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August 18, 2011

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

Subject: Duke Energy Carolinas, LLC (Duke Energy)  
William States Lee III Nuclear Station - Docket Nos. 52-018 and 52-019  
Update Roadmap for William States Lee III Nuclear Station Units 1 and 2  
Combined License Application  
Ltr# WLG2011.08-02

Reference: Letter from Ronald A. Jones (Duke Energy) to NRC Document Control  
Desk, *Update for William States Lee III Nuclear Station Units 1 and 2*  
*Combined License Application*, dated July 29, 2011

This letter provides information supporting the recent Duke Energy update of the application for a combined license for William States Lee III Nuclear Station Units 1 and 2. Enclosed is a "roadmap" of the changes included in the recent update provided as an enclosure to the referenced letter, along with an explanation of the information contained in the roadmap. The enclosed roadmap is provided as a convenience and is not part of the application for a combined license.

If you have any questions or need any additional information, please contact Peter Hastings, Nuclear Plant Development, Licensing Manager, at (980) 373-7820.

Ronald A. Jones  
Senior Vice President  
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DO93  
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Enclosure:

Lee Nuclear S-COLA Revision 4 Update Roadmap

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xc (w/out enclosure):

Loren Plisco, Deputy Regional Administrator, Region II

xc (w/ enclosure):

Brian Hughes, Senior Project Manager, DNRL

**Lee Nuclear S-COLA Update Roadmap Explanation (by column)**

QB Change ID# - unique identifier for tracking purposes

COLA Part A – identifies the affected COLA Part (Part 01 through Part 11)

COLA Chapter A – identifies the affected FSAR chapter (Part 2 only, FSAR 01 to 19)

Section/Page A – section and page number (if identified) specific to the document to be revised

Complete Change Description - a description of the change

Basis for Change – the source or reason for the change

**Attachment:**

Duke Energy WLS COLA Roadmap of Submittal 7 Update



**Attachment 1**

**Duke Energy WLS COLA Roadmap of Submittal 7 Update**

## NuStart's COLA Tracking Management (CTM) : COLA Changes | WLS COLA Roadmap of Submittal 7

AUG-15-2011 6:18 AM

## WLS COLA Roadmap of Submittal 7

Technology is not 'ESBWR' AND ...

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
<b>Pt 01</b>					<b>11 COLA Changes</b>	
10240	WLS	Pt 01		01.00	COLA Part 1, Section 1.0 (General Information), second paragraph is revised to reflect the reference to the Westinghouse AP1000 DCD with the current revision to read: "...Westinghouse Electric Corporation's application for amendment to portions of the AP1000 Design Control Document (DCD), Revision 19, submitted to the Nuclear Regulatory Commission (NRC) June 13, 2011..."	Westinghouse AP1000 DCD Revision 19
9576	WLS	Pt 01		01.01.03.01	COLA Part 1, Section 1.1.3.1, under the listing 'The business address, names and citizenship of the current directors of Duke Energy Carolinas, LLC' last line of table, first column is revised from: Turner, James L. To read: Manly, Marc E.	Duke Energy organizational update
9578	WLS	Pt 01		01.01.03.01	COLA Part 1, Section 1.1.3.1, under the listing of 'The business address, names, current titles and citizenship of the current executive officers and senior nuclear leadership of Duke Energy Carolinas, LLC, remove the following lines from the table: Dolan, Bryan J. Ruff, Ellen T. Turner, James L.  Revise the position for Jones, Ronald A. from Senior Vice President, Nuclear Operations to read Senior Vice President, Nuclear Development  Add a new line between Maltz and Manly to read: Manes, Gianna M. Senior Vice President and Chief Customer Officer US	Duke Energy organizational update
9939	WLS	Pt 01		01.01.03.01	COLA Part 1, Section 1.1.3.1, under the listing of 'The business address, names, current titles and citizenship of the current executive officers and senior nuclear leadership of Duke Energy Carolinas, LLC, the following 'Position' descriptions are revised as follows:  Manly, Marc E. is revised from: 'Group Executive and Chief Legal Officer'  To read: Manly, Marc E. 'Group Executive, President and Chief Legal Officer'.  Mohler, David W. is revised from: 'Vice President and Chief Technology Officer'  To read: 'Senior Vice President and Chief Technology Officer'	Duke Energy organizational update
9940	WLS	Pt 01		01.01.03.02	COLA Part 1, Section 1.1.3.2, the officer listing under 'The business address, names and citizenship of the current directors of Duke Energy Corporation' is revised as follows: Bernhardt, Sr., George Alexander is revised to read Bernhardt, Sr., G. Alexander. Rhodes, James Thomas is revised to read Rhodes, James T.	Duke Energy organizational update
9579	WLS	Pt 01		01.01.03.02	COLA Part 1, Section 1.1.3.2, the officer listing under 'The business address, names and citizenship of the current executive officers of Duke Energy Corporation' is revised as follows:	Duke Energy organizational update

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>First listing is revised from: De May, Stephen G. Senior Vice President, Investor Relations, and Treasurer US</p> <p>To read: Demay, Stephen G. Senior Vice President, Investor Relations and Treasurer US</p> <p>The listing for Turner, James L. is revised from: Turner, James L. Group Executive; President and Chief Operating Officer, U.S. Franchised Electric and Gas US</p> <p>To read: Weber, Jennifer L. Group Executive, Human Resources and Corporate Relations US</p>	
10159	WLS	Pt 01		01.01.04	<p>COLA Part 1, Section 1.1.4, second paragraph is revised from: This application also requests NRC approval for the necessary licenses issued under 10 CFR Parts 30, 40, and 70 to receive, possess, and use byproduct, source and special nuclear material as needed to construct and operate the utilization facility. Byproduct, source, and special nuclear material, without restriction to chemical or physical form, shall be in the form of sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment, calibration, and fission detectors in amounts as required, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components, and reactor fuel, in accordance with limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report (Part 2 of this application).</p> <p>To read: This application also requests NRC approval for the necessary licenses issued under 10 CFR Parts 30, 40, and 70 to receive, possess, and use byproduct, source and special nuclear material as needed to construct and operate the utilization facility. Special nuclear material shall be in the form of reactor fuel and spent fuel, in accordance with limitations for storage and amounts required for reactor operation, as described in Part 2 of this application. Byproduct, source, and special nuclear material shall be in the form of sealed neutron sources for reactor startup and sealed sources for reactor instrumentation, radiation monitoring equipment, calibration, and fission detectors in amounts as required. In preparation for the initial fuel loading, limitations on byproduct material and Part 40 specifically licensed source material will be as described in this application. Following the 52.103(g) finding, byproduct, source, and special nuclear material in amounts as required, without restriction to chemical or physical form, shall be for sample analysis, instrument and equipment calibration, or associated with radioactive apparatus or components.</p>	<p>Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-Materials 30-40 response to VEGP 12.02 VR1 item 1 SNC Ltr ND-11-0435</p>
10278	WLS	Pt 01		01.03.01	<p>COLA Part 1, Section 1.3.1, first paragraph, last sentence is revised from: The decommissioning cost estimate calculated in accordance with 10 CFR 50.75(c) and using NUREG-1307, Revision 13, is computed on a per-unit basis (in 2009 dollars) as described in this section.</p> <p>To read: The decommissioning cost estimate calculated in accordance with 10 CFR 50.75(c) and using NUREG-1307, Revision 14, is computed on a per-unit basis (in 2010 dollars) as described in this section.</p>	<p>Revision to NUREG-1307 and Duke Energy financial update</p>
9580	WLS	Pt 01		01.03.01	<p>COLA Part 1, Section 1.3.1, third paragraph to end of section is revised to read:</p> <p>The amount is adjusted for inflation to 2010 dollars using an overall adjustment factor equal to <math>0.65(L) + 0.13(E) + 0.22(B)</math>. The factors L and E are escalation factors for labor and energy, respectively, and are determined from regional data provided by the U.S. Bureau of Labor Statistics (BLS). The factor B is an escalation factor for waste burial and is taken from NRC report NUREG-1307, Report on Waste Burial Charges, Revision 14, which included an update to reflect 2010 dollars. The use of 2010 dollars throughout this subsection is consistent with the information provided in NUREG-1307.</p> <p>The escalation factor for labor costs, L, for the South Region is calculated as the Base Lx (from NUREG-1307) times the Employment Cost Index (ECI) (from BLS), divided by 100. For 2010, <math>L_x = (1.98 * 112.8)/100 = 2.2334</math>. The escalation factor for energy cost, E, is a weighted average of industrial electric power, Px and light fuel oil, Fx. The formula for this weighted average for a PWR is identified in NUREG-</p>	<p>Duke Energy financial update</p>

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>1307, Section 3.2, Energy Adjustment Factors, as <math>0.58P_x + 0.42F_x</math>.</p> <p>The values of <math>P_x</math> and <math>F_x</math> are calculated from the Producer Price Indexes (PPI) of industrial electric power and light fuel provided by BLS. The PPI values provided by BLS for industrial electric power are 191.3 for December 2010 and 114.2 for January 1986. The PPI values provided for light fuel oils are 252.10 for December 2010 and 82.0 for January 1986. The values of <math>P_x</math> and <math>F_x</math> are equal to the ratio of the December 2010 Producer Price Indexes to the corresponding indexes for January 1986 for industrial electric power and light fuel oils, respectively.</p> $E = 0.58(P_x) + 0.42(F_x)$ $= 0.58(191.3/114.2) + 0.42(252.10/82.0)$ $= 0.58(1.675) + 0.42(3.07)$ $= 2.263$ <p>The escalation factor for waste burial, B, for a member of the Atlantic Compact with a PWR using direct disposal by vendors at the South Carolina (Barnwell) Site is 12.280, as provided in Table 2.1 of NUREG-1307, Revision 14.</p> <p>The adjusted per-unit minimum decommissioning fund amount (MDF) required to demonstrate reasonable assurance of funds for the decommissioning of the Lee Nuclear Station is \$467 million (in 2010 dollars) per unit, as calculated below.</p> $MDF = \$105 \text{ million } [0.65(L) + 0.13(E) + 0.22(B)]$ $= \$105 \text{ million } [0.65(2.2334) + 0.13(2.263) + 0.22(12.280)]$ $= \$105 \text{ million } [4.4475]$ $= \$467 \text{ million (in 2010 dollars) per unit}$ <p>This cost estimate is updated annually using the adjustment factor described in 10 CFR 50.75(c)(2).</p>	
9581	WLS	Pt 01		01.03.02	COLA Part 1, Section 1.3.2, second paragraph, end of fourth sentence, replace September 14, 2009 to read March 30, 2011.	Duke Energy financial update
9582	WLS	Pt 01		01.06.01	<p>COLA Part 1, Section 1.6.1, first paragraph, second and third sentences are revised from: As of September 30, 2010, Duke Energy Corporation had a market capitalization of over \$23.3 billion and total assets of \$57.8 billion. Duke Energy Carolinas, LLC, on that same date, had book equity in excess of \$8.6 billion and total assets of over \$26 billion.</p> <p>To read: As of December 31, 2010, Duke Energy Corporation had a market capitalization of over \$23.7 billion and total assets of \$59.1 billion. Duke Energy Carolinas, LLC, on that same date, had book equity in excess of \$8.9 billion and total assets of over \$27 billion.</p> <p>Third paragraph, first sentence, revise September 30 to read December 31.</p>	Duke Energy financial update
<b>Pt 02</b>						<b>226 COLA Changes</b>
9549	WLS,STD	Pt 02	FSAR 01	01.01	<p>COLA Part 2, FSAR Chapter 1, Section 1.1, Introduction, is revised from: Throughout this FSAR, the "referenced DCD" is the AP1000 DCD submitted by Westinghouse as Revision 17 including any supplemental material as identified in Table 1.6-201.</p> <p>To read: Throughout this FSAR, the "referenced DCD" is the AP1000 DCD submitted by Westinghouse as Revision 18 including any supplemental material as identified in Table 1.6-201.</p>	SUPERSEDED by QB 10010 Editorial, Westinghouse AP1000 DCD Revision 18
10010	WLS,STD	Pt 02	FSAR 01	01.01	<p>COLA Part 2, FSAR Chapter 1, Section 1.1, Introduction, first paragraph, second sentence is revised from: Throughout this FSAR, the "referenced DCD" is the AP1000 DCD submitted by Westinghouse as Revision 18</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9548	WLS,STD	Pt 02	FSAR 01	01.01	<p>including any supplemental material as identified in Table 1.6-201.</p> <p>To read: Throughout this FSAR, the "referenced DCD" is the AP1000 DCD submitted by Westinghouse as Revision 19 including any supplemental material as identified in Table 1.6-201.</p> <p>COLA Part 2, FSAR Chapter 1, Section 1.1, Introduction, is revised from:</p> <p>Unless otherwise specified, reference to the DCD refers to Tier 2 information.</p> <p>To read:</p> <p>Unless otherwise specified, reference to the DCD refers to Tier 2 information and includes the sensitive unclassified non-safeguards information (including proprietary information), and safeguards information referenced in the AP1000 DCD. Such DCD information is included in this combined license application in the same manner as it is included in the AP1000 DCD, i.e., references in the DCD are included as references in the FSAR, and material incorporated by reference into the DCD is incorporated by reference into the FSAR. Appropriate agreements are in place to provide access to the withheld sensitive unclassified non-safeguards information (including proprietary information), and safeguards information referenced in the AP1000 DCD.</p>	<p>This change SUPERSEDES QB 9549</p> <p>SUPERSEDED by QB 9966 Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-VOL-CH01 IBR of PI &amp; SGI response item 1 SNC Ltr ND-10-2207</p>
9966	WLS,STD	Pt 02	FSAR 01	01.01	<p>COLA Part 2 (Revision 4), FSAR Chapter 1, Section 1.1, Introduction, first paragraph, third sentence is revised from:</p> <p>Unless otherwise specified, reference to the DCD refers to Tier 2 information and includes the sensitive unclassified non-safeguards information (including proprietary information), and safeguards information referenced in the AP1000 DCD. Such DCD information is included in this combined license application in the same manner as it is included in the AP1000 DCD, i.e., references in the DCD are included as references in the FSAR, and material incorporated by reference into the DCD is incorporated by reference into the FSAR. Appropriate agreements are in place to provide access to the withheld sensitive unclassified non-safeguards information (including proprietary information), and safeguards information referenced in the AP1000 DCD.</p> <p>To read:</p> <p>Unless otherwise specified, reference to the DCD refers to Tier 2 information, including references to the sensitive unclassified non-safeguards information (including proprietary information) and safeguards information, contained in the AP1000 DCD. Such DCD information is included in this combined license application in the same manner as it is included in the AP1000 DCD, i.e., references in the DCD are included as references in the FSAR, and material incorporated by reference into the DCD is incorporated by reference into the FSAR. Appropriate agreements are in place to provide for the licensee's rights to possession (including constructive possession) and use of the withheld sensitive unclassified non-safeguards information (including proprietary information) and safeguards information referenced in the AP1000 DCD for the life of the project.</p>	<p>Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH01 IBR of PI &amp; SGI item 1 SNC Ltr ND-11-0254 This change SUPERSEDES QB 9548.</p>
10011	WLS,STD	Pt 02	FSAR 01	01.01	<p>COLA Part 2, FSAR Chapter 1, Section 1.1, Introduction, is revised to include the following second paragraph under LMA STD SUP 1.1-1:</p> <p>Appendix D to 10 CFR Part 52 is hereby incorporated by reference into the COL application.</p>	Westinghouse AP1000 DCD Revision 19
9938	WLS	Pt 02	FSAR 01	01.02F / F1.2-201	COLA Part 2, FSAR Chapter 1, Section 1.2, Figure 1.2-201 is revised to incorporate DCD Rev 18 changes. This figure contains sensitive information and is included with Part 9.	Westinghouse AP1000 DCD Revision 18
10239	WLS,STD	Pt 02	FSAR 01	01.04.02.08.06	COLA Part 2, FSAR Chapter 1, Section 1.4.2.8.6 is revised to reflect the name change of PBS&J to Atkins. The name change is reflected on the subsection heading and the beginning of the first and second paragraphs.	Editorial
9550	WLS,STD	Pt 02	FSAR 01	01.06.T / T1.6-201	COLA Part 2, FSAR Chapter 1, Section 1.6, Table 1.6-201, is revised from: Westinghouse/APP-GW-GL-700	SUPERSEDED by QB 10012

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					AP1000 Design Control Document 17 All September 2008 ML083230868  To read: Westinghouse/APP-GW-GL-700 AP1000 Design Control Document 18 All December 2010 ML103480572	Westinghouse AP1000 DCD Revision 18
10012	WLS,STD	Pt 02	FSAR 01	01.06.T / T1.6-201	COLA Part 2, FSAR Chapter 1, Section 1.6, Table 1.6-201, is revised from: Westinghouse/APP-GW-GL-700 AP1000 Design Control Document 18 All December 2010 ML103480572  To read: Westinghouse/APP-GW-GL-700 AP1000 Design Control Document 19 All June 2011 ML11171A500	Westinghouse AP1000 DCD Revision 19 This change SUPERSEDES QB 9550
10242	WLS,STD	Pt 02	FSAR 01	01.06.T / T1.6-201	COLA Part 2, FSAR Chapter 1, Section 1.6, Table 1.6-201 is revised to add a new line item under STD SUP 1.6-1:  10CFR Part 52      Design Certification Rule      --      1.1      --      -- Appendix D      for the AP1000 Design	Westinghouse AP1000 DCD Revision 19
9529	WLS	Pt 02	FSAR 01	01.06.T / T1.6-201	COLA Part 2, FSAR Chapter 1, Table 1.6-201 is revised at the entry of QAPD to reflect latest revision and submittal date.	Editorial
7865	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 02.05-17	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202, is revised to add the following new line item for the "Waterproofing System" to read:  2.5-17   Waterproofing System      2.5.4.6.12      2.5.6.17      A	Duke Energy Concurrence with Standard Content, WLG2010.11-01 VEGP-VOL-CH02 re waterproofing in response to VEGP-COL- 02.05-017 item 1, SNC Ltr ND-10-1281
9530	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 03.06-01	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202, COL item 03.6-1 is revised to include the following new FSAR Section reference:  14.3.3.2	Editorial
9552	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 03.08-05	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202 is revised to add new COL item listing to read:  3.8-5   Structures Inspection Program      3.8.6.5      3.8.3.7      A	Duke Energy Concurrence with Standard Content

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					3.8.4.7 3.8.5.7 3.8.6.5 17.6	WLG2011.04-06 VEGP-VOL-CH03 SIP response to STD COL 03.08-005 item 1 SNC Ltr ND-10-1594
9553	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 03.08-06	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202 is revised to add new COL item listing to read:  3.8-6 Construction Procedures Program 3.8.6.6 3.8.6.6 H	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH03 Const Procedures response to STD-COL-03.08-006 item 1 SNC Ltr ND-10- 1900
7909	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 03.09-07	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202 is revised to include the following new item:  3.9-7 As-Designed Piping Analysis 3.9.8.7 3.9.8.7 H	Duke Energy Concurrence of Standard Content, WLG 2010.11-01 COL-SER-OI-CH03 S6 response to OI 03.06- 001 item 1 SNC Letter ND-10-0801
9531	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 03.09-07	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202, COL item 3.9-7 is revised to include the following new FSAR Section reference:  14.3.3.3	Editorial
9554	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 05.02-03	COLA Part 2, FSAR Chapter 1, Table 1.8-202 is revised to add a new COL information item to read:  5.2-3 Response to Unidentified Reactor Coolant System Leakage Inside Containment 5.2.6.3 5.2.6.3 A 5.2.5.3.5	Duke Energy Concurrence with Standard Content WLG2011.03-04 VEGP-RAI-LTR-060 in response to RAI 05.02.05-001 item 1 SNC Ltr ND-10-1423
9555	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 05.03-07	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202 is revised to add new COL item listing to read:  5.3-7 Quickloc Weld Build-up ISI 5.3.6.6 5.2.4.1 A 5.3.6.6	Duke Energy Concurrence with Standard Content WLG2011.03-03 VEGP-VOL-CH05 ISI response to STD COL 05.03-007 item 1 SNC Ltr ND-10-1656
9886	WLS	Pt 02	FSAR 01	01.08.T / T1.8-202 06.04-01	COLA Part 2, FSAR Chapter 1, Table 1.8-202 is revised at COL Item 6.4-1 under the FSAR Sections, add: 2.2.3.1.1.4 2.2.3.1.4	Westinghouse AP1000 DCD Revision 18
9532	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 07.01-01	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202 is revised to include the following new line item to address COL Information Item 7.1-1:  7.1-1 Setpoint Calculations for Protective Functions 7.1.6.1 7.1.6.1 B	Duke Energy Concurrence with Standard Content, WLG2010.11-01 DCD Rev 18; VEGP-VOL-CH07

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
						response to 07.01-001 item 1 SNC Ltr ND-10- 1118 VEGP-VOL-CH07 S1 response to 07.01-001 item 1 SNC Ltr ND-10- 1266
9533	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 07.05-01	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202 is revised to include the following new line item to address COL Information Item 7.5-1:  7.5-1 Post Accident Monitoring 7.5.5 7.5.2, A 7.5.3.5, 7.5.5	Duke Energy Concurrence with Standard Content, WLG2010.11-01 DCD Rev 18, VEGP-VOL-CH07 S1 item 1, SNC Ltr ND-10- 1266
9534	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 07.05-01	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202, COL item 7.5-1, FSAR Sections column is revised to remove inconsistent commas, from:  7.5.2, 7.5.3.5, 7.5.5  To read:  7.5.2 7.5.3.5 7.5.5	Editorial revision to Qb 7542 DCD Rev 18, VEGP-VOL-CH07 S1 item 1, SNC Ltr ND-10- 1266
9536	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 11.05-1, 2, 3	Revise COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202, items 11.5-1, 11.5-2, and 11.5-3 are revised to renumber each DCD and FSAR reference from:  11.5.7  To read:  11.5.8	Westinghouse AP1000 DCD Revision 18, Based on WEC letter DCP/NRC2492 dated 20090522
9537	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 13.06-01	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202, COL item 13.6-1 is revised to include the following new FSAR Section reference:  14.3.2.3.2	Editorial
7841	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 15.0-1	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202 is revised to include a new line item for COL item 15.0-1 as follows:  15.0-1 Documentation of Plant Calorimetric 15.0.15 15.0.15.1 H Uncertainty Methodology	Duke Energy Concurrence with Standard Content, WLG2010.11-01 Based on WEC letter DCP/NRC2461 dated 20090506 COL-SER-OI-Ch15 S1 response to OI 15.00- 01 item 1 SNC Ltr ND- 10-1018
9538	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 15.0-1	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202 is revised to switch the DCD and FSAR references for new line item for COL item 15.0-1 from:	Duke Energy Concurrence with



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change										
					15.0-1 Documentation of Plant Calorimetric Uncertainty Methodology 15.0.15 15.0.15.1 H  To read:  15.0-1 Documentation of Plant Calorimetric Uncertainty Methodology 15.0.15.1 15.0.15 H	Standard Content, WLG2011.04-06 VEGP Response t SER OIs for Chapter 15, ND-10-1527, Item 1.										
9539	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-202 15.0-1	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202, COL item 15.0-1 is revised to include the following new FSAR Section reference:  15.0.3.2	Editorial										
9556	WLS	Pt 02	FSAR 01	01.08.T / T1.8-202 18.02-02	COLA Part 2, FSAR Chapter 1, Table 1.8-202 is revised to add FSAR Subsection 9.5.2.2.3 to COL Item 18.2-2.	Westinghouse AP1000 DCD Revision 18										
9557	WLS	Pt 02	FSAR 01	01.08.T / T1.8-202 19.59.10-6	COLA Part 2, FSAR Chapter 1, Table 1.8-202 is revised to add new COL Item Number 19.59.10-6 as shown below:  19.59.10-6 Confirm that the Seismic Margin Assessment analysis is applicable to the COL site 19.59.10.5 19.55.6.3 19.59.10.5 A	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH19 PRA item 4 SNC Ltr ND-10-1811										
9540	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-203 07.04	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-203 is revised to include the following plant interface item:  <table><tr><th>Item No.</th><th>Interface</th><th>Interface Type</th><th>Matching Interface Item</th><th>Section or Subsection(1)</th></tr><tr><td>7.4</td><td>Post Accident Monitoring System</td><td>NNS</td><td>Combined License Applicant Coordination</td><td>7.5.5</td></tr></table>	Item No.	Interface	Interface Type	Matching Interface Item	Section or Subsection(1)	7.4	Post Accident Monitoring System	NNS	Combined License Applicant Coordination	7.5.5	Duke Energy Concurrence with Standard Content, WLG2010.11-01 DCD Rev 18, VEGP-VOL-CH07 S1 item 2, SNC Ltr ND-10-1266
Item No.	Interface	Interface Type	Matching Interface Item	Section or Subsection(1)												
7.4	Post Accident Monitoring System	NNS	Combined License Applicant Coordination	7.5.5												
9541	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-203 07.04	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-203, item 7.4, Matching Interface Item is revised from: Combined License Applicant Coordination  To read: Combined License applicant coordination	Westinghouse AP1000 DCD Revision 18, Editorial revision to VEGP-VOL-CH07 S1 item 2, SNC Ltr ND-10-1266										
9542	WLS,STD	Pt 02	FSAR 01	01.08.T / T1.8-203 11.04	COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-203, item 11.4, Section or Subsection column is revised from: 11.5.3 11.5.4 11.5.7  To Read: 11.5.3 11.5.4 11.5.8	Westinghouse AP1000 DCD Revision 18, Based on WEC letter DCP/NRC2492 dated 20090522										
9906	WLS	Pt 02	FSAR 01	01.09.01	COLA Part 2, FSAR Chapter 1, Subsection 1.9.1 is revised to add a left margin annotation WLS COL 1.9-1 at the second paragraph beginning with 'Division 4..'	Editorial to represent plant specific COL information.										

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9968	WLS,STD	Pt 02	FSAR 01	01.09.01	<p>The third paragraph beginning with 'Division 5...' is revised to add a left margin annotation STD COL 1.9-1 to resume the STD COL commitment from the first paragraph.</p> <p>COLA Part 2, FSAR Chapter 1, Section 1.9.1, third paragraph is revised from (retain the left margin annotation (LMA) of STD COL 1.9-1):</p> <p>Division 5 of the regulatory guides applies to the Physical Security Plan and the topics are addressed in the Physical Security Plan. Three Division 5 Regulatory Guides are addressed in Appendix 1AA.</p> <p>To read:</p> <p>Division 5 of the regulatory guides applies to materials and plant protection. As appropriate, the Division 5 regulatory guide topics are addressed in the DCD and plant-specific security plans (i.e., Physical Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Cyber Security Plan).</p>	<p>Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH01 Div 5 RGs in response to VEGP 01 VR2 item 1 SNC Ltr ND-11-0261</p>
9971	WLS,STD	Pt 02	FSAR 01	01.09.01.03	<p>COLA Part 2, FSAR Chapter 1, Section 1.9.1.3, Division 5 Regulatory Guides - Materials and Plant Protection is revised from (retain the LMA of STD COL 1.9-1):</p> <p>Division 5 of the regulatory guides applies to the Physical Security Plan and the topics addressed in the Physical Security Plan. Appendix 1AA provides an evaluation of the degree of compliance with Division 5 regulatory guides as applicable to the content of this FSAR, or to the site-specific design, construction and/or operational aspects. The revisions of the regulatory guides against which the plant is evaluated are indicated. Any exceptions or alternatives to the provisions of the regulatory guides are identified and justification is provided. One such general alternative is the use of previous revisions of the Regulatory Guide for design aspects as stated in the DCD in order to preserve the finality of the certified design (see Notes at the end of Appendix 1AA). The cross-referenced sections contain descriptive information applicable to the regulatory guide positions found in Appendix 1AA.</p> <p>To read:</p> <p>Division 5 of the regulatory guides applies to materials and plant protection. Appendix 1AA provides an evaluation of the degree of conformance with Division 5 regulatory guides as applicable to the content of the AP1000 DCD and the plant-specific Cyber Security Plan. The plant-specific physical security plans (i.e., Physical Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan) were developed using the template in NEI 03-12, Revision 6, "Template for the Security Plan, Training and Qualification Plan, Safeguards Contingency Plan [and Independent Spent Fuel Storage Installation Security Program]," which was endorsed for use by NRC letter dated April 9, 2009. The plant-specific physical security plans include no substantive deviations from the NRC-endorsed template in NEI 03-12, Revision 6. Therefore, the degree of conformance with Division 5 regulatory guides for the plant-specific physical security plans is consistent with the degree of conformance of NEI 03-12, Revision 6.</p>	<p>Duke Energy concurrence with Standard Content WLG2011.04-01 VEGP-VOL-CH01 Div 5 RGs in response to VEGP 01 VR2 item 4 SNC Ltr ND-11-0261</p>
9571	WLS,STD	Pt 02	FSAR 01	01.09.05.01.05	<p>COLA Part 2, FSAR Chapter 1, Subsection 1.9.5.1.5 is revised to add a left margin annotation WLS SUP 1.9-4 at the third sentence.</p>	<p>Editorial to represent plant specific supplemental information.</p>
9558	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 1.011	<p>COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-201, is revised to include Regulatory Guide 1.11 to read:</p> <p>1.11 Instrument Lines Penetrating the Primary Reactor Containment (Rev. 1, March 2010)</p> <p>DCD discussion only; See DCD Table 1.9-1</p>	<p>Westinghouse AP1000 DCD Revision 18</p>
9559	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 1.028	<p>COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-201, information for Regulatory Guide 1.28 is revised to add the following additional FSAR section reference:</p> <p>14.2.2.2</p>	<p>Duke Energy Concurrence with Standard Content WLG2011.02-02</p>

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
						VEGP-VOL-CH14 Qualification Req response item 1 SNC Ltr ND-10-2204
9543	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 1.052	COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-201 is revised to add new item for RG 1.52 to read:  1.52 Design, Inspection and Testing 16 (TS 3.7.6) Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants (Rev. 3, June 2001)	Westinghouse AP1000 DCD Revision 18, Based on WEC letter DCP/NRC2457 dated 20090504
9544	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 1.053	COLA Part 2, FSAR Chapter 1, Table 1.9-201, title for Regulatory Guide 1.53 is revised from: "Application of the Single-Failure Criterion to Nuclear Power Plant Protection Systems" To read: "Application of the Single-Failure Criterion to Safety Systems"	Editorial
9545	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 1.135	Revise COLA Part 2, Chapter 1, Section 1.9, Table 1.9-201, for Regulatory Guide 1.135, from a listing in the FSAR Chapter, Section, or Subsection column of:  Not referenced; see Appendix 1AA  To read: DCD discussion only; see DCD Table 1.9-1	RG is referenced in DCD but not in COLA
9560	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 1.160	COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-201, Regulatory Guide 1.160 is revised to add the following new FSAR Subsection references prior to the existing FSAR Section reference of 17.6 (NEI 07- 02A):  3.8.3.7 3.8.4.7 3.8.5.7	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-Ch03 SIP response to STD COL 03.08-005 item 2 SNC Ltr ND-10-1594
9625	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 1.197	COLA Part 2, FSAR Table 1.9-201 is revised at Regulatory Guide 1.197 to correct the date to May 2003.	Editorial
9561	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 1.199	COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-201, Regulatory Guide 1.199 is revised from:  Not referenced; See Appendix 1AA  To read: DCD discussion only; See DCD Table 1.9-1	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-Ch03 SIP response to STD COL 03.08-005 item 3 SNC Ltr ND-10-1594
9969	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 5.000	COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-201, Regulatory Guide/FSAR Section Cross-References is revised (retain the LMA of WLS COL 1.9-1) to omit specific entries for RG 5.9, 5.12, 5.65 and 5.71, and replace them with Note (b):  Division 5 Regulatory Guides Note (b)	Duke Energy concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH01 Div 5 RGs in response to VEGP 01 VR2 item 2 SNC Ltr ND-11-0261

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change												
9970	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-201 Notes	COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-201, Regulatory Guide/FSAR Section Cross-References is revised by adding Note (b) at the end of the table (where # is the next sequential note identifier), with an LMA of STD COL 1.9-1, as follows:  b. Division 5 of the regulatory guides applies to materials and plant protection. As appropriate, the Division 5 regulatory guide topics are addressed in the DCD and plant-specific security plans (i.e., Physical Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Cyber Security Plan).	Duke energy concurrency with Standard Content WLG2011.04-06 VEGP-VOL-CH01 Div 5 RGs in response to VEGP 01 VR2 item 3 SNC Ltr ND-11-0261												
8409	WLS	Pt 02	FSAR 01	01.09.T / T1.9-202	COLA Part 2, FSAR Table 1.9-202 is revised in format only to reduce blank space following entry 11.5. Change bars are not shown for this format change.	Editorial												
9562	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-204 B05-01	COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-204, Bulletin Number 05-01, Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities is revised from:  <table><tr><th>Number</th><th>Title</th><th>Comment</th></tr><tr><td>05-01</td><td>Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities</td><td>13.6</td></tr></table> To read:  <table><tr><th>Number</th><th>Title</th><th>Comment</th></tr><tr><td>05-01</td><td>Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities</td><td>13.5.2.2.9</td></tr></table>	Number	Title	Comment	05-01	Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities	13.6	Number	Title	Comment	05-01	Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities	13.5.2.2.9	Duke Energy Concurrency with Standard Content WLG2011.04-06 VEGP-RAI-LTR-064 response to RAI 01.05-003 item 1 SNC Ltr ND-10-2257
Number	Title	Comment																
05-01	Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities	13.6																
Number	Title	Comment																
05-01	Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities	13.5.2.2.9																
7844	WLS,STD	Pt 02	FSAR 01	01.09.T / T1.9-204 GL85-05	COLA Part 2, FSAR Chapter 1, Section 1.9, Table 1.9-204 is revised to restore the line item for Generic Letter 85-05 as follows:  <table><tr><td>85-05</td><td>Inadvertent Boron Dilution Events (1/85)</td><td>13.5</td></tr></table>	85-05	Inadvertent Boron Dilution Events (1/85)	13.5	Duke Energy Concurrency of Standard Content, WLG2010.11-01 COL-SER-OI-Ch15 response to OI 15.04-001 (SNC Ltr ND-10-0004)									
85-05	Inadvertent Boron Dilution Events (1/85)	13.5																
9563	WLS,STD	Pt 02	FSAR 01	01.10.02	COLA Part 2, FSAR Chapter 1, Subsection 1.10.2, last paragraph is revised from:  This assessment identified administrative and managerial controls to avoid impacts to SSCs from construction. The results of the assessment are presented in Table 1.10-202.  To read:  The initial assessment consisted of a review of individual SSCs and LCOs to determine whether an item is applicable, or may be eliminated due to either examination or being internal and specific to an operating unit. The assessment identified the SSCs that could reasonably be expected to be impacted by construction activities unless administrative and managerial controls are established. The results of the assessment are presented in Table 1.10-202. Periodic assessment during construction is addressed in Appendix 13AA, Subsection 13AA.1.1.1.1.8	Duke Energy Concurrency with Standard Content WLG2011.04-06 VEGP-RAI-LTR-063 response to RAI 01.05-002 item 1 SNC Ltr ND-10-2114												
9564	WLS,STD	Pt 02	FSAR 01	01.10.03	COLA Part 2, FSAR Chapter 1, Subsection 1.10.3, last paragraph is revised from:  The above discussed controls to eliminate or mitigate construction hazards that could potentially impact operating unit SSCs important to safety are in place when there is an operating nuclear unit on the site.	Duke Energy Concurrency with Standard Content WLG2011.04-06												

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					To read:  The above discussed controls to eliminate or mitigate construction hazards that could potentially impact operating unit SSCs important to safety are in place when there is an operating nuclear unit on the site. Additional controls may be established during construction as addressed in Appendix 13AA, Subsection 13AA.1.1.1.1.8.	VEGP-RAI-LTR-063 response to RAI 01.05-002 item 2 SNC Ltr ND-10-2114
9565	WLS,STD, Pt 02		FSAR 01	01.10.T / T1.10-201	COLA Part 2, FSAR Chapter 1, Subsection 1.10, Table 1.10-201 is revised from:  Equipment and Material Laydown, Storage, Warehousing      Releases of Stored Flammable, Hazardous or Toxic Materials  To read:  Equipment and Material Laydown, Storage, Warehousing      Releases of Flammable, Hazardous or Toxic Materials	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-063 response to RAI 01.05-002 item 5 SNC Ltr ND-10-2114 (Note that this change actually affects Table 1.10-201, not 202.)
9566	WLS,STD, Pt 02		FSAR 01	01.10.T / T1.10-202	COLA Part 2, FSAR Chapter 1, Subsection 1.10, Table 1.10-202 is revised to include the following new item:  Impact of Local Flooding      Safety-related structures, systems, and components (SSCs)	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-063 response to RAI 01.05-002 item 4 SNC Ltr ND-10-2114
9567	WLS,STD, Pt 02		FSAR 01	01.10.T / T1.10-203	COLA Part 2, FSAR Chapter 1, Subsection 1.10, Table 1.10-203 is revised to include the following new item:  Impact of Local Flooding      Site grading and drainage provisions consider potential flooding impacts from local intense precipitation	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-063 response to RAI 01.05-002 item 6 SNC Ltr ND-10-2114
9568	WLS,STD, Pt 02		FSAR 01	01.10.T / T1.10-203	COLA Part 2, FSAR Chapter 1, Subsection 1.10, Table 1.10-203 is revised to include the following new item:  Impact of Site Groundwater Dewatering      Administrative controls address groundwater level monitoring	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-063 response to RAI 01.05-002 item 7 SNC Ltr ND-10-2114
9569	WLS,STD, Pt 02		FSAR 01	01AA 1.011	COLA Part 2, FSAR Chapter 1, Appendix 1AA, is revised to include Regulatory Guide 1.11 to read:  Regulatory Guide 1.11, Rev. 1, 3/10 – Instrument Lines Penetrating the Primary Reactor Containment  Conformance with the design aspects is as stated in the DCD. This guidance is completely within the scope of the DCD.	Westinghouse AP1000 DCD Revision 18
9546	WLS,STD, Pt 02		FSAR 01	01AA 1.052	COLA Part 2, FSAR Chapter 1, Appendix 1AA is revised to add new item for RG 1.52 to read:  Regulatory Guide 1.52, Rev. 3, 6/01 - Design, Inspection and Testing Criteria for Air Filtration and	Westinghouse AP1000 DCD Revision 18, Based on WEC letter

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants	DCP/NRC2457 dated 20090504
10013	WLS,STD	Pt 02	FSAR 01	01AA 1.082	<p>Conformance with the design and operational aspects is as stated in the DCD.</p> <p>COLA Part 2, FSAR Chapter 1, Appendix 1AA, Regulatory Guide 1.82 is revised from: Conformance of the design aspects with Revision 2 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 3 of this Regulatory Guide for programmatic and/or operational aspects is documented below.</p> <p>To read: Conformance with the design aspects is as stated in the DCD. Conformance with programmatic and/or operational aspects is documented below.</p>	Westinghouse AP1000 DCD Revision 19
9547	WLS,STD	Pt 02	FSAR 01	01AA 1.084	<p>COLA Part 2, FSAR Chapter 1, Appendix 1AA, RG 1.84 is revised from: Conformance with Revision 31 of the Regulatory Guide is as stated in the DCD.</p> <p>To read: Conformance with Revision 32 of the Regulatory Guide is as stated in the DCD.</p>	DCD Rev 18, Based on WEC letter DCP/NRC2533 dated 20090617
9570	WLS,STD	Pt 02	FSAR 01	01AA 1.199	<p>COLA Part 2, FSAR Chapter 1, Appendix 1AA, Regulatory Guide 1.199 is revised from:</p> <p>NA This Regulatory Guide is not applicable to the AP1000 certified design.</p> <p>To read: Conformance with Revision 0 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.</p>	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-Ch03 SIP response to STD COL 03.08-005 item 4 SNC Ltr ND-10-1594
9972	WLS,STD	Pt 02	FSAR 01	01AA 5.0	<p>COLA Part 2, FSAR Appendix 1AA, Conformance with Regulatory Guides is revised (retain the LMA of STD COL 1.9-1) to include the following new introductory information for Division 5 Regulatory Guides, and an appropriately located compliance statement for RG 5.71.</p> <p>The plant-specific physical security plans include no substantive deviations from the NRC-endorsed template in NEI 03-12, Rev. 6. Therefore, the degree of conformance with Division 5 regulatory guides for the Physical Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan is consistent with the degree of conformance of NEI 03-12, Rev. 6.</p> <p>Regulatory Guide 5.71, Rev. 0, 1/10 – Cyber Security Programs for Nuclear Facilities</p> <p>Conformance with regulatory positions C.1 through C.5 of Regulatory Guide 5.71, Rev. 0, is as stated in the Cyber Security Plan (CSP), with exceptions to the guidance as noted in Attachment A of the CSP.</p>	Duke Energy concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH01 Div 5 RGs in response to VEGP 01 VR2 item 5 SNC Ltr ND-11-0261
9513	WLS	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh01	COLA Part 2, FSAR Table 2.0-201, WLS SUP 2.0-1 is removed from the column heading 'Air Temperature' and from 'Fault Displacement' (under Seismic) and placed at the table heading to apply to the entire table.	Editorial
9959	WLS	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh01	<p>COLA Part 2, Chapter 2, Table 2.0-201, Sheet 1 of 7 is revised at the entry for Minimum Safety, under the WLS Site Characteristic to correct implementation error from: "5[degrees] F (100-year maximum)"</p> <p>To read: "-5[degrees] F (100-year maximum)"</p>	Correct to implementation of Duke Energy Response to RAI LTR 82, RAI 02.03.02-011, WLG2010.03-08.
9514	WLS	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh01	COLA Part 2, FSAR Table 2.0-201, Under heading 'Wind Speed', the last entry, 'Maximum Pressure Differential' is relocated to the AP1000 DCD Site Parameters for 'Tornado' to correct the misplacement of this entry.	Editorial

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
7856	WLS,STD	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh02	COLA Part 2, FSAR Table 2.0-201, Sheet 2, Seismic, first column, is revised from "SSE" to "CSDRS"  Beginning of second column - AP1000 DCD Site Parameters - to be revised from: SSE free field peak ground acceleration of 0.30 g with modified Regulatory Guide 1.60 response spectra (See Figures 5.0-1 and 5.0-2.). Seismic input is defined... To read: CSDRS free field peak ground acceleration of 0.30 g with modified Regulatory Guide 1.60 response spectra (See Figures 5.0-1 and 5.0-2.). The SSE is now referred to as CSDRS. Seismic input is defined...	Duke Energy Concurrence with Standard Content WLG2010.11-01 Based on WEC letter DCP/NRC2668 dated 20091020 VEGP-VOL-CH02 re site parameters, SNC Ltr ND-10-1300 dated 20100701
7858	WLS,STD	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh02	COLA Part 2, FSAR Table 2.0-201, Sheet 2, Seismic, second paragraph under SSE (now CSDRS), is revised to selectively replace GMRS with "envelope response spectra" from: "The hard rock high frequency (HRHF) GMRS provide an alternative set of spectra for evaluation of site specific GMRS. A site is acceptable if its site-specific GMRS fall within the AP1000 HRHF GMRS." To read: "The hard rock high frequency (HRHF) envelope response spectra are shown in Figure 5.0-3 and Figure 5.0-4 defined at the foundation level for 5% damping. The HRHF envelope response spectra provide an alternative set of spectra for evaluation of site specific GMRS. A site is acceptable if its site specific GMRS fall within the AP1000 HRHF envelope response spectra. Evaluation of a site for application of the HRHF envelope response spectra includes consideration of the limitation on shear wave velocity identified for use of the HRHF envelope response spectra. This limitation is defined by a shear wave velocity at the bottom of the basemat equal to or higher than 7,500 fps, while maintaining a shear wave velocity equal to or above 8,000 fps at the lower depths."	Duke Energy Concurrence with Standard Content WLG2010.11-01 Based on WEC letter DCP/NRC2897 dated 20100528 VEGP-VOL-CH02 re site parameters, SNC Ltr ND-10-1300 dated 20100701
7859	WLS,STD	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh02	COLA Part 2, FSAR Table 2.0-201, Sheet 2, Seismic, Fault Displacement Potential AP1000 DCD Site Parameters column entry is revised from: "Negligible" To read: "No potential fault displacement considered beneath the seismic Category I and seismic Category II structures and immediate surrounding area. The immediate surrounding area includes the effective soil supporting media associated with the seismic Category I and seismic Category II structures."	Duke Energy Concurrence with Standard Content WLG2010.11-01 Based on WEC letter DCP/NRC2897 dated 20100528 VEGP-VOL-CH02 re site parameters, SNC Ltr ND-10-1300 dated 20100701
7860	WLS,STD	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh03	COLA Part 2, FSAR Table 2.0-201, Sheet 3, Soil, second parameter, is revised from: "Maximum Allowable Dynamic Bearing Capacity for Normal Plus Safe Shutdown Earthquake (SSE)" To read: "Dynamic Bearing Capacity for Normal Plus Safe Shutdown Earthquake (SSE)"	Duke Energy Concurrence with Standard Content WLG2010.11-01 Based on WEC letter DCP/NRC2897 dated 20100528 VEGP-VOL-CH02 re site parameters, SNC Ltr ND-10-1300 dated 20100701
9517	WLS	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh04	COLA Part 2, FSAR Table 2.0-201, Sheet 4 is revised as follows: At the entry 'Lateral Variability' the following information is added: Under the column heading 'WLS Site Characteristic' add "Category I structures are founded on hard rock; Case 1 applies" Under the column heading 'WLS FSAR Reference' add "Subsection 2.5.1.2.6" Under the column heading 'WLS Within Site Parameter' add "N/A"	Editorial

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
7857	WLS,STD	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh05	COLA Part 2, FSAR Table 2.0-201, Sheet 5, Soil - Minimum Soil Angle of Internal Friction, second column, to be revised from:  Greater than or equal to 35 degrees below footprint of nuclear island at its excavation depth.  To read: Minimum soil angle of internal friction is greater than or equal to 35 degrees below the footprint of nuclear island at its excavation depth.  If the minimum soil angle of internal friction is below 35 degrees, a site specific analysis shall be performed using the site specific soil properties to demonstrate stability.	Duke Energy Concurrence with Standard Content WLG2010.11-01 Based on WEC letter DCP/NRC2632 dated 20090922 and WEC letter DCP/NRC2878 dated 20100514 VEGP-VOL-CH02 re site parameters, SNC Ltr ND-10-1300 dated 20100701
7861	WLS,STD	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh05	COLA Part 2, FSAR Table 2.0-201, Sheet 5, Soil, Liquefaction Potential AP1000 DCD Site Parameters column entry is revised from "Negligible" to read "No liquefaction considered beneath the seismic Category I and seismic Category II structures and immediate surrounding area. The immediate surrounding area includes the effective soil supporting media associated with the seismic Category I and seismic Category II structures."	Duke Energy Concurrence with Standard Content WLG2010.11-01 Based on WEC letter DCP/NRC2897 dated 20100528 VEGP-VOL-CH02 re site parameters, SNC Ltr ND-10-1300 dated 20100701
9518	WLS	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh05	COLA Part 2, FSAR Table 2.0-201, Sheets 5 is revised at the entry 'Tornado' under the column heading 'WLS Within Site Parameter,' for all three entries, from: "N/A(f)" To read: "Yes(f)"	Editorial
9519	WLS	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh05	COLA Part 2, FSAR Table 2.0-201, Sheet 5 is revised at the entry 'Tornado' as follows: Under the column heading 'AP1000 DCD Site Parameters' revise the entry "1 inch diameter steel ball at 105 mph horizontal and vertical" to read "1 inch diameter steel ball at 105 mph in the most damaging direction" Under the column heading 'WLS Site Characteristic' revise the entry "1 inch diameter steel ball at 105 mph horizontal and vertical" to read "1 inch diameter steel ball at 105 mph in the most damaging direction"	Westinghouse AP1000 DCD Revision 18
9515	WLS	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh06 Sh07	COLA Part 2, FSAR Table 2.0-201, Sheets 6 and 7 are revised to align the entries under the column heading 'AP 1000' DCD Site Parameters'.	Editorial
9520	WLS	Pt 02	FSAR 02	02.00.T / T2.0-201 Sh08	COLA Part 2, FSAR Table 2.0-201, Sheet 8 is revised at Footnote "e" from: Sites that fall within the hard rock high frequency GMRS given in DCD Figure 3I.1-1 and DCD Figure 3I.1-2 are acceptable.  To read: Sites that fall within the hard rock high frequency envelope response spectra given in DCD Figures 3I.1-1 and 3I.1-2 and satisfy the limitation on shear wave velocity in DCD Subsection 2.5.2.1 are acceptable.	Westinghouse AP1000 DCD Revision 18
9521	WLS	Pt 02	FSAR 02	02.00.T / T2.0-202 Sh01	COLA Part 2, FSAR Table 2.0-202, Sheet 1 is revised as follows: Under the heading X/Q (s/m3) at HVAC Intake for the Identified Release Points(a), Plant Vent or PCS Air Diffuser(c), DCD, the entry for 8 - 24 hours is replaced with 1.0E-03.	Westinghouse AP1000 DCD Revision 18
7862	WLS,STD	Pt 02	FSAR 02	02.00.T / T2.0-202 Sh02 Sh04	COLA Part 2, FSAR Chapter 2, Table 2.0-202 Sheets 2 & 4 are revised as follows:  Sheet 2, remove note (h) from the header "Ground Level Containment Release Points" On Sheet 4, remove note: (h) The LOCA dose analysis models the ground level containment release point HVAC intake atmospheric	Duke Energy Concurrence with Standard Content WLG2010.11-01 Consistency with DCD



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					dispersion factors. Other analyses model more conservative values.	Rev 18 site parameter tables. VEGP-VOL-CH02 re site parameters, SNC Ltr ND-10-1300 dated 20100701
9522	WLS	Pt 02	FSAR 02	02.02.01	COLA Part 2, Subsection 2.2.1 is revised at the fourth paragraph from:  Onsite storage of liquid hydrogen will be in accordance with the approved site plot plan and the AP1000 standard plant design, located in the Bulk Gas Storage Area near the Unit 1 mechanical draft cooling towers (Figure 1.1-202). Compressed gas storage will be outside at the corner of the Auxiliary and Turbine Building. The AP1000 standard plant contains 500 standard cubic feet (scf) bottles of compressed hydrogen gas at 6000 pounds per square inch (psig) and 1500 gallons of liquid hydrogen at 150 psig. Three thousand gallons of liquid nitrogen and 6 tons of liquid carbon dioxide are also located in the Bulk Gas Storage Area to support plant operation. No propane or liquid oxygen is anticipated to be used at the Lee Nuclear Station.  To read:  Onsite storage of liquid hydrogen will be in accordance with the approved site plot plan and the AP1000 standard plant design, located in the Bulk Gas Storage Area near the Unit 1 mechanical draft cooling towers, at a safe distance from the nuclear island (Figure 1.1-202). Compressed gas storage will be in the yard adjacent to the Turbine Building. The AP1000 standard plant contains 500 standard cubic feet (scf) bottles of compressed hydrogen gas at 6000 pounds per square inch (psig) and 1500 gallons of liquid hydrogen at 150 psig. Three thousand gallons of liquid nitrogen and 6 tons of liquid carbon dioxide are also located in the Bulk Gas Storage Area to support plant operation. No propane or liquid oxygen is anticipated to be used at the Lee Nuclear Station.	Westinghouse AP1000 DCD Revision 18
9887	WLS	Pt 02	FSAR 02	02.02.03.01.01.04	COLA Part 2, Subsection 2.2.3.1.1.4 left margin annotations WLS COL 2.2-1 and WLS COL 6.4-1 are added.	Editorial - conforming change to QB 9482 and 9886
9889	WLS	Pt 02	FSAR 02	02.02.03.01.02	COLA Part 2, Subsection 2.2.3.1.1.4 left margin annotation WLS COL 2.2-1 is added.	Editorial
9890	WLS	Pt 02	FSAR 02	02.02.03.01.03	COLA Part 2, Subsection 2.2.3.1.3 left margin annotation WLS COL 2.2-1 is added.	Editorial
9891	WLS	Pt 02	FSAR 02	02.02.03.01.04	COLA Part 2, Subsection 2.2.3.1.4 left margin annotation WLS COL 2.2-1 is added.	Editorial
9888	WLS	Pt 02	FSAR 02	02.02.03.01.04	COLA Part 2, Subsection 2.2.3.1.4 left margin annotation WLS COL 6.4-1 is added.	Editorial, conforming change to QB 9482
9892	WLS	Pt 02	FSAR 02	02.02.03.01.05	COLA Part 2, Subsection 2.2.3.1.5 left margin annotation WLS COL 2.2-1 is added.	Editorial
10035	WLS	Pt 02	FSAR 02	02.03.01.02.02	COLA Part 2, FSAR Chapter 2, Subsection 2.3.1.2.2, Table following paragraph 7 is revised as follows:  Entries under heading 'Probability' are unchanged Values under 'Expected maximum tornado wind speed mph' are revised from: 168, 223, and 271 To read: 142, 180, and 215. Values under 'Upper limit (95 percent) of the expected tornado wind speed mph' are revised from: 184, 236, and 283 To read: 153, 190, and 226	Revision of NUREG/CR-4461 to rev 2
10036	WLS	Pt 02	FSAR 02	02.03.01.02.02	COLA Part 2, FSAR Chapter 2, Subsection 2.3.1.2.2, Table following paragraph 9 is revised as follows:  Table Heading is revised from:	Revision of NUREG/CR-4461 to rev 2

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>'Design Basis Tornado Characteristics' To read: 'Region I Tornado Characteristics'</p> <p>Column heading 'Region I' is removed.</p>	
10018	WLS	Pt 02	FSAR 02	02.03.03.01	<p>COLA Part 2, FSAR Chapter 2, Subsection 2.3.3.1 is revised as follows:</p> <p>The first sentence of the first paragraph is removed.</p> <p>Fourth paragraph is revised from: The Tower 1 meteorological installation encompasses an original 55-meter (m) tower and a 10-m tower from the original Cherokee Nuclear site, and is the closest of the two tower installations to McKowns Mountain, a hill at the entrance to the Lee Nuclear Site. Tower 1 is located at roughly the same elevation (588 ft msl) as the future final grade of the Lee Nuclear Station containment structures. Because of its large size (e.g., transmission style tower), Tower 1 does not meet the structural requirements of Regulatory Guide 1.23, Revision 1, "Meteorological Monitoring Programs for Nuclear Power Plants." Consequently, Tower 1 data was not used for the Lee Nuclear Station COLA analyses and is not discussed further.</p> <p>To read: The Tower 1 meteorological installation encompassed an original 55-meter (m) tower and a 10-m tower from the original Cherokee Nuclear site. Tower 1 was located at roughly the same elevation (588 ft msl) as the future final grade of the Lee Nuclear Station containment structures. Because of its large size (e.g., transmission style tower), Tower 1 did not meet the structural requirements of Regulatory Guide 1.23, Revision 1, "Meteorological Monitoring Programs for Nuclear Power Plants." Consequently, Tower 1 data was not used for the Lee Nuclear Station COLA analyses and is not discussed further. Tower 1 was decommissioned in May 2011.</p>	Data collection using Meteorological Tower 1 was discontinued May 31, 2011
10019	WLS	Pt 02	FSAR 02	02.03.03.01	<p>COLA Part 2, FSAR Chapter 2, Subsection 2.3.3.1 is revised under the subheading 'Instrument Description' at the table following the second paragraph as follows:</p> <p>Column Heading for Tower 1, footnote 'a' is added</p> <p>At the entry for Station Pressure (mb), under the column heading 'Future Permanent Tower, footnote 'a' is renumbered to 'b'.</p> <p>At the entry for Incoming Solar Radiation (shortwave) (W/m2), under the column heading 'Future Permanent Tower, footnote 'a' is renumbered to 'b'.</p> <p>At the entry for Outgoing Longwave Radiation (upwelling from ground); (W/m2), under the column heading 'Future Permanent Tower, footnote 'a' is renumbered to 'b'.</p> <p>Footnote 'a' is revised to read: 'Decommissioned in May 2011'. Former Footnote 'a' is renumbered to 'b'.</p>	Data collection using Meteorological Tower 1 was discontinued May 31, 2011
9523	WLS	Pt 02	FSAR 02	02.03.04.02	<p>COLA Part 2, Subsection 2.3.4.2 is revised at the fifth paragraph, beginning the third sentence from:</p> <p>This area was determined to be 2909 m2. Building height is the height above plant grade of the containment structure used in the building-wake term for the annual-average calculations. The Passive Containment Cooling System (PCCS) tank roof is at Elevation 334 ft. The DCD design grade elevation for the AP1000 is 100 ft; therefore, the height above plant grade of the containment structure or building height is 234 ft.</p> <p>To read:</p> <p>This area was determined to be 2842 m2. Building height is the height above plant grade of the containment structure used in the building-wake term for the annual-average calculations. The Passive Containment</p>	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10270	WLS	Pt 02	FSAR 02	02.03.05.01	<p>Cooling System (PCCS) tank roof is at Elevation 329 ft. The DCD design grade elevation for the AP1000 is 100 ft; therefore, the height above plant grade of the containment structure or building height is 229 ft.</p> <p>COLA Part 2, Subsection 2.3.5.1 is revised at the third paragraph, last sentence from:</p> <p>The joint frequency distribution tables generated using the methodology and data described above are given in Tables 2.3-234 through 2.3-241.</p> <p>To read: The joint frequency distribution tables generated using the methodology and data described above are given in Tables 2.3-235 through 2.3-241.</p>	Editorial
10037	WLS	Pt 02	FSAR 02	02.03.07	<p>COLA Part 2, FSAR Chapter 2, Subsection 2.3.7, Reference 213 is revised from: 213. NUREG/CR-4461, Rev. 1, Tornado Climatology of the Contiguous United States, Pacific Northwest National Laboratory, April 2005.</p> <p>To read: 213. NUREG/CR-4461, Rev. 2, Tornado Climatology of the Contiguous United States, Pacific Northwest National Laboratory, February 2007.</p>	Revision of NUREG/CR-4461 to rev 2
10014	WLS	Pt 02	FSAR 02	02.04.12.02.04.02	<p>COLA Part 2, FSAR Subsection 2.4.12.2.4.2 is revised as follows:</p> <p>Second paragraph, first sentence is revised from: During the Cherokee investigation in the early 1970's, 135 field and laboratory tests were conducted to characterize soil and rock permeability.</p> <p>To read: During the Cherokee investigation in the 1970's, 135 field and laboratory tests were conducted to characterize soil and rock permability.</p> <p>Third paragraph, first sentence is revised from: 'Based on results from the 1973 investigation, packer tests, multiwell pumping...'</p> <p>To read: 'Based on results from the Cherokee investigation, packer tests, multiwell pumping...'</p> <p>Third bullet following the third paragraph 'with a median' shown in the first sentence from: '1.54 x 10-4 cm/s'</p> <p>To read: '1.53 x 10-4 cm/s.'</p> <p>Third bullet following the third paragraph, the fourth sentence is revised from: This is the value obtained from aquifer tests in 2006 for an area believed to best represent the limiting groundwater flow path, and is used as the representative value of hydraulic conductivity for PWR.</p> <p>To read: This is the value obtained from an aquifer test in 2006 for an area believed to best represent the limiting groundwater flow path, and is used as the representative value of hydraulic conductivity for PWR.</p> <p>Fifth bullet following the third paragraph is revised from: Fill materials placed in former valleys during site grading are currently groundwater aquifer materials in some areas. Slug tests conducted in 2006 and 2007 characterized these materials to have hydraulic conductivities ranging from 4.22 x 10-5 cm/s to 1.81 x 10-4 cm/s. The median hydraulic conductivity for the fill material is 7.00 x 10-5 cm/s. For</p>	Duke Energy response to RAI LTR 96, RAI 2.4.12-021 WLG2011.05-02

