

## DCD 26A6642AT Rev 00 to Rev 01 - Change List

Tier 2 DCD (Design Control Document) for ESBWR certification  
 Change List for Chapter 6 from Rev 00 to Rev 01  
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### **General:**

The following table provides a list of all changes from Revision 0 incorporated into Revision 1 of document number 26A6642AT of ESBWR Design Control Document (DCD) for Tier 2 certification. Revision 0 of 26A6642AT was submitted to NRC as a deferred verification of the ESBWR Design Control Document (DCD) and can be found in eCM and eDRF 0000-0040-5151. This change list is consistent with instructions and Table 5.1 of DCD Writers Guide

<b>Item</b>	<b>Location</b>	<b>Description of Change</b>	<b>Reason For Change</b>
1	General – Header of all pages	Replaced “26A6642AT Rev. 00 “ to “26A6642AT Rev. 01	Header change from Rev 0 to Rev 1.
2	Global Abbreviations and Acronyms List	Changed “CS&TS” to “CS” and changed the corresponding definition from “Condensate Storage and Transfer System” to “Containment System”	Incorporate response to red team comment # 151
3	S6, 3 <sup>rd</sup> sentence	Deleted “and major features”	Incorporate response to red team comment # 34 (Editorial)
4	S6, item (1) at two places	The words 'containment and fission product removal systems' will be replaced with 'fission product containment and containment cooling systems'	There is no fission product removal system in ESBWR.
5	T6.1-1 for ICS Condenser Header	Changed material from SB-566 to SB-564	Correction
	T6.1-1 for ICS Condensate Piping	Added Gr TP304L for stainless steel	
6	T6.1-1 for SLC Accumulator	Added “Stainless Steel Cladding” after “Low Alloy Steel”	Correction
7	T6.1-1 for SLC Piping	Deleted SA-376 and SA-358 materials	Correction
8	S6.2.1.1.2, under heading “Drywell”, 6 <sup>th</sup> para, 5 <sup>th</sup> sentence	Added “and allows the flow of gas from WW to DW” after the words “when the vacuum breaker opens”	Incorporate response to red team comment # 129

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9	S6.2.1.1.2	Transferred the sentence on <u>vacuum breaker structural shielding from pool swell loads</u> from section 6.2.8.2 to section 6.2.1.1.2.	To conform with Writers Guide
10	S6.2.1.1.10.2, Item (6)	Corrected title and text by deleting references to a MCOP subsystem.	Clarification
11	S6.2.1.1.10.2, Item (10)	Modified to address that the GDCS is vented to the drywell and not the wetwell.	Correction
12	S6.2.2.1, under heading "Performance Requirements", 2 <sup>nd</sup> bullet	Added a missing "(" after "214°F".	Editorial
13	S6.2.4.1 under "Design Requirements", 2 <sup>nd</sup> last para, last sentence	Replaced 6.2-43 with 6.2-42	Editorial
14	S6.2.4.2, 1 <sup>st</sup> para, 3 <sup>rd</sup> sentence	Replaced 6.2-45 with 6.2-42	Editorial
15	S6.2.4.2, last para, last sentence	Replaced 6.2-45 with 6.2-42	Editorial
16	S6.2.4.3.1.2, under "Reactor Water Cleanup System", 1 <sup>st</sup> para	Revised entire paragraph	Correction
17	S6.2.4.3.2.1, 1 <sup>st</sup> sentence	Replaced "Table 6.2-44" with "Table 6.2-33 through 6.2-42"	Editorial
18	S6.2.4.3.2.1, under "Fuel and Auxiliary Pool Cooling System", last para,	Replaced "9.1.3.1.2" with "9.1.3.3"	Editorial
19	S6.2.4.3.2.1	Add paragraph on Passive Containment Cooling System	Response to Red Team Comment # 226
20	S6.2.4.3.2.2, 1 <sup>st</sup>	Replaced "Table 6.2-45" with "Table 6.2-33 through	Editorial

