

ASME BPVC 2017 - SUMMARY OF CHANGES

Errata to the BPV Code may be posted on the ASME Web site to provide corrections to incorrectly published items, or to correct typographical or grammatical errors in the BPV Code. Such Errata shall be used on the date posted.

Information regarding Special Notices and Errata is published by ASME at <http://go.asme.org/BPVCerrata>. Changes given below are identified on the pages by a margin note, (17), placed next to the affected area. The Record Numbers listed below are explained in more detail in "List of Changes in Record Number Order" following this Summary of Changes.

Expression **N** in Column **LV** identifies changes, which are not relevant for LV calculation modules.

Page	Location	Change (Record Number)	LV
xxxiii	List of Sections	Updated	
xxxviii	Submittal of Technical Inquiries to the Boiler and Pressure Vessel Standards Committees	Revised in its entirety (13-2222)	
xli	Personnel	Updated	
2	U-1(e)(1)(-a)	Cross-reference revised (15-934)	N
2	U-1(f)	Revised (11-2106)	N
2	U-1(j)	Revised (11-1901)	N
3	U-2	Subparagraphs (h)(1) through (h)(3) revised (16-598)	N
5	Table U-3	References updated (13-177, 15-1843, 15-2605, 16-532, 16-2185)	N
4	U-4	In subpara. (b), fourth paragraph revised (09-619)	N
7	UG-4	Subparagraph (h) and Note added (12-2123)	N
9	UG-9	Revised (11-737)	N
9	UG-10	Revised in its entirety (06-1384)	N
10	UG-11	Subparagraphs (a) and (c)(5) revised (11-1901, 14-2389)	N
13	UG-16	(1) Subparagraph (c) revised (13-959) (2) In subpara. (d), last sentence deleted (15-1725)	N
22	UG-28(f)	First sentence revised (15-2324)	N
30	Table UG-33.1	Editorially reformatted	N
32	UG-34	(1) In subpara. (b), in definition of W, cross-references revised (15-1586) (2) In second equation of subpara. (d)(9), "SLd 3" corrected by errata to "SL d 2" (16-2176)	N N
36	UG-35.2	Revised (11-1901)	N
37	UG-35.3	Added (11-1901)	N
37	UG-36	(1) Subparagraph (b)(1) revised (11-907, 14-1745) (2) Subparagraphs (c)(2)(-c) and (c)(2)(-d) deleted (11-907)	N N
43	Table UG-37	Editorially reformatted	N
43	UG-37(g)	Revised (16-1250)	N
43	UG-37(h)	Revised (16-1250)	N
54	UG-46	Subparagraphs (a) and (a)(2) revised (15-2173)	N
57	UG-53(h)	(1) In subpara. (1), SI units revised (14-1745) (2) In subpara. (2), SI units added (14-1745)	N
59	UG-79	Subparagraph (d)(2) revised (13-959)	N
65	Figure UG-84	Revised (14-2153)	N
68	Table UG-84.2	In spanned column heading, "of revised to "or" (16-54)	N
70	UG-84(h)	Subparagraph (3) revised, and subpara. (5) added (15-2021)	N
71	UG-90	Subparagraph (b)(6) revised (13-959)	N
73	UG-93	Subparagraphs (a)(1)(-b), (a)(2), (d)(4)(-a), and (d)(4)(-c), and last sentence of subpara. (d)(3) revised (12-603, 14-1271, 15-2591)	N
74	UG-96	In subpara. (a), first sentence revised (13-959)	N
75	UG-99	(1) Subparagraphs (a)(1) and (b) revised (10-1307, 13-959) (2) Subparagraph (k)(4) added (14-1850)	N
76	UG-100	Subparagraph (b) revised (10-1307)	N

