacture of Part HLW Water Heaters and Storage Tanks . . . . .	2620
Use of UNS S32205 Ferritic/Austenitic Stainless Steel <sup>™</sup> Plate, Pipe, and Tube . . . . .	2761
Use of UNS S32205 Ferritic/Austenitic Stainless Steel Plate, Sheet, Strip, Pipe, and Tube in the Manufacture of Part HLW Water Heaters and Storage Tanks . . . . .	2778
Use of UNS S43932 Ferritic Stainless Steel in SA-240/SA-240M Plate, Sheet, Strip, and in SA-268/SA-268M Welded and Seamless Tube . . . . .	3027
Use of UNS S82012 and S82031 Duplex Stainless Steel Plate, Sheet, and Strip . . . . .	2861
Use of UNS S82012 and S82031 Duplex Stainless Steel Plate, Sheet, and Strip in the Manufacture of Part HLW Water Heaters and Storage Tanks . . . . .	2860
Valve Markings . . . . .	2256
<b>Section VIII, Division 1</b>	
<b>Pressure Vessels</b>	
7% Ni Thermo-Mechanical Control Processed Steel Plate for Cryogenic Applications . . . . .	2736
9Cr-2Si-1Cu Material . . . . .	3007
9Cr-2W, UNS K92460 Material . . . . .	2179
18Cr-11Ni-3Cu-Mo-Nb-B-N Austenitic Stainless Steel, UNS S34752 . . . . .	2984
18Cr-13Ni-3.7Mo-Nb-N Austenitic Stainless Steel, UNS S31740 . . . . .	3038
18Cr-15Ni-4Mo-3Cu-N, UNS S31727, Austenitic Stainless Steel . . . . .	2617
18.5Cr-15.5Ni-4.5Mo-N Alloy (UNS S31726) Austenitic Stainless Steel . . . . .	2197
20Cr-8.5Ni-0.7Mo-0.2N, UNS S31655 Austenitic Steel, Alloy Plate, Sheet, and Strip, Welded Tubing, Seamless and Welded Pipe . . . . .	2903
22Cr-25Ni-3.5W-3Cu Austenitic Stainless Steel UNS S31035 . . . . .	2752
23Cr-25Ni-5.5Mo-N, UNS S32053, Austenitic -Stainless Steel . . . . .	2445
23Cr-35Ni-7.5Mo-N, UNS N08354, Austenitic Alloy . . . . .	2585
24Cr-4Ni-3Mn-1.6Mo-0.27N, UNS S82441 Ferritic/Austenitic Steel, Alloy Plate, Sheet, and Strip; Bar; Seamless and Welded Tube; Seamless and Welded Pipe . . . . .	2780
24Cr-17Ni-6Mn-4.5Mo-N, UNS S34565, Austenitic Stainless Steel Forgings, Bar, Fittings, Welded and Seamless Pipe and Tube, Plate, Sheet, and Strip . . . . .	2146
24.5Cr-22Ni-7.5Mo-3Mn-N Austenitic Stainless Steel (UNS S32654) . . . . .	2195
25Cr-7.5Ni-4.5Mo-Co-N Austenitic-Ferritic Stainless Steel UNS S32707 . . . . .	2586

Subject	Case	Subject	Case
<b>Section VIII, Division 1 Pressure Vessels (Cont'd)</b>		<b>Section VIII, Division 1 Pressure Vessels (Cont'd)</b>	
25Cr-20Ni Austenitic Stainless Steel UNS S31002 .....	2591	Alternative Rules for Ellipsoidal or Torispherical Heads Having Integral Backing Strip Attached to Shells .....	2346
25Cr-22Ni-2Mo-N, UNS S31050, Austenitic Stainless Steel Forgings .....	2038	Alternative Rules for Hemispherical Head Attached to Cylindrical Shell Having Integral Backing Ring That Is Part of the Shell ..	2751
27Cr-7.6Ni-1Mo-2.3W-N UNS S32808, Solution Annealed Austenitic-Ferritic Duplex Stainless Steel Plate, Seamless Tubing, Seamless Pipe, Forgings, and Bar for Class 2 .....	2496	Alternative Rules for the Design of U-Tube Tubesheets, Configurations a and e .....	2965
29Cr-6.5Ni-2Mo-N Austenitic-Ferritic Stainless Steel, UNS S32906 Hot Isostatically-Pressed Material (Class 2) .....	2840	Alternative Rules for the Postweld Heat Treatment of Finned Tubes .....	2400
30Cr-7Ni-3.5Mo-N, UNS S83071, Austenitic-Ferritic Stainless Steel .....	2914	Alternative Set Pressure Testing of Pilot-Operated Pressure Relief Valves .....	3057
35Ni-30Fe-27Cr-6.5Mo-N Nickel Alloy, UNS N08935 .....	2982	Alternative Welding Operator Performance Weld Qualification Test .....	2757
37Ni-30Co-28Cr-2.75Si Alloy (UNS N12160) .....	2385	Aluminum Alloy (Aluminum-6.3Magnesium) for Code Construction .....	2403
37Ni-33Fe-25Cr Alloy (UNS N08120) Welded Construction Above 1650°F to 1800°F .....	2672	Annealed Copper SB-152, UNS C10100, O25 Temper .....	2859
47Ni-23Cr-23Fe-7W, UNS N06674, Alloy Seamless Pipe and Tube, and Forgings .....	2684	Applicability of ASTM B432 for Construction of Pressure Vessels ASTM A240/A240M-09a UNS S30530 Solution Annealed	2928
52Ni-22Cr-13Co-9Mo (UNS N06617) Welded Tube .....	2923	Austenitic Stainless Steel Plate and Sheet .....	2636
57Ni-22Cr-14W-2Mo-La Alloy (UNS N06230) Wrought and Welded Tubing .....	2792	ASTM B16 Material in Pressure Boundary of Vessel .....	2881
57Ni-22Cr-14W-2Mo-La Alloy (UNS N06230), Subpart 3, Fig. NFN-24 Up to 1,800°F (982°C) .....	2671	Attachment of Tubes to Flat Tubesheets Using Complete Penetration Welds .....	2428
2014-T6 Aluminum Hand Forgings for Nonwelded Construction	2616	Austenitic Fe-27Ni-22Cr-7Mo-Mn-Cu-N Alloy (UNS S31277) ..	2458
A439 Type D-2 Austenitic Ductile Iron .....	2093	Austenitic Fe-35Ni-27Cr Alloy (UNS S35045) .....	2304
Allowable Compressive Stress in the Time-Dependent Regime .	2964	Austenitic Ni-Cr-Mo-Nb Alloy (UNS N06626) .....	2276
Alloy UNS N06690 Up To 1200°F (649°C) .....	2629	Austenitic Stainless Steel Seamless Tubes and Pipe, Seamless Wrought Fittings, Plate, Sheet, and Forgings, 18Cr-11Ni-Cb-N, UNS S34751, 347LN .....	2196
Alloy UNS S30815 Up to 1,700°F (927°C) .....	2786	Cast ASTM B752-06 Zirconium Alloy Grades 702C and 705C ..	2633
Alternate NDE Method for Welded Spin Holes .....	2889	Cast Titanium Aluminum Vanadium Iron Alloy, SB-367, Grade C-38 (Ti 4Al-2.5V-1.5Fe) UNS R54250 .....	2717
Alternate Rules for Heat Treatment of Repair Welds to Castings	2205	Chromium-Nickel-Molybdenum-Nitrogen-Tungsten Duplex Stainless Steel UNS S39274 Plate .....	2427
Alternate Rules for Quick-Actuating Closures .....	2912	Cold-Stretching of Austenitic Stainless Steel Pressure Vessels ..	2596
Alternative Approach for Operating Conditions (Including Occasional Loads) in the Time-Dependent Regime .....	2951	Cu-13Zn-1.1Ni-Si-Al Alloy Seamless Tubing .....	2783
Alternative Flanged Joint Design for Nuclear Material Fluidized Bed Reactors .....	2318	Diffusion Welding of Microchannel Heat Exchangers .....	3018
Alternative Method of Vessel Markings .....	2911	Evaluation of External Loads on Welding Neck Flanges Covered by Section VIII, Division 1, UG-44(b), (i), and (j); or Section VIII, Division 2, 4.1.11.1(a) and (g), and 4.1.11.3 .....	2901
Alternative Pore Evaluation and Acceptance Criteria for Diffusion Welded Material, Mandatory Appendix 42 .....	3046	Exceptions to Requirements of Figure UW-13.2, Sketches (m) and (n) .....	2772
Alternative Pressure Test Procedure to UG-99 and UG-100 for the Construction of Multistream Aluminum Vacuum Brazed Plate-Fin Heat Exchangers .....	2247	Exemption From Post-Bending Heat Treatment Requirements for Carbon and Low-Alloy Steel Tube and Pipe .....	2807
Alternative Procedure for Calculating Allowable Axial Compressive Stress and External Pressure in Cylindrical Shells Constructed of Stainless Steel Alloy 253MA (UNS S30815) at Temperatures Greater Than 1200°F (650°C) and Less Than or Equal to 1650°F (900°C) .....	2682	Exemption From Postweld Heat Treatment for P-No. 4 or P-No. 5A Tube-to-Tubesheet Seal Welds .....	2321
Alternative Procedure for Calculating Allowable Axial Compressive Stress in Cylindrical Shells Constructed of 2 $\frac{1}{4}$ Cr-1Mo Steel at Temperatures Greater Than 700°F and Less Than or Equal to 1000°F .....	2676	Exemption From Postweld NDE Requirements of UG-93(d)(4)-(b) on Fig. UW-13.2(d) Construction .....	2305
Alternative Requirements for Certifying Engineer Qualification .	3036	Exemption from PWHT Requirements in Table UCS-56-3 for Seal Welds Between P-No. 4 Tubes and P-No. 4 Tubesheets .....	2858
Alternative Requirements for Seal Welding of Threaded Connections, UF-32(b) .....	2016	Exemption From Repeated Mechanical Testing as per UCS-85(c) and (i) .....	2941
Alternative Rules for Appendix 24 When Controlled Bolting Is Used .....	2658	Extending Mandatory Appendix 34 to Use PAW to Weld UNS S32615 Meeting the Requirements of SA-240/SA-240M .....	2985
Alternative Rules for Brazing Qualifications .....	2351	Extension of Cementing Technicians Qualification Continuity, Part UIG .....	3008
Alternative Rules for Design of Ellipsoidal and Torispherical Formed Heads .....	2260	Extension of Joining Personnel's Qualification Continuity .....	2996
Alternative Rules for Designing U-Shaped Bellows .....	2587	F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
Alternative Rules for Determining Allowable External Pressure and Compressive Stresses for Cylinders, Cones, Spheres, and Formed Heads .....	2286	F-Number Grouping for 63Ni-22Mo-15Cr Alloy (UNS N10362) Filler Metal .....	2653
		F-Number Grouping for Co-26Cr-9Ni-5Mo-3Fe-2W Alloy (UNS R31233) Filler Metal .....	2969