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Item	Location	Description of Change	Reason For Change
	sentence	6.2-42"	
21	S6.2.4.3.2.2, under "Fuel and Auxiliary Pool Cooling System", last para,	Replaced "9.1.3.1.2" with "9.1.3.3"	Editorial
22	S6.2.4.3.2.2	Deleted entire paragraph on Post Accident Sampling System.	Correction. ESBWR does not have a Post Accident Sampling System
23	S6.2.4.3.2.2	Add paragraph on Passive Containment Cooling System	Response to Red Team Comment # 226
24	S6.2.5.2, 6 <sup>th</sup> para, 1 <sup>st</sup> sentence	Changed 3% to 4%	Correction
25	S6.2.5.2, 6 <sup>th</sup> para, 2 <sup>nd</sup> sentence	Changed 3% to 4%	Correction
26	S6.2.6, 1 <sup>st</sup> sentence	Added "10 CFR 50" before "Appendix J"	Incorporate response to red team comment # 108 (Clarification)
27	T6.2-14	Item 3, change "MOV" to "AOV" and under abbreviations change "ADV" to "AOV"	Editorial
28	T6.2-15	Corrected Title by changing "6.2-43" to "6.2-42".	Editorial
29	T6.2-23	Relocated "Valve No" row as the first row of the Table for consistency with other Tables.	Editorial
30	T6.2-24	Relocated "Valve No" row as the first row of the Table for consistency with other Ts.	Editorial
31	T6.2-24	Added footnote # 4 to the penetration containing valves F013A and F014A.	Information was missed in the verified version of Rev 0
32	T6.2-25	Corrected valve numbers suffix from "A" to "B".	Editorial
33	T6.2-26	Relocated "Valve No" row as the first row of the	Editorial

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		Table for consistency with other Tables. Added footnotes 10 and 11	
34	T6.2-27	Relocated "Valve No" row as the first row of the Table for consistency with other Tables. Added footnote 13.	Editoterial
35	T6.2-28	Relocated "Valve No" row as the first row of the Table for consistency with other Tables. Added footnote 16 and 17.	Editoterial
36	T6.2-29	Added footnote 19	Information was missed in the verified version of Rev 0
37	T6.2-30	Relocated "Valve No" row as the first row of the Table for consistency with other Tables. Added footnote 22 and 23.	Editoterial
38	T6.2-31	Changed all "300 mm" to "250 mm" for line size. Added a footnote for Closure Time	Correction
39	T6.2-31a	Added new Table for containment isolation information for valves F038A, B and F039A, B.	Information was missing in Rev 0
40	T6.2-32	Split the table for the 2 penetrations and corrected the valve numbers.	Consistancy with other Tables.
41	T6.2-34	Corrected the spelling for word "occasionally" in footnote # 28.	Editorial
42	T6.2-36	Entered information for a penetration for valves F012 and F011 that was missed in Rev 0 version.	Information was missed in the verified version of Rev 0
43	T6.2-37	Corrected Valve No. F006 to F008. Added footnote 33.	Editorial.
44	T6.2-37	Entered information for Valve F007 that is included in	Correction

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Item	Location	Description of Change	Reason For Change
		this penetration.	
45	T6.2-38	Corrected line size for valve F008 as 500 mm and for F009 as 350 mm. Added footnote 34.	Correction
46	T6.2-39	The information contained in the table is deleted and replaced with "COL applicant to provide".	Backup document for Chilled Water System is not available
47	T6.2-43, -44 and -45	Deleted the Tables. Added the words "(Not used)"	These tables numbers are not used in text.
48	S6.3.1.2, under Isolation Condenser System, last sentence	Replaced "section 5.4.5" with "Subsection 5.4.6".	Error correction
49	S6.3.2	Replaced "6.3.2.8" with "6.3.2.10"	Editorial
50	T6.3-2, 8 <sup>th</sup> row	Replaced "1541 m/sec" with "154 lb/sec"	Typographical
51	T6.3-2, 7 <sup>th</sup> row	Corrected units of 22.7 term from "m <sup>3</sup> /sec" to "m <sup>3</sup> /hr"	Editorial
52	S6.3.2.8.2, under "System Operation"	Revised first sentence to: "The ADS automatically actuates in response to the ECCS initiation signals in Table 6.3-1."	Resolution to Red team Comment # 223
53	S6.3.2.8.2, under "System Operation"	Revised second sentence to: "A two-out-of-four Level initiation logic is used to activate the SRVs and DPVs."	Resolution to Red team Comment # 223
54	S6.3.2.8.2, under "System Operation"	Revised third sentence to: "The 10-second persistence requirement for the Level initiation signal ensures that momentary system perturbations do not actuate ADS when it is not required."	Resolution to Red team Comment # 223
55	S6.1.3.1	Replaced "applicant" with "Holder, replaced "shall" with "will", bulletized items, added reference section number in	To conform with Writer's Guide.

