

**ESBWR DCD Chapter 1 – Introduction and General Description of Plant
26A6642AD Revision 3 to Revision 4 Change List**

Acronym List

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	Acronym List	General update to eliminate acronyms not used in this chapter file.

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Section 1.1

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.1.1	Editorial. In second sentence, changed "access to vital areas and protective safety equipment for post-accident operation" to "access to areas and protective safety equipment for post-accident operation in response to NUREG-0737, Item II.B.2"
2	S1.1.2.1, Last paragraph	Editorial. Deleted first sentence discussing items excluded from the scope for consistency with ABWR DCD. Any scope exclusions are identified in other chapters and don't need to be repeated in Chapter 1.
3	S1.1.2.3	Changed "see Subsection 1.1.3.1" to "the changes and additional information needed to license a multi-unit plant would be supplied by the Combined Operating License (COL) applicant". (Note: This is no longer considered to be a formal COL action item due to its optional and obvious nature.)
4	S1.1.2.5	Editorial. Changed "GE" to "GE-Hitachi Nuclear Energy".
5	S1.1.2.7	Changed "See Subsection 1.1.3.2" to "The COL applicant and its equipment suppliers will establish site-specific values for plant output. See Subsection 1.1.3, Item 1.1-1-A".
6	S1.1.3	Deleted Subsection 1.1.3.1. Replaced subsection numbering of 1.1.3.2 with COL Item number 1.1-1-A. Added "(Subsection 1.1.2.7)" to end of Item 1.1-1-A.
7	Figure 1.1-1	Figure updated to reflect engineering changes and design details.
8	Figure 1.1-2	Modified containment boundary line to include PCC condensers and attached components as being within the containment boundary. (per response to RAI 6.2-102)
9	Figure 1.1-2	Added "Note 1: The components attached to the PCC condensers are an integral part of the containment boundary above the drywell." (per response to RAI 6.2-102)

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Section 1.2

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.2, General	Replaced "Class 1E" and "non-Class 1E" with "safety-related" and "nonsafety-related" throughout section. If both "safety-related" and "Class 1E" appeared in the same sentence, "Class 1E" was deleted as redundant.
2	S1.2, General	Replaced "shall" and most future tense statements with present tense statements.
3	S1.2, General	Spelled out acronyms on first use wherever it was noticed that this hadn't been done.
4	S1.2, General	Made editorial changes in numerous locations to remove excessive spacing, correct punctuation, delete repeated words, correct misspelling, and correct grammar.
5	S1.2.2.1.2, fifth bullet	Editorial. Deleted second occurrence of word "instrumentation".
6	S1.2.2.1.2, Feedwater Lines (FWLs)	Changed end of last paragraph from "... Seismic Category II from the seismic interface to the last stage feedwater heaters." to "... Seismic Category NS beyond the seismic interface." (per response to RAI 3.2-1 S02)
7	S1.2.2.1.2, Safety Relief Valves, first bullet, third paragraph	Editorial clarification. Revised second sentence to read: "The rated capacity of the SRVs is sufficient to prevent the pressure within the RPV from exceeding 120% of the design pressure during Anticipated Transients Without Scram (ATWS) events."
8	S1.2.2.1.3, last paragraph	Editorial. Deleted last sentence about pump losses due to it not being relevant to the discussion of ESBWR design features.
9	S1.2.2.2.1, Induction Motor Controller Cabinets	Deleted acronym "IMC" which isn't used anywhere else.
10	S1.2.2.2.3, second paragraph after table	Added new sentence at start of paragraph as follows: "Water levels in the RPV are defined in Figure 7.7-1."

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11	S1.2.2.2.4, third paragraph	Added the following sentence at the end of the paragraph: "The system is also credited with providing makeup water to the RPV during loss-of-coolant accident (LOCA) events."
12	S1.2.2.2.7, first paragraph	Changed "approach" to "exceed". Changed "an alarm" to "one or more alarms".
13	S1.2.2.2.7, third paragraph	Editorial. Changed "if system logic is satisfied" to "in accordance with the system logic described below".
14	S1.2.2.2.7, 13th bullet	Changed "loss of feedwater flow" to "loss of power to feedwater pumps (Run mode only)" for consistency with current design logic.
15	S1.2.2.3.1, third paragraph	Editorial. Changed "remaining" to "remainder".
16	S1.2.2.4.1, paragraph above bullets	Editorial. Deleted "sensible and core decay" to make this a more generic statement.
17	S1.2.2.4.1, last paragraph	Added references to Subsection 9.1.3 and Section 11.5.
18	S1.2.2.5.5, Refueling Machine, second paragraph	Changed seismic category for refueling machine to Seismic Category II. (per RAI 14.3-133)
19	S1.2.2.5.5, Fuel Handling Platform, second paragraph	Changed "refueling" to "fuel handling". Changed seismic category for fuel handling machine to Seismic Category II. (per RAI 14.3-133)
20	S1.2.2.6.1, first paragraph	Editorial. Changed "overboarding" to "removal" in fourth bullet.
21	S1.2.2.6.1, third paragraph	Revised last sentence to read: "The electrical power supplies to the two trains are from separate nonsafety-related diesel-backed electrical busses."

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22	S1.2.2.8.2, first paragraph	To match style of introduction to S1.2.2.8.1, changed introductory sentence to read as follows "It is intended that the specific fuel channel to be used in any facility adopting the certified design be in compliance with U.S. NRC approved fuel channel design criteria."
23	S1.2.2.9, first paragraph	To match style of introduction to S1.2.2.8.1, changed introductory sentence to read as follows "It is intended that the specific control rod to be used in any facility adopting the certified design be in compliance with U.S. NRC approved control rod design criteria."
24	S1.2.2.10.1, third paragraph	Editorial. Changed "accord" to "accordance"
25	S1.2.2.11.1, fourth paragraph	Deleted last sentence about ASME inspections and stamping not being required. (per response to RAI 3.2-1 S02)
26	S1.2.2.11.4, first paragraph	Deleted the following due to deletion of Appendix 10A from DCD: "An example of alternate turbine design is described in Appendix 10A of this document."
27	S1.2.2.11.6	Last three paragraphs revised for consistency with DCD Tier 2 Section 10.4.4 description of Turbine Bypass System.
28	S1.2.2.11.7, third paragraph	Deleted the following due to deletion of Appendix 10A from DCD: "An example of parallel condenser configuration is described in Appendix 10A of this document."
29	S1.2.2.12.1, second paragraph	Editorial. Replaced last sentence on freeze protection with new paragraph as follows: "Based on local weather conditions, the demineralized water storage tank and MWS piping and instrumentation that are exposed to freezing conditions are provided with freeze protection."