Page	Location	Change (Record Number)	LV
82	UG-116	(1) Subparagraphs (a)(1)(-c) and (h)(4) added (12-1755, 13-1562) (2) Subparagraph (h)(1)(-a) revised (12-1755)	N
82	Figure UG-116	Revised (12-1755)	N
84	UG-117	Revised in its entirety (12-1755, 13-177, 16-598)	N
86	Figure UG-118	Revised (12-1755, 13-855, 16-2185)	N
87	UG-120	Revised (12-1734, 13-1858, 14-645, 16-598)	N
90	UG-126	Former subpara. (c) deleted, and former subpara. (d) redesignated as (c) (12-1472)	N
97	UG-131(f)	Revised (13-177)	N
100	UG-135	In last sentence of subpara. (a), cross-reference to UG-125(a)(2): revised to UG-125(a)(3) (14-2499)	N
103	UG-136(c)(3)(-d)	Revised (14-654)	N
104	UG-136(d)(4)(-a)(-6)	Revised (14-305)	N
104	UG-136(g)	Added (12-1472)	N
105	UG-137	Subparagraph (c)(3)(-d) revised (14-654)	N
107	UG-138(c)(3)(-d)	Revised (14-654)	N
108	UG-138(d)(5)(-e)(-2)	In subparas. (+b) and (+c), equations editorially revised	N
108	UG-138(d)(6)	Added (13-1751)	N
110	UW-2	First sentence of subpara. (a) and last sentence of subpara (a)(1)(-c)(-1) revised (13-1029, 15-934, 15-1551)	N
111	UW-3	In first paragraph, penultimate sentence revised (16-100)	N
112	UW-5	Subparagraphs (b)(3) and (c) revised (15-2779)	N
113	UW-9	Subparagraphs (a) and (c) revised (10-1689, 14-1493)	N
114	Figure UW-9-1	Former Figure UW-9 editorially redesignated as Figure UW-9-1	N
114	Figure UW-9-2	Added (10-1689)	N
115	UW-11(a)(8)	Former subpara. (a)(8) deleted, and former subpara. (a)(9) redesignated as (a)(8) (14-1826)	N
115	UW-11(d)	First sentence revised (14-1826)	N
116	UW-11(e)(3)	Revised (15-2591)	N
116	UW-12	First paragraph revised (14-1826)	N
116	UW-13	(1) Subparagraphs (b)(4)(-c) and (e)(3) revised (15-934, 15-2591) (2) Former Mandatory Appendix 28 revised and redesignated as new subpara. (f), and existing subparas. (f) through (h) redesignated as (g) through (i), respectively (15-934)	N
121	Figure UW-13.2	Illustrations (r) and (s) added, and layout of illustrations (a) through (q) revised editorially (15-934)	N
126	Figure UW-13.3	In General Note (b), cross-reference to UW-13(f) revised to UW-13(g) (15-934)	N
126	Figure UW-13.4	Note (1) revised (14-2052)	N
134	Table UW-16.1	Title revised (16-1270)	N
134	UW-16(f)(3)(-a)(-6)	Revised (16-1270)	N
143	UW-34	Second sentence and endnote 71 revised (15-1523, 15-2591)	N
144	UW-35	Subparagraph (b)(1) revised (13-959)	N
147	UW-40(d)	Revised (15-2473)	N
147	UW-40(f)	Revised (06-5)	N
148	UW-51	Subparagraphs (a)(1) through (a)(4) revised (14-1826, 16-1520)	N
150	UW-53	Revised in its entirety (14-1826)	N
150	UW-54	Revised in its entirety (15-2605, 16-661)	N
150	UW-65	Deleted (11-2106)	N
151	UF-12	Second paragraph revised (07-706)	N
152	UF-27	In subpara. (b), definition of E revised (12-2123)	N
153	UF-31(b)(1)(-a)	Second sentence revised (15-2591)	N
154	UF-32(b)(4)	Revised (15-2591)	N
156	UF-125	Deleted (11-2106)	N
163	UB-60	Deleted (11-2106)	N
166	Table UCS-23	Entries for SA-307, SA-372, and SA/EN 10028-2 revised, and entry for SA/EN 10216-2 added (07-706, 11-1276, 14-2383, 15-587)	N
167	UCS-56	Subparagraphs (d)(2) and (d)(5) revised (15-1229, 15-1579)	N
170	Table UCS-56-2	General Note (d)(5) added (15-2352)	N
171	Table UCS-56-3	General Note (b)(5) added (15-2352)	N
172	Table UCS-56-4	General Note (b)(5) added (15-2352)	N
176	Table UCS-56-10	Deleted (15-2608, 16-322)	N