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Item	Location	Description of Change	Reason For Change
		the first bullet item.	
56	S6.2.8.2	Replcaed “applicant/licensee” with “Holder”, replaced “shall with “will”, added reference section number, deleted the last sentence and added the same in section 6.2.1.1.2.	To conform with Writer’s Guide.
57	S6.3.6	Changed title to “COL Information”,	For consistency with other sections on COL information
58	S6.3.6.1	Replaced “licensee” with “Holder”, added the reference section number.	To conform with Writer’s Guide.
59	S6.3.6.2	Replaced “licensee” with “Holder”.	To conform with Writer’s Guide.
60	S6.3.6.3	Replaced “licensee” with “Holder”, added the reference section number.	To conform with Writer’s Guide.
61	S6.4.9	Replaced “applicant” with “Applicant”, revised to indicate the reference section.	To conform with Writer’s Guide.
62	S6.6.10	Revised title to “Plant Specific PSI/ISI Program Information”, replaced “Applicants” with “Holder”, defined the abbreviations PSI and ISI, corrected the first sentence of the first bullet.	Corrected the title heading, and conform with Writer’s Guide.
63	S6.6.11	Added COL Information section as per Writers Guide	COL information was missing.
64	S6.6.12	Renumber section 6.6.11 to 6.6.12.	Editorial.
65	T6.2-20 through T6.2-38,	Revised the Penetration Identification Number in each of these tables.	Penetration identification are provided in eDRF section 0000-0049-4438
66	T6.2-16, T6.2-17, T6.2-18 and T6.2-19	Added the Penetration Identification Number	Penetration identification are provided in eDRF

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			section 0000-0049-4438
67	T6.2-16 through T6.2-38	Added information for the following parameters: Tier 2 Figure #, ESF (Yes or No), Type C Leakage Test, Length of Pipe from Cont to the Outboard Isolation valve	This information is required by RG 1.70 to be included in the contents of these Tables.
68	S6.2.8.1 through S6.2.8.3 first line in each	Revised “COL Licensee” to “COL Holder”	To conform with Writer’s Guide.
69	S6.2.1.1.2, under heading “Drywell”, in first paragraph,	Replace “RPV support skirt” with “RPV Support structure”	Error correction
70	S6.2.1.1.2, under heading “Drywell”, in second paragraph, second sentence	Modify to read: “The RPV support structure separates the lower DW from the upper DW.”	Error correction
71	S6.2.1.1.2, under heading “Drywell”, in fifth paragraph	Modify first sentence and add second sentence to read “Vacuum breakers are provided between the DW and WW. The vacuum breaker is self-actuating valve, similar to a check valve.”	Response to Tech Spec Team Comment # 35.
72	S6.2.1.1.2, under heading “Drywell”, in fifth paragraph	Modify last two sentences to read as follows: “Redundant vacuum breaker systems are provided to protect against a single failure of vacuum breaker, i.e., failure to open or failure to close when required. The design DW-to-WW pressure difference and the vacuum breaker full open differential pressure is given in Table 6.2-1.”	Response to Tech Spec Team Comment # 39
73	S6.2.1.1.2, under heading “Wetwell” and Figure 6.2-4.	Added after second paragraph, added 2 paragraphs on the spillover function of the containment and revised Fig 6.2-4 to include the spillover valve.	Required by severe accident analysis and containment loads group. See item # 137.
74	S6.2.3, third bullet	Correct “GCD” to “GDC”	Editorial