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30	S1.2.2.12.2, second paragraph	<p>Editorial. Revised last sentence to read: "The tank is surrounded by a basin to ensure the contents of the entire tank are contained if there is a leak."</p> <p>Replaced third sentence on freeze protection with new sentence at end of paragraph as follows:</p> <p>"Based on local weather conditions, the water storage tank and CS&TS piping and instrumentation that are exposed to freezing conditions are provided with freeze protection."</p>
31	S1.2.2.12.5, last paragraph	<p>Editorial. Revised paragraph to read: "With the exception of isolation of the containment penetration to the drywell coolers, CWS does not perform or ensure any safety-related function, and has no safety design basis."</p>
32	S1.2.2.12.8, first paragraph	<p>Description revised to match updated system description in DCD Tier 2 Section 9.3.7.</p>
33	S1.2.2.12.9, first paragraph	<p>Changed "provides" to "makes use of the SAS compressors to provide" to match updated IAS description in DCD Tier 2 Section 9.3.6.</p>
34	S1.2.2.12.11	<p>Revised bulleted text to match system description in DCD Tier 2 Section 9.3.12</p>
35	S1.2.2.12.12	<p>Section deleted. Hot Water System replaced with electrical heaters for building heating.</p>
36	S1.2.2.12.16	<p>Freeze protection is not an independent plant system. Revised paragraph as follows to clarify that fact: "Freeze protection in the form of insulation, steam, and/or electrical heating is required for all external tanks and piping that may freeze during winter weather. This equipment is not included as part of the ESBWR Standard Plant design."</p>
37	S1.2.2.13.2, first paragraph	<p>Editorial. Added "that" and "do so".</p>
38	S1.2.2.13.4, third paragraph	<p>Changed "vital" to "important" to avoid potential confusion with 10 CFR 73 definition of vital.</p>
39	S1.2.2.13.8	<p>General rewrite for consistency with current version of Section 9.5.3.</p>

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40	S1.2.2.13.8, fourth paragraph	Revised paragraph to read: "The security lighting system is described in separate security documents. Refer to Section 13.6."
41	S1.2.2.15.4	General revision of PCCS description in response to RAI 6.2-102 S01. References added to Subsection 9.1.3 and Section 11.5.
42	S1.2.2.15.7	Deleted "Post-accident sampling" from bulleted list. Function has been removed from ESBWR design.
43	S1.2.2.15.7, Suppression pool monitoring	Added "panels" at end of last sentence in last paragraph.
44	S1.2.2.16.3	Added new paragraph as follows to end of section for consistency with DCD Tier 2 Section 9.5.1: "A portion of the water stored in the FPS storage tanks provides makeup water to the IC/PCC and spent fuel pools during design basis events. The makeup water used for this purpose is stored in Seismic Category I tanks. The amount of water reserved for this function is based on providing makeup water from 72 hours to 7 days after a design basis event that is initiated from 100% of rated core thermal power. Piping that is part of the FAPCS is used to transport this makeup water to the IC/PCC and spent fuel pools. See Subsections 9.1.3 and 9.5.1 for additional details."
45	S1.2.2.16.8	Changed Seismic Category of Turbine Building from "II" to "NS" for consistency with changes to Section 3.7.
46	S1.2.2.16.9	Revised acronym "RWB" to defined standard "RW" for Radwaste Building. Revised last sentence to read: "The RW is designed according to the safety classification defined in Regulatory Guide 1.143 as Category RW-IIa."

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47	S1.2.2.16.10, third paragraph	Added "typically" to first sentence. Added ", and in some cases may be shared with other units at the same plant site" to end of last sentence. These changes make this general description section more generic by allowing for site-specific arrangements of other facilities.
48	S1.2.2.17.1	Revised first two sentences to read: "The intake and discharge structures are nonsafety-related." This change makes this general description section more generic by not requiring specific equipment to be physically located in the intake and discharge structure.
49	Figures 1.2-1 through 1.2-11	Figures updated to reflect engineering changes and design details.

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Section 1.3

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.3.1	Editorial. Replaced Subsection number 1.3.1.1 with COL item number 1.3-1-A. Changed "shall" to "will" in COL item 1.3-1-A. Added "(Table 1.3-1)" at end of item.
2	Table 1.3-1, Thermal and Hydraulic	Changed ESBWR "Core coolant flow rate" from "36,010 (79.388)" to "35,311 (77.847)" to match average of two values shown in Figures 1.1-3a and 1.1-3b.
3	Table 1.3-1, Thermal and Hydraulic	Changed ESBWR "Coolant enthalpy at core inlet" from "1188 (510.9)" to "1190 (511.7)" to match average of two values shown in Figures 1.1-3a and 1.1-3b.
4	Table 1.3-1, Thermal and Hydraulic	Changed ESBWR "Maximum void fraction within fuel assemblies" from 0.89 to 0.90 for consistency with DCD Tables 4.4-1a and 4.4-1b.
5	Table 1.3-1, Thermal and Hydraulic	Changed ESBWR "Feedwater temperature" from "210-220 (410-428)" to "215.6 (420)" and added reference to note 3.
6	Table 1.3-1, Nuclear (first core)	Changed ESBWR "Initial average U ²³⁵ enrichment" from 2.00 to 2.08 for consistency with LTR NEDC-33326P, Rev 0.
7	Table 1.3-1, Nuclear (first core)	Changed ESBWR "Initial cycle exposure" from "10,580 (9,600)" to "11750 (10660)" for consistency with LTR NEDC-33326P, Rev 0.
8	Table 1.3-1, Fuel Assembly	Changed ESBWR "Weight of UO ₂ per assembly" from "144 (317)" to "163 (360)". Old value corresponded to weight of U only. Changed ABWR value for same parameter from "78 (172)" to "109 (240)" based on Table 1.3-1 of ABWR DCD.
9	Table 1.3-1, Fuel Assembly	Changed ESBWR "Weight of fuel assembly (includes channel without UO ₂)" from "79 (174)" to "78 (172)".
10	Table 1.3-1, Core Assembly	Changed ESBWR "Fuel weight as UO ₂ " from "162,928 (359,194)" to "184,867 (407,562)" consistent with above change to UO ₂ weight for an individual bundle.

