

## Chapter 16B Changes From Revision 2 to Revision 3

Item	Location	Description of Change
1	16B.00 Cover Page	Revised "GE Nuclear Energy" to "GE Energy Nuclear" as an editorial change.
2	16B.00 TOC	All Bases revised to Revision 3 with the exception of B 3.1.2, B 3.1.5, B 3.1.6, B 3.1.7, B 3.3.1.3, B 3.3.1.5, B 3.3.1.6, B 3.3.5.2, B 3.4.2, B 3.4.3, B 3.4.4, B 3.4.5, B 3.6.1.7, B 3.6.2.1, B 3.6.2.2, B 3.7.3, B 3.7.5, B 3.9.1, B 3.9.2, B 3.9.3, B 3.9.4, B 3.9.5, B 3.9.6, B 3.10.2, B 3.10.3, B 3.10.4, B 3.10.5, B 3.10.6, B 3.10.7, and B 3.10.8, which remain at previous Revisions.
3	16B.00 TOC B 3.3.7.1	Revised from 'Emergency Breathing Air System (EBAS) Instrumentation' to 'Control Room Habitability Area (CRHA) Heating, Ventilation, and Air Conditioning (HVAC) Subsystem (CRHAVS) Instrumentation' as a result of plant modification to eliminate the EBAS and modify the CRHAVS to isolate and provide filtered makeup air to the CRHA.
4	16B.00 TOC B 3.3.7.2	Revised from 'Emergency Breathing Air System (EBAS) Actuation' to 'Control Room Habitability Area (CRHA) Heating, Ventilation, and Air Conditioning (HVAC) Subsystem (CRHAVS) Actuation' as a result of plant modification to eliminate the EBAS and modify the CRHAVS to isolate and provide filtered makeup air to the CRHA.
5	16B.00 TOC B 3.7.2	Revised from 'Emergency Breathing Air System (EBAS)' to 'Control Room Habitability Area (CRHA) Heating, Ventilation, and Air Conditioning (HVAC) Subsystem (CRHAVS)' as a result of plant modification to eliminate the EBAS and modify the CRHAVS to isolate and provide filtered makeup air to the CRHA.
6	16B.00 TOC B 3.7.6	New Bases for Selected Control Rod Run-In (SCRRI) Function, including the new Selected Rod Insertion (SRI) Function added to the ESBWR design in Revision 3 of the Design Control Document, per the commitment in the response to RAI 16.0-1.
7	16B.02.01.01.01 Applicable Safety Analyses	Revised metric units from "MPa gauge" to "MPaG" as an editorial change.
8	16B.02.01.02 Applicable Safety Analyses	Revised metric units from "MPa gauge" to "MPaG" in four places as an editorial change.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
9	16B.02.01.02 Safety Limits	Revised metric units from "MPa gauge" to "MPaG" in two places as an editorial change.
10	16B.03.00	Use reactor vessel bottom pressure of 7.481 MPaG (1085 psig) for scram time acceptance criteria. Removed all associated brackets. The pressure is consistent with the referenced Specification 3.1.4.
11	16B.03.01.01, SR 3.1.1.1	Revised Bases for SR 3.1.1.1 to add brackets to the statement that a 0.10% allowance must be added to a calculated SDM to account for uncertainty.
12	16B.03.01.01, SR 3.1.1.1	Revised Bases for SR 3.1.1.1 to delete "as specified in the COLR" because information is in the TS and not COLR.
13	16B.03.01.02	None.
14	16B.03.01.03, Actions	Added definition of stuck rod to RA A.1, A.2, A.3 and A.4 per commitment in RAI 16.2-90.
15	16B.03.01.03, Actions	Revised Bases for Actions A and C to describe options for disarming a FMCRD to "The motor drive may be disarmed by bypassing the rod in the RC&IS {or disconnecting its power supply}." Removed brackets.
16	16B.03.01.03, Actions	Revised Bases for Actions to delete the word "manually" from description of requirements for disconnecting power supply from a FMCRD. The word manually does not identify an essential element of the action being described.
17	16B.03.01.03, SR 3.1.3.5	No changes were made to the SR 3.1.3.5 Frequency as previously committed in the response to RAI 16.2-104. Coupling check when rod is full withdrawn is not required because ESBWR design includes redundant instrumentation that provide immediate indication of uncoupled rod.
18	16B.03.01.04, ASA, LCO, SRs	Revised Bases for LCO, SR 3.1.4.1, SR 3.1.4.3, and SR 3.1.4.4 to specify that scram time limits are based on reactor vessel bottom pressure (versus steam dome pressure) and revised specified pressures to 7.481 MPaG (1085 psig) and 8.618 MPaG (1250 psig). Removed associated brackets. Use of vessel bottom pressures at these values is consistent with DCD Tables 15.2-2 and 15.2-3.
19	16B.03.01.04, LCO	Bases references to limits in Table 3.1.4-1 revised from "scram times" to "scram time limits" as an editorial change.
20	16B.03.01.04, SR 3.1.4.2	Revised Frequency of SR 3.1.4.2 to "200 days cumulative operation in MODE 1" consistent with TSTF-460, Rev. 0, and response to RAI 4.6-33. Bases discussion was already consistent with this change.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
21	16B.03.02.01, Actions	Removed brackets from Bases for limit of 25% RTP for monitoring LHGR. Removal of brackets based on results of ESBWR Minimum Power for Thermal Limit Monitoring Design Study.
22	16B.03.02.01, Applicability	Removed brackets from Bases for Applicability limit of 25% RTP for monitoring LHGR. Removal of brackets based on results of ESBWR Minimum Power for Thermal Limit Monitoring Design Study.
23	16B.03.02.01, SRs	Removed brackets from Bases for limit of 25% RTP for monitoring LHGR. Removal of brackets based on results of ESBWR Minimum Power for Thermal Limit Monitoring Design Study.
24	16B.03.02.02, Actions	Removed brackets from Bases for limit of 25% RTP for monitoring MCPR. Removal of brackets based on results of ESBWR Minimum Power for Thermal Limit Monitoring Design Study.
25	16B.03.02.02, Applicability	Removed brackets from Bases for Applicability limit of 25% RTP for monitoring MCPR. Removal of brackets based on results of ESBWR Minimum Power for Thermal Limit Monitoring Design Study.
26	16B.03.02.02, SRs	Removed brackets from Bases for limit of 25% RTP for monitoring MCPR. Removal of brackets based on results of ESBWR Minimum Power for Thermal Limit Monitoring Design Study.
27	16B.03.03.01.01, Applicable Safety Analyses, 10 <sup>th</sup> paragraph	Replaced "to the DTLUs" with "through the DTMs" for consistency with changes incorporated in DCD Chapter 7.
28	16B.03.03.01.01, Applicable Safety Analyses, 5 <sup>th</sup> paragraph, 2 <sup>nd</sup> sentence	Replaced "DTLU" with "DTM" for consistency with changes incorporated in DCD Chapter 7.
29	16B.03.03.01.01, Applicable Safety Analyses, Function 13	Replaced "Loss of Power Generation Bus" with "Power Generation Bus Loss" in title and in first and third paragraphs of the Function 13 discussion for consistency with DCD, Chapter 7.
30	16B.03.03.01.01, Applicable Safety Analyses, Function 13, 1 <sup>st</sup> paragraph	Changed "fast transfer" to "auto-transfer" for consistency with the DCD.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
31	16B.03.03.01.01, Applicable Safety Analyses, Function 9, 2 <sup>nd</sup> paragraph	"Class 1E" is changed to "safety-related" for consistency with the DCD.
32	16B.03.03.01.01, Background, 11 <sup>th</sup> and 12 <sup>th</sup> paragraphs	Revised discussions to replace description of DTLU with descriptions of DTM and TLUs for consistency with changes incorporated in DCD Chapter 7.
33	16B.03.03.01.01, Background, 11 <sup>th</sup> paragraph	"Class 1E" is changed to "safety-related" for consistency with DCD.