Subject	Case
<b>Section VIII, Division 1 Pressure Vessels (Cont'd)</b>	
F-Number Grouping for Cr-Fe-Ni-Mo-Cu, Classification UNS R20033 Filler Metal .....	2473
F-Number Grouping for Ni-Cr-Fe Filler Metals .....	2142
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Electrode .....	2734
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Filler Metal .....	2733
Figure UW-13.4, Illustration (a) .....	2814
Full-Strength and Partial-Strength Inset Tube-to-Tubesheet Welds .....	2942
Heat-Affected Zone Impact Testing in Weld Procedure Qualification, UG-84(g)(2) .....	2835
Hydrostatic and Pneumatic Testing of Mass-Produced Pressure Vessels With an Intermediate Isolation Valve Between Indicating Gage and Pressure Vessel .....	2726
Impact Test Requirements of Part UHA Materials Joined by Diffusion Welding .....	3054
Implementation of Changes in Division 1, 31-4 (a) and (b) and Division 2, 3.4.4.1 and 3.4.4.2 .....	2844
Induction Kinetic Welding .....	2799
Inspection Openings in Small Pressure Vessels .....	2634
Large-End Cone-to-Cylinder Junction for $30 < \alpha \leq 60$ Degrees ..	2150
Laser Annealing of Nameplates .....	2959
Laser Measurement for Out-of-Roundness .....	2789
Low Power Density Laser Beam Welding .....	2827
Mandatory Appendix 26, Fatigue Design Curve for Other Materials for Expansion Joints .....	3013
Manufacturer's Data Reports .....	2738
Material of Minor Attachments Welded Directly to Pressure Parts Made of Q&T Steels Covered by Table UHT-23 of Division 1 and Table 3-A.2 of Division 2 .....	2865
Materials for Bodies, Bonnets, Yokes, Housings, and Holders of Pressure Relief Devices .....	1750
Method for Basing Design Values on Material Properties Affirmed by Material Manufacturers .....	2556
Minimum Thickness of Furnace Brazed Plate Heat Exchanger Heads .....	2538
Minimum Thickness of Standard Fittings Under UW-16(f)(3)(-a)(-6) .....	3035
Multiple Marking of Certified Capacities for Pressure-Relief Valves .....	2787
Ni-25Cr-9.5Fe-2.1Al Alloy (UNS N06025) .....	2359
Ni-25Cr-20Co Material, UNS N07740 .....	3056
Ni-29Cr-3.5Fe-3.3Al-1.5Nb Alloy (UNS N06693) .....	2481
Ni-Cr-Co-Mo-Ti Precipitation Hardened Alloy UNS N07208 .....	3024
Ni-Cr-Mo Bolting Material UNS N06059, ASTM F468-06 .....	2588
Ni-Cr-Mo-Cu Alloy UNS N06235 .....	3058
Nickel-Iron-Chromium-Molybdenum-Copper Low Carbon Alloy (UNS N08926) for Code Construction .....	2120
Omission of Lifting Device Requirements for Pressure Relief Valves on Air, Water Over 140°F (60°C), or Steam Service ...	2203
Parallel Plate Explosion Welding for Butt Joints Between Dissimilar Metals .....	2493
Pneumatic Test .....	2407
Pneumatic Testing of Pressure Vessels, U-1(j), UM Vessels .....	2527
Pneumatic Testing of Pressure Vessels, UG-20 .....	2055
Precipitation-Hardening Ni-Cr-Mo Alloy (UNS N07725) .....	2217