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Section 1.3

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
11	Notes for Table 1.3-1	Note 2 – Added "of an equilibrium core unless otherwise specified" in middle of note. Changed "Subsection 1.3.1.1" to "Subsection 1.3.1, Item 1.3-1-A"
12	Notes for Table 1.3-1	Note 3 – Replaced "Not used." with "Value reported is nominal feedwater temperature at rated power conditions."
13	Notes for Table 1.3-1	Note 4 – Editorial. Changed first letter in words "reactor internal pumps" to lower case.
14	Table 1.3-2, Automatic Depressurization System	Revised maximum capacity for SRVs from 4.97 to 5.19 x 10 ⁶ kg/hr (10.95 to 11.44 x 10 ⁶ lbm/hr) to support analysis requirements.
15	Notes for Table 1.3-2	Note 3 – Added equivalent English units of 45 psia for 308 kPa. Revised temperature value from 102°C to 101°C for consistency with DCD Section 6.2.2.1, and added English unit equivalent of 214°F.
16	Notes for Table 1.3-2	Note 4 – For consistency with DCD Section 6.2.2.2.2, revised note to read: "The PCCS pools are arranged in two sets of three subcompartments. All IC/PCC pool subcompartments communicate at their lower ends to allow full use of the collective water inventory."
17	Note for Table 1.3-4	Deleted "Section 3.7.5.1 and" from note. Section 3.7.5.1 has been deleted from the DCD.

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Section 1.4 has no changes.

Section 1.5

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	Throughout Section 1.5	Generic typographical error correction. Changed "noncondensable" to "noncondensable" and "noncondensibles" to "noncondensable gases" throughout Section 1.5.
2	S1.5.2.2	Second sentence revised to read: "The application of TRACG for ESBWR LOCA analysis of <i>ECCS and containment performance</i> has been approved by the NRC [Reference 1.5-3]." This was done to clarify that NRC approval of the TRACG LOCA analysis methodology addresses both ECCS and containment performance.

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Section 1.6

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.6	Added new paragraph as follows: "Table 1.6-2 lists all non-GE topical reports that are incorporated in whole or in part by reference in the ESBWR DCD Tier 2."
2	Table 1.6-1	General Table Update to reflect contents of Revision 4 of the individual DCD Chapters. Changed table title to "Referenced GE Reports". Changed "(GE Proprietary)" to "(Proprietary)" throughout the table to make individual listings consistent.
3	Table 1.6-1	Deleted listings for the following GE topical reports: <ul style="list-style-type: none"> • NEDO-10527 – No longer referenced • NEDO-25257 – No longer referenced • NEDO-33175 – No longer referenced • NEDO-33201 – While this topical report is still referenced in some DCD locations, it is not officially considered to be incorporated into the DCD by reference. • NEDO-33294 – No longer referenced
4	Table 1.6-1	Added listings for the following GE topical reports: <ul style="list-style-type: none"> • NEDE-30130-P-A • NEDC-32975P-A • NEDO-33206 • NEDO-33219 • NEDO-33220 • NEDO-33221 • NEDE-33226P / NEDO-33226 • NEDO-33262 • NEDO-33266 • NEDO-33267 • NEDO-33268

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Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
4	Table 1.6-1 (continued)	<ul style="list-style-type: none">• NEDO-33274• NEDO-33275• NEDO-33277• NEDO-33278• NEDC-33326P / NEDO-33326• NEDO-33337• NEDO-33338• NEDC-33373P / NEDO-33373• NEDC-33374P / NEDO-33374
5	Table 1.6-2	Added new Table 1.6-2 for listing referenced non-GE topical reports.

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Section 1.7

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.7	Editorial. Revised existing section text to read as follows for better compatibility with COLA FSAR submittals: "Proprietary and safeguards information is not provided in the publically available version of this document. For example, detailed proprietary design drawings are not included. As needed, proprietary and safeguards information are referenced and supplied separately. The requirements that a site-specific plant design shall meet are described herein. Therefore, the design/safety features and functions shown on the design related drawings provided herein are required to be included in the site-specific design drawings. For example, a system's site-specific piping and instrumentation diagram (P&ID) is required to provide all the features shown on that system's simplified P&ID contained herein."
2	S1.7.1	Editorial. Revised existing section text to read as follows for better compatibility with COLA FSAR submittals: "Where appropriate, non-proprietary (simplified, as needed) electrical, instrumentation and control drawings are provided within this document. These drawings provide design information or show how the subject systems and components perform their associated safety function(s)."
3	S1.7.1	Added following to end of section: "Table 1.7-2 provides a summary of the electrical, instrumentation and control system configuration drawings found throughout DCD Tier 2."
4	S1.7.2	Editorial. Revised "this DCD" and "this DCD Tier 2" to "this document" for better compatibility with COLA FSAR submittals.

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Section 1.7

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
5	S1.7.2	Added following to end of section: "Table 1.7-3 provides a summary of the mechanical system configuration drawings found throughout DCD Tier 2. Upon completion of the final design configuration, the licensee will make available to the NRC the revisions of the final P&IDs used for construction. The licensee will also identify any design changes that require revisions to the simplified diagrams provided in the COLA and submit those identified changes to NRC as part of an FSAR update. (Subsection 1.7.4, Item 1.7-1-H)"
6	S1.7.3	Editorial changes for better compatibility with COLA FSAR submittals. Changed "this DCD Tier 2" to "this document" in first paragraph. Changed "Tier 2 locations" to "sections" in second paragraph. Deleted "DCD Tier 2" from third paragraph.
7	S1.7.4	Added new COL Information subsection as follows: 1.7.4 COL Information <i>1.7-1-H Final Design Configuration Confirmation</i> Upon completion of the final design configuration, the licensee will make available to the NRC the revisions of the final P&IDs used for construction. The licensee will also identify any design changes that require revisions to the simplified diagrams provided in the COLA and submit those identified changes to NRC as part of an FSAR update. (Subsection 1.7.2)
8	Table 1.7-2	Added new Table 1.7-2 that lists the electrical, instrumentation and control system configuration drawings found throughout DCD Tier 2.
9	Table 1.7-3	Added new Table 1.7-3 that lists the mechanical system configuration drawings found throughout DCD Tier 2.
10	Figures 1.7-1 through 1.7-4	Figures redrawn to improve quality. No changes to content of figures.