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>samples equal to and greater than the median hydraulic conductivity of the data set, the geometric mean (<math>1.2 \times 10^{-4}</math> cm/s) represents a conservative hydraulic conductivity value for the fill materials.</p> <p>To read: Fill materials placed in former valleys during site grading are currently groundwater aquifer materials in some areas. Slug tests conducted in 2006 and 2007 characterized these materials to have hydraulic conductivities ranging from <math>1.81 \times 10^{-5}</math> cm/s to <math>7.44 \times 10^{-5}</math> cm/s. The median hydraulic conductivity for the fill material is <math>5.39 \times 10^{-5}</math> cm/s. For samples equal to and greater than the median hydraulic conductivity of the data set, the geometric mean (<math>7.0 \times 10^{-5}</math> cm/s) represents a conservative hydraulic conductivity value for the fill materials.</p>	
9583	WLS	Pt 02	FSAR 02	02.04.12.05	<p>COLA Part 2, FSAR Chapter 2, Subsection 2.4.12.5 first paragraph, first and second sentences are revised from: According to the AP1000 Design Control Document (DCD), the design maximum groundwater elevation is 2 ft. below yard grade elevation. The Lee Nuclear Station plant elevation is 590.0 ft. above msl and the yard grade is 589.5 ft. above msl; therefore, the design maximum groundwater elevation is 587.5 ft. above msl.</p> <p>To read: According to the AP1000 Design Control Document (DCD), the design maximum groundwater elevation is 2 ft. below plant elevation. The Lee Nuclear Station plant elevation is 590.0 ft. above msl and the yard grade is 589.5 ft. above msl; therefore, the design maximum groundwater elevation is 588.0 ft. above msl.</p>	Clarify design grade elevation relative to maximum allowed groundwater.
10016	WLS	Pt 02	FSAR 02	02.04.F / F2.4.12-205	COLA Part 2, FSAR Figure 2.4.12-205, Sheets 2, 3, and 4 are revised as reflected on Duke Energy Response to RAI LTR 96, RAI 2.4.12-021, Attachment 3.	Duke Energy response to RAI LTR 96, RAI 2.4.12-021 WLG2011.05-02
10017	WLS	Pt 02	FSAR 02	02.04.F / F2.4.12-207	COLA Part 2, FSAR Figure 2.4.12-207 is revised as reflected on Duke Energy Response to RAI LTR 96, RAI 2.4.12-021, Attachment 4.	Duke Energy response to RAI LTR 96, RAI 2.4.12-021 WLG2011.05-02
10106	WLS	Pt 02	FSAR 02	02.04.T / T2.4.1-201 SH02	<p>COLA Part 2, FSAR Chapter 2, Table 2.4.1-201 Sheet 2 is revised to relocate and revise the following note to Sheet 1 from: Source: Westinghouse AP1000 DCD Rev 16/ Tier 2, chapter 1.2, 2007.</p> <p>To read: Source: Westinghouse Ap1000 DCD Rev 19, Chapter 1.2.</p>	Westinghouse AP1000 DCD Revision 19
10015	WLS	Pt 02	FSAR 02	02.04.T / T2.4.12-204	COLA Part 2, FSAR Table 2.4.12-204 is revised as reflected on Duke Energy Response to RAI LTR 96, RAI 2.4.12-021, Attachment 2.	Duke Energy response to RAI LTR 96, RAI 2.4.12-021 WLG2011.05-02
9833	WLS	Pt 02	FSAR 02	02.04.T / T2.4.13-204	COLA Part 2, FSAR Chapter 2, Table 2.4.13-204 is revised to correct the value for Radionuclide Concentration for the Detected Radionuclide H-3 from 3.35E-48 to read 3.35E-08.	Correction to implementation of Attachment 8 to RAI 02.04.13-029, Duke Energy Response to RAI LTR 73, WLG2009.11-05
9525	WLS	Pt 02	FSAR 02	02.05.06.17	<p>COLA Part 2, Chapter 2, Subsection 2.5.6 is revised to add new Subsection 2.5.6.17 (with a left margin annotation WLS COL 2.5-17) as follows:</p> <p>2.5.6.17 Waterproofing Systems</p> <p>This COL item is addressed in Subsection 14.3.3.1</p>	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9439	WLS	Pt 02	FSAR 02	02.05.T / T2.5.4-220	COLA Part 2, FSAR Table 2.5.4-220 is revised as reflected on Duke Energy Response to RAI 02.05.04-016, Attachment 1, WLG2011.03-06.	Duke Energy Response to RAI LTR 95, RAI 2.5.4-16, WLG 2011.03-06
9985	WLS	Pt 02	FSAR 02	APP2CC	COLA Part 2, FSAR Chapter 2, Appendix 2CC, first paragraph last sentence is revised and a new second paragraph is added to read:  Because the one year and two year data sets are consistent and representative of the long term conditions, there is no need to update the meteorological data and values currently provided in FSAR Section 2.3.  This Appendix also provides an evaluation of the use of a two year meteorological data set on atmospheric dispersion factors.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
9986	WLS	Pt 02	FSAR 02	APP2CC.02	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Section 2CC.2, first paragraph is revised at the second and last sentences as follows: Second sentence is revised from: 'The complete two year data...' To read: 'The complete two-year data...'  The last sentence is revised from: '...the complete 2-year data...' To read: '...the complete two-year data...'	Editorial
9987	WLS	Pt 02	FSAR 02	APP2CC.02	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Section 2CC.2 under the subheading 'Stability Class,' second to last sentence is revised from: '...one-year or two-year datasets.' To read: '...one-year or two-year data sets.'	Editorial
9988	WLS	Pt 02	FSAR 02	APP2CC.02	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Section 2CC.2 under the subheading 'Wind Speed Frequency,' third paragraph, second sentence is revised from: '...shows that the datasets.' To read: '...shows that the data sets.'	Editorial
9989	WLS	Pt 02	FSAR 02	APP2CC.02	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Section 2CC.2 under the subheading 'Wind Speed Frequency,' sixth paragraph, third sentence is revised from: '...both datasets display ' To read: '...both data sets display '	Editorial
9990	WLS	Pt 02	FSAR 02	APP2CC.04	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Section 2CC.4 fourth paragraph is revised from: The design-basis accident X/Q values generated from the two-year meteorological data are generally more conservative and bounding than the one-year X/Q values. Therefore, the meteorological dispersion parameters presented in FSAR Section 2.3.4 are based on the two-year data. To read: The design-basis accident X/Q values generated from the two-year meteorological data bound the one-year X/Q values; therefore, the accident meteorological dispersion parameters presented in FSAR Section 2.3.4 are based on the two-year data.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
9993	WLS	Pt 02	FSAR 02	APP2CC.05	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Section 2CC.5 is revised at the second to last sentence from: The meteorological dispersion parameters...' To read: 'The accident meteorological dispersion parameters...'	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9994	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-203	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-203 is revised as follows: Second column heading is revised from 'U[less than or equal to]0.5' To read '0.45<U[less than or equal to]0.5'  Note 3 is revised from: Double precision values reported in sum. To read: Differences in the totals reported are associated with rounding. Joint frequency distribution values are rounded to integers for PAVAN input; however, the totals are based on values with greater precision.  Page 5 is revised to include a new first entry 'N', previously omitted.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
9995	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-204	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-204 is revised as follows: Second column heading is revised from 'U[less than or equal to]0.5' To read '0.45<U[less than or equal to]0.5'  Note 3 is revised from: 3. Double precision values reported in sum. To read: 3. Differences in the totals reported are associated with rounding. Joint frequency distribution values are rounded to integers for PAVAN input; however, the totals are based on values with greater precision.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
9996	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-205	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-205 is revised as follows: Second column heading is revised from 'U[less than or equal to]0.5' To read '0.45<U[less than or equal to]0.5'  Line space is added prior to the Line entry 'CALM'.  Note 3 is revised from: 3. Double precision values reported in sum. To read: 3. Differences in the totals reported are associated with rounding. Joint frequency distribution values are rounded to integers for PAVAN input; however, the totals are based on values with greater precision.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
9997	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-206	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-206 is revised as follows: Second column heading is revised from 'U[less than or equal to]0.5' To read '0.45<U[less than or equal to]0.5'  Note 3 is revised from: 3. Double precision values reported in sum. To read: 3. Differences in the totals reported are associated with rounding. Joint frequency distribution values are rounded to integers for PAVAN input; however, the totals are based on values with greater precision.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
9998	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-207	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-207 is revised as follows: Second column heading is revised from 'U[less than or equal to]0.45' To read '0.45<U[less than or equal to]0.6'  Third column heading is revised from '0.45<U[less than or equal to]0.75' To read: 0.6<U[less than or equal to]0.75  Note 3 is revised from: 3. Double precision values reported in sum. To read: 3. Differences in the totals reported are associated with rounding. Joint frequency distribution values are rounded to integers for PAVAN input; however, the totals are based on values with greater precision.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9999	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-208	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-208 is revised as follows: Second column heading is revised from 'U[less than or equal to]0.45' To read '0.45<U[less than or equal to]0.6'  Third column heading is revised from '0.45<U[less than or equal to]0.75' To read: 0.6<U[less than or equal to]0.75  Note 3 is revised from: 3. Double precision values reported in sum. To read: 3. Differences in the totals reported are associated with rounding. Joint frequency distribution values are rounded to integers for PAVAN input; however, the totals are based on values with greater precision.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
10000	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-209	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-209 is revised as follows: Second column heading is revised from 'U[less than or equal to]0.45' To read '0.45<U[less than or equal to]0.6'  Third column heading is revised from '0.45<U[less than or equal to]0.75' To read: 0.6<U[less than or equal to]0.75  Note 3 is revised from: 3. Double precision values reported in sum. To read: 3. Differences in the totals reported are associated with rounding. Joint frequency distribution values are rounded to integers for PAVAN input; however, the totals are based on values with greater precision.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
10001	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-210	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-210 is revised as follows: Second column heading is revised from 'U[less than or equal to]0.45' To read '0.45<U[less than or equal to]0.6'  Third column heading is revised from '0.45<U[less than or equal to]0.75' To read: 0.6<U[less than or equal to]0.75  Note 3 is revised from: 3. Double precision values reported in sum. To read: 3. Differences in the totals reported are associated with rounding. Joint frequency distribution values are rounded to integers for PAVAN input; however, the totals are based on values with greater precision.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
10002	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-212	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-212 is revised at the Notes section add a period at the end of each note.	Editorial
10003	WLS	Pt 02	FSAR 02	APP2CC.T / T2CC-219	COLA Part 2, FSAR Chapter 2, Appendix 2CC, Table 2CC-219 is deleted.	Conforming change to Duke Energy Response to ER RAI 225, WLG2011.03-01
9981	WLS,STD	Pt 02	FSAR 03	03.05.01.03	COLA Part 2, FSAR Chapter 3, Subsection 3.5.1.3 is revised from: In addition, the reinforced concrete shield building and auxiliary building walls, roofs, and floors, provide further conservative, inherent protection of the safety-related SSCs from a turbine missile.  To read: In addition, the shield building and auxiliary building walls, roofs, and floors, provide further conservative, inherent protection of the safety-related SSCs from a turbine missile.	Westinghouse AP1000 DCD Revision 18
7910	WLS,STD	Pt 02	FSAR 03	03.06.04.01	COLA Part 2, FSAR Chapter 3, Subsection 3.6.4.1, is revised from:	Duke Energy Concurrence with

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>Replace the last paragraph in DCD Subsection 3.6.4.1 with the following information.</p> <p>A pipe rupture hazard analysis is part of the piping design. It is used to identify postulated break locations and layout changes, support design, whip restraint design, and jet shield design. The final design for these activities will be completed prior to fabrication and installation of the piping and connected components. The as-built reconciliation of the pipe break hazards analysis in accordance with the criteria outlined in DCD Subsections 3.6.1.3.2 and 3.6.2.5 will be completed prior to fuel load.</p> <p>To read:</p> <p>Replace the last paragraph in DCD Subsection 3.6.4.1 with the following information.</p> <p>The as-designed pipe rupture hazards evaluation is made available for NRC review. The completed as-designed pipe rupture hazards evaluation will be in accordance with the criteria outlined in DCD Subsections 3.6.1.3.2 and 3.6.2.5. Systems, structures, and components identified to be essential targets protected by associated mitigation features (Reference is DCD Table 3.6-3) will be confirmed as part of the evaluation, and updated information will be provided as appropriate.</p> <p>A pipe rupture hazards analysis is part of the piping design. The evaluation will be performed for high and moderate energy piping to confirm the protection of systems, structures, and components which are required to be functional during and following a design basis event. The locations of the postulated ruptures and essential targets will be established and required pipe whip restraints and jet shield designs will be included. The report will address environmental and flooding effects of cracks in high and moderate energy piping. The as-designed pipe rupture hazards evaluation is prepared on a generic basis to address COL applications referencing the AP1000 design.</p> <p>The pipe whip restraint and jet shield design includes the properties and characteristics of procured components connected to the piping, components, and walls at identified break and target locations. The design will be completed prior to installation of the piping and connected components.</p> <p>The as-built reconciliation of the pipe rupture hazards evaluation whip restraint and jet shield design in accordance with the criteria outlined in DCD Subsections 3.6.1.3.2 and 3.6.2.5 will be completed prior to fuel load (in accordance with DCD Tier 1 Table 3.3-6, item 8).</p> <p>This COL item is also addressed in Subsection 14.3.3.</p>	<p>Standard Content, WLG2010.11-01 COL-SER-OI-Ch03 S6 response to OI 03.06-001 item 2 SNC Letter ND-10-0801</p>
9436	WLS,STD	Pt 02	FSAR 03	03.07.04.04	<p>COLA Part 2, Chapter 3, Section 3.7.4.4 is revised to add the following text to the end of the existing FSAR Subsection 3.7.4.4.</p> <p>In addition, the procedures address measurement of the post-seismic event gaps between the new fuel rack and walls of the new fuel storage pit, between the individual spent fuel racks, and from the spent fuel racks to the spent fuel pool walls, and provide for appropriate corrective actions to be taken if needed (such as repositioning the racks or analysis of the as-found condition).</p>	<p>Westinghouse AP1000 DCD Revision 18, Based on WEC letters DCP/NRC2609 dated 20090831.</p>
9447	WLS,STD	Pt 02	FSAR 03	03.08.03.07	<p>COLA Part 2, FSAR Chapter 3, is revised to add new Subsection 3.8.3.7 (with an LMA of STD COL 3.8-5) to read:</p> <p>-----</p> <p>3.8.3.7 In-Service Testing and Inspection Requirements</p> <p>-----</p> <p>Replace the existing DCD statement with the following:</p>	<p>Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-VOL-Ch03 SIP response to STD COL 03.08-005 item 5 SNC Ltr ND-10-1594</p>



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9448	WLS,STD	Pt 02	FSAR 03	03.08.04.07	<p>The inspection program for structures is identified in Section 17.6. This inspection program is consistent with the requirements of 10 CFR 50.65 and the guidance in Regulatory Guide 1.160.</p> <p>COLA Part 2, FSAR Chapter 3, is revised to add new Subsection 3.8.4.7 (with an LMA of STD COL 3.8-5) to read:</p> <p>-----</p> <p>3.8.4.7 Testing and In-Service Inspection Requirements</p> <p>-----</p> <p>Replace the existing DCD final statement of the subsection with the following:</p> <p>The inspection program for structures is identified in Section 17.6. This inspection program is consistent with the requirements of 10 CFR 50.65 and the guidance in Regulatory Guide 1.160.</p>	<p>Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-VOL-Ch03 SIP response to STD COL 03.08-005 item 6 SNC Ltr ND-10-1594</p>
9449	WLS,STD	Pt 02	FSAR 03	03.08.05.07	<p>COLA Part 2, FSAR Chapter 3, is revised to add new Subsection 3.8.5.7 (with an LMA of STD COL 3.8-5) to read:</p> <p>-----</p> <p>3.8.5.7 In-Service Testing and Inspection Requirements</p> <p>-----</p> <p>Replace the existing DCD first statement with the following:</p> <p>The inspection program for structures is identified in Section 17.6. This inspection program is consistent with the requirements of 10 CFR 50.65 and the guidance in Regulatory Guide 1.160.</p>	<p>Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-VOL-Ch03 SIP response to STD COL 03.08-005 item 7 SNC Ltr ND-10-1594</p>
9450	WLS,STD	Pt 02	FSAR 03	03.08.06.05	<p>COLA Part 2, FSAR Chapter 3, is revised to add new Subsection 3.8.6.5 (with an LMA of STD COL 3.8-5) to read:</p> <p>-----</p> <p>3.8.6.5 Structures Inspection Program</p> <p>-----</p> <p>This item is addressed in Subsections 3.8.3.7, 3.8.4.7, 3.8.5.7, and 17.6.</p>	<p>Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-VOL-Ch03 SIP response to STD COL 03.08-005 item 8 SNC Ltr ND-10-1594</p>
9451	WLS,STD	Pt 02	FSAR 03	03.08.06.06	<p>COLA Part 2, FSAR Chapter 3, is revised to add new Subsection 3.8.6.6 (with an LMA of STD COL 3.8-6) to read:</p> <p>-----</p> <p>3.8.6.6 Construction Procedures Program</p>	<p>Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-VOL-CH03 Const Procedures response to STD-COL-03.08-006 item 2 SNC Ltr ND-10-</p>

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					<p>-----</p> <p>-----</p> <p>Add the following to the end of Subsection 3.8.6.6:</p> <p>Construction and inspection procedures for concrete filled steel plate modules address activities before and after concrete placement, use of construction mock-ups, and inspection of modules before and after concrete placement as discussed in DCD Subsection 3.8.4.8. The procedures will be made available to NRC inspectors prior to use.</p>	1900
9572	WLS	Pt 02	FSAR 03	03.08.06.06	<p>COLA Part 2, FSAR Chapter 3, Subsection 3.8.6.6 is revised editorially at the lead in sentence from:</p> <p>Add the following to the end of Subsection 3.8.6.6:</p> <p>To read:</p> <p>Add the following to the end of DCD Subsection 3.8.6.6:</p>	Editorial
9452	WLS,STD	Pt 02	FSAR 03	03.09.03.01.02	<p>COLA Part 2, FSAR Chapter 3, Subsection 3.9.3.1.2, is revised under the heading of Locations to be Monitored, from:</p> <p>In addition to the existing permanent plant temperature instrumentation, temperature and displacement monitoring will be included at critical locations on the surge line.</p> <p>To read:</p> <p>In addition to the existing permanent plant temperature instrumentation, temperature and displacement monitoring will be included at critical locations on the surge line. The additional locations utilized for monitoring during the hot functional testing and the first fuel cycle (see Subsection 14.2.9.2.22) are selected based on the capability to provide effective monitoring.</p>	Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-RAI-LTR 057 S1 response to RAI 03.12- 002 item 5 SNC Ltr ND- 10-1501
9984	WLS,STD	Pt 02	FSAR 03	03.09.06.02.02	<p>Revise the 4th insertion statement to remove the entire inserted restatement of DCD material:</p> <p>"Power-Operated Valve Operability Tests - The safety-related, power-operated valves (POVs) are required by the procurement specifications to have the capabilities to perform diagnostic testing to verify the capability of the valves to perform their design basis safety functions."</p>	Unnecessary duplication of DCD text
9434	WLS	Pt 02	FSAR 03	03.09.06.02.02	<p>COLA Part 2, FSAR Chapter 3, Subsection 3.9.6.2.2 under the DCD sub-heading "Power-Operated Valve Operability Tests" add the left margin annotation "STD COL 3.9-4".</p>	Editorial
7911	WLS,STD	Pt 02	FSAR 03	03.09.08.02	<p>COLA Part 2, FSAR Chapter 3, Subsection 3.9.8.2, is revised from:</p> <p>Add the following text after the second paragraph in DCD Subsection 3.9.8.2.</p> <p>Reconciliation of the as-built piping (verification of the thermal cycling and stratification loading considered in the stress analysis discussed in DCD Subsection 3.9.3.1.2) is completed after the construction of the piping systems and prior to fuel load.</p> <p>To read:</p> <p>Add the following text after the second paragraph in DCD Subsection 3.9.8.2.</p> <p>[LMA STD COL 3.9-2] Design specifications and design reports for ASME Section III piping are made available for NRC review. Reconciliation of the as-built piping (verification of the thermal cycling and stratification loading considered in the stress analysis discussed in DCD Subsection 3.9.3.1.2) is completed by the COL holder after the construction of the piping systems and prior to fuel load (in accordance with DCD Tier 1 Section 2 ITAAC line items for the applicable systems).</p>	Duke Energy Concurrence with Standard Content, WLG2010.11-01 COL-SER-OI-Ch03 S6 response to OI 03.06- 001 item 3 SNC Letter ND-10-0801

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7912	WLS,STD	Pt 02	FSAR 03	03.09.08.07	COLA Part 2, FSAR Chapter 3, Subsection 3.9.8.7, is added to read:  3.9.8.7 As-Designed Piping Analysis  Add the following text at the end of DCD Subsection 3.9.8.7.  [LMA STD COL 3.9-2] The as-designed piping analysis is provided for the piping lines chosen to demonstrate all aspects of the piping design. A design report referencing the as-designed piping calculation packages, including ASME Section III piping analysis, support evaluations and piping component fatigue analysis for Class 1 piping using the methods and criteria outlined in DCD Table 3.9-19 is made available for NRC review.  This COL item is also addressed in Subsection 14.3.3.	Duke Energy Concurrence with Standard Content, WLG2010.11-01 COL-SER-OI-Ch03 S6 response to OI 03.06- 001 item 4 SNC Letter ND-10-0801
10008	WLS,STD	Pt 02	FSAR 03	03.09.08.07	COLA Part 2, FSAR Chapter 3, Subsection 3.9.8.7 LMA STD COL 3.9-2 is revised to read STD COL 3.9-7.	Editorial/correspond with Subsection 14.3.3.3.
9437	WLS,STD	Pt 02	FSAR 03	03.09.T / T3.9-201	COLA, Part 2, FSAR Chapter 3, Table 3.9-201, second column, 8th entry down is revised from:  SGS APP-SGS-PH-11Y0065 005B  To read:  SGS APP-SGS-PH-11Y0065 L005B	Editorial correction for consitent identification of line numbers associated with snubbers.
10034	WLS,STD	Pt 02	FSAR 04	04.04.07	COLA Part 2, FSAR Chapter 4, Subsection 4.4.7, is revised from: Replace the second paragraph in DCD Subsection 4.4.7 with the following:  To read: Replace the paragraph in DCD Subsection 4.4.7.2 with the following:	Editorial
9489	WLS,STD	Pt 02	FSAR 05	05.02.04.01	COLA Part 2, FSAR Chapter 5 is revised to add the following new paragraph at the end of the portion of Subsection 5.2.4.1 with an LMA of STD COL 5.3-7, to read:  The in-service inspection program is augmented to include the performance of a 100 percent volumetric examination of the weld build-up on the reactor vessel head for the instrumentation penetrations (Quickloc) conducted once during each 120-month inspection interval in accordance with the ASME Code, Section XI. The weld build-up acceptance standards are those provided in ASME Code, Section XI, IWB-3514. Personnel performing examinations and the ultrasonic examination systems are qualified in accordance with ASME Code, Section XI, Appendix VIII. Alternatively, an alternative inspection may be developed in conjunction with the voluntary consensus standards bodies (i.e., ASME) and submitted to the NRC for approval.	Duke Energy Endorsement of Standard Content, WLG2011.03-03 VEGP-VOL-CH05 ISI response to STD COL 05.03-007 item 2 SNC Ltr ND-10-1656
9490	WLS,STD	Pt 02	FSAR 05	05.02.05.03.05	COLA Part 2, FSAR Chapter 5 is revised to add a new Subsection 5.2.5.3.5 (with an LMA of STD COL 5.2-3) to read:  -----  Add the following new subsection following DCD Subsection 5.2.5.3.4.  5.2.5.3.5 Response to Reactor Coolant System Leakage  Operating procedures specify operator actions in response to prolonged low level unidentified reactor coolant leakage conditions that exist above normal leakage rates and below the Technical Specification (TS) limits to provide operators sufficient time to take action before the TS limit is reached. The procedures include identifying, monitoring, trending, and addressing prolonged low level leakage. The procedures for effective management of leakage, including low level leakage, are developed including the following operations related activities:	Duke Energy Concurrence with Standard Content, WLG2011.03-04 VEGP-RAI-LTR-060 in response to RAI 05.02.05-001 item 2 SNC Ltr ND-10-1423

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					<p>Trends in the unidentified leakage rates are periodically analyzed. When the leakage rate increases noticeably from the baseline leakage rate, the safety significance of the leak is evaluated. The rate of increase in the leakage is determined to verify that plant actions can be taken before the plant exceeds TS limits.</p> <p>Procedures are established for responding to leakage. These procedures address the following considerations to prevent adverse safety consequence results from the leakage:</p> <ul style="list-style-type: none"> <li>- Plant procedures specify operator actions in response to leakage rates less than the limits set forth in the Technical Specifications. The procedures include actions for confirming the existence of a leak, identifying its source, increasing the frequency of monitoring, verifying the leakage rate (through a water inventory balance), responding to trends in the leakage rate, performing a walkdown outside containment, planning a containment entry, adjusting alarm setpoints, limiting the amount of time that operation is permitted when the sources of the leakage are unknown, and determining the safety significance of the leakage.</li> <li>- Plant procedures specify the amount of time the leakage detection and monitoring instruments (other than those required by Technical Specifications) may be out of service to effectively monitor the leakage rate during plant operation (i.e., hot shutdown, hot standby, startup, transients, and power operation).</li> </ul> <p>The output and alarms from leakage monitoring systems are provided in the main control room. Procedures are readily available to the operators for converting the instrument output to a common leakage rate. (Alternatively, these procedures may be part of a computer program so that the operators have a real-time indication of the leakage rate as determined from the output of these monitors.) Periodic calibration and testing of leakage monitoring systems are conducted. The alarm(s), and associated setpoint(s), provide operators an early warning signal so that they can take corrective actions, as discussed above, i.e., before the plant exceeds TS limits.</p> <p>During maintenance and refueling outages, actions are taken to identify the source of any unidentified leakage that was detected during plant operation. In addition, corrective action is taken to eliminate the condition resulting in the leakage.</p> <p>The procedures described above will be available prior to fuel load.</p>	
9491	WLS,STD	Pt 02	FSAR 05	05.02.06.03	<p>COLA Part 2, FSAR Chapter 5 is revised to add a new Subsection 5.2.6.3 (with an LMA of STD COL 5.2-3) to read:</p> <p>-----</p> <p>5.2.6.3 Response to Unidentified Reactor Coolant System Leakage Inside Containment</p> <p>-----</p>	<p>Duke Energy Concurrence with Standard Content, WLG2011.03-04 VEGP-RAI-LTR-060 in response to RAI 05.02.05-001 item 3 SNC Ltr ND-10-1423</p>
9492	WLS,STD	Pt 02	FSAR 05	05.03.06.06	<p>This COL item is addressed in Subsection 5.2.5.3.5.</p> <p>COLA Part 2, FSAR Chapter 5 is revised to add new Subsection 5.3.6.6 (with an LMA of STD COL 5.3-7) to read:</p> <p>-----</p> <p>5.3.6.6 Quickloc Weld Build-up ISI</p>	<p>Duke Energy, Endorsement of Standard Content, WLG2011.03-03 VEGP-VOL-CH05 ISI response to STD COL 05.03-007 item 3 SNC Ltr ND-10-1656</p>

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					----- ----- This item is addressed in Subsection 5.2.4.1.	
10276	WLS	Pt 02	FSAR 06	06.01.01.02	COLA Part 2, FSAR Chapter 6, Section 6.1.1.2 is revised at the third sentence from:  "Included in this review and acceptance process are those vendor procedures necessary to assure conformance with the requirements..."  To read: "Included in this review and acceptance process are those vendor procedures necessary to provide conformance with the requirements..."	R-COLA Consistency
7869	WLS,STD	Pt 02	FSAR 06	06.01.02.01.06	COLA Part 2, FSAR Chapter 6, Section 6.1.2.1.6 is revised from (the LMA remains unchanged):  Replace the third paragraph under the subsection titled "Service Level I and Service Level III Coatings" within DCD Subsection 6.1.2.1.6 with the following information.  During the design and construction phase the coatings program associated with selection, procurement and application of safety related coatings is performed to applicable quality standards. Regulatory Guide 1.54 and ASTM D5144 (Reference 201) form the basis for the coating program. During the operations phase, the coatings program is administratively controlled in accordance with the quality assurance program implemented to satisfy 10 CFR Part 50, Appendix B, and 10 CFR Part 52 requirements. The coatings program provides direction for the procurement, application, and monitoring of safety related coating systems.  Coating system monitoring requirements for the containment coating systems are based on ASTM D5163 (Reference 202), "Standard Guide for Establishing Procedures to Monitor the Performance of Coating Service Level I Coating Systems in an Operating Nuclear Power Plant," and ASTM D7167 (Reference 203), "Standard Guide for Establishing Procedures to Monitor the Performance of Safety-Related Coating Service Level III Lining Systems in an Operating Nuclear Power Plant." Any anomalies identified during coating monitoring are resolved in accordance with applicable quality-assurance requirements.  Add the following after the third paragraph of the subsection titled "Service Level II Coatings" within DCD Subsection 6.1.2.1.6.  Coating system inspection and monitoring requirements for the Service Level II coatings used inside containment will be performed in accordance with a program based on ASTM D5144 (Reference 201), "Standard Guide for Use of Protective Coating Standards in Nuclear Power Plants" and the guidance of ASTM D5163 (Reference 202), "Standard Guide for Establishing Procedures to Monitor the Performance of Coating Service Level I Coating Systems in an Operating Nuclear Power Plant." Any anomalies identified during coating monitoring are resolved in accordance with applicable quality requirements.  To read:  Replace the third paragraph under the subsection titled "Service Level I and Service Level III Coatings" within DCD Subsection 6.1.2.1.6 with the following information.  During the design and construction phase, the coatings program associated with selection, procurement and application of safety related coatings is performed to applicable quality standards. The requirements for the coatings program are contained in certified drawings and/or standards and specifications controlling the coating processes of the designer (Westinghouse) (these design documents will be available prior to the procurement and application of the coating material by the constructor of the plant). Regulatory Guide 1.54 and ASTM D5144 (Reference 201) form the basis for the coatings program.  During the operations phase, the coatings program is administratively controlled in accordance with the	Duke Energy Concurrence with Standard Content, WLG2010.11-01 VEGP-VOL-CH06 response to STD COL 06.01-002 SNC Ltr ND- 10-1264

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					<p>quality assurance program implemented to satisfy 10 CFR Part 50, Appendix B, and 10 CFR Part 52 requirements. The coatings program provides direction for the procurement, application, inspection, and monitoring of safety related coating systems. Prior to initial fuel loading, a consolidated plant coatings program will be in place to address procurement, application, and monitoring (maintenance) of those coating system(s) for the life of the plant.</p> <p>Coating system monitoring requirements for the containment coating systems are based on ASTM D5163 (Reference 202), "Standard Guide for Establishing Procedures to Monitor the Performance of Coating Service Level I Coating Systems in an Operating Nuclear Power Plant," and ASTM D7167 (Reference 203), "Standard Guide for Establishing Procedures to Monitor the Performance of Safety-Related Coating Service Level III Lining Systems in an Operating Nuclear Power Plant." Any anomalies identified during coating inspection or monitoring are resolved in accordance with applicable quality assurance requirements.</p> <p>Replace the second sentence of the third paragraph under the subsection titled "Service Level II Coatings" within DCD Subsection 6.1.2.1.6 with the following information.</p> <p>Coating system application, inspection and monitoring requirements for the Service Level II coatings used inside containment will be performed in accordance with a program based on ASTM D5144 (Reference 201), "Standard Guide for Use of Protective Coating Standards in Nuclear Power Plants," and the guidance of ASTM D5163 (Reference 202), "Standard Guide for Establishing Procedures to Monitor the Performance of Coating Service Level I Coating Systems in an Operating Nuclear Power Plant." Any anomalies identified during coating inspection or monitoring are resolved in accordance with applicable quality requirements.</p>	
9480	WLS,STD	Pt 02	FSAR 06	06.01.02.01.06	<p>COLA Part 2, FSAR Chapter 6, Section 6.1.2.1.6 is revised to include the following new information after the existing fourth paragraph just after the Service Level I and Service Level III discussions (the LMA of STD COL 6.1-2 remains unchanged):</p> <p>Include a new second paragraph under the subsection titled "Service Level II Coatings" within DCD Subsection 6.1.2.1.6 with the following information.</p> <p>Such safety-related Service Level II coatings used inside containment are procured to the same standards as Service Level I coatings with regard to radiation tolerance and performance under design basis accident conditions as discussed below.</p>	<p>Duke Energy Concurrence of Standard Content, WLG2011.03-10 VEGP-VOL-Ch06 Coatings in response to STD COL 06.01-002 SNC Ltr ND-10-1566</p>
9481	WLS,STD	Pt 02	FSAR 06	06.01.02.01.06	<p>COLA Part 2, FSAR Chapter 6, Section 6.1.2.1.6 as revised per Qb7782 is revised to remove the term "safety-related" from:</p> <p>Such safety-related Service Level II coatings used inside containment are procured to the same standards as Service Level I coatings with regard to radiation tolerance and performance under design basis accident conditions as discussed below.</p> <p>To read: Such Service Level II coatings used inside containment are procured to the same standards as Service Level I coatings with regard to radiation tolerance and performance under design basis accident conditions as discussed below.</p>	<p>Correction to remove "safety-related" designation from changes in VEGP-VOL-Ch06 Coatings in response to STD COL 06.01-002 SNC Ltr ND-10-1566. Only the procurement is per Appendix B.</p>
9900	WLS	Pt 02	FSAR 06	06.02.05.02.02	COLA Part 2, FSAR Chapter 6, Subsection 6.2.5.2.2, STD COL 6.2-1 shown at the first paragraph is moved to the second paragraph.	Editorial
10277	WLS	Pt 02	FSAR 06	06.04.03	<p>COLA Part 2, FSAR Chapter 6, Subsection 6.4.3, second paragraph, last sentence is revised from:</p> <p>The procedures also include periodic assessments of the control room habitability systems' material condition, configuration controls, safety analyses, and operating and maintenance procedures consistent with the guidance provided in regulatory position 2.2.1 of Regulatory Guide 1.196.</p> <p>To read: The procedures also include periodic assessments of the control room habitability systems' material condition, configuration controls, safety analyses, and operating and maintenance procedures consistent</p>	Editorial

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					with the guidance provided in regulatory position 2.2.1 of Regulatory Guide 1.196.	
9482	WLS,STD	Pt 02	FSAR 06	06.04.07	COLA Part 2, FSAR Chapter 6, Subsection 6.4.7 is revised to include an additional LMA of STD COL 6.4-1. For the subsections listed, 2.2.3.1.1.4, 2.2.3.1.4, and 6.4.4.2 are added.	Editorial for consistency to match the LMAs used in the sections where the item is addressed, particularly 6.4.4
9486	WLS,STD	Pt 02	FSAR 06	06.04.T / T6.4-202	COLA Part 2, FSAR Chapter 6, Section 6.4, Table 6.4-202 Part A is revised for the standard chemicals of hydrogen (liquid and gas), nitrogen, and carbon dioxide, to change the MCR Habitability Impact Evaluation from IH to MCR.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI LTR 061 response to RAI 06.04-005 item 2 SNC Ltr ND-10-1721
9483	WLS,STD	Pt 02	FSAR 06	06.04.T / T6.4-202	COLA Part 2, FSAR Chapter 6, Section 6.4, standard portion of table of toxic chemical evaluations (WLS Table 6.4-202) as modified by the response to BLN-RAI-LTR-169 is further revised in the Standard Onsite Toxic Chemicals listing for the Hydrogen Gas from "Corner of the Auxiliary and Turbine buildings" to read "Yard at turbine building" in the "Evaluated Location" column.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-Ch06 re toxic chemicals response to STD-COL-06.04-001 item 1 SNC Ltr ND-10-1473
9484	WLS,STD	Pt 02	FSAR 06	06.04.T / T6.4-202	COLA Part 2, FSAR Chapter 6, Section 6.4, standard portion of table of toxic chemical evaluations (WLS Table 6.4-202) as modified by the response to BLN-RAI-LTR-169 is further revised in the Standard Onsite Toxic Chemicals listing for the Hydrogen Liquid from "2000 gal" to read "1500 gal" in the "Evaluated Maximum Quantity" column.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-Ch06 re toxic chemicals response to STD-COL-06.04-001 item 2 SNC Ltr ND-10-1473
9485	WLS,STD	Pt 02	FSAR 06	06.04.T / T6.4-202	COLA Part 2, FSAR Chapter 6, Section 6.4, Table 6.4-202 Part A is revised for the standard chemicals of hydrogen (liquid), nitrogen, and carbon dioxide, to change the Evaluated Minimum Distance to MCR Intake from 814 ft to 577 ft.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI LTR 061 response to RAI 06.04-005 item 1 SNC Ltr ND-10-1721
9983	WLS,STD	Pt 02	FSAR 06	06.04.T / T6.4-202 Notes	COLA Part 2, FSAR Chapter 6, Table 6.4-202 Notes section is revised to make Note MCR Standard by removing the LMA WLS COL 6.4-1.	Note as revised in previous revision is now Standard
9488	WLS,STD	Pt 02	FSAR 06	06.04.T / T6.4-202 Notes	COLA Part 2, FSAR Chapter 6, Section 6.4, Table 6.4-202 is revised to change the footnote for MCR 'from:  MCR -Chemicals with an Impact Evaluation designation of "MCR" indicates the evaluation of this chemical considered additional design details of the main control room (beyond IH) such as volume, envelope boundaries, ventilation systems, and occupancy factor.  To read	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI LTR 061 response to RAI 06.04-005 item 4 SNC Ltr ND-

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					MCR -Chemicals with an Impact Evaluation designation of "MCR" indicates the evaluation of this chemical considered design details of the main control room such as volume, envelope boundaries, ventilation systems, and occupancy factor.	10-1721
9463	WLS,STD	Pt 02	FSAR 07	07.01	COLA Part 2, FSAR Chapter 7, Section 7.1 is revised from:  7.1 INTRODUCTION  This section of the referenced DCD is incorporated by reference with no departures or supplements.  To read (with an LMA of STD COL 7.1-1 for the new subsection 7.1.6.1):  7.1 INTRODUCTION  This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.  -----  7.1.6.1 Setpoint Calculations for Protective Functions  The Setpoint Program described in Technical Specifications Section 5.5 provides the appropriate controls for update of the instrumentation setpoints following completion of the calculation of setpoints for protective functions and the reconciliation of the setpoints against the final design.	Duke Energy Concurrence with Standard Content WLG2010.11-01 DCD Rev 18, VEGP-VOL-CH07 response to 07.01-001 item 2 SNC Ltr ND-10-1118, VEGP-VOL-CH07 S1 response to 07.01-001 item 2 SNC Ltr ND-10-1266
9982	WLS	Pt 02	FSAR 07	07.05	COLA Part 2, FSAR Chapter 7, Section 7.5 is revised to remove the first paragraph, "FSAR Table 7.5-201 supplements the site specific information noted in the "Remarks" column of DCD Table 7.5-1 and in the "Variable" column of DCD Table 7.5-8."	Conforming change to QB 9464, duplicate information
9464	WLS,STD	Pt 02	FSAR 07	07.05	COLA Part 2, FSAR Chapter 7, Section 7.5 is revised to add Subsections 7.5.2 and 7.5.3.5 (with LMAs for both subsections of STD COL 7.5-1) as follows:  7.5.2 VARIABLE CLASSIFICATIONS AND REQUIREMENTS  Add the following paragraph at the end of DCD Subsection 7.5.2.  FSAR Table 7.5-201 supplements DCD Table 7.5-1 and provides variable data shown in the DCD Table as "site specific."  7.5.3.5 Type E Variables  Add the following paragraph at the end of DCD Subsection 7.5.3.5.  FSAR Table 7.5-201 supplements DCD Table 7.5-8 and provides variable data shown in the DCD Table as "site specific."	Duke Energy Concurrence with Standard Content WLG2010.11-01 DCD Rev 18, VEGP-VOL-CH07 S1 item 3, SNC Ltr ND-10-1266
9465	WLS,STD	Pt 02	FSAR 07	07.05	COLA Part 2, FSAR Chapter 7, Section 7.5 is revised to add Subsection 7.5.5 with LMAs of both STD COL 7.5-1 and WLS COL 7.5-1:  7.5.5 COMBINED LICENSE INFORMATION  This COL item is addressed in Subsection 7.5.2 and Table 7.5-201, and in Subsection 7.5.3.5.	Duke Energy Concurrence with Standard Content WLG2010.11-01 DCD Rev 18, VEGP-VOL-CH07 S1 item 4, SNC Ltr ND-10-1266
9495	WLS,STD	Pt 02	FSAR 07	07.05.T / T7.5-201	COLA Part 2, FSAR Chapter 7, Table 7.5-201 LMA is revised from "WLS SUP 7.5-1" to "WLS COL 7.5-1."	Duke Energy



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
						Concurrence with Standard Content WLG0210.11-01 DCD Rev 18, VEGP-VOL-CH07 response to 07.04-001 item 5 SNC Ltr ND-10-1118 VEGP-VOL-CH07 S1 item 5, SNC Ltr ND-10-1266
10268	WLS	Pt 02	FSAR 09	09.02.08.01.02	COLA Part 2, FSAR Chapter 9, Subsection 9.2.8.1.2, first paragraph is revised from: The turbine building closed cooling water system provides corrosion-inhibited, demineralized cooling water to the equipment shown in Table 9.2.8-1 during normal plant operation.  To read: The turbine building closed cooling water system provides corrosion-inhibited, demineralized cooling water to the equipment shown in DCD Table 9.2.8-1 during normal plant operation.	Editorial
10269	WLS	Pt 02	FSAR 09	09.02.08.02.03	COLA Part 2, FSAR Chapter 9, Subsection 9.2.8.1.2, first paragraph following the subheading 'Normal Operation' is revised from: During normal operation, one turbine building closed cooling water system pump and two heat exchangers provide cooling to the components listed in Table 9.2.8-1. The other pump is on standby and aligned to start automatically upon low discharge header pressure.  To read: During normal operation, one turbine building closed cooling water system pump and two heat exchangers provide cooling to the components listed in DCD Table 9.2.8-1. The other pump is on standby and aligned to start automatically upon low discharge header pressure.	Editorial
10134	WLS	Pt 02	FSAR 09	09.02.09	COLA Part 2, FSAR Chapter 9, Subsection 9.2.9 is revised at the title from: 9.2.9 WASTEWATER SYSTEMS  To read: 9.2.9 WASTE WATER SYSTEMS	DCD and R-COLA Consistency
10133	WLS	Pt 02	FSAR 09	09.02.09.02.02	COLA Part 2, FSAR Chapter 9, Subsection 9.2.9.2.2 is revised to add 'Plant Outfall' to the Waste Water Component Descriptions, following 'Blowdown Sump' to read:  Plant Outfall  The plant outfall is the final discharge point for Units 1 and 2. The single walled HDPE (High Density Polyethylene) outfall pipe is sized to drain, via gravity, the maximum expected flow from the blowdown sump. Dilution water for radioactive waste discharges may be supplied to the blowdown sump from the raw water system when cooling tower blowdown is not available. To prevent radioactive contamination of the blowdown sump, the location of the tie-in between the liquid radwaste system and the outfall pipe is downstream of and below the bottom elevation of the blowdown sump. Effluent from the blowdown sump mixes with the much smaller flow rate from the liquid radwaste system adjacent to the western bank of the Broad River and is discharged via the outfall pipe/diffuser to the Ninety-Nine Islands Reservoir. The outfall pipe is attached to the upstream face of the Ninety-Nine Islands Dam below the normal level of the impoundment, runs along the dam approximately 925 ft. and ends with an approximately 88 ft. long multi-port diffuser located in the zone where the impoundment water flows to the intake of the Ninety-Nine Islands Hydroelectric station. Liquid radioactive waste discharges are monitored for radiation and are addressed in detail in DCD Section 11.2; the applicable radiation monitor is addressed in detail in DCD Subsection 11.5.2.3.3.	Provides additional site specific details to better align with R-COLA content. Based on VEGP letter ND-10-1378 ( ERAI/OI #5087) 9-10-10.
9509	WLS	Pt 02	FSAR 09	09.05.02.02.03.01	COLA Part 2, FSAR Chapter 9, Subsection 9.5.2.2.3.1 is revised to add LMA WLS COL 18.2-2.	R-COLA Consistency

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9508	WLS,STD	Pt 02	FSAR 09	09.05.04.05.02	COLA Part 2, FSAR Chapter 9, Subsection 9.5.4.5.2, second paragraph, the word "kinetic" is revised to "kinematic" to match the required ASTM testing.	Editorial
9510	WLS	Pt 02	FSAR 09	09.05.T / T9.5-201 033	COLA Part 2, FSAR Chapter 9, Table 9.5-201, item 33 is revised under the Remarks column from: Subsection 9.5.1.8.2.2 and DCD Subsection 6.4.3.1 address these requirements.  To read: Subsection 9.5.1.8.2.2 and DCD Subsections 6.4.2.3 and 6.4.4 address these requirements.	Editorial
9511	WLS	Pt 02	FSAR 09	09AF / F9A-201	Revise COLA Part 2, FSAR Chapter 9, Appendix 9A, Figure 9A-201 is revised at the Title block to match DCD Figure 9A-3, Sheet 1 of 3, title block from: Annex Buildings I and II Fire Areas Plan at Elevation 100-0" and 107-2"  To read (in italics): [Annex I & II Building Fire Areas Plan at Elevation 100-0" & 107-2"]* and to include the * footnote from the DCD.	Westinghouse AP1000 DCD Revision 18 and Editorial
9476	WLS,STD	Pt 02	FSAR 11	11.02.01.02.04	COLA Part 2, FSAR Chapter 11, Subsection 11.2.1.2.4 is revised to remove the DCD info from:  11.2.1.2.4 Controlled Release of Radioactivity  Replace the last paragraph in DCD Subsection 11.2.1.2.4 with the following information:  The monitored radwaste discharge pipeline is engineered to preclude leakage to the environment. This pipe is routed from the auxiliary building to the radwaste building (the short section of pipe between the two buildings is fully available for visual inspection as noted above) and then out of the radwaste building to the licensed release point for dilution and discharge. The discharge radiation monitor and isolation valve are located inside the auxiliary building. The exterior piping is designed to preclude inadvertent or unidentified releases to the environment. No valves, vacuum breakers, or other fittings are incorporated outside of buildings. This greatly reduces the potential for undetected leakage from this discharge to the environment at a non-licensed release point, and supports compliance with 10 CFR 20.1406 (Reference 5).  To read:  11.2.1.2.4 Controlled Release of Radioactivity  Add the following to the end of DCD Subsection 11.2.1.2.4:	Provides additional site specific details to better align with R-COLA content. Based on VEGP letter ND-10-1378 ( ERAI/OI #5087) 9-10-10.
10128	WLS	Pt 02	FSAR 11	11.02.01.02.04	COLA Part 2, FSAR Chapter 11, Subsection 11.2.1.2.4 is revised to add further description of radwaste discharge line to read as follows:  11.2.1.2.4 Controlled Release of Radioactivity  Add the following at the end of DCD Subsection 11.2.1.2.4:  The exterior liquid radwaste system discharge pipeline is routed below ground from the Radwaste Building to the western bank of the Broad River where this effluent mixes with the blowdown sump discharge. This interface point between the waste water and liquid radwaste systems is upstream of the plant outfall to the Ninety-Nine Islands Reservoir via the outfall pipe/diffuser. The plant outfall is described in Subsection 9.2.9.2.2.  The exterior liquid radwaste system discharge is stainless steel and is enclosed within a high-density polyethylene (HDPE) guard pipe. The annular space between the liquid radwaste discharge pipe and the guard pipe is monitored for leakage at low points along the path. The guard pipe is continuous up to the underground pit where the liquid radwaste pipe ties into the outfall pipe. The underground pit is monitored for leakage. Monitoring points are provided to facilitate manual sampling for leakage consistent with NEI 08-	Provides additional site specific details to better align with R-COLA content. Based on VEGP letter ND-10-1378 ( ERAI/OI #5087) 9-10-10.

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change									
					08A and 10 CFR 20.1406 contamination minimization requirements. Leakage monitoring of the liquid radwaste system discharge pipeline will be implemented as part of the radiation protection program (See Appendix 12AA).										
9477	WLS,STD	Pt 02	FSAR 11	11.04.07	COLA Part 2, FSAR Chapter 11, Subsection 11.4.7, Reference 201 is revised to include ADAMS Accession No. ML091460627.	Editorial									
9475	WLS,STD	Pt 02	FSAR 11	11.05.07	Revise COLA Part 2, FSAR Chapter 11, Subsections 11.5.7 and 11.5.8 are renumbered as follows:  11.5.7 Combined License Information is renumbered to 11.5.8. The first sentence is revised to include the full form of the acronym ODCM to read: '11.5.8 COMBINED LICENSE INFORMATION An Offsite Dose Calculation Manual (OCDM)....'  11.5.8 References is renumbered to 11.5.9 and The lead in sentence is revised to read: '11.5.9 REFERENCES Add the following subsection after DCD Subsection 11.5.8."	Westinghouse AP1000 DCD Revision 18, Based on WEC letter DCP/NRC2492 dated 20090522									
9478	WLS,STD	Pt 02	FSAR 11	11.05.09	COLA Part 2, FSAR Chapter 11, Subsection 11.5.9, Reference 202, is revised to include the ADAMS Accession No. ML091050234.	Editorial									
9474	WLS,STD	Pt 02	FSAR 12	12.02.01.01.10	COLA Part 2, FSAR Chapter 12, Subsection 12.2.1.1.10, Miscellaneous Sources is revised to include a new final paragraph to read: During the period prior to the implementation of the Emergency Plan (in preparation for the initial fuel loading following the 52.103(g) finding), no specific materials related emergency plan will be necessary because:  a) No byproduct material will be received, possessed, or used in a physical form that is "in unsealed form, on foils or plated sources, or sealed in glass," that exceeds the quantities in Schedule C in 10 CFR 30.72, and  b) The source material to be received, possessed, or used does not involve uranium hexafluoride in excess of 50 kilograms in a single container or 1000 kilograms total.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-062 response to RAI 01.05- 001 item 2 SNC Ltr ND- 10-2002									
10038	WLS,STD	Pt 02	FSAR 12	12.02.01.01.10	COLA Part 2, FSAR, Chapter 12, Section 12.2.1.1.10, Miscellaneous Sources, seventh paragraph, Item b is revised from: b) The source material to be received, possessed, or used does not involve uranium hexafluoride in excess of 50 kilograms in a single container or 1000 kilograms total.  To read: b) No 10 CFR Part 40 specifically licensed source material, including natural uranium, depleted uranium and uranium hexafluoride will be received, possessed, or used during this period.  The following radioactive sources will be used for the Radiation Monitoring System and laboratory/portable monitoring instrumentation:(a) <table><tr><th>Radioactive Licensee Material (Element and Mass Number)(a)</th><th>Chemical and/or Physical Form (a)</th><th>Maximum quantity that licensee may possess at any one time(a)</th></tr><tr><td>Any byproduct material with atomic numbers 1 through 93 inclusive</td><td>Sealed Sources (b)</td><td>No single source to exceed 100 millicuries 5 Curies total</td></tr><tr><td>Americium-241</td><td>Sealed Sources (b)</td><td>No single source to exceed 300 millicuries 500 millicuries total</td></tr></table> Notes: a. This information remains in effect between the issuance of the COL and the Commissions 52.103	Radioactive Licensee Material (Element and Mass Number)(a)	Chemical and/or Physical Form (a)	Maximum quantity that licensee may possess at any one time(a)	Any byproduct material with atomic numbers 1 through 93 inclusive	Sealed Sources (b)	No single source to exceed 100 millicuries 5 Curies total	Americium-241	Sealed Sources (b)	No single source to exceed 300 millicuries 500 millicuries total	Duke Energy concurrence with Standard Content, WLG2011.04-06 VEGP-VOL-Materials 30-40 response to VEGP 12.02 VR1 item 2 SNC Ltr ND-11-0435
Radioactive Licensee Material (Element and Mass Number)(a)	Chemical and/or Physical Form (a)	Maximum quantity that licensee may possess at any one time(a)													
Any byproduct material with atomic numbers 1 through 93 inclusive	Sealed Sources (b)	No single source to exceed 100 millicuries 5 Curies total													
Americium-241	Sealed Sources (b)	No single source to exceed 300 millicuries 500 millicuries total													

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					(g) finding for each unit, and will be designated historical information after that time. b. Includes calibration and reference sources.	
9473	WLS,STD	Pt 02	FSAR 12	12.03.F / F12.3-201 F12.3-202 F12.3-203	COLA Part 2, FSAR Figures 12.3-201, 12.3-202, and 12.3-203 are revised.  Editorial change to title block of Figures 12.3-201 and 12.3-203: include comma following 'Building'.	Westinghouse AP1000 DCD Revision 18
10273	WLS,STD	Pt 02	FSAR 12	12.03.F / F12.3-202 F12.3-203	COLA Part 2, FSAR Figures 12.3-202, and 12.3-203 are revised.	Westinghouse AP1000 DCD Revision 18
9472	WLS,STD	Pt 02	FSAR 12	12AA.05.04.15	COLA Part 2, FSAR Appendix 12AA, Subsection 12AA.5.4.15 is revised under NEI 07-03A Reference 201 to include the ADAMS Accession No. ML093220445.	Editorial
10243	WLS	Pt 02	FSAR 13	13.01.01.03.01.01	COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.1 is revised to remove the second paragraph.	Duke Energy Organizational Update
10244	WLS	Pt 02	FSAR 13	13.01.01.03.01.02	COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.2 is revised as follows:  Subsection 13.1.1.3.1.2 is revised to read: 13.1.1.3.1.2 Chief Generation and Chief Nuclear Office (CNO)  First paragraph, fourth and fifth sentences are revised to read: The chief generation and chief nuclear officer delegates authority and responsibility for the operation and support of the sites through the executive in charge of nuclear operations to the site executives in charge of nuclear operations. The executive in charge of office of nuclear development reports to the chief generation and chief nuclear officer.	Duke Energy Organizational Update
10245	WLS	Pt 02	FSAR 13	13.01.01.03.01.03	COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.3 is revised in its entirety to read:  13.1.1.3.1.3 Executive In Charge of Nuclear Operations  The executive in charge of nuclear operations is responsible for oversight of operations at each of the stations. The site executives in charge of nuclear operations for the McGuire, Catawba, and Oconee operating plants report to the executive in charge of nuclear operations. The executive in charge of nuclear operations reports to the chief generation and chief nuclear officer.	Duke Energy Organizational Update
10246	WLS	Pt 02	FSAR 13	13.01.01.03.01.04	COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.4 is revised in its entirety to read:  13.1.1.3.1.4 Site Executive(s) In Charge of Nuclear Operations (McGuire, Catawba, Oconee)  The site executive(s) in charge of nuclear operations reports to the executive in charge of nuclear operations. The site executive in charge of nuclear operations is directly responsible for management and direction of activities associated with the efficient, safe, and reliable operation of the nuclear station, except for those functions delegated to the executive in charge of nuclear corporate. The site executive in charge of nuclear operations is assisted in management and technical support activities by the plant manager, and managers in charge of nuclear safety assurance, engineering, training, site services, and site business. The site executive in charge of nuclear operations is responsible for the site fire protection program through the engineer in charge of fire protection and engineering management.	Duke Energy Organizational Update
10247	WLS	Pt 02	FSAR 13	13.01.01.03.01.05	COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.5 is removed in its entirety. Former Subsection 13.1.1.3.1.6 is renumbered to Subsection 13.1.1.3.1.5.	Duke Energy Organizational Update
10248	WLS	Pt 02	FSAR 13	13.01.01.03.01.06	COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.6 is renumbered to 13.1.1.3.1.5 (as described in QB #10247). Former Subsection 13.1.1.3.1.8 is renumbered to Subsection 13.1.1.3.1.6 and revised to read:  13.1.1.3.1.6 Executive in Charge of Major Projects	Duke Energy Organizational Update

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>The executive in charge of major projects provides project management, engineering, and vendor oversight for selected large projects at the nuclear sites. Providing oversight for these significant projects provides more focus and continuity for upgrades and eliminates distractions for site management. The executive in charge of major projects reports to the chief generation and chief nuclear officer.</p>	
10249	WLS	Pt 02	FSAR 13	13.01.01.03.01.07	<p>COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.7 is replaced by the following:</p> <p>13.1.1.3.1.7 Executive in Charge of Nuclear Corporate</p> <p>The executive in charge of nuclear corporate has the responsibility for support functions including licensing, quality assurance and oversight, technical services, emergency planning, performance improvement, and workforce in-processing. The independent nuclear oversight manager, the centers of excellence manager, the nuclear engineering manager, the plant support manager, and the employee concerns manager report to the executive in charge of nuclear corporate. The executive in charge of nuclear corporate reports to the chief generation and chief nuclear officer.</p>	Duke Energy Organizational Update
10250	WLS	Pt 02	FSAR 13	13.01.01.03.01.08	<p>COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.8 is renumbered to 13.1.1.3.1.6 (as described in QB 10248) and replaced with the following:</p> <p>13.1.1.3.1.8 Functional Manager in Charge of Employee Concerns</p> <p>The functional manager in charge of employee concerns investigates concerns identified through the Employee Concerns Programs to determine their validity and initiate corrective actions as appropriate. Employee Concerns also promotes the Safety Conscious Work Environment (SCWE) Program and is sensitive to SCWE concerns during investigations performed.</p>	Duke Energy Organizational Update
10251	WLS	Pt 02	FSAR 13	13.01.01.03.01.09	<p>COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.9 is replaced with the following:</p> <p>13.1.1.3.1.9 Functional Manager in Charge of Centers of Excellence</p> <p>The functional manager in charge of the Centers of Excellence provides governance and oversight of the nuclear fleet and our fleet excellence model, promoting fleet consistency and industry best practices among the nuclear plants.</p>	Duke Energy Organizational Update
10252	WLS	Pt 02	FSAR 13	13.01.01.03.01.10	<p>COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.10 is replaced with the following:</p> <p>13.1.1.3.1.10 Functional Manager in Charge of Nuclear Engineering</p> <p>The functional manager in charge of Nuclear Engineering provides support to the stations in severe accident analysis, safety analysis, nuclear design, core mechanical and thermal hydraulic analysis, fuel management, switchyard support, metallurgical laboratory services, material aging program, steam generator maintenance, ISI program support, QC inspector training and certification, procurement engineering, welding and radiological engineering.</p>	Duke Energy Organizational Update
10253	WLS	Pt 02	FSAR 13	13.01.01.03.01.11	<p>COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.11 is replaced with the following:</p> <p>13.1.1.3.1.11 Functional Manager in Charge of Plant Support</p> <p>The functional manager in charge of Plant Support provides support to the stations for rotating equipment, reactor services (for fuel handling, head activities and dry fuel storage), safety assurance (NRC interface, licensing and regulatory compliance group, EP team, fleet security team, and fleet performance improvement team), scientific services (fleet RP staff organization, fleet chemistry staff organization, TLD laboratory, standards lab and radiological/environmental lab), centralized training and in-processing, and operations/work control.</p>	Duke Energy Organizational Update

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10254	WLS	Pt 02	FSAR 13	13.01.01.03.01.12	COLA Part 2, Chapter 13, Subsection 13.1.1.3.1.12 is replaced with the following:  13.1.1.3.1.12 Functional Manager in Charge of Independent Nuclear Oversight (INOS)  The functional manager in charge of Independent Nuclear Oversight (INOS) provides support and leadership to the general office and stations with QA program audits, performance assessment, procurement quality, supplier verification, and QA, QC, NDE, and in-service inspection (ISI), as applicable. In addition, INOS provides an advisory function to senior management through the NSRB. The Manager, INOS has the authority and organizational freedom to: Identify quality problems, initiate, recommend or provide solutions to quality problems through designated channels, verify the implementation of solutions to quality problems, and ensure cost and schedule do not influence decision making involving quality. The Manager, INOS has unfettered access to the Chief Nuclear Officer to communicate QA program concerns and issues.  The Manager, INOS is delegated primary ownership of the department QA program description and is responsible for day-to-day administration of the program and resolution of QA issues. If significant quality problems are identified by INOS personnel, the Manager, INOS or designee, has the responsibility and authority to stop work pending satisfactory resolution of the identified problem.	Duke Energy Organizational Update
10255	WLS	Pt 02	FSAR 13	13.01.01.03.01.13 13.01.01.03.01.14	COLA Part 2, Chapter 13, Subsections 13.1.1.3.1.13 and 13.1.1.3.1.14 are removed.	Duke Energy Organizational Update
10267	WLS	Pt 02	FSAR 13	13.01.F / F13.01-201	COLA Part 2, Chapter 13, FSAR Figure 13.1-201 is revised to reflect the Duke Energy Organizational Update.	Duke Energy Organizational Update
10256	WLS	Pt 02	FSAR 13	13.01.F / F13.01-203	COLA Part 2, Chapter 13, FSAR Figure 13.1-203 is revised to reflect the Duke Energy Organizational Update.	Duke Energy Organizational Update
10257	WLS	Pt 02	FSAR 13	13.01.F / F13.01-204	COLA Part 2, Chapter 13, FSAR Figure 13.1-204 is revised to reflect the Duke Energy Organizational Update.	Duke Energy Organizational Update
9502	WLS	Pt 02	FSAR 13	13.03	COLA Part 2, Chapter 13, Subsection 13.3 is revised to add LMA WLS COL 13.3-1 to the first paragraph	Editorial
9496	WLS,STD	Pt 02	FSAR 13	13.04.T / T13.4-201 14	COLA Part 2, FSAR Chapter 13, Section 13.4, Table 13.4-201, item 14, Emergency Planning is revised to remove the following information related to materials.  (portions applicable to radioactive material) 10 CFR 30.32(i)(3) Prior to initial receipt of 10 CFR 10 CFR 40.310(3) byproduct, source, or 30.32(i)(1) 10 CFR 70.22(i)(3) special nuclear materials 10 CFR (excluding Exempt 40.310)(1) Quantities as described in 10 CFR 10 CFR 30.18) 70.22(i)(1)	Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-RAI-LTR-062 response to RAI 01.05-001 item 1 SNC Ltr ND-10-2002
9497	WLS,STD	Pt 02	FSAR 13	13.04.T / T13.4-201 15	COLA Part 2, FSAR, Chapter 13, Section 13.4, Table 13.4-201, item 15, Security Program is revised in accordance with the Duke Energy endorsed R-COLA change as reflected on ND-10-2040.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR 051 S2 item 1 SNC Ltr ND-10-2040
9973	WLS,STD	Pt 02	FSAR 13	13.04.T / T13.4-201 15	COLA Part 2, FSAR, Section 13.4, Table 13.4-201, Item 15, Security Program is be revised by moving the entry for portions applicable to radioactive material above the line for "Physical Security Program," and revising the portions applicable to radioactive material entry from: (retain left margin annotation (LMA) of STD COL 13.4-1)  Program Title: (portions applicable to radiological material) Program Source (Required by): 10 CFR 30.34, 10 CFR 40.41, 10 CFR 73.1 FSAR Section: [blank]	Duke energy concurrence with Standard Content WLG2011.04-06 VEGP-VOL-73.55 Impl response to VEGP 13.06 VR2 item 1 SNC Ltr ND-11-0313

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change																								
					Implementation Milestone: Prior to initial receipt of byproduct, source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18) Implementation Requirement: 10 CFR 30.32(a), 10 CFR 40.31(a), 10 CFR 73.1(a)  To read:  Program Title: Physical Protection Program (applicable to protection of special nuclear material prior to the protected area being declared operational) Program Source (Required by): 10 CFR 73.1, 10 CFR 73.67 FSAR Section: 13.5.2.2.8, 13.6 Implementation Milestone: Prior to initial receipt of special nuclear material Implementation Requirement: 10 CFR 73.1(a), 10 CFR 73.67																									
9498	WLS,STD	Pt 02	FSAR 13	13.04.T / T13.4-201 21	COLA Part 2, FSAR, Chapter 13, Section 13.4, Table 13.4-201, item 21, Cyber Security Program is revised from:  <table><tr><th>Item</th><th>Program Title</th><th>Program Source (Required by)</th><th>FSAR Section</th><th>Implementation Milestone</th><th>Requirement</th></tr><tr><td>21.</td><td>Cyber Security Program</td><td>10 CFR 73.54</td><td>13.6</td><td>Prior to receipt of fuel onsite (protected area)</td><td>License Condition</td></tr></table> To read: <table><tr><th>Item</th><th>Program Title</th><th>Program Source (Required by)</th><th>FSAR Section</th><th>Implementation Milestone</th><th>Requirement</th></tr><tr><td>21.</td><td>Cyber Security Program</td><td>10 CFR 73.54(b) fuel onsite 10 CFR 73.55(b)(8); (protected area) 10 CFR 73.55(c)(6)</td><td>13.6</td><td>Prior to receipt of 10 CFR 73.55(a)(4)</td><td></td></tr></table>	Item	Program Title	Program Source (Required by)	FSAR Section	Implementation Milestone	Requirement	21.	Cyber Security Program	10 CFR 73.54	13.6	Prior to receipt of fuel onsite (protected area)	License Condition	Item	Program Title	Program Source (Required by)	FSAR Section	Implementation Milestone	Requirement	21.	Cyber Security Program	10 CFR 73.54(b) fuel onsite 10 CFR 73.55(b)(8); (protected area) 10 CFR 73.55(c)(6)	13.6	Prior to receipt of 10 CFR 73.55(a)(4)		Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR 051 S2 item 2 SNC Ltr ND-10-2040
Item	Program Title	Program Source (Required by)	FSAR Section	Implementation Milestone	Requirement																									
21.	Cyber Security Program	10 CFR 73.54	13.6	Prior to receipt of fuel onsite (protected area)	License Condition																									
Item	Program Title	Program Source (Required by)	FSAR Section	Implementation Milestone	Requirement																									
21.	Cyber Security Program	10 CFR 73.54(b) fuel onsite 10 CFR 73.55(b)(8); (protected area) 10 CFR 73.55(c)(6)	13.6	Prior to receipt of 10 CFR 73.55(a)(4)																										
9499	WLS,STD	Pt 02	FSAR 13	13.04.T / T13.4-201 22	COLA Part 2, FSAR Chapter 13, Section 13.4, Table 13.4-201 is revised by adding a new Item # (where # is the next appropriate number designation) with a left margin annotation (LMA) of STD COL 13.4-1, as follows:  Program Title: SNM Material Control and Accounting Program  Program Source (Required by): 10 CFR 74, Subpart B (§§ 74.11 – 74.19, excl. § 74.17)  FSAR Section: 13.5.2.2.9  Implementation Milestone: Prior to receipt of special nuclear material  Implementation Requirement: License Condition	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-064 response to RAI 01.05-003 item 2 SNC Ltr ND-10-2257																								
9974	WLS,STD	Pt 02	FSAR 13	13.05.02.02.08	COLA Part 2, FSAR, Section 13.5.2.2.8, Security Procedures is revised by adding the following text after the current text in this section (retain LMA of STD COL 13.5-1):  The Special Nuclear Material (SNM) Physical Protection Program describes the 10 CFR Part 70 required protection program in effect for the period of time during which new fuel as SNM is received and stored in a controlled access area (CAA), in accordance with the requirements of 10 CFR 73.67.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-73.55-Impl response to VEGP 13.06 VR2 item 2 SNC Ltr ND-11-0313																								
10266	WLS,STD	Pt 02	FSAR 13	13.05.02.02.08	COLA Part 2, FSAR, Section 13.5.2.2.8, Security Procedures, will be revised by inserting the following paragraph at the end of this subsection, following the new paragraph that was provided regarding protection	Duke Energy Concurrence with																								

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					of Special Nuclear Material (SNM) prior to 10 CFR 73.55 implementation (retain left margin annotation (LMA) of STD COL 13.5-1):  The New Fuel Shipping Plan addresses the applicable 10 CFR 73.67 requirements in the event that unirradiated new fuel assemblies or components are returned to the supplying fuel manufacturer(s) facility.	Standard Content WLG2011.05-03, 5/18/11 VEGP-RAI-LTR-065 S1 in response to RAI 13.06-37-VR1 item 1 SNC Ltr ND-11-0894
9500	WLS,STD	Pt 02	FSAR 13	13.05.02.02.09	COLA Part 2, FSAR Chapter 13, Section 13.5 is revised to add a new subsection 13.5.2.2.9 with an LMA of STD COL 13.5-1, as follows:  13.5.2.2.9 Special Nuclear Material (SNM) Material Control and Accounting Procedures  A material control and accounting system consisting of special nuclear material accounting procedures is utilized to delineate the requirements, responsibilities, and methods of special nuclear material control from the time special nuclear material is received until it is shipped from the plant. These procedures provide detailed steps for SNM shipping and receiving, inventory, accounting, and preparing records and reports. The Special Nuclear Material (SNM) Material Control and Accounting (MC&A) Program description is submitted to the Nuclear Regulatory Commission as a separate licensing basis document.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-064 response to RAI 01.05-003 item 3 SNC Ltr ND-10-2257
9503	WLS	Pt 02	FSAR 13	13.06	COLA Part 2, Chapter 13, Subsection 13.6, first paragraph, left margin annotations are revised from STD COL to WLS COL. This affects COL items 13.6-1 and 13.6-5.	Editorial
9504	WLS	Pt 02	FSAR 13	13.06	COLA Part 2, Chapter 13, Subsection 13.6, second paragraph, left margin annotation is revised from STD COL to WLS COL to read WLS COL 13.6-5.	Editorial
9505	WLS	Pt 02	FSAR 13	13.06.01	COLA Part 2, FSAR, Section 13.6.1, Combined License Information Item is revised to add (with left-margin annotation STD COL 13.6-1):  Information for the Physical Security ITAAC portion of this COL item is addressed in Section 14.3.2.3.2.	Duke Energy Concurrence with Standard Content WLG2010.11-01 DCD Rev 18, Based on WEC letter DCP/NRC2719 dated 20091216 VEGP RAI LTR 047 S2 response to RAI 14.03.12-001 item 1 SNC Ltr ND-10-0886
9506	WLS	Pt 02	FSAR 13	13.07	COLA Part 2, Chapter 13, Subsection 13.7, left margin annotation is revised from STD SUP 13.7-1 to WLS SUP 13.7-1.	Editorial
9501	WLS,STD	Pt 02	FSAR 13	13AA.01.01.01.01.08	COLA Part 2, FSAR Chapter 13, Appendix 13AA, Subsection 13AA.1.1.1.1.8 is revised to add a new last paragraph to read:  Periodic assessment involving both the construction and operations organizations continues to identify SSCs that could reasonably be expected to be impacted by scheduled construction activities. Appropriate administrative and managerial controls are then established as necessary. Specific hazards, impacted SSCs, and managerial and administrative controls are reviewed on a recurring basis and, if necessary, controls are revised/developed and implemented and maintained current as work progresses on site. For example, prior to construction activities that involve the use of large construction equipment such as cranes, managerial and administrative controls are in place to prevent adverse impacts on any operating unit(s) overhead power lines, switchyard, security boundary, etc., by providing the necessary restrictions on the use of large construction equipment.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-063 response to RAI 01.05-002 item 3 SNC Ltr ND-10-2114
9470	WLS,STD	Pt 02	FSAR 14	14.02.02.02	COLA Part 2, FSAR Chapter 14, Subsection 14.2.2.2, PT&O Organization Personnel Qualifications and Training is revised to add the following new second paragraph:	Duke Energy Concurrence with Standard Content,