Subject	Case
<b>Section VIII, Division 1 Pressure Vessels (Cont'd)</b>	
Precipitation-Hardening Nickel Alloy (UNS N07718) Used as Pressure Retaining Component Material .....	2222
Qualification of Partial-Penetration Groove Welds Using Laser or Electron Beam Welding .....	2868
Qualification of Welding Procedures for High Frequency Induction Longitudinal Butt Welds in Tube Construction ....	2971
Radiographic Requirements for SA-612 Steel Plate .....	2377
Removal of Nameplate With Certification Mark from Prefabricated or Preformed Parts .....	2825
SA-182, SA-240, SA-479, SA-789, SA-790, and SA-815 21Cr-5Mn-1.5Ni-Cu-N (UNS S32101) Austenitic-Ferritic Duplex Stainless Steel .....	2418
SA-240/SA-240M, UNS S43035 Plate .....	2758
SA-240/SA-240M, UNS S43932 Plate .....	2788
SA-453, Grade 660, Class C, High Temperature Bolting Materials With Expansion Coefficients Comparable to Austenitic Steels	2610
SA-736/SA-736M Plates and ASTM A859/A859M-95 Forgings .	1932
SA-995, UNS J92205, (CD3MN), Austenitic/Ferritic Duplex Stainless Steel .....	2402
SA/EN 10025-2 Steel Grades S235J2, S275J2, and S355J2 ....	2811
SB-407 UNS N06811, 42Ni-29Cr-28Fe-Mo-N, Seamless Pipes and Tubes .....	2518
Single Fillet Lap Joint for Heat Exchanger Tube Welds .....	2421
Single Fillet Lap Joints in the Shell of a Shell-and-Tube Heat Exchanger .....	2334
Solution Annealed Ni-Cr-Mo UNS N06058 Alloy Wrought Fittings, Forgings, Bar, Plate, Sheet, Strip, Welded Pipe, Seamless Pipe and Tube, and Welded Tube for Class 1 .....	2983
Solution Annealed Ni-Fe-Cr-Mo-Cu Low Carbon Alloy (UNS N08034) Wrought Fittings, Forgings, Bar, Plate, Sheet, Strip, Welded Pipe, Seamless Pipe and Tube, and Welded Tube for Class 1 .....	2991
Solution Annealed Ni-24Fe-23Cr-6Mo-3Cu, UNS N06845, Seamless Pipe and Tube, Plate, Sheet, Strip, Rod, and Bar ...	2794
Solution Annealed Ni-44Cr-1Mo (UNS N06044) for Plate-Sheet-Strip, Seamless and Welded Fittings, Seamless Pipe and Tube, Forgings, Welded Pipe, Welded Tube and Rod .....	3006
Spherical Intermediate Head or End Closure Without Straight Flange .....	2712
Strength of Aluminum Brazed Joints Up to 400°F .....	2350
Supply of Dimpled or Embossed Panels in the Unpillowed Condition .....	2909
Tack Welds on Heat Transfer Plates Left In-Place Without Qualification, UW-31(c) .....	3000
Testing of Vessels Containing an Internal Piston .....	2608
Thermo-Mechanical Control Processed 7% Ni Steel Plate .....	2750
Titanium Aluminum Alloy, ASTM B367-08b, Ti 3Al-2.5V or Ti 3Al-2.5V-0.05Pd Castings .....	2631
Titanium Nickel Molybdenum Alloy (Ti 0.8Ni-0.3Mo), Grade C-12 Castings .....	2641
Titanium Nickel-Molybdenum Ruthenium Alloy, Ti-0.8Ni-0.3Mo-0.1Ru .....	2426
Tolerance for Formed Heads for External Pressure Design Conditions .....	2544
Type 304LN (Alloy UNS S30453) Austenitic Stainless Steel ....	2127
UNS J93380 (CD3MWCuN) .....	2244
UNS N06696 Seamless Pipe, Tube, and Plate .....	2652
UNS S31266, 24Cr-22Ni-6Mo-2W-Cu-N Super Austenitic Stainless Steel (Class 2) .....	2831
Use of 1Cr- $\frac{1}{2}$ Mo Seamless Pipe for Pressure Purposes .....	2926

Subject	Case
<b>Section VIII, Division 1 Pressure Vessels (Cont'd)</b>	
Use of 1.15Ni-0.65Cu-Mo-Cb (UNS K21001) High-Strength Low-Alloy Steel Seamless Pipes and Tubes, Flat Products, Forgings, and Fittings .....	3037
Use of 17Cr-4Ni-4Cu (UNS S17400) Condition H1150D or H1150M .....	2784
Use of 52Ni-22Cr-13Co-9Mo (UNS N06617), Annealed Bolting Materials for Pressure Vessels .....	2776
Use of 57Ni-22Cr-14W-2Mo-La (UNS N06230), Solution-Annealed Bolting Materials for Pressure Vessels ...	2775
Use of 304L Stainless Steel at Elevated Temperatures .....	2224
Use of 316L Stainless Steel at Elevated Temperatures .....	2577
Use of A213/A213M-04 UNS S31060 Austenitic Stainless Steel Seamless Tubing and A240/A240M-04a <sup>1</sup> UNS S31060 Austenitic Stainless Steel Plate .....	2430
Use of Acoustic Emission Examination in Lieu of Radiography .	1968
Use of Alternative Category B Weld Design .....	3068
Use of Appendix 23 for External Pressure Design of Copper and Copper Alloy Condenser and Heat Exchanger Tubes With Integral Fins at Elevated Temperatures .....	2686
Use of ASME B16.47-2020 in Lieu of ASME B16.47-2017 .....	3043
Use of ASME B16.5-2020 in Lieu of ASME B16.5-2017 .....	3042
Use of ASME B31.3, Appendix L Aluminum Pipe Flanges .....	2905
Use of ASTM A106/A106M-08 as SA-106/SA-106M .....	2663
Use of ASTM A234/A234M Butt Weld Elbows, Grade WPB .....	2830
Use of ASTM A312/A312M-16a Through 18a in Welded Construction in Lieu of SA-312/SA-312M for Grades TP316, TP316H, TP316N, and TP316LN .....	3015
Use of ASTM A372/A372M-16, Grade N, Classes 100 and 120 and Grade P, Classes 100 and 120 .....	2892
Use of ASTM A414/A414M-07 .....	2619
Use of Automated Ultrasound Leak Detection System in Lieu of Visual Inspections Required by UG-100(d) .....	2324
Use of Carbon and Low Alloy Steel Plate, AS 1548-2008 Grades PT430N/PT430NR, PT460N/PT460NR, and PT490N/PT490NR .....	2645
Use of Carbon Steel Pipe Without Requiring Bend or Pressure Testing .....	3047
Use of Compound Material to Produce Tubes, Part UIG .....	3041
Use of EN 10216-3:2013, Grade P460NL1, Fine-Grain Seamless Steel Tubes .....	2990
Use of EN 10216-3:2013, Grade P690QL2, Fine-Grain Seamless Steel Tubes; and EN 10028-6:2017, Grade P690QL2 Fine-Grain Flat Products .....	3052
Use of Existing Nameplates in Inventory for Construction .....	2979
Use of Furnace Brazing for Lethal Service .....	2249
Use of Hot-Isostatically Pressed Pure Isotropic Molybdenum ...	3063
Use of Material Test Report Mechanical Properties to Calculate the MAWP of Vessel or Component by Proof Testing in Accordance With UG-101(m)(2) .....	3065
Use of Ni-Al Bronze C95820 Sand Castings for Pressure Vessels	2230
Use of Noncode Pressure Relief Valves .....	2675
Use of Permanent Mold Cast Aluminum Alloys UNS A13560 and A03570 .....	2239
Use of PFA Tubing Material for Flue Gas Heat Exchanger Tubes	2837
Use of PTFE Tubing Material for Flue Gas Heat Exchanger Tubes	2795
Use of Resistance Longitudinal Butt Welds for Cylinders .....	2777
Use of SA-193/SA-193M Grade B16 Bolting in Diameters Larger Than 7 in. (175 mm) .....	2754
Use of SA-268 Ferritic Stainless Steel Welded Tubing, TP430 Ti, UNS S43036 .....	2419