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Section 1.8

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.8.2	Revised second paragraph to read: "The ESBWR DCD includes designs for the following systems for the purposes of allowing the NRC to evaluate the overall acceptability of the design. The referenced sections indicate whether or not the design of these systems for ESBWR is considered to be a conceptual design."
2	Table 1.8-1	Passive Containment Cooling System – Removed X in column for Control Building. PCCS is passive and has no control interfaces.
3	Table 1.8-1	Containment Inerting System – Added X in column for Containment. CIS does penetrate containment boundary for its inerting function. Changed section number in Location where discussed column to 6.2.5.2 per RAI 9.4-7.
4	Table 1.8-1	Revised section reference for Onsite AC Power from 8.3 to 8.3.1.
5	Table 1.8-2	Changed "Process and Post Accident Sampling Systems" to "Process Sampling System". Deleted duplicate entry for this item on second page of table.

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Section 1.9

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.9.1	Replaced "(See Subsection 1.9.4.1)" with "For SRP sections where there are deviations, a reference location is provided for additional information."
2	S1.9.3	Deleted "or that impact the COL applicant" in the first sentence and "(See Subsection 1.9.4.2)" at end of paragraph to avoid duplicate COL items. Any COL items related to NUREG reports are defined in the sections referenced in Table 1.9-23.
3	S1.9.4 (S1.9.4.1 in Rev 3)	Renumbered COL item as 1.9-1-A and added "(deleted)" at the end of it to avoid duplicate COL items. Text of item was also deleted. Any COL items related to SRP sections are defined in the sections referenced in Tables 1.9-1 through 1.9-19.
4	S1.9.4 (S1.9.4.2 in Rev 3)	Renumbered COL item as 1.9-2-A and added "(deleted)" at the end of it to avoid duplicate COL items. Text of item was also deleted. Any COL items related to experience information are defined in the sections referenced in Tables 1.9-23, 1C-1 and 1C-2.
5	S1.9.4	Added new COL item 1.9-3-A SRP and Regulatory Guide Applicability COL applicant will address the applicability of SRPs and Regulatory Guides that refer to "BSP" or "COL" in the Comments column. (Tables 1.9-20 and 1.9-21)
6	Table 1.9-1, Note (2)	Note deleted. COL items have been removed from Tables 1.9-1 through 1.9-21 as indicated above to avoid duplicate COL items in DCD.
7	Table 1.9-2	Editorial. Changed "will be" to "is" for SRP Sections 2.5.4 and 2.5.5.
8	Table 1.9-3	Editorial. Changed "will be" to "is" for SRP Section "3.7.1 and 3.7.3".

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Section 1.9

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
9	Table 1.9-6, SRP Section 6.2.4 (first entry)	For consistency with other DCD sections, changed Summary Description of Difference column to read: ESBWR design meets GDC 55 and GDC 56 using the following alternate configurations: (1) FAPCS suppression pool suction line contains two isolation valves outside containment in each of two branch lines; (2) FAPCS Reactor Well drain line has two isolation valves inside containment; (3) ICS piping contains two isolation valves inside containment; and (4) Containment Inerting System piping contains two isolation valves outside containment.
10	Table 1.9-6, SRP Section 6.2.4 (first entry)	Changed Subsection Where Discussed column listing for FAPCS from 9.1.3.7 to 6.2.4.3.
11	Table 1.9-6 SRP Section 6.2.4 (second entry)	Editorial. Deleted "will".
12	Table 1.9-6, SRP Section 6.2.5	Deleted "and 9.4.9" from Subsection Where Discussed column.
13	Table 1.9-6, SRP 6.4	Added "II.3" to Specific SRP Acceptance Criteria column. Revised Summary Description of Difference column from "None" to "For differential pressure testing of the control room, the periodic verification interval of every 18 months in criteria II.3.a through II.3.c is increased to every 24 months to accommodate the ESBWR's 2-year operating cycle." Added "6.4.7, Chapter 16 Section 5.5.12.d" to Subsection Where Discussed column.
14	Table 1.9-7, SRP Section App. 7.0-A	Changed "Appendix 7B" to "Section 7.1.1 provides information about" due to elimination of Appendix 7B.

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Section 1.9

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
15	Table 1.9-7, SRP 7.1, 7.3, Regulatory Guide 1.75	Changed Summary Description of Difference to "None" and deleted sections in last column. Design as presented in Chapter 7 now complies fully with RG 1.75.
16	Table 1.9-8, SRP Section 8.1, GDC 5	Changed Subsection Where Discussed column listing from "8.3.1.2.1 Analysis, GDC 5" to "8.1.5.2.4, Table 8.1-1, 8.2.2.2".
17	Table 1.9-8, SRP Section 8.1, RG 1.9	Changed Subsection Where Discussed column listing from "8.1.6.3" to "8.1.5.2.4, Table 8.1-1". Added "Therefore, this RG is not applicable." to Summary Description of Difference column.
18	Table 1.9-8, SRP Section 8.1, RG 1.32	Changed Subsection Where Discussed column listing from "8.3.2, 8.1.6.3" to "8.3.2, 8.1.5.2.4, Table 8.1-1".
19	Table 1.9-8, SRP Section 8.1, RG 1.75	Changed Summary Description of Difference column to "None". Deleted entry in Subsection Where Discussed column.
20	Table 1.9-8, SRP Section 8.1, RG 1.81	Changed Subsection Where Discussed column from "8.3.1.2.1" to "8.1.5.2.4, Table 8.1-1."
21	Table 1.9-8, SRP Section 8.1, RG 1.108	Deleted entire entry for this item. RG 1.108 no longer appears in the SRP as an acceptance criterion.
22	Table 1.9-8, SRP Section 8.1, RG 1.118	Deleted "(This is a COL licensing requirement.)" and the Subsection Where Discussed.
23	Table 1.9-8, SRP Section 8.1, RG 1.129	Revised Summary Description of Difference column to read: "The ESBWR design allows for periodic testing, maintenance, and replacement of batteries in accordance with IEEE 1188. IEEE 450 is not applicable for Valve-Regulated Lead-Acid (VRLA) batteries." Changed Subsection Where Discussed column from "8.3.4.14" to "8.1.5.2.4, 8.3.2.2"
24	Table 1.9-8, SRP Section 8.1, RG 1.160	Editorial to avoid duplication of COL item. Changed "by the COL applicant" to "in Chapter 17" and added "17.4.9" to the Subsection Where Discussed column.

