

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 1

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S1.1.1	Deleted “main transformer” in the paragraph that starts “Buildings and structures not within the ESBWR Standard Plant scope”
1	S1.2.1, Basic Configuration	Changed “Section 1.2” to “herein.”
2	S1.2.1, Important to Safety	<ul style="list-style-type: none"> • Included “infrequent events” in Item (2) • Included “Safe Shutdown Fire” in Item (3) • In Item (4), deleted “lead to an accident or,” because the term is too nebulous, and for all BWRs there are failures (e.g., a nonsafety line break outside the reactor coolant pressure boundary) where the failed equipment has never been considered important to safety • Clarified Item (6) by adding “of installed plant equipment” • Clarified Item (7) to be more specific, i.e., to address specific equipment supplied to meet 10 CFR 20 limits
3	S1.2.1, Train	Expanded the definition to address I&C systems
4	S1.2.1, Verification of the basic configuration	Added the definition of “Verification of the basic configuration” to be consistent with DG-1145, Section C.III.7 terminology.
5	S1.2.1, Verification of the functional arrangement	Added the definition of “Verification of the functional arrangement” to be consistent with DG-1145, Section C.III.7 terminology.
6	F1.1-1	Replace with updated figure. Replaced fire water storage tank with two separate tanks to accommodate amount of water required for IC/PCC pool and spent fuel pool makeup by responses to RAI 9.1-13, RAI 9.1-21, and the amended response to RAI 2.4-23.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.1

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.1.1, 1 st para.	Clarified control rod drives by adding “with housing.”
2	S2.1.1, Reactor Pressure Vessel Internals, 1 ^{7th} para.	Clarification: changed “0.1%” to “0.1 wt%.”
3	S2.1.2, 14 th para., 4 th sent.	Deleted brackets “[]” around “355 mm” to be consistent with Table 2.1.2-2 and Tier 2 Table 5.4-1.
4	S2.1.2, 16 th para., 1 st sent.	Added, “eighteen” before “SRVs” to be consistent with Tier 2 Subsection 5.2.2.3.2.
5	S2.1.2, 17 th para., 1 st sent.	Deleted “with or without the presence of high drywell pressure” to be consistent with Tier 2 Subsection 7.3.1.1.1.
6	S2.1.2, 21 st para., 1 st sent.	Deleted “motor-operated valves (MOV) and the pneumatic-operated” to be consistent with Tier 2 Subsection 5.4.5.2.
7	T2.1.2-1, Column 3	Added new column to include Spring Setpoint Maximum Safety Analytical Limit values in response to RAI 5.2-28.
8	T2.1.2-1, Note (2)	Added, “The DPVs are not needed to mitigate the overpressure event” to be consistent with Tier 2 Table 5.2-2.
9	T2.1.2-2, Row 8	Deleted brackets “[]” around “3 seconds” and “5 seconds” to be consistent with Tier 2 Table 5.4-1.
10	T2.1.2-2, Row 10	Added “spring set pressures and” in the first sentence in response to RAI 5.2-28.
11	T2.1.2-2, Row 12	Added additional acceptance criteria details in response to RAI 6.3-26 and updated in accordance with DCD Tier 2 Chapter 7.
12	T2.1.2-2, Row 16	Added, “as shown in Table 2.1.2-1”, in two places in response to RAI 6.3-28.
13	T2.1.2-2, Rows 21, 22, 23, 24, 25 and 26	Added new line items 21, 22, 23, 24, 25 and 26 in response to RAI 5.2-29
14	T2.1.2-2, Row 27	Added new line item 27 in response to RAI 6.3-29.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.1

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
15	F2.1.2-2	Replaced figure to reflect change in Quality Group classification at motor operated isolation valve in feedwater lines to be consistent with Tier 2 Figure 5.1-2.
16	F2.1.2-4	Replaced figure to reflect deletion of Level 1.5 to be consistent with Tier 2 Figure 7.7-1.
17	S2.1.3	No change