34	16B.03.03.01.01, Background, 13 <sup>th</sup> paragraph	Replaced "DTLU" with "TLU" in two places for consistency with changes incorporated in DCD Chapter 7.
35	16B.03.03.01.01, Background, 14 <sup>th</sup> paragraph	"Class 1E" is changed to "safety-related" for consistency with the DCD.
36	16B.03.03.01.01, Background, 20 <sup>th</sup> paragraph	"Class 1E" is changed to "safety-related" in two places for consistency with the DCD.
37	16B.03.03.01.01, Background, 20 <sup>th</sup> paragraph	Changed "division I" and "division II" to "division 1" and "division 2," respectively for consistency with division numbering convention in the DCD.
38	16B.03.03.01.01, Background, 20 <sup>th</sup> paragraph	Defined acronym "HCU" as hydraulic control unit. Editorial change consistent with ITS presentation to define acronyms on first usage.
39	16B.03.03.01.01, Background, 24 <sup>th</sup> paragraph	"Class 1E" is changed to "safety-related" for consistency with the DCD.
40	16B.03.03.01.01, Background, 26 <sup>th</sup> paragraph	Replaced "DTLUs" with "TLUs" in two places for consistency with changes incorporated in DCD Chapter 7.
41	16B.03.03.01.02, SR 03.03.01.02.01, 1 <sup>st</sup> sentence	Replaced "Digital Trip Logic Unit (DTLU)" with "Trip Logic Unit (TLU)" for consistency with changes incorporated in DCD Chapter 7.
42	16B.03.03.01.04, Actions A.1	Revised 4 <sup>th</sup> paragraph to delete "or required Action A.2" for consistency with the Required Actions of LCO 3.3.1.4, which do not specify a "Required Action A.2." Editorial change.
43	16B.03.03.01.04, Background, 18 <sup>th</sup> paragraph	Replaced "digital trip logic units (DTLUs)" with "Trip Logic Units (TLUs)" in two places for consistency with changes incorporated in DCD Chapter 7.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
44	16B.03.03.02.01 Actions D.1 and D.2	Deleted brackets around statement 'Control rods in core cells containing no fuel assemblies do not affect the reactivity of the core and therefore not required to be inserted' based on verification of this information.
45	16B.03.03.03.01 LCO	Revised to add the statement 'associated with the DC and Uninterruptible AC Electrical Power Distribution Divisions required by LCO 3.8.6, "Distribution Systems - Operating,"' to ensure the required instrumentation is supplied by the operable electrical power divisions.
46	16B.03.03.03.01 SR 3.3.3.1.1	Revised 'check' to 'CHECK' in the last sentence of the second paragraph as an editorial change.
47	16B.03.03.03.01 SR 3.3.3.1.1	Revised to add the word 'required' in three places to ensure the instrumentation supplied by the operable electrical power divisions is the instrumentation that is surveillance tested.
48	16B.03.03.03.01 SR 3.3.3.1.2	Revised to add the statement 'for each required channel' to ensure the instrumentation supplied by the operable electrical power divisions is the instrumentation that is surveillance tested.
49	16B.03.03.03.02 LCO	Revised to add the statement 'associated with the DC and Uninterruptible AC Electrical Power Distribution Divisions required by LCO 3.8.6, "Distribution Systems - Operating,"' to ensure the instrumentation is supplied by the operable electrical power divisions.
50	16B.03.03.03.02 SR 3.3.3.2.1 SR 3.3.3.2.3	Revised to add 'required' to ensure the instrumentation supplied by the operable electrical power divisions is the instrumentation that is surveillance tested.
51	16B.03.03.03.02 SR 3.3.3.2.1 SR 3.3.3.2.3	Revised to add 'required' to ensure the instrumentation supplied by the operable electrical power divisions is the instrumentation that is surveillance tested.
52	16B.03.03.04.01, Reference 5	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
53	16B.03.03.05.01, Background, next to last paragraph	"Class 1E" is changed to "safety-related" for consistency with the DCD.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
54	16B.03.03.05.03, Applicable Safety Analyses, Function 2	Revised last paragraph from "The Function is required to be OPERABLE in MODES 1 and 2, and MODES 3 and 4 when < 2 hours since the reactor was critical," to state "The Function is required to be OPERABLE in MODES 1, 2, 3, 4, and 5," for consistency with changes made in TS Table 3.3.5.3-1.
55	16B.03.03.05.03, Applicable Safety Analyses, Function 3	Revised last paragraph from "The Function is required to be OPERABLE in MODES 1 and 2, and MODES 3 and 4 when < 2 hours since the reactor was critical," to state "The Function is required to be OPERABLE in MODES 1, 2, 3, 4, and 5," for consistency with changes made in TS Table 3.3.5.3-1.
56	16B.03.03.05.03, Applicable Safety Analyses, Function 5	Replaced "Loss of Power Generation Bus" with "Power Generation Bus Loss" in title and in second and third paragraphs of the Function 5 discussion for consistency with DCD, Chapter 7.
57	16B.03.03.05.03, Applicable Safety Analyses, Function 5, 1 <sup>st</sup> paragraph	Changed "fast transfer" to "auto-transfer" for consistency with the DCD.
58	16B.03.03.05.03, Applicable Safety Analyses, Function 5, last paragraph	Revised first sentence from "Three channels of Loss of Power Generation Bus Function are required to be OPERABLE to ensure that no single instrument failure will preclude a scram from this Function on a valid signal," to state "Three channels of Power Generation Bus Loss Function are required to be OPERABLE to ensure that no single instrument failure will prevent the ICS actuation from this Function on a valid signal," for editorial consistency with the specification.
59	16B.03.03.05.03, Background, 2 <sup>nd</sup> paragraph	Inserted "limiting safety system settings," and placed "LSSS" in parentheses to define the acronym upon first usage in accordance with ITS.
60	16B.03.03.05.03, Background, 3 <sup>rd</sup> paragraph	Inserted "limiting safety system settings," and placed "LSSS" in parentheses to define the acronym upon first usage in accordance with the Writer's Guide.
61	16B.03.03.05.03, Background, next to last paragraph	"Class 1E" is changed to "safety-related" for consistency with the DCD.
62	16B.03.03.05.04, Applicable Safety Analyses, 4 <sup>th</sup> paragraph	Revised first sentence from "The ICS Actuation is required to be OPERABLE in MODES 1 and 2, and in MODES 3 and 4 when < 2 hours since reactor was critical," to state "The ICS Actuation is required to be OPERABLE in MODES 1, 2, 3, 4, and 5," for consistency with the Applicability of TS 3.5.4 and TS 3.5.5.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
63	16B.03.03.06.01, Applicable Safety Analyses, 5 <sup>th</sup> paragraph	Revised discussions to replace "DTLU" with "DTM" for consistency with changes incorporated in DCD Chapter 7.
64	16B.03.03.06.01, Applicable Safety Analyses, Function 1	Replaced " Reactor Vessel Low Water Level - Level 1" with " Reactor Vessel Water Level - Low, Level 1" in the Function title and in six locations in the discussion of the function for consistency with the terminology presented in Table 3.3.6.1-1.
65	16B.03.03.06.01, Applicable Safety Analyses, Function 1	Replaced " Reactor Vessel Low Water Level - Level 2" with " Reactor Vessel Water Level - Low, Level 2" in the Function title and in four locations in the discussion of the function for consistency with the terminology presented in Table 3.3.6.1-1.
66	16B.03.03.06.01, Background, 10 <sup>th</sup> paragraph	Revised discussions to replace "DTLUs" with "DTMs" or "TLUs," as appropriate for consistency with changes incorporated in DCD Chapter 7. Also inserted a statement to describe relation of DTMs to TLUs.
67	16B.03.03.06.01, Background, 11 <sup>th</sup> paragraph	Revised discussions to replace "DTLUs" with "DTMs" or "TLUs," as appropriate for consistency with changes incorporated in DCD Chapter 7.
68	16B.03.03.06.01, Background, 12 <sup>th</sup> paragraph	Revised discussions to replace "DTLUs" with "DTMs" or "TLUs," as appropriate for consistency with changes incorporated in DCD Chapter 7.