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					Acceptable qualifications of non-supervisory test engineers follow the guidance provided in Regulatory Guide 1.28 as discussed in Appendix 1AA, i.e., ASME NQA-1-1994, Appendix 2A-1, Nonmandatory Guidance on the Qualification of Inspection and Test Personnel.	WLG2011.02-02 VEGP-VOL-CH14 Qualification Req response item 2 SNC Ltr ND-10-2204
9468	WLS,STD	Pt 02	FSAR 14	14.03.02.03.02	<p>COLA Part 2, FSAR, Section 14.3.2.3.2, Physical Security ITAAC (PS-ITAAC) is revised from: Generic PS-ITAAC have been developed in a coordinated effort between the NRC and the Nuclear Energy Institute (NEI) as outlined in Appendix C.II.1-C of Regulatory Guide 1.206. These generic ITAAC have been tailored to the AP1000 design and site-specific security requirements.</p> <p>To Read: [Reviewers Note: A new left-margin annotation (LMA) STD COL 13.6-1 will be applied to this paragraph. The current LMA, STD SUP 14.3-1, applies only to Subsection 14.3.2.3.3, Other Site-Specific Systems.]</p> <p>Generic PS-ITAAC have been developed in a coordinated effort between the NRC and the Nuclear Energy Institute (NEI). These generic ITAAC have been tailored to the AP1000 design and site-specific security requirements.</p>	Duke Energy Concurrence with Standard Content, WLG2010.11-01 VEGP RAI LTR 047 S2 response to RAI 14.03.12-001 item 2 SNC Ltr ND-10-0886
9469	WLS	Pt 02	FSAR 14	14.03.03	<p>COLA Part 2, FSAR Chapter 14 is revised to add Subsection 14.3.3 as follows:</p> <p>14.3.3 CDM SECTION 3.0, NON-SYSTEM BASED DESIGN DESCRIPTIONS AND ITAAC Add the following new subsection after the first paragraph in DCD Subsection 14.3.3.</p>	R-COLA Consistency
9435	WLS	Pt 02	FSAR 14	14.03.03	<p>COLA Part 2, FSAR Chapter 14, Subsection 14.3.3.1 is added as follows (with a left margin annotation WLS COL 2.5-17):</p> <p>14.3.3.1 Waterproof Membrane ITAAC</p> <p>The design of the waterproof membrane beneath the nuclear island basemat is described in DCD Subsection 3.4.1.1.1.1. Waterproof Membrane ITAAC have been developed to address verification that the mudmat-waterproofing interface beneath the nuclear island basemat has a minimum coefficient of friction to resist sliding of 0.55.</p>	Westinghouse AP1000 DCD Revision 18, COL-SER-OI-Ch02 re: waterproofing in response to 02.05-17 item 3, SNC LTR ND- 10-1281
7913	WLS,STD	Pt 02	FSAR 14	14.03.03	<p>COLA Part 2, FSAR Chapter 14, Subsection 14.3.3, add the following Subsections 14.3.3.2 and text, (note that the first item added has an LMA of STD COL 3.6-1, and the second item added has an LMA of STD COL 3.9-1) as follows:</p> <p>14.3.3.2 Pipe Rupture Hazard Analysis ITAAC</p> <p>A pipe rupture hazard analysis is part of the piping design. The analyses will document that structures, systems, and components (SSCs) which are required to be functional during and following a design basis event have adequate high-energy and moderate-energy pipe break mitigation features. The locations of postulated ruptures and essential targets will be established and required pipe whip restraint and jet shield designs will be included. The as-designed pipe rupture hazards analysis will be based on the as-designed piping analysis and will be in accordance with the criteria outlined in DCD Subsections 3.6.1.3.2 and 3.6.2.5. The evaluation will address environmental and flooding effects of cracks in high and moderate energy piping. The report of the pipe rupture hazard analysis shall conclude that, for each postulated piping failure, the systems, structures, and components that are required to be functional during and following a design basis event are protected.</p> <p>The as-built reconciliation of the pipe rupture hazards evaluation whip restraint and jet shield design in accordance with the criteria outlined in DCD Subsections 3.6.1.3.2 and 3.6.2.5 are covered in as-built ITAAC identified in DCD Tier 1 to demonstrate that the as-built pipe rupture hazards mitigation features reflect the design, as reconciled. The reconciliation report will be made available for NRC inspection or audit when it has been completed.</p>	Duke Energy Concurrence with Standard Content, WLG2010.11-01, COL- SER-OI-Ch03 S6 response to OI 03.06- 001 item 5 SNC Letter ND-10-0801

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					<p>The as-designed pipe rupture hazard analysis completed for the first standard AP1000 plant will be available to subsequent standard AP1000 plants under the "one issue, one review, one position" approach for closure.</p> <p>14.3.3.3 Piping Design ITAAC</p> <p>The piping design ITAAC consists of the piping analysis for safety-related ASME Code piping. The piping design is completed on a package-by-package basis for applicable systems. In order to support closure of the piping design ITAAC, information consisting of the as-designed piping analysis for piping lines chosen to demonstrate all aspects of the piping design will be made available for NRC review, inspection, and/or audit. This information will consist of a design report referencing the as-designed piping calculation packages, including ASME Section III piping analysis, support evaluations and piping component fatigue analysis for Class I piping. The piping packages to be analyzed are identified in the DCD.</p> <p>The ASME Code prescribes certain procedures and requirements that are to be followed for completing the piping design. The piping design ITAAC includes a verification of the ASME Code design report to ensure that the appropriate code design requirements for each systems safety class have been implemented.</p> <p>A reconciliation of the applicable safety-related as-built piping systems is covered in as-built ITAAC identified in DCD Tier 1 to demonstrate that the as-built piping reflects the design, as reconciled. The reconciliation report will be made available for NRC inspection or audit when it has been completed.</p> <p>The piping design completed for the first standard AP1000 plant will be available to subsequent standard AP1000 plants under the "one issue, one review, one position" approach for closure.</p>	
7919	WLS,STD	Pt 02	FSAR 14	14.03.03.03	COLA Part 2, FSAR Chapter 14, Subsection 14.3.3.3, Piping Design ITAAC, LMA is revised from STD COL 3.9-2 to STD COL 3.9-7 (which is the COL item addressed in the Basis letter).	Editorial/correspond with R-COLA QB #7712
9893	WLS,STD	Pt 02	FSAR 14	14.03.03.03	COLA Part 2, FSAR Chapter 14, Subsection 14.3.3.3 Piping Design ITAAC is revised editorially at the end of the first paragraph from: "The piping packages to be analyzed are identified in the DCD."	Editorial
9471	WLS,STD	Pt 02	FSAR 14	14A	<p>To read: "The piping packages to be analyzed are identified in the DCD."</p> <p>COLA Part 2, FSAR Chapter 14, new Appendix 14A is added (to incorporate new DCD Appendix) to read:</p> <p>APPENDIX 14A DESIGN ACCEPTANCE CRITERIA/ITAC CLOSURE PROCESS</p> <p>This section of the referenced DCD is incorporated by reference with no departures or supplements.</p>	Westinghouse AP1000 DCD Revision 18
7842	WLS,STD	Pt 02	FSAR 15	15.00	<p>COLA Part 2, FSAR Chapter 15, Section 15.0 is revised from:</p> <p>This section of the referenced DCD is incorporated by reference with no departures or supplements.</p> <p>To read (new sections will include LMA of STD COL 15.0-1):</p> <p>This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.</p> <p>15.0.3.2 Initial Conditions</p> <p>Add the following paragraph at the end of DCD Subsection 15.0.3.2.</p> <p>The actual selected plant operating instrumentation has documented instrumentation uncertainties to calculate a primary power calorimetric uncertainty that confirms the uncertainty assumed for the initial reactor power in the safety analysis bounds the calculated calorimetric values.</p>	Duke Energy Concurrence with Standard Content WLG2010.11-01, DCD Rev 18, Based on WEC letter DCP/NRC2461 dated 20090506 COL-SER-OI-Ch15 S1 response via ND-10- 1018

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					<p>15.0.15 Combined License Information</p> <p>-----</p> <p>Add the following text to the end of DCD Subsection 15.0.15.1.</p> <p>-----</p> <p>This COL item is addressed in FSAR Subsection 15.0.3.2.</p> <p>-----</p>	
9466	WLS,STD	Pt 02	FSAR 15	15.00.03.02	<p>COLA Part 2, FSAR Chapter 15, Section 15.0.3.2 is revised from:</p> <p>The actual selected plant operating instrumentation has documented instrumentation uncertainties to calculate a primary power calorimetric uncertainty that confirms the uncertainty assumed for the initial reactor power in the safety analysis bounds the calculated calorimetric values.</p> <p>To read:</p> <p>The plant operating instrumentation selected for feedwater flow measurement is a Caldon [Cameron] LEFM CheckPlus(TM) System (Reference 201). This selected plant operating instrumentation has documented instrumentation uncertainties to calculate a power calorimetric uncertainty that confirms the 1 % uncertainty assumed for the initial reactor power in the safety analysis bounds the calculated calorimetric power measurement uncertainty values. This calculated calorimetric is done in accordance with a previously accepted Westinghouse methodology (Reference 202). Administrative controls implement maintenance and contingency activities related to the power calorimetric instrumentation.</p>	<p>This change SUPERSEDES the text only added in QB 7842 and is SUPERSEDED by QB 9978. Duke Energy Concurrence with Standard Content WLG2011.03-09, COL-SER-OI-CH15 S3 response to SER-OI-15.00-001 item 1 SNC Ltr ND-10-2091</p>
9978	WLS,STD	Pt 02	FSAR 15	15.00.03.02	<p>COLA Part 2, FSAR Chapter 15, Subsection 15.0.3.2 is revised from:</p> <p>The plant operating instrumentation selected for feedwater flow measurement is a Caldon [Cameron] LEFM CheckPlusTM System (Reference 201). This selected plant operating instrumentation has documented instrumentation uncertainties to calculate a power calorimetric uncertainty that confirms the 1% uncertainty assumed for the initial reactor power in the safety analysis bounds the calculated calorimetric power measurement uncertainty values. This calculated calorimetric is done in accordance with a previously accepted Westinghouse methodology (Reference 202). Administrative controls implement maintenance and contingency activities related to the power calorimetric instrumentation.</p> <p>To read:</p> <p>The plant operating instrumentation selected for feedwater flow measurement is a Caldon [Cameron] LEFM CheckPlus System (Reference 201), which will be calibrated (in a certified laboratory using a piping configuration representative of the plant piping design) prior to installation and will be tested after installation in the plant in accordance the LEFM CheckPlus commissioning procedure. This selected plant operating instrumentation has documented instrumentation uncertainties to calculate a power calorimetric uncertainty that confirms the 1% uncertainty assumed for the initial reactor power in the safety analysis bounds the calculated calorimetric power uncertainty values. The calculated calorimetric is done in accordance with a previously accepted Westinghouse methodology (Reference 202). Administrative controls implement maintenance and contingency activities related to the power calorimetric instrumentation.</p>	<p>This change SUPERSEDES QB 9466. Duke Energy concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH 15 ACRS response to OI 15.00-001 SNC Ltr ND-11-0253</p>
9979	WLS,STD	Pt 02	FSAR 15	15.00.03.02	<p>COLA Part 2 FSAR Chapter 15, Subsection 15.0.3.2 is revised from:</p> <p>The plant operating instrumentation selected for feedwater flow measurement is a Caldon [Cameron] LEFM CheckPlus System (Reference 201), which will be calibrated (in a certified laboratory using a piping configuration representative of the plant piping design) prior to installation and will be tested after installation in the plant in accordance the LEFM CheckPlus commissioning procedure.</p> <p>To read:</p> <p>The plant operating instrumentation selected for feedwater flow measurement is a Caldon [Cameron] LEFM CheckPlus System (Reference 201), which will be calibrated (in a certified laboratory using a piping configuration representative of the plant piping design) prior to installation and will be tested after installation in the plant in accordance the LEFM CheckPlus commissioning procedure.</p>	<p>This change SUPERSEDES the first sentence shown on QB 9978. Editorial revision to VEGP-VOL-CH.15 ACRS response to OI 15.00-001 SNC Ltr ND-11-0253</p>

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					configuration representative of the plant piping design) prior to installation and will be tested after installation in the plant in accordance with the LEFM CheckPlus commissioning procedure.	
9467	WLS,STD	Pt 02	FSAR 15	15.00.16	COLA Part 2 FSAR Chapter 15, Section 15.0 is revised to add the following new subsection:  15.0.16 References  Add the following text to the end of DCD Subsection 15.0.16.  201. Final Safety Evaluation for Cameron Measurement Systems Engineering Report ER-157P, Revision 8, "Caldon Ultrasonics Engineering Report ER-157P, 'Supplement to Topical Report ER-80P: Basis for a Power Uprate with the LEFM Check or Checkplus™ System'," (TAC No. ME1321). August 16, 2010, ADAMS Accession No. ML102160694.  202. Final Safety Evaluation for Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and 2) - Issuance of Amendment re: 1.4-Percent Power Uprate and Revised BVPS-2 Heatup and Cooldown Curves. September 24, 2001, ADAMS Accession No. ML012490569.	Duke Energy Concurrence with Standard Content WLG2011.03-09, COL- SER-OI-CH15 S3 response to SER-OI- 15.00-001 item 2 SNC Ltr ND-10-2091
9479	WLS,STD	Pt 02	FSAR 17	17.06	9. COLA Part 2, FSAR Chapter 17, Section 17.6, will be revised to add a new LMA of STD COL 3.8-5 to the first paragraph.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-Ch03 SIP response to STD COL 03.08-005 item 9 SNC Ltr ND-10-1594
9965	WLS	Pt 02	FSAR 17	17.08	COLA Part 2, FSAR Chapter 17, Subsection 17.8, Reference 201 is revised to read: 201. Enercon Services, Inc., "Enercon Quality Assurance Project Planning Document," PPD No. DUK010, Revision 12, May, 2011.	Editorial
9433	WLS	Pt 02	FSAR 18	18.02.01.03	COLA Part 2, FSAR Chapter 18, Subsection 18.2.1.3 is revised, maintaining the left margin annotation WLS COL 18.2.2, to read:  The EOF and TSC communications strategies, as well as the EOF and TSC Human Factors attributes, are described in the Emergency Plan, Part 5 of the COL application. Subsection 9.5.2.2.3.1 provides additional information related to offsite interfaces.	Westinghouse AP1000 DCD Revision 18
10279	WLS,STD	Pt 02	FSAR 18	18.02.06.02	COLA Part 2, FSAR Chapter 18, Subsection 18.2.6.2 is revised from: This COL item is addressed in Section 18.2.1.3.  To read: This COL item is addressed in Subsection 18.2.1.3.	Editorial
9429	WLS	Pt 02	FSAR 19	19.55	COLA Part 2, Chapter 19, Subsection 19.55 SEISMIC MARGIN ANALYSIS is revised to read:  This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH19 PRA item 2 SNC Ltr ND-10- 1811
9430	WLS	Pt 02	FSAR 19	19.55.06.03	COLA Part 2, Chapter 19, Subsection 19.55.6.3 is added with a left margin annotation WLS COL 19.59.10-6 as follows:  19.55.6.3 Site Specific Seismic Margin Analysis  Discussions regarding design ground motion are presented in Subsection 3.7.1.1.1. The Lee site-specific	Westinghouse AP1000 DCD Revision 18

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					<p>seismic demand, characterized by the GMRS (applicable to Unit 2) and FIRS A1 (applicable to Unit 1) are enveloped by the WEC Tier 1 criteria for SSE, which combines both the Certified Seismic Design Response Spectrum (CSDRS) and Hard Rock High Frequency (HRHF) spectra. It is therefore concluded that the Seismic Margin Assessment described in DCD Section 19.55 is applicable to the nuclear island of the Lee Nuclear Station.</p> <p>The potential for relative displacement is described in Subsection 2.5.3.8, which addresses potential of permanent ground deformation (tectonic and non-tectonic).</p> <ul style="list-style-type: none"> <li>* The potential for tectonic deformation at the site is negligible.</li> <li>* The potential for non-tectonic surface deformation, including RIS, within the site area is negligible.</li> </ul> <p>There is no information suggesting the potential for non-tectonic surface deformation within the site area.</p> <p>Foundation bearing capacity for the nuclear island is described in Subsection 2.5.4.10.1.1. The Lee site specific average allowable bearing capacity for static and dynamic conditions, including appropriate safety factors, exceeds the DCD requirements by a factor of significantly greater than 1.67, the ratio of the Review Level Earthquake (RLE) to the SSE.</p> <p>Similarly, the foundation bearing capacity for the non-safety related buildings adjacent to the nuclear island is described in Subsection 2.5.4.10.1.2. Tables 2.5.4-228 and 2.5.4-229 demonstrate that the Lee site-specific allowable bearing capacity for adjacent structures founded on granular fill also exceeds the AP1000 standard design requirement by a factor of significantly greater than 1.67, the ratio of the RLE to the SSE.</p> <p>As discussed in Subsection 2.5.4.8, a liquefaction hazard does not exist that could affect the Category I and seismic Category II portions of plant structures and facilities. Non-seismic portions of the annex buildings for Unit 1 and Unit 2 and the southern end of the non-seismic portion of the turbine building for Unit 2 may be founded on granular fill over saprolite. These areas will be highly resistant to liquefaction and will exhibit low to nil potential for liquefaction and related deformation, and low potential for adverse effects attributed to cyclic strain-softening or pore pressure build-up. These locations are also remote from the nuclear islands and thus have no potential for affecting the nuclear islands.</p> <p>The stability of slopes is discussed in Subsection 2.5.5. Permanent slopes within a one-quarter mile distance of the nuclear island structures were evaluated to determine the potential hazard to the safety-related structures. It was concluded these slopes do not pose a hazard to these structures.</p> <p>It is therefore concluded that the Seismic Margin Assessment analysis documented in DCD Section 19.55 is applicable to the Lee site, and that no site-specific conditions exist that have the potential to reduce the HCLPF values calculated for the certified design.</p>	
9431	WLS	Pt 02	FSAR 19	19.59.10.05	<p>COLA Part 2, Chapter 19, Subsection 19.59.10.5 is revised at the first paragraph with the addition of the left margin annotation, STD COL 19.59.10-6.</p> <p>The second paragraph, item 1 is revised to read:</p> <p>1. Specific minimum seismic requirements consistent with those used to define the AP1000 DCD Table 19.55-1 HCLPF values.</p> <p>This includes the known frequency range used to define the HCLPF by comparing the required response spectrum (RRS) and test response spectrum (TRS). The test response spectra are chosen so as to demonstrate that no more than one percent rate of failure is expected when the equipment is subjected to the applicable seismic margin ground motion for the equipment identified to be applicable in the seismic margin insights of the site-specific PRA. The range of frequency response that is required for the equipment with its structural support is defined.</p>	Westinghouse AP1000 DCD Revision 18
9432	WLS	Pt 02	FSAR 19	19.59.10.05	<p>COLA Part 2, Chapter 19, Subsection 19.59.10.5 is revised to add the following last paragraph with left margin annotations, STD COL 19.59.10-6 and WLS COL 19.59.10-6.</p> <p>As discussed in Subsection 19.55.6.3, it has been confirmed that the Seismic Margin Analysis (SMA)</p>	Duke Energy Concurrence with Standard Content WLG2011.04-06

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					documented in DCD Section 19.55 is applicable to the WLS site. The site-specific effects (i.e., soil-related failure modes, etc.) have been evaluated and it was concluded that the plant-specific plant-level HCLPF value is equal to or greater than 1.67 times the site-specific GMRS/FIRS A1 peak ground acceleration	VEGP-VOL-CH19 PRA item 1 SNC LTR ND-10-1811
<b>Pt 04</b>						<b>471 COLA Changes</b>
10232	WLS,STD	Pt 04		A.2-03.03.01	COLA Part 4, Section A, will be revised to delete the item for GTS 3.3.1.	Westinghouse AP1000 DCD Revision 18
10233	WLS,STD	Pt 04		A.2-03.03.02	COLA Part 4, Section A, will be revised to delete the item for GTS 3.3.2.	Westinghouse AP1000 DCD Revision 18
10234	WLS,STD	Pt 04		A.2-03.06.04	COLA Part 4, Section A, will be revised to delete the item for GTS 3.6.4.	Westinghouse AP1000 DCD Revision 18
10261	WLS,STD	Pt 04		A.2-05.02.02	COLA Part 4, Section A, GTS 5.2.2 is revised to include the following:  Justification: Generic TS bracketed information except Item d, is applicable and adopted. Item d is superseded by the revised final furle for 10 CFR Part 26.	Correction to implementation of Duke Energy Submittal, Changes to the Fitness for Duty Program Information, Physical Security During Construction, and Physical Security ITAAC, WLG2009.06-05/
10235	WLS,STD	Pt 04		A.2-B03.03.01	COLA Part 4, Section A, will be revised to add a new item for GTS Bases 3.3.1 to read:  GTS B3.3.1 The Bases for Specification 3.3.1 (Background) contain a Reviewer Note which addresses future confirmation of chosen setpoints. Remove the reviewer note in the PSTS. There is no replacement language. Justification: The reviewer's note information for this specification is deleted because it is not intended to be a part of technical specifications.	Westinghouse AP1000 DCD Revision 18
10236	WLS,STD	Pt 04		A.2-B03.03.02	COLA Part 4, Section A, will be revised to add a new item for GTS Bases 3.3.2 to read:  GTS B3.3.2 The Bases for Specification 3.3.2 (Background) contain a Reviewer Note which addresses future confirmation of chosen setpoints. Remove the reviewer note in the PSTS. There is no replacement language. Justification: The reviewer's note information for this specification is deleted because it is not intended to be a part of technical specifications.	Westinghouse AP1000 DCD Revision 18
10237	WLS,STD	Pt 04		A.2-B03.06.08	COLA Part 4, Section A, will be revised to add a new item for GTS Bases 3.6.8 to read:  GTS B3.6.8 The Bases for Specification 3.6.8 contain a bracketed Figure which addresses the anticipated time prior to coolant inventory boiling under various conditions. Remove the reviewer note in the PSTS. There is no replacement language. Justification: The information is applicable as provided since no major departures from the certified design have been taken.	Westinghouse AP1000 DCD Revision 15
9897	WLS	Pt 04		B, 00 TOC/Rev Summary	Technical Specifications Table of Contents/Revision Summary page, under Revision Column, revise to FSAR 4 on all entries.	Conform to revision status of COLA
10039	WLS	Pt 04		B, 01.01	COLA Part 4, Section 1.1 Definitions is revised under REACTOR TRIP CHANNEL OPERATIONAL TEST (RTCOT)	Westinghouse AP1000

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>from:</p> <p>A RTCOT shall be the injection of a simulated or actual signal into the RT (Reactor Trip) CHANNEL as close to the sensor as practicable to verify OPERABILITY of the required interlock and/or trip functions. The REACTOR TRIP CHANNEL OPERATIONAL TEST may be performed by means of a series of sequential, overlapping, or total channel steps so that the entire channel is tested from the signal conditioner through the trip logic.</p> <p>To Read:</p> <p>A RTCOT shall be the injection of a simulated or actual signal into the reactor trip channel as close to the sensor as practicable to verify OPERABILITY of the required interlock and/or trip functions. The RTCOT may be performed by means of a series of sequential, overlapping, or total channel steps so that the entire channel is tested from the signal conditioner through the trip logic.</p>	DCD Revision 19
10040	WLS	Pt 04		B, 01.01	COLA Part 4, Section 1.1 Definitions is revised under SHUTDOWN MARGIN c. to replace keff with keff (eff is subscript).	Westinghouse AP1000 DCD Revision 19
9596	WLS	Pt 04		B, 01.01	COLA Part 4, Section 1.1 Definitions is revised under SHUTDOWN MARGIN (SDM) with the addition of the following:	Westinghouse AP1000 DCD Revision 18
					c. In MODE 2 with keff < 1.0, and MODES 3,4, and 5, the worth of fully inserted Gray Rod Cluster Assemblies (GRCAs) will be included in the SDM calculation.	
10146	WLS	Pt 04		B, 01.01.T / T1.1-1	COLA Part 4, Table 1.1-1, third column heading 'REACTIVITY CONDITION (Keff)' (eff is subscript) is revised to read 'REACTIVITY CONDITION (keff).' (lower case 'k' in 'keff')	Westinghouse AP1000 DCD Revision 19
10147	WLS	Pt 04		B, 01.04	COLA Part 4, Section 1.4 EXAMPLE 1.4-1, SURVEILLANCE REQUIREMENTS, Perform CHANNEL CHECK, is revised at the fifth sentence from: 'The measurement of this interval continues at all times, even when the SR is not required to be met per SR 3.0.1...'	Westinghouse AP1000 DCD Revision 19
					To read: 'The measurement of this interval continues at all times, even when the SR is not required to be met per SR 3.0.1...'	
9597	WLS	Pt 04		B, 01.04	COLA Part 4, Section 1.4, EXAMPLES 1.4-1 second paragraph is revised to read:  If the interval specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, then SR 3.0.4 becomes applicable. The Surveillance must be performed within the Frequency requirements of SR 3.0.2, as modified by SR 3.0.3, prior to entry into the MODE or other specified condition or the LCO is considered not met (in accordance with SR 3.0.1) and LCO 3.0.4 becomes applicable.	Westinghouse AP1000 DCD Revision 18
10041	WLS	Pt 04		B, 03.01 03.01.01	COLA Part 4, Section 3.1, Specification 3.1.1 is revised under APPLICABILITY to show 'keff' with 'eff' in subscript.	Westinghouse AP1000 DCD Revision 19
10042	WLS	Pt 04		B, 03.01 03.01.01	COLA Part 4, Section 3.1, Specification 3.1.1 is revised under ACTIONS from: A. SDM not within limit.	Westinghouse AP1000 DCD Revision 19
					To Read: A. SDM not within limits.	
10043	WLS	Pt 04		B, 03.01 03.01.03	COLA Part 4, Section 3.1, Specification 3.1.3 is revised under APPLICABILITY from: MODE 1, and MODE 2 with keff [greater than or equal to] 1.0 for the upper MTC limit, MODES 1, 2, and 3 for the lower MTC limit.	Westinghouse AP1000 DCD Revision 19
					To read:	

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					MODE 1 for the upper MTC limit. MODE 2 with keff [greater than or equal to] 1.0 for the upper MTC limit. MODES 1, 2, and 3 for the lower MTC limit.	
9598	WLS	Pt 04		B, 03.01 03.01.04	COLA Part 4, Section 3.1, LCO 3.1.4 is revised at the NOTE section to read: Not applicable to Gray Rod Cluster Assemblies (GRCAs) during GRCA bank sequence exchange with OPDMS OPERABLE.	Westinghouse AP1000 DCD Revision 18
10044	WLS	Pt 04		B, 03.01 03.01.04	COLA Part 4, Section 3.1, Specification 3.1.4 is revised at the NOTE section from: Not applicable to Gray Rod Cluster Assemblies (GRCAs) during GRCA bank sequence exchange with OPDMS OPERABLE.	Westinghouse AP1000 DCD Revision 19
					To Read: Not applicable to Gray Rod Cluster Assemblies (GRCAs) during GRCA bank sequence exchange with the On-Line Power Distribution Monitoring System (OPDMS) OPERABLE.	
10045	WLS	Pt 04		B, 03.01 03.01.04	COLA Part 4, Section 3.1, Specification 3.1.4 is revised at the ACTIONS section Item B under COMPLETION TIME from: 8 hours with the On-Line Power Distribution Monitoring System (OPDMS) OPERABLE	Westinghouse AP1000 DCD Revision 19
					To Read: 8 hours with the OPDMS OPERABLE	
10046	WLS	Pt 04		B, 03.01 03.01.04	COLA Part 4, Section 3.1, Specification 3.1.4 is revised at the ACTIONS section Item B.2.4 under REQUIRED ACTION from: ----- - NOTE - Only required to be performed when OPDMS is inoperable. ----- B.2.4 Perform SR 3.2.1.1 (FQ(Z) verification) and SR 3.2.1.2 (FW (Z) Q verification). ----- To Read: B.2.4 ----- - NOTE - Only required to be performed when OPDMS is inoperable. ----- Perform SR 3.2.1.1 and SR 3.2.1.2.	Westinghouse AP1000 DCD Revision 19
10047	WLS	Pt 04		B, 03.01 03.01.04	COLA Part 4, Section 3.1, Specification 3.1.4 is revised at the ACTIONS section Item B.2.5 under REQUIRED ACTION from: ----- - NOTE - Only required to be performed when OPDMS is inoperable. ----- B.2.5 Perform SR 3.2.2.1 [Nuclear Enthalpy Rise Hot Channel Factor] verification). ----- To Read: B.2.5 ----- - NOTE - Only required to be performed when OPDMS is inoperable. ----- Perform SR 3.2.2.1.	Westinghouse AP1000 DCD Revision 19
10149	WLS	Pt 04		B, 03.01 03.01.04	COLA Part 4, Section 3.1, Specification 3.1.4, ACTIONS section, Item C under CONDITION is revised from: C. Required Action and associated Completion Time for Condition B not met.	Westinghouse AP1000 DCD Revision 19



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					To Read: C. Required Action and associated Completion Time of Condition B not met.	
9599	WLS	Pt 04		B, 03.01 03.01.04	COLA Part 4, Section 3.1, SR 3.1.4.3 is revised under FREQUENCY to read:  Prior to reactor criticality after each removal of the reactor head, and after each earthquake requiring plant shutdown	Westinghouse AP1000 DCD Revision 18
9600	WLS	Pt 04		B, 03.01 03.01.05	COLA Part 4, Section 3.1, Specification 3.1.5 APPLICABILITY is revised from: MODES 1 and 2 with OPDMS inoperable. To read: MODES 1 and 2.	Westinghouse AP1000 DCD Revision 18
9601	WLS	Pt 04		B, 03.01 03.01.06	COLA Part 4, Section 3.1, Specification 3.1.6 APPLICABILITY is revised from: MODE 1 and MODE 2 with keff [greater than or equal to] 1.0 with OPDMS inoperable. To read: MODE 1 and MODE 2 with keff [greater than or equal to] 1.0.  NOTES are revised to read: 1. This LCO is not applicable while performing SR 3.1.4.2. 2. This LCO is not applicable to Gray Rod Cluster Assembly (GRCA) banks during GRCA bank sequence exchange with OPDMS OPERABLE.	Westinghouse AP1000 DCD Revision 18
10048	WLS	Pt 04		B, 03.01 03.01.06	COLA Part 4, Section 3.1, Specification 3.1.6 is revised at the APPLICABILITY section from: MODE 1 and MODE 2 with keff [greater than or equal to] 1.0.  To Read: MODE 1. MODE 2 with keff [greater than or equal to] 1.0.	Westinghouse AP1000 DCD Revision 19
10049	WLS	Pt 04		B, 03.01 03.01.07	COLA Part 4, Section 3.1, Specification 3.1.7 is revised at the ACTIONS section Item B.2 under REQUIRED ACTION from: B.2 Monitor and Record RCS Tavg.  To Read: B.2 Monitor and record Reactor Coolant System (RCS) Tavg.	Westinghouse AP1000 DCD Revision 19
9602	WLS	Pt 04		B, 03.01 03.01.08	COLA Part 4, Section 3.1, LCO 3.1.8, Listing for LCO 3.1.5 is revised to read: "LCO 3.1.5 "Shutdown Bank Insertion Limits,"  Item c. is revised to read: "c. THERMAL POWER is [less than or equal to] 5% RTP."	Westinghouse AP1000 DCD Revision 18
9603	WLS	Pt 04		B, 03.01 03.01.08	COLA Part 4, Section 3.1, Specification 3.1.8, SURVEILLANCE REQUIREMENTS is revised as follows:  SR 3.1.8.1  Perform a REACTOR TRIP CHANNEL OPERATIONAL TEST on power range and intermediate range channels per SR 3.3.1.8.  Prior to initiation of PHYSICS TESTS  SR 3.1.8.3  Verify THERMAL POWER is [less than or equal to] 5% RTP.	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					30 minutes	
10050	WLS	Pt 04		B, 03.01 03.01.08	COLA Part 4, Section 3.1, LCO 3.1.8, Listing for LCO 3.1.3 is revised from: "LCO 3.1.3 "Moderator Temperature Coefficient"  To Read: "LCO 3.1.3 "Moderator Temperature Coefficient (MTC),"  Item a. is revised from: "a. RCS lowest loop average temperature is [greater than or equal to] 541°F,"  To Read: "a. Reactor Coolant System (RCS) lowest loop average temperature is [greater than or equal to] 541°F,"	Westinghouse AP1000 DCD Revision 19
10051	WLS	Pt 04		B, 03.01 03.01.08	COLA Part 4, Section 3.1, Specification 3.1.8, SURVEILLANCE REQUIREMENTS is revised from: SR 3.1.8.1 Perform a REACTOR TRIP CHANNEL OPERATIONAL TEST on power range and intermediate range channels per SR 3.3.1.8. Prior to initiation of PHYSICS TESTS  To Read: SR 3.1.8.1 Perform a REACTOR TRIP CHANNEL OPERATIONAL TEST on power range and intermediate range channels per SR 3.3.1.8 and SR 3.3.1.9. Prior to initiation of PHYSICS TESTS	Westinghouse AP1000 DCD Revision 19
10052	WLS	Pt 04		B, 03.02 03.02.01	COLA Part 4, Section 3.2, Specification 3.2.1, SURVEILLANCE section SR 3.2.1.1 under FREQUENCY is revised from: AND 31 EFPD thereafter  To Read: AND 31 effective full power days (EFPD) thereafter	Westinghouse AP1000 DCD Revision 19
10053	WLS	Pt 04		B, 03.02 03.02.01	COLA Part 4, Section 3.2, Specification 3.2.1, SURVEILLANCE section SR 3.2.1.2 is revised from: - NOTE - If FWQ(Z) measurements indicate maximum over zFCQ(Z) has increased since the previous evaluation of FCQ(Z) : a. Increase FWQ(Z) by the greater of a factor of 1.02 or by an appropriate factor specified in the COLR and reverify FWQ(Z) is within limits; or b. Repeat SR 3.2.1.2 once per 7 EFPD until two successive flux maps indicate maximum over zFCQ(Z) has not increased.  To Read: - NOTE - If FWQ(Z) measurements indicate maximum over zFCQ(Z) has increased since the previous evaluation of FCQ(Z): a. Increase FWQ(Z) by the greater of a factor of 1.02 or by an appropriate factor specified in the COLR and reverify FWQ(Z) is within limits; or b. Repeat SR 3.2.1.2 once per 7 EFPD until two successive flux maps indicate maximum over zFCQ(Z) has not increased.	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10258	WLS	Pt 04		B, 03.02 03.02.01	COLA Part 4, Section 3.2, APPLICABILITY is revised to include spacing at the second line.	Westinghouse AP1000 DCD Revision 19
10054	WLS	Pt 04		B, 03.02 03.02.02	COLA Part 4, Section 3.2, Specification 3.2.2, ACTIONS section Item A under CONDITION is revised from: FN[delta]H not within limit.  To read: FN[delta]H not within limits.	Westinghouse AP1000 DCD Revision 19
10055	WLS	Pt 04		B, 03.02 03.02.02	COLA Part 4, Section 3.2, Specification 3.2.2, SURVEILLANCE REQUIREMENTS section SR 3.2.2.1 under FREQUENCY is revised from: AND 31 EFPD thereafter  To Read: AND 31 effective full power days (EFPD) thereafter	Westinghouse AP1000 DCD Revision 19
10259	WLS	Pt 04		B, 03.02 03.02.02	COLA Part 4, Section 3.2, Specification 3.2.2, APPLICABILITY section is revised to include spacing at the second line.	Westinghouse AP1000 DCD Revision 19
10056	WLS	Pt 04		B, 03.02 03.02.04	COLA Part 4, Section 3.2, Specification 3.2.4, APPLICABILITY section is revised from: MODE 1 with THERMAL POWER > 50% RTP and with the OPDMS inoperable.  To Read: MODE 1 with THERMAL POWER > 50% RTP and with the On-Line Power Distribution Monitoring System (OPDMS) inoperable.  The second line of this text is indented.	Westinghouse AP1000 DCD Revision 19
9604	WLS	Pt 04		B, 03.02 03.02.05	COLA Part 4, Section 3.2, Specification 3.2.5 APPLICABILITY is revised at the second paragraph to read:  MODES 1 and 2 with Keff [greater than or equal to] 1.0 and OPDMS OPERABLE for parameter d.	SUPERSEDED by QB 10058 Westinghouse AP1000 DCD Revision 18
10057	WLS	Pt 04		B, 03.02 03.02.05	COLA Part 4, Section 3.2, Specification 3.2.5 heading is revised from: 3.2.5 OPDMS-Monitored Parameters  To read: 3.2.5 On-Line Power Distribution Monitoring System (OPDMS)-Monitored Parameters	Westinghouse AP1000 DCD Revision 19
10058	WLS	Pt 04		B, 03.02 03.02.05	COLA Part 4, Section 3.2, Specification 3.2.5, APPLICABILITY section is revised from: MODE 1 with THERMAL POWER > 50% RTP with OPDMS OPERABLE for parameters a, b, and c. MODES 1 and 2 with Keff [greater than or equal to] 1.0 and OPDMS OPERABLE for parameter d.  To Read: MODE 1 with THERMAL POWER > 50% RTP with OPDMS OPERABLE for parameters a, b, and c. [wrapped text is indented.] MODE 1 with OPDMS OPERABLE for parameter d. MODE 2 with keff [greater than or equal to] 1.0 and OPDMS OPERABLE for parameter d.	Westinghouse AP1000 DCD Revision 19
10059	WLS	Pt 04		B, 03.02 03.02.05	COLA Part 4, Section 3.2, Specification 3.2.5, ACTIONS section Item B.1 under REQUIRED ACTION is revised from: Reduce THERMAL POWER to < 50% RTP.  To Read:	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					Reduce THERMAL POWER to [less than or equal to] 50% RTP.	
10060	WLS	Pt 04		B, 03.03 03.03.01	COLA Part 4, Section 3.3, Specification 3.3.1, ACTIONS section Item D.2.2 under REQUIRED ACTION is revised from: AND ----- - NOTE - Only required to be performed when OPDMS is inoperable and the Power Range Neutron Flux input to QPTR is inoperable. ----- D.2.2 Perform SR 3.2.4.2 (QPTR verification).  To Read: AND D.2.2 ----- - NOTE - Only required to be performed when OPDMS is inoperable and the Power Range Neutron Flux input to QPTR is inoperable. ----- Perform SR 3.2.4.2.	Westinghouse AP1000 DCD Revision 19
9605	WLS	Pt 04		B, 03.03 03.03.01	COLA Part 4, Section 3.3, Specification 3.3.1 is revised at SURVEILLANCE REQUIREMENTS, SR 3.3.1.7 and SR 3.3.1.8 as follows:  New SR 3.3.1.7 is added and subsequent SURVEILLANCE REQUIREMENTS are renumbered:  Perform RTCOT.  92 days  SR 3.3.1.8 (former SR 3.3.1.7) is revised to read:  -NOTE-  Not required to be performed for source range instrumentation prior to entering MODE 3 from MODE 2 until 4 hours after entry into MODE 3. ----- Perform RTCOT in accordance with Setpoint Program.  92 days	Westinghouse AP1000 DCD Revision 18
9606	WLS	Pt 04		B, 03.03 03.03.01	COLA Part 4, Section 3.3, Specification 3.3.1 is revised at SURVEILLANCE REQUIREMENTS, SR 3.3.1.9 (former SR 3.3.1.8) is revised to read:  Perform RTCOT in accordance with Setpoint Program.	Westinghouse AP1000 DCD Revision 18
9607	WLS	Pt 04		B, 03.03 03.03.01	COLA Part 4, Section 3.3, Specification 3.3.1 is revised at SURVEILLANCE REQUIREMENTS, SR 3.3.1.10 (former SR 3.3.1.9) is revised to read: as follows:  Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	Westinghouse AP1000 DCD Revision 18
9608	WLS	Pt 04		B, 03.03 03.03.01	COLA Part 4, Section 3.3, Specification 3.3.1 is revised at SURVEILLANCE REQUIREMENTS, SR 3.3.1.11 (former SR 3.3.1.10) is revised to read: as follows:	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9609	WLS	Pt 04		B, 03.03 03.03.01	Perform CHANNEL CALIBRATION in accordance with Setpoint Program.  COLA Part 4, Section 3.3, Specification 3.3.1 is revised at SURVEILLANCE REQUIREMENTS, SR 3.3.1.12 as follows:  SR 3.3.1.12 ----- - NOTE - Verification of setpoint is not required. ----- Perform TADOT. ----- 24 months	Westinghouse AP1000 DCD Revision 18
9610	WLS	Pt 04		B, 03.03 03.03.01	COLA Part 4, Section 3.3, Specification 3.3.1 is revised at SURVEILLANCE REQUIREMENTS, SR 3.3.1.13 as follows:  SR 3.3.1.13 ----- - NOTE - Neutron detectors are excluded from response time testing. ----- Verify RTS RESPONSE TIME is within limits ----- 24 months on a STAGGERED TEST BASIS	Westinghouse AP1000 DCD Revision 18
9611	WLS	Pt 04		B, 03.03 03.03.01 T3.3.1-1	COLA Part 4, Section 3.3, Table 3.3.1-1 is revised in accordance with DCD Revision 18.	Westinghouse AP1000 DCD Revision 18
10061	WLS	Pt 04		B, 03.03 03.03.01 T3.3.1-1	COLA Part 4, Section 3.3, Table 3.3.1-1 is revised in accordance with DCD Revision 19.	Westinghouse AP1000 DCD Revision 19
10062	WLS	Pt 04		B, 03.03 03.03.02	COLA Part 4, Section 3.3, Specification 3.3.2, ACTIONS section Item N.2 under REQUIRED ACTION is revised from: N.2 Be in MODE 4 with the RCS cooling provided by the RNS.  To Read: N.2 Be in MODE 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS).	Westinghouse AP1000 DCD Revision 19
10063	WLS	Pt 04		B, 03.03 03.03.02	COLA Part 4, Section 3.3, Specification 3.3.2, ACTIONS section Item P.1 under REQUIRED ACTION is revised from: P.1 ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- Isolate the affected flow path(s).  To Read: ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- P.1 Isolate the affected flow path(s).	Westinghouse AP1000 DCD Revision 19
10064	WLS	Pt 04		B, 03.03 03.03.02	COLA Part 4, Section 3.3, Specification 3.3.2, ACTIONS section Item R.2.1.1 under REQUIRED ACTION is revised from:	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>AND R.2.1.1 ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- Isolate the affected flow path(s).</p> <p>To Read: AND ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- R.2.1.1 Isolate the affected flow path(s).</p>	
10065	WLS	Pt 04		B, 03.03 03.03.02	<p>COLA Part 4, Section 3.3, Specification 3.3.2, ACTIONS section Item S.2.1.2 under REQUIRED ACTION is revised from: AND S.2.1.2 ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- Isolate the affected flow path(s).</p> <p>To Read: AND ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- S.2.1.2 Isolate the affected flow path(s).</p>	Westinghouse AP1000 DCD Revision 19
10066	WLS	Pt 04		B, 03.03 03.03.02	<p>COLA Part 4, Section 3.3, Specification 3.3.2, ACTIONS section Item T.1.1 under REQUIRED ACTION is revised from: T.1.1 ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- Isolate the affected flow path(s).</p> <p>To Read: ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- T.1.1 Isolate the affected flow path(s).</p>	Westinghouse AP1000 DCD Revision 19
10067	WLS	Pt 04		B, 03.03 03.03.02	<p>COLA Part 4, Section 3.3, Specification 3.3.2, ACTIONS section Item AA.1.1 under REQUIRED ACTION is revised from: AA.1.1 ----- - NOTE - Flow path(s) may be unisolated intermittently under administrative controls. ----- Isolate the affected flow path(s).</p> <p>To Read:</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>- NOTE - Flow path(s) may be unisolated intermittently under administrative controls.</p> <p>AA.1.1 Isolate the affected flow path(s).</p>	
9612	WLS	Pt 04		B, 03.03 03.03.02	<p>COLA Part 4, Section 3.3, Specification 3.3.2 is revised at ACTIONS, to add item CC as follows:</p> <p>CC. Required Action and associated Completion Time not met.</p> <p>CC.1 Be in MODE 3. 6 hours AND CC.2 Be in MODE 5 or 6. 36 hours AND CC.3 Open a containment air flow path [greater than or equal to] 6 inches in diameter. 44 hours</p>	WEC DCD Revision 18
9613	WLS	Pt 04		B, 03.03 03.03.02	<p>COLA Part 4, Section 3.3, Specification 3.3.2 is revised at SURVEILLANCE REQUIREMENTS 3.3.2.4 and 3.3.2.5 as follows:</p> <p>SR 3.3.2.4 Perform CHANNEL CALIBRATION in accordance with Setpoint Program.</p> <p>SR 3.3.2.5 Perform CHANNEL OPERATIONAL TEST (COT) in accordance with Setpoint Program.</p>	Westinghouse AP1000 DCD Revision 18
9614	WLS	Pt 04		B, 03.03 03.03.02 T3.3.2-1	COLA Part 4, Section 3.3, Table 3.3.2-1 is revised in accordance with DCD Revision 18.	Westinghouse AP1000 DCD Revision 18
10068	WLS	Pt 04		B, 03.03 03.03.02 T3.3.2-1	COLA Part 4, Section 3.3, Table 3.3.2-1 is revised in accordance with DCD Revision 19.	Westinghouse AP1000 DCD Revision 19
10069	WLS	Pt 04		B, 03.03 03.03.03 T3.3.3-1	<p>COLA Part 4, Section 3.3, Table 3.3.3-1, Items 11, 12, 17, and 19 under FUNCTION are revised from:</p> <p>11. IRWST Water Level 12. PRHR Flow and PRHR Outlet Temperature 17. PCS Storage Tank Level and PCS Flow 19. IRWST to RNS Suction Valve Status</p> <p>To Read:</p> <p>11. In-Containment Refueling Water Storage Tank (IRWST) Water Level 12. Passive Residual Heat Removal (PRHR) Flow and PRHR Outlet Temperature 17. Passive Containment Cooling System (PCS) Storage Tank Level and PCS Flow 19. IRWST to Normal Residual Heat Removal System (RNS) Suction Valve Status</p>	Westinghouse AP1000 DCD Revision 19
10073	WLS	Pt 04		B, 03.03 03.03.03 T3.3.5-1	<p>COLA Part 4, Section 3.3, Table 3.3.5-1, Items 2,3, and 4 under FUNCTION are revised from:</p> <p>2. PRHR HX control and IRWST gutter control valves 3. CMT isolation valves 4. ADS stage 1 valves</p> <p>To Read:</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>2. Passive Residual Heat Removal Heat Exchanger (PRHR HX) control and In-Containment Refueling Water Storage Tank (IRWST) gutter control valves</p> <p>3. Core Makeup Tank (CMT) isolation valves</p> <p>4. Automatic Depressurization System (ADS) stage 1 valves</p> <p>Footnote (a) is revised from:</p> <p>(a) With RCS pressure boundary intact.</p> <p>To Read:</p> <p>(a) With Reactor Coolant System (RCS) pressure boundary intact.</p>	
10070	WLS	Pt 04		B, 03.03 03.03.04	<p>COLA Part 4, Section 3.3, Specification 3.3.4, LCO and APPLICABILITY sections are revised from:</p> <p>LCO 3.3.4 The Remote Shutdown Workstation (RSW) shall be OPERABLE.</p> <p>APPLICABILITY: MODES 1, 2, 3, and</p> <p>MODE 4 with RCS average temperature (Tavg) [greater than or equal to] 350°F.</p> <p>To read:</p> <p>LCO 3.3.4 The RSW shall be OPERABLE.</p> <p>APPLICABILITY: MODES 1, 2, and 3.</p> <p>MODE 4 with Reactor Coolant System (RCS) average temperature (Tavg) [greater than or equal to] 350°F.</p> <p>The last line of this text is formatted to be indented.</p>	Westinghouse AP1000 DCD Revision 19
10071	WLS	Pt 04		B, 03.03 03.03.04	<p>COLA Part 4, Section 3.3, Specification 3.3.4, SURVEILLANCE REQUIREMENTS section, SR 3.3.4.2 under SURVEILLANCE is revised from:</p> <p>SR 3.3.4.2 Verify that the RSW communicates indication and controls with Division A, B, C and D of the PMS.</p> <p>To Read:</p> <p>SR 3.3.4.2 Verify that the RSW communicates indication and controls with Division A, B, C and D of the Protection and Safety Monitoring System (PMS).</p>	Westinghouse AP1000 DCD Revision 19
10072	WLS	Pt 04		B, 03.03 03.03.05	<p>COLA Part 4, Section 3.3, Specification 3.3.5, ACTIONS section, Items B, C, and D under CONDITON are revised from:</p> <p>B. Completion Time of Required Action A not met for inoperable DAS manual reactor trip control.</p> <p>C. Completion Time of Required Action A not met for inoperable DAS manual actuation control other than reactor trip.</p> <p>D. Completion Time of Required Action B not met.</p> <p>OR</p> <p>Completion Time of Required Action C not met.</p> <p>To Read:</p> <p>B. Required Action and associated Completion Time of Condition A not met for inoperable DAS manual reactor trip control.</p> <p>C. Required Action and associated Completion Time of Condition A not met for inoperable DAS manual actuation control other than reactor trip.</p> <p>D. Required Action and associated Completion Time of Condition B not met.</p> <p>OR</p> <p>Required Action and associated Completion Time of Condition C not met.</p>	Westinghouse AP1000 DCD Revision 19
9615	WLS	Pt 04		B, 03.03 03.03.05 T3.3.5-1	<p>COLA Part 4, Section 3.3, Table 3.3.5-1 is revised at footnote (b) from:</p> <p>(b) With the calculated reactor decay heat &gt; 9.0 MWt.</p> <p>To read:</p> <p>(b) With the calculated reactor decay heat &gt; 6.0 MWt.</p>	Westinghouse AP1000 DCD Revision 18
9616	WLS	Pt 04		B, 03.04	COLA Part 4, Section 3.4, Specification 3.4.1 is revised at the SURVEILLANCE REQUIREMENTS as follows:	Westinghouse AP1000



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
				03.04.01	<p>New surveillance SR 3.4.1.4 is added as follows with subsequent surveillances renumbered:</p> <p>SR 3.4.1.4 Perform a CHANNEL CALIBRATION of RCS total flow rate indication (differential pressure) channels. 24 months</p> <hr/> <p>Revise SR 3.4.1.5 (former SR 3.4.1.4) to read:</p> <p>SR 3.4.1.5 -----</p> <p style="text-align: center;">- NOTE -</p> <p style="text-align: center;">Not required to be performed until 24 hours after [greater than or equal to] 90% RTP.</p> <hr/> <p style="text-align: center;">Verify that RCS total flow rate is [greater than or equal to] 301,670 gpm and greater than or equal to the limit specified in the COLR as determined by precision heat balance or RCS total flow rate indication (differential pressure) measurements.</p>	DCD Revision 18
10074	WLS	Pt 04		B, 03.04 03.04.04	<p>COLA Part 4, Section 3.4, Specification 3.4.4, LCO section is revised from:</p> <p>Two RCS loops shall be OPERABLE and in operation (Four Reactor Coolant Pumps (RCPs) operating with variable speed control bypassed).</p> <p>To Read:</p> <p>Two RCS loops shall be OPERABLE with four Reactor Coolant Pumps (RCPs) in operation with variable speed control bypassed.</p>	Westinghouse AP1000 DCD Revision 19
9617	WLS	Pt 04		B, 03.04 03.04.04	<p>COLA Part 4, Section 3.4, LCO 3.4.4 is revised at the NOTES as follows:</p> <p>Note 2 is revised from :</p> <p>2. No RCP shall be started when the RCS temperature is [greater than or equal to] 200°F unless pressurizer level is &lt; 92%.</p> <p>To read:</p> <p>2. No RCP shall be started when the RCS temperature is [greater than or equal to] 350°F unless pressurizer level is &lt; 92%.</p> <p>Note 3 is revised from:</p> <p>3. No RCP shall be started with any RCS cold leg temperature [less than or equal to] 200°F unless the secondary side water temperature of each steam generator (SG) is [less than or equal to] 50°F above each of the RCS cold leg temperatures.</p> <p>To read:</p> <p>3. No RCP shall be started with any RCS cold leg temperature [less than or equal to] 350°F unless the secondary side water temperature of each steam generator (SG) is [less than or equal to] 50°F above each of the RCS cold leg temperatures and the RCP is started at [less than or equal to] 25% of RCP speed.</p>	Westinghouse AP1000 DCD Revision 18
10075	WLS	Pt 04		B, 03.04 03.04.04	<p>COLA Part 4, Section 3.4, Specification 3.4.4, ACTIONS section, Item B.1 under REQUIRED ACTION is revised from:</p> <p>B.1 Be in MODE 3, 4, or 5 with the reactor trip breakers open.</p> <p>To Read:</p> <p>B.1 Open reactor trip breakers.</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10076	WLS	Pt 04		B, 03.04 03.04.06	COLA Part 4, Section 3.4, Specification 3.4.6, APPLICABILITY section is revised from: MODES 1, 2, and 3, MODE 4 with RNS isolated or RCS temperature [greater than or equal to] 275°F.  To Read: MODES 1, 2, and 3. MODE 4 with Normal Residual Heat Removal System (RNS) isolated or RCS temperature [greater than or equal to] 275°F.	Westinghouse AP1000 DCD Revision 19
10077	WLS	Pt 04		B, 03.04 03.04.07	COLA Part 4, Section 3.4, Specification 3.4.7, LCO section, items d. and e. are revised from: d. 150 gallons per day primary to secondary LEAKAGE through any one SG, and e. 500 gallons per day primary to IRWST LEAKAGE through the passive residual heat removal heat exchanger (PRHR HX).  To Read: d. 150 gallons per day primary to secondary LEAKAGE through any one Steam Generator (SG), and e. 500 gallons per day primary to In-Containment Refueling Water Storage Tank (IRWST) LEAKAGE through the passive residual heat removal heat exchanger (PRHR HX).	Westinghouse AP1000 DCD Revision 19
10078	WLS	Pt 04		B, 03.04 03.04.07	COLA Part 4, Section 3.4, Specification 3.4.7, ACTIONS section, Item B under CONDITION, second "OR" is revised to be underlined.	Westinghouse AP1000 DCD Revision 19
9618	WLS	Pt 04		B, 03.04 03.04.08	COLA Part 4, Section 3.4, LCO 3.4.8 is revised at the NOTES as follows:  Note 2 is revised from : 2. No RCP shall be started when the RCS temperature is [greater than or equal to] 200°F unless pressurizer level is < 92%.  To read: 2. No RCP shall be started when the RCS temperature is [greater than or equal to] 350°F unless pressurizer level is < 92%.  Note 3 is revised from: 3. No RCP shall be started with any RCS cold leg temperature [less than or equal to] 200°F unless the secondary side water temperature of each steam generator (SG) is [less than or equal to] 50°F above each of the RCS cold leg temperatures.  To read: 3. No RCP shall be started with any RCS cold leg temperature [less than or equal to] 350°F unless the secondary side water temperature of each steam generator (SG) is [less than or equal to] 50°F above each of the RCS cold leg temperatures and the RCP is started at [less than or equal to] 25% of RCP speed.	Westinghouse AP1000 DCD Revision 18
10150	WLS	Pt 04		B, 03.04 03.04.08	COLA Part 4, Section 3.4, Specification 3.4.8, APPLICABILITY section is revised to indent the second line.	Westinghouse AP1000 DCD Revision 19
10079	WLS	Pt 04		B, 03.04 03.04.08	COLA Part 4, Section 3.4, Specification 3.4.8, ACTIONS section, Item A.2 under REQUIRED ACTION is revised from: A.2 Perform SR 3.1.1.1, (SDM verification).  To Read: A.2 Perform SR 3.1.1.1.	Westinghouse AP1000 DCD Revision 19
9619	WLS	Pt 04		B, 03.04 03.04.09	COLA Part 4, Section 3.4, LCO 3.4.9 is revised as follows:  Item 'b.' is revised from:	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>b. One containment atmosphere radioactivity monitor (gaseous N13/F18).</p> <p>To read:</p> <p>b. One containment atmosphere radioactivity monitor (F18 particulate).</p> <p>APPLICABILITY is revised at the NOTE 1 from:</p> <p>1. The N13/F18 containment atmosphere radioactivity monitor is only required to be OPERABLE in MODE 1 with RTP &gt; 20%.</p> <p>To read:</p> <p>1. The F18 particulate containment atmosphere radioactivity monitor is only required to be OPERABLE in MODE 1 with RTP &gt; 20%.</p>	
10080	WLS	Pt 04		B, 03.04 03.04.09	<p>COLA Part 4, Section 3.4, Specification 3.4.9, APPLICABILITY section, NOTE 2 is revised from:</p> <p>2. Containment sump level measurements cannot be used for leak detection if leakage is prevented from draining to the sump such as by redirection to the IRWST by the containment shell gutter drains.</p> <p>To Read:</p> <p>2. Containment sump level measurements cannot be used for leak detection if leakage is prevented from draining to the sump such as by redirection to the In-Containment Refueling Water Storage Tank (IRWST) by the containment shell gutter drains.</p>	Westinghouse AP1000 DCD Revision 19
10081	WLS	Pt 04		B, 03.04 03.04.09	<p>COLA Part 4, Section 3.4, Specification 3.4.9, ACTIONS section, Item B.1 under REQUIRED ACTION is revised from:</p> <p>B.1 -----</p> <p>- NOTE -</p> <p>Not required until 12 hours after establishment of steady state operation.</p> <p>-----</p> <p>Perform SR 3.4.7.1 (RCS inventory balance).</p> <p>To Read:</p> <p>B.1 -----</p> <p>- NOTE -</p> <p>Not required until 12 hours after establishment of steady state operation.</p> <p>-----</p> <p>Perform SR 3.4.7.1.</p>	Westinghouse AP1000 DCD Revision 19
10082	WLS	Pt 04		B, 03.04 03.04.10	<p>COLA Part 4, Section 3.4, Specification 3.4.10, APPLICABILITY section, is revised from:</p> <p>MODES 1 and 2,</p> <p>MODE 3 with RCS average temperature (Tavg) [greater than or equal to] 500°F.</p> <p>To Read:</p> <p>MODES 1 and 2.</p> <p>MODE 3 with RCS average temperature (Tavg) [greater than or equal to] 500°F.</p>	Westinghouse AP1000 DCD Revision 19
10083	WLS	Pt 04		B, 03.04 03.04.10	<p>COLA Part 4, Section 3.4, Specification 3.4.10, ACTIONS section, Item A.1 under REQUIRED ACTION is revised from:</p> <p>A.1 -----</p> <p>- NOTE -</p> <p>LCO 3.0.4 is not applicable.</p> <p>-----</p> <p>Verify DOSE EQUIVALENT I-131 to be [less than or equal to] 60 [microcuries per gram].</p> <p>To Read:</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>- NOTE - LCO 3.0.4 is not applicable.</p> <p>A.1 Verify DOSE EQUIVALENT I-131 to be [less than or equal to] 60 [microcuries per gram].</p>	
9620	WLS	Pt 04		B, 03.04 03.04.11	COLA Part 4, Section 3.3, Specification 3.4.11 is revised at ACTIONS in accordance with DCD Revision 18.	Westinghouse AP1000 DCD Revision 18
9621	WLS	Pt 04		B, 03.04 03.04.12	COLA Part 4, Section 3.3, Specification 3.4.12 is revised at ACTIONS in accordance with DCD Revision 18.	Westinghouse AP1000 DCD Revision 18
10084	WLS	Pt 04		B, 03.04 03.04.13	COLA Part 4, Section 3.4, Specification 3.4.13, ACTIONS section, Item A under CONDITION is revised from: A. One required ADS stage 1, 2, or 3 flow path closed.  To Read: A. One required ADS stage 1, 2, or 3 flow path not open.	Westinghouse AP1000 DCD Revision 19
9622	WLS	Pt 04		B, 03.04 03.04.14	COLA Part 4, Section 3.4, LCO 3.4.14 is revised as follows:  Item 'a.' is revised from:  a. The Normal Residual Heat Removal System (RNS) suction relief valve, or  To read:  a. The Normal Residual Heat Removal System (RNS) suction relief valve with lift setting within the limit specified in the PTLR, or  NOTES is revised from:  When the RCS temperature is [greater than or equal to] 200°F, a reactor coolant pump (RCP) may not be started if the pressurizer level is [greater than or equal to] 92%.  To read:  1. No reactor coolant pump (RCP) shall be started when the RCS temperature is [greater than or equal to] 350°F unless pressurizer level is < 92%.  2. No RCP shall be started with any RCS cold leg temperature [less than or equal to] 350°F unless the secondary side water temperature of each steam generator (SG) is [less than or equal to] 50°F above each of the RCS cold leg temperatures and the RCP is started at [less than or equal to] 25% of RCP speed.	Westinghouse AP1000 DCD Revision 18
10085	WLS	Pt 04		B, 03.04 03.04.15	COLA Part 4, Section 3.4, Specification 3.4.15, APPLICABILITY section is revised from: MODES 1, 2, and 3, MODE 4, with the RCS not being cooled by the RNS.  To Read: MODES 1, 2, and 3. MODE 4, with the RCS not being cooled by the Normal Residual Heat Removal System (RNS).	Westinghouse AP1000 DCD Revision 19
10086	WLS	Pt 04		B, 03.04 03.04.15	COLA Part 4, Section 3.4, Specification 3.4.15, ACTIONS section, Item A.1 under REQUIRED ACTION is revised from: A.1 ----- - NOTE -	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>Each valve used to satisfy Required Action A.1 and Required Action A.2 must have been verified to meet SR 3.4.15.1 and be in the reactor coolant pressure boundary or the high pressure portion of the system.</p> <p>Isolate the high pressure portion of the affected system from the low pressure portion by use of one closed manual, deactivated automatic, or check valve.</p> <p>To Read:</p> <p>- NOTE -</p> <p>Each valve used to satisfy Required Action A.1 and Required Action A.2 must have been verified to meet SR 3.4.15.1 and be in the reactor coolant pressure boundary or the high pressure portion of the system.</p> <p>A.1 Isolate the high pressure portion of the affected system from the low pressure portion by use of one closed manual, deactivated automatic, or check valve.</p>	
10087	WLS	Pt 04		B, 03.04 03.04.16	<p>COLA Part 4, Section 3.4, Specification 3.4.16, APPLICABILITY section is revised from: MODES 1, 2, and 3, MODE 4 with the RCS not being cooled by the RNS.</p> <p>To Read: MODES 1, 2, and 3. MODE 4 with the RCS not being cooled by the Normal Residual Heat Removal System (RNS).</p>	Westinghouse AP1000 DCD Revision 19
10088	WLS	Pt 04		B, 03.05 03.05.01	<p>COLA Part 4, Section 3.5, Specification 3.5.1, APPLICABILITY section is revised from: MODES 1 and 2, MODES 3 and 4 with RCS pressure &gt; 1000 psig.</p> <p>To Read: MODES 1 and 2. MODES 3 and 4 with Reactor Coolant System (RCS) pressure &gt; 1000 psig.</p>	Westinghouse AP1000 DCD Revision 19
10089	WLS	Pt 04		B, 03.05 03.05.02	<p>COLA Part 4, Section 3.5, Specification 3.5.2, APPLICABILITY section is revised from: MODES 1, 2, 3, and 4 with the RCS not being cooled by the Normal Residual Heat Removal System (RNS).</p> <p>To Read: MODES 1, 2, and 3. MODE 4 with the Reactor Coolant System (RCS) not being cooled by the Normal Residual Heat Removal System (RNS).</p>	Westinghouse AP1000 DCD Revision 19
9623	WLS	Pt 04		B, 03.05 03.05.02	<p>COLA Part 4, Section 3.5, Specification 3.5.2 is revised at SURVEILLANCE REQUIREMENTS, SR 3.5.2.4 from:</p> <p>SR 3.5.2.4    Verify the volume of noncondensable    24 hours                   gases in each CMT inlet line is                   [less than or equal to] 0.2 ft3 .</p> <p>To read:</p> <p>SR 3.5.2.4    Verify the volume of noncondensable    24 hours                   gases in each CMT inlet line has not                   caused the high-point water level to                   drop below the sensor.</p>	Westinghouse AP1000 DCD Revision 18
10090	WLS	Pt 04		B, 03.05 03.05.03	<p>COLA Part 4, Section 3.5, Specification 3.5.3 heading is revised from: 3.5.3 Core Makeup Tanks (CMTs) – Shutdown, RCS Intact</p> <p>To Read: 3.5.3 Core Makeup Tanks (CMTs) – Shutdown, Reactor Coolant System (RCS) Intact</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10091	WLS	Pt 04		B, 03.05 03.05.03	COLA Part 4, Section 3.5, Specification 3.5.3, APPLICABILITY section is revised from: MODE 4 with the RCS cooling provided by the Normal Residual Heat Removal System (RNS), MODE 5 with the RCS pressure boundary intact.  To Read: MODE 4 with the RCS cooling provided by the Normal Residual Heat Removal System (RNS). MODE 5 with the RCS pressure boundary intact.	Westinghouse AP1000 DCD Revision 19
10092	WLS	Pt 04		B, 03.05 03.05.04	COLA Part 4, Section 3.5, Specification 3.5.4, APPLICABILITY section is revised from: MODES 1, 2, 3, and 4 with the RCS not being cooled by the Normal Residual Heat Removal System (RNS).  To Read: MODES 1, 2, and 3. MODE 4 with the Reactor Coolant System (RCS) not being cooled by the Normal Residual Heat Removal System (RNS).	Westinghouse AP1000 DCD Revision 19
10093	WLS	Pt 04		B, 03.05 03.05.04	COLA Part 4, Section 3.5, Specification 3.5.4, ACTIONS section, Items B, D, E, and F under CONDITION are revised from: B. One air operated IRWST gutter isolation valve inoperable. D. Required Action and associated Completion Time of Conditions A, B, or C not met. E. LCO not met for reasons other than A, B, or C. F. Required Action and associated Completion Time for Condition E not met.  To Read: B. One air operated In-Containment Refueling Water Storage Tank (IRWST) gutter isolation valve inoperable. D. Required Action and associated Completion Time of Condition A, B, or C not met. E. LCO not met for reasons other than Condition A, B, or C. F. Required Action and associated Completion Time of Condition E not met.	Westinghouse AP1000 DCD Revision 19
10094	WLS	Pt 04		B, 03.05 03.05.04	COLA Part 4, Section 3.5, Specification 3.5.4, ACTIONS section, Item F.1 under REQUIRED ACTION is revised from: F.1 ----- - NOTE - Prior to initiating actions to change to a lower MODE, verify that redundant means of providing SG feedwater are OPERABLE. If redundant means are not OPERABLE, suspend LCO 3.0.3 and all other LCO Required Actions requiring MODE changes until redundant means are restored to OPERABLE status. ----- Be in MODE 3.  To Read: F.1 ----- - NOTE - Prior to initiating actions to change to a lower MODE, verify that redundant means of providing Steam Generator (SG) feedwater are OPERABLE. If redundant means are not OPERABLE, suspend LCO 3.0.3 and all other LCO Required Actions requiring MODE changes until redundant means are restored to OPERABLE status. ----- Be in MODE 3.	Westinghouse AP1000 DCD Revision 19
9624	WLS	Pt 04		B, 03.05 03.05.04	COLA Part 4, Section 3.5, Specification 3.5.4, SURVEILLANCE REQUIREMENTS:from:  SR 3.5.4.3 Verify the volume of noncondensable 24 hours gases in PRHR HX inlet line is [less than or equal to] 0.9 ft3 .  To read:	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>SR 3.5.4.3 Verify the volume of noncondensable gases in the PRHR HX inlet line has not caused the high-point water level to drop below the sensor. 24 hours</p> <p>And from:</p> <p>SR 3.5.4.5 Verify both PRHR air operated outlet isolation valves and both IRWST gutter isolation valves are OPERABLE by stroking open the valves. In accordance with the System Level Inservice Testing Program</p> <p>To read:</p> <p>SR 3.5.4.5 Verify both PRHR air operated outlet isolation valves and both IRWST gutter isolation valves are OPERABLE by stroking open the valves. In accordance with the Inservice Testing Program</p>	
10095	WLS	Pt 04		B, 03.05 03.05.05	<p>COLA Part 4, Section 3.5, Specification 3.5.5 heading is revised from: 3.5.5 Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Shutdown, RCS Intact</p> <p>To Read: 3.5.5 Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Shutdown, Reactor Coolant System (RCS) Intact</p>	Westinghouse AP1000 DCD Revision 19
10096	WLS	Pt 04		B, 03.05 03.05.05	<p>COLA Part 4, Section 3.5, Specification 3.5.5, APPLICABILITY section is revised from: MODE 4 with the RCS cooling provided by the Normal Residual Heat Removal System (RNS), MODE 5 with the RCS pressure boundary intact and pressurizer level [greater than or equal to] 20%.</p> <p>To Read: MODE 4 with the RCS cooling provided by the Normal Residual Heat Removal System (RNS). MODE 5 with the RCS pressure boundary intact and pressurizer level [greater than or equal to] 20%.</p>	Westinghouse AP1000 DCD Revision 19
10097	WLS	Pt 04		B, 03.05 03.05.05	<p>COLA Part 4, Section 3.5, Specification 3.5.5, ACTIONS section, Items B and D under CONDITION are revised from: B. One air operated IRWST gutter isolation valve inoperable. D. PRHR HX inoperable for reasons other than A, B, or C.</p> <p>To Read: B. One air operated In-Containment Refueling Water Storage Tank (IRWST) gutter isolation valve inoperable. D. PRHR HX inoperable for reasons other than Condition A, B, or C.</p>	Westinghouse AP1000 DCD Revision 19
9626	WLS	Pt 04		B, 03.05 03.05.06	<p>COLA Part 4, Section 3.5, Specification 3.5.6, ACTIONS, add new Conditions B and C as follows, and re-letter the remaining paragraphs.</p> <p>B. One IRWST injection line inoperable due to presence of noncondensable gases in one high point vent. B.1 Vent noncondensable gases. 72 hours</p> <p>C. One IRWST injection line inoperable due to presence of C.1 Vent noncondensable gases from one high point vent. 8 hours</p>	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					noncondensable gases in both high point vents.  Also, change the last line of the new F. in the Condition column from "or C." to read "C, D, or E."	
10098	WLS	Pt 04		B, 03.05 03.05.06	COLA Part 4, Section 3.5, Specification 3.5.6, ACTIONS section, Item F under CONDITION is revised from: F. Required Action and associated Completion Time not met. OR LCO not met for reasons other than A, B, C, D, or E.  To Read: F. Required Action and associated Completion Time not met. OR LCO not met for reasons other than Condition A, B, C, D, or E.	Westinghouse AP1000 DCD Revision 19
9627	WLS	Pt 04		B, 03.05 03.05.06	COLA Part 4, Section 3.5, Specification 3.5.6, SURVEILLANCE REQUIREMENTS, insert new SR 3.5.6.3 as follows and renumber the remaining surveillance requirements.  SR 3.5.6.3    Verify the volume of noncondensable gases in each of                      24 hours the four IRWST injection squib valve outlet line pipe stubs has not caused the high-point water level to drop below the sensor.	Westinghouse AP1000 DCD Revision 18
9633	WLS	Pt 04		B, 03.05 03.05.07	COLA Part 4, Section 3.5, Specification 3.5.7, ACTIONS, add new Conditions B and C as follows, and re-letter the remaining paragraphs.  B. Required IRWST                      B.1 Vent noncondensable                      72 hours injection line inoperable                      gases. due to presence of noncondensable gases in one high point vent.  C. Required IRWST                      C.1 Vent noncondensable                      8 hours injection line inoperable                      gases from one high point due to presence of                      vent. noncondensable gases in both high point vents.  Also, change the last line of the new F. in the Condition column from "or C." to read "C, D, or E."	Westinghouse AP1000 DCD Revision 18
10099	WLS	Pt 04		B, 03.05 03.05.07	COLA Part 4, Section 3.5, Specification 3.5.7, ACTIONS section, Item F under CONDITION is revised from: F. Required Action and associated Completion Time not met. OR LCO not met for reasons other than A, B, C, D, or E.  To Read: F. Required Action and associated Completion Time not met. OR LCO not met for reasons other than Condition A, B, C, D, or E.	Westinghouse AP1000 DCD Revision 19
10100	WLS	Pt 04		B, 03.05 03.05.07	COLA Part 4, Section 3.5, Specification 3.5.7, ACTIONS section, Item F.1 under REQUIRED ACTION is revised from: F.1 Initiate action to be in MODE 5 with the RCS pressure boundary intact and [greater than or equal to] 20% pressurizer level.  To Read: F.1 Initiate action to be in MODE 5 with the Reactor Coolant System (RCS) pressure boundary intact and	Westinghouse AP1000 DCD Revision 19