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.2

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	T2.2.1-1, Item 9 Test Column	Added “to the NE-DCIS and Neutron Monitoring System”
2	S2.2.2, 4 th para., 3 rd sent.	Add “at a speed of 28 ± 5 mm/sec” in response to RAI 4.6-21.
3	S2.2.2, 4 th para., last sent.	Changed to “The maximum allowable scram insertion times for each FMCRD are:” in response to RAI 4.6-24.
4	S2.2.2, new 9 th para.	Inserted “One of the two divisions of the RPS scram logic circuitry distributes one division of UPS 120 VAC power to the A solenoids of the HCUs and one division of 250VDC power to the solenoid of one of the two air header dump valves. The other division of scram logic circuitry distributes another division of UPS 120 VAC power to the B solenoids of the HCUs and another division of 250VDC power to the solenoid of the other air header dump valve.” In response to RAI 14.3-3.
5	S2.2.2, 12 th and 13 th para.	Inserted “the FMCRD magnetic coupling;” for completeness.
6	S2.2.2, 15 th para.	Replaced with “The CRD System is arranged in a manner that separates the safety-related equipment from the nonsafety-related portions of the system. The FMCRDs are mounted to the reactor vessel bottom head inside primary containment. The HCUs are housed in four dedicated rooms located directly outside of the primary containment at the basemat elevation of the Reactor Building. These rooms are arranged around the periphery of the primary containment wall. Each HCU room serves the FMCRDs associated with one quadrant of the reactor core. The HCUs are connected to the FMCRDs by the scram insert piping that penetrates the primary containment wall.” in response to RAI 14.3-3.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.2

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
7	S2.2.2, new 16 th para.	Added “The balance of the nonsafety-related hydraulic system equipment (pumps, valves, filters, etc.) is physically separated from the HCU’s and housed in a separate room in the reactor building. It is connected to the HCU’s by the nonsafety-related FMCRD purge water header, HCU charging water header and scram air header. These headers are classified as Seismic Category II so that they will maintain structural integrity during a seismic event and not degrade the functioning of the HCU’s.” in response to RAI 14.3-3.
8	T2.2.2-1, Item 3	Inserted “ at a speed of 28 ± 5 mm/sec” in response to RAI 4.6-21.
9	T2.2.2-1, Item 4	Changed from “average scram times for all” to “maximum allowable scram insertion times for each” in response to RAI 4.6-24.
10	T2.2.2-1, Item 9 “Design Commitment” Column	Editorial, added “-Class 1E equipment” to complete the sentence.
11	F2.2.2-1	Replace with updated figure. Relocated the check valves in the high pressure makeup lines to the upstream side of the injection valves. This incorporates RAI 4.6-17.
12	S2.2.3, 5th para.	Deleted “are difference between feedwater lines A and B” to clarify the sentence.
13	S2.2.4, Design Description, 3rd and 4th para.	Switched the paragraph order.
14	S2.2.4, Design Description, 4th para. (formerly the 3rd para.)	Changed the last sentence to: “. . . the ATWS and the ECCS initiation signals for automatic SLC system initiation.”
15	S2.2.4, Design Description	Added the following paragraph: “The SLC system also interfaces with the Diverse Protection System which provides diverse ECCS actuation of the SLC system.”

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.2

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
16	S2.2.4, Design Description	Added the following paragraph: "The following SLC system components required for RPV injection are classified as safety related and Seismic Category I: the accumulators; the injection piping and valves between the accumulators and reactor vessel; and the accumulator level and pressure instrumentation."
17	T2.2.4-1, 2nd row	Changed "Reactor pressure" to "Initial reactor pressure".
18	T2.2.4-1, 3rd row	Changed "Approximate injection flow rate" to "Approximate initial injection flow rate".
19	T2.2.4-2, Item 2.d Item 6	Changed the Acceptance Criteria column from: "The solution equal to or greater than . . ." to: "The solution is equal to or greater than . . ." Clarified "12%" to "12 wt%." Deleted "250 VDC and" in the Design Commitment and Acceptance Criteria columns.
20	F2.2.4-1	Updated the figure. Changed the MO injection line shutoff valves to AO valves. Deleted the piping line sizes.
21	S2.2.5, 11 th para.	Added second sentence: "A loss of power to any division results in a divisional trip being generated to the RPS."
22	S2.2.5, 12 th para.	Clarified last sentence to read "A single bypassed SRNM channel..."
23	F2.2.5-1	Figure revised to indicate no voting provided by NMS SRNM logic. Reflects previous change to Tier 2 F7.2-4.
24	F2.2.5-2	Figure revised to indicate no voting provided by NMS APRM logic. Reflects previous change to Tier 2 F7.2-5.
25	S2.2.6, 1st para.	Added "if the MCR becomes uninhabitable".
26	S2.2.6, 1st para.	Deleted "Figure 2.2.6.1 shows the basic system configuration and scope." Because this statement does not represent new Figure 2.2.6-1.
27	S2.2.6, 2nd para.	Rewritten to match design description in Tier 2 S7.4.2.2.1.
28	T2.2.6-1	Edited to match original/edited design information in Tier 1 Section 2.2.6.
29	F2.2.6.1	Replaced figure with a new one, to match original/edited design information in Tier 1 Section 2.2.6.
30	S2.2.7, 3rd para Bullets for Reactor Scrams	Changed (deletion/addition and/or correction to agree with Tier 2 S7.2.1.2.4.2) as marked