69	16B.03.03.06.01, Background, 2 <sup>nd</sup> paragraph	Inserted "limiting safety system settings," and placed "LSSS" in parentheses to define the acronym upon first usage in accordance with the Writer's Guide.
70	16B.03.03.06.01, Background, last paragraph	Revised discussions to replace "DTLUs" with "DTMs" or "TLUs," as appropriate for consistency with changes incorporated in DCD Chapter 7.
71	16B.03.03.06.01, Background, next to last paragraph	"Class 1E" is changed to "safety-related" for consistency with the DCD.
72	16B.03.03.06.02, Background, 3 <sup>rd</sup> paragraph	Revised discussions to replace "DTLUs" with "DTMs" or "TLUs," as appropriate for consistency with changes incorporated in DCD Chapter 7. Discussion was revised to allow use of these terms.
73	16B.03.03.06.02, SR 03.03.06.03.01, 1 <sup>st</sup> paragraph	Revised first sentence to replace "Digital Trip Logic Unit (DTLU)" with "Trip Logic Unit (TLU)" for consistency with changes incorporated in DCD Chapter 7.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
74	16B.03.03.06.03, Actions D.1	Renumbered the existing Actions D.1 discussion as Actions E.1. Existing discussion of Actions E.1 has been moved and is now the discussion for Actions D.1 for consistency with revised Conditions and Required Actions incorporated in the Specification.
75	16B.03.03.06.03, Actions E.1	Renumbered the existing Actions E.1 discussion as Actions D.1. Existing discussion of Actions D.1 has been moved and is now the discussion for Actions E.1 for consistency with revised Conditions and Required Actions incorporated in the Specification.
76	16B.03.03.06.03, Actions F.1	Added new discussion for Actions F.1 to discuss feedwater penetrations flow isolation for consistency with revised Conditions and Required Actions incorporated in the Specification.
77	16B.03.03.06.03, Actions G.1	Added new discussion for Actions G.1 to discuss feedwater penetrations flow isolation for consistency with revised Conditions and Required Actions incorporated in the Specification. This discussion also incorporates TSTF-423 guidance for remaining in the MODE of Applicability. New References 10 and 11 are also added, requiring renumbering of subsequent References.
78	16B.03.03.06.03, Actions H.1 and H.2	Added new discussions for Actions H.1 and H.2 to discuss RWCU/SDC isolation actions for consistency with revised Conditions and Required Actions incorporated in the Specification.
79	16B.03.03.06.03, Applicable Safety Analyses, 1 <sup>st</sup> paragraph	Revised 1 <sup>st</sup> sentence by inserting "containment" to differentiate this discussion from other isolation instrumentation Functions, such as feedwater isolation, feedwater pump breaker trip and RWCU/SDC isolation in MODES 5 and 6.
80	16B.03.03.06.03, Applicable Safety Analyses, 2 <sup>nd</sup> paragraph	Added a new 2 <sup>nd</sup> paragraph to describe the RWCU/SDC isolation signals in MODES 5 and 6. Consistency with level of detail in NUREG-1434, Revision 3.1. This change also required the renumbering of References 3 thru 10.
81	16B.03.03.06.03, Applicable Safety Analyses, 3 <sup>rd</sup> paragraph	Added a new 3 <sup>rd</sup> paragraph to describe the feedwater isolation and feedwater pump breaker trip functions. Consistency with level of detail in NUREG-1434, Revision 3.1.
82	16B.03.03.06.03, Applicable Safety Analyses, Function 1	Added a new 2 <sup>nd</sup> paragraph to discuss RWCU/SDC isolation function in MODES 5 and 6. Consistency with level of detail in NUREG-1434, Revision 3.1.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
83	16B.03.03.06.03, Applicable Safety Analyses, Function 1	Revised all occurrences of "Reactor Vessel Low Water Level – Level 2" to read "Reactor Vessel Water Level – Low, Level 2," for consistency with DCD Chapter 7 terminology.
84	16B.03.03.06.03, Applicable Safety Analyses, Function 13	Added a new discussion for Function 13, "Feedwater Line Differential Pressure – High" Function. Consistency with level of detail in NUREG-1434, Revision 3.1.
85	16B.03.03.06.03, Applicable Safety Analyses, Function 2	Revised all occurrences of "Reactor Vessel Low Water Level – Level 1" to read "Reactor Vessel Water Level – Low, Level 1," for consistency with DCD Chapter 7 terminology.
86	16B.03.03.06.03, Applicable Safety Analyses, Function 3	Revised the last paragraph of the Function description to add a new sentence discussing Drywell Pressure – High signal and feedwater isolation and feedwater pump breaker trip functions. Consistency with level of detail in NUREG-1434, Revision 3.1.
87	16B.03.03.06.03, Applicable Safety Analyses, Function 9	Added a new 2 <sup>nd</sup> paragraph to describe RWCU/SDC isolation in MODES 5 and 6. Consistency with level of detail in NUREG-1434, Revision 3.1.
88	16B.03.03.06.03, Applicable Safety Analyses, Function 9	Replaced all occurrences of "RWCU/SDC System Differential Flow - High (Per RWCU/SDC subsystem)" with "{RWCU/SDC System Differential Flow - High (Per RWCU/SDC subsystem)}" and all occurrences of "RWCU/SDC System Differential Flow - High" with "{RWCU/SDC System Differential Flow - High}" to denote that the final Function name is still to be determined.
89	16B.03.03.06.03, Background, 10 <sup>th</sup> paragraph	A new 10 <sup>th</sup> paragraph has been added to discuss the signals that result in isolation of the Feedwater Isolation Valves and tripping of the Feedwater Pump Breaker. Consistency with level of detail in NUREG-1434, Revision 3.1.
90	16B.03.03.06.03, Background, 1 <sup>st</sup> paragraph	Revised first paragraph to include discussion of RWCU/SDC isolation in MODES 5 and 6, Feedwater Isolation Valve isolation and Feedwater Pump Breaker trip for consistency with DCD Chapter 7 and Chapter 15. This is a change from the commitment provided in response to NRC RAI 16.2-45.
91	16B.03.03.06.03, Background, 2 <sup>nd</sup> paragraph	Inserted "limiting safety system settings," and placed "LSSS" in parentheses to define the acronym upon first usage in accordance with the Writer's Guide

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92	16B.03.03.06.03, Background, 8 <sup>th</sup> paragraph	Replaced "RWCU/SDC System Differential Flow - High (Per RWCU/SDC subsystem)" with "{RWCU/SDC System Differential Flow - High (Per RWCU/SDC subsystem)}" to denote that the final Function name is still to be determined.
93	16B.03.03.06.03, Background, 9 <sup>th</sup> paragraph	A new 9 <sup>th</sup> paragraph has been added to discuss the signals that result in RWCU/SDC isolation in MODES 5 and 6. Consistency with level of detail in NUREG-1434, Revision 3.1.
94	16B.03.03.06.03, Background, next to last paragraph	"Class 1E" is changed to "safety-related" for consistency with the DCD.
95	16B.03.03.06.03, Reference 3	Inserted NEDO-33201 as Reference 3 as a result of incorporation of discussions of RWCU/SDC in MODES 5 and 6. The existing Reference 3 and subsequent References 4 through 8 are renumbered.
96	16B.03.03.06.03, Reference 9	The existing Reference 9 is deleted. Statements associated with this reference were deleted in Revision 2. This is an editorial cleanup.
97	16B.03.03.06.03, References 10 and 11	Added References 10 and 11 for consistency with TSTF-423. The existing References 11 through 14 are renumbered.
98	16B.03.03.06.04, Actions C.1	Replaced "channel" with "division" in two places for consistency with the LCO.
99	16B.03.03.06.04, Actions C.1	Revised discussion of Actions C.1 to reflect the changes to Table 3.3.6.4-1 with respect to Required Actions for consistency with changes in the Specification.