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177	Table UCS-56-11	In second column of Table and in Note (1), minimum holding temperature revised (15-2553)	N
178	Table UCS-57	Entry for 10F Gr. 1 deleted (15-2608, 16-322)	N
190	UCS-66(f)	First sentence revised (16-134)	N
179	Figure UCS-66	In Notes (2)(a) and (4), SA-299 added (13-1110)	N
182	Figure UCS-66M	In Notes (2)(a) and (4), SA-299 added (13-1110)	N
191	Figure UCS-66.3	Illustrations (d) and (e) revised (13-597)	N
194	UCS-68	Subparagraph (b)(2) revised (14-2074)	N
196	UCS-125	Deleted (11-2106)	N
197	Nonmandatory Appendix UCS-A	Former Nonmandatory Appendix CS editorially redesignated as Nonmandatory Appendix UCS-A	N
201	Table UNF-23.3	"UNS No." entries for SB-163, SB-166, SB-167, SB-168, SB-366, SB-462, SB-463, SB-464, SB-468, SB-516, SB-517, SB-564, SB-574, SB-575, SB-619, SB-622, and SB-626 revised (05-434, 14-43, 14-1065)	N
204	UNF-91	Endnote 80 (formerly endnote 81) revised (15-1266)	N
204	UNF-125	Deleted (11-2106)	N
206	Nonmandatory Appendix UNF-A	Former Nonmandatory Appendix NF editorially redesignated as Nonmandatory Appendix UNF-A	N
210	Table UHA-23	(1) Revised (07-713, 07-792, 16-1087) (2) Entry for SA-240 corrected by errata to include UNS No. N08904, and in Note (1), "Type 309" corrected by errata to "Type 304" (15-1112, 15-2793)	N
213	Table UHA-32-3	In General Note, cross-reference revised (16-538)	N
217	UHA-51(a)(3)(-a)(-1)	Revised (10-1703)	N
217	UHA-51(b)	Revised (13-567)	N
218	UHA-51(e)(3)(-c)	Spelling of "chromium" corrected by errata (15-2793)	N
219	UHA-51(f)(4)(-c)	Second sentence revised (11-737)	N
220	UHA-65	Deleted (11-2106)	N
221	Nonmandatory Appendix UHA-A	(1) Former Nonmandatory Appendix HA editorially redesignated as Nonmandatory Appendix UHA-A (2) UHA-A-10 added (16-538)	N
226	UCI-125	Deleted (11-2106)	N
227	UCL-11	In subpara. (c), second paragraph, last sentence revised (11-737)	N
231	UCL-60	Deleted (11-2106)	N
235	UCD-125	Deleted (11-2106)	N
241	UHT-28	(1) In subpara. (a), first sentence revised (14-1176) (2) Subparagraph (c) added (14-1176)	N
242	UHT-57	In subpara. (e), first sentence revised (15-2591)	N
243	UHT-79	Subparagraphs editorially redesignated	N
246	UHT-115	First and last sentences revised (12-1755)	N
246	UHT-125	Deleted (11-2106)	N
269	ULW-90	Revised (12-1755)	N
269	ULW-125	Deleted (11-2106)	N
271	ULT-16	Subparagraphs editorially redesignated	N
277	ULT-125	Revised (11-2106)	N
278	UHX-4	In subpara. (b), first sentence revised (15-1605)	N
280	UHX-9.3	(1) Definition of S deleted, and definition of Sfe added (16-991) (2) In definitions of W and Wmi, cross-reference to UHX-4(c) revised to UHX-4(b) (15-1586)	N
281	UHX-9.5	In subparas. (a) and (c), equations revised (16-991)	N
282	UHX-11.3	In definition of E*, Note deleted (12-2123)	N
288	UHX-12.3	In definition of ES, Note deleted (12-2123)	N
294	UHX-13.3	(1) In definition of Et, Note deleted (12-2123) (2) Definitions of Al and As added (11-1693)	N
310	UHX-13.10	Added (07-218)	N
312	Figure UHX-13.10.3-1	Added (07-218)	N
313	UHX-14.3	In definition of Er, Note deleted (12-2123)	N
324	UHX-16	Revised (11-1693)	N
324	UHX-17	(1) Title and subpara. (a) revised (16-100) (2) Subparagraph (c) added (11-1693)	N
325	Table UHX-17	Title revised (16-100)	N
325	UHX-18	Revised (16-154)	N