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.2

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
31	S2.2.7, process parameters displays	Deleted “and” and added “main condenser, NMS outputs” to be consistent with Tier 2 S7.2.1.7.1.2.
32	S2.2.7, Status alarms	Changes (deletion/addition and/or correction to agree with Tier 2 S7.2.1.7.1.2) as marked.
33	S2.2.7, 4th para on page 2.2-37	Revised “TLU” to read as “DTLU”
34	F2.2.7-1	Replaced to be consistent with Tier 2 Figure 7.2-1.
35	S2.2.8, third paragraph	Replaced DCD, Tier One, Section 2.2.8 “entire third paragraph” with text from Tier 2, S7.7.4.2 “first paragraph”. New third paragraph is now =>PAS controls the overall plant startup, power operation, and shutdown functions under operator break-point control. Through the NE-DICS, the PAS receives input from the following major safety-related systems: NMS and the RPS. Through the NE-DCIS, the PAS receives input from the following major non-safety systems: the RC&IS, SB&PCS, FWCS, RWCU/SCS, and the Turbine Control System (TCS). The output demand request signals from the PAS are to the RC&IS to position the control rods, to the SB&PCS for pressure setpoints, and to the TCS for load following operation.
36	S2.2.8, fourth paragraph, second sentence	Replaced DCD, Tier One, Section 2.2.8 “fourth paragraph, second sentence” with text from Tier 2, S7.7.4.2 “fifth paragraph”. New fourth paragraph, second sentence is now =>The triplicate and redundant system controllers perform the PAS control functional logic.
37	Figure 2.2.8-1	Replaced the entire Tier One Figure Number 2.2.8-1 to reflect updated Tier Two Figure Number 7.7-4.
38	T2.2.9-1, Item 1	Revised to be consistent with T2.2.3-2.
39	S2.2.10 3rd bullet	Added “and RSS” for VDU locations
40	T2.2.10-1 Acceptance Criteria Item 5.a	Added “with the exception of fail-open and fail-closed valves” as these valves will go to their safe position upon loss of power.
41	T2.2.10-1 Acceptance Criteria Item 5.d	Added “with the exception of fail-open and fail-closed valves” as these valves will go to their safe position upon loss of power.
42	S2.2.11	No change.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.2

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
43	S2.2.12 & T2.2.12-1	Reactor Building HVAC acronym “RBVS” added and used in the table.
44	T2.2.12-1, Temperatures	Deleted last 2 bullets, to be consistent with Tier 2 T7.3-5.
45	F2.2.12-1	Replace to be consistent with Tier 2 F7.3-3
46	S2.2.13, 3rd para, 2nd to last sentence	Editorial: added reference to ECCS for completeness/consistency. Scope of SSLC clarified to be consistent with the discussion in Tier 2.
47	S2.2.13, 4th para.	Modified to remove reference to non-microprocessor based term...eliminates controversial term. Consistency with Tier 2 S7.3 and S7.8.
48	T2.2.13-1, Item 2	Created second acceptance criteria 2.b to verify each division provides its own actuation signal
49	T2.2.13-1, Item 7	Deleted “Division out of service bypass also blocks trip signals from the RMU output in that division from initiating the ESF actuation (ESF).” Changed acceptance criteria 7.b to reflect that current design of ESF does not have output bypasses as discussed in Tier 2, S7.3.
50	F2.2.13-2	Revised for clarity.
51	S2.2.14, 1st and 2nd para.	Rewritten to be consistent with Tier 2 and to add reference to SRM/SECY 93-087.
52	S2.2.14, 2nd para 3rd bullet	Relocated discussion to introductory paragraphs.
53	S2.2.14, 4th para	Added reference to SRM/SECY 93-087 and editorial change
54	Reactor scram bullets (top of 2nd page)	Added MSIV closure
55	1st para on 2nd page	Added voting logic description detail to be consistent with Tier 2, S7.8
56	2nd para on 2nd page	Provided DPS scope for isolations and added editorial changes
57	3rd para on 2nd page	Added reference to SRM/SECY 93-087 and editorial change
58	last para on 2nd page	Added voting logic description detail to be consistent with Tier 2, S7.8
59	Top of p.3 + bullets	Editorial changes

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.2

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
60	T2.2.14-1, Item 2	Expanded signal initiation scope to address DPS logic change to 2/4 logic with series load drivers for ESF
61	T2.2.14-1, Item 4	Added item “c” to address DPS – safety system interactions
62	T2.2.14-1, Item 5	Editorial changes to identify non-divisional aspects of the nonsafety-related features of the diverse I&C/DPS.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.3