100	16B.03.03.06.04, Actions D.1	Revised discussion of Actions D.1 to reflect changes in Actions C.1 and D.1. Editorial change in presentation. Revised discussion still discusses declaring associated CIVs inoperable immediately.
101	16B.03.03.06.04, Actions E.1	Added new discussion for Actions E.1 to discuss feedwater isolation valve actuation inoperability for consistency with revised Conditions and Required Actions incorporated in the Specification.
102	16B.03.03.06.04, Actions F.1	Added new discussion for Actions F.1 to discuss feedwater pump trip actuation function inoperability for consistency with revised Conditions and Required Actions incorporated in the Specification.

Item	Location	Description of Change
103	16B.03.03.06.04, Actions G.1	Added new discussion for Actions G.1 to discuss feedwater isolation valve and feedwater pump breaker actuation inoperability for consistency with revised Conditions and Required Actions incorporated in the Specification. This discussion also incorporates TSTF-423 guidance for remaining in the MODE of Applicability. New Reference 4 is added, requiring renumbering of subsequent References.
104	16B.03.03.06.04, Actions H.1 and H.2	Added new discussions for Actions H.1 and H.2 to discuss RWCU/SDC isolation actuation function inoperability for consistency with revised Conditions and Required Actions incorporated in the Specification.
105	16B.03.03.06.04, Applicable Safety Analyses, 1 <sup>st</sup> paragraph	Revised 1 <sup>st</sup> sentence by inserting "containment" to differentiate this discussion from other isolation instrumentation Functions, such as feedwater isolation, feedwater pump breaker trip and RWCU/SDC isolation in MODES 5 and 6.
106	16B.03.03.06.04, Applicable Safety Analyses, 2 <sup>nd</sup> paragraph	Added a new 2 <sup>nd</sup> paragraph to describe the RWCU/SDC isolation signals in MODES 5 and 6. Consistency with level of detail in NUREG-1434, Revision 3.1. This change also required the renumbering of References 3 thru 10.
107	16B.03.03.06.04, Applicable Safety Analyses, 3 <sup>rd</sup> paragraph	Added a new 3 <sup>rd</sup> paragraph to describe the feedwater isolation and feedwater pump breaker trip functions. Consistency with level of detail in NUREG-1434, Revision 3.1.
108	16B.03.03.06.04, Applicable Safety Analyses, 4 <sup>th</sup> paragraph	Revised " Isolation Actuation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii)," to state " Isolation Actuation satisfies Criteria 3 and 4 of 10 CFR 50.36(c)(2)(ii)." RWCU/SDC isolation is implicitly assumed in the PRA, and meets Criterion 4 for inclusion in the Technical Specifications.
109	16B.03.03.06.04, Applicable Safety Analyses, 6 <sup>th</sup> paragraph	Revised 1 <sup>st</sup> sentence by inserting "containment" to differentiate this discussion from other isolation instrumentation Functions, such as feedwater isolation, feedwater pump breaker trip and RWCU/SDC isolation in MODES 5 and 6. Also added discussion on feedwater isolation valve feedwater pump breaker trip, and RWCU/SDC applicabilities for consistency with level of detail of similar discussions.
110	16B.03.03.06.04, Applicable Safety Analyses, Function 2	Replaced all occurrences of "RWCU/SDC System Flow - High (Per RWCU/SDC subsystem)" with "{RWCU/SDC System Differential Flow - High (Per RWCU/SDC subsystem)}" to denote that the final Function name is still to be determined, and for consistency with TS 3.3.6.3, Table 3.3.6.3-1.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
111	16B.03.03.06.04, Applicable Safety Analyses, Function 2	Revised discussion to include description of RWCU/SDC actuation in MODES 5 and 6.
112	16B.03.03.06.04, Applicable Safety Analyses, Functions 14 and 15	Added description of Feedwater Isolation Valve and Feedwater Pump Breaker actuation divisions.
113	16B.03.03.06.04, Background, 2 <sup>nd</sup> paragraph	Added new 2 <sup>nd</sup> paragraph to include discussion of RWCU/SDC isolation in MODES 5 and 6, Feedwater Isolation Valve isolation and Feedwater Pump Breaker trip for consistency with DCD Chapter 7 and Chapter 15. This is a change from the commitment provided in response to NRC RAI 16.2-45.
114	16B.03.03.06.04, Reference 4	Added new Reference 4 for TSTF-IG-05-02 and renumbered existing Reference 4 as Reference 5.
115	16B.03.03.06.04, SR	Added new discussion for Note that was added to Surveillance Requirements Table.
116	16B.03.03.06.04, SR 03.03.06.04.03	Added discussion for SR 3.3.6.4.3 to describe system functional test to be performed on RWCU/SDC isolation actuation function, Feedwater Isolation Valve actuation Function, and Feedwater Pump Breaker actuation Function. Wording is consistent with system functional testing wording in NUREG-1434.
117	16B.03.03.07.01 Background Applicable Safety Analyses, LCO, and Applicability Actions	Replaced 'EBAS' with 'CRHAVS' as a result of plant modification to eliminate the EBAS and modify the CRHAVS to isolate and provide filtered makeup air to the CRHA.
118	16B.03.03.07.01 Background Applicable Safety Analyses, LCO, and Applicability	Revised significantly consistent with CRHAVS design, Technical Specification 3.7.2 Revision 3, and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54. Includes a detailed description of the CRHAVS design and current instrumentation functions consistent with other descriptions of the CRHAVS in the Design Control Document and with the corresponding Technical Specification 3.3.7.1.
119	16B.03.03.07.01 Title	Revised from 'Emergency Breathing Air System (EBAS)' to 'Control Room Habitability Area (CRHA) Heating, Ventilation, and Air Conditioning (HVAC) Subsystem (CRHAVS)' as a result of plant modification to eliminate the EBAS and modify the CRHAVS to isolate and provide filtered makeup air to the CRHA.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
120	16B.03.03.07.02 Background Applicable Safety Analyses, LCO, and Applicability Actions SR 3.3.7.2.1	Replaced 'EBAS' with 'CRHAVS' as a result of plant modification to eliminate the EBAS and modify the CRHAVS to isolate and provide filtered makeup air to the CRHA.
121	16B.03.03.07.02 Background Applicable Safety Analyses, LCO, and Applicability Actions C.1.1, C.1.2, and C.2	Revised significantly consistent with CRHAVS design, Technical Specification 3.7.2 Revision 3, and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54. Includes a detailed description of the CRHAVS design and current instrumentation functions consistent with other descriptions of the CRHAVS in the Design Control Document and with the corresponding Technical Specification 3.3.7.2.
122	16B.03.03.07.02 Title	Revised from 'Emergency Breathing Air System (EBAS)' to 'Control Room Habitability Area (CRHA) Heating, Ventilation, and Air Conditioning (HVAC) Subsystem (CRHAVS)' as a result of plant modification to eliminate the EBAS and modify the CRHAVS to isolate and provide filtered makeup air to the CRHA.
123	16B.03.04.01, Actions A.1	Revised both paragraphs to reflect that 1 SRV is capable of providing overpressure protection, but 2 (instead of 4) are required. Discussion of additional design margin is not appropriate.
124	16B.03.04.01, Actions C.1 and C.2	Revised the discussion to reflect that if neither required SRV is Operable, that violation of the ASME Code limit may be exceeded in the event of a transient.
125	16B.03.04.01, Applicable Safety Analyses, 1 <sup>st</sup> paragraph	Deleted next-to-last sentence. Discussion of 3 SRVs comes from the analysis to determine total SRV capacity and is misleading in the Bases discussion.
126	16B.03.04.01, Applicable Safety Analyses, 1 <sup>st</sup> paragraph	Revised second sentence to clarify that the pressure transient in the discussion is a Level B pressure transient.
127	16B.03.04.01, Background, 1 <sup>st</sup> paragraph	Revised 1 <sup>st</sup> paragraph by adding additional details concerning ESBWR conformance with ASME Code Level B overpressure limits and Level C design service limits to clarify that LCO 3.4.1 applies only to the Code level B requirements.