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330	UIG-22	Last sentence added (11-2106)	N
345	UIG-96	Subparagraphs editorially redesignated	N
346	UIG-116	Subparagraphs (b) and (d) revised (12-1755)	N
346	UIG-120	Subparagraph (a) revised (12-1755)	N
346	UIG-125	Deleted (11-2106)	N
356	Form CPQ	Revised editorially	N
359	1-1	Subparagraphs editorially redesignated	N
359	1-2	Subparagraphs editorially redesignated	N
363	1-5	In subpara. (a), in definition of Er, Note deleted (12-2123)	N
369	1-8	(1) In subpara. (a), in definition of EX, Note deleted (12-2123) (2) In subpara. (b)(3), second paragraph revised (13-2125)	N
374	1-9	Deleted (11-907)	N
374	1-10	Deleted (11-907)	N
375	2-1	In first paragraph of subpara. (a), penultimate sentence revised (15-1228)	N
375	2-2	Subparagraphs (d), (d)(1), (d)(2), and (d)(2)(-a) revised (05-768)	N
376	2-3	In nomenclature, order of definitions of R corrected by errata (16-894)	N
377	2-4	Subparagraphs editorially redesignated	N
397	3-2	(1) Definitions of ASME Designated Organization, ASME designee, full vacuum (FV), and Material Test Report revised (12-603, 13-177, 15-2324) (2) Definitions of completed pressure vessel and pressure vessel part added (12-1734)	N
408	Mandatory Appendix 5	Title; 5-1(a), 5-1(d), 5-1(f), 5-3(f), 5-4, and 5-5(b) through 5-5(e); and Figures 5-1 and 5-2 revised (16-100)	N
428	10-5	Revised (12-1755)	N
429	10-13	(1) Subparagraph (b)(15) added (12-1734) (2) Subparagraph (c) revised (13-1522)	N
431	11-1	Nomenclature for "For air" equation revised editorially	N
443	13-5	In definition of E3, Note deleted (12-2123)	N
457	13-12	In subpara. (b)(1), eq. (2) revised (15-2812)	N
468	17-1	(1) Subparagraphs (a), (d), and (e)(1) revised (15-1847) (2) Subparagraph (b)(8) and last sentence of subpara. (f) added (15-1847)	N
468	17-2	Subparagraph (c) revised (15-1847)	N
469	17-4	Last sentence revised (15-1847)	N
469	17-5	In subpara. (b)(1), cross-references revised (15-1847)	N
469	17-7	Subparagraphs (a), (a)(2)(-a), (b)(1)(-b), and (c)(1) revised (15-1847)	N
471	17-8	In first sentence of subpara. (b)(1), cross-references revised (15-1847)	N
471	17-9	In last sentence, cross-references revised (15-1847)	N
484	22-2	Revised (07-706)	N
488	24-1	(1) In subpara. (a), second sentence revised (15-1228) (2) In subpara. (f), last sentence deleted (11-1901)	N
494	Mandatory Appendix 25	Deleted (13-177)	N
496	Figure 26-1-1	Illustration (a) revised (14-1629)	N
497	Figure 26-1-2	Illustration (a) revised (14-1629)	N
495	26-3	(1) Definitions of Es, teq, and subscripts added (14-1629) (2) Definition of S 1' revised (14-1629) (3) In definition of Ysm, "KfEf" corrected by errata to "KfE f" (15-2793)	N
499	26-4.1	In subpara. (d)(1), last sentence added (16-154)	N
501	26-6.1	In first paragraph, last sentence added (14-1629)	N
501	26-6.2	Subparagraphs (e) and (f) added (14-1629)	N
501	26-6.3	Paragraphs 26-6.3.1, 26-6.3.2, and 26-6.3.3(a)(1) revised (14-1629, 16-102)	N
504	26-6.5.2	In subparas. (a) and (b), "eeq" revised to "teq" (14-1629)	N
505	26-7.1	In first paragraph, last sentence added (14-1629)	N
507	26-7.4.1	In equation, "Nq" corrected by errata to "Ng" (15-2793)	N
510	26-8.5.1	Revised (13-360)	N
519	Form 26-1	Revised (16-154)	N
520	Form 26-1M	Revised (16-154)	N
521	27-2	In subpara. (b), definition of E revised (12-2123)	N
521	27-4	Revised (14-1850)	N