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10101	WLS	Pt 04		B, 03.05 03.05.07	<p>&amp;#8805; 20% pressurizer level.</p> <p>COLA Part 4, Section 3.5, Specification 3.5.7, SURVEILLANCE REQUIREMENTS section, SR 3.5.7.1 under SURVEILLANCE is revised from: SR 3.5.7.1 For the IRWST and flow paths required to be OPERABLE, the SRs of Specification 3.5.6, "In-containment Refueling Water Storage Tank (IRWST) – Operating" are applicable.</p> <p>To Read: SR 3.5.7.1 For the IRWST and flow paths required to be OPERABLE, the SRs of Specification 3.5.6, "In-containment Refueling Water Storage Tank (IRWST) – Operating," are applicable.</p>	Westinghouse AP1000 DCD Revision 19
9634	WLS	Pt 04		B, 03.05 03.05.08	<p>COLA Part 4, Section 3.5, Specification 3.5.8, ACTIONS, add new Conditions B and C as follows, and re-letter the remaining paragraphs.</p> <p>B. Required IRWST injection line inoperable due to presence of noncondensable gases in one high point vent.      B.1 Vent noncondensable gases.      72 hours</p> <p>C. Required IRWST injection line inoperable due to presence of noncondensable gases in both high point vents.      C.1 Vent noncondensable gases from one high point vent.      8 hours</p> <p>Also, change the last line of the new F. in the Condition column from "or C." to read "C, D, or E." and add "Immediately" on the same line in the last column.</p>	Westinghouse AP1000 DCD Revision 18
10102	WLS	Pt 04		B, 03.05 03.05.08	<p>COLA Part 4, Section 3.5, Specification 3.5.8, ACTIONS section, Item F under CONDITION is revised from: F. Required Action and associated Completion Time not met. OR LCO not met for reasons other than A, B, C, D, or E.</p> <p>To Read: F. Required Action and associated Completion Time not met. OR LCO not met for reasons other than Condition A, B, C, D, or E.</p>	Westinghouse AP1000 DCD Revision 19
9635	WLS	Pt 04		B, 03.05 03.05.08	<p>COLA Part 4, Section 3.5, Specification 3.5.8, SURVEILLANCE REQUIREMENTS, the last two lines of SR 3.5.8.4 are revised from:</p> <p>SR 3.5.6.4    SR 3.5.6.6    SR 3.5.6.8 SR 3.5.6.5    SR 3.5.6.7</p> <p>To read:</p> <p>SR 3.5.6.3    SR 3.5.6.6    SR 3.5.6.8    SR 3.5.6.10 SR 3.5.6.5    SR 3.5.6.7    SR 3.5.6.9</p>	Westinghouse AP1000 DCD Revision 18
10103	WLS	Pt 04		B, 03.06 03.06.02	<p>COLA Part 4, Section 3.6, Specification 3.6.2, ACTIONS section, Item A.1 under REQUIRED ACTION is revised from: A.1 -----</p> <p>- NOTES - 1. Required Actions A.1, A.2, and A.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered. 2. Entry and exit is permissible for 7 days under administrative controls if both air locks are inoperable. -----</p> <p>Verify the OPERABLE door is closed in the affected air lock.</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>To Read:</p> <p>-----</p> <p>- NOTES -</p> <p>1. Required Actions A.1, A.2, and A.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered.</p> <p>2. Entry and exit is permissible for 7 days under administrative controls if both air-locks are inoperable.</p> <p>-----</p> <p>A.1 Verify the OPERABLE door is closed in the affected air lock.</p>	
10105	WLS	Pt 04		B, 03.06 03.06.02	<p>COLA Part 4, Section 3.6, Specification 3.6.2, ACTIONS section, Item B.1 under REQUIRED ACTION is revised from:</p> <p>B.1 -----</p> <p>- NOTES -</p> <p>1. Required Actions B.1, B.2, and B.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered.</p> <p>2. Entry and exit of containment is permissible under the control of a dedicated individual.</p> <p>-----</p> <p>Verify an OPERABLE door is closed in the affected air lock.</p> <p>To Read:</p> <p>-----</p> <p>- NOTES -</p> <p>1. Required Actions B.1, B.2, and B.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered.</p> <p>2. Entry and exit of containment is permissible under the control of a dedicated individual.</p> <p>-----</p> <p>B.1 Verify an OPERABLE door is closed in the affected air lock.</p>	Westinghouse AP1000 DCD Revision 19
9636	WLS	Pt 04		B, 03.06 03.06.04	<p>COLA Part 4, Section 3.6, Specification 3.6.4, APPLICABILITY, is revised from:</p> <p>APPLICABILITY: MODES 1, 2, 3, and 4.</p> <p>To read:</p> <p>APPLICABILITY: MODES 1, 2, 3, and 4. MODES 5 and 6 without an open containment air flow path '[greater than or equal to]' 6 inches in diameter.</p> <p>-----</p> <p>- NOTE -</p> <p>The high pressure LCO limit is not applicable in MODES 5 or 6.</p> <p>-----</p>	Westinghouse AP1000 DCD Revision 18
9637	WLS	Pt 04		B, 03.06 03.06.04	<p>COLA Part 4, Section 3.6, Specification 3.6.4, ACTIONS, Condition B., insert the following after B.2:</p> <p>AND</p> <p>B.3 Open a containment air 44 hours flow path '[greater than or equal to]' 6 inches in diameter.</p>	Westinghouse AP1000 DCD Revision 18
9638	WLS	Pt 04		B, 03.06 03.06.05	<p>COLA Part 4, Section 3.6, Specification 3.6.5, APPLICABILITY, is revised from:</p> <p>APPLICABILITY: MODES 1, 2, 3, and 4.</p> <p>To read:</p> <p>APPLICABILITY: MODES 1, 2, 3, and 4. MODES 5 and 6 with both containment equipment hatches and both containment airlocks closed.</p>	Westinghouse AP1000 DCD Revision 18
9639	WLS	Pt 04		B, 03.06	COLA Part 4, Section 3.6, Specification 3.6.5, ACTIONS, Required Action B.2 is revised from:	Westinghouse AP1000

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
				03.06.05	<p>B.2 Be in MODE 5.</p> <p>To read: B.2 Be in MODE 5 or 6.</p> <p>AND</p> <p>B.3 Open containment equipment hatch or containment airlock. 44 hours</p>	DCD Revision 18
9640	WLS	Pt 04		B, 03.06 03.06.07	COLA Part 4, Section 3.6, Specification 3.6.7, APPLICABILITY, is revised from ">9.0 MWt." to ">6.0 MWt" for both MODE 5 and MODE 6.	Westinghouse AP1000 DCD Revision 18
10107	WLS	Pt 04		B, 03.06 03.06.07	<p>COLA Part 4, Section 3.6, Specification 3.6.7, ACTIONS section, Item D under CONDITION is revised from: D. Required Action and associated Completion Time not met. OR LCO not met for reasons other than A, B, or C.</p> <p>To Read: D. Required Action and associated Completion Time not met. OR LCO not met for reasons other than Condition A, B, or C.</p>	Westinghouse AP1000 DCD Revision 19
10108	WLS	Pt 04		B, 03.06 03.06.07	<p>COLA Part 4, Section 3.6, Specification 3.6.7, ACTIONS section, Item D.1.1 under REQUIRED ACTION is revised from: D.1.1 If in MODE 5, initiate action to be in MODE 5 with the RCS pressure boundary intact and [greater than or equal to] 20% pressurizer level.</p> <p>To Read: D.1.1 If in MODE 5, initiate action to be in MODE 5 with the Reactor Coolant System (RCS) pressure boundary intact and [greater than or equal to] 20% pressurizer level.</p>	Westinghouse AP1000 DCD Revision 19
10109	WLS	Pt 04		B, 03.06 03.06.07	<p>COLA Part 4, Section 3.6, Specification 3.6.7, SURVEILLANCE REQUIREMENTS section, SR 3.6.7.1 under SURVEILLANCE is revised from: SR 3.6.7.1 The SRs of Specification 3.6.6, "Passive Containment Cooling System – Operating" are applicable.</p> <p>To Read: SR 3.6.7.1 The SRs of Specification 3.6.6, "Passive Containment Cooling System – Operating," are applicable.</p>	Westinghouse AP1000 DCD Revision 19
10110	WLS	Pt 04		B, 03.06 03.06.08	<p>COLA Part 4, Section 3.6, Specification 3.6.8, ACTIONS section, Item B.1.1 under REQUIRED ACTION is revised from: B.1.1 If in MODE 5, initiate action to be in MODE 5 with the RCS pressure boundary intact and [greater than or equal to] 20% pressurizer level.</p> <p>To Read: B.1.1 If in MODE 5, initiate action to be in MODE 5 with the Reactor Coolant System (RCS) pressure boundary intact and [greater than or equal to] 20% pressurizer level.</p>	Westinghouse AP1000 DCD Revision 19
9641	WLS	Pt 04		B, 03.06 03.06.10	COLA Part 4, Section 3.6, new Specification 3.6.10, Vacuum Relief Valves is inserted as reflected on DCD Revision 18.	Westinghouse AP1000 DCD Revision 18
10151	WLS	Pt 04		B, 03.06 03.06.10	COLA Part 4, Section 3.6, Specification 3.6.10 is revised to underline three instances of "AND" and two instances of "OR".	Westinghouse AP1000 DCD Revision 19
10111	WLS	Pt 04		B, 03.07 03.07.01	COLA Part 4, Section 3.7, Specification 3.7.1, APPLICABILITY section is revised from: MODES 1, 2, 3,	Westinghouse AP1000 DCD Revision 19

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9642	WLS	Pt 04		B, 03.07 03.07.01.T/ T3.7.1-2	<p>MODE 4 with the RCS not being cooled by the RNS.</p> <p>To Read: MODES 1, 2, and 3. MODE 4 with the Reactor Coolant System (RCS) not being cooled by the Normal Residual Heat Removal System (RNS).</p> <p>COLA Part 4, Section 3.7, Specification 3.7.1, Table 3.7.1-2, revise third column of table as reflected on DCD Revision 18.</p>	Westinghouse AP1000 DCD Revision 18
10112	WLS	Pt 04		B, 03.07 03.07.02	<p>COLA Part 4, Section 3.7, Specification 3.7.2, ACTIONS section, Item E.2 under REQUIRED ACTION is revised from: E.2 Be in MODE 4 with the RCS cooling provided by the RNS.</p> <p>To Read: E.2 Be in MODE 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS).</p>	Westinghouse AP1000 DCD Revision 19
10113	WLS	Pt 04		B, 03.07 03.07.03	<p>COLA Part 4, Section 3.7, Specification 3.7.3, ACTIONS section, Item D.2 under REQUIRED ACTION is revised from: D.2 Be in MODE 4 with the RCS cooling provided by the RNS.</p> <p>To Read: D.2 Be in MODE 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS).</p>	Westinghouse AP1000 DCD Revision 19
10152	WLS	Pt 04		B, 03.07 03.07.05	<p>COLA Part 4, Section 3.7, Specification 3.7.5 LCO section is revised from: LCO 3.7.5 The spent fuel pool water level shall be [greater than or equal to] 23 ft over the top of irradiated fuel assemblies seated in the storage racks.</p> <p>To Read: LCO 3.7.5 The spent fuel pool water level shall be [greater than or equal to] 23 ft above the top of irradiated fuel assemblies seated in the storage racks.</p>	Westinghouse AP1000 DCD Revision 19
10114	WLS	Pt 04		B, 03.07 03.07.06	<p>COLA Part 4, Section 3.7, Specification 3.7.6 heading and LCO section is revised from: 3.7.6 Main Control Room Habitability System (VES) LCO 3.7.6 The Main Control Room (MCR) Habitability System shall be OPERABLE.</p> <p>To Read: 3.7.6 Main Control Room Emergency Habitability System (VES) LCO 3.7.6 The VES shall be OPERABLE.</p>	Westinghouse AP1000 DCD Revision 19
9643	WLS	Pt 04		B, 03.07 03.07.06	COLA Part 4, Section 3.7, LCO 3.7.6, replace "MCR" in -NOTE- section to read "main control room envelope (MCRE)"	Westinghouse AP1000 DCD Revision 18
9644	WLS	Pt 04		B, 03.07 03.07.06	COLA Part 4, Section 3.7, Specification 3.7.6 ACTIONS and SURVEILLANCE REQUIREMENTS are revised as reflected on DCD Revision 18.	Westinghouse AP1000 DCD Revision 18
10115	WLS	Pt 04		B, 03.07 03.07.06	COLA Part 4, Section 3.7, Specification 3.7.6, ACTIONS section, Items B, B.1, and D.2 are revised to replace three instances of "MCR" with "MCRE".	Westinghouse AP1000 DCD Revision 19
10153	WLS	Pt 04		B, 03.07 03.07.06	COLA Part 4, Section 3.7, Specification 3.7.6, ACTIONS section, Item D.3 is revised to underline the "AND".	Westinghouse AP1000 DCD Revision 19
10154	WLS	Pt 04		B, 03.07 03.07.06	COLA Part 4, Section 3.7, Specification 3.7.6, ACTIONS section, Item F is revised to underline the first "OR".	Westinghouse AP1000 DCD Revision 19
10116	WLS	Pt 04		B, 03.07	COLA Part 4, Section 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS section, SR 3.7.6.1, 3.7.6.7,	Westinghouse AP1000

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
				03.07.06	and 3.7.6.12 under SURVEILLANCE are revised from: SR 3.7.6.1 Verify Main Control Room Envelope air temperature is [less than or equal to] 75°F. SR 3.7.6.7 Verify that all Main Control Room isolation valves are OPERABLE and will close upon receipt of an actual or simulated actuation signal. SR 3.7.6.12 Perform required MCR Passive Filtration system filter testing in accordance with the Ventilation Filter Testing Program (VFTP).  To Read: SR 3.7.6.1 Verify MCRE air temperature is [less than or equal to] 75°F. SR 3.7.6.7 Verify that all MCRE isolation valves are OPERABLE and will close upon receipt of an actual or simulated actuation signal. SR 3.7.6.12 Perform required VES Passive Filtration system filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	DCD Revision 19
10117	WLS	Pt 04		B, 03.07 03.07.07	COLA Part 4, Section 3.7, Specification 3.7.7, ACTIONS section, Item C.2 under REQUIRED ACTION is revised from: C.2 Be in MODE 4 with the RCS cooling provided by the RNS.  To Read: C.2 Be in MODE 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS).	Westinghouse AP1000 DCD Revision 19
9645	WLS	Pt 04		B, 03.07 03.07.09	COLA Part 4, Section 3.7, Specification 3.7.9, is revised as reflected on DCD Revision 18.	WEC DCD Revision 18
10118	WLS	Pt 04		B, 03.07 03.07.09	COLA Part 4, Section 3.7, Specification 3.7.9, NOTES section under LCO, Note 3 is revised from: 3. OPERABILITY of the PCCWST is required as a spent fuel storage pool makeup water source when the calculated spent fuel storage pool decay heat > 7.2 MWt. If the reactor decay heat is > 6.0 MWt, the PCCWST must be exclusively available for containment cooling in accordance with LCO 3.6.7.  To Read: 3. OPERABILITY of the Passive Containment Cooling Water Storage Tank (PCCWST) is required as a spent fuel storage pool makeup water source when the calculated spent fuel storage pool decay heat > 7.2 MWt. If the reactor decay heat is > 6.0 MWt, the PCCWST must be exclusively available for containment cooling in accordance with LCO 3.6.7.	Westinghouse AP1000 DCD Revision 19
10119	WLS	Pt 04		B, 03.07 03.07.09	COLA Part 4, Section 3.7, Specification 3.7.9, SURVEILLANCE REQUIREMENTS section, SR 3.7.9.2, SR 3.7.9.3, and SR 3.7.9.4 under SURVEILLANCE are revised from: SR 3.7.9.2 ----- - NOTE - Only required to be performed when spent fuel storage pool calculated decay heat is > 7.2 MWt. ----- Verify the PCCWST volume is [greater than or equal to] 400,000 gallons. SR 3.7.9.3 ----- - NOTE - Only required to be performed when spent fuel storage pool calculated decay heat is [less than or equal to] 7.2 MWt. ----- Verify the water level in the cask washdown pit is [greater than or equal to] 13.75 ft and in communication with the spent fuel storage pool. SR 3.7.9.4 ----- - NOTE - Only required to be performed when spent fuel storage pool calculated decay heat is > 5.6 MWt and [less than or equal to] 7.2 MWt. ----- Verify the water level in the cask loading pit is [greater than or equal to] 43.9 ft. and in communication with the spent fuel storage pool.	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>To Read: SR 3.7.9.2 ----- - NOTE - Only required to be performed when spent fuel storage pool calculated decay heat is &gt; 7.2 MWt.</p> <p>Verify the PCCWST volume is [greater than or equal to] 756,700 gallons. SR 3.7.9.3 ----- - NOTE - Only required to be performed when spent fuel storage pool calculated decay heat is [less than or equal to] 7.2 MWt.</p> <p>Verify the water level in the cask washdown pit is [greater than or equal to] 13.75 ft. SR 3.7.9.4 ----- - NOTE - Only required to be performed when spent fuel storage pool calculated decay heat is &gt; 5.6 MWt and [less than or equal to] 7.2 MWt.</p> <p>Verify the water level in the cask loading pit is [greater than or equal to] 43.9 ft. and in communication with the spent fuel storage pool.</p>	
10120	WLS	Pt 04		B, 03.07 03.07.10	<p>COLA Part 4, Section 3.7, Specification 3.7.10 heading is revised from: 3.7.10 Steam Generator Isolation Valves</p> <p>To Read: 3.7.10 Steam Generator (SG) Isolation Valves</p>	Westinghouse AP1000 DCD Revision 19
10121	WLS	Pt 04		B, 03.07 03.07.10	<p>COLA Part 4, Section 3.7, Specification 3.7.10, APPLICABILITY section is revised from: APPLICABILITY: MODES 1, 2, and 3, MODE 4 with the RCS not being cooled by the RNS.</p> <p>To Read: MODES 1, 2, and 3. MODE 4 with the Reactor Coolant System (RCS) not being cooled by the Normal Residual Heat Removal System (RNS).</p>	Westinghouse AP1000 DCD Revision 19
9646	WLS	Pt 04		B, 03.07 03.07.12	<p>COLA Part 4, Section 3.7, LCO 3.7.12, revise from: The combination of initial enrichment, burnup, and decay time of each fuel assembly stored in Region 2 in an "All Cell" storage configuration shall be within the limits specified in Figure 3.7.12-1 or The combination of initial enrichment, burnup, and decay time of each fuel assembly stored in Region 2 in the Spent Fuel (1.361 w/o) locations in a "1-out-of-4 5.0 weight percent fresh" configuration shall be within the limits specified in Figures 3.7.12-2. Fuel may be stored in Region 2 in both "All Cell" and "1-out-of-4 5.0 weight-percent fresh" storage configurations together, provided the fuel stored in the interface locations surrounding the "1-out-of-4 5.0 weight-percent fresh" group(s) meet the initial enrichment, burnup, and decay time limits specified in Figure 3.7.12-2.</p> <p>To read: The combination of initial enrichment and burnup of each fuel assembly stored in Region 2 shall be within the limits specified in Figure 3.7.12-1.</p>	Westinghouse AP1000 DCD Revision 18
9647	WLS	Pt 04		B, 03.07 03.07.12	<p>COLA Part 4, Section 3.7, Specification 3.7.12, SURVEILLANCE REQUIREMENTS is revised from: Verify by administrative means the initial enrichment, burnup, and decay time of the fuel assembly is in accordance with Figures 3.7.12-1 or 3.7.12-2, as applicable for "All Cell," "1-out-of-4 5.0 weight-percent</p>	Westinghouse AP1000 DCD Revision 18

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					fresh" and interface spent fuel assembly storage configurations.  To read: Verify by administrative means the initial enrichment and burnup of the fuel assembly is in accordance with Figure 3.7.12-1.	
9648	WLS	Pt 04		B, 03.07/ 03.07.12 F3.7.12-1 F3.7.12-2	COLA Part 4, Section 3.7, LCO 3.7.12 FIGURES, replace Figure 3.7.12-1 with revised DCD 18 Figure. Figure 3.7.12-2 is removed and marked 'Figure 3.7.12-2 not used.'	Westinghouse AP1000 DCD Revision 18
10155	WLS	Pt 04		B, 03.07/ 03.07.12 F3.7.12-2	COLA Part 4, Section 3.7, Specification 3.7.12, Figure 3.7.12-2 is removed.	Westinghouse AP1000 DCD Revision 19
10156	WLS	Pt 04		B, 03.08 03.08.07	COLA Part 4, Section 3.8, Specification 3.8.7, ACTIONS section, NOTES above Items C and C.1 are revised to expand text and format above lettered items.	Westinghouse AP1000 DCD Revision 19
10122	WLS	Pt 04		B, 03.09 03.09.02	COLA Part 4, Section 3.9, Specification 3.9.2, ACTIONS section, Item A.3 under REQUIRED ACTION is revised from: A.3 Perform SR 3.9.1.1, (boron concentration verification).  To Read: A.3 Perform SR 3.9.1.1.	Westinghouse AP1000 DCD Revision 19
10123	WLS	Pt 04		B, 03.09 03.09.03	COLA Part 4, Section 3.9, Specification 3.9.3, ACTIONS section, Item A.2 under REQUIRED ACTION is revised from: A.2 Suspend operations that would cause introduction into the RCS, coolant with boron concentration less than required to meet the boron concentration of LCO 3.9.1.  To Read: A.2 Suspend operations that would cause introduction into the Reactor Coolant System (RCS), coolant with boron concentration less than required to meet the boron concentration of LCO 3.9.1.	Westinghouse AP1000 DCD Revision 19
10124	WLS	Pt 04		B, 03.09 03.09.03	COLA Part 4, Section 3.9, Specification 3.9.3, ACTIONS section, Item B.2 under REQUIRED ACTION is revised from: B.2 Perform SR 3.9.1.1, (Boron Concentration Verification).  To Read: B.2 Perform SR 3.9.1.1.	Westinghouse AP1000 DCD Revision 19
9649	WLS	Pt 04		B, 04.03 04.03.01.01	COLA Part 4, Section 4.3, Specification 4.3.1.1 is revised as follows: In paragraph a., replace 5.0 with 4.95 In paragraph c., replace 10.90 with 10.93, 9.028 with 9.04, and 11.62 with 11.65 In paragraph e., replace enrichment, burnup, and decay time with enrichment and burnup; and end the paragraph with "Figure 4.3-1." Delete paragraph f.	Westinghouse AP1000 DCD Revision 18
10125	WLS	Pt 04		B, 04.03 04.03.01.01	COLA Part 4, Section 4.3, Specification 4.3.1.1 is revised from: 4.3.1.1 The spent fuel storage racks are designed and shall be maintained with: a. Fuel assemblies having a maximum U-235 enrichment of 4.95 weight percent. b. keff [less than or equal to] 0.95 if fully flooded with unborated water which includes an allowance for uncertainties as described in Section 9.1, "Fuel Storage and Handling." c. A nominal 10.93 inch center-to-center distance between fuel assemblies placed in Region 1, a nominal 9.04 inch center-to-center distance between fuel assemblies placed in Region 2 of the spent fuel storage racks, and a nominal 11.65 inch center-to-center distance between fuel assemblies placed in the Defective Fuel Cells. d. New or partially spent fuel assemblies with any discharge burnup may be allowed unrestricted storage in Region 1 and the Defective Fuel Cells of Figure 4.3-1;	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>e. Partially spent fuel assemblies meeting the initial enrichment and burnup requirements of LCO 3.7.12, "Spent Fuel Pool Storage," may be stored in Region 2 of Figure 4.3-1.</p> <p>To Read:</p> <p>4.3.1.1 The spent fuel storage racks are designed and shall be maintained with:</p> <p>a. Fuel assemblies having a maximum U-235 enrichment of 4.95 weight percent;</p> <p>b. keff [less than or equal to] 0.95 if flooded with unborated water which includes an allowance for uncertainties (Region 1 racks);</p> <p>c. A nominal 10.93 inch center-to-center distance between fuel assemblies placed in Region 1, a nominal 9.04 inch center-to-center distance between fuel assemblies placed in Region 2 of the spent fuel storage racks, and a nominal 11.65 inch center-to-center distance between fuel assemblies placed in the Defective Fuel Cells;</p> <p>d. New or partially spent fuel assemblies with any discharge burnup may be allowed unrestricted storage in Region 1 and the Defective Fuel Cells of Figure 4.3-1;</p> <p>e. Partially spent fuel assemblies meeting the initial enrichment and burnup requirements of LCO 3.7.12, "Spent Fuel Pool Storage," may be stored in Region 2 of Figure 4.3-1; and</p> <p>f. keff &lt; 1.0 if flooded with unborated water and keff [less than or equal to] 0.95 if flooded with borated water at a minimum soluble boron concentration described in the Bases for LCO 3.7.12 for normal and design basis criticality-related accident conditions, which includes an allowance for uncertainties (Region 2 racks).</p>	
9650	WLS	Pt 04		B, 04.03 04.03.01.02	<p>COLA Part 4, Section 4.3, Specification 4.3.1.2, replace paragraphs b. and c. with the following:</p> <p>b. The maximum keff value, including all biases and uncertainties, shall be less than or equal to 0.95 with full density unborated water.</p> <p>c. The maximum keff value, including all biases and uncertainties, shall be less than or equal to 0.98 with optimum moderation and full reflection conditions.</p>	Westinghouse AP1000 DCD Revision 18
10126	WLS	Pt 04		B, 04.03 04.03.01.02	<p>COLA Part 4, Section 4.3, Specification 4.3.1.2 is revised from:</p> <p>4.3.1.2 The new fuel storage racks are designed and shall be maintained with:</p> <p>a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent.</p> <p>b. The maximum keff value, including all biases and uncertainties, shall be less than or equal to 0.95 with full density unborated water.</p> <p>c. The maximum keff value, including all biases and uncertainties, shall be less than or equal to 0.98 with optimum moderation and full reflection conditions.</p> <p>d. A nominal 10.90 inch center-to-center distance between fuel assemblies placed in the new fuel storage racks.</p> <p>To Read:</p> <p>4.3.1.2 The new fuel storage racks are designed and shall be maintained with:</p> <p>a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;</p> <p>b. The maximum keff value, including all biases and uncertainties, shall be less than or equal to 0.95 with full density unborated water;</p> <p>c. The maximum keff value, including all biases and uncertainties, shall be less than or equal to 0.98 with optimum moderation and full reflection conditions; and</p> <p>d. A nominal 10.90 inch center-to-center distance between fuel assemblies placed in the new fuel storage racks.</p>	Westinghouse AP1000 DCD Revision 19
9651	WLS	Pt 04		B, 04.03/ Figures F4.3-1 F4.3-2	<p>COLA Part 4, Section 4.3, Specification 4.3 FIGURES is revised as follows:</p> <p>Figure 4.3-1 is replaced with DCD Rev 18 Figure 4.3-1</p> <p>Figure 4.3-2 is removed and marked 'Figure 4.3-2 not used.'</p>	Westinghouse AP1000 DCD Revision 18
10157	WLS	Pt 04		B, 04.03/ Figures F4.3-2	COLA Part 4, Section 4.3, Specification 4.3 Figure 4.3-2 is removed.	Westinghouse AP1000 DCD Revision 19
9652	WLS	Pt 04		B, 05.05 05.05.03	COLA Part 4, Section 5.5, Specification 5.5.3, paragraph d., replace "Boiler and Pressure Vessel" with "OM" to read "ASME OM Code"	Westinghouse AP1000 DCD Revision 18



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9653	WLS	Pt 04		B, 05.05 05.05.04	COLA Part 4, Section 5.5, Specification 5.5.4, paragraph d.1., replace "SG replacement" with "installation"	Westinghouse AP1000 DCD Revision 18
9654	WLS	Pt 04		B, 05.05 05.05.07	COLA Part 4, Section 5.5, Specification 5.5.7, first sentence of first paragraph, replace "ensure" with "ensures"	Westinghouse AP1000 DCD Revision 18
10127	WLS	Pt 04		B, 05.05 05.05.08	COLA Part 4, Section 5.5, Specification 5.5.8, paragraph b. is revised to replace "57.8 psig" with "58.3 psig".	Westinghouse AP1000 DCD Revision 19
9655	WLS	Pt 04		B, 05.05 05.05.12 05.05.13 05.05.14	COLA Part 4, Section 5.5, add new Specification 5.5.12, 5.5.13, and 5.5.14 as reflected on DCD Revision 18.	Westinghouse AP1000 DCD Revision 18
10158	WLS	Pt 04		B, 05.05 05.05.13	COLA Part 4, Section 5.5, Specification 5.5.13, last paragraph is revised to remove the underline.	Westinghouse AP1000 DCD Revision 19
10129	WLS	Pt 04		B, 05.05 05.05.14	COLA Part 4, Section 5.5, Specification 5.5.14, paragraph b. is revised to replace "May 2006" with "February 2011".	Westinghouse AP1000 DCD Revision 19
9656	WLS	Pt 04		B, 05.06 05.06.05	COLA Part 4, Section 5.6, Specification 5.6.5, add new paragraph 6. under paragraph b. as follows: 6. APP-GW-GLR-137, Rev. 0, "Bases of Digital Overpower and Overtemperature Delta-T (OP[Delta]-T/OT [Delta]-T) Reactor Trips," Westinghouse Electric Company LLC.  (Methodology for Specification 2.1.1 – Reactor Core Safety Limits, and 3.3.1 – Reactor Trip System (RTD) Instrumentation.)	Westinghouse AP1000 DCD Revision 18
10130	WLS	Pt 04		B, 05.06 05.06.05	COLA Part 4, Section 5.6, Specification 5.6.5, Item b.6 is revised from "APP-GW-GLR-137, Rev. 0,..." to read "APP-GW-GLR-137, Revision 1,..."	Westinghouse AP1000 DCD Revision 19
9898	WLS	Pt 04		B, B00 TOC/ Rev Summary	Technical Specifications Bases, Table of Contents/Revision Summary page, under Revision Column, replace all entries with FSAR 4.	Conform to revision status of COLA
9657	WLS	Pt 04		B, B02.00 02.01.01	COLA Part 4, Section B2.0, Specification B2.1.1, SAFETY LIMITS, remove the following text from the first paragraph: "that the average enthalpy in the hot leg is less than or equal to the enthalpy of saturated liquid,"	Westinghouse AP1000 DCD Revision 18
9658	WLS	Pt 04		B, B02.00 02.01.01	COLA Part 4, Section B2.0, Specification B2.1.1, SAFETY LIMITS, last paragraph replace "RPS" with "PMS" (3 instances). Revise the third sentence from: "That is, it must be demonstrated that the average enthalpy in the hot leg is less than or equal to the saturation enthalpy and the core exit quality is within the limits defined by the DNBR correlation." To read: "That is, it must be demonstrated that the core exit quality is within the limits defined by the DNBR correlation and that the Overtemperature and Overpower [Delta]T reactor trip protection functions continue to provide protection if local hot leg streams approach saturation temperature."	Westinghouse AP1000 DCD Revision 18
10131	WLS	Pt 04		B, B03.00 03.00.08	COLA Part 4, Section B 3.0, LCO 3.0.8, seventh paragraph, second sentence is revised from: This example assumes that the plant is initially in MODE 5 with the RCS pressure boundary intact.  To Read: This example assumes that the plant is initially in MODE 5 with the Reactor Coolant System (RCS) pressure boundary intact.	Westinghouse AP1000 DCD Revision 19
9659	WLS	Pt 04		B, B03.00 T3.0.1	COLA Part 4, Section B 3.0, 3.0.8, Table B 3.0-1, revise the footnote from < 9 MWt to read < 6 MWt.	SUPERSEDED by QB 10132. WEC DCD Revision 18
10132	WLS	Pt 04		B, B03.00 T3.0.1	COLA Part 4, Section B 3.0, LCO 3.0.8, Table B 3.0-1, revise the footnote from < 9 MWt to read [less than or equal to] 6.0 MWt.	SUPERCEDES QB 9659. WEC DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10135	WLS	Pt 04		B, B03.01 03.01.01	COLA Part 4, Section B 3.1, Specification 3.1.1, BACKGROUND section, fourth paragraph, first sentence is revised from: During power operation, SDM is calculated and monitored by the OPDMS and controlled by operating with RCCAs sufficiently withdrawn to meet the SDM requirement.  To Read: During power operation, SDM is calculated and monitored by the Online Power Distribution Monitoring System (OPDMS) and controlled by operating with RCCAs sufficiently withdrawn to meet the SDM requirement.	Westinghouse AP1000 DCD Revision 19
9660	WLS	Pt 04		B, B03.01 03.01.01	COLA Part 4, Section B 3.1, Specification 3.1.1, APPLICABLE SAFETY ANALYSES, fourth paragraph, remove the semicolon after paragraph c. and replace with a period. Delete paragraph d.	Westinghouse AP1000 DCD Revision 18
9661	WLS	Pt 04		B, B03.01 03.01.01	COLA Part 4, Section B 3.1, Specification 3.1.1, APPLICABLE SAFETY ANALYSES, remove the ninth (second to last) paragraph.	Westinghouse AP1000 DCD Revision 18
10136	WLS	Pt 04		B, B03.01 03.01.01	COLA Part 4, Section B 3.1, Specification B 3.1.1, LCO section, first paragraph is revised from: SDM is a core design condition that can be ensured during operation through calculations by the Online Power Distribution Monitoring System (OPDMS) and RCCA positioning and through the soluble boron concentration.  To Read: SDM is a core design condition that can be ensured during operation through calculations by the OPDMS and RCCA positioning and through the soluble boron concentration.	Westinghouse AP1000 DCD Revision 19
9662	WLS	Pt 04		B, B03.01 03.01.01	COLA Part 4, Section B 3.1, Specification 3.1.1, SURVEILLANCE REQUIREMENTS, SR 3.1.1.1, first sentence is revised from: In MODES 1 and 2, SDM is verified by observing that the requirements of LCO 3.1.5 and LCO 3.1.6 are met. To read: In MODES 1 and 2 with Keff [greater than or equal to] 1.0, SDM is verified by observing that the requirements of LCO 3.1.5 and LCO 3.1.6 are met.	Westinghouse AP1000 DCD Revision 18
10137	WLS	Pt 04		B, B03.01 03.01.01	COLA Part 4, Section B 3.1, Specification 3.1.1, SURVEILLANCE REQUIREMENTS, SR 3.1.1.1, first sentence is revised from: In MODES 1 and 2 with Keff [greater than or equal to] 1.0, SDM is verified by observing that the requirements of LCO 3.1.5 and LCO 3.1.6 are met.  To Read: In MODES 1 and 2 with $k_{\text{subscript}}\text{eff}$ [greater than or equal to] 1.0, SDM is verified by observing that the requirements of LCO 3.1.5 and LCO 3.1.6 are met.	Westinghouse AP1000 DCD Revision 19
10138	WLS	Pt 04		B, B03.01 03.01.04	COLA Part 4, Section B 3.1, Specification B 3.1.4, BACKGROUND section, first paragraph, third sentence is revised from: Gray Rod Cluster Assemblies (GRCAs) are excluded from this LCO during the planned GRCA bank sequence exchange, with OPDMS operable.  To Read: Gray Rod Cluster Assemblies (GRCAs) are excluded from this LCO during the planned GRCA bank sequence exchange, with the Online Power Distribution Monitoring System (OPDMS) operable.	Westinghouse AP1000 DCD Revision 19
9663	WLS	Pt 04		B, B03.01 03.01.04	COLA Part 4, Section B 3.1, Specification 3.1.4, BACKGROUND, starting with third sentence in first paragraph to end of paragraph is revised from: Gray Rod Cluster Assemblies (GRCAs) are excluded from this LCO during the planned swap of the gray rod banks, with OPDMS operable. The swap of GRCA banks will be periodically necessary to prevent excessive burnup shadowing of fuel rods near the gray rod assemblies. The bank swap maneuver will purposefully misalign GRCAs from their bank for a short period of time. The exclusion from this LCO is acceptable due to SHUTDOWN MARGIN being	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					calculated exclusive of GRCAs, the relative low worth of individual gray rod assemblies, the short time duration anticipated for the swap maneuver and with OPDMS operable, power peaking and xenon redistribution effects will be monitored and controlled. To read: Gray Rod Cluster Assemblies (GRCAs) are excluded from this LCO during the planned GRCA bank sequence exchange, with OPDMS operable. The bank sequence exchange of GRCA banks will be periodically necessary to prevent excessive burnup shadowing of fuel rods near the gray rod assemblies. The bank sequence exchange maneuver will purposefully misalign GRCAs from their bank for a short period of time. The exclusion from this LCO is acceptable due to SHUTDOWN MARGIN being calculated exclusive of GRCAs, the relative low worth of individual gray rod assemblies, the short time duration anticipated for the bank sequence exchange maneuver and with OPDMS operable, power peaking and xenon redistribution effects will be monitored and controlled.	
9664	WLS	Pt 04		B, B03.01 03.01.04	COLA Part 4, Section B 3.1, Specification 3.1.4, LCO, last paragraph, first sentence is revised from: The LCO is modified by a Note to relax the rod alignment limit on gray rods during GRCA swap operations. To read: The LCO is modified by a Note to relax the rod alignment limit on GRCAs during GRCA bank sequence exchange operations.	Westinghouse AP1000 DCD Revision 18
9665	WLS	Pt 04		B, B03.01 03.01.04	COLA Part 4, Section B 3.1, Specification 3.1.4, ACTIONS, B.1, second paragraph, fifth line, revise "Limit" to read "Limits"	Westinghouse AP1000 DCD Revision 18
9666	WLS	Pt 04		B, B03.01 03.01.04	COLA Part 4, Section B 3.1, Specification 3.1.4, SURVEILLANCE REQUIREMENTS, SR 3.1.4.3, first paragraph, second sentence is revised from: Measuring rod drop times prior to reactor criticality, after each reactor vessel head removal, ensures that the reactor internals and rod drive mechanism will not interfere with rod motion or rod drop time, and that no degradation in these systems has occurred that would adversely affect control rod motion or drop time. To read: Measuring rod drop times prior to reactor criticality, after each reactor vessel head removal and each earthquake requiring plant shutdown, ensures that the reactor internals and rod drive mechanism will not interfere with rod motion or rod drop time, and that no degradation in these systems has occurred that would adversely affect control rod motion or drop time.	Westinghouse AP1000 DCD Revision 18
9667	WLS	Pt 04		B, B03.01 03.01.05	COLA Part 4, Section B 3.1, Specification 3.1.5, LCO, revise the second sentence from: This in conjunction with LCO 3.1.6, "Control Bank Insertion Limits," ensures that a sufficient amount of negative reactivity is available to shut down the reactor and maintain the required SDM following a reactor trip. To read: This in conjunction with LCO 3.1.6, "Control Bank Insertion Limits," and 3.2.5.d, OPDMS Monitored Parameters, "SDM," ensures that a sufficient amount of negative reactivity is available to shut down the reactor and maintain the required SDM following a reactor trip.	Westinghouse AP1000 DCD Revision 18
10139	WLS	Pt 04		B, B03.01 03.01.05	COLA Part 4, Section B 3.1, Specification B 3.1.5, LCO section, first paragraph, second sentence is revised to replace "OPDMS" with "Online Power Distribution Monitoring System (OPDMS)".	Westinghouse AP1000 DCD Revision 19
9668	WLS	Pt 04		B, B03.01 03.01.05	COLA Part 4, Section B 3.1, Specification 3.1.5, APPLICABILITY, remove the second sentence from the first paragraph.	Westinghouse AP1000 DCD Revision 18
9669	WLS	Pt 04		B, B03.01 03.01.05	COLA Part 4, Section B 3.1, Specification 3.1.5, ACTIONS, last two sentences of first paragraph are revised from: Also, verification of SDM or initiation of boration within 1 hour is required, since the SDM in MODES 1 and 2 is ensured by adhering to the control and shutdown bank insertion limits (see LCO 3.1.1). If shutdown banks are not within their insertion limits, then SDM will be verified by performing a reactivity balance calculation, considering the effects listed in the BASES for SR 3.1.1.1. To read: Also, verification of SDM or initiation of boration within 1 hour is required, since the SDM in MODES 1 and 2	Westinghouse AP1000 DCD Revision 18

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					is ensured by the continuous monitoring of SDM by the OPDMS (see LCO 3.2.5) and adhering to the control and shutdown bank insertion limits (see LCO 3.1.1). If shutdown banks are not within their insertion limits, then SDM will be verified by the OPDMS or by performing a reactivity balance calculation, considering the effects listed in the BASES for SR 3.1.1.1.	
9670	WLS	Pt 04		B, B03.01 03.01.06	COLA Part 4, Section B 3.1, Specification 3.1.6, BACKGROUND, fourth paragraph is revised from: The control bank insertion sequence and overlap limits are specified in the COLR. The control banks are required to be at or above the insertion limit lines. To read: The control bank insertion sequence and overlap limits are specified in the COLR. The control banks are required to be at or above the applicable insertion limit lines. There will be two insertion limit lines. Which is applicable will depend on the operability of the Online Power Distribution Monitoring System (OPDMS).	Westinghouse AP1000 DCD Revision 18
9671	WLS	Pt 04		B, B03.01 03.01.06	COLA Part 4, Section B 3.1, Specification 3.1.6, BACKGROUND, sixth paragraph, second sentence, the title for LCO 3.2.5 is revised from "Monitored Powered Distribution Parameters" to read "Monitored Parameters". Add a separator line between the sixth and seventh paragraphs. Add "when the OPDMS is inoperable" to the end of the seventh paragraph.	Westinghouse AP1000 DCD Revision 18
10140	WLS	Pt 04		B, B03.01 03.01.06	COLA Part 4, Section B 3.1, Specification B 3.1.6, BACKGROUND section is revised to remove the line break between the sixth and seventh paragraphs.	Westinghouse AP1000 DCD Revision 19
9672	WLS	Pt 04		B, B03.01 03.01.06	COLA Part 4, Section B 3.1, Specification 3.1.6, APPLICABLE SAFETY ANALYSES, first paragraph is revised from: The shutdown and control bank insertion limits, AFD and QPTR LCOs are required to prevent power distributions that could result in fuel cladding failures in the event of a LOCA, loss of flow, ejected rod, or other accident requiring termination by an RTS trip function. To read: The shutdown and applicable control bank insertion limits, AFD and QPTR LCOs, are required when the OPDMS is inoperable, to prevent power distributions that could result in fuel cladding failures in the event of a LOCA, loss of flow, ejected rod, or other accident requiring termination by an RTS trip function.	Westinghouse AP1000 DCD Revision 18
9673	WLS	Pt 04		B, B03.01 03.01.06	COLA Part 4, Section B 3.1, Specification 3.1.6, APPLICABLE SAFETY ANALYSES, fourth paragraph is revised from: The SDM requirement is ensured by limiting the control and shutdown bank insertion limits so that allowable inserted worth of the RCCAs is such that sufficient reactivity is available in the rods to shut down the reactor to hot zero power with a reactivity margin which assumes the maximum worth RCCA remains fully withdrawn upon trip (Ref. 3). To read: The SDM requirement is ensured by the continuous monitoring of the OPDMS and by limiting the control and shutdown bank insertion limits when the OPDMS is inoperable, so that allowable inserted worth of the RCCAs is such that sufficient reactivity is available in the rods to shut down the reactor to hot zero power with a reactivity margin which assumes the maximum worth RCCA remains fully withdrawn upon trip (Ref. 3).  The sixth paragraph is revised from: The control and shutdown bank insertion limits ensure that safety analyses assumptions for SDM, ejected rod worth, and power distribution peaking factors are preserved (Ref. 3). To read: The control and shutdown bank insertion limits ensure that safety analyses assumptions for SDM (with OPDMS inoperable), ejected rod worth, and power distribution peaking factors are preserved (Ref. 3).	Westinghouse AP1000 DCD Revision 18
9674	WLS	Pt 04		B, B03.01 03.01.06	COLA Part 4, Section B 3.1, Specification 3.1.6, LCO, fourth line, add the words "(when OPDMS is inoperable)" between "maintained" and the comma.	Westinghouse AP1000 DCD Revision 18
9675	WLS	Pt 04		B, B03.01 03.01.06	COLA Part 4, Section B 3.1, Specification 3.1.6, APPLICABILITY, first paragraph is revised from: The control bank sequence, overlap, and physical insertion limits shall be maintained with the reactor in MODES 1 and 2 with keff [greater than or equal to] 1.0. The LCO is not applicable if OPDMS is OPERABLE since OPDMS ensures that the limits are met. These limits must be maintained since they preserve the assumed power distribution, ejected rod worth, SDM, and reactivity rate insertion assumptions.	Westinghouse AP1000 DCD Revision 18

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					<p>To read: The control bank sequence, overlap, and physical insertion limits shall be maintained with the reactor in MODES 1 and 2 with keff [greater than or equal to] 1.0. There will be two sets of insertion limits applicable to the control banks depending on OPDMS operability. With OPDMS inoperable, these limits must be maintained since they preserve the assumed power distribution, ejected rod worth, SDM, and reactivity rate insertion assumptions. With OPDMS operable and continuously monitoring power distribution and SDM, the applicable insertion limits must be maintained since they preserve the accident analysis assumptions.</p> <p>Insert a new fourth paragraph as follows: The second Note suspends LCO applicability during GRCA bank sequence exchange operations. The two exchanging banks will move out of sequence and overlap limits for several minutes during the sequence exchange. This operation, which occurs frequently throughout the fuel cycle, would normally violate the LCO. GRCA bank sequence exchange is only allowed with the OPDMS OPERABLE to monitor the parameters of LCO 3.2.5, "OPDMS Monitored Parameters."</p>	
9676	WLS	Pt 04		B, B03.01 03.01.06	<p>COLA Part 4, Section B 3.1, Specification 3.1.6, ACTIONS, second paragraph is revised from: Also, verification of SDM or initiation of boration to regain SDM is required within 1 hour, since the SDM in MODES 1 and 2, ensured by adhering to the control and shutdown bank insertion limits (see LCO 3.1.1, "SHUTDOWN MARGIN (SDM)"), has been upset. If control banks are not within their insertion limits, then SDM will be verified by performing a reactivity balance calculation, considering the effects listed in the BASES for SR 3.1.1.1.</p> <p>To read: Also, verification of SDM or initiation of boration to regain SDM is required within 1 hour, since with OPDMS inoperable, the SDM in MODES 1 and 2, ensured by adhering to the control and shutdown bank insertion limits (see LCO 3.1.1, "SHUTDOWN MARGIN (SDM)"), has been upset. If control banks are not within their insertion limits, then SDM will be verified by the OPDMS or if the OPDMS is inoperable, by performing a reactivity balance calculation, considering the effects listed in the BASES for SR 3.1.1.1.</p>	Westinghouse AP1000 DCD Revision 18
9677	WLS	Pt 04		B, B03.01 03.01.06	<p>COLA Part 4, Section B 3.1, Specification 3.1.6, SURVEILLANCE REQUIREMENTS, SR 3.1.6.2 is revised from: Verification of the control banks insertion limits at a Frequency of 12 hours is sufficient to detect control banks that may be approaching the insertion limits since, normally, very little rod motion occurs in 12 hours.</p> <p>To read: Verification of the control banks insertion limits at a Frequency of 12 hours is sufficient to detect control banks that may be approaching the insertion limits since the insertion limits are monitored and alarms will occur on approach to and/or the exceeding of the limit and, normally, very little rod motion occurs in 12 hours.</p>	Westinghouse AP1000 DCD Revision 18
10143	WLS	Pt 04		B, B03.01 03.01.07	<p>COLA Part 4, Section B 3.1, Specification B 3.1.7, BACKGROUND section, second paragraph, second sentence is revised from: Maximum rod misalignment is an initial assumption in the RCCA misalignment safety analysis that directly affects core power distributions and assumptions of available SDM.</p> <p>To Read: Maximum rod misalignment is an initial assumption in the rod cluster control assembly (RCCA) misalignment safety analysis that directly affects core power distributions and assumptions of available SDM.</p>	Westinghouse AP1000 DCD Revision 19
10144	WLS	Pt 04		B, B03.01 03.01.07	<p>COLA Part 4, Section B 3.1, Specification B 3.1.7, BACKGROUND section, fifth paragraph, first sentence is revised from: Rod cluster control assemblies (RCCAs), or rods, are moved out of the core (up or withdrawn) or into the core (down or inserted) by their control rod drive mechanisms.</p> <p>To Read: RCCAs, or rods, are moved out of the core (up or withdrawn) or into the core (down or inserted) by their control rod drive mechanisms.</p>	Westinghouse AP1000 DCD Revision 19
9678	WLS	Pt 04		B, B03.01 03.01.07	COLA Part 4, Section B 3.1, Specification 3.1.7, ACTIONS, A.1, fifth line, replace "B.1 or B.2" with "C.1 or C.2"	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9679	WLS	Pt 04		B, B03.01 03.01.08	COLA Part 4, Section B 3.1, Specification 3.1.8, BACKGROUND, second listing b, is revised to read: "Rod Group Alignment Limits," LCO 3.1.5, "Shutdown Bank Insertion Limits," or LCO 3.1.6, "Control Bank Insertion Limits."	Westinghouse AP1000 DCD Revision 18
9680	WLS	Pt 04		B, B03.01 03.01.08	COLA Part 4, Section B 3.1, Specification 3.1.8, APPLICABLE SAFETY ANALYSES, third paragraph, second line, replace "1985" with "2005". In third indented line under the third paragraph, replace "Limit" with "Limits" in the title for LCO 3.1.5.	Westinghouse AP1000 DCD Revision 18
9681	WLS	Pt 04		B, B03.01 03.01.08	COLA Part 4, Section B 3.1, Specification 3.1.8, LCO, item c is revised from: c. THERMAL POWER is < 5% RTP To read: c. THERMAL POWER is [less than or equal to] 5% RTP	Westinghouse AP1000 DCD Revision 18
9682	WLS	Pt 04		B, B03.01 03.01.08	COLA Part 4, Section B 3.1, Specification 3.1.8, SURVEILLANCE REQUIREMENTS, SR 3.1.8.1, second sentence is revised from: A CHANNEL OPERATIONAL TEST is performed on each power range and intermediate range channel prior to initiation of the PHYSICS TESTS. To read: A REACTOR TRIP CHANNEL OPERATIONAL TEST is performed on each power range (Functions 2.a and 2.b) and intermediate range (Function 4) channel prior to initiation of the PHYSICS TESTS.	Westinghouse AP1000 DCD Revision 18
9683	WLS	Pt 04		B, B03.01 03.01.08	COLA Part 4, Section B 3.1, Specification 3.1.8, SURVEILLANCE REQUIREMENTS, SR 3.1.8.3, first sentence is revised from: "Verification that the THERMAL POWER is < 5% RTP will ensure that..." To read: "Verification that the THERMAL POWER is [less than or equal to] 5% RTP will ensure that..."	Westinghouse AP1000 DCD Revision 18
9684	WLS	Pt 04		B, B03.01 03.01.08	COLA Part 4, Section B 3.1, Specification 3.1.8, REFERENCES, Reference 4, in the first line replace "1997" with "2005" and in the last line replace "August 22, 1997" with "November 29, 2005"	Westinghouse AP1000 DCD Revision 18
9685	WLS	Pt 04		B, B03.01 03.01.09	COLA Part 4, Section B 3.1, Specification 3.1.9, APPLICABILITY, second paragraph, second sentence, replace "signalled" with "signaled"	Westinghouse AP1000 DCD Revision 18
10145	WLS	Pt 04		B, B03.02 03.02.02	COLA Part 4, Section B 3.2, Specification B 3.2.2, ACTIONS section, last paragraph is revised from: When Required Actions A.1.1 through A.3 cannot be completed within their required Completion Times, the plant must be placed in a mode in which the LCO requirements are not applicable. This is done by placing the plant in at least MODE 2 within 6 hours. The allowed Completion Time of 8 hours is reasonable, based on operating experience regarding the time required to reach MODE 2 from full power conditions in an orderly manner without challenging plant systems.  To Read: B.1 When Required Actions A.1.1 through A.3 cannot be completed within their required Completion Times, the plant must be placed in a mode in which the LCO requirements are not applicable. This is done by placing the plant in at least MODE 2 within 6 hours. The allowed Completion Time of 6 hours is reasonable, based on operating experience regarding the time required to reach MODE 2 from full power conditions in an orderly manner without challenging plant systems.	Westinghouse AP1000 DCD Revision 19
9686	WLS	Pt 04		B, B03.02 03.02.03	COLA Part 4, Section B 3.2, Specification 3.2.3, APPLICABLE SAFETY ANALYSES, third paragraph, insert "(Ref. 2)" at the end of the first sentence.	Westinghouse AP1000 DCD Revision 18
10160	WLS	Pt 04		B, B03.02 03.02.04	COLA Part 4, Section B 3.2, Specification B 3.2.4, BACKGROUND section, first paragraph, first sentence is revised to replace "OPDMS" with "Online Power and Distribution Monitoring System (OPDMS)".	WEC DCD Revision 19
9687	WLS	Pt 04		B, B03.02 03.02.05	COLA Part 4, Section B 3.2, Specification 3.2.5, APPLICABILITY, first paragraph, last sentence is revised from: The OPDMS monitoring of SDM must be OPERABLE in MODES 1 and 2. To read: The OPDMS monitoring of SDM is applicable in MODES 1 and 2 with Keff [greater than or equal to] 1.0.	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10161	WLS	Pt 04		B, B03.02 03.02.05	COLA Part 4, Section B 3.2, Specification B 3.2.5, APPLICABILITY section, first paragraph, is revised to replace "RTD" with "RTP" and "Keff" with "keff".	WEC DCD Revision 19
9688	WLS	Pt 04		B, B03.03 03.03.01	<p>COLA Part 4, Section B 3.3, Specification 3.3.1, BACKGROUND, insert the following text between the existing second and third paragraphs:</p> <p>Technical Specifications are required by 10 CFR 50.36 to include LSSS for variables that have significant safety functions. LSSS are defined by the regulation as "Where a LSSS is specified for a variable on which a safety limit has been placed, the setting must be chosen so that automatic protective actions will correct the abnormal situation before a Safety Limit (SL) is exceeded." The Safety Analysis Limit (SAL) is the limit of the process variable at which a protective action is initiated, as established by the safety analysis, to assure that a SL is not exceeded. However, in practice, the actual settings for automatic protection channels must be chosen to be more conservative than the Safety Analysis Limit to account for instrument loop uncertainties related to the setting at which the automatic protective action would actually occur. The LSSS values are identified and maintained in the Setpoint Program (SP) and are controlled by 10 CFR 50.59.</p> <p>The Nominal Trip Setpoint (NTS) specified in the SP is a predetermined field setting for a protection channel chosen to initiate automatic actuation prior to the process variable reaching the Safety Analysis Limit and, thus, assures that the SL is not exceeded. As such, the NTS accounts for uncertainties in setting the channel (e.g., calibration), uncertainties in how the channel might actually perform (e.g., repeatability), changes in the point of action of the channel over time (e.g., drift during surveillance intervals), and any other factors which may influence its actual performance (e.g., harsh accident environments). In this manner, the NTS assured that the SLs are not exceeded. Therefore, the NTS meets the 10 CFR 50.36 definition of an LSSS.</p> <p>Technical Specifications contain values related to the OPERABILITY of equipment required for safe operation of the facility. OPERABLE is defined in Technical Specifications as "...being capable of performing its safety functions(s)." Relying solely on the NTS to define OPERABILITY in Technical Specifications would be an overly restrictive requirement if it were applied as an OPERABILITY limit for the "as-found" value of a protection channel setting during a surveillance. This would result in Technical Specification compliance problems, as well as reports and corrective actions required by the rule which are not necessary to ensure safety. For example, an automatic protection channel with a setting that has been found to be different from the NTS due to some drift of the setting may still be OPERABLE since drift is to be expected. This expected drift would have been specifically accounted for in the setpoint methodology for calculating the NTS, and thus, the automatic protective action would still have assured that the SL would not be exceeded with the "as-found" setting of the protection channel. Therefore, the channel would still be OPERABLE since it would have performed its safety function. If the as-found condition of the channel is near the as-found tolerance, recalibration is considered appropriate to allow for drift during the next surveillance interval.</p>	Westinghouse AP1000 DCD Revision 18
9689	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, BACKGROUND, Field Transmitters and Sensors, first paragraph, sixth sentence, replace "is" with "are"	Westinghouse AP1000 DCD Revision 18
9690	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, BACKGROUND, Protection and Safety Monitoring System Cabinets, first paragraph after the list of bullets, replace "References 1, 2, and 3" with "References 3 and 4". In the second paragraph after the list of bullets, replace "protection and safety monitoring system" with "PMS."	Westinghouse AP1000 DCD Revision 18
9691	WLS	Pt 04		B, B03.03 03.03.01	<p>COLA Part 4, Section B 3.3, Specification 3.3.1, BACKGROUND, Trip Setpoints and Allowable Values is revised to read:</p> <p>Nominal Trip Setpoint (NTS) The NTS is the nominal value at which the trip output is set. Any trip output is considered to be properly adjusted when the "as-left" value is within the band for CHANNEL CALIBRATION (i.e., <math>\pm</math> rack calibration accuracy).</p> <p>The trip setpoints used in the trip output are based on the Safety Analysis Limits stated in Reference 3. The determination of these NTSs is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrument drift, and severe</p>	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>environment errors for those RTS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 6), the NTSs specified in the SP are conservative with respect to the Safety Analysis Limits. A detailed description of the methodology used to calculate the NTSs, including their explicit uncertainties, is provided in the "Westinghouse Setpoint Methodology for Protection Systems" (Ref. 4). The as-left tolerance and as-found tolerance band methodology is provided in the SP. The as-found OPERABILITY limit for the purpose of the REACTOR TRIP CHANNEL OPERATIONAL TEST (RTCOT) is defined as the as-left limit about the NTS (i.e., <math>\pm</math> rack calibration accuracy).</p> <p>The NTSs listed in the SP are based on the methodology described in Reference 4, which incorporates all of the known uncertainties applicable for each channel. The magnitudes of these uncertainties are factored into the determination of each NTS. All field sensors and signal processing equipment for these channels are assumed to operate within the allowances of these uncertainty magnitudes. Transmitter and signal processing equipment calibration tolerances and drift allowances must be specified in plant calibration procedures, and must be consistent with the values used in the setpoint methodology.</p> <p>The OPERABILITY of each transmitter or sensor can be evaluated when its "as-found" calibration data are compared against the "as-left" data and are shown to be within the setpoint methodology assumptions. The basis of the setpoints is described in References 3 and 4. Trending of calibration results is required by the program description in Technical Specifications 5.5.14.d.</p> <p>Note that the as-left and as-found tolerances listed in the SP define the OPERABILITY limits for a channel during a periodic CHANNEL CALIBRATION or RTCOT that requires trip setpoint verification.</p> <p>The eighth paragraph, last sentence a comma is added following "practical".</p>	
9692	WLS	Pt 04		B, B03.03 03.03.01	<p>COLA Part 4, Section B 3.3, Specification 3.3.1, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY is revised beginning with a new third paragraph to read:</p> <p>Permissive and interlock functions are based upon the associated protection function instrumentation. Because they do not have to operate in adverse environmental conditions, the trip settings of the permissive and interlock functions use the normal environment, steady-state instrument uncertainties of the associated protection function instrumentation. This results in OPERABILITY criteria (i.e., as-found tolerance and as-left tolerance) that are the same as the associated protection function sensor and process rack modules. The NTSs for permissives and interlocks are based on the associated protection function OPERABILITY requirements; i.e., permissives and interlocks performing enabling functions must be set to occur prior to the specified trip setting of the associated protection function.</p> <p>The LCO requires all instrumentation performing an RTS Function, listed in Table 3.3.1-1 in the accompanying LCO, to be OPERABLE. The as-left and as-found tolerances specified in the SP define the OPERABILITY limits for a channel during a CHANNEL CALIBRATION or RTCOT. As such, the as-left and as-found tolerances differ from the NTS by <math>\pm</math> the PMS rack calibration accuracy and envelope the expected calibration accuracy and drift. In this manner, the actual setting of the channel (NTS) prevents exceeding an SL at any given point in time as long as the channel has not drifted beyond the expected tolerances during the surveillance interval. Note that the as-left and as-found recorded values must be confirmed to be operating within the assumptions of the statistical uncertainty calculations.</p> <p>If the actual setting of the channel is found outside the as-found tolerance, the channel is considered inoperable. This condition of the channel will be further evaluated during performance of the SR. This evaluation will consist of resetting the channel setpoint to the NTS (within the allowed tolerance), and evaluating the channel's response. If the channel is functioning as required and is expected to pass the next surveillance, then the channel is OPERABLE and can be restored to service at the completion of the surveillance. After the surveillance is completed, the channel as-found condition will be entered into the Corrective Action Program for further evaluation.</p> <p>A trip setpoint may be set more conservative than the NTS as necessary in response to plant conditions. However, in this case, the operability of this instrument must be verified based on the actual field setting</p>	Westinghouse AP1000 DCD Revision 18