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.3.1, 1st para.	Changed the maximum number of monitoring channels from “eight” to sixteen”.
2	S2.3.1, 3rd para.	Changed “This” to “The following”.
3	S2.3.1, 3rd para.	Changed “seven” items to “eight” items. There are 8 bulleted items for safety-related monitors in Tier 2, S11.5.1.1.1.
4	S2.3.1, 3rd para, 1st bullet.	Deleted “Vent” to match monitor name in Tier 2, S11.5.1.1.1.
5	S2.3.1, 3rd para, 1st bullet on RB HVAC Exhaust.	Changed “via the exhaust duct” To “from the contaminated area”.
6	S2.3.1, 3rd para, 1st bullet on RB HVAC Exhaust.	Added “exhaust dampers are closed” after the word “HVAC”.
7	S2.3.1, 3rd para, 2nd bullet on Control Room Air Intake.	Added “HVAC” to match monitor name in Tier 2, S11.5.1.1.1.
8	S2.3.1, 3rd para, 3rd bullet on Isolation Condenser Vent.	Changed “Discharge” to “Exhaust” to match monitor name in Tier 2, S11.5.1.1.1.
9	S2.3.1, 3rd para, 4th bullet on Refuel Handling Area.	Changed “Air” to “HVAC” to match monitor name in Tier 2, S11.5.1.1.1.
10	S2.3.1, 3rd para, new 5th bullet on Fuel Building General Area.	Added the new bullet item “Fuel Building General Area HVAC RMS”, based on the new item of same name added in Tier 2 S11.5.3.1.6.
11	S2.3.1, 3rd para, new 6th bullet on Fuel Building Main Area.	Changed “Main Area” to “Fuel Pool” to match monitor name in Tier 2, S11.5.1.1.1.
12	S2.3.1, 3rd para, 10th new bullet on Offgas Pretreatment.	Deleted “sampling” to match monitor name in Tier 2, S11.5.1.1.2.
13	S2.3.1, 3rd para, 13th new bullet on Turbine Building Normal ventilation.	Deleted “Exhaust” and added “Air Exhaust” to match monitor name in Tier 2, S11.5.1.1.2.
14	S2.3.1, 3rd para, 21st bullet on Technical Support Center.	Reformatted first sentence to start with monitor name as in Tier 2, S11.5.1.1.2.
15	S2.3.1, 3rd para, bullet after 21st bullet, describing Fuel Bldg Vent Exhaust.	Deleted to be consistent with Tier 2, S11.5.1.1.2.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.3

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
16	T2.3.1-1, Design Commitment item 2	Changed “indications” to “displays”.
17	T2.3.1-1, Acceptance Criteria item 2	Changed “Indications” to “Displays”.
18	T2.3.1-1, Design Commitment item 2	Added reference to Tables 11.5-1 and 11.5-2 of Tier 2.
19	T2.3.1-1, Acceptance Criteria item 2	Added reference to Tables 11.5-1 and 11.5-2 of Tier 2.
20	F2.3.1-1	Changed the figure to match Figure 11.5-1 of Tier 2.
21	T2.3.2-1, Item 2, Inspections, Tests, Analyses	Added missing text.
22	T2.3.2-1, Item 3, Design Commitment and Acceptance Criteria	Added reference to Section 12.3.4 of DCD Tier 2.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.4

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or fig)	Description of Change
1	S2.4.1, 2nd para 2nd sent.	Replaced “is open” with “and condensate return bypass valve are open,” due to N-2 Design Implementation and 480 VAC Safety Related Motor Operated Valve Elimination, 07/2006
2	S2.4.1, 2nd para 4th sent.	Replaced “DC” with “E-DCIS,” due to N-2 Design Implementation and 480 VAC Safety Related Motor Operated Valve Elimination, 07/2006
3	S2.4.1, 3rd para.	Added paragraph regarding in-line vessel, due to ECA SR3-1-ECA-0002 Revision 0, ECCS Water Level Optimization, 07/2006
4	S2.4.1, 5th para.	Added paragraph regarding Dryer/Separator Pool, due to valve re-designation.
5	S2.4.1, 8th para, 2nd and 3rd bullet.	Moved “and” in 2nd bullet to 3rd bullet, due to editorial changes
6	S2.4.1, 10th para 1st sent.	Replaced “via remote manual controls” with “via manual switches,” rewritten for clarity.
7	S2.4.1, 10th para 2nd sent.	Replaced “status lights” with “status indicators,” rewritten for clarity.
8	S2.4.1, 12th para, 1st bullet.	Replaced “Automatically limit the reactor pressure and prevent SRV operation when the reactor becomes isolated following reactor scram during power operations.” With “Automatically limit pressure within the reactor coolant pressure boundary following any abnormal event that results in containment isolation.” Due to SRV Lift Avoidance Analysis.
9	T2.4.1-1, Item 18	Added an additional ITAAC for the ICS mechanical separation requirement, due to RAI 6.3-6.
10	T2.4.1-1, Item 19	Added an additional ITAAC for the ICS electrical separation requirement, due to RAI 6.3-6.
11	F2.4.1-1	Replaced figure to reflect updated piping design.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.4