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523	Mandatory Appendix 28	Information relocated to UW-13(f) (15-934)	N
528	31-4	Title and subparas. (a) and (b) revised (14-2496)	N
529	Mandatory Appendix 32	Revised in its entirety (16-751)	N
534	Table 34-1	Entry for 14Cr-16Ni-65i-Cu-Mo added (07-792)	
534	34-2	(1) Paragraphs editorially redesignated (2) Subparagraph (b) added (07-792)	N
535	Table 34-2	Entry for 14Cr-16Ni-65i-Cu-Mo added (07-792)	N
534	34-3	Subparagraph (b) revised (07-792)	N
537	35-5	Cross-references to Forms revised (16-598)	N
543	38-2	Revised editorially	N
544	38-10	Subparagraphs editorially redesignated	N
546	39-7	Subparagraphs editorially redesignated	N
550	Mandatory Appendix 41	(1) In 41-1, 41-2, 41-6, and 41-10.1, paragraphs editorially redesignated (2) In 41-5, definition of E revised (12-2123)	N
557	43-2	Revised (14-1743)	N
558	44-5	Subparagraphs (a) and (c) revised (15-107)	N
561	Mandatory Appendix 45	Added (11-923)	N
570	Nonmandatory Appendix C	Paragraph titles added (16-2177)	N
571	Nonmandatory Appendix D	Paragraph titles added (16-2177)	N
572	Nonmandatory Appendix E	Paragraph titles added (16-2177)	N
573	Nonmandatory Appendix F	Paragraph titles added (16-2177)	N
574	Nonmandatory Appendix G	Paragraph titles added (16-2177)	N
580	L-1	Title revised editorially	N
580	L-1.4	Paragraphs redesignated editorially	N
580	L-11	Deleted (13-855)	N
585	Figure L-11-1	Deleted (13-855)	N
585	Figure L-11-2	Deleted (13-855)	N
585	Figure L-11-3	Deleted (13-855)	N
594	R-9	P-No. 10F deleted (15-2608, 16-322)	N
599	W-1	Subparagraph (g) added (13-1858)	N
599	W-2	First paragraph revised (16-598)	N
600	Form U-1	Revised (13-1858, 16-1094)	N
603	Form U-1A	Revised (13-1858, 16-1094)	N
605	Form U-1B	Revised (13-1858, 16-1094)	N
606	Form U-1P	(1) Revised (13-1858, 16-1094) (2) In line 5, "VII" corrected by errata to "VIII" (15-2793, 15-2923)	N
608	Form U-2	Revised (12-1755, 13-1858, 16-1094)	N
611	Form U-2A	Revised (12-1755, 13-1858, 16-1094)	N
613	Form U-3	Revised (13-1858, 16-509)	N
615	Form U-3A	Revised (13-1858, 16-509)	N
617	Form U-3P	Added (16-509)	N
619	Form U-4	Revised (13-1858, 16-1094)	N
620	Form U-5	Revised (13-1858, 16-1094)	N
621	Table W-3	Revised (13-1858, 14-1595, 14-2388, 16-509, 16-1094)	N
627	Figure W-3.1	Revised (13-1858, 16-1094)	N
633	Y-3	In subpara. (a), definition of E revised (12-2123)	N
646	Nonmandatory Appendix DD	Revised (12-1755, 16-962)	N
648	Figure DD-1	Updated by ASME Conformity Assessment	N
654	Nonmandatory Appendix FF	Revised (11-1901)	N
676	KK-1	Designator and title revised editorially	N
681	Table KK-1	Under "Instruction," entry for reference no. (7) revised (13-1153)	N

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677	Form U-DR-1	Revised (13-1153)	N
686	NN-2	Subparagraph (b)(1) revised (11-1901)	N
689	Table NN-6-1	Revised to include quick-actuating closures (11-1901)	N