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10162	WLS	Pt 04		B, B03.03 03.03.01	and not the NTS. Failure of any instrument renders the affected channel(s) inoperable and reduces the reliability of the affected Functions.  COLA Part 4, Section B 3.3, Specification B 3.3.1, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY section, sixth paragraph, second sentence is revised from: However, in this case, the operability of this instrument must be verified based on the actual field setting and not the NTS.  To Read: However, in this case, the OPERABILITY of this instrument must be verified based on the actual field setting and not the NTS.	Westinghouse AP1000 DCD Revision 19
9693	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, Reactor Trip System Functions, list item 6., last bullet, last line is revised from: "...Note 1 of Table 3.3.1-1" to read "...algorithms documented in the SP."  The first paragraph after the bullet, second sentence is revised from: "...Note 1 of Table 3.3.1-1" to read "the SP. A detailed description of this trip is provided in Reference 8."  The second paragraph after the bullet, the first sentence is revised from "The LCO requires four channels of the..." to read "The LCO requires four channels (two per loop) of the..."	Westinghouse AP1000 DCD Revision 18
9694	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, Reactor Trip System Functions, list item 7., last bullet, last line is revised from: "...Note 2 of Table 3.3.1-1" to read "...algorithms documented in the SP."  The first paragraph after the bullet, first sentence is revised from: "...per Note 2 of Table 3.3.1-1" to read "described in the SP. A detailed description of this trip is provided in Reference 8."  The second paragraph after the bullet, the first sentence is revised from "The LCO requires four channels of the..." to read "The LCO requires four channels (two per loop) of the..." and the last sentence is revised from "all affected Functions" to read "all affected Functions".	Westinghouse AP1000 DCD Revision 18
9695	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, Reactor Trip System Functions, list item 12., second paragraph, first line is revised from: "...Low channels to be OPERABLE..." to read "Low channels (one per pump) to be OPERABLE..."	Westinghouse AP1000 DCD Revision 18
9696	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, Reactor Trip System Functions, list item 16.a., first sentence is revised from: The Intermediate Range Neutron Flux, P-6 interlock is actuated when the respective PMS Intermediate Range Neutron Flux channel goes approximately one decade above the minimum channel reading. To read: The Intermediate Range Neutron Flux, P-6 interlock is actuated when the respective PMS Intermediate Range Neutron Flux channel increases to approximately one decade above the channel lower range limit.	Westinghouse AP1000 DCD Revision 18
9697	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, Reactor Trip System Functions, list item 17, fourth sentence, insert the word "DCD" before "Figure 7.1-7."	Westinghouse AP1000 DCD Revision 18
9698	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, Reactor Trip System Functions, new list item 22 is added following the third paragraph of list item 21, as follows: 22. Passive Residual Heat Removal Actuation The Passive Residual Heat Removal (PRHR) Actuation reactor trip ensures that a reactivity excursion due to cold water injection will be minimized upon an inadvertent operation of the PRHR discharge valves. The two discharge valves for the PRHR HX are monitored by PMS using valve position indicators as inputs into PMS. The LCO requires four channels of PRHR discharge valve position indication per valve to be OPERABLE in MODES 1 and 2. Four channels are provided to permit one channel in trip or bypass indefinitely and still ensure no single random failure will disable this trip Function.	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					In MODES 1 and 2, the Passive Heat Removal Actuation reactor trip must be OPERABLE. In MODES 3, 4, 5, and 6, the Passive Heat Removal Initiation reactor trip Function does not have to be OPERATIONAL because the reactor is not operating or critical.	
9699	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, ACTIONS, insert separator line before section and remove extra spacing to allow the first paragraph to begin on the same line with the ACTIONS heading.	Westinghouse AP1000 DCD Revision 18
9701	WLS	Pt 04		B, B03.03 03.03.01	In the second paragraph, first line, after "In the event" insert the words "a channels as-found condition is outside the as-found tolerance described in the SP, or the channel is not functioning as required, or" COLA Part 4, Section B 3.3, Specification 3.3.1, ACTIONS, E.1.1, E.1.2, and E.2, revise the last two bullets from: SG Water Level - Low; and SG Water Level - High 2. To read: SG Water Level - Low; SG Water Level - High 2; and Passive Residual Heat Removal Actuation.	Westinghouse AP1000 DCD Revision 18
9702	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, ACTIONS, G.1 and G.2, fifth sentence, revise the last word of the sentence from "rise" to "escalation"	Westinghouse AP1000 DCD Revision 18
9703	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, ACTIONS, H.1, first sentence, replace "is" with "are"	Westinghouse AP1000 DCD Revision 18
9704	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, ACTIONS, N.1, N.2.1, and N.2.2 the third and fourth paragraphs are combined. The sixth sentence, replace "done" with "performed".	Westinghouse AP1000 DCD Revision 18
9705	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, ACTIONS, O.1, O.2.1, and O.2.2, revise the last sentence from: Placing the unit in MODE 3 removes the requirement for this particular Function. To read: Placing the unit in MODE 3 with the RTBs open removes the requirement for this particular Function.	Westinghouse AP1000 DCD Revision 18
9706	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.1 is revised as follows: Second paragraph, last sentence is revised to read: If a channel is outside the criteria, it may be an indication that a sensor or the signal processing equipment have drifted outside their corresponding limits.  Third paragraph, third list line is revised to read: Source Range Neutron Flux (below P-6)  Last paragraph, first sentence is revised to read: The Frequency is based on an operating experience that demonstrates that channel failure is rare.	Westinghouse AP1000 DCD Revision 18
9707	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.2, second paragraph, fourth sentence is revised from: At lower power levels the calorimetric data are inaccurate. To read: At lower power levels the calorimetric data from feedwater flow venturi measurements are less accurate.  Third paragraph is revised from: The Frequency of every 24 hours is adequate. It is based on plant operating experience, considering instrument reliability and operating history data for instrument drift. To read: The Frequency of every 24 hours is adequate based on plant operating experience, considering instrument reliability and operating history data for instrument drift.	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9708	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.3, third paragraph, second sentence is revised from: At lower power levels, the calorimetric data are inaccurate. To read: At lower power levels, the calorimetric data from feedwater flow venturi measurements are less accurate.	Westinghouse AP1000 DCD Revision 18
10163	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification B 3.3.1, SURVEILLANCE REQUIREMENTS section, SR 3.3.1.4, first paragraph, first sentence is revised to replace "EFPD." with "effective full power days (EFPD)."	Westinghouse AP1000 DCD Revision 19
9709	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.4, fourth paragraph, first two sentences are revised from: The Frequency of every 31 EFPD is adequate. It is based on plant operating experience, considering instrument reliability and operating history data for instrument drift. To read: The Frequency of every 31 EFPD is adequate based on plant operating experience, considering instrument reliability and operating history data for instrument drift.	Westinghouse AP1000 DCD Revision 18
9710	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.5, first paragraph, second sentence, replace "calibrated" with "adjusted"  Third paragraph is revised from: The Frequency of 92 EFPD is adequate. It is based on industry operating experience, considering instrument reliability and operating history data for instrument drift. To read: The Frequency of 92 EFPD is adequate based on industry operating experience, considering instrument reliability and operating history data for instrument drift.	Westinghouse AP1000 DCD Revision 18
9711	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.6, third paragraph, first sentence is revised from: The Frequency of every 92 days on a STAGGERED TEST BASIS is adequate. It is based on industry operating experience, considering instrument reliability and operating history data. To read: The Frequency of every 92 days on a STAGGERED TEST BASIS is adequate based on industry operating experience, considering instrument reliability and operating history data.	Westinghouse AP1000 DCD Revision 18
9712	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.7 and 3.3.1.8, first paragraph is revised from: SR 3.3.1.7 SR 3.3.1.7 is the performance of a REACTOR TRIP CHANNEL OPERATIONAL TEST (RTCOT) every 92 days. To read: SR 3.3.1.7 and SR 3.3.1.8 SR 3.3.1.7 and SR 3.3.1.8 are the performance of a REACTOR TRIP CHANNEL OPERATIONAL TEST (RTCOT) every 92 days. The SR 3.3.1.8 testing is performed in accordance with the SP. If the actual setting of the channel is found to be outside the as-found tolerance, the channel is considered inoperable. This condition of the channel will be further evaluated during performance of the SR. This evaluation will consist of resetting the channel setpoint to the NTS (within the allowed tolerance), and evaluating the channels response. If the channel is functioning as required and is expected to pass the next surveillance, then the channel is OPERABLE and can be restored to service at the completion of the surveillance. After the surveillance is completed, the channel as-found condition will be entered into the Corrective Action Program for further evaluation.  In the ninth paragraph, replace "SR 3.3.1.7" with "SR 3.3.1.8" (2 instances):	Westinghouse AP1000 DCD Revision 18
9713	WLS	Pt 04		B, B03.03 03.03.01	COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.8, first sentence is revised from: SR 3.3.1.8 SR 3.3.1.8 is the performance of a RTCOT as described in SR 3.3.1.7, except it is modified by a Note that	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>this test shall include verification that the P-6 and P-10 interlocks are in their required state for the existing unit condition.</p> <p>To read:</p> <p>SR 3.3.1.9</p> <p>SR 3.3.1.9 is the performance of a RTCOT as described in SR 3.3.1.7 and SR 3.3.1.8, except it is modified by a Note that this test shall include verification that the P-6 and P-10 interlocks are in their required state for the existing unit condition. The test is performed in accordance with the SP. If the actual setting of the channel is found to be outside the as-found tolerance, the channel is considered inoperable. This condition of the channel will be further evaluated during performance of the SR. This evaluation will consist of resetting the channel setpoint to the NTS (within the allowed tolerance), and evaluating the channels response. If the channel is functioning as required and is expected to pass the next surveillance, then the channel is OPERABLE and can be restored to service at the completion of the surveillance. After the surveillance is completed, the channel as-found condition will be entered into the Corrective Action Program for further evaluation.</p> <p>Start a new paragraph with the existing second sentence.</p>	
9714	WLS	Pt 04		B, B03.03 03.03.01	<p>COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.9 is revised to read SR 3.3.1.10.</p> <p>The second, third, and fourth paragraphs are revised from:</p> <p>Transmitter calibration must be performed consistent with the assumptions of the unit specific setpoint methodology. The difference between the current "as found" values and the previous test "as left" values must be consistent with the transmitter drift allowance used in the setpoint methodology.</p> <p>The CHANNEL CALIBRATION is assisted by the use of a tester.</p> <p>The setpoint methodology requires that 30 months drift be used (1.25 times the surveillance calibration interval, 24 months) based on Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle."</p> <p>To read:</p> <p>The test is performed in accordance with the SP. If the actual setting of the channel is found to be outside the as-found tolerance, the channel is considered inoperable. This condition of the channel will be further evaluated during performance of the SR. This evaluation will consist of resetting the channel setpoint to the NTS (within the allowed tolerance), and evaluating the channel response. If the channel is functioning as required and is expected to pass the next surveillance, then the channel is OPERABLE and can be restored to service at the completion of the surveillance. After the surveillance is completed, the channel as-found condition will be entered into the Corrective Action Program for further evaluation. Transmitter calibration must be performed consistent with the assumptions of the setpoint methodology. The differences between the current as-found values and the previous as-left values must be consistent with the transmitter drift allowance used in the setpoint methodology.</p> <p>The setpoint methodology requires that 30 months drift be used (1.25 times the surveillance calibration interval, 24 months).</p> <p>The fifth paragraph, first line, replace SR 3.3.1.9 with SR 3.3.1.10.</p>	Westinghouse AP1000 DCD Revision 18
9715	WLS	Pt 04		B, B03.03 03.03.01	<p>COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.10, first and second sentences are revised from:</p> <p>SR 3.3.1.10</p> <p>SR 3.3.1.10 is the performance of a CHANNEL CALIBRATION every 24 months. This SR is modified by a Note stating that neutron detectors are excluded from the CHANNEL CALIBRATION.</p> <p>To read:</p> <p>SR 3.3.1.11</p> <p>SR 3.3.1.11 is the performance of a CHANNEL CALIBRATION every 24 months. This SR is modified by a Note stating that neutron detectors are excluded from the CHANNEL CALIBRATION. The test is performed in accordance with the SP. If the actual setting of the channel is found to be outside the as-found tolerance, the channel is considered inoperable. This condition of the channel will be further evaluated during performance of the SR. This evaluation will consist of resetting the channel setpoint to the NTS (within the</p>	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					allowed tolerance), and evaluating the channels response. If the channel is functioning as required and is expected to pass the next surveillance, then the channel is OPERABLE and can be restored to service at the completion of the surveillance. After the surveillance is completed, the channel as-found condition will be entered into the Corrective Action Program for further evaluation.	
9716	WLS	Pt 04		B, B03.03 03.03.01	<p>Start a new paragraph with the existing third sentence and a new paragraph with the existing seventh sentence.</p> <p>COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.11 is revised to read SR 3.3.1.12.</p> <p>First paragraph, first sentence is revised from: SR 3.3.1.11 is the performance of a TADOT of the Manual Reactor Trip, and the SI, ADS Actuation, and CMT Injection inputs from the ESF logic. To read: SR 3.3.1.12 is the performance of a TADOT of the Manual Reactor Trip, and the SI, ADS Actuation, CMT Injection inputs from the ESF logic, and Passive Residual Heat Removal Actuation.</p>	Westinghouse AP1000 DCD Revision 18
9717	WLS	Pt 04		B, B03.03 03.03.01	<p>COLA Part 4, Section B 3.3, Specification 3.3.1, SURVEILLANCE REQUIREMENTS, SR 3.3.1.12 is revised to read SR 3.3.1.13</p> <p>First paragraph, first line, "SR 3.3.1.12" is revised to read "SR 3.3.1.13"</p> <p>Second paragraph, first sentence "FSAR" is revised to read "DCD Chapter 7"</p> <p>Second paragraph, last sentence "overlapping test" is revised to read "overlapping tests"</p> <p>Third paragraph, third sentence "(Ref. 10)" is revised to read "(Ref. 9)"</p> <p>Fifth paragraph, first line, "SR 3.3.1.12" is revised to read "SR 3.3.1.13"</p>	Westinghouse AP1000 DCD Revision 18
9718	WLS	Pt 04		B, B03.03 03.03.01	<p>COLA Part 4, Section B 3.3, Specification 3.3.1, REFERENCES, revise References 8 and 9 from:</p> <p>8. NRC Generic Letter No. 83-27, Surveillance Intervals in Standard Technical Specifications.</p> <p>9. ESBU-TB-97-01, Westinghouse Technical Bulletin, "Digital Process Rack Operability Determination Criteria," May 1, 1997.</p> <p>To Read:</p> <p>8. APP-GW-GLR-137, "Bases of Digital Overpower and Overtemperature Delta-T (OP[Delta]T/OP[Delta]T) Reactor Trips," Westinghouse Electric Company LLC.</p> <p>Renummer Reference 10. to read Reference 9.</p>	Westinghouse AP1000 DCD Revision 18
10164	WLS	Pt 04		B, B03.03 03.03.01	<p>COLA Part 4, Section B 3.3, Specification B 3.3.1, REFERENCES section, References 4 and 8 are revised from:</p> <p>4. WCAP-16361-P, "Westinghouse Setpoint Methodology for Protection Systems – AP1000," May 2006 (proprietary).</p> <p>8. APP-GW-GLR-137, "Bases of Digital Overpower and Overtemperature Delta-T (OP[delta]T/OP[delta]T) Reactor Trips," Westinghouse Electric Company LLC.</p> <p>To Read:</p> <p>4. WCAP-16361-P, "Westinghouse Setpoint Methodology for Protection Systems – AP1000," February 2011 (proprietary).</p> <p>8. APP-GW-GLR-137, Revision 1, "Bases of Digital Overpower and Overtemperature Delta-T (OP[delta]T/OP[delta]T) Reactor Trips," Westinghouse Electric Company LLC.</p>	Westinghouse AP1000 DCD Revision 19
9719	WLS	Pt 04		B, B03.03 03.03.02	<p>COLA Part 4, Section B 3.3, Specification 3.3.2, BACKGROUND, insert the following at the end of the first paragraph:</p> <p>This is achieved by specifying limiting safety system settings (LSSS) in terms of parameters directly monitored by the ESFAS, as well as specifying LCOs on other reactor system parameters and equipment performance.</p> <p>Technical Specifications are required by 10 CFR 50.36 to include LSSS for variables that have significant</p>	Westinghouse AP1000 DCD Revision 18

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					<p>safety functions. LSSS are defined by the regulation as "Where a LSSS is specified for a variable on which a safety limit has been placed, the setting must be chosen so that automatic protective actions will correct the abnormal situation before a Safety Limit (SL) is exceeded." The Safety Analysis Limit (SAL) is the limit of the process variable at which a protective action is initiated, as established by the safety analysis, to ensure that an SL is not exceeded. However, in practice, the actual settings for automatic protection channels must be chosen to be more conservative than the Safety Analysis Limit to account for instrument loop uncertainties related to the setting at which the automatic protective action would actually occur. The LSSS values are identified and maintained in the Setpoint Program (SP) and are controlled by 10.CFR.50.59.</p> <p>The Nominal Trip Setpoint (NTS) specified in the SP is a predetermined field setting for a protection channel chosen to initiate automatic actuation prior to the process variable reaching the Safety Analysis Limit and, thus, ensuring that the SL is not exceeded. As such, the NTS accounts for uncertainties in setting the channel (e.g., calibration), uncertainties in how the channel might actually perform (e.g., repeatability), changes in the point of action of the channel over time (e.g., drift during surveillance intervals), and any other factors which may influence its actual performance (e.g., harsh accident environments). In this manner, the NTS ensures that the SL is not exceeded. Therefore, the NTS meets the 10 CFR 50.36 definition of an LSSS.</p> <p>Technical Specifications contain values related to the OPERABILITY of equipment required for safe operation of the facility. OPERABLE is defined in Technical Specifications as "...being capable of performing its safety functions(s)." Relying solely on the NTS to define OPERABILITY in Technical Specifications would be an overly restrictive requirement if it were applied as an OPERABILITY limit for the "as-found" value of a protection channel setting during a surveillance. This would result in Technical Specification compliance problems, as well as reports and corrective actions required by the rule that are not necessary to ensure safety. For example, an automatic protection channel with a setting that has been found to be different from the NTS due to some drift of the setting may still be OPERABLE since drift is to be expected. This expected drift would have been specifically accounted for in the setpoint methodology for calculating the NTS, and thus, the automatic protective action would still have ensured that the SL would not be exceeded with the "as-found" setting of the protection channel. Therefore, the channel would still be OPERABLE since it would have performed its safety function. If the as-found condition of the channel is near the as-found tolerance, recalibration is considered appropriate to allow for drift during the next surveillance interval.</p> <p>During AOOs, which are those events expected to occur one or more times during the unit life, the acceptable limits are:</p> <ol style="list-style-type: none"> <li>1. The Departure from Nucleate Boiling Ratio (DNBR) shall be maintained above the Safety Limit (SL) value to prevent departure from nucleate boiling (DNB),</li> <li>2. Fuel centerline melt shall not occur, and</li> <li>3. The RCS pressure SL of 2750 psia shall not be exceeded.</li> </ol> <p>Operation within the SLs of Specification 2.0, "Safety Limits (SLs)," also maintains the above values and ensures that offsite dose will be within the acceptance criteria during AOOs.</p> <p>Design Basis Accidents (DBAs) are events that are analyzed even though they are not expected to occur during the unit life. The acceptable limit during accidents is that offsite dose shall be maintained within an acceptable fraction of the limits. Different accident categories are allowed a different fraction of these limits, based on probability of occurrence. Meeting the acceptable dose limit for an accident category is considered having acceptable consequences for that event.</p>	
10165	WLS	Pt 04		B, B03.03 03.03.02	<p>COLA Part 4, Section B 3.3, Specification B 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY section, fifth paragraph, second sentence is revised from:</p> <p>However, in this case, the operability of this instrument must be verified based on the actual field setting and not the NTS.</p> <p>To Read:</p> <p>However, in this case, the OPERABILITY of this instrument must be verified based on the actual field setting and not the NTS.</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10167	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification B 3.3.2, REFERENCES section, Reference 9 is revised to replace "May 2006" with "February 2011".	Westinghouse AP1000 DCD Revision 19
9720	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, BACKGROUND, Field Transmitters and Sensors, fifth sentence is revised from: Minimum requirements for protection and control is achieved with three channels OPERABLE. To read: Minimum requirements for protection and control are achieved only with three channels OPERABLE.	Westinghouse AP1000 DCD Revision 18
9721	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, BACKGROUND, Plant Protection Subsystem, second paragraph, second sentence, replace "References 1, 2, and 3." with "References 3 and 9." Third paragraph, first line, replace "protection and safety monitoring system," with "Protection and Safety Monitoring System (PMS)."	Westinghouse AP1000 DCD Revision 18
9722	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, BACKGROUND, Trip Setpoints and Allowable Values, Plant Protection Subsystem, revise the first six paragraphs from: Trip Setpoints and Allowable Values The Trip Setpoints are the nominal values at which the trip output is set. Any trip output is considered to be properly adjusted when the "as left" value is within the band for CHANNEL CALIBRATION accuracy. The Trip Setpoints used in the trip output are based on the analytical limits stated in Reference 2. The selection of these Trip Setpoints is such that adequate protection is provided when all sensor and processing time delays are taken into account. To allow for calibration tolerances, instrument drift, and severe environment errors for those ESFAS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the Trip Setpoints and Allowable Values specified in Table 3.3.2-1 in the accompanying LCO are conservatively adjusted with respect to the analytical limits. A detailed description of the methodology used to calculate the Trip Setpoints, including their explicit uncertainties, is provided in the "Westinghouse Setpoint Methodology for Protection Systems" (Refs. 9 and 10). (Reference 9 is an AP600 document that describes a methodology that is applicable to AP1000. AP1000 has some slight differences in instrument spans as a result of the higher power level.) The actual nominal Trip Setpoint entered into the bistable is more conservative than that specified by the Allowable Value to account for changes in random measurement errors detectable by a COT. One example of such a change in measurement error is drift during the surveillance interval. If the measured setpoint does not exceed the Allowable Value, the trip output is considered OPERABLE. Setpoints in accordance with the Allowable Value ensure that the consequences of Design Basis Accidents (DBAs) will be acceptable, providing the unit is operated from within the LCOs at the onset of the DBA and the equipment functions as designed. The Trip Setpoints and Allowable Values listed in Table 3.3.2-1 are based on the methodology described in Reference 9, which incorporates all of the known uncertainties applicable for each channel. The magnitudes of these uncertainties are factored into the determination of each Trip Setpoint. All field sensors and signal processing equipment for these channels are assumed to operate within the allowances of these uncertainty magnitudes. Calibration tolerances and drift allowances must be specified in plant calibration procedures, and must be consistent with the values used in the setpoint methodology. The OPERABILITY of each transmitter or sensor can be evaluated when its "as found" calibration data are compared against the "as left" data and are shown to be within the setpoint methodology assumptions. The basis of the setpoints is described in References 1, 2, 3, and 9. Trending of transmitter calibration is required by Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle." To read: Nominal Trip Setpoints (NTSs) The NTS is the nominal value at which the trip output is set. Any trip output is considered to be properly adjusted when the "as-left" value is within the band for CHANNEL CALIBRATION, i.e., $\pm$ rack calibration accuracy. The trip setpoints used in the trip output are based on the Safety Analysis Limits stated in Reference 3. The determination of these NTSs is such that adequate protection is provided when all sensor and processing	Westinghouse AP1000 DCD Revision 18

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					<p>time delays are taken into account. To allow for calibration tolerances, instrument drift, and severe environment errors for those ESFAS channels that must function in harsh environments as defined by 10 CFR 50.49 (Ref. 5), the NTSs specified in the SP are conservatively with respect to the Safety Analysis Limits. A detailed description of the methodology used to calculate the NTSs, including their explicit uncertainties, is provided in the "Westinghouse Setpoint Methodology for Protection Systems" (Ref. 9). The as-left tolerance and as-found tolerance band methodology is provided in the SP. The as-found OPERABILITY limit for the purpose of the CHANNEL OPERATIONAL TEST (COT) is defined as the as-left limit about the NTS (i.e., <math>\pm</math> rack calibration accuracy).</p> <p>The NTSs listed in the SP are based on the methodology described in Reference 9, which incorporates all of the known uncertainties applicable for each channel. The magnitudes of these uncertainties are factored into the determination of each NTS. All field sensors and signal processing equipment for these channels are assumed to operate within the allowances of these uncertainty magnitudes. Transmitter and signal processing equipment calibration tolerances and drift allowances must be specified in plant calibration procedures, and must be consistent with the values used in the setpoint methodology.</p> <p>The OPERABILITY of each transmitter or sensor can be evaluated when its "as-found" calibration data are compared against the "as-left" data and are shown to be within the setpoint methodology assumptions. The basis of the setpoints is described in References 3 and 9. Trending of calibration results is required by the program description in Technical Specification 5.5.14.d.</p> <p>Note that the as-left and as-found tolerances listed in the SP define the OPERABILITY limits for a channel during a periodic CHANNEL CALIBRATION, CHANNEL OPERATIONAL TESTS, or a TRIP ACTUATING DEVICE OPERATIONAL TEST that requires trip setpoint verification.</p>	
9723	WLS	Pt 04		B, B03.03 03.03.02	<p>Existing ninth paragraph, third sentence, add a comma following "To the extent practical"</p> <p>COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, insert the following after the first paragraph:</p> <p>Permissive and interlock functions are based upon the associated protection function instrumentation. Because they do not have to operate in adverse environmental conditions, the trip settings of the permissive and interlock functions use the normal environment, steady-state instrument uncertainties of the associated protection function instrumentation. This results in OPERABILITY criteria (i.e., as-found tolerance and as-left tolerance) that are the same as the associated protection function sensor and process rack modules. The NTSs for permissives and interlocks are based on the associated protection function OPERABILITY requirements; i.e., permissives and interlocks performing enabling functions must be set to occur prior to the specified trip setting of the associated protection function.</p> <p>The LCO requires all instrumentation performing an ESFAS Function, listed in Table 3.3.2-1 in the accompanying LCO, to be OPERABLE. The as-left and as-found tolerances specified in the SP define the OPERABILITY limits for a channel during the CHANNEL CALIBRATION or CHANNEL OPERATIONAL TEST (COT). As such, the as-left and as-found tolerances differ from the NTS by <math>\pm</math> the PMS rack calibration accuracy and envelope the expected calibration accuracy and drift. In this manner, the actual setting of the channel (NTS) prevents exceeding an SL at any given point in time as long as the channel has not drifted beyond the expected tolerances during the surveillance interval. Note that the as-left and as-found recorded values must be confirmed to be operating within the assumptions of the statistical uncertainty calculations. If the actual setting of the channel is found outside the as-found tolerance, the channel is considered inoperable. This condition of the channel will be further evaluated during performance of the SR. This evaluation will consist of resetting the channel setpoint to the NTS (within the allowed tolerance) and evaluating the channels response. If the channel is functioning as required and expected to pass the next surveillance, then the channel is OPERABLE and can be restored to service at the completion of the surveillance. After the surveillance is completed, the channel as-found condition will be entered into the Corrective Action Program for further evaluation.</p> <p>A trip setpoint may be set more conservative than the NTS as necessary in response to plant conditions. However, in this case, the operability of this instrument must be verified based on the actual field setting and not the NTS. Failure of any instrument renders the affected channel(s) inoperable and reduces the reliability of the affected Functions.</p>	Westinghouse AP1000 DCD Revision 18
9724	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item1, second paragraph, third bullet is removed.	Westinghouse AP1000 DCD Revision 18



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9726	WLS	Pt 04		B, B03.03 03.03.02	(Turbine Trip) COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 1.b, second paragraph, first two sentences are revised from: The transmitters (d/p cells) and electronics are located inside of containment. Since the transmitters and electronics are located inside of containment, they will experience adverse environmental conditions and the trip setpoint reflects environmental instrument uncertainties. To read: The transmitters (d/p cells) and electronics are located outside of containment. Since the transmitters and electronics are located outside of containment, they will not experience adverse environmental conditions.	Westinghouse AP1000 DCD Revision 18
9727	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 1.c, second paragraph, last sentence replace "Trip Setpoint" with "NTS"	Westinghouse AP1000 DCD Revision 18
9728	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 1.d, second paragraph, last sentence replace "Trip Setpoint" with "NTS"	Westinghouse AP1000 DCD Revision 18
9729	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 3, third paragraph, fourth sentence replace "9.0 MWt" with "6.0 MWt"	Westinghouse AP1000 DCD Revision 18
9730	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 4.b, second paragraph will be revised from: The transmitters and electronics are located inside containment, thus, they will experience harsh environmental conditions and the Trip Setpoint reflects environmental instrument uncertainties. To read: The transmitters and electronics are located outside containment; thus, they will not experience harsh environmental conditions.	Westinghouse AP1000 DCD Revision 18
9731	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 4.c.(2), last sentence, replace "Trip Setpoint" with "NTS".	Westinghouse AP1000 DCD Revision 18
9732	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list items 5.c and 5.d are revised to remove existing list item 5.c and renumber list item 5.d. to 5.c. Also, replace "Function 18.a" in the heading of the list item and in the last sentence of the paragraph with "Function 18.b".	Westinghouse AP1000 DCD Revision 18
9733	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 8.d, insert new paragraph following list item 8.c as follows: 8.d. Steam Generator Narrow Range Level – High Coincident with Reactor Trip (P-4) If steam generator narrow range level reaches the High setpoint in either steam generator coincident with a Reactor Trip (P-4), then all startup feedwater control and isolation valves are closed and the startup feedwater pumps are tripped. Four channels are provided in each steam generator to permit one channel to be in trip or bypass indefinitely and still ensure no single random failure will disable this function.	Westinghouse AP1000 DCD Revision 18
9734	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 12, third paragraph, second sentence, replace "9.0 MWt" with "6.0 MWt"	Westinghouse AP1000 DCD Revision 18
9735	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 12.b, second paragraph, first sentence is revised from: The transmitters and electronics are located inside containment, thus, they will experience harsh environmental conditions and the trip setpoint reflects only steady state instrument uncertainties associated with the containment environment. To read: The transmitters and electronics are located outside containment; thus, they will not experience harsh environmental conditions.	Westinghouse AP1000 DCD Revision 18
9736	WLS	Pt 04		B, B03.03	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY,	Westinghouse AP1000

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				03.03.02	list item 15.b, replace "Function 18.a" in the heading and in the last sentence with "Function 18.b"	DCD Revision 18
9737	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 16.g, insert new paragraph 16.g. following list item 16.f, as follows: 16.g. Steam Generator Narrow Range Water Level – High Coincident with Reactor Trip (P-4) Four channels of steam generator level are provided for each steam generator. Two-out-of-four channels on either steam generator indicating level greater than the setpoint will close the isolation valves for the CVS. This Function prevents adding makeup water to the RCS during an SGTR. This Function is required to be OPERABLE in MODES 1, 2, 3, and 4 with the RCS not being cooled by the RNS. This Function is not applicable in MODES 3 and 4 if the CVS makeup flow path is isolated. This Function is not required to be OPERABLE in MODES 5 and 6 because the RCS pressure and temperature are reduced and a steam generator tube rupture event is not credible.	Westinghouse AP1000 DCD Revision 18
9738	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 17, third sentence, replace "post-accident" with "post accident"	Westinghouse AP1000 DCD Revision 18
9739	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 18.a is re-numbered to 18.b and new list item 18.a is inserted to read: 18.a. Reactor Trip Breaker Open, P-3 The P-3 interlock is provided to permit the block of automatic Safeguards Actuation after a predetermined time interval following automatic Safeguards Actuation. The reactor trip breaker position switches that provide input to the P-3 interlock only function to energize or de-energize (open or close) contacts. Therefore, this Function does not have an adjustable trip setpoint.	Westinghouse AP1000 DCD Revision 18
9740	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, newly re-numbered list item 18.b is revised at the second paragraph from: The reactor trip breaker position switches that provide input to the P-4 interlock only function to energize or de-energize (open or close) contacts. Therefore, this Function has no adjustable Trip Setpoint. To read: The reactor trip breaker position switches that provide input to the P-4 interlock only function to energize or de-energize or open or close contacts. Therefore, this Function has no adjustable trip setpoint.	Westinghouse AP1000 DCD Revision 18
9741	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 18.c retains its numbering and the first sentence is revised from: The Intermediate Range Neutron Flux, P-6 interlock is actuated when the respective NIS intermediate range channel goes approximately one decade above the minimum channel reading. To read: The Intermediate Range Neutron Flux, P-6 interlock is actuated when the respective NIS intermediate range channel increases to approximately one decade above the channel lower range limit.  Former list item 18.b is re-numbered to 18.d Former list item 18.d is re-numbered to 18.e Former list item 18.e is re-numbered to 18.f Former list item 18.f is removed.	Westinghouse AP1000 DCD Revision 18
9742	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 20.b is removed.	Westinghouse AP1000 DCD Revision 18
9743	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY, list item 26.a is revised to remove the second paragraph.	Westinghouse AP1000 DCD Revision 18
10166	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification B 3.3.2, APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY section, 28.a, third sentence is revised from: This function can be blocked in Modes 1, 2 and 3 and is automatically reset when P-12 is first activated.  To Read: This function can be blocked in MODES 1, 2, and 3 and is automatically reset when P-12 is first activated.	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9744	WLS	Pt 04		B, B03.03 03.03.02	<p>COLA Part 4, Section B 3.3, Specification 3.3.2, APPLICABLE SAFETY ANALYSES, LCOS, and APPLICABILITY, list item 29.b is revised to relocate the last paragraph to the end of list item 31.</p> <p>New list items 30 and 31 are added as follows:</p> <p>30. Component Cooling Water System Containment Isolation Valve Closure The function of the Component Cooling Water System (CCS) containment isolation valve closure is to ensure that the CCS flow paths can be isolated during an RCP heat exchanger tube rupture event. The CCS flow paths must be isolated following an RCP heat exchanger tube rupture event to minimize radiological releases from the ruptured tube into the turbine building. The CCS flow path is isolated by the closure of the CCS containment isolation valves, which receive a close signal on high RCP bearing water temperature.</p> <p>30.a. Reactor Coolant Pump Bearing Water Temperature – High The CCS containment isolation valves are closed if two-out-of-four sensors on any RCP indicate high bearing water temperature. This Function is required to be OPERABLE in MODES 1, 2, 3, and 4. Four channels are provided to permit one channel to be in trip or bypass indefinitely and still ensure no single random failure will disable this trip Function.</p> <p>31. Containment Vacuum Relief Valve Actuation The purpose of the vacuum relief lines is to protect the containment vessel against damage due to a negative pressure (i.e., a lower pressure inside than outside). Manual and automatic Containment Vacuum Relief Valve actuation must be OPERABLE in MODES 1 through 4 and in MODES 5 and 6 without an open containment air flow path [greater than or equal to]6 inches in diameter. With a 6 inch diameter or equivalent containment air flow path, the vacuum relief function is not needed to mitigate a low pressure event.</p> <p>31.a. Containment Pressure – Low 2 This signal provides protection against a negative pressure in containment due to loss of ac power or inadvertent actuation of containment cooling and a low outside ambient air temperature in combination with limited containment heating that reduces the atmospheric temperature (and hence pressure) inside containment. Four channels are provided to permit one channel to be in trip or bypass indefinitely and still ensure no single random failure will disable this trip Function.</p> <p>31.b. Manual Initiation The operator can open the vacuum relief valves at any time from the main control room by actuating either of the two vacuum relief actuation switches. There are two switches in the main control room, either of which will actuate vacuum relief in all divisions.</p>	Westinghouse AP1000 DCD Revision 18
9745	WLS	Pt 04		B, B03.03 03.03.02	<p>COLA Part 4, Section B 3.3, Specification 3.3.2, ACTIONS, third paragraph, first sentence is revised from: "In the event a channels Nominal Trip Setpoint is not met, or the transmitter, . . ."</p> <p>To read: "In the event a channels as-found condition is outside the as-found tolerance described in the SP, or the channel is not functioning as required, or the transmitter, . . ."</p>	Westinghouse AP1000 DCD Revision 18
9746	WLS	Pt 04		B, B03.03 03.03.02	<p>COLA Part 4, Section B 3.3, Specification 3.3.2, ACTIONS, J.1 and J.2, second sentence is revised from: With one or two required channel(s) inoperable, the associated interlock must be verified to be in its required state for the existing plant condition within 1 hour, or any Function channels associated with inoperable interlocks placed in a bypassed condition within 7 hours.</p> <p>To read: With one or two required channel(s) inoperable, the associated interlock must be verified to be in its required state for the existing plant condition within 1 hour, or any Function channel associated with the inoperable interlock(s) placed in a bypassed condition within 7 hours.</p>	Westinghouse AP1000 DCD Revision 18
9747	WLS	Pt 04		B, B03.03 03.03.02	<p>COLA Part 4, Section B 3.3, Specification 3.3.2, ACTIONS, L.1 is revised as follows: Second sentence, replace "This accomplished" with "This is accomplished" Third sentence, replace "based operating experience" with "based on operating experience"</p>	Westinghouse AP1000 DCD Revision 18
9748	WLS	Pt 04		B, B03.03 03.03.02	<p>COLA Part 4, Section B 3.3, Specification 3.3.2, ACTIONS, W.1, W.2, W.3, and W.4, first paragraph, first line, replace ". . . Completion Time listed in . . ." with ". . . Completion Time of the first Condition listed in . . ."</p>	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9749	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, ACTIONS, BB.1 and BB.2, second paragraph, third and fourth sentences are revised from: Operator action to manually initiate ADS Stage 4 actuation is assumed in the analysis of shutdown events (Reference 11). It is also credited in the shutdown PRA (Reference 12) when automatic actuation is not available. To read: Operator action to manually initiate ADS Stage 4 actuation is assumed in the analysis of shutdown events (Ref. 10). It is also credited in the shutdown PRA (Ref. 11) when automatic actuation is not available.	Westinghouse AP1000 DCD Revision 18
9750	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, new ACTIONS, CC.1, CC.2 are added as follows: CC.1, CC.2, and CC.3 If the vacuum relief valve actuation function cannot be restored to OPERABLE status within the required Completion Time, the plant must be placed in a condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5 or 6 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. In MODE 5 or 6, a containment air flow path [greater than or equal to] 6 inches in diameter shall be opened within 44 hours from Condition entry. Opening any flow path (or paths) with an area equivalent to 6 inches in diameter provides the required vacuum relief path in the event of a low pressure event. The primary means of opening a containment air flow path is by establishing a VFS air flow path into containment. Manual actuation and maintenance as necessary to open a purge supply, purge exhaust, or vacuum relief flow path are available means to open a containment air flow path. In addition, opening of a spare penetration is an acceptable means to provide the necessary flow path. Opening of an equipment hatch or a containment airlock is acceptable. Containment air flow paths opened must comply with LCO 3.6.8, Containment Penetrations. The 44 hour Completion Time is reasonable for opening a containment air flow path in an orderly manner.	Westinghouse AP1000 DCD Revision 18
9751	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, SURVEILLANCE REQUIREMENTS, SR 3.3.2.1, is revised as follows: Second paragraph, last line, replace "outside its limits" with "outside their corresponding limits" Third paragraph, second line, replace "demonstrates channel failure" with "demonstrates that channel failure"	Westinghouse AP1000 DCD Revision 18
9752	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, SURVEILLANCE REQUIREMENTS, SR 3.3.2.4, insert the following text at the end of the first paragraph: The test is performed in accordance with the SP. If the actual setting of the channel is found to be outside the as-found tolerance, the channel is considered inoperable. This condition of the channel will be further evaluated during performance of the SR. This evaluation will consist of resetting the channel setpoint to the NTS (within the allowed tolerance), and evaluating the channels response. If the channel is functioning as required and is expected to pass the next surveillance, then the channel is OPERABLE and can be restored to service at the completion of the surveillance. After the surveillance is completed, the channel as-found condition will be entered into the Corrective Action Program for further evaluation. Transmitter calibration must be performed consistent with the assumptions of the setpoint methodology. The difference between the current as-found values and the previous as-left values must be consistent with the transmitter drift allowance used in the setpoint methodology. The setpoint methodology requires that 30 months drift be used (1.25 times the surveillance calibration interval, 24 months).	Westinghouse AP1000 DCD Revision 18
9753	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, SURVEILLANCE REQUIREMENTS, SR 3.3.2.5, insert the following text at the end of the first paragraph: The test is performed in accordance with the SP. If the actual setting of the channel is found to be outside the as-found tolerance, the channel is considered inoperable. This condition of the channel will be further evaluated during performance of the SR. This evaluation will consist of resetting the channel setpoint to the NTS (within the allowed tolerance), and evaluating the channels response. If the channel is functioning as required and is expected to pass the next surveillance, then the channel is OPERABLE and can be restored to service at the completion of the surveillance. After the surveillance is completed, the channel as-found condition will be entered into the Corrective Action Program for further evaluation.	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9754	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, SURVEILLANCE REQUIREMENTS, SR 3.3.2.6 is revised as follows: First paragraph, third sentence, replace "Trip Setpoint" with "NTS" Third paragraph, third sentence, replace "(Ref. 11)" with "(Ref. 12)" Fourth paragraph, first sentence, replace "an 24 month" with "a 24 month"	Westinghouse AP1000 DCD Revision 18
9755	WLS	Pt 04		B, B03.03 03.03.02	COLA Part 4, Section B 3.3, Specification 3.3.2, REFERENCES is revised as follows: Reference 1, replace "Chapter 6" with "Chapter 6.0" Reference 2, replace "Chapter 7" with "Chapter 7.0" Reference 3, replace "Chapter 15" with "Chapter 15.0" Add new references 10 and 11, as follows: 10. APP-GW-GLR-004, Rev. 0, "AP1000 Shutdown Evaluation Report," July 2002. 11. Chapter 19.0, "Probabilistic Risk Assessment," Appendix 19E, "Shutdown Evaluation." Rename existing Reference 11 to Reference 12.	Westinghouse AP1000 DCD Revision 18
9756	WLS	Pt 04		B, B03.04 03.04.01	COLA Part 4, Section B 3.4, Specification 3.4.1, BACKGROUND, fourth paragraph, third and fourth sentences are revised from: At the beginning of the first fuel cycle, precision (calorimetric) flow measurements, augmented by hydraulic measurements in the reactor coolant loop and pump performance, provide a value for comparison to the limit. The reactor coolant flow rate channels are normalized to these test measurements for 100-percent indication and are frequently monitored to determine flow degradation. To read: At the beginning of the first fuel cycle, precision (calorimetric) flow measurements, augmented by hydraulic measurements in the reactor coolant loop and pump performance, provide a value for comparison to the limit, and to determine the calibration coefficients for future use with differential pressure measurements. The reactor coolant flow rate channels are normalized to these test measurements for 100-percent indication using these calibration coefficients and are frequently monitored to determine flow degradation.	Westinghouse AP1000 DCD Revision 18
9757	WLS	Pt 04		B, B03.04 03.04.01	COLA Part 4, Section B 3.4, Specification 3.4.1, LCO, second paragraph is revised from: RCS total flow rate contains a measurement error based on performing precision flow measurements and using the result to normalize the RCS flow rate indicators. To read: The COLR RCS total flow rate limit is equal to or more restrictive than the [greater than or equal to] 301,670 gpm limit specified in the LCO. The COLR limit reflects the cycle-specific core design and plant conditions as well as added margin. Separate minimum RCS total flow rate limits are specified in the COLR for measurement by precision heat balance or by differential pressure instrumentation. Different flow limits may apply for each measurement method since the two methods have unique measurement errors and instrument allowances that are included in the COLR RCS flow rate limits. The calibration coefficients for the differential pressure (hot-leg elbow and cold-leg bend) RCS total flow rate indication channels are established based on the comprehensive RCS flow measurements taken at the beginning of the first fuel cycle. These measurements include precision (calorimetric) flow, differential temperature, reactor coolant loop hydraulic tests, and pump performance. The differential pressure calibration coefficients are not expected to change during plant life. Measurement errors associated with the method used to determine the calibration coefficients are included in the differential pressure COLR RCS flow rate limit.	Westinghouse AP1000 DCD Revision 18
9758	WLS	Pt 04		B, B03.04 03.04.01	COLA Part 4, Section B 3.4, Specification 3.4.1, SURVEILLANCE REQUIREMENTS, SR 3.4.1.1, first sentence, replace "loadchanges" with "load changes"	Westinghouse AP1000 DCD Revision 18
9759	WLS	Pt 04		B, B03.04 03.04.01	COLA Part 4, Section B 3.4, Specification 3.4.1, SURVEILLANCE REQUIREMENTS, SR 3.4.1.3, first sentence, replace "installed flow instrumentation" with "installed differential pressure flow instrumentation"	Westinghouse AP1000 DCD Revision 18
9762	WLS	Pt 04		B, B03.04 03.04.01	COLA Part 4, Section B 3.4, Specification 3.4.1, SURVEILLANCE REQUIREMENTS, SR 3.4.1.4, insert new SR 3.4.1.4, as follows: A CHANNEL CALIBRATION of the RCS total flow rate indication channels is performed every 24 months, at the beginning of each fuel cycle.	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter with the necessary range and accuracy. The Frequency is based on consistency with the refueling cycle.	
9763	WLS	Pt 04		B, B03.04 03.04.01	COLA Part 4, Section B 3.4, Subsection 3.4.1, SURVEILLANCE REQUIREMENTS, SR 3.4.1.5, renumber existing SR 3.4.1.4 to SR 3.4.1.5 First paragraph, last sentence, replace "the value" with "the corresponding value"	Westinghouse AP1000 DCD Revision 18
10168	WLS	Pt 04		B, B03.04 03.04.03	COLA Part 4, Section B 3.4, Specification B 3.4.3, SURVEILLANCE REQUIREMENTS section, SR 3.4.3.1, third paragraph, first sentence is revised from: This SR is modified by a NOTE that only requires this surveillance to be performed during system heatup, cooldown, and ISLH testing.  To Read: This SR is modified by a Note that only requires this surveillance to be performed during system heatup, cooldown, and ISLH testing.	Westinghouse AP1000 DCD Revision 19
9764	WLS	Pt 04		B, B03.04 03.04.03	COLA Part 4, Section B 3.4, Subsection 3.4.3, REFERENCES, revise Reference 5 from: 5. "Embrittlement of Reactor Vessel Materials," May 1988. To read: 5. Regulatory Guide 1.99, "Radiation Embrittlement of Reactor Vessel Materials," May 1988.	Westinghouse AP1000 DCD Revision 18
10169	WLS	Pt 04		B, B03.04 03.04.03	COLA Part 4, Section B 3.4, Specification B 3.4.3, REFERENCES section, Reference 7 is revised from: 7. WCAP-7924-A, "Basis for Heatup and Cooldown Limit Curves," April 1975.  To Read: 7. WCAP-14040-A, "Methodology Used to Develop Cold Overpressure Mitigating System Setpoints and RCS Heatup and Cooldown Limit Curves," January 1996.	Westinghouse AP1000 DCD Revision 19
9765	WLS	Pt 04		B, B03.04 03.04.04	COLA Part 4, Section B 3.4, Specification 3.4.4, LCO is revised as follows: Fourth paragraph, first sentence, replace "200°F" with "350°F" Fifth paragraph is revised from: Note 3 requires that the secondary side water temperature of each SG be [less than or equal to] 50°F above each of the RCS cold leg temperatures before the start of an RCP with any RCS cold leg temperature [less than or equal to] 200°F. This restraint is to prevent a low temperature overpressure event due to a thermal transient when an RCP is started. To read: Note 3 requires that the secondary side water temperature of each SG be [less than or equal to] 50°F above each of the RCS cold leg temperatures before the start of an RCP with any RCS cold leg temperature [less than or equal to] 350°F, and the RCP must be started at [less than or equal to] 25% of RCP speed. This restraint is to prevent a low temperature overpressure event due to a thermal transient when an RCP is started. This limitation also helps to ensure that the RNS system pressure remains below both the piping design pressure and the acceptable RNS relief valve inlet pressure.	Westinghouse AP1000 DCD Revision 18
10170	WLS	Pt 04		B, B03.04 03.04.04	COLA Part 4, Section B 3.4, Specification B 3.4.4, LCO section, sixth paragraph, second sentence is revised from: The purpose of the NOTE is to permit tests that are designed to validate various accident analysis values.  To Read: The purpose of the Note is to permit tests that are designed to validate various accident analysis values.	Westinghouse AP1000 DCD Revision 19
10171	WLS	Pt 04		B, B03.04 03.04.04	COLA Part 4, Section B 3.4, Specification B 3.4.4, LCO section, tenth paragraph is revised from: Utilization of the NOTE is permitted provided the following conditions are met along with any other conditions imposed by initial startup test procedures:  To Read: Utilization of the Note is permitted provided the following conditions are met along with any other conditions imposed by initial startup test procedures:	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10172	WLS	Pt 04		B, B03.04 03.04.06	COLA Part 4, Section B 3.4, Specification B 3.4.6, APPLICABILITY section, first paragraph, first sentence is revised to replace "RNS" with "Normal Residual Heat Removal System (RNS)".	Westinghouse AP1000 DCD Revision 19
9766	WLS	Pt 04		B, B03.04 03.04.06	COLA Part 4, Section B 3.4, Specification 3.4.6, SURVEILLANCE REQUIREMENTS, SR 3.4.6.1, second paragraph is revised from: The pressurizer safety valve setpoint is $\pm 3\%$ for OPERABILITY; however, the values are reset to $\pm 1\%$ during the Surveillance to allow for drift. To read: The pressurizer safety valve setpoint is $\pm 1\%$ for OPERABILITY, and the values are reset to remain within $\pm 1\%$ during the Surveillance to allow for drift.	Westinghouse AP1000 DCD Revision 18
9767	WLS	Pt 04		B, B03.04 03.04.06	COLA Part 4, Section B 3.4, Specification 3.4.6, REFERENCES, Reference 1, replace "NB 7614.3" with "NB 7500"	Westinghouse AP1000 DCD Revision 18
9768	WLS	Pt 04		B, B03.04 03.04.07	COLA Part 4, Section B 3.4, Specification 3.4.7, LCO, paragraph b., replace "N13/F18" with "F18 particulate"	Westinghouse AP1000 DCD Revision 18
10173	WLS	Pt 04		B, B03.04 03.04.07	COLA Part 4, Section B 3.4, Specification B 3.4.7, LCO section, Item e. is revised from: e. Primary to IRWST LEAKAGE through the PRHR Heat Exchanger (HX)  To Read: e. Primary to In-Containment Refueling Water Storage Tank (IRWST) LEAKAGE through the Passive Residual Heat Removal Heat Exchanger (PRHR HX)	Westinghouse AP1000 DCD Revision 19
9769	WLS	Pt 04		B, B03.04 03.04.07	COLA Part 4, Section B 3.4, Specification 3.4.7, SURVEILLANCE REQUIREMENTS, SR 3.4.7.1 is revised as follows: Fifth, seventh, and eighth paragraphs, replace "N13/F18" with "F18 particulate"	Westinghouse AP1000 DCD Revision 18
9770	WLS	Pt 04		B, B03.04 03.04.08	COLA Part 4, Section B 3.4, Specification 3.4.8, LCO, sixth paragraph, replace "200°F" with "350°F" Seventh paragraph is revised from: Note 3 requires that the secondary side water temperature of each SG be [less than or equal to] 50°F above each of the RCS cold leg temperatures before the start of an RCP with any RCS cold leg temperature [less than or equal to] 200°F. This restraint is to prevent a low temperature overpressure event due to a thermal transient when an RCP is started. To read: Note 3 requires that the secondary side water temperature of each SG be [less than or equal to] 50°F above each of the RCS cold leg temperatures before the start of an RCP with any RCS cold leg temperature [less than or equal to] 350°F, and the RCP must be started at [less than or equal to] 25% of RCP speed. This restraint is to prevent a low temperature overpressure event due to a thermal transient when an RCP is started. This limitation also helps to ensure that the RNS system pressure remains below both the piping design pressure and the acceptable RNS relief valve inlet pressure.	Westinghouse AP1000 DCD Revision 18
10174	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification B 3.4.9, BACKGROUND section, third paragraph, fifth sentence is revised to replace "operable" with "OPERABLE".	Westinghouse AP1000 DCD Revision 19
9771	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification 3.4.9, BACKGROUND, fourth paragraph is revised from: The reactor coolant contains radioactivity that, when released to the containment, can be detected by radiation monitoring instrumentation. Reactor coolant radioactivity used for leak detection is the decay of N13/F18. The production of N13 and F18 is proportional to the reactor power level. N13 has a short half life and comes to equilibrium quickly. F18 has a longer half life and is the dominant source used for leak detection. Instrument sensitivities for gaseous monitoring are practical for these LEAKAGE detection systems. The Radiation Monitoring System includes monitoring N13/F18 gaseous activities to provide leak detection. To read: The reactor coolant contains radioactivity that, when released to the containment, can be detected by radiation monitoring instrumentation. Reactor coolant radioactivity used for leak detection is the decay of F18. The production of F18 is proportional to the reactor power level. F18 becomes a particulate after	Westinghouse AP1000 DCD Revision 18

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					leaving the RCS, and it is used for leak detection. Instrument sensitivities for particulate monitoring are practical for these LEAKAGE detection systems. The Radiation Monitoring System includes monitoring F18 particulate activity to provide leak detection.	
9772	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification 3.4.9, LCO, second paragraph, second sentence, replace "an N13/F18 gaseous activity" with "an F18 particulate radioactivity"	Westinghouse AP1000 DCD Revision 18
9773	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification 3.4.9, APPLICABILITY, third paragraph, second sentence and fifth paragraph, first sentence, replace "N13/F18" with "F18 particulate"	Westinghouse AP1000 DCD Revision 18
10175	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification B 3.4.9, ACTIONS section, A.1 and A.2, first paragraph is revised to replace two instances of "operable" with "OPERABLE".	Westinghouse AP1000 DCD Revision 19
9774	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification 3.4.9, ACTIONS, B.1 and B.2, first paragraph, first sentence, replace "N13/F18" with "F18 particulate"	Westinghouse AP1000 DCD Revision 18
9775	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification 3.4.9, ACTIONS, C.1.1, C.1.2, and C.2, first paragraph, first sentence, replace "one gaseous N13/F18" with "the F18 particulate"	Westinghouse AP1000 DCD Revision 18
9776	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification 3.4.9, SURVEILLANCE REQUIREMENTS, SR 3.4.9.1, first sentence, replace "N13/F18" with "F18 particulate"	Westinghouse AP1000 DCD Revision 18
9777	WLS	Pt 04		B, B03.04 03.04.09	COLA Part 4, Section B 3.4, Specification 3.4.9, SURVEILLANCE REQUIREMENTS, SR 3.4.9.2, first sentence, replace "N13/F18" with "F18 particulate"	Westinghouse AP1000 DCD Revision 18
9778	WLS	Pt 04		B, B03.04 03.04.11	COLA Part 4, Section B 3.4, Specification 3.4.11, BACKGROUND is revised as follows: Third paragraph, second sentence, replace "are squib valves" with "are 14 inch squib valves" Third paragraph, fourth sentence, replace "a open motor operated valve" with "an open motor operated valve"	Westinghouse AP1000 DCD Revision 18
9779	WLS	Pt 04		B, B03.04 03.04.11	COLA Part 4, Section B 3.4, Specification 3.4.11, ACTIONS, paragraph A.1 is revised from: If any one flow path is determined to be inoperable, the remaining OPERABLE ADS flow paths are adequate to perform the required safety function as long as a single failure does not also occur. A flow path is inoperable if one or two of the ADS valves in the flow path are determined to be inoperable. A Completion Time of 72 hours is reasonable based on the capability of the remaining ADS valves to perform the required safety functions assumed in the safety analyses and the low probability of a DBA during this time period. This Completion Time is the same as is used for two train ECCS systems which are capable of performing their safety function without a single failure. To read: If any one ADS stage 1, 2, or 3 flow path is determined to be inoperable, the remaining OPERABLE ADS flow paths are more than adequate to perform the required safety function as long as a single failure involving the other flow path of the same stage does not also occur. A flow path is inoperable if one or two of the ADS valves in the flow path are determined to be inoperable. A Completion Time of 7 days is reasonable based on the capability of the remaining ADS valves to perform the required safety functions assumed in the safety analyses and the low probability of a DBA during this time period. If more than one ADS stage 1, 2, or 3 flow paths are inoperable, Condition C or D is applicable.	Westinghouse AP1000 DCD Revision 18
9780	WLS	Pt 04		B, B03.04 03.04.11	COLA Part 4, Section B 3.4, Specification 3.4.11, ACTIONS, paragraph B.1, first and second sentences are revised from: If two flow paths, consisting of one stage 1 and either one stage 2 or 3, are determined to be inoperable, the remaining OPERABLE ADS flow paths are adequate to perform the required safety function as long as a single failure does not also occur. A flow path is inoperable if one or two of the ADS valves in the flow path are determined to be inoperable. To read: If any one ADS stage 4 flow path is determined to be inoperable, the remaining OPERABLE stage 4 ADS flow paths are adequate to perform the required safety function as long as a single failure of an additional stage 4 ADS flow path does not also occur.	Westinghouse AP1000 DCD Revision 18



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9781	WLS	Pt 04		B, B03.04 03.04.11	COLA Part 4, Section B 3.4, Specification 3.4.11, ACTIONS, paragraph C.1, insert new paragraph C.1 following paragraph B.1, as follows: C.1 If two or three flow paths with a combined flow capacity less than or equal to the largest capacity ADS division are determined to be inoperable, the remaining OPERABLE ADS flow paths are adequate to perform the required safety function as long as a single failure does not also occur. Divisions A and B have the largest flow capacity, each consisting of one 4 inch flow path, one 8 inch flow path, and one 14 inch flow path. This Condition is equivalent to the worst case single failure of an ADS division. This Condition is applicable to any combination of two inoperable flow paths, except two stage 4 flow paths. Applicable combinations of three inoperable flow paths include: One stage 1, one stage 2 or 3, and one stage 4 One stage 1 and two stage 2 or 3 Two stage 1 and one stage 2, 3, or 4 Two stage 2 or 3 and one stage 4 Three stage 2 or 3 A Completion Time of 72 hours is reasonable based on the capability of the remaining ADS valves to perform the required safety functions assumed in the safety analyses and the low probability of a DBA during this time period. This Completion Time is the same as is used for two train ECCS systems which are capable of performing their safety function without a single failure. Condition D is applicable, if two stage 4 flow paths are inoperable, more than three flow paths are inoperable, or a combination of three flow paths not listed above (i.e., with a combined flow capacity greater than the largest capacity ADS division) is inoperable.	Westinghouse AP1000 DCD Revision 18
10176	WLS	Pt 04		B, B03.04 03.04.11	COLA Part 4, Section B 3.4, Specification B 3.4.11, ACTIONS section, C.1, first paragraph, second sentence is revised from: Divisions A and B have the largest flow capacity, each consisting of one 4 inch flow path, one 8 inch flow path, and one 14 inch flow path.  To Read: Divisions A and B have the largest flow capacity, each consisting of one stage 1 flow path, one stage 2 or 3 flow path, and one stage 4 flow path.	Westinghouse AP1000 DCD Revision 19
9782	WLS	Pt 04		B, B03.04 03.04.11	COLA Part 4, Section B 3.4, Specification 3.4.11, ACTIONS, paragraph D.1 and D.2, renumber existing paragraph C.1 and C.2 to read D.1 and D.2 First sentence, replace "Condition A or B," with "Condition A, B, or C,"	Westinghouse AP1000 DCD Revision 18
9783	WLS	Pt 04		B, B03.04 03.04.12	COLA Part 4, Section B 3.4, Specification 3.4.12, ACTIONS, paragraph A.1 is revised from: If any one flow path is determined to be inoperable, the remaining OPERABLE ADS flow paths are adequate to perform the required safety function. A flow path is inoperable if one or two of the ADS valves in the flow path are determined to be inoperable. A Completion Time of 72 hours is acceptable since the OPERABLE ADS paths can mitigate shutdown events without a single failure. To read: If any one ADS stage 1, 2, or 3 flow path is determined to be inoperable, the remaining OPERABLE ADS flow paths are more than adequate to perform the required safety function as long as a single failure involving the other flow path of the same stage does not also occur. A flow path is inoperable if one or two of the ADS valves in the flow path are determined to be inoperable. A Completion Time of 7 days is acceptable since the OPERABLE ADS paths can mitigate shutdown events without a single failure. If more than one ADS stage 1, 2, or 3 flow paths are inoperable, Condition C or D is applicable.	Westinghouse AP1000 DCD Revision 18
9784	WLS	Pt 04		B, B03.04 03.04.12	COLA Part 4, Section B 3.4, Specification 3.4.12, ACTIONS, paragraph B.1 is revised from: If two flow paths, consisting of one stage 1 and either one stage 2 or 3, are determined to be inoperable, the remaining OPERABLE ADS flow paths are adequate to perform the required safety function. A flow path is inoperable if one or two of the ADS valves in the flow path are determined to be inoperable. A Completion Time of 72 hours is acceptable since the OPERABLE ADS paths can mitigate shutdown events without a single failure. To read: If any one ADS stage 4 flow path is determined to be inoperable, the remaining OPERABLE stage 4 ADS flow	Westinghouse AP1000 DCD Revision 18