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or fig)	Description of Change
12	S2.4.2, 13th para., 2nd Bullet	Replaced “Quality Group: C” with “Quality Group: B”, due to change in piping classification.
13	F2.4.2-1	Replaced figure to reflect updated notes and added valve to design.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.5

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.5.1 – S2.5.4	No change.
2	T2.5.5-1, Item 1, Design Commitment	Changed “has two auxiliary hoists” to “has auxiliary hoists”
3	T2.5.5-1, Item 1, Acceptance Criteria	Clarified to read “A successful load test of each auxiliary hoist has been performed.”
4	T2.5.5-1, Item 3, Acceptance Criteria	Changed “refueling” to “fuel handling.” Deleted “two.”
5	T2.5.5-1, Item 4, Acceptance Criteria	Changed “refueling” to “fuel handling.” Inserted new 4.b to address no fuel movement over the vessel.
6	T2.5.5-1, new Item 5.	Added new item to address the RB refueling machine and FB fuel handling machine.
7	S2.5.6 – 2.5.9	No change.
8	S2.5.10	Added paragraph to address maintaining water within the IFTS if there is a non-moving fuel transport card in response to RAI 14.3-67, Part 1.
9	T2.5.10, Item 2, Design Commitment and Acceptance Criteria	Clarified to be consistent with Subsection 2.5.10.
10	T2.5.10-1, new Item 4	Added an ITAAC line item to address maintaining water within the IFTS if there is a non-moving fuel transport card in response to RAI 14.3-67, Part 1.
11	S2.5.11	Deleted, because the Loose Parts Monitoring System has been deleted from the ESBWR.
12	S2.5.12	No change.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.6

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.6.1	Inserted “nonsafety-related” to clarify the first sentence.
2	S2.6.1, 2 nd bullet	Clarified to address cold shutdown.
3	S2.6.1, 4 th para., last sentence.	Added “Normally,” to the beginning.
4	S2.6.1, last sentence.	Rewritten to restrict the sentence for containment isolation valves only.
5	Figure 2.6.1-1	Replaced sample line containment valves actuator for air/nitrogen operated to solenoid operated. Added in legend list, “SO- Solenoid Operated Valve”
6	S2.6.2, 1st para	Revised paragraph to list safety-related components in bullets. Added the LPCI interface with RWCU/SDC system to list of safety-related components.
7	S2.6.2, 3rd para	Replaced “redundant” with “100% capacity for normal operation”. Created a new sentence for clarity.
8	S2.6.2, 10th para	Deleted all automatic closure exemptions for containment isolation valves.
9	S2.6.2, 11th para	Separated the sentences describing the LPCI isolation function into a new paragraph. Added phrase “safety-related”.
10	S2.6.2, 15th para	Deleted paragraph that was redundant with paragraph 11.
11	S2.6.2, 16th para	Revised section to state that ALL containment isolation valves are closed upon receipt of an isolation signal from the LD&IS.
12	Figure 2.6.2-1	Numerous editorial changes were made. Also added a parallel makeup valve connection to the Fire Protection System for the Spent Fuel Pool and IC/PCCS pools, and moved them outside of the fuel building. Moved the LPCI valve F322 and all associated upstream components into the fuel building.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.7

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S02.07.01, 1st para., 1st sent.	Removed “panel” just prior to “(MCR)”
2	S02.07.01, 2nd para., 1st sent.	Added “(MCRP)”
3	S02.07.01, 2nd para., 1st sent.	Removed “, including startup, refueling, safe shutdown,” and references Tier 2 Chapter 16 Table 1.1-1, MODES because ‘RUN’ was omitted from the list of modes and ‘safe shutdown’ is not a recognized ESBWR operating mode. Added “as assumed/modeled in the safety analyses.” To make the use of the term ‘safe shutdown’ logical.
4	S02.07.02, 1st sent.	Clarified to address the local controls.
5	S02.07.03, 1st para., 2nd sent.	Removed “for uniformity using rigid steel structures capable of” to avoid limiting design options unnecessarily.
6	S02.07.03, 2nd para., 3rd sent.	Clarified to be consistent with Tier 2 S1.2.2.7.3.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.8

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.8.1 and S2.8.2	No change for Revision 2.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.9