LIST OF CHANGES IN RECORD NUMBER ORDER

Record Number	Change
05-434	Added Alloy UNS N06025 to Table UNF-23.3. Annulled Code Case 2359-2.
05-768	Revised Mandatory Appendix 2, 2-2(d) per proposal file to use the wording from Section VIII, Division 2 as a common rule.
06-5	Revised UW-40(f) to clarify nominal thickness definitions for purposes of PWHT, to address double-groove welds and tube-to-tubesheet welds. Relocated unnumbered paragraph following UW-40(f)(5)(-h) to new UW-40(f)(7).
06-1384	Revised UG-10 to address the proper and complete recertification process. Deleted recertification by non-Certificate Holders from UG-10(a).
07-218	Added new equations for the calculation of kettle shell stiffness to use in Part UHX.
07-706	Revised Table UCS-23, and UF-12 and 22-2.
07-713	Added SA 995, Grade 4A to Table UHA-23.
07-792	Added UNS S38815 to Table UHA-23 and Mandatory Appendix 34.
09-619	Added a sentence to last paragraph of U-4.
10-1307	Revised UG-99(b) and UG-100(b) to use the term "pressure-boundary materials."
10-1689	Redesignated current UW-9(c) as UW-9(c)(1). Added UW-9(c)(2). Added new Figure UW-9.1.
10-1703	Revised UHA-51(a)(3) to increase the FN limit of 316L.
11-737	In various paragraphs, deleted the word "certified" with regard to Material Test Reports.
11-907	Deleted references to 1-9 and 1-10 in UG-36. Deleted 1-9 in its entirety. Deleted 1-10 in its entirety.
11-923	Added new Mandatory Appendix 45 on plate heat exchangers.
11-1276	Added SA/EN 10028-2, Grade 13CrMo4-5 to Table UCS-23.
11-1693	Added new paragraphs to UHX-16 and UHX-17.
11-1901	Revised UG-35.2 to redefine and update rules for quick-actuating closures. Added a new UG-35.3 to define and create rules for quick-opening closures. Revised Nonmandatory Appendix FF to address both quick-actuating and quick-opening closures.
11-2106	Revised paragraph references in U-1(f). Deleted UW-65, UF-125, UB-60, UCS-125, UNF-125, UHA-65, UCI-125, UCL-60, UCD-125, UHT-125, ULW-125, and UIG-125. Retitled, revised paragraph reference, and incorporated common language in ULT-125. Revised UIG-22.
12-603	Revised UG-93(a)(1)(-b). Revised Mandatory Appendix 3 definition of "Material Test Report."
12-1472	Deleted current set pressure adjustment requirements in UG-126(c) and replaced it with a new UG-136(g) that provides more detailed requirements, including guidance for completing Form UV-1. Redesignated UG-126(d) as UG-126(c) due to deletion of UG-126(c).
12-1734	Revised UG-120(c) by adding requirements for transfer of parts between Certificate Holders within the same organization. Added a new endnote describing the term "organization" as used in UG-120(c). Revised Mandatory Appendix 3 to add new definitions of "completed pressure vessel" and "pressure vessel part." Added 10-13(b)(15).
12-1755	Established a new Certificate of Authorization for organizations fabricating parts without design responsibility. Revised UG-116, UG-117, UG-120, UHT-115, ULW-90, UIG-116, UIG-120, 10-5, Figures UG-116 and UG-118, and Nonmandatory Appendices W and DD.
12-2123	Added new UG-4(h) that specifies the use of physical properties in Section VIII, Division 1. Revised notes in UF-27(b), 27-2, 41-5, and Y-3. Deleted notes in UHX-11.3, UHX-12.3, UHX-13.3, UHX-14.3, 1-5(a), 1-8(a), and 13-5.
13-177	Added reference to ASME CA-1 (latest edition) to Table U-3. Replaced conformity assessment requirements in UG-117 and UG-131 with references to ASME CA-1. Replaced definitions in Mandatory Appendix 3 with references to ASME CA-1. Deleted Mandatory Appendix 25 (rules for acceptance of testing labs, which are now published in ASME CA-1).
13-360	Revised 26-8.5 to state the following: "Toroidal bellows designed per the rules of this Division are suitable for external design pressures up to 15 psi (103 kPa) or full vacuum. For external design pressures greater than 15 psi (103 kPa), see U-2(g)."
13-567	Revised the text of UHA-51(b) to eliminate conflicts with the requirements of UG-82(h) and UHA-51(d).
13-597	Revised Figure UCS-66.3, illustrations (d) and (e) to clarify the governing thickness with flat components.
13-855	Added reference to ASME PTB-4 in Figure UG-118. Deleted nameplate examples from Nonmandatory Appendix L.
13-959	Revised UG-16(c) on plate tolerance. Revised UG-79(d)(2), UG-90(b)(6), UG-96(a), UG-99(a)(1), and UW-35(b)(1) to use design thickness as appropriate.
13-1029	Revised UW-2(a) to exempt lethal service butt welds in stiffening rings designed per UG-29 from radiographic examination.
13-1110	Added "SA-299" to Note (2) and "SA-299 if normalized" to Note (4) of the Impact Exemption Curve notes in Figures UCS-66 and UCS-66M.
13-1153	Editorially revised Nonmandatory Appendix KK, Form U-DR-1.