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25	Table 1.9-8, SRP Section 8.1, BTP ICSB 11	Changed Subsection Where Discussed column listing from "8.3.4.6" to "8.2.4.9, 8.1.5.2.4".
26	Table 1.9-8, SRP Section 8.1, BTP ICSB 18	Revised Summary Description of Difference column to read: "There are no safety-related, manually controlled, electrically operated valves in the ESBWR design. All safety-related valves are automatic and require no manual action for 72 hours. This BTP is not applicable to the ESBWR design." Added "8.1.5.2.4" to Subsection Where Discussed column.
27	Table 1.9-8, SRP Section 8.1, BTP ICSB 21	Revised Summary Description of Difference column to read: "The offsite power system is nonsafety-related. Therefore, the BTP is not applicable to the ESBWR design." Added "8.2.2.2" to Subsection Where Discussed column.
28	Table 1.9-8, SRP Section 8.1, BTP PSB 1	Revised Summary Description of Difference column to read: "Degraded voltage in the offsite power system does not affect the safety-related systems, as the 480 VAC Isolation Power Centers do have degraded voltage protection." Changed Subsection Where Discussed Column from "8.3.4.6" to "8.1.5.2.4, 8.3.1.1.2"
29	Table 1.9-8, SRP Section 8.1, BTP PSB 2	Revised Summary Description of Difference column to read: "This BTP does not apply because the diesel-generator sets do not serve a safety-related function." Changed Subsection Where Discussed Column from "N/A" to "8.1.5.2.4"
30	Table 1.9-8, SRP Section 8.1, NUREG/CR-0660	Added "However, defense-in-depth principles such as redundancy and diversity are incorporated in the design and integration of ESBWR systems." to Summary Description of Difference column. Changed Subsection Where Discussed Column from "N/A" to "8.1.5.2.4"

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31	Table 1.9-8, SRP Section 8.1, NUREG-0737	Deleted this as an individual line item in the table. It is the source of the TMI action items listed individually below.
32	Table 1.9-8, SRP Section 8.1, NUREG-0718, Rev 1	Revised Summary Description of Difference column to read: "Not applicable to the ESBWR. NUREG-0718 only applies to the pending applications as of February 16, 1982." Changed Subsection Where Discussed Column from "N/A" to "Table 8.1-1"
33	Table 1.9-8, SRP Section 8.1, TMI Action Items	Inserted "NUREG-0737," in front of these two items in the Specific SRP Acceptance Criteria column.
34	Table 1.9-9, SRP 9.3.1	Changed "9.4.9" to "6.2.5.2" in last two columns due to relocation in the DCD of the Containment Inerting System description.
35	Table 1.9-10, SRP 10.4.2, RG 1.33	Editorial to avoid duplication of COL items. Changed "a COL responsibility, not applicable for this DCD review" to "addressed in Chapter 17" and changed "N/A" to "17.2" in the Subsection Where Discussed column.
36	Table 1.9-10, SRP 10.4.3, RG 1.33	Editorial to avoid duplication of COL items. Deleted ", COL responsibility" and changed "N/A" to "17.2" in the Subsection Where Discussed column.
37	Table 1.9-10, SRP 10.4.7, 10 CFR 50, App A, GDC 5	Editorial. Changed "will" to "does" in Summary Description of Difference column.
38	Table 1.9-11, SRP 11.4	Editorial to avoid duplication of COL items. Changed "COL Applicant to supply." to "Not within scope of design certification."
39	Table 1.9-13	Editorial. Changed note to read: "See Chapter 13 for additional information."
40	Table 1.9-15, SRP Section 15.4.9	Editorial. Revised first sentence of Summary Description of Differences column to read: "Postulated events are not applicable to the ESBWR."

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41	Table 1.9-15, SRP Section 15.5.1 – 15.5.2	Editorial. Revised Summary Description of Differences column to read: "Postulated events addressed under other SRP sections for the ESBWR."
42	Table 1.9-17, SRP 17.1	Changed "GE" to "GEH"
43	Table 1.9-18, SRP Appendices F and H	Revised Summary Description of Differences column to read: "None"
44	Table 1.9-20, Notes (2) and (3)	Added "(Subsection 1.9.4, Item 1.9-3-A)" to end of notes.
45	Table 1.9-21, RG 1.7	Changed issue date from "05/2003" to "03/2007".
46	Table 1.9-21, RG 1.52	Changed applicability to "Yes" due to replacement of EBAS with Emergency Filter Units. Added "Applies to Control Room HVAC." to Comments column.
47	Table 1.9-21, RG 1.53	Revised title to "Application of the Single-Failure Criterion to Safety Systems" to match referenced revision.
48	Table 1.9-21, RG 1.54	Added "See Table 1.9-21b" to Comments column.
49	Table 1.9-21, RG 1.75	Revised title to "Criteria for Independence of Electrical Safety Systems" to match referenced revision.
50	Table 1.9-21, RG 1.106	Changed ESBWR Applicable? column to "No". Added "ESBWR has no safety-related MOVs." to Comments column.
51	Table 1.9-21, RG 1.133	Changed ESBWR Applicable? column to "No". Added "A loose-parts monitoring system is not included in the ESBWR design." to Comments column. (per responses to RAIs 4.4-7 S02 through 4.4-9 S02)
52	Table 1.9-21, RG 1.152	Revised title to "Criteria for Use of Computers in Safety Systems of Nuclear Power Plants" to match referenced revision.
53	Table 1.9-21, RG 1.206	Changed "DG-1145" to "1.206". Changed revision to "0". Changed issue date to "06/2007". Changed ESBWR Applicable? to "—". Added "COL" to Comments column.