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					paths are adequate to perform the required safety function as long as a single failure of an additional stage 4 ADS flow path does not also occur. A Completion Time of 72 hours is reasonable based on the capability of the remaining ADS valves to perform the required safety functions assumed in the safety analyses and the low probability of a shutdown event during this time period. This Completion Time is the same as is used for two train ECCS systems which are capable of performing their safety function without a single failure.	
9785	WLS	Pt 04		B, B03.04 03.04.12	COLA Part 4, Section B 3.4, Specification 3.4.12, ACTIONS, insert new paragraph C.1 following paragraph B.1, as follows: C.1 If two or three flow paths with a combined flow capacity less than or equal to the largest capacity ADS division are determined to be inoperable, the remaining OPERABLE ADS flow paths are adequate to perform the required safety function as long as a single failure does not also occur. Divisions A and B have the largest flow capacity, each consisting of one 4 inch flow path, one 8 inch flow path, and one 14 inch flow path. This Condition is equivalent to the worst case single failure of an ADS division. This Condition is applicable to any combination of two inoperable flow paths, except two stage 4 flow paths. Applicable combinations of three inoperable flow paths include: One stage 1, one stage 2 or 3, and one stage 4 One stage 1 and two stage 2 or 3 Two stage 1 and one stage 2, 3, or 4 Two stage 2 or 3 and one stage 4 Three stage 2 or 3 A Completion Time of 72 hours is reasonable based on the capability of the remaining ADS valves to perform the required safety functions assumed in the safety analyses and the low probability of a shutdown event during this time period. This Completion Time is the same as is used for two train ECCS systems which are capable of performing their safety function without a single failure. Condition D is applicable, if two stage 4 flow paths are inoperable, more than three flow paths are inoperable, or a combination of three flow paths not listed above (i.e., with a combined flow capacity greater than the largest capacity ADS division) is inoperable.	Westinghouse AP1000 DCD Revision 18
10177	WLS	Pt 04		B, B03.04 03.04.12	COLA Part 4, Section B 3.4, Specification B 3.4.12, ACTIONS section, C.1, is revised to underline C.1 and the first paragraph, second sentence is revised from: Divisions A and B have the largest flow capacity, each consisting of one 4 inch flow path, one 8 inch flow path, and one 14 inch flow path.  To Read: Divisions A and B have the largest flow capacity, each consisting of one stage 1 flow path, one stage 2 or 3 flow path, and one stage 4 flow path.	Westinghouse AP1000 DCD Revision 19
9786	WLS	Pt 04		B, B03.04 03.04.12	COLA Part 4, Section B 3.4, Specification 3.4.12, ACTIONS, paragraph C.1 is re-numbered to D.1 First sentence, replace "Condition A," with "Condition A, B, or C,"	Westinghouse AP1000 DCD Revision 18
10178	WLS	Pt 04		B, B03.04 03.04.13	COLA Part 4, Section B 3.4, Specification B 3.4.13, ACTIONS section, B.1 and B.2, is revised from: B.1 and B.2 If one required ADS stage 4 flow path is closed and inoperable, action must be taken to establish an alternative flow path, or restore at least two stage 4 flow paths to OPERABLE status within 36 hours. In this Condition the remaining open ADS stage 1, 2, and 3 flow paths and the one OPERABLE ADS stage 4 flow path are adequate to perform the required safety function without an additional single failure. The required vent area may be restored by opening an alternate vent path with an equivalent area. Alternatively, two stage 4 flow paths may be restored to OPERABLE status. Therefore a Completion Time of 36 hours is considered acceptable.  To Read: B.1 and B.2 If one required ADS stage 4 flow path is closed and inoperable, action must be taken to establish an alternative flow path, or restore at least two stage 4 flow paths to OPERABLE status within 36 hours. In this Condition the remaining open ADS stage 1, 2, and 3 flow paths and the one OPERABLE ADS stage 4 flow	Westinghouse AP1000 DCD Revision 19

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					path are adequate to perform the required safety function without an additional single failure. The required vent area may be restored by opening an alternate vent path with an equivalent area. Acceptable alternate vent paths exclude the use of the pressurizer manway as pressurizer surge line flooding phenomena can negate the IRWST elevation head necessary for successful gravity injection. Alternatively, two stage 4 flow paths may be restored to OPERABLE status. Therefore a Completion Time of 36 hours is considered acceptable.	
9787	WLS	Pt 04		B, B03.04 03.04.14	COLA Part 4, Section B 3.4, Specification 3.4.14, APPLICABLE SAFETY ANALYSES, RNS Suction Relief Valve Performance is revised as follows: First paragraph, end of first sentence, replace "limit curve or 110 percent of the design pressure of the normal residual heat removal system." with "limit curve, 110 percent of the design pressure of the normal residual heat removal system, or the acceptable RNS relief valve inlet pressure." Second paragraph is revised from: To prevent the possibility of a heat input transient, and thereby limit the required flow rate of the RNS suction relief valve, an administrative requirement has been imposed that does not allow an RCP to be started with the pressurizer water level above 92% and the RCS temperature above 200°F. Under these imposed conditions, the transient created by the startup of an RCP when the RCS temperature is above 200°F can be accommodated without additional pressure relief. To read: To prevent the possibility of a heat input transient, and thereby limit the required flow rate of the RNS suction relief valve, administrative requirements in the LCO note have been imposed for starting an RCP.	Westinghouse AP1000 DCD Revision 18
9788	WLS	Pt 04		B, B03.04 03.04.14	COLA Part 4, Section B 3.4, Specification 3.4.14, LCO, paragraph a., second paragraph, replace "its setpoint is within limits," with "its setpoint is set within the PTLR (Reference 6) limit,"	Westinghouse AP1000 DCD Revision 18
9789	WLS	Pt 04		B, B03.04 03.04.14	COLA Part 4, Section B 3.4, Specification 3.4.14, LCO, paragraph b., insert the following at the end of the section: Note 1 prohibits startup of an RCP when the RCS temperature is [greater than or equal to] 350°F unless pressurizer level is < 92%. This restraint is to prevent a low temperature overpressure event due to a thermal transient when an RCP is started. Note 2 requires that the secondary side water temperature of each SG be [less than or equal to] 50°F above each of the RCS cold leg temperatures before the start of an RCP with any RCS cold leg temperature [less than or equal to] 350°F, and the RCP must be started at [less than or equal to] 25% of RCP speed. This restraint is to prevent a low temperature overpressure event due to a thermal transient when an RCP is started. This limitation also helps to ensure that the RNS system pressure remains below both the piping design pressure and the acceptable RNS relief valve inlet pressure.	Westinghouse AP1000 DCD Revision 18
9790	WLS	Pt 04		B, B03.04 03.04.14	COLA Part 4, Section B 3.4, Specification 3.4.14, REFERENCES, insert new reference after Reference 5. as follows: 6. APP-RXS-ZOR-001, Revision 2, "AP1000 Generic Pressure Temperature Limits Report," F. C. Gift, September 2008.	Westinghouse AP1000 DCD Revision 18
9791	WLS	Pt 04		B, B03.04 03.04.17	COLA Part 4, Section B 3.4, Specification 3.4.17, APPLICABILITY, second paragraph, end of paragraph, replace "(high 2 setpoint)." with "(high setpoint coincident with reactor trip (P-4) or high 2 setpoint)."	Westinghouse AP1000 DCD Revision 18
9792	WLS	Pt 04		B, B03.05 03.05.01	COLA Part 4, Section B 3.5, Specification 3.5.1, BACKGROUND, first sentence, replace "The functions of the PXS accumulators are to supply water" with "Two redundant PXS accumulators provide sufficient water"	Westinghouse AP1000 DCD Revision 18
9793	WLS	Pt 04		B, B03.05 03.05.01	COLA Part 4, Section B 3.5, Specification 3.5.1, APPLICABLE SAFETY ANALYSES, fourth paragraph, first sentence, replace "steamline" with "steam line"	Westinghouse AP1000 DCD Revision 18
9794	WLS	Pt 04		B, B03.05 03.05.02	COLA Part 4, Section B 3.5, Specification 3.5.2, APPLICABLE SAFETY ANALYSES, second paragraph, first sentence, replace "steamline" with "steam line"	Westinghouse AP1000 DCD Revision 18
9795	WLS	Pt 04		B, B03.05 03.05.02	COLA Part 4, Section B 3.5, Specification 3.5.2, LCO, insert the following between the first and second sentence: OPERABILITY is not expected to be challenged due to small gas accumulations in the high point, and rapid gas accumulations are not expected during plant operation. However, a relatively small gas volume was	Westinghouse AP1000 DCD Revision 18

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					incorporated into the design for alerting operators to provide sufficient time to initiate venting operations before the gas volume would be expected to increase to a sufficient volume that might potentially challenge the OPERABILITY of natural circulation flow. Therefore, noncondensable gas accumulation in the inlet line high point that causes the water level to drop below the sensor will require operator action to investigate the cause of the gas accumulation and to vent the associated high point(s).	
9796	WLS	Pt 04		B, B03.05 03.05.02	Start a new paragraph with the existing second sentence.  COLA Part 4, Section B 3.5, Specification 3.5.2, ACTIONS, paragraph D.1, insert a new paragraph between the third and fourth sentences, as follows: The level sensor location has been selected to permit additional gas accumulation prior to significantly affecting the natural circulation flow so that adequate time may be provided to permit containment entry for venting the gas. Anticipated noncondensable gas accumulation in this piping segment is expected to be relatively slow.	Westinghouse AP1000 DCD Revision 18
9797	WLS	Pt 04		B, B03.05 03.05.02	COLA Part 4, Section B 3.5, Specification 3.5.2, SURVEILLANCE REQUIREMENTS, SR 3.5.2.4 is revised as follows: First sentence, replace "are not present" with "have not caused the water level to drop below the sensor" Insert the following at the end of the third sentence: The thermal dispersion sensor locations on the vertical pipe sections have been selected to permit additional gas accumulation before injection flow is significantly affected so that adequate time may be provided to permit containment entry for venting the gas. Start a new paragraph with the existing fourth sentence.	Westinghouse AP1000 DCD Revision 18
9798	WLS	Pt 04		B, B03.05 03.05.04	COLA Part 4, Section B 3.5, Specification 3.5.4, LCO, second paragraph is revised from: In addition to the appropriate valve configuration, OPERABILITY may be impaired by flow blockage caused by noncondensable gases collecting in the system. Thus the absence of noncondensable gases in the high point is necessary for system OPERABILITY. To read: In addition to the appropriate valve configuration, OPERABILITY may be impaired by noncondensable gases collecting in the system. OPERABILITY is not expected to be challenged due to small gas accumulations in the high point, and rapid gas accumulations are not expected during plant operation. However, a relatively small gas volume was incorporated into the design for alerting operators to provide sufficient time to initiate venting operations before the gas volume would be expected to increase to a sufficient volume that might potentially challenge the OPERABILITY of natural circulation flow. Therefore, noncondensable gas accumulation in the inlet line high point that causes the water level to drop below the sensor will require operator action to investigate the cause of the gas accumulation and to vent the associated high point(s).	Westinghouse AP1000 DCD Revision 18
9799	WLS	Pt 04		B, B03.05 03.05.04	COLA Part 4, Section B 3.5, Specification 3.5.4, ACTIONS, paragraph C.1, insert a new paragraph between the second and third sentences, as follows: The level sensor location has been selected to permit additional gas accumulation before natural circulation flow is significantly affected so that sufficient time may be provided to permit containment entry for venting the gas. Anticipated noncondensable gas accumulation in this piping segment is expected to be relatively slow.	Westinghouse AP1000 DCD Revision 18
9800	WLS	Pt 04		B, B03.05 03.05.04	COLA Part 4, Section B 3.5, Specification 3.5.4, ACTIONS, paragraph D.1 and D.2, first sentence is revised from: If any of the above Required Actions have not been accomplished in the required Completion Time or the LCO is not met for reasons other than Conditions A, B, or C, the plant must be brought to a MODE in which the LCO does not apply. To read: If any of the above Required Actions have not been accomplished in the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply.	Westinghouse AP1000 DCD Revision 18
9801	WLS	Pt 04		B, B03.05 03.05.04	COLA Part 4, Section B 3.5, Specification 3.5.4, SURVEILLANCE REQUIREMENTS, SR 3.5.4.3 is revised as follows: First sentence, replace "are not present" with "have not caused the water level to drop below the sensor"	Westinghouse AP1000 DCD Revision 18

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					<p>Insert the following at the end of the second sentence: The thermal dispersion sensor location on the vertical pipe section has been selected to permit additional gas accumulation before natural circulation flow is significantly affected so that sufficient time may be provided to permit containment entry for venting the gas. Start a new paragraph with the existing third sentence.</p>	
10179	WLS	Pt 04		B, B03.05 03.05.05	COLA Part 4, Section B 3.5, Specification B 3.5.5, APPLICABILITY section, first paragraph is revised to replace "RNS" with "Normal Residual Heat Removal System (RNS)".	WEC DCD Revision 19
9802	WLS	Pt 04		B, B03.05 03.05.06	<p>COLA Part 4, Section B 3.5, Specification 3.5.6, LCO, second paragraph, insert the following at the end of the paragraph: OPERABILITY is not expected to be challenged due to small gas accumulations in the high point, and rapid gas accumulations are not expected during plant operation. However, a relatively small gas volume was incorporated into the design for alerting operators to provide sufficient time to initiate venting operations before the gas volume would be expected to increase to a sufficient volume that might potentially challenge the OPERABILITY of passive safety injection flow. Therefore, noncondensable gas accumulation in the injection line high point that causes the water level to drop below the sensor will require operator action to investigate the cause of the gas accumulation and to vent the associated high point(s).</p>	Westinghouse AP1000 DCD Revision 18
9803	WLS	Pt 04		B, B03.05 03.05.06	COLA Part 4, Section B 3.5, Specification 3.5.6, APPLICABILITY, first paragraph, second sentence, replace "In MODES 1, 2, 3, 4, and 5," with "In MODES 1, 2, 3, and 4,"	Westinghouse AP1000 DCD Revision 18
9804	WLS	Pt 04		B, B03.05 03.05.06	<p>COLA Part 4, Section B 3.5, Specification 3.5.6, ACTIONS is revised as follows: After paragraph A.1, insert new paragraphs B.1 and C.1, as follows: B.1 Excessive amounts of noncondensable gases in one of the high point vents in one IRWST injection line may interfere with the passive injection of IRWST water into the reactor vessel from the associated parallel flow path in the affected injection line. Analyses have shown that with enough noncondensable gas accumulation, IRWST injection through the affected flow path could be delayed. However, the presence of some noncondensable gases does not mean that the IRWST injection capability is immediately inoperable, but that gases are collecting and should be vented. The venting of these gases requires containment entry to manually operate the vent valves. In this Condition, the parallel flow path in the affected injection line is capable of providing 100% of the required injection flow and the other IRWST injection line remains fully OPERABLE. These IRWST flow paths can provide the credited flow in the event of a direct vessel injection (DVI) line break downstream of the fully OPERABLE injection line, provided a single failure of the remaining parallel isolation valve does not occur. A Completion Time of 72 hours is acceptable for two train ECCS systems, which are capable of performing their safety function without a single failure. C.1 Excessive amounts of noncondensable gases in both of the high point vents in one IRWST injection line may affect the passive injection of IRWST water into the reactor vessel from the affected injection line. Sufficient gas accumulation could potentially challenge IRWST injection capability. However, the presence of some noncondensable gases does not immediately render the IRWST injection capability inoperable, but that gases are collecting and should be vented. The level sensor location has been selected to permit additional gas accumulation before injection flow is significantly affected so that adequate time may be provided to permit containment entry for venting the gas. Anticipated noncondensable gas accumulation in this piping segment is expected to be relatively slow. In this Condition, the remaining OPERABLE IRWST injection line is capable of performing the safety function for all plant events except for one, DVI line break. For this one event, the line with gas accumulation in both high point vents will be capable of performing the safety function with a small amount of voiding that is not expected to significantly challenge the required injection flow. The venting of these gases requires containment entry to manually operate the vent valves. Considering the relatively slow rate of gas accumulation, venting within 8 hours should normally prevent accumulation of amounts of noncondensable gases that could significantly challenge IRWST injection capability. A Completion Time of 8 hours is permitted for venting noncondensable gases and is acceptable since the injection capability of the other IRWST injection line is sufficient to ensure event mitigation, or in the event of a break in the DVI line connected to the OPERABLE injection line, the injection line with gas accumulation will be capable of providing the required injection flow with some voiding. If only one of the affected high point</p>	Westinghouse AP1000 DCD Revision 18

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					<p>vents is vented, then Condition B will apply to the remaining high point vent with noncondensable gas accumulation.</p> <p>Renumber existing paragraph B.1 to read D.1; renumber existing paragraph C.1 to read E.1; and existing paragraph D.1 and D.2 to read F.1 and F.2.</p> <p>In the new paragraph F.1 and F.2, first sentence, replace "Conditions A, B, or C," with "Conditions A, B, C, D, or E,"</p>	
9805	WLS	Pt 04		B, B03.05 03.05.06	<p>COLA Part 4, Section B 3.5, Specification 3.5.6, SURVEILLANCE REQUIREMENTS, SR 3.5.6.3, insert new paragraph SR 3.5.6.3 as follows and renumber the remaining paragraphs in this section:</p> <p>Verification that excessive amounts of noncondensable gases have not caused the water level to drop below the sensor in the four IRWST injection line squib valve lines is required every 24 hours. The 8x8x8 inch tee after the outlet of the IRWST injection line squib valve lines has a vertical section of pipe which serves as a high point collection point for noncondensable gases. The thermal dispersion sensor locations on the vertical pipe sections have been selected to permit additional gas accumulation prior to significantly affecting the injection flow so that adequate time may be provided to permit containment entry for venting the gas. Control room indication of the water level in this high point collection point is available to verify that noncondensable gases have not collected to the extent that the water level is depressed below the allowable level. The 24 hour Frequency is based on the expected low rate of gas accumulation and the availability of control room indication.</p>	Westinghouse AP1000 DCD Revision 18
9806	WLS	Pt 04		B, B03.05 03.05.07	<p>COLA Part 4, Section B 3.5, Specification 3.5.7, LCO, second paragraph, add the following to the end of the paragraph:</p> <p>The absence of noncondensable gases in the high point vents is necessary for system OPERABILITY.</p>	Westinghouse AP1000 DCD Revision 18
9807	WLS	Pt 04		B, B03.05 03.05.07	<p>COLA Part 4, Section B 3.5, Specification 3.5.7, ACTIONS is revised as follows:</p> <p>paragraph A.1, first sentence, replace "in one sump" with "in the required sump"</p> <p>Following paragraph A.1, insert new paragraphs B.1 and C.1 as follows:</p> <p><b>B.1</b></p> <p>Excessive amounts of noncondensable gases in one of the high point vents in the required IRWST injection line may interfere with the passive injection of IRWST water into the reactor vessel from the associated parallel flow path in the affected injection line. Analyses have shown that with enough noncondensable gas accumulation, IRWST injection through the affected flow path could be delayed. However, the presence of some noncondensable gases does not mean that the IRWST injection capability is immediately inoperable, but that gases are collecting and should be vented. Venting of these gases requires containment entry to manually operate the vent valves. In this Condition, the parallel flow path in the affected injection line is capable of providing 100% of the required injection. A DVI line break is not postulated in MODE 5. A Completion Time of 72 hours is acceptable since the IRWST is capable of performing the safety function without a single failure of the remaining parallel isolation valve. In addition, the 72-hour Completion Time is consistent with the time normally applicable to one inoperable train in a two train ECCS system.</p> <p><b>C.1</b></p> <p>Excessive amounts of noncondensable gases in both of the high point vents in the required IRWST injection line may interfere with the passive injection of IRWST water into the reactor vessel from the affected injection line. Analyses have shown that with enough noncondensable gas accumulation, IRWST injection could be delayed long enough to cause core uncover. However, the presence of some noncondensable gases does not mean that the IRWST injection capability is immediately inoperable, but that gases are collecting and should be vented. Venting of these gases requires containment entry to manually operate the vent valves. Considering the slow rate of gas accumulation, venting within 8 hours should normally prevent accumulation of amounts of noncondensable gases that could interfere with IRWST injection. A Completion Time of 8 hours is permitted for venting noncondensable gases and is acceptable since the injection capability is not significantly affected. If only one of the affected high point vents is vented, then Condition B will apply to the remaining high point vent with noncondensable gas accumulation.</p> <p>Renumber existing paragraph B.1 to read D.1.</p>	Westinghouse AP1000 DCD Revision 18

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					<p>Revise paragraph C.1 from:</p> <p>C.1 If the motor operated IRWST isolation valves are not fully open or valve power is not removed, injection flow from the IRWST may be less than assumed in the safety analysis. In this situation, the valves must be restored to fully open with valve power removed in 1 hour. This Completion Time is acceptable based on risk considerations.</p> <p>To read:</p> <p>E.1 If the required motor operated IRWST isolation valve is not fully open or valve power is not removed, injection flow from the IRWST may be less than assumed in the safety analysis. In this situation, the valve must be restored to fully open with valve power removed in 1 hour. This Completion Time is acceptable based on risk considerations.</p> <p>Renumber existing paragraph D.1 and D.2 to read F.1 and F.2. In the first sentence, replace "Conditions A, B, or C," with "Conditions A, B, C, D, or E,"</p>	
9808	WLS	Pt 04		B, B03.05 03.05.07	COLA Part 4, Section B 3.5, Specification 3.5.7, SURVEILLANCE REQUIREMENTS, SR 3.5.7.1, first sentence, replace "3.5.6.7" with "3.5.6.10"	Westinghouse AP1000 DCD Revision 18
9809	WLS	Pt 04		B, B03.05 03.05.08	COLA Part 4, Section B 3.5, Specification 3.5.8, LCO is revised as follows: Second paragraph, second sentence, replace "must be closed and OPERABLE." with "must be open and OPERABLE." Second paragraph, insert the following at the end of the paragraph: "The absence of noncondensable gases in the high point vents is necessary for system OPERABILITY."	Westinghouse AP1000 DCD Revision 18
10180	WLS	Pt 04		B, B03.05 03.05.08	COLA Part 4, Section B 3.5, Specification B 3.5.8, APPLICABILITY section, first paragraph is revised to replace "RCS" with "Reactor Coolant System (RCS)".	Westinghouse AP1000 DCD Revision 19
9810	WLS	Pt 04		B, B03.05 03.05.08	COLA Part 4, Section B 3.5, Specification 3.5.8, ACTIONS is revised as follows: paragraph A.1, first sentence, replace "With one motor operated containment" with "With the required motor operated containment" Following paragraph A.1, insert new paragraphs B.1 and C.1 as follows: B.1 Excessive amounts of noncondensable gases in one of the high point vents in the required IRWST injection line may interfere with the passive injection of IRWST water into the reactor vessel from the associated parallel flow path in the affected injection line. Analyses have shown that with enough noncondensable gas accumulation, IRWST injection through the affected flow path could be delayed. However, the presence of some noncondensable gases does not mean that the IRWST injection capability is immediately inoperable, but that gases are collecting and should be vented. Venting of these gases requires containment entry to manually operate the vent valves. In this Condition, the parallel flow path in the affected injection line is capable of providing 100% of the required injection. A DVI line break is not postulated in MODE 6. A Completion Time of 72 hours is acceptable since the IRWST is capable of performing the safety function without a single failure of the remaining parallel isolation valve. In addition, the 72-hour Completion Time is consistent with the time normally applicable to one inoperable train in a two train ECCS system. C.1 Excessive amounts of noncondensable gases in both of the high point vents in the required IRWST injection line may interfere with the passive injection of IRWST water into the reactor vessel from the affected injection line. Analyses have shown that with enough noncondensable gas accumulation, IRWST injection could be delayed long enough to cause core uncover. However, the presence of some noncondensable gases does not mean that the IRWST injection capability is immediately inoperable, but that gases are collecting and should be vented. Venting of these gases requires containment entry to manually operate the vent valves. Considering the slow rate of gas accumulation, venting within 8 hours should normally prevent accumulation of amounts of noncondensable gases that could interfere with IRWST injection. A Completion Time of 8 hours is permitted for venting noncondensable gases and is acceptable since the injection capability is not significantly affected. If only one of the affected high point vents is vented, then Condition B will apply to the remaining high point vent with noncondensable gas accumulation.	Westinghouse AP1000 DCD Revision 18

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					<p>Renumber existing paragraph B.1 to read D.1.</p> <p>Revise paragraph C.1 from: C.1 If the motor operated IRWST isolation valves are not fully open or valve power is not removed, injection flow from the IRWST may be less than assumed in the safety analysis. In this situation, the valves must be restored to fully open with valve power removed in 1 hour. This Completion Time is acceptable based on risk considerations. To read: E.1 If the required motor operated IRWST isolation valve is not fully open or valve power is not removed, injection flow from the IRWST may be less than assumed in the safety analysis. In this situation, the valve must be restored to fully open with valve power removed in 1 hour. This Completion Time is acceptable based on risk considerations.</p> <p>Renumber existing paragraph D.1 and D.2 to read F.1 and F.2. In the first sentence, replace "Conditions A, B, C, or D," with "Conditions A, B, C, D, or E,"</p>	
9811	WLS	Pt 04		B, B03.05 03.05.08	COLA Part 4, Section B 3.5, Specification 3.5.8, SURVEILLANCE REQUIREMENTS, SR 3.5.8.4, first sentence, replace "SR 3.5.6.4 through 3.5.6.8" with "SR 3.5.6.3 and 3.5.6.5 through 3.5.6.10"	Westinghouse AP1000 DCD Revision 18
9812	WLS	Pt 04		B, B03.06 03.06.04	<p>COLA Part 4, Section B 3.6, Specification 3.6.4, APPLICABLE SAFETY ANALYSES is revised as follows: First paragraph, last sentence, replace "transients (Ref. 1)." with "transients. The worst case LOCA generates larger mass and energy release than the worst cast SLB. Thus, the LOCA event bounds the SLB event from the containment peak pressure standpoint (Ref. 1)." Second paragraph, third sentence, replace "the SLB." with "the limiting LOCA." Second paragraph, fourth sentence, replace "the SLB, 57.3 psig," with "the worst case LOCA, 57.8 psig," Third paragraph, first sentence, replace "2.9 psig." with "1.7 psid." Fourth paragraph, indented list, remove the third indented line "Inadvertent Incontainment Refueling Water Storage Tank (IRWST) drain" Remove the paragraph following the indented list</p>	Westinghouse AP1000 DCD Revision 18
10181	WLS	Pt 04		B, B03.06 03.06.04	<p>COLA Part 4, Section B 3.6, Specification B 3.6.4, APPLICABLE SAFETY ANALYSES section, second paragraph is revised from: The initial pressure condition used in the containment analysis was 15.7 psia (1.0 psig). This resulted in a maximum peak pressure from a LOCA, Pa, of 57.8 psig. The containment analysis (Ref. 1) shows that the maximum peak calculated containment pressure results from the limiting LOCA. The maximum containment pressure resulting from the worst case LOCA, 57.8 psig, does not exceed the containment design pressure, 59 psig.</p> <p>To Read: The initial pressure condition used in the containment analysis was 15.7 psia (1.0 psig). This resulted in a maximum peak pressure from a LOCA, Pa, of 58.3 psig. The containment analysis (Ref. 1) shows that the maximum peak calculated containment pressure results from the limiting LOCA. The maximum containment pressure resulting from the worst case LOCA does not exceed the containment design pressure, 59 psig.</p>	Westinghouse AP1000 DCD Revision 19
9813	WLS	Pt 04		B, B03.06 03.06.04	<p>COLA Part 4, Section B 3.6, Specification 3.6.4, LCO is revised as follows: Start a new paragraph at the beginning of the second sentence. Insert the following at the end of the new second paragraph: If the containment pressure does not meet the low pressure limit, the containment vacuum relief capacity of one flow path may not be adequate to ensure the containment pressure meets the negative pressure design limit.</p>	Westinghouse AP1000 DCD Revision 18
9814	WLS	Pt 04		B, B03.06 03.06.04	<p>COLA Part 4, Section B 3.6, Specification 3.6.4, APPLICABILITY is revised as follows: First paragraph, second sentence, replace "within limits" with "within the high pressure limit" Second paragraph, second sentence, replace "within the limits" with "within the high pressure limit" Insert two new paragraphs at the end of the section as follows:</p>	Westinghouse AP1000 DCD Revision 18



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					In MODES 1 through 6, the potential exists for excessive containment cooling events to produce a negative containment pressure below the design limit. However, in MODES 5 and 6, a containment air flow path may be opened (LCO 3.6.8, Containment Penetrations), providing a vacuum relief path that is sufficient to preclude a negative containment pressure below the design limit. Therefore, maintaining containment pressure within the low pressure limit is essential to ensure initial conditions assumed in the cooling events in MODES 1 through 4 and in MODES 5 and 6 without an open containment air flow path [greater than or equal to] 6 inches in diameter. With a 6 inch diameter or equivalent containment air flow path, the vacuum relief function is not needed to mitigate a low pressure event.	
9815	WLS	Pt 04		B, B03.06 03.06.04	COLA Part 4, Section B 3.6, Specification 3.6.4, ACTIONS, B.1 and B.2 is revised as follows: The heading B.1 and B.2 is revised to read B.1, B.2, and B.3 First paragraph, first sentence is revised from: If containment pressure cannot be restored to within limits within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To read: If the containment pressure cannot be restored to within its limits within the required Completion Time, the plant must be placed in a condition in which the LCO does not apply. Insert the following at the end of the section: If the containment high pressure limit is not met, entry into MODE 5 is sufficient to exit the Applicability. If the containment low pressure limit is not met, Required Action B.3 applies. If in MODE 5 or 6 the containment low pressure limit is not met, a containment air flow path [greater than or equal to] 6 inches in diameter shall be opened within 44 hours from condition entry. Any flow path (or paths) with an area equivalent to 6 inches in diameter is adequate to provide the necessary air flow. The primary means of opening a containment air flow path is by establishing a containment air filtration system (VFS) air flow path into containment. Manual actuation and maintenance as necessary to open a purge supply, purge exhaust, or vacuum relief flow path are available means to open a containment air flow path. In addition, opening of a spare penetration is an acceptable means to provide the necessary flow path. Opening of an equipment hatch or a containment airlock is acceptable, but may not be possible due to the differential pressure condition. Containment air flow paths opened must comply with LCO 3.6.8, Containment Penetrations. The 44 hour Completion Time is reasonable for opening a containment air flow path in an orderly manner.	Westinghouse AP1000 DCD Revision 18
10182	WLS	Pt 04		B, B03.06 03.06.04	COLA Part 4, Section B 3.6, Specification B 3.6.4, ACTIONS section, B.1, B.2, and B.3, third paragraph, second sentence is revised to replace "adequare" with "adequate".	Westinghouse AP1000 DCD Revision 19
9816	WLS	Pt 04		B, B03.06 03.06.04	COLA Part 4, Section B 3.6, Specification 3.6.4, REFERENCES is revised from: 1. Section 6.2, "Containment Analysis." To read: 1. Section 6.2, "Containment Systems."	Westinghouse AP1000 DCD Revision 18
9817	WLS	Pt 04		B, B03.06 03.06.05	COLA Part 4, Section B 3.6, Specification 3.6.5, APPLICABLE SAFETY ANALYSES, insert new paragraph between existing fifth and sixth paragraphs as follows: The containment is designed for an external pressure load equivalent to 1.7 psid. The limiting negative pressure transient is a loss of all ac power sources coincident with extreme cold weather conditions, which cool the external surface of the containment vessel. The initial containment average air temperature condition used in this analysis is 120°F. This resulted in a minimum pressure inside containment, as illustrated in Reference 1, which is less than the design load.	Westinghouse AP1000 DCD Revision 18
10183	WLS	Pt 04		B, B03.06 03.06.05	COLA Part 4, Section B 3.6, Specification B 3.6.5, APPLICABLE SAFETY ANALYSES section, sixth paragraph is revised to replace the end comma with a period.	Westinghouse AP1000 DCD Revision 19
9818	WLS	Pt 04		B, B03.06 03.06.05	COLA Part 4, Section B 3.6, Specification 3.6.5, LCO, insert new second paragraph as follows: The LCO establishes the maximum containment average air temperature initial condition required for the excessive cooling analysis. If the containment average air temperature exceeds the limit, the containment vacuum relief capacity of one flow path may not be adequate to ensure the containment pressure meets the negative pressure design limit.	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9819	WLS	Pt 04		B, B03.06 03.06.05	COLA Part 4, Section B 3.6, Specification 3.6.5, APPLICABILITY, last line, replace "Mode 5 or 6." with "Mode 5 or 6 for a DBA LOCA or SLB." Insert the following new paragraphs: In MODES 1 through 6, the potential exists for excessive containment cooling events to produce a negative containment pressure below the design limit. However, in MODES 5 and 6, a containment equipment hatch or airlock may be opened (LCO 3.6.8, Containment Penetrations), providing a vacuum relief path that is sufficient to preclude a negative containment pressure below the design limit. Therefore, maintaining containment average air temperature within the limit is essential to ensure initial conditions assumed in the cooling events in MODES 1 through 4 and in MODES 5 and 6 with both containment equipment hatches and both containment airlocks closed.	Westinghouse AP1000 DCD Revision 18
9820	WLS	Pt 04		B, B03.06 03.06.05	COLA Part 4, Section B 3.6, Specification 3.6.5, ACTIONS, B.1 and B.2 is revised as follows: The heading B.1 and B.2 is revised to read B.1, B.2, and B.3 First paragraph, first sentence, replace "brought to a MODE" with "placed in a condition" Insert the following at the end of the section: In MODE 5 or 6, a containment equipment hatch or a containment airlock shall be opened within 44 hours from Condition entry. Opening of a hatch or an airlock is necessary to provide the required vacuum relief path in the event of a low pressure event if the average air temperature initial condition is not met. The allowed Completion Time is reasonable for opening a hatch or an airlock in an orderly manner.	Westinghouse AP1000 DCD Revision 18
10184	WLS	Pt 04		B, B03.06 03.06.06	COLA Part 4, Section B 3.6, Specification B 3.6.6, BACKGROUND section, second paragraph, second sentence is revised from: Algae growth is not expected within the PCCWST; however, to assure water clarity is maintained, a prevailing concentration of hydrogen peroxide is maintained at 50 ppm.  To Read: Algae growth is not expected within the Passive Containment Cooling Water Storage Tank (PCCWST); however, to assure water clarity is maintained, a prevailing concentration of hydrogen peroxide is maintained at 50 ppm.	Westinghouse AP1000 DCD Revision 19
9821	WLS	Pt 04		B, B03.06 03.06.06	COLA Part 4, Section B 3.6, Specification 3.6.6, SURVEILLANCE REQUIREMENTS, SR 3.6.6.4, third sentence, replace "these Surveillance" with "this Surveillance"	Westinghouse AP1000 DCD Revision 18
9822	WLS	Pt 04		B, B03.06 03.06.07	COLA Part 4, Section B 3.6, Specification 3.6.7, APPLICABILITY, first and second paragraphs, replace "9 MWt" with "6 MWt" (2 instances)	Westinghouse AP1000 DCD Revision 18
10185	WLS	Pt 04		B, B03.06 03.06.07	COLA Part 4, Section B 3.6, Specification B 3.6.7, APPLICABILITY section, second paragraph, first sentence is revised from: With the decay heat less than 6 MWt, the decay heat can be easily removed from containment with air cooling alone.  To Read: With the decay heat at or below 6.0 MWt, the decay heat can be removed from containment with air cooling alone.	Westinghouse AP1000 DCD Revision 19
10187	WLS	Pt 04		B, B03.06 03.06.07	COLA Part 4, Section B 3.6, Specification B 3.6.7, ACTIONS section, D.1.1, D.1.2, and D.2, first paragraph, second sentence is revised from: ...and to close the RCS so that the PRHR HX operation is available.  To Read: ...and to close the RCS so that the Passive Residual Heat Removal Heat Exchanger (PRHR HX) operation is available.	Westinghouse AP1000 DCD Revision 19
10188	WLS	Pt 04		B, B03.06 03.06.08	COLA Part 4, Section B 3.6, Specification B 3.6.8, BACKGROUND section, first paragraph, third sentence is revised from: Due to the large volume of the IRWST and the reduced sensible heat during shutdown, the loss of some of the water inventory can be accepted.	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					To Read: Due to the large volume of the In-Containment Refueling Water Storage Tank (IRWST) and the reduced sensible heat during shutdown, the loss of some of the water inventory can be accepted.	
9823	WLS	Pt 04		B, B03.06 03.06.08	COLA Part 4, Section B 3.6, Specification 3.6.8, BACKGROUND, third paragraph, first sentence, replace "a accident." with "an accident."	Westinghouse AP1000 DCD Revision 18
10189	WLS	Pt 04		B, B03.06 03.06.08	COLA Part 4, Section B 3.6, Specification B 3.6.8, BACKGROUND section, third paragraph, second sentence is revised from: Pressurization of the containment could only occur after heatup of the IRWST due to PRHR HX operation...	Westinghouse AP1000 DCD Revision 19
					To Read: Pressurization of the containment could only occur after heatup of the IRWST due to Passive Residual Heat Removal Heat Exchanger (PRHR HX) operation...	
10190	WLS	Pt 04		B, B03.06 03.06.08	COLA Part 4, Section B 3.6, Specification B 3.6.8, BACKGROUND section, fifth paragraph, first sentence is revised from: As presented in Tables 54-1 and 54-4 of Reference 2, the most risk significant events during shutdown are events that lead to a loss of RNS cooling.	Westinghouse AP1000 DCD Revision 19
					To Read: As presented in Tables 54-1 and 54-4 of Reference 2, the most risk significant events during shutdown are events that lead to a loss of Normal Residual Heat Removal System (RNS) cooling.	
10191	WLS	Pt 04		B, B03.06 03.06.08	COLA Part 4, Section B 3.6, Specification B 3.6.8, BACKGROUND section, sixth paragraph, second sentence is revised from: ...such as the operation of the 4th stage ADS valves if necessary, status of the upper internals, status of refueling cavity, etc.	Westinghouse AP1000 DCD Revision 19
					To Read: ...such as the operation of the 4th stage Automatic Depressurization System (ADS) valves if necessary, status of the upper internals, status of refueling cavity, etc.	
10192	WLS	Pt 04		B, B03.06 03.06.08	COLA Part 4, Section B 3.6, Specification B 3.6.8, BACKGROUND section, eighth paragraph, third sentence is revised from: In determining if containment can be closed within the time permitted to containment closure specified in Figure B 3.6.8 -1, the time to close containment penetrations must include both the diagnosis and decision-making time and the time required to physically complete the closure action.	Westinghouse AP1000 DCD Revision 19
					To Read: In determining if containment can be closed within the time permitted to containment closure specified in Figure B 3.6.8-1, the time to close containment penetrations must include both the diagnosis and decision-making time and the time required to physically complete the closure action.	
9824	WLS	Pt 04		B, B03.06 03.06.09	COLA Part 4, Section B 3.6, Specification 3.6.9, BACKGROUND is revised as follows: First paragraph, replace "two" with "four" Third paragraph, last sentence, replace "(Na3PO4-12H2O)" with "(Na3PO4-12H2O)"	Westinghouse AP1000 DCD Revision 18
9825	WLS	Pt 04		B, B03.06 03.06.09	COLA Part 4, Section B 3.6, Specification 3.6.9, SURVEILLANCE REQUIREMENTS, SR 3.6.9.1 is revised as follows: First paragraph, last sentence, replace "26,460 pounds." with "26,460 pounds at an assumed assay of 100%." Second paragraph, second sentence, replace "density, since" with "density (54 lbm/ft3), since"	Westinghouse AP1000 DCD Revision 18
9826	WLS	Pt 04		B, B03.06 03.06.09	COLA Part 4, Section B 3.6, Specification 3.6.9, REFERENCES, remove Reference 3.	Westinghouse AP1000 DCD Revision 18
9827	WLS	Pt 04		B, B03.06	COLA Part 4, Section B 3.6, Specification 3.6.10, Vacuum Relief Valves, Insert new section as reflected in	Westinghouse AP1000

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
				03.06.10	DCD Revision 18.	DCD Revision 18
10193	WLS	Pt 04		B, B03.06 03.06.10	COLA Part 4, Section B 3.6, Specification B 3.6.10 heading is further revised to remove the underline.	Westinghouse AP1000 DCD Revision 19
10194	WLS	Pt 04		B, B03.06 03.06.10	COLA Part 4, Section B 3.6, Specification B 3.6.10, LCO section heading is further revised to remove the underline.	Westinghouse AP1000 DCD Revision 19
10195	WLS	Pt 04		B, B03.06 03.06.10	COLA Part 4, Section B 3.6, Specification B 3.6.10, LCO section, second paragraph is further revised to replace the end comma with a period.	Westinghouse AP1000 DCD Revision 19
10196	WLS	Pt 04		B, B03.06 03.06.10	COLA Part 4, Section B 3.6, Specification B 3.6.10, ACTIONS section, subheadings A.1; B.1 and B.2; and C.1, C.2, and C.3 are further revised to be underlined.	Westinghouse AP1000 DCD Revision 19
10197	WLS	Pt 04		B, B03.06 03.06.10	COLA Part 4, Section B 3.6, Specification B 3.6.10, SURVEILLANCE REQUIREMENTS section, subheadings SR 3.6.10.1 and SR 3.6.10.2 are further revised to be underlined.	Westinghouse AP1000 DCD Revision 19
10198	WLS	Pt 04		B, B03.07 03.07.01	COLA Part 4, Section B 3.7, Specification B 3.7.1, ACTIONS section, B.1 and B.2, first paragraph, second sentence is revised from: To achieve this status, the plant must be placed in at least MODE 3 within 6 hours, and in MODE 4, with RCS cooling provided by the RNS, within 24 hours.  To Read: To achieve this status, the plant must be placed in at least MODE 3 within 6 hours, and in MODE 4, with RCS cooling provided by the Normal Residual Heat Removal System (RNS), within 24 hours.	Westinghouse AP1000 DCD Revision 19
9828	WLS	Pt 04		B, B03.07 03.07.01	COLA Part 4, Section B 3.7, Specification 3.7.1, SURVEILLANCE REQUIREMENTS, SR 3.7.1.1, second paragraph, third sentence is revised from: Table 3.7.1-2 allows a $\pm 3\%$ setpoint tolerance for OPERABILITY; however, the valves are reset to $\pm 1\%$ during the Surveillance to allow for drift. To read: Table 3.7.1-2 allows a $\pm 1\%$ setpoint tolerance for OPERABILITY, and the valves are reset to remain within $\pm 1\%$ during the Surveillance to allow for drift.	Westinghouse AP1000 DCD Revision 18
9829	WLS	Pt 04		B, B03.07 03.07.01	COLA Part 4, Section B 3.7, Specification 3.7.1, REFERENCES, References 4 and 5 will be revised from: 4. ASME Boiler and Pressure Vessel Code, Section XI, Article IV-3500, "Inservice Test: Category C Valves." 5. ASME OM Code-1995 and Addenda through the 1996 Addenda, "Code for Operation and Maintenance of Nuclear Power Plants." To read: 4. ASME OM Code, Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants." 5. ASME OM Code, "Code for Operation and Maintenance of Nuclear Power Plants."	Westinghouse AP1000 DCD Revision 18
9830	WLS	Pt 04		B, B03.07 03.07.02	COLA Part 4, Section B 3.7, Specification 3.7.2, BACKGROUND, first paragraph, first sentence, replace "steamline" with "steam line"	Westinghouse AP1000 DCD Revision 18
10199	WLS	Pt 04		B, B03.07 03.07.02	COLA Part 4, Section B 3.7, Specification B 3.7.2, APPLICABLE SAFETY ANALYSES section, Item b. under the fifth paragraph, second sentence is revised from: The uncontrolled blowdown of more than one steam generator must be prevented to limit the potential for uncontrolled RCS cooldown and positive reactivity addition.  To Read: The uncontrolled blowdown of more than one steam generator must be prevented to limit the potential for uncontrolled Reactor Coolant System (RCS) cooldown and positive reactivity addition.	Westinghouse AP1000 DCD Revision 19
9831	WLS	Pt 04		B, B03.07 03.07.02	COLA Part 4, Section B 3.7, Specification 3.7.2, APPLICABLE SAFETY ANALYSES, last paragraph, first sentence, replace "steamline" with "steam line"	Westinghouse AP1000 DCD Revision 18
9832	WLS	Pt 04		B, B03.07 03.07.02	COLA Part 4, Section B 3.7, Specification 3.7.2, REFERENCES, Reference 4 is revised from: 4. Section 10.2, "Turbine Generator."	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					To read: 4. Not used.	
9834	WLS	Pt 04		B, B03.07 03.07.06	<p>COLA Part 4, Section B 3.7, Specification 3.7.6, BACKGROUND is revised as follows:</p> <p>First paragraph, first sentence, replace "radioactivity." with "radioactivity, hazardous chemicals, or smoke."</p> <p>First paragraph, fourth sentence, replace "main control room (MCR)" with "main control room envelope (MCRE)"</p> <p>First paragraph, fifth sentence, replace "MCR" with "MCRE" in 1) and 2) and replace "areas; and 3)" with "areas; 3) provide passive filtration to filter contaminated air in the MCRE; and 4)"</p> <p>Second paragraph, first sentence is revised from: The VES consists of compressed air storage tanks, two air delivery flow paths, associated valves, piping, and instrumentation.</p> <p>To read: The VES consists of compressed air storage tanks, two air delivery flow paths, an eductor, a high efficiency particulate air (HEPA) filter, an activated charcoal adsorber section for removal of gaseous activity (principally iodines), associated valves or dampers, piping, and instrumentation.</p> <p>Second paragraph, second and third sentences, replace "MCR" with "MCRE" (2 instances).</p> <p>Insert a new third paragraph as follows: The MCRE is the area within the confines of the MCRE boundary that contains the spaces that control room operators inhabit to control the unit during normal and accident conditions. This area encompasses the main control area, operations work area, operational break room, shift supervisors office, kitchen, and toilet facilities (Ref. 1). The MCRE is protected during normal operation, natural events, and accident conditions. The MCRE boundary is the combination of walls, floor, roof, electrical and mechanical penetrations, and access doors. The OPERABILITY of the MCRE boundary must be maintained to ensure that the leakage of unfiltered air into the MCRE will not exceed the inleakage assumed in the licensing basis analysis of design basis accident (DBA) consequences to MCRE occupants. The MCRE and its boundary are defined in the Main Control Room Envelope Habitability Program.</p> <p>Fourth, fifth, and sixth paragraphs, replace "MCR" with "MCRE" (7 instances), except for the first one on the last line of the fifth paragraph.</p> <p>Sixth paragraph, first sentence is revised from: The compressed air storage tanks are initially pressurized to 3400 psig.</p> <p>To read: The compressed air storage tanks are initially filled to contain greater than 327,574 scf of compressed air. The compressed air storage tanks, the tank pressure, and the room temperature are monitored to confirm that the required volume of breathable air is stored.</p> <p>Sixth paragraph, insert the following to the end of the paragraph: The VES operation in maintaining the MCRE habitable is discussed in Reference 1.</p>	Westinghouse AP1000 DCD Revision 18
10200	WLS	Pt 04		B, B03.07 03.07.06	<p>COLA Part 4, Section B 3.7, Specification B 3.7.6, BACKGROUND section, first paragraph is revised from: The Main Control Room Habitability System (VES) provides a protected environment from which operators can control the plant following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. The system is designed to operate following a Design Basis Accident (DBA) which requires protection from the release of radioactivity. In these events, the Nuclear Island Non-Radioactive Ventilation System (VBS) would continue to function if AC power is available. If AC power is lost or a High-2 main control room envelope (MCRE) radiation signal is received, the VES is actuated. The major functions of the VES are: 1) to provide forced ventilation to deliver an adequate supply of breathable air (Ref. 4) for the MCRE occupants; 2) to provide forced ventilation to maintain the MCRE at a 1/8 inch water gauge positive pressure with respect to the surrounding areas; 3) provide passive filtration to filter contaminated air in the MCRE; and 4) to limit the temperature increase of the MCR equipment and facilities that must remain functional during an accident, via the heat absorption of passive heat sinks.</p> <p>To Read: The Main Control Room Emergency Habitability System (VES) provides a protected environment from which operators can control the plant following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. The system is designed to operate following a Design Basis Accident (DBA) which requires protection from the release of radioactivity. In these events, the Nuclear Island Non-Radioactive Ventilation System</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					(VBS) would continue to function if AC power is available. If AC power is lost or a High-2 Main Control Room Envelope (MCRE) radiation signal is received, the VES is actuated. The major functions of the VES are: 1) to provide forced ventilation to deliver an adequate supply of breathable air (Ref. 4) for the MCRE occupants; 2) to provide forced ventilation to maintain the MCRE at a 1/8 inch water gauge positive pressure with respect to the surrounding areas; 3) provide passive filtration to filter contaminated air in the MCRE; and 4) to limit the temperature increase of the MCRE equipment and facilities that must remain functional during an accident, via the heat absorption of passive heat sinks.	
10201	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification B 3.7.6, BACKGROUND section, fifth paragraph is revised from: In the unlikely event that power to the VBS is unavailable for more than 72 hours, MCRE habitability is maintained by operating one of the two MCR ancillary fans to supply outside air to the MCRE.  To read: In the unlikely event that power to the VBS is unavailable for more than 72 hours, MCRE habitability is maintained by operating one of the two MCRE ancillary fans to supply outside air to the MCRE.	Westinghouse AP1000 DCD Revision 19
9835	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, APPLICABLE SAFETY ANALYSES is revised as follows: Second paragraph is revised from: Operation of the VES is automatically initiated by the following safety related signals: 1) high-2 particulate or iodine radioactivity or 2) low pressurizer pressure. To read: Operation of the VES is automatically initiated by the following safety related signal: high-2 particulate or iodine radioactivity. Fourth paragraph, first, second, and third sentences, replace "MCR" with "MCRE" (3 instances). Fourth paragraph, third sentence, replace "setpoint, or low pressurizer pressure, a safety related signal" with "setpoint, a safety related signal" Fourth paragraph, fourth sentence is revised from: Isolation of the VBS consists of closing safety related valves in the supply and exhaust ducts that penetrate the MCR pressure boundary. To read: Isolation of the MCRE consists of closing safety related valves in the lines that penetrate the MCRE pressure boundary. Valves in the VBS supply and exhaust ducts, and the Sanitary Drainage System (SDS) vent lines are automatically isolated. Insert a new paragraph following the fourth paragraph as follows: The VES provides protection from smoke and hazardous chemicals to the MCRE occupants. The analysis of hazardous chemical releases demonstrates that the toxicity limits are not exceeded in the MCRE following a hazardous chemical release (Ref. 1). The evaluation of a smoke challenge demonstrates that it will not result in the inability of the MCRE occupants to control the reactor either from the control room or from the remote shutdown room (Ref. 2).	Westinghouse AP1000 DCD Revision 18
10202	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification B 3.7.6, APPLICABLE SAFETY ANALYSES section, third paragraph is revised from: In the event of a loss of all AC power, the VES functions to provide ventilation, pressurization, and cooling of the MCR pressure boundary.  To Read: In the event of a loss of all AC power, the VES functions to provide ventilation, pressurization, and cooling of the MCRE pressure boundary.	Westinghouse AP1000 DCD Revision 19
9836	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, LCO is revised as follows: First paragraph, replace "MCR" with "MCRE" (2 instances). Third and fourth paragraphs are revised from: The VES is considered OPERABLE when the individual components necessary to deliver a supply of breathable air to the MCR are OPERABLE. This includes components listed in SR 3.7.6.2 through 3.7.6.8. In addition, the MCR pressure boundary must be maintained, including the integrity of the walls, floors, ceilings, electrical and mechanical penetrations, and access doors. In addition, the control room boundary must be maintained, including the integrity of the walls, floors,	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>ceilings, ductwork, and access doors.</p> <p>To read:</p> <p>The VES is considered OPERABLE when the individual components necessary to deliver a supply of breathable air to the MCR are OPERABLE. This includes components listed in SR 3.7.6.3 through 3.7.6.10. In addition, the MCRE pressure boundary must be maintained, including the integrity of the walls, floors, ceilings, electrical and mechanical penetrations, and access doors. The MCRE pressure boundary includes the Potable Water System (PWS) and SDS running (piping drain) traps, which retain a fluid level sufficient to maintain a seal preventing gas flow through the piping. The MCRE pressure boundary also includes the Waste Water System (WWS) drain line, which is isolated by a normally closed isolation valve.</p> <p>In order for the VES to be considered OPERABLE, the MCRE boundary must be maintained such that the MCRE occupant dose from a large radioactive release does not exceed the calculated dose in the licensing basis consequence analysis for DBAs, and that MCRE occupants are protected from hazardous chemicals and smoke.</p> <p>Fifth paragraph, first sentence, replace "control room" with "MCRE"</p> <p>Fifth paragraph, third and fourth sentences are revised from:</p> <p>For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the control room. This individual will have a method to rapidly close the opening when a need for control room isolation is indicated.</p> <p>To read:</p> <p>For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the control room. This individual will have a method to rapidly close the opening when a need for control room isolation is indicated.</p>	
10203	WLS	Pt 04		B, B03.07 03.07.06	<p>COLA Part 4, Section B 3.7, Specification B 3.7.6, LCO section, third paragraph, first sentence is revised from:</p> <p>The VES is considered OPERABLE when the individual components necessary to deliver a supply of breathable air to the MCR are OPERABLE.</p> <p>To Read:</p> <p>The VES is considered OPERABLE when the individual components necessary to deliver a supply of breathable air to the MCRE are OPERABLE.</p>	Westinghouse AP1000 DCD Revision 19
9838	WLS	Pt 04		B, B03.07 03.07.06	<p>COLA Part 4, Section B 3.7, Specification 3.7.6, APPLICABILITY is revised as follows:</p> <p>The first paragraph is revised from:</p> <p>The VES is required to be OPERABLE in MODES 1, 2, 3, and 4 and during movement of irradiated fuel because of the potential for a fission product release following a DBA.</p> <p>To read:</p> <p>In MODES 1, 2, 3, and 4 and during movement of irradiated fuel assemblies, the VES must be OPERABLE to ensure that the MCRE will remain habitable during and following a DBA.</p>	Westinghouse AP1000 DCD Revision 18
9839	WLS	Pt 04		B, B03.07 03.07.06	<p>COLA Part 4, Section B 3.7, Specification 3.7.6, ACTIONS is revised as follows:</p> <p>A.1 is revised at the first sentence from:</p> <p>When a VES valve or damper is inoperable, action is required to restore the component to OPERABLE status.</p> <p>To read:</p> <p>When a VES valve, a VES damper, or a main control room boundary isolation valve is inoperable, action is required to restore the component to OPERABLE status.</p>	Westinghouse AP1000 DCD Revision 18
9840	WLS	Pt 04		B, B03.07 03.07.06	<p>COLA Part 4, Section B 3.7, Specification 3.7.6, ACTIONS is revised at B.1 as from:</p> <p>B.1 When the main control room air temperature is outside the acceptable range during VBS operation, action is required to restore it to an acceptable range. A Completion Time of 24 hours is permitted based upon the availability of temperature indication in the MCR. It is judged to be a sufficient amount of time allotted to correct the deficiency in the nonsafety ventilation system before shutting down.</p> <p>To read:</p> <p>B.1 When the MCRE air temperature is outside the acceptable range during VBS operation, action is required to restore it to an acceptable range. A Completion Time of 24 hours is permitted based upon the availability of temperature indication in the MCRE. It is judged to be a sufficient amount of time allotted to correct the</p>	Westinghouse AP1000 DCD Revision 18

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					deficiency in the nonsafety ventilation system before shutting down.	
9841	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, ACTIONS is revised at C.1 to include C.2 and C.3 to read: C.1, C.2, and C.3 If the unfiltered inleakage of potentially contaminated air past the MCRE boundary and into the MCRE can result in MCRE occupant radiological dose greater than the calculated dose of the licensing basis analyses of DBA consequences (allowed to be up to 5 rem TEDE), or inadequate protection of MCRE occupants from hazardous chemicals or Smoke, the MCRE boundary is inoperable. Actions must be taken to restore an OPERABLE MCRE boundary within 90 days. During the period that the MCRE boundary is considered inoperable, action must be initiated to implement mitigating actions to lessen the effect on MCRE occupants from the potential hazards of a radiological or chemical event or a challenge from smoke. Actions must be taken within 24 hours to verify that in the event of a DBA, the mitigating actions will ensure that MCRE occupant radiological exposures will not exceed the calculated dose of the licensing basis analyses of DBA consequences, and that MCRE occupants are protected from hazardous chemicals and smoke. These mitigating actions (i.e., actions that are taken to offset the consequences of the inoperable MCRE boundary) should be preplanned for implementation upon entry into the condition, regardless of whether entry is intentional or unintentional. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of mitigating actions. The 90 day Completion Time is reasonable based on the determination that the mitigating actions will ensure protection of MCRE occupants within analyzed limits while limiting the probability that MCRE occupants will have to implement protective measures that may adversely affect their ability to control the reactor and maintain it in a safe shutdown condition in the event of a DBA. In addition, the 90 day Completion Time is a reasonable time to diagnose, plan and possibly repair, and test most problems with the MCRE boundary.	Westinghouse AP1000 DCD Revision 18
9842	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, ACTIONS is revised at D.1 and D.2 to include D.3 to read: D.1, D.2, and D.3 If one bank of VES air tanks (8 tanks out of 32 total) is inoperable, then the VES is able to supply air to the MCR for 54 hours (75% of the required 72 hours). If the VES is actuated, the operator must take actions to maintain habitability of the MCR once the air in the tanks has been exhausted. The VBS supplemental filtration mode or MCR ancillary fans are both capable of maintaining the habitability of the MCR after 54 hours. With one bank of VES air tanks inoperable, action must be taken to restore OPERABLE status within 7 days. In this Condition, the stored amount of compressed air in the remaining OPERABLE VES air tanks must be verified within 2 hours and every 12 hours thereafter to be at least 245,680 scf. The 245,680 scf value is 75 percent of the minimum amount of stored compressed air that must be available in the compressed air storage tanks. The standard volume is determined using the compressed air storage tank room temperature (VAS-TE-080A/B), compressed air storage tanks pressure (VES-PT-001A/B), and Figure B 3.6.7-2, Compressed Air Storage Tanks Minimum Volume – One Bank of VES Air Tanks (8 Tanks) Inoperable. Values above the 245,680 scf line in the figure meet the Required Action criteria. Verification that the minimum volume of compressed air is contained in the OPERABLE compressed air storage tanks ensures a 54 hour air supply will be available if needed. Additionally, within 24 hours, the VBS ancillary fans are verified to be OPERABLE so that, if needed, can be put into use once the OPERABLE compressed air storage tanks have been exhausted. The Completion Times associated with these actions and the 7 day Completion Time to restore VES to OPERABLE are based on engineering judgment, considering the low probability of an accident that would result in a significant radiation release from the reactor core, the low probability of radioactivity release, and that the remaining components and compensatory systems can provide the required capability. The 54 hours of air in the remaining OPERABLE compressed air storage tanks, along with compensatory operator actions, are adequate to protect the main control room envelope habitability. Dose calculations verify that the MCR dose limits will remain within the requirements of GDC 19 with the compensatory actions taken at 54 hours.	Westinghouse AP1000 DCD Revision 18
10204	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification B 3.7.6, ACTIONS section, D.1, D.2, and D.3, first paragraph is revised from: If one bank of VES air tanks (8 tanks out of 32 total) is inoperable, then the VES is able to supply air to the MCR for 54 hours (75% of the required 72 hours). If the VES is actuated, the operator must take actions to maintain habitability of the MCR once the air in the tanks has been exhausted. The VBS supplemental filtration mode or MCR ancillary fans are both capable of maintaining the habitability of the MCR after 54	Westinghouse AP1000 DCD Revision 19



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					hours.  To Read: If one bank of VES air tanks (8 tanks out of 32 total) is inoperable, then the VES is able to supply air to the MCRE for 54 hours (75% of the required 72 hours). If the VES is actuated, the operator must take actions to maintain habitability of the MCRE once the air in the tanks has been exhausted. The VBS supplemental filtration mode or MCRE ancillary fans are both capable of maintaining the habitability of the MCRE after 54 hours.	
10205	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification B 3.7.6, ACTIONS section, D.1, D.2, and D.3, second paragraph, fourth sentence is revised from: ...and Figure B 3.6.7-2, Compressed Air Storage Tanks Minimum Volume – One Bank of VES Air Tanks (8 Tanks) Inoperable.  To Read: ...and Figure B 3.7.6-2, Compressed Air Storage Tanks Minimum Volume – One Bank of VES Air Tanks (8 Tanks) Inoperable.	Westinghouse AP1000 DCD Revision 19
10206	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification B 3.7.6, ACTIONS section, D.1, D.2, and D.3, second paragraph, tenth sentence is revised from: Dose calculations verify that the MCR dose limits will remain within the requirements of GDC 19 with the compensatory actions taken at 54 hours.  To Read: Dose calculations verify that the MCRE dose limits will remain within the requirements of GDC 19 with the compensatory actions taken at 54 hours.	Westinghouse AP1000 DCD Revision 19
9843	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, ACTIONS is revised at E.1 to include E.2 to read: E.1 and E.2 In MODE 1, 2, 3, or 4 if the Required Actions and Completion Times of Conditions A, B, C, or D are not met, or the VES is inoperable for reasons other than Conditions A, B, C, or D, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours and in MODE 5 within 36 hours.	Westinghouse AP1000 DCD Revision 18
9844	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, ACTIONS is revised at F.1, F.2, and F.3 to remove F.2 and F.3 to read: F.1 During movement of irradiated fuel assemblies, if the Required Actions and Completion Times of Conditions A, B, C, or D are not met, or the VES is inoperable for reasons other than Conditions A, B, C, or D, or the VES is inoperable due to an inoperable MCRE boundary, action must be taken immediately to suspend the movement of fuel. This does not preclude the movement of fuel to a safe position.	Westinghouse AP1000 DCD Revision 18
9845	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, ACTIONS is revised to remove G.1.	Westinghouse AP1000 DCD Revision 18
9846	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.1 is revised to read: SR 3.7.6.1 The MCRE air temperature is checked at a frequency of 24 hours to verify that the VBS is performing as required to maintain the initial condition temperature assumed in the safety analysis, and to ensure that the MCRE temperature will not exceed the required conditions after loss of VBS cooling. The surveillance limit of 75°F is the initial heat sink temperature assumed in the VES thermal analysis. The 24 hour Frequency is acceptable based on the availability of temperature indication in the MCRE.	Westinghouse AP1000 DCD Revision 18
9847	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.2 is revised to read: SR 3.7.6.2 Verification every 24 hours that compressed air storage tanks contain greater than 327,574 scf of breathable air. The standard volume is determined using the compressed air storage tank room temperature (VAS-TE-080A/B), compressed air storage tanks pressure (VES-PT-001A/B), and Figure B 3.6.7-1, Compressed Air Storage Tanks Minimum Volume. Values above the 327,574 scf line in the figure meet the surveillance	Westinghouse AP1000 DCD Revision 18