Subject	Case
<b>Section VIII, Division 1 Pressure Vessels (Cont'd)</b>	
Use of SA-372 Grade E Class 55, Grade J Class 55, and Grade F, G, and H Class 55 and 65 Forgings, Quenched and Tempered ..	2300
Use of SA-705 Type 630 Forgings (UNS S17400) and SA-693 Type 630 Plate (UNS S17400) .....	2223
Use of SA/EN 10028-2, Grades P235GH and P265GH Steel ....	2498
Use of SA/IS 2062, Grades E250A, E250BR, E250B0, and E250C, Hot-Rolled Medium- and High-Tensile Strength Structural Steel Plates .....	3066
Use of SB-209 Alloys 5083, 5052, and 6061 Aluminum Flat Plates in Accordance with UG-93(d)(3) and (d)(4) for the Production of Heat Exchanger Components .....	3005
Use of SB-584 UNS C87500 Castings .....	3012
Use of Sintered Silicon Carbide (S-SiC) for Pressure Boundary Parts for Frame-and-Plate-Type Pressure Vessels .....	2867
Use of Types 308LSi and 316LSi Weld Filler Metals at MDMT Colder Than -320°F (-196°C) .....	3064
Use of UNS S82011 Stainless Steel .....	2735
Use of Welded UNS N02200, N02201, and N04400 Alloy Pipe and Tube .....	2767
Vessel (Production) Impact Tests for Welded Construction of Austenitic Stainless Steels .....	2704
Waiver of Production Impact Testing For Category B Welded Joints .....	3022
Waiver of UW-9(h)(4) Rules .....	3034
Waiver of Weld Joint Examination for Pneumatically Tested Braze Plate-Type Heat Exchangers That Have Been Previously Hydrostatically Tested .....	2774
Welded Austenitic Stainless Steel Condenser and Heat Exchanger Tubes With Textured Surfaces .....	2877
Welding of Aluminum Alloy Tube-to-Tubesheet Joints by Friction Stir Welding (FSW) Process .....	2677
Welding of Tubes to Tubesheets by Deformation Resistance Welding (DRW) Process .....	2463
<b>Section VIII, Division 2 Pressure Vessels (Alternative Rules)</b>	
3 Chromium-1 Molybdenum- <sup>1</sup> / <sub>4</sub> Vanadium-Columbium-Calcium Alloy Steel Plates and Forgings for Class 2 .....	2151
7% Ni Thermo-Mechanical Control Processed Steel Plate for Cryogenic Applications for Class 2 .....	2737
22Cr-5Ni-3Mo-N (UNS S31803) Use to 600°F (316°C) for Class 2	2727
25Cr-7Ni-4Mo-N (UNS S32750) Austenitic-Ferritic Stainless Steel for Class 2 .....	2740
25Cr-22Ni-2Mo-N, UNS S31050, Austenitic Stainless Steel Forgings .....	2038
27Cr-7.6Ni-1Mo-2.3W-N UNS S32808, Solution Annealed Austenitic-Ferritic Duplex Stainless Steel Plate, Seamless Tubing, Seamless Pipe, Forgings, and Bar for Class 2 .....	2496
29Cr-6.5Ni-2Mo-N Austenitic-Ferritic Stainless Steel, UNS S32906 Hot Isostatically-Pressed Material (Class 2) .....	2840
30Cr-7Ni-3.5Mo-N, UNS S83071, Austenitic-Ferritic Stainless Steel .....	2914
35Ni-30Fe-27Cr-6.5Mo-N Nickel Alloy, UNS N08935 .....	2982
Allowable Compressive Stress in the Time-Dependent Regime .	3029
Allowable Stresses and Design Stress Intensities for Bolting Materials Listed in Both Tables 3 and 4 of Section II, Part D .	2730
Alternative Diameter-To-Thickness Ratios for Spherical and Formed Heads With Openings .....	2739
Alternative Flaw Evaluation and Acceptance Criteria for Subsurface Flaw Near Component Surface for Class 1 and Class 2 .....	2958

Subject	Case
<b>Section VIII, Division 2</b>	
<b>Pressure Vessels (Alternative Rules) (Cont'd)</b>	
Alternative Minimum Test Temperature for Hydrostatic Testing	2718
Alternative Requirements for Certifying Engineer Qualification	3036
Alternative Rules for Para. 4.17 When Controlled Bolting Is Used	2659
Alternative Rules for the Design of U-Tube Tubesheets, Configurations a and e	2965
Alternative Set Pressure Testing of Pilot-Operated Pressure Relief Valves	3057
Alternative Welding Operator Performance Weld Qualification Test	2757
Analysis of Class 2 Components in the Time-Dependent Regime	2843
Composite Pressure Vessel Consisting of Inner Steel Layered Shell and Outer Reinforced and Prestressed Concrete Shell for Hydrogen Service for Class 2	2949
Corrected Forming Strain Equation, Table 6.1	2804
Design of Components in the Time-Dependent Regime Using Isochronous Stress-Strain Method for Class 2 Components	3060
Design of Hubless Integral Flanges Using Part 4.16	2833
Elevated Temperature Design of Bolting	2655
Evaluation of External Loads on Welding Neck Flanges Covered by Section VIII, Division 1, UG-44(b), (i), and (j); or Section VIII, Division 2, 4.1.11.1(a) and (g), and 4.1.11.3	2901
Extension of Joining Personnel's Qualification Continuity	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable	2297
F-Number Grouping for 63Ni-22Mo-15Cr Alloy (UNS N10362) Filler Metal	2653
F-Number Grouping for Cr-Fe-Ni-Mo-Cu, Classification UNS R20033 Filler Metal	2473
F-Number Grouping for Ni-Cr-Fe Filler Metals	2142
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes	2143
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Electrode	2734
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Filler Metal	2733
Fatigue Evaluation for Class 2 Parts Constructed With SA-182 F22V; SA-336 F22V; SA-541 22V; SA-542 Type D, Class 4a; and SA-832 Grade 22V at Temperatures Greater Than 371°C (700°F) and Less Than or Equal to 482°C (900°F)	2605
Fatigue Evaluation for Class 2 Parts Constructed With SA-182/ SA-182M F91, SA-213/SA-213M T91, SA-335/SA-335M P91, SA-336/SA-336M F91, and SA-387/SA-387M 91 Class 2 at Temperatures Greater Than 371°C (700°F) and Less Than or Equal to 500°C (932°F)	2822
Full-Strength and Partial-Strength Inset Tube-to-Tubesheet Welds	2942
Heat-Affected Zone Impact Testing in Weld Procedure Qualification, Para. 3.11.8.2(c)	2924
Hillside Nozzle in Spherical Shell or Hemispherical Head in 4.5.11	2834
Impact Testing of SA-540/SA-540M, Grade B23, Class 3 Bolting	2821
Implementation of Changes in Division 1, 31-4 (a) and (b) and Division 2, 3.4.4.1 and 3.4.4.2	2844
Implementing in Parts 4 and 5 the Changes in ASCE/SEI 7-10, Paras. 2.3.2 and 2.4.1 for Wind Load Factors	2679
Induction Kinetic Welding	2799
Intermodal Transport Tanks (UN T50 Portable Tanks) for Class 2	2624
Laser Measurement for Out-of-Roundness	2789
Low Power Density Laser Beam Welding	2827
Manufacturer's Data Reports	2738

Subject	Case
<b>Section VIII, Division 2</b>	
<b>Pressure Vessels (Alternative Rules) (Cont'd)</b>	
Material of Minor Attachments Welded Directly to Pressure Parts Made of Q&T Steels Covered by Table UHT-23 of Division 1 and Table 3-A.2 of Division 2	2865
Method for Basing Design Values on Material Properties Affirmed by Material Manufacturers	2556
Omission of Lifting Device Requirements for Pressure Relief Valves on Air, Water Over 140°F (60°C), or Steam Service	2203
Other Recognized Standards for Definition of Wind and Earthquake Loading in Lieu of ASCE/SEI 7	2680
Parallel Plate Explosion Welding for Butt Joints Between Dissimilar Metals	2493
Precipitation-Hardening Ni-Cr-Mo Alloy (UNS N07725)	2217
Precipitation-Hardening Nickel Alloy (UNS N07718) Used as Pressure Retaining Component Material	2222
Qualification of Partial-Penetration Groove Welds Using Laser or Electron Beam Welding	2868
Rules for Calculating Maximum Permissible Gaps for Layered Vessels in 4.13.12.3	2806
SA-453, Grade 660, Class C, High Temperature Bolting Materials With Expansion Coefficients Comparable to Austenitic Steels	2610
SA-487/SA-487M Grade CA6NM Class A	2998
SA-736/SA-736M Plates and ASTM A859/A859M-95 Forgings	1932
Solution Annealed Ni-Cr-Mo UNS N06058 Alloy Wrought Fittings, Forgings, Bar, Plate, Sheet, Strip, Welded Pipe, Seamless Pipe and Tube, and Welded Tube for Class 1	2983
Solution Annealed Ni-Fe-Cr-Mo-Cu Low Carbon Alloy (UNS N08034) Wrought Fittings, Forgings, Bar, Plate, Sheet, Strip, Welded Pipe, Seamless Pipe and Tube, and Welded Tube for Class 1	2991
Spherical Intermediate Head or End Closure Without Straight Flange	2712
Time-Dependent Allowable Stresses for Class 1 Vessel Materials Listed in Table 2A or Table 2B of Section II, Part D	2943
Tolerance for External Pressure Design Conditions	2673
Unalloyed and Palladium or Ruthenium Enhanced Titanium H Grades With 400 MPa (58 ksi) Minimum UTS, UNS R50400, UNS R52400, UNS R52402, and UNS R52404	3059
UNS S31254 and UNS N08904 Austenitic Stainless Steel Plate, Sheet, and Strip	2808
UNS S31266, 24Cr-22Ni-6Mo-2W-Cu-N Super Austenitic Stainless Steel (Class 2)	2831
Use of 9Ni, 8Ni, and 5Ni-1/4Mo Materials in Welded Condition for Class 2 Construction	2681
Use of 15Cr-5Ni-3Cu (UNS S15500)	2416
Use of AS 1548-2008 Grades PT430N/PT430NR, PT460N/ PT460NR, PT490N/PT490NR for Class 2	2711
Use of ASME B16.47-2020 in Lieu of ASME B16.47-2017	3043
Use of ASME B16.5-2020 in Lieu of ASME B16.5-2017	3042
Use of ASTM A106/A106M-08 as SA-106/SA-106M	2663
Use of ASTM A372/A372M-16, Grade N, Classes 100 and 120 and Grade P, Classes 100 and 120 for Class 2 Vessels	2939
Use of EN 10216-3:2013, Grade P690QL2, Fine-Grain Seamless Steel Tubes; and EN 10028-6:2017, Grade P690QL2 Fine-Grain Flat Products	3052
Use of EN 10222-2:1999, Grade 18MnMoNi5-5, Steel Forgings for Class 2	2749
Use of Fatigue Analysis Screening, Method A For Vessels Made of 1.25Cr-0.5Mo-Si and 2.25Cr-1Mo Steels	2630
Use of Hot-Isostatically Pressed Pure Isotropic Molybdenum	3063