128	16B.03.04.01, Background, 2 <sup>nd</sup> paragraph	Revised 2 <sup>nd</sup> paragraph by deleting details of SRV groups and discharge points. The LCO has been revised to require 2 SRVs to be Operable. The previous level of detail adds no value to understanding the specification.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
129	16B.03.04.01, Background, 3 <sup>rd</sup> paragraph	Deleted discussion of ADS mode of SRV operation. ADS is separately addressed in LCO 3.5.1. LCO 3.4.1 has been revised to require 2 SRVs to be Operable and to clarify that the ADS SRV setpoints meet the acceptance criteria of SR 3.4.1.1. The previous level of detail adds no value to understanding the specification.
130	16B.03.04.01, Background, 4 <sup>th</sup> paragraph	Deleted 4 <sup>th</sup> paragraph. ECCS instrumentation is not germane to the pressurization safety mode of SRV operation. Unnecessary level of detail.
131	16B.03.04.01, LCO, 1 <sup>st</sup> paragraph	Revised the discussion to reflect change in the LCO that only 2 SRVs are required to be Operable. In addition, the paragraph has been revised for clarity. Only the change from 4 to 2 SRVs is a technical change. The remainder of the changes are editorial clarifications.
132	16B.03.04.01, LCO, 2 <sup>nd</sup> paragraph	Deleted brackets surrounding statement of ASME requirements for lowest safety valve setting. Wording is consistent with NUREG-1434, LCO 3.4.4 Bases, implementation of the Code.
133	16B.03.04.01, LCO, 2 <sup>nd</sup> paragraph	Revised the last sentence to delete "instrument." Although SRV setpoints may drift, they are mechanical devices and drift is not accounted for as "instrument" setpoint drift.
134	16B.03.04.01, Reference 5	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
135	16B.03.04.01, SR 03.04.01.01	Next-to-last paragraph has been revised to replace the Operability range of " $\pm[0.8]\%$ " with " $\pm 3\%$ " and the as-left range of " $\pm[0.8]\%$ " with " $\pm 1\%$ ," for consistency with changes to DCD Chapter 5, Revision 3.
136	16B.03.04.01, SR 03.04.01.01	Revised the discussion to delete the SRV lift setpoint table. The SR specifies the allowable as-found setpoint range for the 2 required SRVs. Additionally, a statement to clarify that the ADS SRV setpoints meet the acceptance criteria of SR 3.4.1.1 has been added.
137	16B.03.05.01	Removed brackets associated with ECCS N-2 analysis from all sections of the Bases except for reference to ECCS Topical Report, which will be used to track justification for ECCS Required Actions and Completion Times.
138	16B.03.05.01	Revised Background to describe the N-2 design for squib initiators and ADS solenoids.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
139	16B.03.05.01	Revised Background to describe the N-2 design for squib initiators.
140	16B.03.05.01	Revised Background to include a brief description of ADS actuation signals consistent with the discussion for GDCS in LCO 3.5.2.
141	16B.03.05.01	Revised Bases of SR 3.5.1.5 to clarify requirements for staggered test basis consistent with N-2 design change. Frequency is now based on all four solenoids actuated by both the SSLC and DPS so that each solenoid will be tested every fourth cycle.
142	16B.03.05.01	Revised Condition E correct typographical error that failed to include applicability of the Condition to Required Actions A and B.
143	16B.03.05.01	Revised LCO section of Bases to clarify for N-2 design change that "OPERABILITY of the squib-actuated DPV valves requires electrical continuity of at least two squib firing circuits in each valve that are that are actuated by the SSLC and associated with OPERABLE divisions of DC and Uninterruptible AC Electrical Power Distribution."
144	16B.03.05.01	Revised LCO section of Bases to clarify for N-2 design change that "at least two solenoid-operated pilot valves on each SRV that are actuated by the SSLC and associated with OPERABLE divisions of DC and Uninterruptible AC Electrical Power Distribution must be OPERABLE.
145	16B.03.05.01	Revised SR 3.5.1.2 Bases to adopt nomenclature consistent with DCD Chapter 7, to clarify requirements consistent with N-2 design change, and to make SR consistent for LCO 3.5.1, 3.5.2 and 3.5.3.
146	16B.03.05.01	Revised SR 3.5.1.2 Bases to clarify for N-2 design change that SR is required only for required squib firing circuits.
147	16B.03.05.02	Deleted Background statement that "There are four independent trains of each subsystem and a separate electrical division supports each train" because at least 3 of the 4 electrical divisions supports each train.
148	16B.03.05.02	Removed brackets associated with ECCS N-2 analysis from all sections of the Bases except for reference to ECCS Topical Report, which will be used to track justification for ECCS Required Actions and Completion Times.
149	16B.03.05.02	Revised Background to delete references to specific levels or time delays in the description of ADS actuation signals.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
150	16B.03.05.02	Revised Condition E correct typographical error that failed to include applicability of the Condition to Required Actions A and B.
151	16B.03.05.02	Revised SR 3.5.2.2 Bases to adopt nomenclature consistent with DCD Chapter 7, to clarify requirements consistent with N-2 design change, and to make SR consistent for LCO 3.5.1, 3.5.2 and 3.5.3.
152	16B.03.05.03	Revised SR 3.5.3.2 Bases to adopt nomenclature consistent with DCD Chapter 7, to clarify requirements consistent with N-2 design change, and to make SR consistent for LCO 3.5.1, 3.5.2 and 3.5.3.
153	16B.03.05.04	Added SR 3.5.4.5 to require verification that the heat removal capability of each IC train satisfies design requirements specified DCD Chapter 5. The Frequency is {24 months on a staggered test basis} and remains bracketed because the frequency is being evaluated. This change, which establishes TS requirements for IC heat capacity testing, provides the response to RAI 16.2-42.
154	16B.03.05.04	Revised Background to delete discussion of ICS initiation signals to eliminate redundancy with statement that "Signals that initiate the ICS are listed in LCO 3.3.5.3, "Isolation Condenser System (ICS) Instrumentation."
155	16B.03.05.04	Revised Background to describe ICS start signals consistent with DCD 7.4.4.3, Rev 2.
156	16B.03.05.04	Revised Background to reflect N-2 design changes for valve actuation and power supplies for both actuation and venting consistent with DCD 7.4.4.3, Rev 2.
157	16B.03.05.04	Revised SR 3.5.4.1 Bases to delete "Because of the simplicity of the ICS design and the requirement that block valves for the IC/PCC pool must be locked open, this SR will require periodic verification of very few valves. This detail not required for Bases.
158	16B.03.05.04	Revised SR 3.5.4.4 Bases statement about LSFT so that it matches wording used in NUREG-1434.
159	16B.03.05.05	Deleted Background statement "It is important to note that during decay heat removal using the ICS, a MODE change (MODE 5 to MODE 4) will occur due to the heat up of the RCS." This type of detail not required in the Bases.
160	16B.03.05.05	Revised applicability from ">" to "≥".
161	16B.03.05.05	Revised second sentence of ASA regarding decay heat removal to improve clarity.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
162	16B.03.05.05	Revised SR 3.5.5.1 Bases to delete "Because of the simplicity of the ICS design and the requirement that block valves for the IC/PCC pool must be locked open, this SR will require periodic verification of very few valves. This detail not required for Bases.
163	16B.03.05.05	Revised SR 3.5.5.4 Bases statement about LSFT so that it matches wording used in NUREG-1434.
164	16B.03.06.01.01, Applicable Safety Analyses, 4 <sup>th</sup> paragraph	Revised discussion to add additional detail on containment leakage rate, including leakage through the PCCS.
165	16B.03.06.01.01, Reference 7	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
166	16B.03.06.01.01, SR 03.06.01.01.02	The existing Revision 2 SR 3.6.1.1.2 has been replaced by a different requirement and renumbered as SR 3.6.1.1.3. A new SR 3.6.1.1.2 has been incorporated. The new SR 3.6.1.1.2 states: "Verify feedwater isolation valve inleakage is < { lpm ( gpm)} when tested at ≥ { kPaD ( psid)}," once per 24 months. The Bases discussion has been revised for consistency with the Specification.