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Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
54	Table 1.9-21, RG 1.207	Added new listing for RG 1.207. Title: "Guidelines for Evaluating Fatigue Analyses Incorporating the Life Reduction of Metal Components Due to the Effects of Light-Water Reactor Environment for New Reactors", Revision "0", Issue Date "03/2007", ESBWR Applicable? "Yes", Comment "With increase in fatigue usage limit".
55	Table 1.9-21, RG 1.208	Added new listing for RG 1.208. Title: "A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion", Revision "0", Issue Date "03/2007", ESBWR Applicable? "No".
56	Table 1.9-21, RG 1.209	Added new listing for RG 1.209. Title: "Guidelines for Environmental Qualification of Safety-Related Computer Based Instrumentation and Control Systems in Nuclear Power Plants", Revision "0", Issue Date "03/2007", ESBWR Applicable? "Yes"
57	Table 1.9-21, Note (1)	Added "(Subsection 1.9.4, Item 1.9-3-A)" to end of note.
58	Table 1.9-21a, RG 1.6	Editorial. Deleted "will".
59	Table 1.9-21a, RG 1.13	Editorial. Changed "will comply" to "complies".
60	Table 1.9-21a, RG 1.75	Editorial. Changed "will meet" to "meets".
61	Table 1.9-21a, RG 1.76	Editorial. Changed "will be" to "is".
62	Table 1.9-21a	Changed "1.99" to "1.100" for consistency with referenced URD section.
63	Table 1.9-21b, RG 1.8	Changed Comments column to read: "Not applicable to GEH QA Program" for consistency with Table 17.0-1.
64	Table 1.9-21b, RG 1.21	Added new line item for consistency with Table 17.0-1. Revision 1, Comments "Not applicable to GEH QA Program"
65	Table 1.9-21b, RG 1.26	Changed Comments column to read: "Except for the alternate Quality Group Classification for the Hydraulic Control Unit per Note 8 of Table 3.2-1." (per response to RAI 3.2-21 S01)

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66	Table 1.9-21b, RG 1.29	Changed Comments column to read: "Except for Main Steam Piping from seismic interface restraint to turbine stop valves as identified in Table 3.2-1 and Figure 3.2-1." (per response to RAI 3.2-16 S01)
67	Table 1.9-21b, RG 1.33	Changed Comments column to read: "Not applicable to GEH QA Program" for consistency with Table 17.0-1.
68	Table 1.9-21b, RG 1.54	Added new line item for consistency with Table 17.0-1. Revision 1, Comments "Except for certain small size equipment where paint debris is not a post-LOCA hazard as described in Subsection 6.1.2.1."
69	Table 1.9-21b, RG 1.94	Changed Comments column to read: "Not applicable to GEH QA Program" for consistency with Table 17.0-1.
70	Table 1.9-21b, RG 1.176	Changed Comments column to read: "Not applicable to GEH QA Program" for consistency with Table 17.0-1.
71	Table 1.9-22, ANSI	Deleted ANSI N13.10-1974 from table. (per response to RAI 11.5-39)
72	Table 1.9-22, ANSI	Added ANSI N42.18-2004, Year 2004, Title "Specification and Performance of On-Site Instrumentation for Continuously Monitoring Radioactivity in Effluents (Redesignation of N13.10-1974 and Reaffirmation of N42.18-1980)" (per response to RAI 11.5-39)
73	Table 1.9-22, ANS	Deleted ANS 58-14 per response to RAI 3.2-3 S02.
74	Table 1.9-22, ASME	Added B36.19M-2004, Year 2004, Title "Stainless Steel Pipe".
75	Table 1.9-22, ASME	Deleted N509-2002 and N510-1989 from table, which have been replaced by AG-1-2003.
76	Table 1.9-22, ASME	Added RS-Sa7-2003, Year 2003, Title "Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications, Addendum A to ASME RA-S-2002"
77	Table 1.9-22, ASME	Added RS-Sb-2005, Year 2005, Title "Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications, Addendum B to ASME RA-S-2002"

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78	Table 1.9-22, IEEE	Editorial. Changed "Systems" to "Stations" at end of title for IEEE 7-4.3.2-2003.
79	Table 1.9-22, IEEE	Updated year for IEEE 344 to 2004 and deleted note about more recent version existing.
80	Table 1.9-22, IEEE	Deleted IEEE 450-2002 and 484-2002. Vented lead acid batteries not used for ESBWR.
81	Table 1.9-22, IEEE	Editorial. Changed "Capacity" to "Ampacity" in title of IEEE 835-1994.
82	Table 1.9-22, IEEE	Editorial. Added word "Storage" to title of IEEE 1187-2002.
83	Table 1.9-22, IEEE	Updated year for IEEE 1188 to 2005. Added "(VRLA)" to title of IEEE 1188-2005.
84	Table 1.9-22, IEEE	Updated year for IEEE 1202 to 2006. Revised title of IEEE 1202-2006 to read "Standard for Flame-Propagation Testing of Wire and Cable".
85	Table 1.9-22, IEEE	For IEEE C37.04-1999, replaced comment about Amendment A with "(including Errata published 29 November 2005)".
86	Table 1.9-22, IEEE	Updated year for IEEE C57.12.90 to 2006. Added "IEEE" to front of title.
87	Table 1.9-22, IEEE	Deleted IEEE N42.18-1980 from table. (per response to RAI 11.5-39)
88	Table 1.9-22, IEC	Replaced 801-x series with 61000-4 series, Title "Electromagnetic Compatibility (EMC): Testing and Measurement Techniques"
89	Table 1.9-22, MSS	Added SP-58-2002, Year 2002, Title "Pipe Hangers and Supports – Materials, Design, and Manufacture"
90	Table 1.9-22, MSS	Editorial. Changed "SP 67A-02" to "SP-67-2002a"
91	Table 1.9-22, MSS	Added SP-69-2003, Year 2003, Title "Pipe Hangers and Supports – Selection and Application (also known as ANSI/MSS SP-69-2003)"

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92	Table 1.9-22, MSS	Added SP-77-1995, Year 1995 (R 2000), Title "Guidelines for Pipe Support Contractual Relationships"
93	Table 1.9-22, MSS	Added SP-89-2003, Year 2003, Title "Pipe Hangers and Supports – Fabrication and Installation Practices"
94	Table 1.9-22, MSS	Added SP-127-2001, Year 2001, Title "Bracing for Piping Systems Seismic-Wind-Dynamic Design, Selection, Application"
95	Table 1.9-22, NEMA	Added MG2-2001, Year 2001, Title "Safety Standard for Construction and Guide for Selection, Installation, and Use of Electric Motors and Generators"
96	Table 1.9-22, NEMA	Added WC-70, Year 1999, Title, "Nonshielded Power Cables Rated 2000 V or Less (Also known as ICEA S-95-658)"
97	Table 1.9-22, NFPA	Added NFPA 12A, Year 2004, Title "Standard on Halon 1301 Fire Extinguishing Systems"
98	Table 1.9-22, NFPA	Added NFPA 25, Year 2002, Title "Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems"
99	Table 1.9-22, NFPA	Added NFPA 54, Year 2006, Title "National Fuel Gas Code"
100	Table 1.9-22, NFPA	Added NFPA 55, Year 2005, Title "Standard for the Storage, Use, and Handling of Compressed Gases and Cryogenic Fluids in Portable and Stationary Containers, Cylinders, and Tanks"
101	Table 1.9-22, NFPA	Added NFPA 58, Year 2004, Title "Liquefied Petroleum Gas Code"
102	Table 1.9-22, NFPA	Added NFPA 220, Year 2006, Title "Standard on Types of Building Construction"
103	Table 1.9-22, NFPA	Added NFPA 221, Year 2006, Title "Standard for High Challenge Fire Walls and Fire Barrier Walls"