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75	S6.2.4, second paragraph	Add the following sentence before the last sentence: “Regulatory Guide 1.141 and ANS 56.2 are used as guidance documents for the design of containment isolation provisions for fluid systems.”	The RG and ANS standards are used for the design of containment isolation provisions for fluid systems.
76	S6.2.4.4, second paragraph	Delete second sentence	Response to Tech Spec Team comment # 53.
77	S6.2.6, first paragraph	Modify first sentence and add the second sentence as follows: This subsection describes the testing program for determining the containment integrated leakage rate (Type A tests), containment penetration leakage rates (Type B tests), and containment isolation valve leakage rates (Type C tests) that complies with 10 CFR 50 Appendix J, Option A or Option B as per Regulatory Guide 1.163, and GDC 52, 53 and 54. The leakage rate testing capability is consistent with the testing requirements of ANS-56.8.	Response to Tech Spec Team Comment # 54 and Red Team Comment # 159 and an informal RAI 6.2.4-1
78	S6.2.6.3, fourth paragraph	Delete last sentence which reads: “The testing media used for testing containment isolation valves is identified in Section 6.2.4.”	The information is not presently available in Section 6.2.4.
79	S6.2.8.4	Added new subsection to describe COL applicant information required in Tables 6.2-16 through 6.2-42 and Table 6.2-47	Conform with Writer’s Guide.
80	T6.2-1	Add the following:  Vacuum Breakers Between Drywell and Wetwell-Three (3)	Design information missing from DCD. This information is also required for Tech spec

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		Vacuum Breaker Opening Differential Pressure (Wetwell Pressure minus Drywell Pressure)- 3.45 kPa [0.5 psi]	basis. Response to Tech Spec Team comment #s 37 and 39
81	T6.2-1, Under Containment Leak Rates	Revise second column to read: 0.5% of Weight of Containment Free Volume per 24 hours at Pressure 310 kPa(g) [45 psig] and Standard Temperature 20°C (68°F)	Correction
82	T6.2-16 through T6.2-19	Revise “Closure Time (sec)” for valves F001A through D and F002A through D to “3.0-5.0”.	Response to Tech Spec Team Comment # 41.
83	T6.2-39	Deleted information in this Table and added “COL applicant to provide”	Valve information is not available.
84	S6.2.1.1.10.2, under heading “(1) Isolation Condenser System (ICS)”	Modify first sentence to read: “The Isolation Condensers (ICs) supports both reactor water level and pressure control and are the first defense against a SA.”	Change made by Severe Accident Group
85	S6.2.1.1.10.2, under heading “(1) Isolation Condenser System (ICS)”, first paragraph	Delete “Level 1” from the fifth sentence. Correct spelling of word “noncondensable” in sixth sentence.	Change made by Severe Accident Group
86	S6.2.1.1.10.2, under heading “(1) Isolation Condenser System (ICS)”, second paragraph	Revise to read as follows: The RPV depressurizes in the event of a break in the primary system or after ADS actuation. Furthermore, the ESBWR design does not require the operation of the ICs to prevent containment pressurization and containment pressure control function is served by the Passive Containment Cooling System (PCCS).	Change made by Severe Accident Group
87	S6.2.1.1.10.2, under heading “(2) Automatic	Change in title “Depression” to “Depressurization” In second sentence revise “high-pressure melt ejection” to “	Editorial