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					criteria. Verification that the minimum volume of compressed air is contained in the compressed air storage tanks ensures that there will be an adequate supply of breathable air to maintain MCRE habitability for a period of 72 hours. The Frequency of 24 hours is based on the availability of pressure indication in the MCRE.	
10207	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification B 3.7.6, SURVEILLANCE REQUIREMENTS section, SR 3.7.6.2, second paragraph, first sentence is revised to replace "Figure B 3.6.7-1" with "Figure B 3.7.6-1".	Westinghouse AP1000 DCD Revision 19
9848	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.4 is revised by inserting a new SURVEILLANCE REQUIREMENT and retaining SR number 3.7.6.4 to read: SR 3.7.6.4 Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on this system are not too severe, testing VES once every month provides an adequate check of the system. The 31 day Frequency is based on the reliability of the equipment and the availability of system redundancy.	Westinghouse AP1000 DCD Revision 18
9849	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.5 is revised by inserting the former SURVEILLANCE REQUIREMENT of SR 3.7.6.4 and re-numbering it to 3.7.6.5 with the change of 'MCR' to 'MCRE' to read: SR 3.7.6.5 VES air header isolation valves are required to be verified open at 31 day intervals. This SR is designed to ensure that the pathways for supplying breathable air to the MCRE are available should loss of VBS occur. These valves should be closed only during required testing or maintenance of downstream components, or to preclude complete depressurization of the system should the VES isolation valves in the air delivery line open inadvertently or begin to leak.	Westinghouse AP1000 DCD Revision 18
9850	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.6 is revised by inserting the former SURVEILLANCE REQUIREMENT of SR 3.7.6.5 and re-numbering it to 3.7.6.6 with the change of 'MCR' to 'MCRE' to read: SR 3.7.6.6 Verification that the air quality of the air storage tanks meets the requirements of Appendix C, Table C-1 of ASHRAE Standard 62 is required every 92 days. If air has not been added to the air storage tanks since the previous verification, verification may be accomplished by confirmation of the acceptability of the previous surveillance results along with examination of the documented record of air makeup. The purpose of ASHRAE Standard 62 states: "This standard specifies minimum ventilation rates and indoor air quality that will be acceptable to human occupants and are intended to minimize the potential for adverse health effects." Verification of the initial air quality (in combination with the other surveillances) ensures that breathable air is available for 11 MCRE occupants for at least 72 hours.	Westinghouse AP1000 DCD Revision 18
9851	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.7 is revised by inserting the former SURVEILLANCE REQUIREMENT of SR 3.7.6.6 and re-numbering it to 3.7.6.7 with the change to include the Sanitary Drainage System to read: SR 3.7.6.7 Verification that the VBS isolation valves and the Sanitary Drainage System (SDS) isolation valves are OPERABLE and will actuate upon demand is required every 24 months to ensure that the MCRE can be isolated upon loss of VBS operation.	Westinghouse AP1000 DCD Revision 18
9852	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.8 is revised by inserting the former SURVEILLANCE REQUIREMENT of SR 3.7.6.7 and re-numbering it to 3.7.6.8 with the change from MCR to MCRE to read: SR 3.7.6.8 Verification that each VES pressure relief isolation valve within the MCRE pressure boundary is OPERABLE is required in accordance with the Inservice Testing Program. The SR is used in combination with SR 3.7.6.8 to ensure that adequate vent area is available to mitigate MCRE overpressurization.	Westinghouse AP1000 DCD Revision 18
9853	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.9 is revised by inserting the former SURVEILLANCE REQUIREMENT of SR 3.7.6.8 and re-numbering it to 3.7.6.9 to read:	Westinghouse AP1000 DCD Revision 18

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					SR 3.7.6.9 Verification that the VES pressure relief damper is OPERABLE is required at 24 month intervals. The SR is used in combination with SR 3.7.6.9 to ensure that adequate vent area is available to mitigate MCRE overpressurization.	
10208	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification B 3.7.6, SURVEILLANCE REQUIREMENTS section, SR 3.7.6.8 and SR 3.7.6.9 are revised from: SR 3.7.6.8 Verification that each VES pressure relief isolation valve within the MCRE pressure boundary is OPERABLE is required in accordance with the Inservice Testing Program. The SR is used in combination with SR 3.7.6.8 to ensure that adequate vent area is available to mitigate MCRE overpressurization. SR 3.7.6.9 Verification that the VES pressure relief damper is OPERABLE is required at 24 month intervals. The SR is used in combination with SR 3.7.6.9 to ensure that adequate vent area is available to mitigate MCRE overpressurization.  To Read: SR 3.7.6.8 Verification that each VES pressure relief isolation valve within the MCRE pressure boundary is OPERABLE is required in accordance with the Inservice Testing Program. The SR is used in combination with SR 3.7.6.9 to ensure that adequate vent area is available to mitigate MCRE overpressurization. SR 3.7.6.9 Verification that the VES pressure relief damper is OPERABLE is required at 24 month intervals. The SR is used in combination with SR 3.7.6.8 to ensure that adequate vent area is available to mitigate MCRE overpressurization.	Westinghouse AP1000 DCD Revision 19
9854	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS 3.7.6.10 is revised by inserting the former SURVEILLANCE REQUIREMENT of SR 3.7.6.9 and re-numbering it to 3.7.6.10 and revise MCR to MCRE to read: SR 3.7.6.10 Verification that the VES pressure relief damper is OPERABLE is required at 24 month intervals. The SR is used in combination with SR 3.7.6.9 to ensure that adequate vent area is available to mitigate MCRE overpressurization.	Westinghouse AP1000 DCD Revision 18
9855	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS is revised by the addition of 3.7.6.11 to read: SR 3.7.6.11 This SR verifies the OPERABILITY of the MCRE boundary by testing for unfiltered air leakage past the MCRE boundary and into the MCRE. The details of the testing are specified in the Main Control Room Envelope Habitability Program. The MCRE is considered habitable when the radiological dose to MCRE occupants calculated in the licensing basis analyses of DBA consequences is no more than 5 rem TEDE and the MCRE occupants are protected from hazardous chemicals and smoke. This SR verifies that the unfiltered air leakage into the MCRE is no greater than the flow rate assumed in the licensing basis analyses of DBA consequences. When unfiltered air leakage is greater than the assumed flow rate, Condition C must be entered. Required Action C.3 allows time to restore the MCRE boundary to OPERABLE status provided mitigating actions can ensure that the MCRE remains within the licensing basis habitability limits for the occupants following an accident. Compensatory measures are discussed in Regulatory Guide 1.196, Section C.2.7.3 (Ref. 3) which endorses, with exceptions, NEI 99-03, Section 8.4 and Appendix F (Ref. 5). These compensatory measures may also be used as mitigating actions as required by Required Action C.2. Temporary analytical methods may also be used as compensatory measures to restore OPERABILITY (Ref. 6). Options for restoring the MCRE boundary to OPERABLE status include changing the licensing basis DBA consequence analysis, repairing the MCRE boundary, or a combination of these actions. Depending upon the nature of the problem and the corrective action, a full scope leakage test may not be necessary to establish that the MCRE boundary has been restored to OPERABLE status.	Westinghouse AP1000 DCD Revision 18
9856	WLS	Pt 04		B, B03.07	COLA Part 4, Section B 3.7, Specification 3.7.6, SURVEILLANCE REQUIREMENTS is revised to by the addition	Westinghouse AP1000

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				03.07.06	of 3.7.6.12 to read: SR 3.7.6.12 This SR verifies that the required VES testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VES filter tests are in accordance with Regulatory Guide 1.52 (Ref. 7). The VFTP includes testing the performance of the HEPA filter, charcoal adsorber efficiency, minimum flow rate, and physical properties of the activated charcoal. Specific test frequencies and additional information are discussed in detail in the VFTP.	DCD Revision 18
9857	WLS	Pt 04		B, B03.07 03.07.06	COLA Part 4, Section B 3.7, Specification 3.7.6, REFERENCES is revised to read: 1. Section 6.4, "Main Control Room Habitability Systems." 2. Section 9.5.1, "Fire Protection System." 3. Regulatory Guide 1.196, "Control Room Habitability at Light-Water Nuclear Power Reactors." 4. ASHRAE Standard 62-1989, "Ventilation for Acceptable Indoor Air Quality." 5. NEI 99-03, "Control Room Habitability Assessment," June 2001. 6. Letter from Eric J. Leeds (NRC) to James W. Davis (NEI) dated January 30, 2004, "NEI Draft White Paper, Use of Generic Letter 91-18 Process and Alternative Source Terms in the Context of Control Room Habitability." (ADAMS Accession No. ML040300694). 7. Regulatory Guide 1.52, "Design, Inspection, and Testing Criteria for Airfiltration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," Revision 3.	Westinghouse AP1000 DCD Revision 18
9858	WLS	Pt 04		B, B03.07 03.07.06  FB3.7.6-1 FB3.7.6-2	COLA Part 4, Section B 3.7, Specification 3.7.6, Figures B 3.7.6-1 and B 3.7.6-2 are added as reflected on DCD Revision 18.	Westinghouse AP1000 DCD Revision 18
10209	WLS	Pt 04		B, B03.07 03.07.06  FB3.7.6-2	COLA Part 4, Section B 3.7, Specification B 3.7.6, Figure B 3.7.6-2 is revised as reflected in DCD Revision 19.	Westinghouse AP1000 DCD Revision 19
10210	WLS	Pt 04		B, B03.07 03.07.08	COLA Part 4, Section B 3.7, Specification B 3.7.8, APPLICABLE SAFETY ANALYSES section, first paragraph, third sentence is revised from: This is accomplished via the instrumentation required by LCO 3.4.9, "RCS Leakage Detection Instrumentation," and the RCS water inventory balance (SR 3.4.7.1).  To Read: This is accomplished via the instrumentation required by LCO 3.4.9, "RCS Leakage Detection Instrumentation," and the Reactor Coolant System (RCS) water inventory balance (SR 3.4.7.1).	Westinghouse AP1000 DCD Revision 19
9859	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification 3.7.9 BACKGROUND is revised beginning with the second paragraph to read: Three safety-related, gravity fed sources of makeup water are provided to the spent fuel storage pool. These makeup water sources contain sufficient water to maintain spent fuel storage pool cooling for 72 hours. When the spent fuel storage pool decay heat is [greater than or equal to] 4.7 MWt and [less than or equal to] 7.2 MWt, the cask washdown pit must be available to provide makeup to the spent fuel storage pool. When the spent fuel storage pool decay heat is > 5.6 MWt and [less than or equal to] 7.2 MWt both the cask washdown pit and the cask loading pit must be available to provide makeup to the spent fuel storage pool. When the spent fuel storage pool decay heat is > 7.2 MWt and the reactor decay heat is [less than or equal to] 6.0 MWt, the PCCWST must be available to provide makeup water to the spent fuel storage pool (when the tank is no longer required for containment cooling purposes). Additional on-site makeup water sources are available to provide spent fuel storage pool cooling between 3 and 7 days.  The PCCWST is isolated by two normally closed valves. The normally closed valves will be opened only to provide emergency makeup to the spent fuel storage pool. A third downstream valve permits the operator to regulate addition of water to the spent fuel storage pool as required to maintain the cooling water inventory.	Westinghouse AP1000 DCD Revision 18

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					<p>Once decay heat in the spent fuel storage pool is reduced to below 4.6 MWt, the spent fuel storage pool water inventory is sufficient, without makeup, to maintain the spent fuel storage pool for 72 hours. When the spent fuel storage pool decay heat load is [less than or equal to] 5.6 MWt for the cask loading pit and &lt; 4.7 MWt for the cask washdown pit, the pits are no longer required to be OPERABLE for spent fuel storage pool makeup.</p> <p>A general description of the spent fuel storage pool design is given in Section 9.1.2 (Ref. 1). A description of the Spent Fuel Pool Cooling and Cleanup System is given in Section 9.1.3 (Ref. 2).</p>	
10211	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification B 3.7.9, BACKGROUND section, second paragraph, third sentence is revised from:</p> <p>When the spent fuel storage pool decay heat is [greater than or equal to] 4.7 MWt and [less than or equal to] 7.2 MWt, the cask washdown pit must be available to provide makeup to the spent fuel storage pool.</p> <p>To Read:</p> <p>When the spent fuel storage pool decay heat is &gt; 4.7 MWt and [less than or equal to] 7.2 MWt, the cask washdown pit must be available to provide makeup to the spent fuel storage pool.</p>	Westinghouse AP1000 DCD Revision 19
10212	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification B 3.7.9, BACKGROUND section, second paragraph, fifth sentence is revised to replace "PCCWST" with "Passive Containment Cooling Water Storage Tank (PCCWST)".</p>	Westinghouse AP1000 DCD Revision 19
10213	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification B 3.7.9, BACKGROUND section, fourth paragraph is revised from:</p> <p>Once decay heat in the spent fuel storage pool is reduced to below 4.6 MWt, the spent fuel storage pool water inventory is sufficient, without makeup, to maintain the spent fuel storage pool for 72 hours. When the spent fuel storage pool decay heat load is [less than or equal to] 5.6 MWt for the cask loading pit and &lt; 4.7 MWt for the cask washdown pit, the pits are no longer required to be OPERABLE for spent fuel storage pool makeup.</p> <p>To Read:</p> <p>Once decay heat in the spent fuel storage pool is reduced to at or below 4.7 MWt, the spent fuel storage pool water inventory is sufficient, without makeup, to maintain the spent fuel storage pool for 72 hours. When the spent fuel storage pool decay heat load is [less than or equal to] 5.6 MWt for the cask loading pit and [less than or equal to] 4.7 MWt for the cask washdown pit, the pits are no longer required to be OPERABLE for spent fuel storage pool makeup.</p>	Westinghouse AP1000 DCD Revision 19
9860	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification 3.7.9 APPLICABILITY SAFETY ANALYSIS is revised as follows:</p> <p>In the event the normal spent fuel storage pool cooling system is unavailable, the spent fuel cooling is provided by the heat capacity of the water in the pool. The worst case decay heat load (decay heat &gt; 7.2 MWt) is produced by an emergency full core off-load following a refueling plus ten years of spent fuel. For this case the spent fuel storage pool inventory provided by the water over the stored fuel and below the pump suction connection is capable of cooling the spent fuel storage pool without boiling for at least 2.5 hours, following a loss of normal spent fuel storage pool cooling. After boiling starts, makeup water may be required to replace water lost by boiling and is available, without offsite support, via the PCCWST. The requirements of LCO 3.6.6, "Passive Containment Cooling System – Operating," are applicable in MODES 1, 2, 3, and 4 and LCO 3.6.7, "Passive Containment Cooling System – Shutdown," are applicable in MODES 5 and 6 with reactor decay heat &gt; 6.0 MWt. LCOs 3.6.6 and 3.6.7 require availability of the containment cooling water tank for containment heat removal. Below 6.0 MWt reactor decay heat, containment air cooling is adequate.</p> <p>Since none of the Chapter 15 Design Basis Accident analyses assume availability of the PCCWST cask washdown pit, or the cask loading pit for spent fuel storage pool makeup, the spent fuel storage pool makeup water sources specification does not satisfy any of the 10 CFR 50.36(c)(2)(ii) criteria. This LCO is included in accordance with NRC guidance provided in an NRC letter (Reference 3)</p>	Westinghouse AP1000 DCD Revision 18
10214	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification B 3.7.9, APPLICABLE SAFETY ANALYSES section, second paragraph, third sentence is revised from:</p> <p>Below 6.0 MWt reactor decay heat, containment air cooling is adequate.</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
10215	WLS	Pt 04		B, B03.07 03.07.09	<p>To Read: At or below 6.0 MWt reactor decay heat, containment air cooling is adequate.</p> <p>COLA Part 4, Section B 3.7, Specification B 3.7.9, APPLICABLE SAFETY ANALYSES section, third paragraph is revised from: Since none of the Chapter 15 Design Basis Accident analyses assume availability of the PCCWST cask washdown pit; or the cask loading pit for spent fuel storage pool makeup, the spent fuel storage pool makeup water sources specification does not satisfy any of the 10 CFR 50.36(c)(2)(ii) criteria. This LCO is included in accordance with NRC guidance provided in an NRC letter (Reference 3).</p> <p>To Read: Since none of the Chapter 15 Design Basis Accident analyses assume availability of the PCCWST, the cask washdown pit, or the cask loading pit for spent fuel storage pool makeup, the spent fuel storage pool makeup water sources specification does not satisfy any of the 10 CFR 50.36(c)(2)(ii) criteria. This LCO is included in accordance with NRC guidance provided in an NRC letter (Reference 3).</p>	Westinghouse AP1000 DCD Revision 19
9861	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification 3.7.9 LCO is revised as follows: The spent fuel storage pool makeup water sources are required to contain the following amount of water to be considered OPERABLE: Cask washdown pit water level must be [greater than or equal to] 13.75 ft. Cask loading pit water level must be [greater than or equal to] 43.9 ft. PCCWST is required to contain 400,000 gallons of water. An OPERABLE flow path from the required makeup source assures spent fuel cooling for at least 72 hours. Several additional makeup sources are available, including the ground level PCCAWST. These makeup sources assure spent fuel cooling for at least 7 days.</p> <p>Note 1 specifies that the cask washdown pit is required to be OPERABLE when the spent fuel storage pool decay heat is [greater than or equal to] 4.7 MWt and [less than or equal to] 7.2 MWt.</p> <p>Note 2 specifies that the cask loading pit is required to be OPERABLE when the spent fuel storage pool decay heat is &gt; 5.6 MWt and [less than or equal to] 7.2 MWt.</p> <p>Note 3 specifies that the PCCWST is required to be OPERABLE when the spent fuel storage pool decay heat is &gt; 7.2 MWt, which is normal following a full core off load. The larger makeup source is necessary for the higher decay heat load. In MODE 5 and 6, with the calculated reactor decay heat &gt; 6.0 MWt, the PCCWST is reserved for containment cooling in accordance with LCO 3.6.7, Passive Containment Cooling System (PCS) – Shutdown. Thus, fuel movement from the reactor to the spent fuel storage pool must be suspended until reactor decay heat is [less than or equal to] 6.0 MWt if the fuel movement will increase the spent fuel storage pool decay heat to &gt; 7.2 MWt.</p> <p>When a portion of the fuel is returned to the reactor vessel in preparation for startup, the pool decay heat is reduced to [less than or equal to] 5.6 MWt and makeup from the cask washdown pit is sufficient.</p>	Westinghouse AP1000 DCD Revision 18
10216	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification B 3.7.9, LCO section, third bullet is revised from: - PCCWST is required to contain 400,000 gallons of water.</p> <p>To Read: - PCCWST is required to contain 756,700 gallons of water.</p>	Westinghouse AP1000 DCD Revision 19
10217	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification B 3.7.9, LCO section, third paragraph is revised from: Note 1 specifies that the cask washdown pit is required to be OPERABLE when the spent fuel storage pool decay heat is [greater than or equal to] 4.7 MWt and [less than or equal to] 7.2 MWt.</p> <p>To Read: Note 1 specifies that the cask washdown pit is required to be OPERABLE when the spent fuel storage pool</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					decay heat is > 4.7 MWt and [less than or equal to] 7.2 MWt.	
9862	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification 3.7.9 APPLICABILITY is revised as follows: This LCO applies during storage of fuel in the spent fuel storage pool with a calculated decay heat [greater than or equal to] 4.7 MWt. With decay heat < 4.7 MWt, the assumed spent fuel storage pool water inventory (i.e., level below the pump suction connection to the pool) provides for 3 days of cooling without makeup.	Westinghouse AP1000 DCD Revision 18
10218	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification B 3.7.9, APPLICABILITY section, second sentence is revised from: With decay heat < 4.7 MWt...  To Read: With decay heat [less than or equal to] 4.7 MWt...	Westinghouse AP1000 DCD Revision 19
9863	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification 3.7.9 ACTIONS, A.1, first paragraph is revised as follows: If the cask washdown pit (with spent fuel storage pool decay heat [greater than or equal to] 4.7 and [less than or equal to] 7.2 MWt), the cask loading pit (with spent fuel storage pool decay heat > 5.6 MWt and [less than or equal to] 7.2 MWt) or the PCCWST (with spent fuel storage pool decay heat > 7.2 MWt) is inoperable, Action must be initiated immediately to restore the makeup source or its associated flow path to OPERABLE status.	Westinghouse AP1000 DCD Revision 18
10219	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification B 3.7.9, ACTIONS section, A.1, first sentence is revised from: If the cask washdown pit (with spent fuel storage pool decay heat [greater than or equal to] 4.7...  To Read: If the cask washdown pit (with spent fuel storage pool decay heat > 4.7...	Westinghouse AP1000 DCD Revision 19
9864	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification 3.7.9 SURVEILLANCE REQUIREMENTS, SR 3.7.9.1 is revised to read: This SR verifies that the three flow paths from the PCCWST to the containment vessel are isolated and secured to prevent inadvertent opening and loss of required tank volume. The verification is required to be performed prior to declaring the PCCWST OPERABLE for spent fuel storage pool usage.  The 7 day Frequency is appropriate because the valves in the passive containment cooling system are controlled by plant procedures.	Westinghouse AP1000 DCD Revision 18
9865	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification 3.7.9 SURVEILLANCE REQUIREMENTS, SR 3.7.9.2 is revised to move to SR 3.7.9.3 and replace it with the following: SR 3.7.9.2 This SR verifies sufficient PCCWST volume is available in the event of a loss of spent fuel cooling prior to declaring the tank OPERABLE for spent fuel storage pool usage. The second paragraph is revised to read: The 7 day Frequency is appropriate because the volume in the PCCWST is normally stable and water level changes are controlled by plant procedures.	Westinghouse AP1000 DCD Revision 18
9866	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification 3.7.9 SURVEILLANCE REQUIREMENTS, SR 3.7.9.3 is revised to move it to new SR 3.7.9.5 and replace it with the former SR 3.7.9.2 to read: SR 3.7.9.3 This SR verifies sufficient cask washdown pit water volume is available in the event of a loss of spent fuel cooling. The 13.75 ft level specified provides makeup water for stored fuel with decay heat [greater than or equal to] 4.7 and [less than or equal to] 7.2 MWt. The cask washdown pit is no longer required when the PCCWST is OPERABLE for spent fuel storage pool usage.  The 31 day Frequency is appropriate because the cask washdown pit has only one drain line which is isolated by series manual valves which are only operated in accordance with plant procedures, thus providing assurance that inadvertent level reduction is not likely.	Westinghouse AP1000 DCD Revision 18
10220	WLS	Pt 04		B, B03.07 03.07.09	COLA Part 4, Section B 3.7, Specification B 3.7.9, SURVEILLANCE REQUIREMENTS section, SR 3.7.9.3, first paragraph, second sentence is revised from:	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9867	WLS	Pt 04		B, B03.07 03.07.09	<p>The 13.75 ft level specified provides makeup water for stored fuel with decay heat [greater than or equal to] 4.7 and [less than or equal to] 7.2 MWt.</p> <p>To Read: The 13.75 ft level specified provides makeup water for stored fuel with decay heat &gt; 4.7 and [less than or equal to] 7.2 MWt.</p> <p>COLA Part 4, Section B 3.7, Specification 3.7.9 SURVEILLANCE REQUIREMENTS, SR 3.7.9.4 is added (from the former SR 3.7.9.2) to read: SR 3.7.9.4 This SR verifies sufficient cask loading pit water volume is available in the event of a loss of spent fuel cooling. The 43.9 foot level specified provides makeup water for stored fuel with decay heat &gt; 5.6 and [less than or equal to] 7.2 MWt. The cask loading pit is no longer required when the PCCWST is OPERABLE for spent fuel storage pool usage. The 31 day Frequency is appropriate because the cask loading pit has only one drain line, which is isolated by series manual valves, which are operated only in accordance with plant procedures. This provides assurance that inadvertent level reduction is not likely.</p>	Westinghouse AP1000 DCD Revision 18
10221	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification B 3.7.9, SURVEILLANCE REQUIREMENTS section, SR 3.7.9.4, first paragraph, first sentence is revised from: This SR verifies sufficient cask loading pit water volume is available in the event of a loss of spent fuel cooling.</p> <p>To Read: This SR verifies sufficient cask loading pit water volume is available and connected to the spent fuel pool such that no action is required in the fuel handling area, in the event of a loss of spent fuel cooling.</p>	Westinghouse AP1000 DCD Revision 19
9868	WLS	Pt 04		B, B03.07 03.07.09	<p>COLA Part 4, Section B 3.7, Specification 3.7.9 SURVEILLANCE REQUIREMENTS, SR 3.7.9.5 is added (from the former SR 3.7.9.3) to read: SR 3.7.9.5 This SR requires verification of the OPERABILITY of the manual makeup water source isolation valves in accordance with the requirements and Frequency specified in the Inservice Testing Program. Manual valves PCS-PL-V009, PCS-PL-V045, PCS-PL-V051, isolate the makeup flow path from the PCCWST. Manual valves SFS-PL-V042, SFS-PL-V045, SFS-PL-V049, SFS-PL-V066, and SFS-PL-V068 isolate the makeup flow path from the cask washdown pit.</p>	Westinghouse AP1000 DCD Revision 18
10222	WLS	Pt 04		B, B03.07 03.07.10	<p>COLA Part 4, Section B 3.7, Specification B 3.7.10, BACKGROUND section, third paragraph, second sentence is revised from: The blowdown valves receive a PMS isolation signal on low SG level and on PRHR actuation.</p> <p>To Read: The blowdown valves receive a PMS isolation signal on low SG level and on Passive Residual Heat Removal (PRHR) actuation.</p>	Westinghouse AP1000 DCD Revision 19
9869	WLS	Pt 04		B, B03.07 03.07.10	COLA Part 4, Section B 3.7, Specification 3.7.10 ACTIONS, C.1 is revised to replace 'Reference 6' with 'Reference 3'.	Westinghouse AP1000 DCD Revision 18
10223	WLS	Pt 04		B, B03.07 03.07.11	<p>COLA Part 4, Section B 3.7, Specification B 3.7.11, BACKGROUND section, first paragraph, second sentence is revised from: ...fuel assembly array will be less than 0.995, including uncertainties and tolerances.</p> <p>To Read: ...fuel assembly array will be less than 0.997, including uncertainties and tolerances.</p>	Westinghouse AP1000 DCD Revision 19
9870	WLS	Pt 04		B, B03.07 03.07.11	<p>COLA Part 4, Section B 3.7, Specification 3.7.11 BACKGROUND, fourth sentence is revised from: Hence, the design is based on the use of unborated water, which maintains a subcritical condition for the allowed loading patterns (Ref. 1).</p> <p>To read:</p>	Westinghouse AP1000 DCD Revision 18



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					Therefore, the design is based on the use of unborated water, which maintains a subcritical condition (Ref. 1).	
9871	WLS	Pt 04		B, B03.07 03.07.11	COLA Part 4, Section B 3.7, Specification 3.7.11 APPLICABLE SAFETY ANALYSIS is revised to read: Although credit for the soluble boron normally present in the spent fuel pool water is permitted under abnormal or accident conditions, most abnormal or accident conditions will not result in exceeding the limiting reactivity even in the absence of soluble boron. The effects on reactivity of credible abnormal and accident conditions due to temperature increase, assembly dropped on top of a rack, and misplacement/misloading of a fuel assembly have been analyzed. The reactivity effects of bulk spent fuel pool temperature increase (>140°F) and steaming from the pool water surface or intramodule water gap reductions between the firmly interconnected cell and module arrays due to a seismic event are bounded by the fuel mishandling/misloading reactivity increases and therefore assessed as negligible. The spent fuel pool keff storage limit of 0.95 is maintained during these events by a minimum boron concentration of greater than or equal to 800 ppm established by criticality analysis (Ref. 3). Compliance with the LCO minimum boron concentration limit of 2300 ppm ensures that the credited concentration is always available. The concentration of dissolved boron in the fuel storage pool satisfies Criterion 2 of 10 CFR 50.36(c)(2)(ii).	Westinghouse AP1000 DCD Revision 18
9872	WLS	Pt 04		B, B03.07 03.07.11	COLA Part 4, Section B 3.7, Specification 3.7.11 ACTIONS second paragraph, first sentence is revised from: LCO 3.0.8 is applicable while in MODE 5 or 6. Since spent fuel pool cooling requirements in all MODES when fuel is stored in the spent fuel storage pool, the ACTIONS have been modified by a Note stating that LCO 3.0.8 is not applicable. To read: LCO 3.0.8 is applicable while in MODE 5 or 6. Since spent fuel pool cooling requirements apply in all MODES when fuel is stored in the spent fuel storage pool, the ACTIONS have been modified by a Note stating that LCO 3.0.8 is not applicable.	Westinghouse AP1000 DCD Revision 18
9873	WLS	Pt 04		B, B03.07 03.07.11	COLA Part 4, Section B 3.7, Specification 3.7.11 REFERENCES 1 and 3 as follows: Reference 1 is revised from: 1. AP1000 Design Control Document, Rev. 15, Sections 9.1.2, "Spent Fuel Storage" and 15.7.4, "Fuel Handling Accident." To read: 1. Sections 9.1.2, "Spent Fuel Storage" and 15.7.4, "Fuel Handling Accident." Reference 3 is revised from: 3. APP-GW-GLR-029, "AP1000 Spent Fuel Storage Racks Critically Analysis," June 2006. To read: 3. APP-GW-GLR-029, Revision 1, "AP1000 Spent Fuel Storage Racks Criticality Analysis," Westinghouse Electric Company LLC.	Westinghouse AP1000 DCD Revision 18
10224	WLS	Pt 04		B, B03.07 03.07.11	COLA Part 4, Section B 3.7, Specification B 3.7.11, REFERENCES section, Reference 3 is revised from: 3. APP-GW-GLR-029, Revision 1, "AP1000 Spent Fuel Storage Racks Criticality Analysis," Westinghouse Electric Company LLC.  To Read: 3. APP-GW-GLR-029P, "AP1000 Spent Fuel Storage Racks Criticality Analysis," Westinghouse Electric Company LLC (Westinghouse Proprietary).	Westinghouse AP1000 DCD Revision 19
9874	WLS	Pt 04		B, B03.07 03.07.12	COLA Part 4, Section B 3.7, Specification 3.7.12 BACKGROUND is revised to read: The high density spent fuel storage racks are divided into two separate and distinct regions and include locations for storage of defective fuel as shown in Figure 4.3-1. Region 1, with a maximum of 243 storage locations and the Defective Fuel Cells, with 5 storage locations are designed to accommodate new fuel assemblies with a maximum enrichment of 4.95 weight percent U-235, or spent fuel assemblies regardless of the combination of initial enrichment and burnup. Region 2, with a maximum of 641 storage locations is designed to accommodate spent fuel assemblies in all locations which comply with the combination of initial enrichment and burnup specified in LCO Figure 3.7.12-1, Minimum Fuel Assembly Burnup Requirements for Region 2 Spent Fuel Cells. Use of the IFE fuel rod storage canister is subject to the same storage	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>requirements as the fuel assemblies.</p> <p>The water in the spent fuel storage pool normally contains soluble boron, which would result in large subcriticality margins under actual operating conditions. For storage of fuel in the spent fuel racks, the design basis for preventing criticality outside the reactor is that there is a 95 percent probability at a 95 percent confidence level, without soluble boron, that the effective multiplication fraction (keff) of the fuel assembly array will be less than 0.995, including uncertainties and tolerances. The NRC guidelines specify a limiting keff of 1.0 for normal storage in the absence of soluble boron. Hence, the design is based on the use of unborated water, which maintains a subcritical condition for the allowed loading patterns.</p> <p>The double contingency principle discussed in ANSI N-16.1-1975 and the April 1978 NRC letter (Ref. 1) allows credit for soluble boron under other abnormal and accident conditions, since only a single independent accident need be considered at one time. For example, the only accident scenario that has the potential for more than negligible positive reactivity effect is an inadvertent misplacement of a new fuel assembly. This accident has the potential for exceeding the limiting reactivity, should there be a concurrent and independent accident condition resulting in the loss of all soluble poison. To mitigate these postulated criticality related accidents, boron is dissolved in the pool water. Safe operation with unborated water and no movement of assemblies may, therefore, be achieved by controlling the combination of initial enrichment and burnup in accordance with the accompanying LCO. Prior to movement of an assembly, it is necessary to perform SR 3.7.12.1.</p>	
10225	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification B 3.7.12, BACKGROUND section, first paragraph, third sentence is revised from:</p> <p>...Minimum Fuel Assembly Burnup Requirements for Region 2 Spent Fuel Cells.</p> <p>To Read:</p> <p>...Minimum Fuel Assembly Burnup Versus Initial Enrichment for Region 2 Spent Fuel Cells.</p>	Westinghouse AP1000 DCD Revision 19
10226	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification B 3.7.12, BACKGROUND section, second paragraph, second sentence is revised from:</p> <p>...that the effective multiplication fraction (keff) of the fuel assembly array will be less than 0.995, including uncertainties and tolerances.</p> <p>To Read:</p> <p>...that the effective multiplication fraction (keff) of the fuel assembly array will be less than 0.997, including uncertainties and tolerances.</p>	Westinghouse AP1000 DCD Revision 19
10227	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification B 3.7.12, APPLICABLE SAFETY ANALYSES section, first paragraph, second sentence is revised from:</p> <p>...(controlled by LCO 3.7.15, "Fuel Storage Pool Boron Concentration")...</p> <p>To Read:</p> <p>...(controlled by LCO 3.7.11, "Fuel Storage Pool Boron Concentration")...</p>	Westinghouse AP1000 DCD Revision 19
9875	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification 3.7.12 LCO is revised to read:</p> <p>The restrictions on the placement of fuel assemblies within Region 2 of the spent fuel pool in the accompanying LCO, ensure the keff of the spent fuel storage pool will always remain &lt; 0.995, assuming the pool to be flooded with unborated water and &lt; 0.95, with a boron concentration of greater than or equal to 800 ppm.</p> <p>Region 2 permits storage of spent fuel assemblies in any cell location provided the assembly meets the combination of initial enrichment and burnup shown in LCO Figure 3.7.12-1, Fuel Assembly Burnup Requirements for Region 2 Spent Fuel Cells.</p>	Westinghouse AP1000 DCD Revision 18
10228	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification B 3.7.12, LCO section is revised from:</p> <p>The restrictions on the placement of fuel assemblies within Region 2 of the spent fuel pool in the accompanying LCO, ensure the keff of the spent fuel storage pool will always remain &lt; 0.995, assuming the pool to be flooded with unborated water and &lt; 0.95, with a boron concentration of greater than or equal to 800 ppm.</p> <p>Region 2 permits storage of spent fuel assemblies in any cell location provided the assembly meets the</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>combination of initial enrichment and burnup shown in LCO Figure 3.7.12-1, Fuel Assembly Burnup Requirements for Region 2 Spent Fuel Cells.</p> <p>To Read: The restrictions on the placement of fuel assemblies within Region 2 of the spent fuel pool in the accompanying LCO, ensure the keff of the spent fuel storage pool will always remain &lt; 0.997, assuming the pool to be flooded with unborated water and [less than or equal to] 0.95, with a boron concentration of greater than or equal to 800 ppm. Region 2 permits storage of spent fuel assemblies in any cell location provided the assembly meets the combination of initial enrichment and burnup shown in LCO Figure 3.7.12-1, Minimum Fuel Assembly Burnup Versus Initial Enrichment for Region 2 Spent Fuel Cells.</p>	
9876	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification 3.7.12 ACTIONS, first paragraph, first sentence is revised from: LCO 3.0.3 is applicable while in MODE 1, 2, 3, or 4. Since spent fuel pool storage requirements apply in all MODES when fuel is stored in Region 2 or 3, the ACTIONS have been modified by a Note stating the LCO 3.0.3 is not applicable.</p> <p>To read: LCO 3.0.3 is applicable while in MODE 1, 2, 3, or 4. Since spent fuel pool storage requirements apply in all MODES when fuel is stored in Region 2, the ACTIONS have been modified by a Note stating the LCO 3.0.3 is not applicable.</p>	Westinghouse AP1000 DCD Revision 18
9877	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification 3.7.12 ACTIONS, second paragraph, second sentence is revised from: Since spent fuel pool storage requirements apply in all MODES when fuel is stored in Region 2 or 3, the ACTIONS have been modified by a Note stating the LCO 3.0.8 is not applicable.</p> <p>To read: Since spent fuel pool storage requirements apply in all MODES when fuel is stored in Region 2, the ACTIONS have been modified by a Note stating the LCO 3.0.8 is not applicable.</p>	Westinghouse AP1000 DCD Revision 18
9878	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification 3.7.12 ACTIONS, A.1 second paragraph, second sentence is revised from: The LCO is not met if spent fuel assemblies stored in Region 2 spent fuel assembly storage locations do not meet the applicable initial enrichment and burnup limits in accordance with Figure 3.7.12-1. When the LCO is not met, action must be initiated immediately to make the necessary fuel assembly movement(s) in Region 2 to bring the storage configuration into compliance with Figure 3.7.12-1 by moving the affected fuel assemblies to Region 1 or the Defective Fuel Cells.</p>	Westinghouse AP1000 DCD Revision 18
9879	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7; Specification 3.7.12 SURVEILLANCE REQUIREMENTS SR 3.7.12.1 is revised to read: This SR verifies by administrative means that the initial enrichment and burnup of the fuel assembly is in accordance with Figure 3.7.12-1. Fuel assemblies stored in Region 2 that do not meet the Figure 3.7.12-1 enrichment and burnup limits shall be stored in Region 1 or Defective Fuel Cells.</p>	Westinghouse AP1000 DCD Revision 18
9880	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification 3.7.12 REFERENCES 2 and 3 are revised to read: 2. APP-GW-GLR-029, Revision 1, "AP1000 Spent Fuel Storage Racks Criticality Analysis," Westinghouse Electric Company LLC. 3. Sections 9.1.2, "Spent Fuel Storage" and 15.7.4, "Fuel Handling Accident."</p>	Westinghouse AP1000 DCD Revision 18
10229	WLS	Pt 04		B, B03.07 03.07.12	<p>COLA Part 4, Section B 3.7, Specification B 3.7.12, REFERENCES section, Reference 2 is revised from: 2. APP-GW-GLR-029, Revision 1, "AP1000 Spent Fuel Storage Racks Criticality Analysis," Westinghouse Electric Company LLC.</p> <p>To Read: 2. APP-GW-GLR-029P, "AP1000 Spent Fuel Storage Racks Criticality Analysis," Westinghouse Electric</p>	Westinghouse AP1000 DCD Revision 19

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					Company LLC (Westinghouse Proprietary).	
9881	WLS	Pt 04		B, B03.08 03.08.05	COLA Part 4, Section B 3.8, Specification 3.8.5 ACTIONS D.1 is revised following 'c' at the callout of Regulatory Guide 1.93 to change the Reference to '(Ref 4)'.	Westinghouse AP1000 DCD Revision 18
9882	WLS	Pt 04		B, B03.08 03.08.05	COLA Part 4, Section B 3.8, Specification 3.8.5 REFERENCES is revised to add new Reference 4 as follows: 4. Regulatory Guide 1.93, "Availability of Electric Power Sources," U.S. Nuclear Regulatory Commission, December 1974.	Westinghouse AP1000 DCD Revision 18
10230	WLS	Pt 04		B, B03.08 03.08.07	COLA Part 4, Section B 3.8, Specification B 3.8.7, SURVEILLANCE REQUIREMENTS section, SR 3.8.7.2 and SR 3.8.7.5 is revised to replace two instances of "Vpc" with "Volts per cell".	Westinghouse AP1000 DCD Revision 19
9883	WLS	Pt 04		B, B03.09 03.09.01	COLA Part 4, Section B 3.9, Specification 3.9.1 BACKGROUND is revised to add the following new third paragraph: GDC 26 of 10 CFR 50, Appendix A requires that two independent reactivity control systems of different design principles be provided (Ref. 3). One of these systems, the Passive Core Cooling System (PXS), is capable of holding the core subcritical under safe shutdown conditions as described in Section 7.4.	Westinghouse AP1000 DCD Revision 18
9884	WLS	Pt 04		B, B03.09 03.09.01	COLA Part 4, Section B 3.9, Specification 3.9.1 REFERENCES is revised to add the following new Reference: 3. 10 CFR 50, Appendix A, GDC 26.	Westinghouse AP1000 DCD Revision 18
10231	WLS	Pt 04		B, B03.09 03.09.06	COLA Part 4, Section B 3.9, Specification B 3.9.6 header is revised from: Containment Air Filtration System (VFS) B 3.9.6  To Read: VFS B 3.9.6	Westinghouse AP1000 DCD Revision 19
<b>Pt 07</b>						<b>4 COLA Changes</b>
9907	WLS,STD	Pt 07		B / EXM	COLA Part 7, Section B Exemptions is revised to separate 'Discussion and justifications' to new and separate pages for each exemption request. The first exemption is revised to add the title.	Editorial
9964	WLS	Pt 07		B / EXM 1	COLA Part 7, Departures, Exemptions, and Variances, Part B is revised to delete Exemption Request 1 and the associated discussion/justification and re-number the remaining Exemption Requests and their associated discussions/justifications. The following Exemption Request and associated discussion/justification are deleted:  1) Not used	Editorial
9574	WLS,STD	Pt 07		B / EXM 1	COLA Part 7, Departures, Exemptions, and Variances, Part B is revised to add the following exemption request:  1) Special Nuclear Material (SNM) Material Control and Accounting Program Description	Duke Energy Concurrence with Standard Content WLG2010.11-01 VEGP-RAI-LTR-064 response to RAI 01.05- 003 item 4 SNC Ltr ND- 10-2257
9575	WLS,STD	Pt 07		B / EXM 2	COLA Part 7, Departures, Exemptions, and Variances, Part B is revised to add the following discussion and justification for Exemption 2:  2) Special Nuclear Material (SNM) Material Control and Accounting (MC&A)  Program Description [Part 70, Subpart D and Part 74, Subparts C, D, and E]	Duke Energy Concurrence with Standard Content WLG2010.11-01 VEGP-RAI-LTR-064 response to RAI 01.05- 003 item 5 SNC Ltr ND-

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>Applicable Regulation(s): 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51</p> <p>Specific wording from which exemption is requested:</p> <p>10 CFR 70.22(b), Contents of applications:</p> <p>(b) Each application for a license to possess special nuclear material, to possess equipment capable of enriching uranium, to operate an uranium enrichment facility, to possess and use at any one time and location special nuclear material in a quantity exceeding one effective kilogram, except for applications for use as sealed sources and for those uses involved in the operation of a nuclear reactor licensed pursuant to part 50 of this chapter and those involved in a waste disposal operation, must contain a full description of the applicant's program for control and accounting of such special nuclear material or enrichment equipment that will be in the applicant's possession under license to show how compliance with the requirements of §§ 74.31, 74.33, 74.41, or 74.51 of this chapter, as applicable, will be accomplished.</p> <p>10 CFR 70.32, Conditions of licenses:</p> <p>(c) (1) Each license authorizing the possession and use at any one time and location of uranium source material at an uranium enrichment facility or special nuclear material in a quantity exceeding one effective kilogram, except for use as sealed sources and those uses involved in the operation of a nuclear reactor licensed pursuant to part 50 of this chapter and those involved in a waste disposal operation, shall contain and be subject to a condition requiring the licensee to maintain and follow:</p> <p>(i) The program for control and accounting of uranium source material at an uranium enrichment facility and special nuclear material at all applicable facilities as implemented pursuant to § 70.22(b), or §§ 74.31(b), 74.33(b), 74.41(b), or 74.51(c) of this chapter, as appropriate;</p> <p>(ii) The measurement control program for uranium source material at an uranium enrichment facility and for special nuclear material at all applicable facilities as implemented pursuant to §§ 74.31(b), 74.33(b), 74.45(c), or 74.59(e) of this chapter, as appropriate; and</p> <p>(iii) Other material control procedures as the Commission determines to be essential for the safeguarding of uranium source material at an uranium enrichment facility or of special nuclear material and providing that the licensee shall make no change that would decrease the effectiveness of the material control and accounting program implemented pursuant to § 70.22(b), or §§ 74.31(b), 74.33(b), 74.41(b), or 74.51(c) of this chapter, and the measurement control program implemented pursuant to §§ 74.31(b), 74.33(b), 74.41(b), or 74.59(e) of this chapter without the prior approval of the Commission. A licensee desiring to make changes that would decrease the effectiveness of its material control and accounting program or its measurement control program shall submit an application for amendment to its license pursuant to § 70.34.</p> <p>10 CFR 74.31, Nuclear material control and accounting for special nuclear material of low strategic significance:</p> <p>(a) General performance objectives. Each licensee who is authorized to possess and use more than one effective kilogram of special nuclear material of low strategic significance, excluding sealed sources, at any site or contiguous sites subject to control by the licensee, other than a production or utilization facility licensed pursuant to part 50 or 70 of this chapter, or operations involved in waste disposal, shall implement and maintain a Commission approved material control and accounting system that will achieve the following objectives:</p> <p>10 CFR 74.41, Nuclear material control and accounting for special nuclear material of moderate strategic significance:</p> <p>(a) General performance objectives. Each licensee who is authorized to possess special nuclear material</p>	10-2257

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>(SNM) of moderate strategic significance or SNM in a quantity exceeding one effective kilogram of strategic special nuclear material in irradiated fuel reprocessing operations other than as sealed sources and to use this material at any site other than a nuclear reactor licensed pursuant to part 50 of this chapter; or as reactor irradiated fuels involved in research, development, and evaluation programs in facilities other than irradiated fuel reprocessing plants; or an operation involved with waste disposal, shall establish, implement, and maintain a Commission-approved material control and accounting (MC&amp;A) system that will achieve the following performance objectives:</p> <p>10 CFR 74.51, Nuclear material control and accounting for strategic special nuclear material:</p> <p>(a) General performance objectives. Each licensee who is authorized to possess five or more formula kilograms of strategic special nuclear material (SSNM) and to use such material at any site, other than a nuclear reactor licensed pursuant to part 50 of this chapter, an irradiated fuel reprocessing plant, an operation involved with waste disposal, or an independent spent fuel storage facility licensed pursuant to part 72 of this chapter shall establish, implement, and maintain a Commission-approved material control and accounting (MC&amp;A) system that will achieve the following objectives:</p> <p>Discussion:</p> <p>Duke Energy Carolinas, LLC (Duke) requests an exemption from the requirements of 10 CFR § 70.22(b) and, in turn, §§ 70.32(c), 74.31, 74.41, and 74.51[footnote 1]. Section 70.22(b) requires an application for a license for special nuclear material to contain a full description of the applicants program for material control and accounting (MC&amp;A) of special nuclear material under §§ 74.31, 74.33, 74.41, and 74.51. Section 70.32 (c) requires a license authorizing the use of special nuclear material to contain and be subject to a condition requiring the licensee to maintain and follow a special nuclear material control and accounting program, measurement control program, and other material control procedures, including the corresponding records management requirements. However, §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 contain exceptions for nuclear reactors licensed under 10 CFR Part 50. The regulations applicable to the MC&amp;A of special nuclear material for nuclear reactors licensed under 10 CFR Part 50 are provided in 10 CFR Part 74, Subpart B, §§ 74.11 through 74.19, excluding § 74.17. The purpose of this exemption request is to seek a similar exception for this combined license (COL) under 10 CFR Part 52, such that the same regulations will be applied to the special nuclear material MC&amp;A program as nuclear reactors licensed under 10 CFR Part 50.</p> <p>Nuclear reactors licensed under Part 50 are explicitly excepted from the requirements of §§ 70.22(b), 70.32 (c), 74.31, 74.41, and 74.51. There is no technical or regulatory reason to treat nuclear reactors licensed under Part 52 differently than reactors licensed under Part 50 with respect to the MC&amp;A provisions in 10 CFR Part 74. As indicated in the Statement of Considerations for 10 CFR § 52.0(b) (72 Fed. Reg. 49352, 49372, 49436 (Aug. 28, 2007)), applicants and licensees under Part 52 are subject to all of the applicable requirements in 10 CFR Chapter I, whether or not those provisions explicitly mention a COL under Part 52.</p> <p>This regulation clearly indicates that plants licensed under Part 52 are to be treated no differently than plants licensed under Part 50 with respect to the substantive provisions in 10 CFR Chapter I (which includes Parts 70 and 74). In particular, the exception for nuclear reactors licensed under Part 50, as contained in §§ 70.22(b), 70.32(c), 74.31, 74.41, or 74.51, should also be applied to reactors licensed under Part 52.</p> <p>An exemption from the requirements of §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not mean that a MC&amp;A program would be unnecessary or that the COL application would be silent regarding MC&amp;A. To the contrary, the MC&amp;A requirements in Subpart B to Part 74 would still be applicable to the COL just as they are to licenses issued under Part 50. Additionally, the COL application will describe the MC&amp;A program for satisfying Subpart B to Part 74.</p> <p>This exemption request is evaluated under 10 CFR § 52.7, which incorporates the requirements of § 50.12. That section allows the Commission to grant an exemption if 1) the exemption is authorized by law, 2) will not present an undue risk to the public health and safety, 3) is consistent with the common defense and security, and 4) special circumstances are present as specified in 10 CFR § 50.12(a)(2). The criteria in §</p>	

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>50.12 encompass the criteria for an exemption in 10 CFR §§ 70.17(a) and 74.7; the specific exemption requirements for Parts 70 and 74, respectively. Therefore, by demonstrating that the exemption criteria in § 50.12 are satisfied, this request also demonstrates that the exemption criteria in §§ 52.7, 70.17(a) and 74.7 are satisfied.</p> <p>Evaluation Against Exemption Criteria</p> <p>1) This exemption is not inconsistent with the Atomic Energy Act or any other statute and is therefore authorized by law.</p> <p>2) An exemption from the requirements of 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not present an undue risk to public health and safety. The exemption would treat the COL applicant similarly to Part 50 license applicants, who are excepted from the regulations in question. Furthermore, the COL application will contain a description of the applicants MC&amp;A program under Subpart B to Part 74. Therefore, the exemption from 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not present an undue risk to public health and safety.</p> <p>3) An exemption from the requirements of 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 would not be inconsistent with the common defense and security. The exemption would treat the COL applicant similarly to Part 50 license applicants, who are excepted from the regulations in question. Furthermore, the COL application will contain a description of the applicants MC&amp;A program under Subpart B to Part 74.</p> <p>Therefore, the exemption from §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 is consistent with the common defense and security.</p> <p>4) The exemption request involves special circumstances under 10 CFR § 50.12(a)(2)(ii).</p> <p>That subsection defines special circumstances as when "[a]pplication of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule." Since the Commission determined that the requirements in 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51 are unnecessary for Part 50 applicants, those requirements are also unnecessary for Part 52 applicants.</p> <p>As demonstrated above, the exemption complies with the requirements of 10 CFR §§ 50.12, 52.7, 70.17, and 74.7. For these reasons, approval of the requested exemption is requested from the regulations of 10 CFR §§ 70.22(b), 70.32(c), 74.31, 74.41, and 74.51, as described herein.</p> <p>1 While not containing an explicit exception for Part 50 reactors, § 74.33 applies only to uranium enrichment facilities and thus is not directly implicated in this exemption request.</p>	
<b>Pt 09</b>						<b>13 COLA Changes</b>
9700	WLS	Pt 09		- Index	COLA Part 9, Withheld Information Index is revised at Section 11B to remove "[Future]" to read:  11B - LOLA Loss of Large Areas of the Plant Due to Explosions and Fire - Mitigative Strategies Descriptions and Plans	Editorial
9628	WLS	Pt 09		09-02-01.02F / F1.2-201	Revise COLA Part 9, FSAR Chapter 1, Section 1.2, Figure 1.2-201 is revised in accordance with DCD Figure 1.2-18.	Westinghouse AP1000 DCD Revision 18
9629	WLS	Pt 09		09-02-09AF / F9A-201	Revise COLA Part 9, FSAR Chapter 9, Appendix 9A, Figure 9A-201 is revised in accordance with updated DCD Figure 9A-3.	Westinghouse AP1000 DCD Revision 18
9630	WLS	Pt 09		09-02-12.03F / F12.3-201	Revise COLA Part 9, FSAR Chapter 12, Section 12.3, Figure 12.3-201 is revised in accordance with DCD Figure 12.3-1, Sheet 11 of 16.	Westinghouse AP1000 DCD Revision 18

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
9631	WLS	Pt 09		09-02-12.03F / F12.3-202	Revise COLA Part 9, FSAR Chapter 12, Section 12.3, Figure 12.3-202 is revised in accordance with DCD Figure 12.3-2, Sheet 11 of 15.	Westinghouse AP1000 DCD Revision 18
10271	WLS	Pt 09		09-02-12.03F / F12.3-202	Revise COLA Part 9, FSAR Chapter 12, Section 12.3, Figure 12.3-202 is revised in accordance with DCD Figure 12.3-2, Sheet 11 of 15.	Westinghouse AP1000 DCD Revision 19
9632	WLS	Pt 09		09-02-12.03F / F12.3-203	Revise COLA Part 9, FSAR Chapter 12, Section 12.3, Figure 12.3-203 is revised in accordance with DCD Figure 12.3-3, Sheet 11 of 16.	Westinghouse AP1000 DCD Revision 18
10272	WLS	Pt 09		09-02-12.03F / F12.3-203	Revise COLA Part 9, FSAR Chapter 12, Section 12.3, Figure 12.3-203 is revised in accordance with DCD Figure 12.3-3, Sheet 11 of 16.	Westinghouse AP1000 DCD Revision 19
9894	WLS	Pt 09		09-11B	COLA Part 9, Withheld Information is revised to include new section 9D, Mitigative Strategies Description and Plans, Revision 1 as reflected in Attachment A of Duke Energy Voluntary Submittal and includes inputs consistent with the R-COLA. The MSDP contains security-related information, and therefore, should be withheld in accordance with 10 CFR 2.390(d).	- Duke Energy Voluntary Submittal Loss of Large Areas of the Plant Due to Explosions or Fire (LOLA) Mitigative Strategies Description and Plans, WLG2011.01-02. - Duke Energy Response to RAI LTR 88, WLG2010.03-06 - Duke Energy Concurrence with Standard Content, WLG2010.11-01, SNC- RAI-LTR 042 and Supplements 1 through 3; SNC-RAI-LTR 052 and Supplement 1; SNC-RAI-LTR-054. - Duke Energy Concurrence with Standard Content, WLG2011.04-06, SNC- RAI-LTR-042 Supplement 4, SNC- RAI-LTR-052, SNC- RAI-LTR-054 Supplements 1 and 2
9923	WLS,STD	Pt 09		09-11C-01	COLA Part 11C, Cyber Security Plan, Section 1, is revised by adding a new paragraph after the first paragraph, as follows:  Within the scope of the NRCs cyber security rule at 10 CFR 73.54, systems or equipment that perform important to safety functions include structures, systems, and components (SSCs) in the balance of plant (BOP) that could directly or indirectly affect reactivity at a nuclear power plant and could result in an unplanned reactor shutdown or transient. Additionally, these SSCs are under the licensees control and include electrical distribution equipment out to the first inter-tie with the offsite distribution system.	Duke Energy Concurrence with Standard Content WLG2011.04-06  VEGP-VOL-CSP BOP SSCs response to VEGP 13.06 VR item 1 SNC Ltr ND-11-0207
9924	WLS,STD	Pt 09		09-11C-Att A	COLA Part 11C, Cyber Security Plan, Attachment A, "Duke Energy Carolinas, LLC, William States Lee III Nuclear Station, Units 1 & 2 Cyber Security Plan (CSP) Deviations from Regulatory Guide (RG) 5.71, Rev. 0," is revised by adding a new deviation # (where # is the next sequential number), as follows:	Duke Energy Concurrence with Standard Content WLG2011.04-06



QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>Deviation No. 18: Include Balance of Plant structures, systems, and components to the scope defined by important to safety – A deviation is taken to the guidance to clarify that systems or equipment that perform important to safety functions include structures, systems, and components (SSCs) in the balance of plant (BOP) that could directly or indirectly affect reactivity and could result in an unplanned reactor shutdown or transient.</p> <p>Basis: This change is consistent with Commissions position provided by the Director of the Division of Security Policy in the NRCs Office of Nuclear Security and Incident Response to the Nuclear Energy Institute Director of Security by letter dated January 5, 2011.</p>	VEGP-VOL-CSP BOP SSCs response to VEGP 13.06 VR item 2 SNC Ltr ND-11-0207
9936	WLS,STD	Pt 09		09-11C-Att A	<p>COLA Part 11C, Cyber Security Plan, Attachment A, "Duke Energy Carolinas, LLC William States Lee II Nuclear Station, Units 1 &amp; 2 Cyber Security Plan (CSP) Deviations from Regulatory Guide (RG) 5.71, Rev. 0," table titled "Lee 1 &amp; 2 Cyber Security Cyber Security Plan Deviations from RG 5.71, Rev. 0 Black Text," is revised by adding a deviation after the current deviation to RG 5.71, Appendix A, Heading (Page A-1), as follows:</p> <p>Reference: RG 5.71, Section A.1, 1st paragraph (Page A-1)</p> <p>RG 5.71 Rev. 0 Text: " up to and including the design-basis threat (DBT) described in 10 CFR 73.1, "Purpose and Scope":  <ul style="list-style-type: none"> <li>* safety-related and important-to-safety functions,</li> <li>* security functions,</li> <li>* emergency preparedness functions, including offsite communications, and</li> <li>* support systems and equipment which, if compromised, would adversely impact safety, security, or emergency preparedness functions."</li> </ul> <p>VEGP Units 3 and 4 CSP Text: " up to and including the design-basis threat (DBT) described in 10 CFR 73.1, "Purpose and Scope":  <ul style="list-style-type: none"> <li>* safety-related and important-to-safety functions,</li> <li>* security functions,</li> <li>* emergency preparedness functions, including offsite communications, and</li> <li>* support systems and equipment which, if compromised, would adversely impact safety, security, or emergency preparedness functions."</li> </ul> <p>Within the scope of the NRCs cyber security rule at 10 CFR 73.54, systems or equipment that perform important to safety functions include structures, systems, and components (SSCs) in the balance of plant (BOP) that could directly or indirectly affect reactivity at a nuclear power plant and could result in an unplanned reactor shutdown or transient. Additionally, these SSCs are under the licensees control and include electrical distribution equipment out to the first inter-tie with the offsite distribution system.</p> <p>Comments: Deviation No. 18: Include Balance of Plant structures, systems, and components to the scope defined by important to safety.</p> <p>Addition of this paragraph clarifies the intent of important-to-safety function, consistent with direction provided in a January 5, 2011, letter from Richard P. Correia (NRC) to Chris Earls (NEI) on this subject.</p> </p></p>	<p>Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CSP BOP SSCs response to VEGP 13.06 VR item 3 SNC Ltr ND-11-0207</p>
10186	WLS,STD	Pt 09		09-11C-CSP Att A	<p>COLA Part 11C, Cyber Security Plan, Attachment A, "Duke Energy Carolinas, LLC, William States Lee III Nuclear Station, Units 1 &amp; 2 Cyber Security Plan (CSP) Deviations from Regulatory Guide (RG) 5.71, Rev. 0," table titled "Lee 1 &amp; 2 Cyber Security Plan Deviations from RG 5.71, Rev. 0 Black Text," is revised by adding a deviation after the current deviation to RG 5.71, Appendix A, Heading (Page A-1), as follows:</p>	<p>Editorial change to VEGP-VOL-CSP BOP SSCs response to VEGP 13.06 VR item 3 SNC</p>

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>Reference: RG 5.71, Section A.1, 1st paragraph (Page A-1)</p> <p>RG 5.71 Rev. 0 Text: "... up to and including the design-basis threat (DBT) described in 10 CFR 73.1, "Purpose and Scope":  <ul style="list-style-type: none"> <li>* safety-related and important-to-safety functions,</li> <li>* security functions,</li> <li>* emergency preparedness functions, including offsite communications, and</li> <li>* support systems and equipment which, if compromised, would adversely impact safety, security, or emergency preparedness functions."</li> </ul> </p> <p>WLS Units 1 and 2 CSP Text: "... up to and including the design-basis threat (DBT) described in 10 CFR 73.1, "Purpose and Scope":  <ul style="list-style-type: none"> <li>* safety-related and important-to-safety functions,</li> <li>* security functions,</li> <li>* emergency preparedness functions, including offsite communications, and</li> <li>* support systems and equipment which, if compromised, would adversely impact safety, security, or emergency preparedness functions."</li> </ul> </p> <p>Within the scope of the NRC's cyber security rule at 10 CFR 73.54, systems or equipment that perform important to safety functions include structures, systems, and components (SSCs) in the balance of plant (BOP) that could directly or indirectly affect reactivity at a nuclear power plant and could result in an unplanned reactor shutdown or transient. Additionally, these SSCs are under the licensee's control and include electrical distribution equipment out to the first inter-tie with the offsite distribution system."</p> <p>Comments: Deviation No. 18: Include Balance of Plant structures, systems, and components to the scope defined by important to safety.</p> <p>Addition of this paragraph clarifies the intent of important-to-safety function, consistent with direction provided in a January 5, 2011, letter from Richard P. Correia (NRC) to Chris Earls (NEI) on this subject.</p>	Ltr ND-11-0207.
<b>Pt 10</b>						<b>36 COLA Changes</b>
9902	WLS	Pt 10		All pages	COLA Part 10 is re-formatted to improve readability. Change bars for format are not shown to allow decipherable markings for actual changes.	Editorial
9584	WLS,STD	Pt 10		LC#01	<p>COLA Part 10, Proposed License Condition #1, ITAAC, introductory statements is revised from: There are several ITAAC identified in the COLA. Once incorporated into the COL, the regulations identify the requirements that must be met.</p> <p>To read: There are several ITAAC identified in the COLA. Once incorporated into the COL, the regulations identify the requirements that must be met. The incorporation below includes the sensitive unclassified non-safeguards information (including proprietary information), and safeguards information referenced in the AP1000 DCD. Such DCD information is included in this combined license application in the same manner as it is included in the AP1000 DCD, i.e., references in the DCD are included as references in the FSAR, and material incorporated by reference into the DCD is incorporated by reference into the FSAR. Appropriate agreements are in place to provide access to the withheld sensitive unclassified non-safeguards information (including proprietary information), and safeguards information referenced in the AP1000 DCD.</p>	<p>Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH01 IBR of PI &amp; SGI response item 2 SNC Ltr ND-10-2207</p>
9967	WLS,STD	Pt 10		LC#01	COLA Part 10 (Revision 4), Proposed License Condition #1, ITAAC, introductory statements is revised from: There are several ITAAC identified in the COLA. Once incorporated into the COL, the regulations identify the	SUPERSEDES QB 9584. Duke Energy

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					<p>requirements that must be met. The incorporation below includes the sensitive unclassified non-safeguards information (including proprietary information), and safeguards information referenced in the AP1000 DCD. Such DCD information is included in this combined license application in the same manner as it is included in the AP1000 DCD, i.e., references in the DCD are included as references in the FSAR, and material incorporated by reference into the DCD is incorporated by reference into the FSAR. Appropriate agreements are in place to provide access to the withheld sensitive unclassified non-safeguards information (including proprietary information), and safeguards information referenced in the AP1000 DCD.</p> <p>To read: There are several ITAAC identified in the COLA. Once incorporated into the COL, the regulations identify the requirements that must be met. The incorporation below includes references to the sensitive unclassified non-safeguards information (including proprietary information) and safeguards information, contained in the AP1000 DCD. Such DCD information is included in this combined license application in the same manner as it is included in the AP1000 DCD, i.e., references in the DCD are included as references in the FSAR, and material incorporated by reference into the DCD is incorporated by reference into the FSAR. Appropriate agreements are in place to provide for the licensee's rights to possession (including constructive possession) and use of the withheld sensitive unclassified non-safeguards information (including proprietary information) and safeguards information referenced in the AP1000 DCD for the life of the project.</p>	<p>Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-CH01 IBR of PI &amp; SGI item 2 SNC Ltr ND-11-0254</p>
7914	WLS,STD	Pt 10		LC#02, 03.06-1	<p>COLA Part 10, Proposed License Conditions, item 2 – COL Item No. 3.6-1 is revised from (Note that this revised item essentially identifies a milestone for advance completion of the ITAAC discussed in 14.3.3): 3.6-1 Pipe Break Hazards Analysis      3.6.4.1 Prior to initial fuel load</p> <p>After a Combined License is issued, the following activity will be completed by the COL holder:</p> <p>A pipe rupture hazard analysis is part of the piping design. It is used to identify postulated break locations and layout changes, support design, whip restraint design, and jet shield design. The final design for these activities will be completed prior to fabrication and installation of the piping and connected components. The as-built reconciliation of the pipe break hazards analysis in accordance with the criteria outlined in subsections 3.6.1.3.2 and 3.6.2.5 will be completed prior to fuel load.</p> <p>To read: 3.6-1 As-Designed Pipe Rupture Hazards Analysis      3.6.4.1 Prior to installation of the piping and connected components in their final location</p> <p>After a Combined License is issued, the following activity will be completed by the COL holder. An as-designed pipe rupture hazard evaluation will be available for NRC review. The completed as-designed pipe rupture hazards evaluation will be in accordance with the criteria outlined in DCD Subsections 3.6.1.3.2 and 3.6.2.5. Systems, structures, and components identified to be essential targets and appropriate mitigation features (Reference is DCD Table 3.6-3) will be confirmed as part of the evaluation, and updated information will be provided as appropriate. A pipe rupture hazards analysis is part of the piping design. The evaluation will be performed for high and moderate energy piping to confirm the protection of systems, structures, and components (SSCs), which are required to be functional during and following a design basis event. The locations of the postulated ruptures and essential targets will be established and required pipe whip restraints and jet shield designs will be included. The evaluation will address environmental and flooding effects of cracks in high and moderate energy piping. The as-designed pipe rupture hazards evaluation is prepared on a generic basis to address COL applications referencing the AP1000 design.</p>	<p>Duke Energy Concurrence with Standard Content WLG2010.11-01 COL-SER-OI-Ch03 S6 response to OI 03.06-001 item 6 SNC Letter ND-10-0801</p>
7915	WLS,STD	Pt 10		LC#02, 03.09-2	<p>COLA Part 10, Proposed License Conditions, item 2 – COL Item No. 3.9-2 is deleted since this item is addressed by ITAAC in DCD Tier 1 Section 2 line items for the applicable systems.</p>	<p>Duke Energy Concurrence of Standard Content WLG2010.11-01 COL-SER-OI-Ch03 S6 response to OI 03.06-</p>