<b>Subject</b>	<b>Case</b>
<b>Section VIII, Division 2</b>	
<b>Pressure Vessels (Alternative Rules) (Cont'd)</b>	
Use of Nickel-Chromium-Molybdenum-Columbium Alloy UNS N06625 for Class 2 .....	2468
Use of Resistance Longitudinal Butt Welds for Cylinders .....	2777
Use of SA-193/SA-193M Grade B16 Bolting in Diameters Larger Than 7 in. (175 mm) .....	2754
Use of SA-336/SA-336M Class F91 for Class 2 .....	2815
Use of SA-705 Type 630 Forgings (UNS S17400) and SA-693 Type 630 Plate (UNS S17400) .....	2223
Use of SA/EN 10028-2, Grade 13CrMoSi5-5+QT Steels for Class 2 .....	2674
Use of SA/EN 10028-2, Grade 20MnMoNi4-5, Quenched and Tempered Steel Plate for Class 2 .....	2748
Use of SA/EN 10028-3, Grade P460NL1, Fine Grain Normalized Steel Plates for Class 2 .....	2594
Use of SA/EN 10028-3, Grade P355N, Fine Grain Normalized Steel Plates .....	2611
Use of SB-247, 6061-T6 Aluminum Alloy for Class 2 .....	2478
Use of SB-564 Nickel-Iron-Chromium-Molybdenum-Copper Alloy UNS N08825 Forgings for Class 2 .....	2728
<b>Section VIII, Division 3</b>	
<b>High Pressure Vessels</b>	
Alternative Flaw Evaluation and Acceptance Criteria for Subsurface Flaw Near Component Surface .....	2956
Alternative Welding Operator Performance Weld Qualification Test .....	2757
Aluminum Alloy, UNS A96061 Temper T6 and UNS A96061 Temper T651 .....	2563
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for 63Ni-22Mo-15Cr Alloy (UNS N10362) Filler Metal .....	2653
F-Number Grouping for Cr-Fe-Ni-Mo-Cu, Classification UNS R20033 Filler Metal .....	2473
F-Number Grouping for Ni-Cr-Fe Filler Metals .....	2142
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Electrode .....	2734
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Filler Metal .....	2733
Hydrogen Crack Growth Rate Constants, Threshold Stress Intensity Factor $K_{IH}$ , and Critical Crack Size Requirements for SA-372 and SA-723 Steels .....	2938
KE-112.1 References to Section V, T-120 .....	2981
Manufacture of a Hoop-Wrapped, Wire-Reinforced Cylindrical Pressure Vessel .....	2836
Manufacturer's Data Reports .....	2738
Material Requirements for Valve Stems for Use With Power-Actuated Pressure Relief Systems .....	2797
Maximum Dynamic Pressure During Vented Deflagration for Vessels in Low Density Polyethylene Service .....	2701
Method for Basing Design Values on Material Properties Affirmed by Material Manufacturers .....	2556
Permit Testing a Single Forging to Represent Several Thicknesses .....	2597
Precipitation-Hardening Ni-Cr-Mo Alloy (UNS N07725) .....	2217
Qualification of Partial-Penetration Groove Welds Using Laser or Electron Beam Welding .....	2868
Replacement Parts for Pressure Vessels .....	2678
SA-736/SA-736M Plates and ASTM A859/A859M-95 Forgings ..	1932
SA-738/SA-738M, Grade E Steel Plates .....	2771

<b>Subject</b>	<b>Case</b>
<b>Section VIII, Division 3</b>	
<b>High Pressure Vessels (Cont'd)</b>	
Steam Cleaning of High-Pressure Vessels .....	2932
Use of ASME B16.5-2020 in Lieu of ASME B16.5-2017 .....	3042
Use of ASTM A106/A106M-08 as SA-106/SA-106M .....	2663
Use of ASTM A313/A313M-18, UNS S30151 With a Rectangular Cross-Section .....	3040
Use of ASTM A372/A372M-16, Grade J, Class 110 With Addition of 5 ppm to 20 ppm Boron .....	2936
Use of ASTM A372/A372M-16, Grade N, Classes 100 and 120 and Grade P, Classes 100 and 120 .....	2907
Use of Chromium-Silicon Alloy Steel Wire ASTM A401/A401M UNS G92540 .....	2516
Use of Chromium-Silicon Alloy Steel Wire ASTM A401/A401M-03 UNS G92540 .....	2609
Use of Chromium-Silicon Alloy Steel Wire for Pressure Vessel Winding .....	2461
Use of Eddy Current for Surface Examination .....	3070
Use of EN 10083-3:2006, Steel Name 34CrMo4+QT (Steel Number 1.7220+QT) .....	3050
Use of High Strength Low Alloy Steel Castings .....	2698
Use of Round Steel Wire .....	2847
Use of SA-182 F22V, SA-336 F22V, SA-541 22V, SA-542 Type D, Class 4a, and SA-832 22V to 850°F (454°C) .....	2514
Use of SA-372/SA-372M, Grade M, Class 85, Alloy Steel Forgings for Thin-Walled Pressure Vessels .....	3032
Use of SA-693, Grades 630 and XM-12, Classes H1150, H1100, H1075, and H1025 .....	2910
Use of SA-705/SA-705M, Type XM-12, Condition H1025 for Primary Pressure Boundary Components in Contact With Water or Aqueous Solution .....	2793
Use of SA-705/SA-705M, XM-12, Condition H1025 for Yoke-Supported End Plugs .....	2759
Use of SA-723/SA-723M Forgings, SA-705/SA-705M Forgings, and SA-564/SA-564M Bar for Bolting .....	2661
Use of Taper Pipe Threads .....	3053
Use of Type XM-12, Condition H900 Material With a Reduced Tensile Strength .....	2790
<b>Section IX</b>	
<b>Welding, Brazing, and Fusing Qualifications</b>	
Alternative Welding Operator Performance Weld Qualification Test .....	2757
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for 57Ni-30Cr-9Fe-1.8Nb Filler Metal (UNS N06043) .....	2660
F-Number Grouping for 63Ni-22Mo-15Cr Alloy (UNS N10362) Filler Metal .....	2653
F-Number Grouping for Co-26Cr-9Ni-5Mo-3Fe-2W Alloy (UNS R31233) Filler Metal .....	2969
F-Number Grouping for Cr-Fe-Ni-Mo-Cu, Classification UNS R20033 Filler Metal .....	2473
F-Number Grouping for Ni-Cr-Fe Filler Metals .....	2142
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Electrode .....	2734
F-Number Grouping for Ni-Fe-Cr, Classification UNS N08087 Welding Filler Metal .....	2733
Induction Kinetic Welding .....	2799
Instrumented Indentation Testing as Alternative Hardness Test for QW-290 Temper Bead Welding .....	2703