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Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
104	Table 1.9-22, NFPA	Added NFPA 253, Year 2006, Title "Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source"
105	Table 1.9-22, NFPA	Added NFPA 259, Year 2003, Title "Standard Test Method for Potential Heat of Building Material"
106	Table 1.9-22, NFPA	Added NFPA 703, Year 2006, Title "Standard for Fire-Retardant Treated Wood and Fire-Retardant Coatings for Building Materials"
107	Table 1.9-22, NFPA	Added NFPA 805, Year 2006, Title "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants"
108	Table 1.9-22, NFPA	Added NFPA 1410, Year 2005, Title "Standard on Training for Initial Emergency Scene Operations"
109	Table 1.9-22, NFPA	Added NFPA 1620, Year 2003, Title "Recommended Practice for Pre-Incident Planning"
110	Table 1.9-22, NEI	Added NUMARC 93-01, Year 1996/2000, Title, "Industry Guidance for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, April 1996, including February 22, 2000 revision to Section 11."

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111	Table 1.9-23	General table update to match NUREG references throughout DCD Revision 4. Section cross-reference changes marked with revision bars but not detailed on this change list.
112	Table 1.9-23	Updated issue date for NUREG-0800 to "Varies by SRP Section" and for NUREG-0933 to "10/2006".
113	Table 1.9-23	<p>The following NUREG reports were deleted in Revision 4:</p> <ul style="list-style-type: none"> • 0761 • 1061 • 1482, Rev 1 • 1793 • CR-2442 • CR-2919 • CR-5405 • CR-6421
114	Table 1.9-23	<p>The following NUREG reports were added in Revision 4:</p> <ul style="list-style-type: none"> • 75/014 • 0133 • 1302 • 1344 • 1736 • CP-0065 • CP-0095 • CR-1278 • CR-4550 • CR-5582 • CR-6639 • CR-6645 • CR-6707

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Section 1.10

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.10	Editorial. Changed "will be" to "is" in first sentence.
2	Table 1.10-1	General Table Update to reflect contents of Revision 4 of the individual DCD Chapters and to add a table column for the COL item number.

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Section 1.11

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.11 and S1.11.1	Replaced "NUREG-0933", including the "and its Supplements ..." statement with "Reference 1.11-1" everywhere it appeared throughout the text.
2	S1.11.2	Added new COL information section as follows: 1.11.2 COL Information 1.11-1-A Address Table 1.11-1 Items That Refer to Notes (2) and (7) COL applicant will provide information to supplement the listings for all issues in Table 1.11-1 that refer to Notes (2) and (7). This includes items A-33, B-1, B-28, B-37 through B-43, C-16 and 184. (Table 1.11-1, Notes (2) and (7))
3	S1.11.3	Added new references section as follows: 1.11.3 References 1.11-1 U.S. Nuclear Regulatory Commission, "A Prioritization of Generic Safety Issues," NUREG-0933 and its Supplements through Supplement 30, October 2006.
4	Table 1.11-1, Note (2)	Changed "applicant/holder" to "applicant". Added "(Subsection 1.11.2, Item 1.11-1-A)"
5	Table 1.11-1, Note (7)	Added "(Subsection 1.11.2, Item 1.11-1-A)"
6	Table 1.11-1, Action Item / Issue A-13	Editorial. Changed "prepared" to "repaired" in next to last paragraph.
7	Table 1.11-1, Action Item / Issue A-17	Added "See Appendix 19A, Section 19A.6, for further details regarding this issue as part of the discussion of Regulatory Treatment of Non-Safety Systems (RTNSS)." (per response to RAI 20.0-8)

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8	Table 1.11-1, Action Item / Issue A-24	Revised first paragraph to read as follows due to NUREG-0588 being superceded by 10 CFR 50.49: "This issue is considered resolved through compliance with 10 CFR 50.49. As noted in Subsection 3.11.2.2, the ESBWR Standard Plant design meets the requirements of 10 CFR 50.49."
9	Table 1.11-1, Action Item / Issue A-36	Revised "(2, 8)" to "(8)". Issue is adequately addressed in referenced location without including a duplicate COL item here.
10	Table 1.11-1, Action Item / Issue B-12	<p>Revised Technical Resolution to read:</p> <p>"(4) Subsections 6.2.2 and 7.3.2 describe the safety-related containment cooling system (PCCS). Subsections 9.2.7 and 9.4.8 describe the systems involved in normal containment cooling.</p> <p>A loss of normal containment cooling does not impact the operability of the safety-related PCCS to perform this function or the ability to place the ESBWR in a safe shutdown condition. The PCCS is a passive system that does not have instrumentation, control logic or power-actuated valves, and does not need or use electrical power for its operation."</p> <p>(per response to RAI 6.2-171)</p>

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11	Table 1.11-1, Action Item / Issue B-36	<p>Revised first two paragraphs of Technical Resolution to read as follows due to replacement of EBAS with Emergency Filter Units:</p> <p>"(8) The ESBWR engineered safety features (ESFs) do not require a separate ventilation system. The only ESBWR filter system that performs safety-related functions following a design basis accident (DBA) serves the control room. The control room is provided with a redundant set of safety-related Emergency Filter Units (EFUs) to maintain a safe control room atmosphere following a DBA as discussed in Section 6.4. The EFUs are 100% capacity redundant units designed and tested to meet the requirements of Regulatory Guide 1.52. Therefore, this issue, as it applies to ESF ventilation system air filtration and adsorption units, is resolved through compliance with Regulatory Guide 1.52 for the safety-related Control Room HVAC components. As noted in Tables 1.9-21 and 1.9-21a for RG 1.52, use of a passive plant-specific physically-based source term eliminates the need for additional systems.</p> <p>This issue, as it applies to normal ventilation system air filtration and adsorption units, is applicable to ESBWR and is considered resolved through compliance with Regulatory Guide 1.140, consistent with the NRC resolution. As noted in Table 1.9-21 and Subsection 14.2.3, the ESBWR Standard Plant design complies with RG 1.140."</p>

