

ESBWR DCD Tier 2 Chapter 5
26A6642AR Revision 5 to Revision 6 Change List

Item	Location	Description of Change
1.	Entire Chapter	Global chapter editorial changes to correct misspelling and grammar, spell out or integrate acronyms where appropriate, and update references as needed and where required.
2.	F5.1-1 and F5.1-4	Revised to remove inaccurate depiction of bottom head drain piping inside RPV
3.	F5.1-2 to F5.1-4	Figures revised in response to RAI 6.2-200. Dashed line feedwater tie-ins correction made on Figure 5.1-2.
4.	F5.1-4	Figure revised for accuracy. RAI 6.2-200 changes preserved during this update.
5.	S5.2.1.1, 2 nd bullet, new note	Added Tier 2* Note in response to RAI 5.2-75.
6.	S5.2.1.1, new 4 th para.	Added Tier 2* description in response to RAI 5.2-75.
7.	S5.2.1.2, 3 rd bullet, new last 2 nd level list	Added RG 1.192 in response to RAI 5.2-72.
8.	S5.2.1.2, 2 nd para., last sent.	Sentence revised in response to RAI 5.2-72.
9.	S5.2.1.2, New last para.	New paragraph added in response to RAI 5.2-72.
10.	S5.2.2.2.2, 8 th para.	Deleted first sentence due to potential interpretation conflict with last sentence of the first paragraph.
11.	S5.2.3.3.1, 2 nd para. 2 nd bullet	Edited last sentence to delete reference to “GE” and simplify for clarity.
12.	S5.2.4, 4 th para.	COL Holder replaced with COL Applicant.
13.	S5.2.4.2, 2 nd para.	Paragraph revised in response to RAI 5.2-62 S01.
14.	S5.2.4.2, New last para.	Tier 2* identifier paragraph added for consistency.
15.	S5.2.4.3.1, 1 st para.	COL Holder replaced with COL Applicant.
16.	S5.2.4.11, 1 st para.	COL Holder replaced with COL Applicant.
17.	S5.2.5, 1 st para.	COL Holder replaced with COL Applicant.
18.	S5.2.5, New last para.	Paragraph added in response to RAI 21.6-103.

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19.	S5.2.5.8, 8 th para	Clarify that the DCD does not provide procedures, but only states that unit operating procedures are used for determining leakage sources and rates as required per RG 1.45, Position C.7. A reference to subsection 5.2.5.9 for COL information replaces the reference to subsection 5.2.6.
20.	S5.2.5.8, New last para.	Paragraph added in response to RAI 21.6-103.
21.	S5.2.5.9	COL Holder item changed to COL Applicant item in two places in response to a NRC request. The change was reviewed and accepted by the NRC and DCWG members during the April 2009 meetings.
22.	S5.2.6, COL Item 5.2-2	COL Holder item changed to COL Applicant item in two places in response to a NRC request. The change was reviewed and accepted by the NRC and DCWG members during the April 2009 meetings.
23.	T5.2-1	N-435-1 entry deleted in response to RAI 5.2-50 S03.
24.	T5.2-1	OMN-13 entry added in response to RAI 5.2-72.
25.	T5.2-4	Specification (ASTM/ASME)/AWS column and Note 1 updated in response to RAI 5.2-36 S02.
26.	T5.2-4, Note 4	Note deleted in response to RAI 5.2-36 S02.
27.	T5.2-4	Specification (ASTM/ASME)/AWS column updated in response to RAI 5.2-36 S02 Revision 1.
28.	T5.2-4, New Notes 5-8	Notes added in response to RAI 5.2-36 S02 R1.
29.	T5.2-5, Condensate Copper and Oxygen values	Condensate Copper and Oxygen values corrected for design consistency.
30.	T5.2-6, New HP CRD Makeup column	HP CRD Makeup column added in response to RAI 21.6-103.
31.	T5.2-6, New Drywell Pressure High-High entry	Drywell Pressure High-High entry added in response to RAI 21.6-103.
32.	T5.2-6, Note 3	Note 3 updated in response to RAI 21.6-103.
33.	T5.2-6, New Note 4	Note 4 added in response to RAI 21.6-103.
34.	T5.2-7	Table updated to be consistent with system descriptions.
35.	T5.2-7, Note 3	Note added for clarification.