167	16B.03.06.01.01, SR 03.06.01.01.02	The existing Revision 2 SR 3.6.1.1.2, "Verify drywell to wetwell bypass leakage is < 1 cm <sup>2</sup> (A/√K)," every 24 months is replaced with a requirement to "Verify the combined leakage rate through all vacuum breaker lines is ≤ {0.1 cm <sup>2</sup> (1.0 x 10 <sup>-4</sup> ft <sup>2</sup> ) (A/√K)} when tested at ≥ { kPaD ( psid)}," every 24 months, and renumbered as SR 3.6.1.1.3, consistent with changes to the Specification.
168	16B.03.06.01.02, Reference 5	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
169	16B.03.06.01.03, Actions A.1 and A.2, 7 <sup>th</sup> paragraph	Revised first sentence to delete "3," from the list of MODES for consistency with changes made to TS 3.6.1.3, Required Action A.2.
170	16B.03.06.01.03, Actions E.1	Revised first sentence to delete "in MODES 1, 2, 3, or 4," for consistency with changes made to TS 3.6.1.3, Condition E.
171	16B.03.06.01.03, Actions F.1 and F.2	Revised first sentence to delete "in MODES 1, 2, 3, or 4," for consistency with changes made to TS 3.6.1.3, Required Condition F.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
172	16B.03.06.01.03, Reference 7	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
173	16B.03.06.01.03, SR 03.06.01.03.03, 2 <sup>nd</sup> paragraph	Revised first sentence to delete "3," from the list of MODES for consistency with changes made to TS 3.6.1.3, SR 3.6.1.3.3.
174	16B.03.06.01.04, Reference 3	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
175	16B.03.06.01.05, Reference 4	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
176	16B.03.06.01.06, Actions B.1	Deleted second paragraph discussing alternates to position indication. The allowance for this alternative is not required as a result of the incorporation of auto-isolation of the upstream valve based on vacuum breaker proximity switches and the changes to discuss vacuum breaker flow paths incorporated in Revision 2 of Chapter 16.
177	16B.03.06.01.06, Actions D.1	Deleted second paragraph discussing alternates to position indication. The allowance for this alternative is not required as a result of the incorporation of auto-isolation of the upstream valve based on vacuum breaker proximity switches and the changes to discuss vacuum breaker flow paths incorporated in Revision 2 of Chapter 16.
178	16B.03.06.01.06, Applicable Safety Analyses, 3 <sup>rd</sup> paragraph	Replaced vacuum breaker opening differential pressure of "3.45 kPa (0.5 psi)" with "{3.07 kPa (0.445 psi)}" for consistency with changes incorporated in DCD Chapter 6,.
179	16B.03.06.01.06, Reference 3	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
180	16B.03.06.01.06, SR 03.06.01.06.01, 1 <sup>st</sup> paragraph	Revised last sentence to delete "or by performing SR 3.6.1.1.2," for consistency with changes made to SR 3.6.1.1.3 (formerly SR 3.6.1.1.2 in revision 2).

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
181	16B.03.06.03.01, Background, 2 <sup>nd</sup> paragraph	Revised discussion to delete "and RB bypass leakage is assumed to be equal to 100% of the containment leak rate," and added additional bracketed detail on containment leakage rate, including leakage through the PCCS.
182	16B.03.06.03.01, Reference 3	Revised the reference to replace "Revision 0" with "Revision 1," replaced "September 2005" with "2007," and placed the revision number and date within curly brackets, because of pending revision to guidance document based on RITSTF-NRC meeting on January 18, 2007.
183	16B.03.07.01, Applicability	Revised Applicability to state, " Requirements for the IC/PCC expansion pools in MODE 5 are determined by the requirements of LCO 3.5.5, Isolation Condenser System (ICS) - Shutdown." Change is consistent with change to applicability of ICS in LCO 3.5.5.
184	16B.03.07.01, Applicable Safety Analysis	Revised Applicable Safety Analysis form "IC/PCC pool water level satisfies Criteria 2 and 3 of 10 CFR 50.36(c)(2)(ii)" to "The IC/PCC pools satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii)" to reflect that more than pool level is addressed
185	16B.03.07.01, Background	Added Reactor Coolant System (RCS) so that RCS is spelled out prior to first use.
186	16B.03.07.01, Background	Deleted statement that isolation valve for subcompartments, which is a locked open, manual valve, has position is indicated in the main control room.
187	16B.03.07.01, Background	Revised Background to delete bracketed reference to the capacity of the expansion pools if not connected to the dryer/separator pool and the reactor well pool.
188	16B.03.07.01, Background	Revised to delete the phrase "A {pair of}" from the statement "normally locked open manually operated valves separates each partition."
189	16B.03.07.01, Background	Revised to remove extraneous detail and make editorial improvements to the description of the IC/PCC pool configuration.
190	16B.03.07.01, Background	Revised to state that reactor well gate is not installed during normal plant operation. Removed bracketed detail about valves connecting these pools.
191	16B.03.07.01, LCO Section	Deleted cross reference to LCOs 3.5.4 and 3.6.1.7 because this information not an essential requirement of this LCO.
192	16B.03.07.01, LCO Section	Removed "{or the isolation valves between the reactor well and the dryer/separator pool must be locked open}."

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
193	16B.03.07.01, LCO Section	Removed pool numbers that were in parentheses next to the pool names to improve readability.
194	16B.03.07.01, LCO Section	Revised statement that valves to the expansion pools open automatically on a low water level signal from "either of the two expansion pools" to the expansion pool.
195	16B.03.07.01, Required Action A.1	Revised first sentence to more closely match the Condition being described.
196	16B.03.07.01, SR 3.7.1.1 and SR 3.7.1.2	Revised Bases to make editorial improvements to the justification for the 24-hour Frequency.
197	16B.03.07.01, SR 3.7.1.2, SR 3.7.1.5, and SR 3.7.1.6	Removed brackets for explanation of SR Notes "Not required to be met in MODES 3 and 4." This note allows reduced IC/PCC pool inventory when the reactor is shutdown in recognition of decreased decay heat load.
198	16B.03.07.01, SR 3.7.1.4	New SR added to require verification every 24 months that each manual isolation valve between the IC/PCC expansion pool partitions is locked open. Re-numbered existing SRs 3.7.1.4 and SR 3.7.1.5.
199	16B.03.07.01, SR 3.7.1.3	Revised the Bases to clarify that the IC/PCC pool temperature is the bulk average temperature and is calculated based on the volume and temperature of the water in the expansion pools, the IC and PCC subcompartments, the dryer/separator pool, and the reactor well.
200	16B.03.07.01, SR 3.7.1.5	Revised the Bases to clarify that the reactor well-to-dryer/separator pool gate is removed and to delete the options that "each isolation valve between the reactor well and the dryer/separator pool is locked open or opens on an actual or simulated automatic initiation signal." Brackets deleted.
201	16B.03.07.01, SR 3.7.1.6	Removed brackets from the requirement to "verify each isolation valve between the IC/PCC expansion pools and the dryer/separator pool opens on an actual or simulated automatic initiation signal."
202	16B.03.07.01, SR 3.7.1.6	Revised justification for 24 month Frequency to be consistent with justifications used in NUREG-1434 for similar applications.
203	16B.03.07.01, SR 3.7.1.6	Revised to add explanation for new Note that "Valve actuation may be excluded" from the actuation test of the isolation valve between the IC/PCC expansion pools and the dryer/separator pool.
204	16B.03.07.01, SR 3.7.1.6	Revised to change "valve opens" to "valve actuates" for the actuation test of the isolation valve between the IC/PCC expansion pools and the dryer/separator pool.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
205	16B.03.07.02 Actions	Significantly revised as a result of plant modification to eliminate the EBAS and modify the CRHAVS, consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
206	16B.03.07.02 Actions A	Added new Condition A, Required Action A.1, and Completion Time to address CRHA not within the initial condition temperature assumed in the safety analysis, per the commitment in the response to RAI 16.2-30.