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.9, 4 th bullet	Replaced: “. . . the ultimate stress or strain limit of the material.” with: “. . . the ultimate stress or strain limit of the material, structure, or welded connection;” This incorporates RAI 4.2-14.
2	S2.9, final bullet	Deleted. This incorporates RAI 4.2-10.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.10

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.10.1 3 rd para Additional sentences	Added editorial to make consistent with DCD Tier 2 Subsection 11.2.2.
2	S2.10.1 7 th para., 1 st sent.	Added customer request for local and remote control of LWMS.
3	T2.10.1-1, Item 2, 2 nd and 3 rd column	Corrected Codes and Added Regulatory Guide 1.143 Revision 2 per RAI 11.2-4, RAI 11.2-5, RAI 11.2-6, RAI 11.2-7, RAI 11.2-8.
4	T2.10.1-1, line 4	Deleted line 4, because the system has no safety-related MOV.
5	S2.10.2	Deleted “temporary,” because it cannot be quantified for design certification.
6	S2.10.2 4 th para., 1 st sent.	Added customer request for local and remote control of SWMS.
7	S2.10.3 3 rd para, 2 nd sent.	Updated design codes, per RAI 3.2-37
8	S2.10.3 5 th para, 2 nd sent.	Changed from ‘processes’ to ‘manages’ to make consistent with Tier 2 regarding that during start-up, offgas system processing is bypassed.
10	T2.10.3-1, Item 2, 2 nd and 3 rd columns	Corrected codes per RAI 3.2-37
11	T2.10.3-1, Item 4, 2 nd and 3 rd columns	Changed ‘sound’ to ‘activate’.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.11

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.11.1 – 2.11-4	No change.
2	S2.11.5	Added a design description and ITAAC table in response to RAI 10.4-6.
3	S2.11.6, 1 st para., 3 rd sentence	Clarified to be consistent with Tier 2 10.4.4.1 and RAI 10.4-7.
3	T2.11.6-1, new Item 5	New ITAAC added to address TBS capacity, consistent with the response to RAI 10.4-7, the changes in S2.11.6, and Tier 2 Table 15.2-1.
4	S2.11.7 – S2.11.8	No change.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.12

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.12.1 and S2.12.2	No change.
2	S2.12.3, 5th para.	Added “and on the Remote Shutdown Panel” following “in the main control room”.
3	S2.13.4	No change.
4	T2.12.5-1, Item 4	Added the following footnote “The CWS cooling capacity is site dependent” to the acceptance criteria.
5	T2.12.5-1, new Item 5	Relocated Row #2 from T2.12.5-2
6	T2.12.5-2, Item 2	Relocated Row #2 to Row 5 in T2.12.5-1
7	S2.13.6	No change.
8	S2.12.7, 1st para	Deleted “open” to be consistent with description in Tier 2, because the COL applicant can select either an open or closed system.
9	S2.12.8, 2nd para.	Added “other than provision for safety-related containment penetrations and isolation valves”.
10	T2.12.9-1, Item 2.	Based Tier 2 Subsection 9.3.6.2, changed “Section III” to “Section VIII”, because Instrument Air has no Section III components.
11	S2.12.10 – S2.12.13	No change.
12	S2.12.14, 2 nd para.	Deleted “Fuel” because there is no Fuel Building Sample Station in Subsection 9.3.2.2 of Tier 2.
13	S2.12.15 – S2.12.16	No change.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.13

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.13.1, 1st & 2nd Paragraphs	Revised design requirement, to be consistent with Tier 2 Subsection 8.2.1.2.
2	S2.13.1, new 3rd Paragraph	Revised design requirement, to be consistent with Tier 2 Subsection 8.3.1.1.7.
3	S2.13.1, old 3rd (new 4th) Paragraph	Revised design requirement, to be consistent with Tier 2 Subsection 8.3.1.1.2.
4	S2.13.1, old 4th Paragraph	Deleted due to duplication of Tier 1, 2.13.5 for the UPS.
5	T2.13.1-1, new Items 5 & 6.	Added ITAAC Item 5 for seismic category 1 requirements and Item 6 for controls, displays and alarms.
6	S2.13.2	Inserted “Primary Electrical” before “Containment Penetrations”
7	S2.13.2, 4th paragraph	Deleted the 4th paragraph to be consistent with Tier 2 Subsection 8.3.4.7.
8	S2.13.2, 8th para	Fire Barrier Penetrations moved to S2.16.3.1.
9	S2.13.3, 1st, 2nd & 3rd paragraphs.	Revised design requirement, to be consistent with Tier 2 Subsection 8.3.2.1.
10	T2.13.3-1, 3rd Item	Revised design commitment and Acceptance Criteria, to be consistent with Subsection 2.13.3 and Tier 2 Subsection 8.3.2.1.
11	S2.13.4	No change.
12	S2.13.5, Design Description	Revised design requirement, to be consistent with Tier 2 Subsection 8.3.1.1.3.
13	T2.13.5-1, Item 1	Editorial to 1.a. to delete extra ‘the’. Revised 1.c., design commitment and inspections, tests, analysis, to be consistent with Subsection 2.13.5 and Tier 2 Subsection 8.3.1.1.3.
14	S2.13.6 – S2.13.7	No change.
15	S2.13.8, 1 st para., 4 th sent.	Deleted “supplements” for clarity.
16	T2.13.8-1, Item 1, Design Commitment	Re-wrote for better clarity “The safety-related Emergency Lighting System supplies MCR illumination with four divisions of emergency lighting operable for at least 72 hours following a design basis event including the loss of all ac power sources.”