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12	Table 1.11-1, Action Item / Issue B-64	Expanded discussion of this issue, based on contents of NUREG-0933 and DCD Section 12.6, to read as follows: "(8) This issue is considered resolved through the issuance of 10 CFR 50.82, which provides regulations governing the termination of licenses. Decommissioning is addressed as the unit approaches the end of its lifetime. The methods and procedures to be used for decontamination and for disposal of radioactive materials will provide reasonable assurance that the dismantling and disposal will not adversely affect public health and safety. Section 12.6 describes ESBWR design procedures for operation that minimize contamination and facilitate decommissioning."
13	Table 1.11-1, Action Item / Issue C-1	Revised second sentence of first paragraph of Technical Resolution to read as follows: "Those requirements have now been incorporated into SRP 3.11."
14	Table 1.11-1, Action Item / Issue 51	Revised "(1, 2)" to "(1)". Issue is adequately addressed by reference to Chapter 19 without need for COL item.
15	Table 1.11-1, Action Item / Issue 67.4.3	Revised "See Appendix 18A" to "See Section 18.9 for a discussion of Emergency Operating Procedures development." due to deletion of Appendix 18A from DCD.
	Table 1.11-1, Action Item / Issue 83	Replaced acronym CRHAHVS in three locations with its current standard acronym, CRHAVS.
16	Table 1.11-1, Action Item / Issue 105	Added the following to the end of the Technical Resolution statement: "Refer to the intersystem loss-of-coolant accident evaluation in Appendix 3K, "Resolution of Intersystem Loss-of-Coolant Accident," for further details." (Incorporated in response to RAI 20.0-13)
17	Table 1.11-1, Action Item / Issue 128	Changed "Class 1E" to "safety-related" throughout Technical Resolution statement.
18	Table 1.11-1, Action Item / Issue 156.6.1	Changed Technical Resolution column to read: "(4) The ESBWR design considers the potential effects of pipe breaks on systems and components. Section 3.6, "Protection Against Dynamic Effects Associated with the Postulated Rupture of Piping,"

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		<p>addresses the protection of ESBWR components against dynamic effects such as pipe whip and jet impingement that are associated with postulated piping ruptures. An analysis of pipe break events is performed to identify those safety-related systems, components, and equipment that are required to perform protective actions to mitigate the consequences of the pipe break event within acceptable limits. By means of design features such as separation, barriers, and pipe whip restraints, adequate protection is provided against the effects of pipe break events for safety-related items to an extent that their ability to shut down the plant safely or mitigate the consequences of the postulated pipe failure would not be impaired. Subsection 3.6.1.1 describes the criteria, assumptions, objectives and approach for establishing protection requirements for safety-related equipment. Subsection 3.6.1.3 describes the design evaluation process and the types of protection measures that are considered. Subsection 3.6.2.1 and its subsections establish the criteria for the location and configuration of postulated breaks and cracks. Subsection 3.6.2.1 and its subsections establish the criteria for the location and configuration of postulated breaks and cracks. Subsection 3.6.2.2 describes the analytical methods used to define blowdown forcing functions and to perform the pipe-whip dynamic response analyses. Subsection 3.6.2.3.1 discusses the methods and criteria used to evaluate the jet effects resulting from the postulated breaks of high-energy piping on safety-related SSCs. Subsection 3.6.2.3.2 provides the criteria and methods used to evaluate the effects of pipe displacements on safety-related SSCs following a postulated pipe rupture.</p>

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Section 1.11

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
		<p>Section 3.8, "Seismic Category I Structures," addresses all design requirements for structures that contain safety-related components. These structures are designed to withstand the loads resulting from the dynamic effects of pipe breaks. Subsection 3.8.1.3.5 defines the specific abnormal design loads resulting from pipe breaks that are considered in the design of the containment and its internal structures. Design loads affecting the Reactor Building structure as a result of pipe breaks are summarized in Subsection 3.8.4.3.1.</p> <p>Section 3.9, "Mechanical Systems and Components," addresses the analysis methods used to evaluate Seismic Category I components and supports. Subsection 3.9.1.4 refers to Tables 3.9-1 and 3.9-2 for definitions of the requirements for the assumed number of cycles associated with each design basis event and load combination requirements, respectively." (Incorporated in response to RAI 20.0-4 Supplements 1 and 2)</p>
19	Table 1.11-1, Action Item/Issue 196	Editorial. Changed "GE" to "GEH".
20	Table 1.11-1, Action Item / Issue 197	New Item. Description: "Iodine Spiking Phenomena" Technical Resolution: "(1) PWR issue."
21	Table 1.11-1, Action Item / Issue 198	New Item. Description: "Hydrogen Combustion in PWR Piping" Technical Resolution: "(1) PWR issue."
22	Table 1.11-1, Action Item / Issue 199	New Item. Description: "Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States" Technical Resolution: "This issue was considered and addressed during the development of the horizontal and vertical SSE ground response spectra at foundation level requirements for the ESBWR reference site (i.e., Figures 2.0-1 and 2.0-2)."

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Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
23	Table 1.11-1, Action Item / Issue 200	New Item. Description: "Tin Whiskers" Technical Resolution: "In accordance with the discussion in NRC Information Notice 2005 25, this issue is addressed for ESBWR by requiring all DCIS components to be manufactured using 3% or greater lead concentration in the solder and/or a conforming coating."
24	Table 1.11-1, Action Item / Issue HF5.1	Editorial to remove usage of future tense. Replaced second and third sentences of Technical Resolution to read as follows: "The design bases, approach, and acceptance criteria are given in Chapter 18, which includes formation of an interdisciplinary design review group and reviews for site-specific design and construction work."
25	Table 1.11-1, Action Item / Issue HF5.2	Editorial to remove usage of future tense. Replaced second and third sentences of Technical Resolution to read as follows: "The design bases, approach, and acceptance criteria are given in Chapter 18, which includes formation of an interdisciplinary design review group and reviews for site-specific design and construction work."