Record Number	Change
13-1522	Revised 10-13(c) concerning the UM Designator.
13-1562	Added removal and destruction of interfering Certification Marked nameplates to UG-116(h)(4). Created Code Case for immediate application.
13-1751	Added UG-138(d)(6) to provide seat tightness requirements for pin devices.
13-1858	Revised UG-120(a)(2) and Nonmandatory Appendix W.
13-2125	Revised the cylinder length factor in 1-8(b)(3) from 1.4 to 2.0.
13-2222	Revised the front guidance on interpretations in its entirety.
14-43	Added UNS N10362 to Table UNF-23.3.
14-305	Revised wording of UG-136(d)(4)(-a)(-6) from "hydraulic or pneumatic lift assist device" to "auxiliary lift-assist device."
14-645	Revised UG-120(c) to clarify who signs the Form U-1 if there are both shop and field components to assembly of a pressure vessel.
14-654	Revised UG-136(c)(3)(-d), UG-137(c)(3)(-d), and UG-138(c)(3)(-d) to clarify actions that need to be taken within the 60-day period following a failure of replacement valves.
14-1065	Deleted UNS Nos. N08024 and N08026 from Table UNF-23.3.
14-1176	Added "and (c)" after "Except as permitted in (b)" in first sentence of UHT-28. Added UHT-28(c) for minor attachments.
14-1271	Revised UG-93(d)(4)(-a) and UG-93(d)(4)(-c) to update sketches referenced in Figure UW-13.2.
14-1493	Revised UW-9(a) to clarify the weld joint types covered in Part UW. Corrected the UW-27(b) reference in UW-9(a) to UW-27(a)(2).
14-1595	Revised Table W-3, reference no. (73) to be consistent with Section VIII, Division 2, Table 2-D.1, note no. (54).
14-1629	In Mandatory Appendix 26, added new rules for bellows internally attached to the shell.
14-1743	Revised 43-2.
14-1745	Revised UG-36(b)(1), UG-53(h)(1), UG-53(h)(2), and 1-10(d) to update metric conversions.
14-1826	Revised UW-11(a)(8), UW-11(d), UW-12, UW-51(a)(4), and UW-53 to clarify when manual and automated UT examination methods are acceptable.
14-1850	Added UG-99(k)(4) and 27-4(b).
14-2052	Revised Figure UW-13.4, Note (1) to indicate that t_r shall not be less than that required by UG-45.
14-2074	Reformatted UCS-68(b)(2) into UCS-68(b)(2)(-a) and UCS-68(b)(2)(-b). Retained existing requirements of UCS-68(b)(2), and in the new UCS-68(b)(2)(-b), clarified that PWHT is not mandatory for tube-to-tubesheet seal welds defined per UW-20.2(c).
14-2153	Revised dimension lines in Figure UG-84.
14-2383	Added SA-307, Grade A to Table UCS-23.
14-2388	Revised Table W-3, reference no. (53).
14-2389	Revised UG-11(c)(5) to provide an exemption to the requirement for a Material Test Report for ASME product standard parts.
14-2496	Revised the title of 31-4 and the first sentence of 31-4(a). Added a sentence after the first sentence of 31-4(b).
14-2499	Corrected the reference in UG-135(a) to UG-125(a)(3).
15-107	Revised 44-5(a) to specify that static head is to be included in the design pressure, P, and revised 44-5(c) to specify that cold stretch pressure, P _c , shall be measured at the top of the vessel during cold stretching.
15-587	Added SA/EN 10216-2 P235GH, P265GH, 16Mo3, 13CrMo4-5, and 10CrMo9-10 to Table UCS-23.
15-934	Incorporated the provisions of Mandatory Appendix 28 into new UW-13(f). Redesignated remaining UW-13 paragraphs. Corrected references to UW-13 subparagraphs. Deleted Mandatory Appendix 28.
15-1112	Errata correction. See Summary of Changes for details.
15-1228	Revised 2-1 and 24-1.
15-1229	Revised UCS-56(d)(2).
15-1266	Corrected reference in endnote 81.
15-1523	Revised UW-34 to permit spin-holes not exceeding the size limitations of UG-36(c)(3)(-a).
15-1551	Revised UW-2(a) to clarify that RT is to be performed in accordance with UW-51.
15-1579	Revised UCS-56(d)(5) to implement thermal gradient limitations during the cooling phase of the PWHT process.
15-1586	Revised references in UG-34 and UHX-9.3.
15-1605	Revised UHX-4(b) to indicate that standard flanges (see UG-44) are no longer standard and need supporting calculations when pass partitions are present.
15-1725	Revised UG-16(d) regarding methods for including provision for the allowed manufacturing undertolerance in determining the selected pipe thickness used in design.
15-1843	Deleted reference to ACCP CP-1 in Table U-3.