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	Depressurization System”, second paragraph	High-Pressure Melt Ejection”.	
88	S6.2.1.1.10.2, under heading “(3) Compact Containment Design”,	Revise last three sentences to read: “The major portion of this relocation is to remove non-safety items from the Seismic Class 1 structure and to place them in other structures that are classified as Non-Seismic. Along with other system design simplifications and the above described relocation of non-safety items, a compact containment design is achieved with the characteristic of having a minimum number of penetrations. This reduces the leakage potential from the containment.”	Change made by Severe Accident Group
89	S6.2.1.1.10.2, item 6	Revise title to “Manual Containment Overpressure Protection Subsystem (MCOPS)”	Editorial
90	S6.2.1.1.10.2, under heading “(7) Deluge Line Flooder System” first paragraph,	Replace the word “three” to “multiple” in the second from last sentence.	Change made by Severe Accident Group
91	S6.2.1.1.10.2, under heading “(7) Deluge Line Flooder System” second paragraph,	Delete word “two” in first sentence. In second sentence, define the abbreviation BiMAC as “Basemat-Internal Melt Arrest and Coolability”	Change made by Severe Accident Group
92	S6.2.1.1.10.2, under heading “(9) Suppression Pool and Airspace”, first paragraph	Correct spelling of word noncondensibe in second from last sentence.	Error corrections
93	S6.2.1.1.10.2, item 10	Revise title to “GDSCS Configuration”	Editorial

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94	T6.2-9	In tenth row, first column, revise to read “GDCS Configuration”. In same row, third column, revise to read “Increases drywell airspace volume to handle non-condensable gas release in SA.”	Correction.
95	F6.2-15	DPV, SRV and GDCS deluge line squib valve are shown closed,	Change made by Severe Accident Group
96	S6.2.5.4.1, second paragraph	Change “which” to “that” in the first sentence	Editorial
97	S6.2.5.4.1 third paragraph	Revise second to last sentence to read: “For containment overpressure protection during severe accident conditions, only this line will be used.”	Change made by severe accident group.
98	Section 6.2.5, last paragraph	Add “as described in Section 6.2.5.5” at the end of last sentence.	
99	S6.3.2, last sentence,	“Change “Subsections 6.3.2.7 and” to “Subsections 6.3.2.7 through”.	Editorial
100	S6.3.2.1	Add third paragraph to read” “For equipment and component description detail, see individual system subsection 6.3.2.7 through 6.3.2.10.”	Editorial. Incorporate red team comment # 35.
101	T6.2-1, under heading “Upper and Lower Drywell”	Third row, first column, change to: “Internal minus External Differential Pressure”	Editorial
102	T 6.2-1, under heading “Upper and Lower Drywell”	Fourth row, first column, change to: “Drywell minus Wetwell Differential Pressure”	Editorial
103	S6.2.1.1.3, second	Fourth sentence change “loss-of-coolant” to “loss-of-	Correction

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	paragraph	coolant accident”  Add sentence “The confirmatory items in the Staff’s SER (Reference 6.2-1) concerning the TRACG computer code are addressed and provided in References 6.2-3 and 6.2-4.”	Revised by Performance Analysis group
104	S6.2.1.1.3, under heading “Containment Design Parameters”	Delete last sentence	Revised by Performance Analysis group
105	S6.2.1.1.3, under heading “Accident response Analysis”	Revise last sentence to read: “Results of these analyses show that an instantaneous guillotine rupture of a feedwater line with failure of one SRV produces the most limiting responses for the containment pressure evaluation.”	Revised by Performance Analysis group
106	S6.2.1.1.3.1, first paragraph	Add the following in the end: “The TRACG nodalization approach in this analysis is similar to that used in Reference 6.2-1. However, this nodalization includes some additional features and details. Some of these features are implemented to address the confirmatory items listed in the Safety Evaluation Report of Reference 6.2-1. Other features are implemented due to design changes. Table 6.2-6a summarizes the list of these changes in the TRACG nodalization.”  Modify fourth sentence to read:  “The inner 4 rings in the first 21 axial levels represent the	Revised by Performance Analysis group