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.14

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.14	No change.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.15

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.15.1, 11 th para.	Added new 2 nd sentence “Each vacuum breaker is provided with an upstream isolation valve, which automatically closes if the vacuum breaker fails to fully close when required.”
2	T2.15.1-1, new Item 10	Added new Item 10 to address vacuum breakers.
3	S2.15.2	No change.
4	S2.15.3, 1 st para.	Inserted “Pressure” before “Vessel”
5	S2.15.3, 5th para.	Deleted the last sentence for clarity, consistent with Tier 2 S3.8.3.1.3.
6	S2.15.4	No change.
7	F2.15.5-1	Revised figure: <ul style="list-style-type: none"> • Deleted all valve IDs • Deleted two penetrations shown in the wetwell boundary wall and associated piping shown with capped ends (Note: The items deleted are not Tier 1 level of scope items.)
8	Two Figures 2.15.6-1	Deleted the duplicate figure.
9	S2.15.7, Containment atmospheric and drywell monitoring	1 st paragraph; inserted “nonsafety-related” and 2 nd paragraph; inserted “safety-related” to clarify safety classifications of the different equipment.
10	S2.15.7, Suppression pool monitoring	1 st paragraph, last sentence; inserted “safety-related” to clarify safety classification.
11	S2.15.7, Suppression pool monitoring	1 st paragraph; inserted “nonsafety-related” to clarify safety classification of the PASS.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.16

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.16.1, new 4 th para	Added “Cranes and other lifting devices are designed for their heaviest expected loads, and are load tested at 115% of the rated capacity.” in response to RAI 14.3-67.
2	T2.16.1-1	Replaced the old Item 1 with Items 1–4 in response to RAI 14.3-67
3	S2.16.2, T2.16.2-1 and 2.16.2 Figures	Clarified system names and acronyms through out.
4	F2.16.2-4	Revised figure to reflect the new CRHAVS acronym
5	F2.16.2-8	Replaced figure with updated FBGAVS simplified flow diagram
6	S2.16.3 and new Table 2.16.3-1	Provided additional information within S2.16.3 and inserted a new table in response to RAI 14.3-5.
7	S2.16.3	8 th paragraph clarified in response to RAI 14.3-19
8	S2.16.3	Add a new paragraph to address SECY 90-016, SECY 93-087, and SECY 94-084, in response to RAI 14.3-19
9	S2.16.3	Instrumentation and controls information updated, based in response to RAI 14.3-21.
10	New Table 2.16.3-2	Inserted a new table in response to RAI 14.3-8.
11	Table 2.16.3-3 (renumbered from 2.16.3-3)	Table 2.16.3-3, ITAAC No. 4 is separated into two commitments covering fire pump capacity and standpipes & hose station capacity separately, in response to RAI 14.3-9.
12	Table 2.16.3-3, Item 1	Revised Item 1 to address new Tables 2.16.3-1 and 2.16.3-2.
13	Table 2.16.3-3, Item 2	Provided the waters volumes in the Design Commitment
14	Table 2.16.3-3, Item 4	Divided into 4.a and 4.b to address 2.5-inch and 1.5-inch connections, separately, in response to RAI 14.3-9.
15	Table 2.16.3-3, Item 6	Addressed safe shutdown equipment in response to RAI 14.3-12.
16	Table 2.16.3-3	Revised Design Commitments Item 7 and 8 per RAI 14.3-13.
17	Table 2.16.3-3	Added more details to Item 10 per RAI 14.3-16.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.16