<u>Subject</u>	<u>Case</u>
<b>Section IX</b>	
<b>Welding, Brazing, and Fusing Qualifications (Cont'd)</b>	
Low Power Density Laser Beam Welding .....	2827
Low-Energy Capacitor Discharge Welding.....	2884
NDE Personnel Qualification and Certification Requirements...	2838
Parallel Plate Explosion Welding for Butt Joints Between Dissimilar Metals .....	2493
Pin Brazing .....	2866
Qualification of Gas Metal Arc Additive Manufacturing (GMAAM) Procedures .....	3020
Qualification of Partial and Full Penetration Corner Joints Using Laser Beam Welding.....	3003
Qualification of Partial-Penetration Groove Welds Using Laser or Electron Beam Welding .....	2868
Qualification of Welding Procedures for High Frequency Induction Longitudinal Butt Welds in Tube Construction ....	2971
Substitution of Base Metals for Weld Metal Overlay .....	2897
Use of Additively Manufactured Base Metal for Welding Procedure Qualifications .....	3016
Use of Explosion Welding Process for Tube Plugging .....	3002
Use of Metric Units .....	2523
Use of Resistance Longitudinal Butt Welds for Cylinders .....	2777
WPS Qualification for Friction Taper Hydro Pillar (FTHP) Welding .....	2832
<b>Section X</b>	
<b>Fiber-Reinforced Plastic Pressure Vessels</b>	
Alternative Fiber for Class 1 Fabrication.....	2918
Alternative Set Pressure Testing of Pilot-Operated Pressure Relief Valves .....	3057
Application of the ASME Certification Mark .....	2710
Article RT-5, Hydrostatic Testing Procedure and Equipment for Class I, Class II, and Class III Pressure Vessels .....	3039
Class III Composite Pressure Vessels Maximum Design Temperature .....	2853
Composite Class III Pressure Vessel Batch Cycle Testing .....	2743
Composite Class III Pressure Vessel Lower Cycle Pressure Limit	2742
Composite Pressure Vessel Analysis.....	2744
Composite Pressure Vessel Nozzle Design Change .....	2747
Composite Pressure Vessel Pressurization Rate .....	2746
Composite Pressure Vessels for High Pressure Fluids in Accordance With Mandatory Appendix 8 .....	2820
Composite Pressure Vessels for High-Pressure Fluids .....	2745
Equivalent Pressure Cycling for Composite Pressure Vessels for High Pressure Fluids .....	2970
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
Fabrication of Class I Vessels With Metallic Nozzles Not Meeting Minimum Wall Thickness Requirements .....	2729
Frequency of Determination of Weight of Resin and Fiber .....	2920
Increasing Maximum Design Pressure Limitation for Class I Filament Wound Pressure Vessels From 1,500 psi to 2,000 psi	3017
Materials for Bodies, Bonnets, Yokes, Housings, and Holders of Pressure Relief Devices .....	1750
RT-310(a), Frequency of Cyclic Pressure and Qualification Pressure Tests .....	3055
Use of Lap Joint Flanges for Nozzles, Manways, and Body Flanges for Installation on Class II Equipment .....	2974
Use of Method A as the Only Design Basis for Class II Vessels ..	2683
Use of Metric Units .....	2523
Vessel Weight Requirements for Class I Vessels .....	2975
Volumetric Expansion Tests .....	2919

<u>Subject</u>	<u>Case</u>
<b>Section XII</b>	
<b>Transport Tanks</b>	
7% Ni Thermo-Mechanical Control Processed Steel Plate for Cryogenic and Ambient Temperature Applications .....	2879
Alternative Method to Area Replacement Rules for Openings Under Internal Pressure.....	2554
Application of the ASME Certification Mark .....	2710
EN 10028-7 and SA-240/SA-240M Austenitic Stainless Steel Plates for Cryogenic Applications .....	2857
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
Materials for Bodies, Bonnets, Yokes, Housings, and Holders of Pressure Relief Devices .....	1750
NDE Level III Personnel Certified Prior to 2004.....	2878
Revised Data Report Forms.....	2705
Spherical Intermediate Head or End Closure Without Straight Flange .....	2921
Use of ASTM A106/A106M-08 as SA-106/SA-106M .....	2663
Use of Metric Units .....	2523
<b>Section XIII</b>	
<b>Rules for Overpressure Protection</b>	
Alternative Set Pressure Testing of Pilot-Operated Pressure Relief Valves .....	3057
Multiple Marking of Certified Capacities for Pressure-Relief Valves .....	2787
Omission of Lifting Device Requirements for Pressure Relief Valves on Air, Water Over 140°F (60°C), or Steam Service...	2203
Use of Abbreviations in Lieu of Company Name or Identifying Trademark on Pressure Relief Devices .....	3069
<b>Section III — Division 1</b>	
<b>Rules for Construction of Nuclear Facility Components</b>	
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
<b>Section III — Division 2</b>	
<b>Code For Concrete Containments</b>	
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
<b>Section III — Division 3</b>	
<b>Containment Systems for Transportation and Storage of Spent Nuclear Fuel and High Level Radioactive Material and Waste</b>	
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
<b>Section III — Division 5</b>	
<b>High Temperature Reactors</b>	
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
<b>Section XI, Division 1</b>	
<b>Rules for Inservice Inspection of Nuclear Power Plant Components</b>	
Extension of Joining Personnel's Qualification Continuity .....	2996
F-Number Grouping for 9Cr-1Mo-V FCAW Consumable .....	2297
F-Number Grouping for Ni-Cr-Fe, Classification UNS W86152 and UNS W86056 Welding Electrodes .....	2143
<b>B31</b>	
<b>Code for Pressure Piping</b>	
Extension of Joining Personnel's Qualification Continuity .....	2996