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		RPV; the outer 4 rings in these levels are not utilized in the calculations. “	
107	S6.2.1.1.3.2, first paragraph	In first sentence revise Table number to “Table 6.2-6”	Revised by Performance Analysis group
108	S6.2.1.1.5.2	Delete entire content of the paragraph and add “See Chapter 19 for discussion on Suppression Pool Bypass During Severe Accidents.”	This discussion will be included in Chapter 19
109	S6.2.1.3, under the bullet “Sources of Energy”	Delete “and metal water reaction energy.” At the end of first sentence”  Revise last sentence to read: “The requirements of paragraph I.B in Appendix K, concerning the prediction of fuel cladding swelling and rupture are not considered, to maximize the energy available for release from the core to the containment.”	Revised by Performance Analysis group
110	S6.2.1.3, under the bullet “Calculation”	Add: after last sentence: “The summary of this evaluation is discussed in Section 6.2.1.1.3.”	Revised by Performance Analysis group
111	T6.2-5 through T6.2-8	Revise in entirety	Revised by Performance Analysis group
112	T6.2-6a	Add new table	Added by Performance Analysis group
113	F6.2-6 through F6.2-14	Replace in its entirety	Revised by Performance Analysis group
114	S6.3.3.1	Replace last two sentences to read: “Minimum ECCS functional requirements are specified in Subsections 6.3.3.4 and 6.3.3.5, and testing requirements	Revised by Performance Analysis group

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		are discussed within Subsections 6.3.2 and 6.3.3.9. Limits on minimum suppression pool water level are discussed in Section 6.2.1.1.2 and Table 6.2-3.”	
115	S6.3.3.2, under Criterion 5	Modify last sentence to read: “The water level in the vessel above the core for 72 hours (refer to section 6.2.1.1.3).”	Revised by Performance Analysis group
116	S6.3.3.3, third paragraph,	Revise first sentence to read: “As shown in Table 6.3-6, the worst single failure following a LOCA is the failure of either 1 DPV (or 1 SRV) or 1 GDCS injection valve.”	Revised by Performance Analysis group
117	S6.3.3.4, third paragraph	Revise to read: “The ADS actuation logic includes a delay time to confirm the presence of a low water level (Level 1.5) initiation signal.”	Revised by Performance Analysis group
118	S6.3.3.4, fourth paragraph	Revise last sentence to read as: “The operational sequence of ECCS for the limiting case is shown in Table 6.3-8 (Bottom Drain Line Break with failure of one GDCS Injection Valve).”	Revised by Performance Analysis group
119	S6.3.3.4, fifth paragraph	Revise to read as: “Operator action is not required for 72 hours, except as a monitoring function, following any LOCA.”	Revised by Performance Analysis group
120	S6.3.3.7.1	Revise last sentence to read: “The significant input variables used for the response analysis are listed in Table 6.3-1.”  Add last sentence as: “Figures 6.2-6 to 6.2-8 show the	Revised by Performance Analysis group

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		TRACG nodalization of the RPV, the containment, and the steam line system. Refer to Section 6.2.1.1.3.1 for the discussion of the TRACG nodalization.”	
121	S6.3.3.7.2	Revise to read as: “The sequence of events for the 4 representative break locations are shown in Tables 6.3-7 through 6.3-10.”	Revised by Performance Analysis group
122	S6.3.3.7.3, second paragraph,	Revise to read as: “Conformance to the 10 CFR 50.46 acceptance criteria [PCT ≤ 1204°C (2200°F), local oxidation ≤ 17% and core-wide metal-water reaction ≤ 1%] is demonstrated for the fuel parameters listed in Table 6.3-1. Results for the limiting break for each bundle design in a plant will be supplied by the COL Holder (see Subsection 6.3.6). Details of calculations for specific breaks are included in subsequent paragraphs.”	Revised by Performance Analysis group
123	S6.3.3.7.5	Change word “values” to “valves”	Revised by Performance Analysis group
124	S6.3.3.7.6	Delete “RWCU/SDC line.”	Revised by Performance Analysis group
125	S6.3.3.7.7	Revise to read as: “This group of breaks is characterized by a rapid isolation of the break. Since for ESBWR the isolation condenser system is part of the ECCS network, once the break is isolated the isolation condensers, High Pressure Control Rod Drive flow and/or the ADS/GDCS systems will control the vessel pressure and level thereby	Revised by Performance Analysis group