Record Number	Change
15-1847	In Mandatory Appendix 17, moved all figures to the end of the Appendix. Added 17-1(b)(8) to incorporate Code Case 2829 and added reference to 17-1(b)(8) anywhere 17-1(b)(6) was cited. In 17-1(0, added a new sentence to incorporate Code Case 2424. In 17-2(c), changed "impact test" to "qualification with toughness testing." In 17-4, changed "0.045 in." to "0.030 in." to incorporate Code Case 2507. Updated 17-7 to incorporate changes desired in Item 10-111. Changed "inspection" to "examination" in three places.
15-2021	Revised UG-84(h)(3) and added new UG-84(h)(5) to address testing requirements for impact test qualifications of multiple-process welding procedures.
15-2173	Revised UG-46(a) to indicate exemptions to the requirement for inspection openings on the shell side of some shell-and-tube heat exchangers.
15-2324	Revised UG-28(f), and in 3-2, revised metric definition of full vacuum (FV) to 103 kPa.
15-2352	Revised Tables UCS-56-2, UCS-56-3, and UCS-56-4 to add PWHT exemptions for tube-to-tubesheet seal welds.
15-2473	Revised UW-40(d) to provide informative guidance on PWHT of dissimilar metal weld joints.
15-2553	In Table UCS-56-11, revised the minimum PWHT temperature from 1,350°F (730°C) to 1,300°F (705°C) and the minimum holding temperature in Note (1) from 1,325°F (720°C) to 1,250°F (675°C).
15-2591	Changed "nonmagnetic" to "nonferromagnetic" in UG-93(d)(3), UW-13(b)(4)(-c), UF-31(b)(1)(-a), UF-32(b)(4), UHT-57(e), and endnote 71. Deleted hyphen from "non-ferromagnetic" in UW-11(e)(3).
15-2605	Revised Table U-3 and UW-54 to reference Section V, Article 1, T-120(e), T-120(f), T-120(g), T-120(h), or T-120(i), as applicable, for NDE personnel qualification and certification requirements.
15-2608	In Table UCS-57 and R-9, deleted references to P-No. 10F. Deleted Table UCS-56-10, which addressed PWHT for P-No. 10F.
15-2779	Revised wording of UW-5(b)(3) and UW-5(c) to clarify meaning.
15-2793	Errata correction. See Summary of Changes for details.
15-2812	Modified 13-12, eq. (2).
15-2923	Errata correction. See Summary of Changes for details.
16-54	Revised wording in the column heading of Table UG-84.2, for consistency with Section VIII, Division 2, Table 3.11.
16-100	Updated Mandatory Appendix 5, specifically Figures 5-1 and 5-2, to include corner-corner and flued-only flexible shell element expansion joints and to allow thin liners. Generalized the terminology from "flanged-and-flued or flanged-only" to "flexible shell element" expansion joints in UHX-17 and Mandatory Appendix 5. Added references to "outer shell elements," the cylinder between flexible elements, to 5-3(f), 5-4(b), 5-4(c), 5-4(d), 5-5(c), and Figures 5-1 and 5-2. Separated fabrication requirements for welds within the flexible element from welds attaching the flexible element to the shell in 5-4(a) and 5-4(b). Clarified flexible shell element corner weld categorization, design, and fillet sizing in UW-3 and 5-4(b)(2). Added permission to use a thin liner in 5-4(c). Added requirement for welds to Type 1 butts in the shell adjacent to the flexible element in 5-4(d). Separated inspection requirements for welds within the flexible element from welds attaching the flexible element to the shell in 5-5(b) and 5-5(c).
16-102	Revised 26-6.3.3(a)(1) to restrict circumferential membrane stress in end convolution of externally attached bellows to short tangents.
16-134	Inserted the words "other than bolting materials" between the words "Materials" and "having" in UCS-66(f).
16-154	Revised UHX-18, 26-4.1(d)(1), and Forms 26-1 and 26.1M to ensure that bellows expansion joints are properly hydrotested.
16-322	Deleted references to P-No.10F where they appear in Section VIII, Division 1. Deleted Table UCS-56-10, the last line of Table UCS-57, and the preheat line under the heading of R-9.
16-509	Added new Form U-3P to Nonmandatory Appendix W.
16-532	Revised Table U-3 to update year of acceptable edition for those standards that were reviewed.
16-538	Revised "UHA-108" to "UHA-110" in Table UHA-32-3 and added UHA-110.
16-598	Added references to Form U-1P in U-2, UG-120, Mandatory Appendix 35, and Nonmandatory Appendix W. Added references to Form U-3P in UG-117 and UG-120.
16-661	Deleted endnote 75.
16-751	Revised 32-3 through 32-8. Added new 32-4 and 32-5, and revised all figures showing head-to-shell details.
16-894	Errata correction. See Summary of Changes for details.
16-962	Revised Nonmandatory Appendix DD.
16-991	Revised UHX-9.3 and UHX-9.5 by replacing S with Sfe in the nomenclature and in both equations of UHX-9.5.
16-1087	Revised Table UHA-23 to correct an error.

Record Number	Change
16-1094	Changed "National Board (inc. endorsements)" to "National Board Authorized Inspector Commission number" on all Manufacturer's Data Reports. Changed "Commissions and endorsements" to "Commissions" and added "National Board Authorized Inspector Commission number" on Form U-1B.
16-1250	Revised UG-37 to change the term "telltale hole" to "vent hole."
16-1270	Revised UW-16(f)(3)(-a)(-6) and title of Table UW-16.1.
16-1520	Revised UW-51(a)(1) through UW-51(a)(3) to clarify the acceptability of radiographic examination techniques other than film-based radiography.
16-2176	Errata correction. See Summary of Changes for details.
16-2177	Added titles to the paragraphs in Nonmandatory Appendices C, D, E, F, and G.
16-2185	Revised Table U-3 to include ASME PTB-4, and in Figure UG-118, deleted the title of ASME PTB-4.