# INDEX OF MATERIAL SPECIFICATIONS REFERRED TO IN CASES (23)

Subject	Case	Subject	Case
<b>ASME Specification</b>		<b>ASME Specification (Cont'd)</b>	
SA-20/SA-20M .....	2674, 2748, 2749, 3022	SA-302 .....	2576
SA-36/SA-36M .....	2929	SA-312/SA-312M .....	2127, 2146, 2195, 2196, 2224, 2304, 2445, 2458, 2577, 2591, 2617, 2634, , 2688, 2752, 2753, 2786, 2831, 2849, 2984, 2988
SA-53/SA-53M .....	3047	SA-320/SA-320M .....	2821
SA-105 .....	1876, 2624, 2697, 2956, 2958	SA-333 .....	2681
SA-106/SA-106M .....	1876, 2494, 2624, 2663	SA-334 Grade 8 .....	2344, 2681
SA-181 .....	1876, 2697	SA-335/SA-335M .....	1876, 2179, 2180, 2199, 2327, 2353, 2440, 2630, 2770, 2781, 2822, 2839, 2864, 2890, 2958, 3001, 3007, 3037, 3048
SA-182/SA-182M .....	1876, 2038, 2127, 2146, 2151, 2179, 2180, 2195, 2196, 2199, 2224, 2304, 2327, 2418, 2445, 2458, 2514, 2577, 2605, 2617, 2630, 2697, 2727, 2740, 2786, 2815, 2822, 2831, 2839, 2864, 2890, 2930, 2931, 2956, 2958, 2984, 3037, 3038, 3048	SA-336/SA-336M .....	1876, 2151, 2179, 2180, 2327, 2514, 2577, 2605, 2630, 2815, 2822, 2864, 2956, 2958
SA-193/SA-193M .....	2445, 2754, 2901	SA-350 .....	2606, 2624, 2956, 2958
SA-194 .....	2445	SA-351 .....	1750
SA-210 .....	1876	SA-352 .....	1750
SA-213/SA-213M .....	1876, 2127, 2146, 2179, 2180, 2196, 2199, 2224, 2304, 2327, 2353, 2458, 2512, 2540, 2577, 2581, 2591, 2598, 2630, 2639, 2687, 2688, 2723, 2724, 2752, 2753, 2755, 2781, 2786, 2822, 2831, 2839, 2864, 2890, 2984, 3001, 3007, 3037, 3038, 3048, 3061	SA-358 .....	2445, 2617, 2831, 2984
SA-216/SA-216M .....	1876	SA-369 .....	2179, 2327, 2864, 2890, 3048
SA-217 .....	1876, 2192	SA-370 .....	2563, 2792, 2847
SA-234 .....	2179, 2180, 2327, 2630, 2697, 2830, 2864, 2890, 3048	SA-372 .....	2016, 2300, 2892, 2926, 2936, 2938, 3032
SA-240/SA-240M .....	2127, 2146, 2195, 2196, 2197, 2224, 2304, 2345, 2418, 2427, 2445, 2458, 2496, 2571, 2577, 2596, 2603, 2617, 2620, 2634, 2643, 2688, 2696, 2707, 2708, 2722, 2724, 2727, 2735, 2740, 2758, 2761, 2778, 2786, 2788, 2808, 2823, 2831, 2857, 2860, 2861, 2871, 2872, 2875, 2894, 2895, 2930, 2946, 2984, 2985, 3027, 3030, 3038	SA-376 .....	2127, 2146
SA-249/SA-249M .....	2146, 2195, 2224, 2304, 2445, 2458, 2577, 2617, 2688, 2724, 2786, 2831, 2877, 2894, 2895	SA-387/SA-387M .....	2576, 2630, 2822, 2864, 2890, 2956, 2958, 3048
SA-266 .....	1876, 2928, 2958	SA-403 .....	2146, 2195, 2196, 2224, 2304, 2315, 2445, 2577, 2617, 2634, 2831, 2984, 3038
SA-268/SA-268M .....	2419, 2666, 2668, 2722, 2724, 2788, 3014, 3027	SA-409 .....	2146, 2445, 2617
SA-278 Grades 20, 25, 30, and 35 .....	1849	SA-414/SA-414M .....	2619
SA-299/SA-299M .....	2576, 2624	SA-420 .....	2607, 2681
		SA-423 .....	2494
		SA-426 .....	2192
		SA-450 .....	2494
		SA-453 .....	2610
		SA-479 .....	2127, 2146, 2224, 2304, 2418, 2445, 2458, 2577, 2617, 2786, 2831, 2984, 3038
		SA-484/SA-484M .....	2496
		SA-487/SA-487M .....	2073, 2998
		SA-508 .....	2151, 2489, 2630, 2956, 2958
		SA-516/SA-516M .....	2576, 2624, 2956, 2958
		SA-530/SA-530M .....	3022, 3050
		SA-540/SA-540M .....	2821
		SA-541 .....	2151, 2514, 2605, 2630, 2956, 2958
		SA-542 .....	2151, 2514, 2605, 2630, 2956, 2958
		SA-553 .....	2736
		SA-564/SA-564M .....	2661, 2784
		SA-578 .....	2712, 2921

<b>Subject</b>	<b>Case</b>	<b>Subject</b>	<b>Case</b>
<b>ASME Specification (Cont'd)</b>		<b>ASME Specification (Cont'd)</b>	
SA-609/SA-609M .....	2698	SB-315 .....	1750
SA-612 .....	2377, 2624	SB-338 .....	2426, 2824, 3059
SA-645 .....	2681	SB-348 .....	2426, 3059
SA-675 .....	1750, 2929	SB-363 .....	2426, 2634, 3059
SA-693 .....	2223, 2910	SB-366 .....	1924, 2063, 2120, 2226, 2249, 2276, 2359, 2385, 2481, 2665, 2672, 2693, 2697, 2702, 2810, 2973, 3006
SA-703/SA-703M .....	2192, 2698, 3049	SB-367 .....	1993, 2641, 2717
SA-705/SA-705M Type 630 .....	2223, 2661	SB-381 .....	2426, 3059
SA-705/SA-705M Type XM-12 .....	2281, 2416, 2661, 2759, 2790, 2793	SB-407 .....	1325, 2357, 2518, 2672
SA-705/SA-705M Type XM-13 .....	2661	SB-408 .....	1325, 2672
SA-723/SA-723M .....	2661, 2938	SB-409 .....	1325, 2672
SA-736/SA-736M .....	1932	SB-423 .....	1936
SA-738/SA-738M .....	2771, 2956, 2958	SB-424 .....	1936, 2728, 2794
SA-765 .....	2956	SB-425 .....	1936
SA-789/SA-789M .....	2418, 2496, 2586, 2603, 2620, 2643, 2727, 2735, 2740, 2761, 2778, 2823	SB-435 .....	2063, 2385, 2665
SA-790 .....	2418, 2586, 2603, 2620, 2643, 2666, 2727, 2735, 2740, 2761, 2778, 2823	SB-443 .....	1935, 2217, 2276, 2468, 2632
SA-813 .....	2445, 2617, 2831	SB-444 .....	1935, 2217, 2468
SA-814 .....	2445, 2617	SB-446 .....	1935, 2217, 2468, 2916
SA-815 .....	2418, 2697	SB-462 .....	2120, 2481, 2359, 2693, 2697, 2810, 2973
SA-832 .....	2151, 2514, 2605, 2956, 2958	SB-514 .....	2672
SA-841 .....	2737, 2750	SB-515 .....	1325, 2672
SA-905 .....	2461, 2847	SB-516 .....	2359, 2481
SA-965 .....	2127, 2196, 2224	SB-517 .....	2359, 2481
SA-995 .....	1750, 2244, 2402	SB-543 .....	2768
SA-1017/SA-1017M .....	2179, 2180, 2199, 2327, 3048	SB-551 .....	2634
SA-1091 .....	3048	SB-564 .....	1949, 2063, 2217, 2226, 2359, 2385, 2468, 2481, 2665, 2672, 2693, 2702, 2728, 2775, 2776, 2810, 2930, 2973, 3006
SA/EN 10025-2 .....	2811	SB-572 .....	2063, 2385, 2702, 2775
SA/EN 10028-2 .....	2498, 2674, 2748, 2779, 3037	SB-574 .....	1924, 2226, 3006
SA/EN 10028-3 .....	2594, 2611, 2624	SB-575 .....	1924, 2226, 3006
SA/IS 2062 .....	3066	SB-584 .....	2706, 3012
SB-26 .....	3016	SB-619 .....	1924, 2063, 2226, 2385, 2665, 3006
SB-43 .....	2172	SB-622 .....	1924, 2063, 2226, 2385, 2665, 2702, 2756, 3006
SB-75 .....	2791	SB-625 .....	2120, 2585, 2808, 2982
SB-98 .....	1750	SB-626 .....	1924, 2063, 2226, 2385, 2665, 2756, 2792, 3006
SB-108 .....	2239	SB-637 .....	1993, 2222, 2916
SB-111 .....	2768	SB-649 .....	2120, 2585, 2982
SB-127 .....	2767	SB-658 .....	2634
SB-148 .....	2618	SB-668 .....	1325
SB-152 .....	2859	SB-673 .....	2120, 2585
SB-160 .....	2249	SB-674 .....	2120, 2585
SB-161 .....	2249	SB-675 .....	2693, 2810, 2973
SB-162 .....	2249, 2767	SB-676 .....	2693, 2810, 2973
SB-163 .....	1325, 1827, 2249, 2357, 2359, 2982	SB-677 .....	2120, 2585
SB-166 .....	1827, 2359, 2481, 2776, 2916	SB-688 .....	2693, 2810, 2973
SB-167 .....	1827, 2359, 2481, 2629, 2809, 2916, 2923	SB-690 .....	2693, 2810, 2973
SB-168 .....	1827, 2359, 2481	SB-691 .....	2693, 2810, 2916, 2973
SB-171 .....	2928, 1750	SB-704 .....	1936, 2276, 2632
SB-209 .....	2432, 2563, 3005	SB-705 .....	2276
SB-210 .....	2432, 2563	SB-709 .....	1325
SB-211 .....	2432	SB-751 .....	1936, 2792
SB-221 .....	2432, 2563	SB-804 .....	2810
SB-241/SB-241M .....	2432, 2628	SB-858 .....	2881
SB-247 .....	2478, 2616	SB-861 .....	2426, 2634, 3059
SB-249 .....	1750, 2881		
SB-265 .....	2426, 2634, 3059		
SB-283 .....	2791		
SB-308/SB-308M .....	2563		