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36.	T5.3-1, Initial reference temperature	Corrected entry to “Initial <u>nil ductility</u> reference temperature”
37.	T5.3-4	Clarified that fluence values are for energies greater than 1 MeV and that the “inside surface” values are for the inside surface of the base metal.
38.	F5.3-1	Y axis units from psia to psig; corrected EFPY and temperature shift values in legend.
39.	F5.3-2	Y axis units from psia to psig; corrected EFPY and temperature shift values in legend.
40.	F5.3-3	Revised to remove inaccurate depiction of bottom head drain piping inside RPV
41.	S5.4.5.2.2, New 4th para.	Paragraph added in response to RAI 5.4-61.
42.	S5.4.5.2.2,, 6 th para., New 2 nd sent.	Sentence added in response to RAI 5.4-61.
43.	S5.4.5.3.2, New 4 th para.	Paragraph added in response to RAI 5.4-61.
44.	S5.4.5.3.3, 2 nd para., New 3 rd bullet	Bullet added for Drywell high-high pressure in response to RAI 21.6-103.
45.	S5.4.6, 3 rd sent.	GDC 54 added in response to RAI 5.4-63.
46.	S5.4.6, 1 st para., new 5 th bullet	GDC 54 criteria added in response to RAI 5.4-63.
47.	S5.4.6.1.1, 5 th para.	Paragraph edited for clarity by rearranging clauses of the first and second sentences; no technical content is removed or added.
48.	S5.4.6.2.2, 3 rd para., 8 th bullet	Sentences revised in response to RAI 7.1-140.
49.	S5.4.6.2.3, Isolation Condenser Operation, 2 nd para., last sent.	Sentence revised to delete requirement for relief valve to reseal and solenoid valve to close at 1100 psig as these capabilities are not required for the system to perform its required functions.
50.	S5.4.6.5, 1 st para.	Additional reference to Subsection 7.5.5 inserted for completeness.
51.	S5.4.8.1.1, Safety Design Bases	Corrected Subsection reference in response to RAI 7.4-11.
52.	S5.4.8.1.1, Power Generation Design Bases, 1 st and 4 th sent.	Sentences revised in response to RAI 7.4-10.
53.	S5.4.8.1.2, Adjustable Speed Drive, 2 nd sent.	Deleted voltage value from Adjustable Speed Drive section. Chapter 8 discusses electric power.

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54.	S5.4.8.1.2. Adjustable Speed Drive, last sent	Sentence revised in response to RAI 5.4-59 S03.
55.	S5.4.8.1.3, 1 st para., 2 nd sent.	Corrected Subsection reference in response to RAI 7.4-11.
56.	S5.4.8.1.5, Flow Measurement	Whole paragraph rewritten to clarify that the system is designed for the detection of leaks or breaks of RWCU/SDC system piping outside of the containment, that the differential mass flow indication is a parameter derived by the process control system logic using process flow and temperature signals, and that the system includes instrumentation supporting both safety-related and non safety-related (diverse) control logic functions.
57.	S5.4.8.1.5, Overboard Flow Control Valves, new 3 rd para.	Paragraph added to specify the loss of power failure modes of the overboard flow control valve.
58.	S5.4.8.2.1, Power Generation Bases, new 2 nd paragraph	Paragraph added in response to RAI 5.4-59 S03
59.	S5.4.8.2.2, Normal Plant Shutdown	Whole description of Normal Plant Shutdown revised, rearranged and expanded in response to RAI 5.4-59 S03, including changes made by RAI 5.4-59 S02.
60.	S5.4.8.2.3 Safety Evaluation, New 3 rd paragraph	Summary of shutdown cooling mode evaluation added in response to RAI 5.4-59 S03.
61.	5.4.8.2.5 Instrumentation, 1 st paragraph, New 1 st sent	Inserted new first sentence to identify RWCU/SDC pump speed runback on RPV water level (Level-3) signal, inserted in response to RAI 5.4-59 S03.
62.	S5.4.9	Subsection title revised in response to RAI 19.1-144 S04.
63.	S5.4.9.1, 1 st para., 1 st bullet	Bullet revised in response to RAI 19.1-144 S04.
64.	S5.4.9.2, New 2 nd para.	Paragraph added in response to RAI 3.9-134 S02
65.	S5.4.9.2, New 4 th para.	Paragraph added in response to RAI 19.1-144 S04.
66.	S5.4.9.3, New 4 th para.	Paragraph added in response to RAI 21.6-103.
67.	S5.4.13.2, Detailed Design, New 2 nd para.	Paragraph added in response to RAI 3.9-134 S02
68.	S5.4.16, Reference 5.4-2	Inserted Reference 5.4-2 that was previously Reference 6.3-1.

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69.	T5.4-1, MSIV flow orifice and pressure loss	Replaced term “drop” with the term “loss” to avoid confusion with discussion of actuation differential pressure.
70.	T5.4-1, MSIV Combined Leakage	Corrected test pressure from 39 psid to 45 psid for consistency with Pa (accident pressure).
71.	T5.4-1, MSIV Fast Isolation Time	Term “fast” replaces the term “design” since both the fast and slow stroke time criteria are design requirements
72.	T5.4-1, FWIVs and FWCVs pressure loss ...	Replaced the term “drop” with the term “loss” to avoid confusion with discussion of actuation differential pressure
73.	T5.4-1, Total FWL pressure loss ...	Replaced the term “drop” with the term “loss” to avoid confusion with discussion of actuation differential pressure
74.	T5.4-1, FWIV design isolation time	Added clarification of the differential pressure requirement for the design isolation actuation
75.	T5.4-1, FWIV Combined Outflow Gas Leakage	Corrected test pressure from 39 psid to 45 psid for consistency with Pa (accident pressure).
76.	T5.4-1, Isolation Condenser Sizing	Deleted restrictive modifier phrase “radiolytically generated” with respect to venting noncondensable gases, since all sources of noncondensable gases in the reactor coolant steam are vented to support ICS operation.
77.	T5.4-3, Reactor Water Cleanup/ Shutdown Cooling System Data	Clarifications made in response to RAI 5.4-59 S03
78.	F5.4-3	Replaced Figure 5.4-3 for consistency with an update based on the revised General Arrangements incorporated in DCD Tier 2 Chapter 1.
79.	F5.4-4b and F5.4-4c	Replaced Figure 5.4-4b and added new Figure 5.4-4c in response to RAI 5.4-64.