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		terminating the transient.”	
126	S6.3.3.7.8, first paragraph,	Revise last sentence o readf as: “Thus the key LOCA result of minimum chimney static head above vessel zero is similar for all LOCA events (see Table 6.3-5) with the results for maximum bottom head drain line break with 1 GDCS valve or 1 SRV failure being slightly more limiting than the other LOCA cases.”	Revised by Performance Analysis group
127	S6.3.3.7.8, second paragraph,	Revise to read as: “The results of the limiting case for each bundle design will be provided by the COL Holder to the USNRC for information.”	Revised by Performance Analysis group
128	S6.3.3.7.9	Revise the four sentences following the first three sentences to read as follows: “This bounding LOCA result was calculated by varying all significant plant parameters in the conservative direction simultaneously. The limiting feedwater line break cases (refer to Subsection 6.3.3.7.4) and the bottom drain line break (the most limiting break location, refer to Table 6.3-5) were evaluated. The results of these calculation are given in Table 6.3-5. The bottom head drain line break with a GDCS injection valve failure result in the lowest minimum chimney static head level above vessel zero.	Revised by Performance Analysis group
129	S6.3.3.8	Revise the entire section to read as follows: “The ECCS-LOCA performance analyses are performed according to the key parameters listed in Table 6.3-11. Results of these analyses demonstrate the compliance with all the	Revised by Performance Analysis group

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Item	Location	Description of Change	Reason For Change
		applicable acceptance criteria. It is concluded that the ECCS would perform its function in an acceptable manner.”	
130	T6.3-1 and T6.3-4 through T6.3-11	Revise these tables in entirety.	Revised by Performance Analysis group
131	F6.3-6 through F6.3-39	Revise these figures in entirety	Revised by Performance Analysis group
132	S6.3, 8 <sup>th</sup> paragraph	Revised to read: “As discussed in Subsection 6.3.3, the loss-of-coolant-accident (LOCA) modeling code has been reviewed and approved by the NRC, and the ECCS performance analysis results demonstrate that the ECCS meets all of the 10 CFR 50.46 acceptance criteria.”	Editorial correction
133	S6.3.2.7.1, 3 <sup>rd</sup> paragraph	In second sentence, change “7.3.1.3” to “7.3.1.2”	Editorial correction
134	S6.3.2.7.1, 5 <sup>th</sup> paragraph	In second sentence remove the word “with”	Editorial correction
135	S6.3.2.7.2, under heading “Squib Valve”	Revise second sentence to read: “The valves also function in the close position to maintain RPV backflow leaktight and maintain reactor coolant pressure boundary during normal plant operation.”	Editorial correction
136	S6.2.4.2, 3 <sup>rd</sup> paragraph	Revise first sentence to read: “All motor-operated isolation valves (including pneumatic-motor-operated valves) remain in their last position upon failure of valve power. “	Clarification.
137	F6.2-4	Revised to show spillover valve on each spillover pipe	Technical change, see item # 73

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Item	Location	Description of Change	Reason For Change
138	S6.2.1.1.4, last paragraph,	Add the following sentences at the end: “This calculation assumes one available vacuum breaker with an area of 0.2 m <sup>2</sup> , which is conservative with respect to the planned installed vacuum breaker area. In order to prevent excessive negative pressure the drywell spray flow rate must be less than 227 m <sup>3</sup> /hr (1000 gpm) and should be confirmed by the COL Applicant”	Revised by Performance Analysis group
139	S6.2.8.5	Add new section.	COL information revised as per item 74.
140	S6.2-9, reference 6.2-1	Add reference to non-proprietary version NEDO-33083 also	Respond to comment from licensing group.
141	S6.3-7, reference 6.3-2	Add reference to non-proprietary version NEDO-33083 also	Respond to comment from licensing group.