<b>Subject</b>	<b>Case</b>	<b>Subject</b>	<b>Case</b>
<b>ASME Specification (Cont'd)</b>		<b>ASTM Specification (Cont'd)</b>	
SB-862 .....	2426, 3059	B16 .....	1750, 2881
SD-570 .....	2613	B21 .....	1750
SFA-5.5 .....	2192, 2514, 2770, 2844	B26 .....	3016
SFA-5.8 .....	2688	B43 .....	2172
SFA-5.9 .....	2127, 2666, 2724	B85 .....	1750
SFA-5.10 .....	3016	B148-93a .....	2230
SFA-5.11 .....	2681, 2736, 2737, 2752, 2753, 3049	B154 .....	1750, 2881
SFA-5.14 .....	2581, 2653, 2660, 2736, 2737, 2752, 2753, 3024, 3049, 3056	B163 .....	2794
SFA-5.21 .....	2969	B166 .....	3058
SFA-5.23 .....	2192, 2514, 2770, 2844	B167 .....	2652, 2684, 3058
SFA-5.28 .....	2192, 2514, 2770	B168 .....	2652, 3058
SFA-5.29 .....	2192, 2770	B176 .....	1750
<b>ASTM Specification</b>		B211 .....	1750
A29 .....	1750	B247-02a .....	2616
A36/A36M .....	2949	B283 .....	1750
A106/A106M .....	2663	B359/B359M .....	2987
A108 .....	1750	B365 .....	1750
A126 .....	1750	B366/B366M .....	1924, 2983, 3024, 3056, 3058
A182/A182M .....	2496	B367 .....	2631
A213/A213M .....	2430, 2639, 3061	B371 .....	1750, 2880
A234/A234M .....	2830	B392 .....	1750
A240/A240M .....	2430, 2636, 2780, 2903	B393 .....	1750
A249/A249M .....	2903	B423 .....	2794
A262 .....	2930	B425 .....	2794
A312/A312M .....	2903	B432 .....	2928
A313/A313M .....	3040	B444-04 .....	2520
A314 .....	1750	B453 .....	1750
A336/A336M .....	2179	B464 .....	2120
A351/A351M .....	3049	B557 .....	2563
A351 Grade CK3MCuN .....	1750	B564 .....	2684, 2983, 2991
A358/A358M .....	2903	B574 .....	2983
A372/A372M .....	2892, 2907, 2936, 2939	B575 .....	2983
A401/A401M .....	2516, 2609	B581 .....	2991
A414/A414M-07 .....	2619	B584 .....	1750
A479/A479M .....	2496, 2780	B619/B619M .....	2983, 2991, 3024, 3058
A480/A480M .....	2636	B622 .....	2983, 2991
A494/A494M .....	1750	B625 .....	2991
A563 .....	2949	B626 .....	2923, 2983, 2991, 3058
A576 .....	1750, 2500	B637 .....	2702, 3024, 3056
A582 Types 303 and 416 .....	1750	B670 .....	3024
A615/A615M .....	2949	B673 .....	2120
A648/A648M .....	2949	B677 .....	2120
A672-06 .....	2576	B706 .....	2782, 2783
A691-98 .....	2576	B708 .....	1750
A703 .....	2192	B725 .....	2767
A706/A706M .....	2949	B730 .....	2767
A736M Grade A .....	1932	B752 .....	2633
A744 Grade CK3MCuN .....	1750	B834 .....	2916
A751 .....	2461	B858 .....	1750
A789 .....	2780	B872 .....	2702, 3056
A790 .....	2496, 2780	B927 .....	1750
A841/A841M .....	2736, 2879	B981 .....	1750
A859M-95 .....	1932	B983 .....	2702, 3024, 3056
A988/A988M .....	2840, 2930	B1007 .....	2702, 3024, 3056
A989/A989M .....	2770, 2931	C33/C33M .....	2949
A1017/A1017M .....	2179	C39/C39M .....	2949
A1032 .....	2949	C143/C143M .....	2949
A1044/A1044M .....	2949	C150/C150M .....	2949
A1064/A1064M .....	2949	C172/C172M .....	2949
A1091/A1091M .....	2917	C192/C192M .....	2949
		C295/C295M .....	2949
		C311/C311M .....	2949
		C373 .....	2867

Subject	Case
<b>ASTM Specification (Cont'd)</b>	
C494/C494M	2949
C618	2949
C881/C881M	2949
C1017/C1017M	2949
C1070	2867
C1077/C1077M	2949
C1218/C1218M	2949
C1260	2949
C1274	2867
C1499	2867
C1567	2949
D792	2795
D2000	2888
D2837	2795, 2837
D3295	2795
D3307	2837
D3350	2949
D4349	2411, 2725
D4895	2795
D6604	2853
D6867	2837
E8/E8M	3063
E21	3021
E29	3063
E45	2461
E112	2430, 2867
E208	3052
E290	3050
E338	2563
E399	3063
E438	2715
E527	2877
E602	2563
E647	3063
E1002	2324
E1820	2127, 2698, 3063
E2281	2725
E2546	2703
E2587	2725
E2930	2812, 2826, 3023
F486-06	2588
F844	2949
<b>AWS Specification</b>	
AWS B2.2/B2.2M	2763, 2765, 2801, 2802
A4.2	3064
A5.9	2473
A5.11/A5.11M	2143, 2734, 2798
A5.14	2142, 2733
A5.29	2297
B2.2/B2.2M	2763, 2765, 2801, 2802
<b>International Specification</b>	
AS 1548	2645, 2711
CGA V-1	3053
EN 515	2627, 2978
EN 573-3	2627, 2978
EN 755-1	2627, 2978
EN 755-2	2978
EN 1982	1750
EN 10002-1	2627
EN 10025-2	2720
EN 10028-1	3052

Subject	Case
<b>International Specification (Cont'd)</b>	
EN 10028-2	2779
EN 10028-3	2594, 2624
EN 10028-6	3052
EN 10028-7	2857
EN 10083-3	3050
EN 10088-2	2719
EN 10204	3050
EN 10216-3	2990, 3052
EN 10217-1	2721
EN 10222-1	2749
EN 10222-2	2749
EN 12164	1750
EN 12165	1750
ISO 2768	3063
ISO 9080	2795, 2837
ISO 9712	2838
ISO 11363-1	3053
ISO 17025	2795, 2837
ISO 21068-1	2867
ISO 21068-2	2867
ISO 21068-3	2867
JIS G 3459	2934, 2953, 2976
JIS G 3463	2801, 2802, 2933, 2960, 2989
JIS G 4305	2763, 2765, 2898, 2899, 2900
JIS Z 2241	2933, 2934, 2960, 2976, 2989
UNI 9006-1	2627

**CHARTS FOR VESSELS UNDER EXTERNAL PRESSURE**

Fig. 1/1M Chart for Determining Shell Thickness of Components Under External Pressure Developed for 47Ni-23Cr-23Fe-7W, UNS N06674	2684
Figs. 1/1M Chart for Determining Shell Thickness of Components Under External Pressure Developed for Titanium Grade 38, Ti 4Al-2.5V-1.5Fe	2717
Figs. 1/1M Chart for Determining Shell Thickness of Components Under External Pressure When Constructed of Alloy UNS S31060	2430
Figs. 1/1M Chart for Determining Shell Thickness of Components Under External Pressure When Constructed of Alloy UNS S31277	2458
Fig. 1 Chart for Determining Shell Thickness of Cylindrical and Spherical Vessels Under External Pressure When Constructed of Austenitic Stainless Steel UNS S34565	2146
Figs. 1/1M External Pressure Chart for 2 $\frac{1}{4}$ Cr-1Mo Steel Annealed at 1,000°F/538°C	2676
Figs. 1/1M External Pressure Chart for Stainless Steel Alloy UNS S30815 at 1,650°F (900°C)	2682
Figs. 1/1M External Pressure Chart for UNS N06845	2794
Figs. 1/1M External Pressure Chart Up To 1,800°F/982°C	2671
Figs. 1/1M External Pressure Design for Austenitic Stainless Steel 24Cr-17Ni-6Mn-4.5Mo-N (UNS S34565)	2831