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
18	Table 2.16.3-3	Added testing details for displays and controls to Item 11 per RAI 14.3-17.
19	Table 2.16.3-3	New Item 12 to address flow capability to the IC/PCC and other pools.
20	Table 2.16.3-3	New Item 13 to address detection instrumentation was added, in response to RAI 14.3-12.
21	Figure 2.16.3-1	System names added to figure in response to RAI 14.3-18.
22	New S2.16.3.1 and T2.16.3.1-1	New Fire Barriers subsection and table added in response to RAI 14.3-7
23	S2.16.4	No change.
24	S2.16.5, 2nd para., last sentence	Added “safety-related” to sentence.
25	S2.16.5, new 4th para., one sentence	Added statement: “The RB provides three-hour fire barriers for separation of the four independent safe shutdown divisions.”
26	S2.16.5, 4th para.	Deleted sentence on sealed penetrations and replaced with paragraph and list of features for protecting against external and internal flooding.
27	F2.16.5-01 through F2.16.5-11	Replaced figures with updated versions to include response commitments to RAIs 3.7-27 and 3.8-61.
20	S2.16.6	No change
21	S2.16.7, new 4th para.	Added paragraph and list of features for protecting against external and internal flooding.
22	S2.16.8	No change
23	S2.16.9, 2nd para.	Revised statement on safety classification of RW building to be consistent with Tier 2 S3.8.4.1.5.
24	S2.16.10	No change

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 2.17

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.17	No change.

DCD Tier 1, Section 2.18

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S2.18.1	No change.
2	S2.18.2	No change.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 3

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S3.1	No change.
2	Table 3.2-1, new Item 10	Added the Software Configuration Management Plan.
3	3.3, 1st para	Deleted reference to deleted Figure 3.3-1
4	3.3, HFE Program Goals	Editorial changes to make Tier 1 consistent with changes in Tier 2
5	3.3, Applicable Facilities)	Editorial changes to make Tier 1 consistent with changes in Tier 2
6	3.3, Applicable HSIs, Procedures, and Training	Editorial changes to make Tier 1 consistent with changes in Tier 2
7	3.3, Applicable Plant Personnel	Editorial changes to make Tier 1 consistent with changes in Tier 2
8	3.3, Applicable Plant Personnel	Added sentence to end of section to introduce/describe activity plans and results summary reports
9	3.3, Applicable Plant Personnel	Added a second sentence to establish the completion of the NRC review of the activity plans. Also to clarify the substance of the ITAAC to be the content of the results summary reports. RAI response 18.8-48
10	Table 3.3-1	Deleted all previous items listed. These included the plans which the NRC has completed review and suggested to be deleted from Tier 1 and conforming to RAI 18.8-48, and specific COL items which will now be included in the results summary reports. Created new Table 3.3-1 with new Design Commitment, Inspection, Tests, Analyses, and Acceptance Criteria.
11	Table 3.3-1 Design Commitment	Established the 11 HFE activities as the Design Commitment items as described in Tier 2.
12	Table 3.3-1 Inspection, Tests, Analyses	Each of the 11 activities in the Design Commitment have a general statement that the activity is conducted and results summary report completed as per Tier 2.
13	Table 3.3-1 Acceptance Criteria	Added Acceptance Criteria for each activity, that a results summary report is completed describing (a) the activity team names and background, (b) major outcomes specific for the activity identified from the Tier 2 and consistent with NUREG 0711, Rev. 2 review criteria and (c) methodology and implementation in accordance with the implementation plans. All of the criteria are per DCD Tier 2.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 3

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
14	Figure 3.3-1	Deleted Figure 3.3-1 which the design team determined to be too complex and unnecessary for purposes of Tier 1
15	Table 3.3-1 Acceptance Criteria 6d	Added criteria item to HSI results summary report. Criteria is present in the HSI Implementation Plan.
16	S3.4 – S3.5	No change.
17	New S3.6 and T3.6-1	DESIGN RELIABILITY ASSURANCE PROGRAM added in response to RAI 14.3-26.

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 4

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	S4.1-S4.3	No change.
2	S4.4, 3rd para.	Deleted “open” to be consistent with description in Tier 2, because the COL Applicant can select either an open or closed system.
3	S4.4, 3rd para.	Deleted “raw” to be consistent with Tier 2 change.
4	S4.5	No change.
5	S4.6, 3rd para.	Added “396 gpm” following “1,499 1/min”. Value was previously in Tier 2 Table 9.2-9 but not included in Tier 1.
6	S4.6, 1 st para., last sentence	Clarified by deleting “not.”

Changes From Revision 01 to Revision 02

DCD Tier 1, Section 5

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1	T5.1-1	Replaced based on revised Tier 2 Table 2.0-1.
2	F5.1-1	Replaced based on revised Tier 2 Figure 2.0-1, per RAI 3.7-5.
3	F5.1-2	Replaced based on revised Tier 2 Figure 2.0-2, per RAI 3.7-5.