207	16B.03.07.02 Actions B, C and D	Revised to replace 'EBAS' with 'CRHAVS', and revised Conditions, Required Actions, and Completion Times consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
208	16B.03.07.02 Actions E and G	Revised to delete the phrase 'movement of {recently} irradiated fuel assemblies in the reactor building or fuel building' and deleted NOTE as a result of the current CRHA dose analysis that does not credit CRHAVS for mitigating the consequences of a FHA.
209	16B.03.07.02 Actions F	Revised to replace 'EBAS' with 'CRHAVS' and deleted 'or more', and added new requirement to eventually enter MODE 5 if two CRHAVS trains remain inoperable, as a result of plant modification to eliminate the EBAS and modify the CRHAVS.
210	16B.03.07.02 Applicability	Deleted 'during movement of {recently} irradiated fuel assemblies in the reactor building or fuel building' as a result of the current CRHA dose analysis that does not credit CRHAVS for mitigating the consequences of a Fuel Handling Accident (FHA).
211	16B.03.07.02 Applicability	Significantly revised as a result of plant modification to eliminate the EBAS and modify the CRHAVS, consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
212	16B.03.07.02 Applicable Safety Analyses	Significantly revised as a result of plant modification to eliminate the EBAS and modify the CRHAVS, consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
213	16B.03.07.02 Background	Significantly revised as a result of plant modification to eliminate the EBAS and modify the CRHAVS, consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.

Item	Location	Description of Change
214	16B.03.07.02 LCO	Revised to add the statement 'associated with the DC and Uninterruptible AC Electrical Power Distribution Divisions required by LCO 3.8.6, "Distribution Systems - Operating," and LCO 3.8.7, "Distribution Systems – Shutdown,"' to ensure the required CRHAVS trains are supplied by the operable electrical power divisions.
215	16B.03.07.02 LCO	Significantly revised, including changing 'three redundant fifty percent capacity trains of EBAS' to 'two redundant one hundred percent capacity trains of CRHAVS', as a result of plant modification to eliminate the EBAS and modify the CRHAVS, consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
216	16B.03.07.02 References 6, 7, and 8	Added references as a result of plant modification to eliminate the EBAS and modify the CRHAVS, consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
217	16B.03.07.02 SR 3.7.2.1	Added new Surveillance Requirement (SR) to require verification of the CRHA initial condition temperature as assumed in the safety analysis, per the commitment in the response to RAI 16.2-30.
218	16B.03.07.02 SR 3.7.2.2	Deleted original SR 3.7.2.1, and added new SR to operate each CRHAVS train for $\geq 15$ minutes as a result of plant modification to eliminate the EBAS and modify the CRHAVS, and consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
219	16B.03.07.02 SR 3.7.2.3	Deleted original SR 3.7.2.2, and added new SR to perform required CRHAVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP) as a result of plant modification to eliminate the EBAS and modify the CRHAVS, and consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
220	16B.03.07.02 SR 3.7.2.4	Revised original SR 3.7.2.3 to replace 'EBAS automatic valves' with 'each CRHAVS train', and replaced 'actuation' with 'initiation', as a result of plant modification to eliminate the EBAS and modify the CRHAVS, and consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
221	16B.03.07.02 SR 3.7.2.5	Added new SR to verify de-energization of the main control room Nonsafety-Related Distributed Control and Instrumentation System (N-DCIS) electrical loads on an actual or simulated initiation signal, consistent with CRHAVS design.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
222	16B.03.07.02 SR 3.7.2.6	Deleted original SR 3.7.2.4, and added new SR to perform required CRHA unfiltered air inleakage testing in accordance with the Control Room Habitability Area (CRHA) Boundary Program as a result of plant modification to eliminate the EBAS and modify the CRHAVS, and consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
223	16B.03.07.02 SURVEILLANCE REQUIREMENTS	Significantly revised as a result of plant modification to eliminate the EBAS and modify the CRHAVS, consistent with CRHAVS design and TSTF-448, Revision 3, per the commitment in the response to RAI 16.2-54.
224	16B.03.07.02 Title	Revised from 'Emergency Breathing Air System (EBAS)' to 'Control Room Habitability Area (CRHA) Heating, Ventilation, and Air Conditioning (HVAC) Subsystem (CRHAVS)' as a result of plant modification to eliminate the EBAS and modify the CRHAVS to isolate and provide filtered makeup air to the CRHA.
225	16B.03.07.04 Applicability	Removed curly brackets from '25% RTP' based on verification of this value.
226	16B.03.07.04 Required Action B.1	Removed curly brackets from '25% RTP' based on verification of this value.
227	16B.03.07.04 SR 3.7.4.3 and References	Removed the bracketed statement '{The response time limits are specified in Chapter 15 (Ref. 3).}' and deleted Reference 3, because the response time limits will not be included in the Design Control Document, but will be included in detailed design/analysis documentation instead.
228	16B.03.07.06	New Bases for Selected Control Rod Run-In (SCRRI) Function, including the new Selected Rod Insertion (SRI) Function added to the ESBWR design in Revision 3 of the Design Control Document, per the commitment in the response to RAI 16.0-1.
229	16B.03.08.01, Action A	Editorial addition of "required" to match requirements in the Specification.
230	16B.03.08.01, Applicability	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
231	16B.03.08.01, Background	"Essential" is changed to "safety-related" concurrent with changing "E-DCIS" to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
232	16B.03.08.01, Background	"Vpc" details added and battery sizing detail removed for consistency with changes incorporated in DCD, Revision 3.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
233	16B.03.08.01, Background	Added "{ ... }" (making this a DCD Open Item) to battery sizing details pending design details associated with the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
234	16B.03.08.01, Background	Battery charger background regarding float and equalize operation is added consistent with scope in NUREG-1434. DCD Open Items included pending further supporting information from the battery manufacturer to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
235	16B.03.08.01, Background	Deleted "95% of" for consistency with changes incorporated in DCD, Revision 3.
236	16B.03.08.01, References	Reference to IEEE-450 is replaced with IEEE-1188, 2005, to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
237	16B.03.08.01; Action B	Clarified Tech Spec Condition by expanding Bases to describe "one or both batteries inoperable, or the required chargers and associated battery inoperable."
238	16B.03.08.01; Action B	Extraneous "however" editorially deleted.
239	16B.03.08.01; Actions B and C	The failure to meet Required Action A.2 (i.e., battery "returned to fully charged condition") is moved from Action B to Action C. Action B would have allowed an additional 24 hours to restore, while Action C imposes the more appropriate actions for unit shutdown.
240	16B.03.08.01; Required Action A.2	Completion Time revised from "12" hours to "24" hours in accordance with NUREG-1434 Bases Reviewer's Note; consistent with the ESBWR battery charger design to fully recharge a discharged battery in 24 hours.
241	16B.03.08.01; Required Action A.2	Replaced "float current $\leq$ {2} amps" with "returned to fully charged condition." Bases include details (with DCD Open Items) reflecting optional means to establish when a battery has been returned to full charge condition. DCD Open Items included pending further supporting information from the battery manufacturer to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
242	16B.03.08.01; SR 3.8.1.1	Surveillance Frequency is revised from "7 days" to "31 days" consistent with IEEE-1188.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
243	16B.03.08.01; SR 3.8.1.1	The requirement to monitor battery float voltage is revised to include appropriate acceptance criteria for "temperature-compensated float voltage" consistent with revised reference to IEEE-1188. DCD Open Items also included pending further supporting information from the battery manufacturer to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
244	16B.03.08.01; SR 3.8.1.2	Bases include details (with DCD Open Items) reflecting optional means to establish when a battery has been returned to full charge condition. DCD Open Items included pending further supporting information from the battery manufacturer to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
245	16B.03.08.01; SR 3.8.1.3	The Note allowing a modified performance discharge test to be performed in lieu of a battery service test has been bracketed as a DCD Open Item pending further supporting information from the battery manufacturer.
246	16B.03.08.02; Applicability	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
247	16B.03.08.02; Applicable Safety Analyses	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
248	16B.03.08.02; Applicable Safety Analyses	Brackets regarding reference to Chapter 6 are deleted.
249	16B.03.08.02; Applicable Safety Analyses	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
250	16B.03.08.02; LCO	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
251	16B.03.08.02; References	Brackets regarding reference to Chapter 6 are deleted.
252	16B.03.08.02; Required Action A.2.2	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
253	16B.03.08.03, Background	Added DCD Open Item brackets pending further supporting information from the battery manufacturer.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
254	16B.03.08.03, Background	Included temperature basis for the minimum established float voltage (which remains a DCD Open Item pending further supporting information from the battery manufacturer; however bracket values revised to reflect appropriate manufacturer values).
255	16B.03.08.03, Background	Reference to IEEE-450 is replaced with IEEE-1188, 2005, to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
256	16B.03.08.03, References	Reference to IEEE-450 is replaced with IEEE-1188, 2005, to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
257	16B.03.08.03, References	Revised reference to IEEE-485 for consistency with DCD, Revision 3.
258	16B.03.08.03; Action A	Minimum open circuit cell voltage is revised from "2.07" to "2.14" and retained as a DCD Open Item pending further supporting information from the battery manufacturer to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
259	16B.03.08.03; Action B	Minimum open circuit cell voltage is revised from "2.07" to "2.14" and retained as a DCD Open Item pending further supporting information from the battery manufacturer to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
260	16B.03.08.03; Action C	Action C concerning battery electrolyte level is deleted. Conditions related to battery monitoring are revised from being applicable to vented lead-acid batteries to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
261	16B.03.08.03; Action C	New Action C is proposed to address battery charger voltage greater than the maximum established temperature-compensated design limit. Conditions related to battery monitoring are revised from being applicable to vented lead-acid batteries to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
262	16B.03.08.03; Action D	Requirements for pilot cell temperature below minimum established design limits is replaced with requirements for battery temperature above maximum established design limit. The specific temperature measurement location is a DCD Open Item (i.e., "{room}"). Conditions related to battery monitoring are revised from being applicable to vented lead-acid batteries to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries. This change provides a portion of the response to RAI 16.2-87.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
263	16B.03.08.03; Action F	Minimum open circuit cell voltage is revised from "2.07" to "2.14" and retained as a DCD Open Item pending further supporting information from the battery manufacturer to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
264	16B.03.08.03; Action B.2	Revise Completion Time from 12 hours to 24 hours for consistency with LCO 3.8.1, Required Action A.2. This is also consistent with NUREG-1434 Reviewer's Note in the Bases for LCO 3.8.6, Action B for chargers with a 24-hour recharge design basis.
265	16B.03.08.03; Applicable Safety Analyses	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
266	16B.03.08.03; SR 3.8.3.1	Revised Frequency of verification of battery float current from "7" days to "31" days, and reference to be consistent with IEEE-1188 (and manufacturer recommendations) to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
267	16B.03.08.03; SR 3.8.3.2 & SR 3.8.3.5	Added selection criterion for pilot cell, consistent with manufacturer recommendations (with DCD Open Items pending further supporting information from the battery manufacturer). This change provides a portion of the response to RAI 16.2-87, and the response for RAI 16.2-86.
268	16B.03.08.03; SR 3.8.3.2 & SR 3.8.3.5	Included temperature basis for the minimum established float voltage, and revised minimum open circuit cell voltage is revised from "2.07" to "2.14" (which remain DCD Open Items pending further supporting information from the battery manufacturer; however bracket values revised to reflect appropriate manufacturer values).
269	16B.03.08.03; SR 3.8.3.3	New SR 3.8.3.3 is proposed to address battery charger voltage is less or equal to the maximum established temperature-compensated design limit. Conditions related to battery monitoring are revised from being applicable to vented lead-acid batteries to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
270	16B.03.08.03; SR 3.8.3.3	Surveillance concerning battery electrolyte level is deleted. Conditions related to battery monitoring are revised from being applicable to vented lead-acid batteries to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.

Item	Location	Description of Change
271	16B.03.08.03; SR 3.8.3.4	Requirements to monitor battery cell temperature to be greater than the minimum established design limits is replaced with requirements to monitor battery temperature to be less than or equal to the maximum established design limit. The specific temperature measurement location is a DCD Open Item (i.e., "{room}"). Conditions related to battery monitoring are revised from being applicable to vented lead-acid batteries to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries.
272	16B.03.08.03; SR 3.8.3.6	Battery performance discharge test Frequency is revised from being applicable to vented lead-acid batteries to reflect the revised design incorporating valve-regulated lead-acid (VRLA) batteries as specified in IEEE-1188. Provision for a "modified performance discharge test" has been bracketed as a DCD Open Item pending further supporting information from the battery manufacturer.
273	16B.03.08.04, Background	"Class 1E" is changed to "safety-related" for consistency with changes incorporated in DCD, Revision 3.
274	16B.03.08.04, Background	"Essential" is changed to "safety-related" concurrent with changing "E-DCIS" to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
275	16B.03.08.04, Background	"non-safety" is changed to "nonsafety" (delete hyphen) for consistency with changes incorporated in DCD, Revision 3.
276	16B.03.08.04, Background	Clarification of role of Inverter static bypass switch is added: "however this feature is not a credited safety function that is required for OPERABILITY of either the inverter or distribution system."
277	16B.03.08.04; Applicable Safety Analyses	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
278	16B.03.08.04; SR 3.8.4.1	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
279	16B.03.08.05; Applicability	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
280	16B.03.08.05; Applicable Safety Analyses	"Essential" is changed to "safety-related" concurrent with changing "E-DCIS" to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
281	16B.03.08.05; Applicable Safety Analyses	Brackets regarding reference to Chapter 6 are deleted.
282	16B.03.08.05; Applicable Safety Analyses	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
283	16B.03.08.05; LCO	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
284	16B.03.08.05; References	Brackets regarding reference to Chapter 6 are deleted.
285	16B.03.08.05; Required Action A.2.2	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
286	16B.03.08.05; SR 3.8.5.1	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
287	16B.03.08.06, Background	Clarification of role of Inverter static bypass switch is added: "however this feature is not a credited safety function that is required for OPERABILITY of either the inverter or distribution system."
288	16B.03.08.06; Applicable Safety Analyses	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
289	16B.03.08.06; Background	"Essential" is changed to "safety-related" concurrent with changing "E-DCIS" to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
290	16B.03.08.06; Required Action B.1	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
291	16B.03.08.06; Required Action C.1	"or" changed to "and" to match the Specification and additional clarification added: "(i.e., any combination)"
292	16B.03.08.06; SR 3.8.6.1	"E-DCIS" revised to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.
293	16B.03.08.07; Applicability	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
294	16B.03.08.07; Applicable Safety Analyses	"Essential" is changed to "safety-related" concurrent with changing "E-DCIS" to "Q-DCIS" for consistency with changes incorporated in DCD, Revision 3.

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>
295	16B.03.08.07; Applicable Safety Analyses	Brackets regarding reference to Chapter 6 are deleted.
296	16B.03.08.07; Applicable Safety Analyses	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
297	16B.03.08.07; LCO	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
298	16B.03.08.07; References	Brackets regarding reference to Chapter 6 are deleted.
299	16B.03.08.07; Required Action A.2.2	The requirements for safety-related electrical power to support active credited functions during handling irradiated fuel are deleted. This issue is added to 16.0, Introduction, as a DCD Open Item.
300	16B.03.09.07 Applicable Safety Analyses	Deleted the phrase 'to be' in the second sentence as an editorial change.
301	16B.03.10.01 Actions	Deleted Required Action A.1 and Note per commitment in response to RAI 16.2-65, Supplement 1.
302	16B.03.10.01 Background	Revised Background statement to specify scram testing is done > 7.481 MPaG (1085 psig) and removed brackets. Consistent with Table 3.1.4-1 in LCO 3.1.4.