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						001 item 7 SNC Letter ND-10-0801
7916	WLS,STD	Pt 10		LC#02, 03.09-7	<p>COLA Part 10, Proposed License Conditions, item 2 – COL Item No. 3.9-7 is included as a new line item (Note that this new item essentially identifies a milestone for advance completion of the ITAAC discussed in 14.3.3):</p> <p>3.9-7 As-Designed Piping Analysis      3.9.8.7 Prior to installation of the piping and connected components in their final location</p> <p>After a Combined License is issued, the following activity will be completed by the COL holder:</p> <p>The as-designed piping analysis is provided for the piping lines chosen to demonstrate all aspects of the piping design. A design report referencing the as-designed piping calculation packages, including ASME Section III piping analysis, support evaluations and piping component fatigue analysis for Class 1 piping using the methods and criteria outlined in DCD Table 3.9-19 is made available for NRC review. The availability of the piping design information and design reports for the piping packages is identified to the NRC.</p>	Duke Energy Concurrence of Standard Content WLG2010.11-01 COL-SER-OI-Ch03 S6 response to OI 03.06-001 item 8 SNC Letter ND-10-0801
8250	WLS,STD	Pt 10		LC#02, 14.4-3	<p>COLA Part 10, Proposed License Conditions, including IT AAC, proposed License Condition #2, item 14.4-3, Conduct of Test Program is revised from:</p> <p>14.4-3 Conduct of Test Program 14.4.3 Prior to initiating test program A site-specific startup administration manual (procedure), which contains the administration procedures and requirements that govern the activities associated with the plant initial test program, as identified in FSAR Section 14.2, is provided prior to initiating the plant initial test program.</p> <p>To read:</p> <p>14.4-3 Conduct of Test Program 14.4.3 NOTE -addressed by proposed License Conditions #3 and #6.</p>	Duke Energy Concurrence with Standard Content WLG2011.02-01 VEGP-VOL-CH14 response to item 1 SNC Ltr ND-10-1993
8251	WLS,STD	Pt 10		LC#02, 14.4-4	<p>COLA Part 10, Proposed License Conditions, including IT MC, proposed License Condition #2, item 14.4-4, Review and Evaluation of Test Results is revised from:</p> <p>14.4-4 Review and Evaluation of Test Results 14.4.4 Prior to initial fuel load</p> <p>The Combined License holder is responsible for review and evaluation of individual test results as well as final review of overall test results and for review of selected milestones or hold points within the test phases. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible design organizations, and corrective actions and retests, as required, are performed.</p> <p>To read:</p> <p>14.4-4 Review and Evaluation of Test Results      14.4.4</p> <p>NOTE - addressed by proposed License Condition #10.</p>	Duke Energy Concurrence with Standard Content WLG2011.02-01 VEGP-VOL-CH14 response to item 2 SNC Ltr ND-10-1993
8252	WLS,STD	Pt 10		LC#02, 14.4-6	<p>COLA Part 10, Proposed License Conditions, including IT AAC, proposed License Condition #2, item 14.4-6, First-Plant-Only and Three-Plant-Only Tests is revised from:</p> <p>14.4-6 First-Plant-Only and Three-Plant-Only Tests 14.4.6 Prior to preoperational testing</p> <p>The COL holder for the first plant and the first three plants will perform the tests listed in subsection 14.2.5. For subsequent plants, either tests listed in subsection 14.2.5 shall be performed, or the COL applicant shall provide a justification that the results of the first-plant-only tests or firstthree-plant tests are applicable to the subsequent plant.</p> <p>The Combined License holder(s) for the first AP 1000 plant (or first three plants) available for testing will perform the tests defined during preoperational and startup testing as identified in subsections 14.2.9 and 14.2.10. Combined License holders referencing the results of the tests will provide the report as necessary. The schedule for providing this information will be provided prior to preoperational testing.</p>	Duke Energy Concurrence with Standard Content WLG2011.02-01 VEGP-VOL-CH14 response to item 3 SNC Ltr ND-10-1993

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					To read: 14.4-6 First-Plant-Only and Three-Plant-Only Tests 14.4.6 NOTE -addressed by proposed License Conditions #9 and #10.	
9585	WLS,STD	Pt 10		LC#02, 15.0-1	COLA Part 10, Proposed License Conditions, LC#2, COL Holder Items, COL Item No. 15.0-1, is added as follows:  15.0-1 Documentation of Plant Calorimetric 15.0.15.1 Uncertainty Methodology  Note -addressed by proposed ITAAC Table 2.5.4-2, item 4.	Duke Energy Concurrence with Standard Content WLG0211.04-06 COL-SER-OI-CH15 S3 response to SER-OI- 15.00-001 item 3 SNC Ltr ND-10-2091
9586	WLS,STD	Pt 10		LC#02, 19.59.10-01	COLA Part 10, License Conditions and ITAAC, Section 2, COL Item No. 19.59.10-1, Item 1 is revised from: 1. Specific minimum seismic requirements consistent with those used to define the Table 19.55-1 HCLPF values. This includes the known frequency range used to define the HCLPF by comparing the required response spectrum (RRS) and test response spectrum (TRS). The range of frequency response that is required for the equipment with its structural support is defined.  To read: 1. Specific minimum seismic requirements consistent with those used to define the Table 19.55-1 HCLPF values. This includes the known frequency range used to define the HCLPF by comparing the required response spectrum (RRS) and test response spectrum (TRS). The test response spectra are chosen so as to demonstrate that no more than one percent rate of failure is expected when the equipment is subjected to the applicable seismic margin ground motion for the equipment identified to be applicable in the seismic margin insights of the site-specific PRA. The range of frequency response that is required for the equipment with its structural support is defined.	Duke Energy Concurrence with Standard Content WLG2010.11-01 VEGP-VOL-CH19 PRA item 6 SNC Ltr ND-10- 1811
9587	WLS,STD	Pt 10		LC#03 C.4	COLA Part 10, Proposed License Condition 3, Operational Program Implementation, item C, Receipt of Materials is revised from: C.4 -Emergency Planning (applicable portions)  To read: C.4 -Deleted	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-RAI-LTR-062 response to RAI 01.05- 001 item 3 SNC Ltr ND- 10-2002
9976	WLS,STD	Pt 10		LC#03 C.5	COLA Part 10, Proposed License Conditions (Including ITAAC), LC #3.C, Operational Program Implementation, Receipt of Materials, Item C.5 is revised, from: C.5 - Security Program (applicable portions)  To read: C.5 - Deleted	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-73.55-Impl response to VEGP 13.06 VR2 item 4 SNC Ltr ND-11-0313
9588	WLS,STD	Pt 10		LC#03 C.6	COLA Part 10, Proposed License Conditions, LC#3.C, Operational Program Implementation, Receipt of Materials is revised to include a new line item for implementation of an SNM material control and accounting program, as follows:  C.6. SNM Material Control and Accounting Program	Duke Energy Concurrence with Standard Content, WLG2011.04-06 VEGP-RAI-LTR-064 response to RAI 01.05- 003 item 6 SNC Ltr ND- 10-2257
9977	WLS,STD	Pt 10		LC#03 D.3	COLA Part 10, Proposed License Conditions (Including ITAAC), LC #3.D, Operational Program Implementation, Fuel Receipt, Item D.3 is revised, from:	Duke Energy Concurrence with

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					D.3 – Security Program (applicable portions)  To read: D.3 – Special Nuclear Material Physical Protection Program	Standard Content WLG2011.04-06 VEGP-VOL-73.55-Impl response to VEGP 13.06 VR2 item 5 SNC Ltr ND-11-0313
10009	WLS	Pt 10		LC#03 D.4	COLA Part 10, Proposed License Conditions (Including ITAAC), LC #3 Operational Program Implementation, Fuel Receipt, Item D.4, is deleted, to read:  D.4 – Deleted	Supplement Duke Energy Concurrence with Standard Content, WLG2010.11-01, SNC LTR ND-10-2002, RAI 1.5-01, item 1.
10142	WLS,STD	Pt 10		LC#03 E.2	COLA Part 10, Proposed License Condition 3, (item related to construction and inspection procedures) is revised to include E.2 to read:  E.2 - The implementation of construction and inspection procedures for steel concrete composite (SC) construction activities for seismic Category I nuclear island modules (including shield building SC modules) before and after concrete placement, and inspection of such construction before and after concrete placement.	Duke Energy Concurrence with Standard Content WLG2011.07-05, ND- 11-0895
9903	WLS	Pt 10		LC#04	COLA Part 10, License Conditions and ITAAC, Proposed License Condition 4, will be revised to read: "The licensee shall submit a fully developed set of site-specific Emergency Action Levels (EALs) to the NRC in accordance with the NRC-endorsed version of NEI 07-01, Rev. 0, with no deviations. The EALs shall have been discussed and agreed upon with State and local officials. These fully developed EALs shall be submitted to the NRC for confirmation not less than 180 days prior to the date scheduled for initial fuel load."	Duke Energy response to RAI LTR 94, RAI 13.03-089, WLG2011.04-03
9975	WLS,STD	Pt 10		LC#05	COLA Part 10, Proposed License Conditions (Including ITAAC), proposed License Condition (LC) #5 is revised by renumbering and renaming the current proposed LC and adding a new License Condition #5B. This revision changes proposed LC#5 from:  5. SECURITY PROGRAM REVISIONS:  An implementation license condition approved in the SRM regarding SECY-05-0197 applies to the security program.  PROPOSED LICENSE CONDITION:  The licensee shall maintain in effect the provisions of the physical security plan, security personnel training and qualification plan, safeguards contingency plan, and cyber security plan, and all amendments made pursuant to the authority of 10 CFR 50.90, 50.54(p), 52.97, and Section VIII of Appendix D to Part 52 when nuclear fuel is onsite (protected area), and continuing until all nuclear fuel is permanently removed from the site.  To read: 5. SECURITY PROGRAM:  A. SECURITY PROGRAM IMPLEMENTATION  An implementation license condition approved in the SRM regarding SECY-05-0197 applies to the security program.  PROPOSED LICENSE CONDITION:  The licensee shall maintain in effect the provisions of the physical security plan, security personnel training and qualification plan, safeguards contingency plan, and cyber security plan, and all amendments made	Duke Energy Concurrence with Standard Content WLG2011.04-06 VEGP-VOL-73.55-Impl response to VEGP 13.06 VR2 item 3 SNC Ltr ND-11-0313

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					<p>pursuant to the authority of 10 CFR 50.90, 50.54(p), 52.97, and Section VIII of Appendix D to Part 52 when nuclear fuel is onsite (protected area), and continuing until all nuclear fuel is permanently removed from the site.</p> <p>B. SPECIAL NUCLEAR MATERIAL PHYSICAL PROTECTION</p> <p>A license condition is proposed to address when the boundary for physical protection of new fuel as SNM is required to be extended from the controlled access area (CAA) in accordance with the requirements of 10 CFR 73.67 to the operational protected area (PA) in accordance with 10 CFR 73.55.</p> <p>PROPOSED LICENSE CONDITION</p> <p>The licensee shall receive and store new fuel as SNM in a controlled access area (CAA) in accordance with the requirements of 10 CFR 73.67, until such time as an operational protected area (PA) that satisfies the requirements of 10 CFR 73.55(e)(8) is established. If new fuel is already stored in a CAA that is within the boundary of the proposed PA, then upon declaration of an operational PA, the remaining requirements of 10 CFR 73.55 shall be implemented. The PA shall be established and declared operational prior to initial fuel load.</p>	
9577	WLS,STD	Pt 10		LC#06	<p>COLA Part 10, Proposed License Conditions (Including ITAAC), WLS Proposed License Condition 6, Operational Program Readiness is revised to read (with remaining alpha numbered schedule items unchanged):</p> <p>6. OPERATIONAL PROGRAM READINESS:</p> <p>The NRC inspection of operational programs will be the subject of the following license condition in accordance with SECY-05-0197.</p> <p>PROPOSED LICENSE CONDITION:</p> <p>The licensee shall submit to the appropriate Director of the NRC, a schedule, no later than 12 months after issuance of the COL, that supports planning for and conduct of NRC inspections of operational programs listed in the operational program FSAR Table 13.4-201. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until either the operational programs in the FSAR table have been fully implemented or the plant has been placed in commercial service, whichever comes first. This schedule shall address:</p> <p>c. the reactor vessel pressurized thermal shock evaluation at least 18 months prior to initial fuel load.</p> <p>f. the flow accelerated corrosion (FAC) program implementation, including the construction phase activities.</p>	<p>Duke Energy Concurrence with Standard Content, WLG2010.11-01 VEGP-RAI-LTR-054 response to RAI 19-95 SNC Ltr ND-10-1020</p>
8256	WLS,STD	Pt 10		LC#06 d	<p>COLA Part 10, Proposed License Conditions, including ITAAC, proposed License Condition #6, Operational Program Readiness is revised from:</p> <p>d. the approved preoperational and startup test procedures in accordance with FSAR Subsection 14.2.3.</p> <p>To read:</p> <p>d. the approved preoperational and startup test procedures (including the site-specific startup administration manual (procedure) prior to initiating the plant initial test program) in accordance with FSAR Subsection 14.2.3.</p>	<p>Duke Energy Concurrence with Standard Content WLG2011.02-01 VEGP-VOL-CH14 response to item 4 SNC Ltr ND-10-1993</p>
9589	WLS,STD	Pt 10		LC#06	<p>COLA Part 10, Proposed License Conditions is revised to add a new standard item to proposed license condition 6 to read:</p> <p>i. the implementation of construction and inspection procedures for concrete filled steel plate modules activities before and after concrete placement, use of construction mock-ups, and inspection of modules before and after concrete placement as discussed in DCD Subsection 3.8.4.8.</p>	<p>Duke Energy Concurrence with Standard Content WLG2010.11-01 VEGP-VOL-CH03 Const Procedures response to</p>

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						STD-COL-03.08-006 item 3 SNC Ltr ND-10-1900
9590	WLS,STD	Pt 10		LC#06 j, k	COLA Part 10, Proposed License Conditions, Proposed License Condition #6, Operational Program Readiness is revised to include new line items as follows:  j. the availability of documented instrumentation uncertainties to calculate a power calorimetric uncertainty, prior to initial fuel load. k. the availability of administrative controls to implement maintenance and contingency activities related to the power calorimetric uncertainty instrumentation, prior to initial fuel load.	Duke Energy Concurrence with Standard Content WLG2011.04-06 COL-SER-OI-CH15 S3 response to SER-OI-15.00-001 item 4 SNC Ltr ND-10-2091
9591	WLS,STD	Pt 10		LC#09	COLA Part 10, Proposed License Conditions, including ITAAC, the title of the proposed License Condition #9, First-Plant-Only and First-Three-Plant-Only Testing is revised from: 9. First-Plant-Only and First-Three-Plant-Only Testing  To read (with BOLD text): 9. FIRST-PLANT-ONLY AND FIRST-THREE-PLANT-ONLY TESTING:	Editorial formatting of VEGP-VOL-CH14 response to item 5 SNC Ltr ND-10-1993
8258	WLS,STD	Pt 10		LC#09	COLA Part 10, License Conditions and ITAAC, Proposed License Condition #9, First-Plant-Only and First-Three-Plant-Only Testing is revised as follows:  9. Certain design features of the AP1000 plant will be subjected to special tests to establish unique phenomenological performance parameters of the AP1000 design. Because of the standardization of the AP1000 design, these special tests (designated as first-plant-only tests and first-three-plant-only tests) are not required on subsequent plants. Once these tests are completed by the first plant (or first three plants) and appropriate documentation identified, the subsequent plants need only reference the applicable documentation to show that the first plant (or first three plants) completed the required testing.  PROPOSED LICENSE CONDITION A licensee shall provide written identification of the applicable references for documentation for the completion of the testing to the Director of the Office of New Reactors (or equivalent NRC management) within thirty (30) calendar days of the licensee confirmation of acceptable test results. Subsequent plant licensees crediting completion of testing by the first-plant or by the first-three-plants shall provide a report referencing the applicable documentation identified by the first (or first three) plant(s) confirming the testing to the Director of the Office of New Reactors (or equivalent NRC management). This report shall be provided to the NRC either prior to initiation of pre-operational testing, or within sixty (60) days of the identification of the documentation for the completion of the testing by the first plant (or third plant, as appropriate), whichever is later.	Duke Energy Concurrence with Standard Content WLG2011.02-01 VEGP-VOL-CH14 response to item 5 SNC Ltr ND-10-1993
9592	WLS,STD	Pt 10		LC#10	COLA Part 10, Proposed License Conditions, including ITAAC, the title of new proposed License Condition #10, Startup Program Test Results, is revised from: 10. Startup Program Test Results  To read (with BOLD text): 10. STARTUP PROGRAM TEST RESULTS:	Editorial formatting of VEGP-VOL-CH14 response to item 6 SNC Ltr ND-10-1993
8259	WLS,STD	Pt 10		LC#10	COLA Part 10, Proposed License Conditions, including ITAAC, Proposed License Condition new #10 is inserted, resulting in the renumbering of former Proposed License Condition #10 to #11, to read as follows:  10. Startup Program Test Results  Certain milestones within the startup testing phase of the initial test program (i.e., pre-critical testing, criticality testing, and low-power (<5% RTP) testing) are controlled through license conditions to ensure that relevant test results are reviewed, evaluated, and approved by the designated licensee management before	Duke Energy Concurrence with Standard Content WLG2011.02-01 VEGP-VOL-CH14 response to item 6 SNC Ltr ND-10-1993



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					<p>proceeding with the power ascension test phase.</p> <p>PROPOSED LICENSE CONDITION: Pre-operational Testing Following completion of pre-operational testing, the licensee shall review and evaluate individual test results. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible organizations, and corrective actions and retests, as required, are performed.</p> <p>Pre-critical and Criticality Testing 1. Following completion of pre-critical and criticality testing, the licensee shall review and evaluate individual test results. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible organizations, and corrective actions and retests, as required, are performed.</p> <p>2. The licensee shall provide written notification to the Director of the Office of New Reactors (or equivalent NRC management) within fourteen (14) calendar days of completion of the pre-critical and criticality testing.</p> <p>Low-Power (&lt;5% RTP) Testing 1. Following completion of low-power testing (&lt;5% RTP), the licensee shall review and evaluate individual test results. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible organizations, and corrective actions and retests, as required, are performed.</p> <p>2. The licensee shall provide written notification to the Director of the Office of New Reactors (or equivalent NRC management) within fourteen (14) calendar days of completion of the low-power testing.</p> <p>At-Power (5%-100% RTP) Testing 1. Following completion of at-power testing (at or above 5% RTP up to and including testing at 100% RTP), the licensee shall review and evaluate individual test results. Test exceptions or results which do not meet acceptance criteria are identified to the affected and responsible organizations, and corrective actions and retests, as required, are performed.</p> <p>2. The licensee shall provide written notification to the Director of the Office of New Reactors (or equivalent NRC management) within fourteen (14) calendar days of completion of the at-power testing.</p> <p>11. Environmental Protection Plan</p>	
9593	WLS,STD	Pt 10		LC#AppB PS ITAAC 2.5.4	<p>COLA Part 10, Appendix B is revised to include a new Plant-Specific ITAAC line item for COL item 15.0-1 as follows:</p> <p>Add the following information to the information provided in the referenced DCD Tier 1 Section 2.5.4, as a new item 4 under the Design Description section:</p> <p>4. The plant operating instrumentation installed for feedwater flow measurement is one that has been specifically approved by the NRC; the power calorimetric uncertainty calculation includes uncertainties for the associated instrumentation based on an NRC approved methodology; and the calculated calorimetric values are bounded by the uncertainty value assumed for the initial reactor power in the safety analysis.</p>	Duke Energy Concurrence with Standard Content WLG2011.04-06 COL-SER-OI-CH15 S3 response to SER-OI- 15.00-001 item 5 SNC Ltr ND-10-2091
9594	WLS,STD	Pt 10		LC#AppB PS ITAAC 2.5.4, T2.5.4-2	<p>COLA Part 10, Appendix B is revised to include a new Plant-Specific ITAAC line item for COL item 15.0-1 as follows:</p> <p>Add the following information to the information provided in the referenced DCD Tier 1 Section 2.5.4, as a new, final line item in Table 2.5.4-2.</p> <p>Design Commitment 4. The plant calorimetric uncertainty and plant instrumentation performance is bounded by the 1%</p>	Duke Energy Concurrence with Standard Content WLG2011.04-06COL- SER-OI-CH15 S3 response to SER-OI- 15.00-001 item 6 SNC Ltr ND-10-2091

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					<p>calorimetric uncertainty value assumed for the initial reactor power in the safety analysis.</p> <p>Inspections, Tests, Analyses Inspection will be performed of the plant operating instrumentation installed for feedwater flow measurement, its associated power calorimetric uncertainty calculation, and the calculated calorimetric values.</p> <p>Acceptance Criteria a) The as-built system takes input for feedwater flow measurement from a Caldon[Cameron] LEFM CheckPlus TM System; b) the power calorimetric uncertainty calculation documented for that instrumentation is based on an accepted Westinghouse methodology and the uncertainty values for that instrumentation are not lower than those for the actual installed instrumentation; and c) the calculated calorimetric power uncertainty measurement values are bounded by the 1 % uncertainty value assumed for the initial reactor power in the safety analysis.</p>	
7917	WLS,STD	Pt 10		LC#AppB PS ITAAC Piping	<p>COLA Part 10, Appendix B, Inspections, Tests, Analyses and Acceptance Criteria, add the following prior to "Emergency Planning ITAAC".</p> <p>Piping Design ITAAC</p> <p>The following piping ITAAC are not included in the scope of the Westinghouse AP1000 standard design in DCD Tier 1 Section 2. Add the following to the information provided in the referenced DCD Tier 1 following Subsection 2.7:</p> <p>The ITAAC for Piping Design are included in attached Table 2.8-1.</p> <p>Pipe Rupture Hazard Analysis ITAAC</p> <p>The following pipe rupture hazards ITAAC are not included in the scope of the Westinghouse AP1000 standard design in DCD Tier 1 Section 3. Add the following to the information provided in the referenced DCD Tier 1 Subsection 3.3:</p> <p>The ITAAC for Pipe Rupture Hazard Analysis are included in attached Table 3.3-8.</p>	Duke Energy Concurrence of Standard Content WLG2010.11-01 COL-SER-OI-Ch03 S6 response to OI 03.06- 001 item 9 SNC Letter ND-10-0801
9526	WLS	Pt 10		LC#AppB PS ITAAC WP Mem	<p>COLA Part 10, Appendix B, Inspections, Tests, Analyses and Acceptance Criteria, prior to Emergency Planning ITAAC section the following new entry is added as follows:</p> <p>Include the following non-system ITAAC after DCD Tier 1 Section 3.3:</p> <p>Waterproof Membrane ITAAC</p> <p>The waterproof membrane ITAAC are included in the attached Table 3.3-9. Include this ITAAC after the pipe rupture hazards analysis ITAAC, added as Table 3.3-8.</p>	R-COLA Consistency
9904	WLS,STD	Pt 10		LC#AppB PS ITAAC EP	COLA Part 10, Appendix B, Inspections, Tests, Analyses and Acceptance Criteria, revise the Emergency Planning ITAAC callout of Table 3.8.1 to read 3.8-1.	Editorial
9905	WLS	Pt 10		LC#AppB PS ITAAC T2.6.9-2	COLA Part 10, Appendix B, Table 2.6.9-2 is revised in conformance with AP1000 DCD Revision 18.	R-COLA Consistency
7918	WLS,STD	Pt 10		LC#AppB PS ITAAC T2.8-1 T3.3-8	COLA Part 10, Appendix B, Inspections, Tests, Analyses and Acceptance Criteria, add Table 2.8-1, Piping Design (Sheet 1 of 1) and Table 3.3-8, Pipe Rupture Hazards Analysis (Sheet 1 of 1) in sequence after Table 2.6.12-1.	Duke Energy Concurrence with Standard Content WLG2010.11-01

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9527	WLS	Pt 10		LC#AppB PS ITAAC T3.3-9	COLA Part 10, Appendix B is revised to add Table 3.3-9 as follows:  Table 3.3-9 Waterproof Membrane Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 1 of 1)  Column 1: Design Commitment The friction coefficient to resist sliding is (greater than or equal to) 0.55.  Column 2: Inspections, Tests, Analyses Testing will be performed to confirm that the mudmat-waterproofing interface beneath the Nuclear Island basemat has a coefficient of friction to resist sliding of (less than or equal to) 0.55.  Column 3: Acceptance Criteria A report exists and documents that the as-built waterproof system (mudmat-waterproofing interface) has a coefficient of friction of (greater than or equal to) 0.55 as demonstrated through material qualification testing.	COL-SER-OI-Ch03 S6 response to OI 03.06- 001 item 10 SNC Letter ND-10-0801  R-COLA Consistency
10141	WLS	Pt 10		LC#AppB/ Table 3.8-1	COLA Part 10, Appendix B Table 3.8-1 Sheets 3 and 5 of 21 are revised under 'Inspections, Tests, Analyses' column to replace 'AP1000 Design Control Document, Rev 16' with 'AP1000 Design Control Document, Rev 19'.	Editorial
<b>Pt 11</b>						<b>49 COLA Changes</b>
9837	WLS,STD	Pt 11		11 Index	COLA Part 11, Index is revised as follows: 1) Section 11B to remove "[Future]" from the title. 2) New entry added: 11D, Special Nuclear Material Control and Accounting Program Description 3) New entry added: 11E, New Fuel Shipping 4) New entry added: 11F, Supplemental Information in Support of 10 CFR Part 70 Special Nuclear Material License Application	Editorial
9908	WLS	Pt 11		11A- QAPD Coversheet	COLA Part 11, QAPD, is revised at Process/Program Owner from "Manager, Nuclear Quality Assurance and Oversight" to read "Manager, Independent Nuclear Oversight"	Duke Energy Organizational Update
9909	WLS	Pt 11		11A- QAPD I.01	COLA Part 11, QAPD, Part I, Section 1; second paragraph, first sentence is revised from: The QAPD is defined by the NRC approved regulatory document that describes the Quality Assurance Program (QAP) elements, along with the associated implementing documents.  to read: The Quality Assurance Program is defined by the NRC approved regulatory document that describes the QAP elements, along with the associated implementing documents.	Editorial
9910	WLS	Pt 11		11A- QAPD II.01.01	COLA Part 11, QAPD, Part II, Section 1.1, is revised from: The Chairman, President, and Chief Executive Officer (CEO) has overall responsibility for design, construction, and operation of generation and transmission facilities. The CEO reports to the Duke Board of Directors with respect to all matters. The QAP Policy Statement issued by the CEO establishes mandatory expectations for all organizations and personnel to comply with the QAPD and its implementing documents while performing quality affecting activities covered by the QAP.  Reporting to the CEO is the Chief Generation and Chief Nuclear Officer who has the overall authority and	Duke Energy Organizational Update

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					<p>responsibility for the QAP and directs several activities including the operation of the nuclear sites through the Senior Vice President, Nuclear Operations.</p> <p>Also reporting to the CEO is the Group Executive, President, and Chief Operating Officer of US Franchised Electric and Gas who is responsible for electrical transmission, distribution, laboratory services, and switchyard maintenance and technical support; the Senior Vice President and Chief Sustainability Officer who supports the emergency response communications; the Group Executive and Chief Legal Officer and Corporate Secretary who is responsible for Information Technology Services, and document control and record management activities; and the Senior Vice President and Chief Human Resources Officer is responsible for administration of the Access Authorization, Fitness for Duty, and Fatigue Rule programs. As such, the attainment of quality rests with those assigned the responsibility of performing the activity. The verification of quality is assigned to qualified personnel independent of the responsibility for performance or direct supervision of the activity. The degree of independence varies commensurate with the activity's importance to safety.</p> <p>Figure 1 shows the overall Corporate Organization.</p> <p>To read: The Chairman, President and Chief Executive Officer has overall responsibility for Design, Construction, and Operation of generation and transmission facilities. Reporting to the Chairman, President and Chief Executive Officer is the Chief Nuclear Officer (CNO) who has the overall authority and responsibility for the QAP and directs several activities including the operation of the nuclear sites through the Senior Vice President, Nuclear Operations. Also reporting to the Chairman, President and Chief Executive Officer are Group Executives responsible for providing support to Nuclear Generation for the following: electrical transmission; electrical distribution; laboratory services; switchyard maintenance and technical support; support for the emergency response communications; Information Technology Services; document control and record management activities; and administration of the Access Authorization, Fitness for Duty, and Fatigue Rule programs. The interface with organizations providing those activities are described in Section 1.3. As such, the attainment of quality rests with those assigned the responsibility of performing the activity. The verification of quality is assigned to qualified personnel independent of the responsibility for performance or direct supervision of the activity. The degree of independence varies commensurate with the activity's importance to safety.</p>	
9911	WLS	Pt 11		11A- QAPD II.01.02	<p>COLA Part 11, QAPD, Part II, Section 1.2, second paragraph, last sentence is revised from: The Chief Nuclear Officer is informed of significant problems or occurrences relating to safety and QA through established administrative procedures, and participates directly in their resolution, as necessary.</p> <p>To read: The Chief Nuclear Officer is informed of significant problems or occurrences relating to safety and QA through established administrative procedures, and participates directly in their resolution, where necessary.</p>	Duke Energy Organizational Update
9912	WLS	Pt 11		11A- QAPD II.01.02.01	<p>COLA Part 11, QAPD, Part II, Section 1.2.1, first paragraph, is revised from: The Senior Vice Presidents, Nuclear Operations, report to the Chief Nuclear Officer. The Nuclear Site Vice Presidents report to two Senior Vice Presidents of Nuclear Operations. The Oconee Site Vice President reports to one of the Senior Vice Presidents of Nuclear Operations, while the McGuire and Catawba Site Vice Presidents report to the other Senior Vice President of Nuclear Operations. The Site Vice President is responsible for the administration, implementation, and assessment of the QAP as it applies to station operation. In the discharge of their responsibilities, the Site Vice President directs the activities of the station organizations. Figure 2 shows a typical nuclear site organization.</p> <p>To read: The executive of Nuclear Operations reports to the Chief Nuclear Officer. The Nuclear Site Vice Presidents report to the executive of Nuclear Operations. Each Site Vice President is responsible for the administration, implementation, and assessment of the QAP as it applies to station operation. In the discharge of their</p>	Duke Energy Organizational Update

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9913	WLS	Pt 11		11A- QAPD II.01.02.02	<p>responsibilities, the Site Vice President directs the activities of the station organizations. Figure 2 shows a typical nuclear site organization.</p> <p>COLA Part 11, QAPD, Part II, Section 1.2.2, is revised from: The Nuclear General Office (NGO) is organized into three divisions. The activities of each division are directed by a vice president or senior vice president who reports to the Chief Nuclear Officer. The three divisions within the Nuclear General Office are: Nuclear Operations (Oconee), Nuclear Operations (McGuire and Catawba), and Nuclear Plant Development.</p> <p>1. Nuclear Plant Development is responsible for development of the licensing actions needed in support of new nuclear site development. Responsibilities also include engineering oversight of contractors, site layout, staffing and program development. The executive in charge of nuclear plant development is assisted by a support staff and reports directly to the CNO. Nuclear Plant Development responsibilities include the establishment and execution of a contract or contracts for the engineering, procurement, construction, and startup activities of new nuclear plants up to the transition point when a Site Executive is named to assume those responsibilities: Figure 3 shows the Nuclear Plant Development/Construction Organization. As a new nuclear plant development approaches startup, the site organization transitions from the development focused organization in Figure 3 to the Operating Plant Site Organization shown in Figure 2.</p> <p>2. Nuclear Operations (Oconee) is organized into three General Office subgroups, consisting of Major Projects, Employee Concerns and Centers of Excellence. Nuclear Operations (Oconee) also provides management oversight to the Oconee nuclear site.</p> <p>a. Major Projects is responsible for contracts, engineering and management related to major projects.</p> <p>b. Employee Concerns investigates concerns identified through the Employee Concerns Programs to determine their validity and initiate corrective actions as appropriate. Employee Concerns also promotes the Safety Conscious Work Environment (SCWE) Program and is sensitive to SCWE concerns during investigations performed.</p> <p>c. Centers of Excellence promote fleet consistency and industry best practices among the Duke nuclear plants.</p> <p>3. Nuclear Operations (Catawba and McGuire) is organized into two subgroups, consisting of Nuclear Engineering and Nuclear Support. Nuclear Operations (Catawba and McGuire) also provides management oversight to the Catawba and McGuire nuclear sites.</p> <p>a. Nuclear Engineering provides support to the stations in severe accident analysis, safety analysis, nuclear design, core mechanical and thermal hydraulic analysis, fuel management, switchyard support, metallurgical laboratory services, material aging program, steam generator maintenance, ISI program support, QC inspector training and certification, procurement engineering, welding and radiological engineering.</p> <p>b. Nuclear Support is divided into three subgroups consisting of Independent Nuclear Oversight (INOS), Shared Mechanical Craft, and Fleet Technical Support.</p> <p>1) INOS provides support and leadership to the general office and stations with QA program audits, performance assessment, procurement quality, supplier verification, and QA, QC, NDE, and inservice inspection (ISI), as applicable. In addition, INOS provides an advisory function to senior management through the NSRB. The Manager, INOS has the authority and organizational freedom to: Identify quality problems, initiate, recommend or provide solutions to quality problems through designated channels, verify the implementation of solutions to quality problems, and ensure cost and schedule do not influence decision making involving quality. The Manager, INOS has unfettered access to the Chief Nuclear Officer to communicate QA program concerns and issues.</p> <p>The Manager, INOS is delegated primary ownership of the department QA program description and is</p>	Duke Energy Organizational Update

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					<p>responsible for day-today administration of the program and resolution of QA issues.</p> <p>2) Shared Mechanical Craft supports the nuclear stations by performing corrective maintenance for rotating equipment.</p> <p>3) Fleet Technical Support provides technical support to the nuclear stations in the areas of licensing, emergency planning, radiation protection, chemistry, calibration services, NGO training, performance improvement, operations experience and workforce inprocessing.</p> <p>To read: Nuclear Generation, Nuclear General Office (NGO) is organized into three divisions. The activities of each division are directed by an executive who reports to the Chief Nuclear Officer. The three divisions within the Nuclear General Office are: Nuclear Development, Nuclear Corporate, and Nuclear Major Projects.</p> <p>1. Nuclear Development is responsible for development of the licensing actions needed in support of new nuclear site development. Responsibilities also include engineering oversight of contractors, site layout, staffing and program development. The executive in charge of nuclear plant development is assisted by a support staff and reports directly to the CNO. Nuclear Plant Development responsibilities include the establishment and execution of a contract or contracts for the engineering, procurement, construction, and startup activities of new nuclear plants up to the transition point when a Site Executive is named to assume those responsibilities. Figure 3 shows the Nuclear Plant Development/Construction Organization. As a new nuclear plant development approaches startup, the site organization transitions from the development focused organization in Figure 3 to the Operating Plant Site Organization shown in Figure 2.</p> <p>2. Nuclear Corporate</p> <p>The executive for Nuclear Corporate is responsible for the employee concerns program, centers of excellence, nuclear engineering, plant support, and independent nuclear oversight.</p> <p>a. Employee Concerns investigates concerns identified through the Employee Concerns Programs to determine their validity and initiate corrective actions as appropriate. Employee Concerns also promotes the Safety Conscious Work Environment (SCWE) Program and is sensitive to SCWE concerns during investigations performed.</p> <p>b. Centers of Excellence provide governance and oversight of the nuclear fleet and our fleet excellence model, promoting fleet consistency and industry best practices among the nuclear plants.</p> <p>c. Nuclear Engineering provides support to the stations in severe accident analysis, safety analysis, nuclear design, core mechanical and thermal hydraulic analysis, fuel management, switchyard support, metallurgical laboratory services, material aging program, steam generator maintenance, ISI program support, QC inspector training and certification, procurement engineering, welding and radiological engineering.</p> <p>d. Plant Support provides support to the stations for rotating equipment, reactor services (for fuel handling, head activities and dry fuel storage), safety assurance (NRC interface, licensing and regulatory compliance group, EP team, fleet security team, and fleet performance improvement team), scientific services (fleet RP staff organization, fleet chemistry staff organization, TLD laboratory, standards lab and radiological/environmental lab), centralized training and in-processing, and operations/work control.</p> <p>e. Independent Nuclear Oversight (INOS) provides support and leadership to the general office and stations with QA program audits, performance assessment, procurement quality, supplier verification, and QA, QC, NDE, and in-service inspection (ISI), as applicable. In addition, INOS provides an advisory function to senior management through the NSRB. The Manager, INOS has the authority and organizational freedom to: Identify quality problems, initiate, recommend or provide solutions to quality problems through designated channels, verify the implementation of solutions to quality problems, and ensure cost and schedule do not influence decision making involving quality. The Manager, INOS has unfettered access to</p>	

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					<p>the Chief Nuclear Officer to communicate QA program concerns and issues.</p> <p>The Manager, INOS is delegated primary ownership of the department QA program description and is responsible for day-to-day administration of the program and resolution of QA issues.</p> <p>If significant quality problems are identified by INOS personnel, the Manager, INOS or designee, has the responsibility and authority to stop work as discussed in Section 1.5 pending satisfactory resolution of the identified problem.</p> <p>1.2.3 Major Projects</p> <p>Nuclear Major Projects is responsible for contracts, engineering and management related to fleet and nuclear site major projects.</p>	
9914	WLS	Pt 11		11A- QAPD II.01.03	<p>COLA Part 11, QAPD, Part II, Section 1.3, is revised to consolidate former Sections 1.3 through 1.8 from:</p> <p>1.3 U. S. Franchised Electric and Gas</p> <p>1.3.1 Power Delivery</p> <p>Power Delivery provides electrical transmission, distribution and switchyard engineering, maintenance, and testing support.</p> <p>1.3.2 Environmental Health and Safety</p> <p>Corporate Environmental, Health and Safety provides environmental and laboratory support services.</p> <p>1.4 Office of General Counsel</p> <p>1.4.1 Information Technology</p> <p>Enterprise Business Services provides a variety of services and technical support to Nuclear Generation for critical information technology applications and systems such as equipment databases, applications, infrastructure and plant process information systems. They are also responsible for the development and maintenance of selected information technology services and support, including electronic document management, some of which support QA Condition activities.</p> <p>1.4.2 Enterprise Operations Services</p> <p>Enterprise Operations Services provides record storage and document management services for Nuclear Generation.</p> <p>1.5 Sustainability and Corporate Communications</p> <p>1.5.1 Corporate Communications</p> <p>Corporate Communications provides support for the nuclear sites emergency response organization.</p> <p>1.6 Human Resources</p> <p>1.6.1 Nuclear Access and Fitness for Duty (FFD)</p> <p>Human Resources provides support for the nuclear sites by administering the Access Authorization, FFD, and Fatigue Rule programs.</p> <p>1.7 Generation</p> <p>1.7.1 Supply Chain</p> <p>Supply Chain supports the nuclear site by providing procurement services, storage, inventory control, and receipt inspection/testing.</p> <p>1.7.2 Regulated Fleet Generation</p> <p>Regulated Fleet Generation provides relay engineering and switchyard maintenance support services to the nuclear sites.</p> <p>1.7.3 Generation Support</p> <p>Generation Support provides support for the nuclear sites in the areas of decommissioning, workforce planning and development, IT strategies, document management, technology planning, and project control leadership.</p> <p>1.8 Department Interfaces</p> <p>Departmental interfaces are identified in QAP manuals. Quality related activities performed by departments other than Nuclear Generation are identified by and conducted in accordance with approved departmental interface agreements.</p> <p>To read:</p> <p>1.3 Department Interfaces</p>	Duke Energy Organizational Update

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					<p>Departmental interfaces are identified in QAP manuals. Quality related activities performed by departments other than Nuclear Generation are identified by and conducted in accordance with approved departmental interface agreements. The following are generic descriptions of those other corporate departments and the services they provide. These generic organizations are referred to, as appropriate, within this document; however, approved departmental interface agreements establish and define the applicability of the QAP to the services they provide:</p> <p>1.3.1 Corporate Communications Corporate Communications provides support for the nuclear sites emergency response organization.</p> <p>1.3.2 Environmental Health and Safety Environmental, Health and Safety will provide environmental and laboratory support services.</p> <p>1.3.3 Enterprise Operations Services Enterprise Operations Services provides record storage and document management services for Nuclear Generation.</p> <p>1.3.4 Generation Support Generation Support provides support for the nuclear sites in the areas of decommissioning, workforce planning and development, IT strategies, document management, technology planning, and project control leadership.</p> <p>1.3.5 Human Resources Human Resources provides support for the nuclear sites by administering the Access Authorization, FFD, and Fatigue Rule programs.</p> <p>1.3.6 Information Technology Information Technology provides a variety of services and technical support to Nuclear Generation for information technology applications and systems such as equipment databases, applications, infrastructure, and plant process information systems. They are also responsible for the development and maintenance of selected information technology services and support, including electronic document management, some of which support QA Condition activities.</p> <p>1.3.7 Power Delivery Power Delivery is responsible for electrical transmission, distribution and switchyard engineering, maintenance, and testing support.</p> <p>1.3.8 Regulated Fleet Generation Regulated Fleet Generation provides relay engineering and switchyard maintenance support services to the nuclear sites.</p> <p>1.3.9 Supply Chain Nuclear Supply Chain, which is a division of Supply Chain, supports the nuclear site by providing procurement services, storage, inventory control, and receipt inspection/testing.</p>	
9915	WLS	Pt 11		11A- QAPD II.01.04	COLA Part 11, QAPD, Part II, Sections 1.9 through 1.12 are renumbered to 1.4 through 1.7.	Duke Energy Organizational Update
9916	WLS	Pt 11		11A- QAPD II.01.F / Figures 1 and 2	COLA Part 11, QAPD, Part II, Section 1, Figures 1 and 2 revised to reflect Duke Energy organizational update.	Duke Energy Organizational Update
9917	WLS	Pt 11		11A- QAPD II.02	COLA Part 11, QAPD, Part II, Section 2, first paragraph, first sentence is revised from: Duke has established the necessary measures and governing procedures to implement the QAPD as described in the QAPD.  To read: Duke has established the necessary measures and governing procedures to implement the Quality Assurance Program (QAP) as described in the QAPD.	Editorial
9918	WLS	Pt 11		11A- QAPD II.02	COLA Part 11, QAPD, Part II, Section 2, second paragraph is revised from: The objective of the QAPD is to assure that Duke nuclear generating plants are designed, constructed and operated in accordance with governing regulations and license requirements. The program is based on the requirements of ASME NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications," as further described in this document. The QAPD applies to those quality-related activities that involve the functions of safety-related structures, systems, and components (SSCs) associated with the design	Editorial



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					<p>(excluding Design Certification activities), fabrication, licensing, construction, testing and operation of new nuclear power plants and managerial and administrative controls as described in the ESP Site Safety Analysis Report and COL Final Safety Analysis Report. Examples of ESP/COL program safety-related activities include, but are not limited to, site specific engineering related to safety-related SSCs, site geotechnical investigations, site engineering analysis, seismic analysis, and meteorological analysis. A list or system for identifying SSCs and activities to which this program applies is maintained at the appropriate facility. The Design Certification Document is used as the basis for this identification. Cost and scheduling functions do not prevent proper implementation of the QAPD.</p> <p>To read: The objective of the QAP is to assure that Duke nuclear generating plants are designed, constructed and operated in accordance with governing regulations and license requirements. The program is based on the requirements of ASME NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications," as further described in this document. The QAPD applies to those quality-related activities that involve the functions of safety-related structures, systems, and components (SSCs) associated with the design (excluding Design Certification activities), fabrication, construction, testing of the SSC's of the facility and to the managerial and administrative controls to be used to assure safe operation. Examples of ESP/COL program safety-related activities include, but are not limited to, site specific engineering related to safety-related SSCs, site geotechnical investigations, site engineering analysis, seismic analysis, and meteorological analysis. A list or system for identifying SSCs and activities to which this program applies is maintained at the appropriate facility. The Design Certification Document is used as the basis for this identification. Cost and scheduling functions do not prevent proper implementation of the QAP.</p>	
9919	WLS	Pt 11		11A- QAPD II.02	<p>COLA Part 11, QAPD, Part II, Section 2, third paragraph is revised from: As described in Part III, specific program controls are applied to non-safety related SSCs, for which 10CFR50, Appendix B is not applicable, that are significant contributors to plant safety. The specific program controls consistent with applicable sections of the QAPD are applied to those items in a selected manner, targeted at those characteristics or critical attributes that render the SSC a significant contributor to plant safety. These controls are identified in Part III.</p> <p>To read: As described in Part III, specific program controls are applied to non-safety related SSCs, for which 10CFR50, Appendix B is not applicable, that are significant contributors to plant safety. The specific program controls consistent with applicable sections of the QAPD are applied to those items in a selected manner, targeted at those characteristics or critical attributes that render the SSC a significant contributor to plant safety.</p>	Editorial
9920	WLS	Pt 11		11A- QAPD II.02	<p>COLA Part 11, QAPD, Part II, Section 2, fourth paragraph, first sentence is revised from: Delegated responsibilities may be performed under a suppliers or principal contractors QAPD, provided that the supplier or principle contractor has been approved as a supplier in accordance with the QAPD.</p> <p>To read: Delegated responsibilities may be performed under a suppliers or principal contractors QAP, provided that the supplier or principle contractor has been approved as a supplier in accordance with the QAPD.</p>	Editorial
9921	WLS	Pt 11		11A- QAPD II.02	<p>COLA Part 11, QAPD, Part II, Section 2, eighth paragraph, fifth sentence is revised from: Audits schedules are based on the month in which the audit starts.</p> <p>To read: Audit schedules are based on the month in which the audit starts.</p>	Editorial
9922	WLS	Pt 11		11A- QAPD II.02.01	<p>COLA Part 11, QAPD, Part II, Section 2.1, seventh sentence is revised from: The manager of quality assurance and oversight is responsible to verify that processes and procedures comply with QAPD and other applicable requirements, that such processes or procedures are implemented, and that management appropriately ensures compliance.</p> <p>To read:</p>	Duke Energy Organizational Update

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					The manager of Independent Nuclear Oversight is responsible to verify that processes and procedures comply with QAPD and other applicable requirements, that such processes or procedures are implemented, and that management appropriately ensures compliance.	
9925	WLS	Pt 11		11A- QAPD II.02.05	COLA Part 11, QAPD, Part II, Section 2.5, first paragraph is revised to replace two instances of "quality assurance and oversight" to read "Independent Nuclear Oversight"	Duke Energy Organizational Update
9927	WLS	Pt 11		11A- QAPD II.02.06	COLA Part 11, QAPD, Part II, Section 2.6, second paragraph, first sentence is revised to replace "quality assurance and oversight" with "Independent Nuclear Oversight"	Duke Energy Organizational Update
9928	WLS	Pt 11		11A- QAPD II.02.07	COLA Part 11, QAPD, Part II, Section 2.7 is deleted. Section 2.8 NQA-1-1994 Commitment / Exceptions is renumbered to Section 2.7.	Format
9929	WLS	Pt 11		11A- QAPD II.02.07	COLA Part 11, QAPD, Part II, Section 2.7, first bullet under NQA-1-1994, Supplement 2S-1 is revised from: Supplement 2S-1 will include use of the guidance provided in Appendix 2A-1 the same as if it were part of the Supplement. The following two alternatives may be applied to the implementation of this Supplement and Appendix:  To read: Supplement 2S-1 will include use of the guidance provided in Appendix 2A-1 the same as if it were part of the Supplement. Either or both of the following two alternatives will be applied to the implementation of this Supplement and Appendix:	Requirements Update
9930	WLS	Pt 11		11A- QAPD II.03.05	COLA Part 11, QAPD, Part II, Section 3.5 is revised from: In establishing its program for design control and verification, Duke commits to compliance with NQA-1-1994, Basic Requirement 3, and Supplement 3S-1, the subsurface investigations requirements contained in Subpart 2.20 and the standards for computer software contained in Subpart 2.7.  To read: In establishing its program for design control and verification, Duke commits to compliance with NQA-1-1994, Basic Requirement 3, and Supplement 3S-1, the subsurface investigations requirements in Subpart 2.20 and the standards for computer software in Subpart 2.7.	Editorial
9932	WLS	Pt 11		11A- QAPD II.06	COLA Part 11, QAPD, Part II, Section 6, Item (i) is revised to remove the comma after 'and'.	Editorial
9931	WLS	Pt 11		11A- QAPD II.06.01	COLA Part 11, QAPD, Part II, Section 6.1, first and second paragraphs are revised from: Documents shall be reviewed for adequacy by qualified persons other than the preparer. During the construction phase, procedures for design, construction, and installation are also reviewed by the quality assurance organization or a contractor quality assurance organization, as assigned by contract, to ensure quality assurance measures have been appropriately applied. The documented review signifies concurrence.  During the operations phase, documents affecting the configuration or operation of the station as described in the SAR are screened to identify those that require review by the IRB prior to implementation as described in Section 2.  To read: Documents are reviewed for adequacy by qualified persons other than the preparer. During the construction phase, procedures for design, construction, and installation are also reviewed by the Independent Nuclear Oversight organization or a contractor quality assurance organization, as assigned by contract, to ensure quality assurance measures have been appropriately applied. The documented review signifies concurrence.  During the operations phase, documents affecting the configuration or operation of the station as described in the SAR are screened to identify those that require review by the IRB prior to implementation as described in Part V, Section 2.2.	Editorial
9933	WLS	Pt 11		11A- QAPD II.07.01	COLA Part 11, QAPD, Part II, Section 7.1, first paragraph, second sentence is revised from: Verification actions include testing, as appropriate, during design, fabrication and construction activities.	Requirements Update

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					To read: Verification actions include testing, as appropriate, during design, fabrication, construction, and operating activities.	
9934	WLS	Pt 11		11A- QAPD II.10	COLA Part 11, QAPD, Part II, Section 10, first paragraph, third sentence is revised from: Types of inspections may include those verifications related to procurement, such as source, in-process, final, and receipt inspection, as well as construction, installation, and operations activities.  To read: Types of inspections may include those verifications related to procurement, such as source, in-process, final, and receipt inspection, as well as construction, installation, maintenance, modification, inservice, and operations activities.	Requirements Update
9935	WLS	Pt 11		11A- QAPD II.10.03	COLA Part 11, QAPD, Part II, Section 10.3, last bullet, second sentence is revised from: The inspectors report to the quality assurance organization while performing those inspections.  To read: The inspectors report to the Independent Nuclear Oversight organization while performing those inspections.	Duke Energy Organizational Update
9942	WLS	Pt 11		11A- QAPD II.12	COLA Part 11, QAPD, Part II, Section 12, first paragraph, last sentence is revised from: The suppliers of commercial-grade calibration services shall be controlled as described in Part II, Section 7.  To read: The suppliers of commercial-grade calibration services are controlled as described in Part II, Section 7.	Editorial
9943	WLS	Pt 11		11A- QAPD II.13	COLA Part 11, QAPD, Part II, Section 13, third paragraph is revised from: Special handling tools and equipment shall be used and controlled as necessary to ensure safe and adequate handling. Special handling tools and equipment shall be inspected and tested at specified time intervals and in accordance with procedures to verify that the tools and equipment are adequately maintained.  To read: Special handling tools and equipment are used and controlled as necessary to ensure safe and adequate handling. Special handling tools and equipment are inspected and tested at specified time intervals and in accordance with procedures to verify that the tools and equipment are adequately maintained.	Editorial
9944	WLS	Pt 11		11A- QAPD II.13	COLA Part 11, QAPD, Part II, Section 13, fourth paragraph, first sentence is revised from: Operators of special handling and lifting equipment shall be experienced or trained in the use of the equipment.  To read: Operators of special handling and lifting equipment are experienced or trained in the use of the equipment.	Editorial
9945	WLS	Pt 11		11A- QAPD II.13.02	COLA Part 11, QAPD, Part II, Section 13.2 is revised from: In establishing provisions for handling, storage and shipping, Duke commits to compliance with NQA-1-1994, Basic Requirement 13 and Supplement 13S-1. Duke also commits, during the construction and pre-operational phase of the plant, to compliance with the requirements of NQA-1-1994, Subpart 2.1, Subpart 2.2, and Subpart 3.2, Appendix 2.1, with the following clarifications and exceptions:  NQA-1-1994, Subpart 2.2 - Subpart 2.2, section 6.6, "Storage Records:" This section requires written records be prepared containing information on personnel access. As an alternative to this requirement, Duke documents establish controls for storage areas that describe those authorized to access areas and the requirements for recording access of personnel. However, these records of access are not considered quality records and will be retained in accordance with the administrative controls of the applicable plant. - Subpart 2.2, section 7.1 refers to Subpart 2.15 for requirements related to handling of items. The scope of Subpart 2.15 includes hoisting, rigging and transporting of items for nuclear power plants during construction.	Requirements Update

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					<p>NQA-1-1994, Subpart 3.2</p> <p>- Subpart 3.2, Appendix 2.1: Only section 3 precautions, which address the use of alkaline cleaning compounds and chelating agents that will be used in conjunction with the cleaning activities under Subpart 2.1, sections 8.2.2 and 8.2.3, are committed to in accordance with Regulatory Guide 1.37.</p> <p>To read:</p> <p>In establishing provisions for handling, storage and shipping, Duke commits to compliance with NQA-1-1994, Basic Requirement 13 and Supplement 13S-1. Duke also commits, during the construction and operational phase of the plant, to compliance with the requirements of NQA 1-1994, Subpart 2.1, Subpart 2.2, Subpart 2.3, and Subpart 3.2, Appendix 2.1, with the following clarifications and exceptions:</p> <p>NQA-1-1994, Subpart 2.1</p> <p>- Subpart 2.1, Section 3.1 and 3.2 establish criteria for classifying items into cleanliness classes and requirements for each class. Instead of using the cleanliness level system of Subpart 2.1, Duke may establish cleanliness requirements on a case-by-case basis, consistent with the other provisions of Subpart 2.1. Duke establishes appropriate cleanliness controls for work on safety-related equipment to minimize introduction of foreign material and maintain system/component cleanliness throughout maintenance or modification activities, including documented verification of absence of foreign material prior to system closure. [NOTE: Optional clarification/alternative to QA requirements that only applies to operational programs.]</p> <p>NQA-1-1994, Subpart 2.2</p> <p>- Subpart 2.2, Section 2.2 establishes criteria for classifying items into protection levels. Instead of classifying items into protection levels during the operational phase, Duke may establish controls for the packaging, shipping, handling, and storage of such items on a case-by-case basis with due regard for the items complexity, use, and sensitivity to damage. Prior to installation or use, the items are inspected and serviced as necessary to assure that no damage or deterioration exists which could affect their function. [NOTE: Optional clarification/alternative to QA requirements that only applies to operational programs.]</p> <p>- Subpart 2.2, section 6.6, "Storage Records:" This section requires written records be prepared containing information on personnel access. As an alternative to this requirement, Duke documents establish controls for storage areas that describe those authorized to access areas and the requirements for recording access of personnel. However, these records of access are not considered quality records and will be retained in accordance with the administrative controls of the applicable plant.</p> <p>- Subpart 2.2, section 7.1 refers to Subpart 2.15 for requirements related to handling of items. The scope of Subpart 2.15 includes hoisting, rigging and transporting of items for nuclear power plants during construction.</p> <p>NQA-1-1994, Subpart 2.3</p> <p>- Subpart 2.3, Section 2.3 requires the establishment of five zone designations for housekeeping cleanliness controls. Instead of the five-level zone designation, Duke bases its control over housekeeping activities on a consideration of what is necessary and appropriate for the activity involved. The controls are implemented through procedures or instructions which, in the case of maintenance or modification work, are developed on a case-by-case basis. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, radiation control and security. The procedures and instructions make use of standard janitorial and work practices to the extent possible. [NOTE: Optional clarification/alternative to QA requirements that only applies to operational programs.]</p> <p>NQA-1-1994, Subpart 3.2</p> <p>- Subpart 3.2, Appendix 2.1: Only section 3 precautions, which address the use of alkaline cleaning compounds and chelating agents that will be used in conjunction with the cleaning activities under Subpart 2.1, sections 8.2.2 and 8.2.3, are committed to in accordance with Regulatory Guide 1.37. In addition, a suitable chloride stress-cracking inhibitor should be added to fresh water if used to flush systems containing austenitic stainless steels.</p>	
9946, WLS		Pt 11		11A- QAPD II.15	COLA Part 11, QAPD, Part II, Section 15, first paragraph is revised from: Duke has established the necessary measures and governing procedures to control items, including services	Requirements Update

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					<p>that do not conform to specified requirements to prevent inadvertent installation or use. Controls provide for identification, documentation, evaluation, segregation when practical, and disposition of nonconforming items, and for notification to affected organizations. Controls are provided to address conditional release of nonconforming items for use on an at risk basis prior to resolution and disposition of the nonconformance, including maintaining identification of the item and documenting the basis for such release....</p> <p>To read: Duke has established the necessary measures and governing procedures to control items, including services that do not conform to specified requirements to prevent inadvertent installation or use. Instructions require that the individual discovering a nonconformance identify, describe, and document the nonconformance in accordance with the requirements of Part II. Controls provide for identification, documentation, evaluation, segregation when practical, and disposition of nonconforming items, and for notification to affected organizations. Controls are provided to address conditional release of nonconforming items for use on an at-risk basis prior to resolution and disposition of the nonconformance, including maintaining identification of the item and documenting the basis for such release....</p>	
9947	WLS	Pt 11		11A- QAPD II.15.01	<p>COLA Part 11, QAPD, Part II, Section 15.1 is revised from: Duke has appropriate interfaces between the QAPD for identification and control of nonconforming materials, parts, or components and the non-QA Reporting Program to satisfy the requirements of 10 CFR 52, 10 CFR 50.55(e) and/or 10 CFR 21 during ESP/COL and construction and 10 CFR 21 during operations.</p> <p>To read: Duke has appropriate interfaces between the QAP for identification and control of nonconforming materials, parts, or components and the non-QA Reporting Program to satisfy the requirements of 10 CFR 52, 10 CFR 50.55(e) and/or 10 CFR 21 during ESP/COL design and construction and 10 CFR 21 during operations.</p>	Editorial
9948	WLS	Pt 11		11A- QAPD II.16.01	COLA Part 11, QAPD, Part II, Section 16.1 is revised to replace QAPD with QAP.	Editorial
9949	WLS	Pt 11		11A- QAPD II.17.01	<p>COLA Part 11, QAPD, Part II, Section 17.1 is revised from: Measures are required to be established that ensure that sufficient records of completed items and activities affecting quality are appropriately stored. Such records and their retention times are defined in appropriate procedures. In all cases where state, local, or other agencies have more restrictive requirements for record retention, those requirements will be met.</p> <p>To read: Measures are required to be established that ensure that sufficient records of completed items and activities affecting quality are appropriately stored. Records of activities for design, engineering, procurement, manufacturing, construction, inspection and test installation, pre-operation, startup, operations, maintenance, modification, decommissioning, and audits and their retention times are defined in appropriate procedures. The records and their retention times are based on regulatory Position C.2 in Table 1 of Regulatory Guide 1.28, Revision 3, for design, construction, and initial startup. Retention records for operations phase are based on construction records that are similar in nature.. In all cases where state, local, or other agencies have more restrictive requirements for record retention, those requirements will be met.</p>	Requirements Update
9950	WLS	Pt 11		11A- QAPD II.17.02	<p>COLA Part 11, QAPD, Part II, Section 17.2 is revised from: When using electronic records storage and retrieval systems, Duke complies with NRC guidance Generic Letter 88-18, "Plant Record Storage on Optical Disks." Duke will manage the storage of QA Records in electronic media consistent with the intent of RIS 2000-18 and associated NIRMA Guidelines TG 11-1998, TG15-1998, TG16-1998, and TG21-1998.</p> <p>To read: When using optical disks for electronic records storage and retrieval systems, Duke complies with the NRC guidance in Generic Letter 88-18, "Plant Record Storage on Optical Disks." Duke will manage the storage of QA Records in electronic media consistent with the intent of RIS 2000-18 and associated NIRMA Guidelines TG 11-1998, TG15-1998, TG16-1998, and TG21-1998.</p>	Requirements Update

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9951	WLS	Pt 11		11A- QAPD II.18.01	COLA Part 11, QAPD, Part II, Section 18.1, second paragraph, fifth sentence is revised from: These audits are conducted by trained personnel not having direct responsibilities in the area being audited and in accordance with preplanned and approved audit plans or checklists, under the direction of a qualified lead auditor and the cognizance of the manager responsible for quality assurance and oversight.  To read: These audits are conducted by trained personnel not having direct responsibilities in the area being audited and in accordance with preplanned and approved audit plans or checklists, under the direction of a qualified lead auditor and the cognizance of the manager responsible for Independent Nuclear Oversight.	Duke Energy Organizational Update
9952	WLS	Pt 11		11A- QAPD II.18.02	COLA Part 11, QAPD, Part II, Section 18.2 is revised to remove the alpha listing of the first two paragraphs.	Editorial
9953	WLS	Pt 11		11A- QAPD II.18.02	COLA Part 11, QAPD, Part II, Section 18.2, second paragraph, second sentence is revised from: The evaluation should include a detailed performance analysis of the functional area based upon applicable internal and external source data and due consideration of the impact of any function area changes in responsibility, resources or management.  To read: The evaluation should include a detailed performance analysis of the functional area based upon applicable internal and external source data and due consideration of the impact of any functional area changes in responsibility, resources, or management.	Editorial
10264	WLS	Pt 11		11A- QAPD III	COLA Part 11, QAPD, Part III, Section 1 is revised in format to left align the subsections.	Editorial
9954	WLS	Pt 11		11A- QAPD III	COLA Part 11, QAPD, Part III, first paragraph is revised from: (NOTE: Part III does not apply to ESP activities.)  To read: (NOTE: Part III does not apply to ESP activities - only QAP's.)	Editorial
9955	WLS	Pt 11		11A- QAPD III.01.10	COLA Part 11, QAPD, Part III, Section 1.10, second sentence is revised from: These inspections may be performed by personnel in the line organization.  To read: These inspections may be performed by knowledgeable personnel in the line organization.	Editorial
9956	WLS	Pt 11		11A- QAPD IV	COLA Part 11, QAPD, Part IV, first paragraph is revised from: This section identifies the NRC Regulatory Guides and the other quality assurance standards which have been selected to supplement and support the Duke QAPD. Duke complies with these standards to the extent described or referenced. Commitment to a particular Regulatory Guide or standard does not constitute a commitment to the Regulatory Guides or standards that may be referenced therein.  To read: This section identifies the NRC Regulatory Guides (RG) and the other quality assurance standards which have been selected to supplement and support the Duke QAPD. Duke complies with these standards to the extent described or referenced. Commitment to a particular Regulatory Guide or standard does not constitute a commitment to other RG or standards that may be referenced therein.	Editorial
9957	WLS	Pt 11		11A- QAPD IV	COLA Part 11, QAPD, Part IV, Standards, ASME NQA-1-1994 Edition is revised from: ASME NQA-1-1994 Edition - Quality Assurance Requirements for Nuclear Facility Applications  Duke commits to NQA-1-1994, Parts I, II, and III as described in the foregoing sections of this document.  To read: ASME NQA-1-1994 Edition - Quality Assurance Requirements for Nuclear Facility Applications  Duke commits to NQA-1-1994, Parts I, II, and III as described in Parts II and V of this document.	Editorial

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9958	WLS	Pt 11		11A- QAPD V	<p>COLA Part 11, QAPD, Part V is added to the QAPD as follows: PART V ADDITIONAL QUALITY ASSURANCE AND ADMINISTRATIVE CONTROLS FOR THE PLANT OPERATIONAL PHASE</p> <p>Duke includes the requirements of Part V that follow when establishing the necessary measures and governing procedures for the operations phase of the plant.</p> <p>SECTION 1 Definitions</p> <p>Duke uses the definitions of terms as provided in Section 4 of the Introduction of NQA-1-1994 in interpreting the requirements of NQA-1-1994 and the other standards to which the QAPD commits. In addition, definitions are provided for the following terms not covered in NQA-1-1994:</p> <p>administrative controls: rules, orders, instructions, procedures, policies, practices and designations of authority and responsibility</p> <p>experiments: performance of plant operations carried out under controlled conditions in order to establish characteristics or values not previously known</p> <p>independent review: review completed by personnel not having direct responsibility for the work function under review regardless of whether they operate as a part of an organizational unit or as individual staff members (see review)</p> <p>nuclear power plant: any plant using a nuclear reactor to produce electric power, process steam or space heating</p> <p>on-site operating organization: on-site personnel concerned with the operation, maintenance and certain technical services</p> <p>operating activities: work functions associated with normal operation and maintenance of the plant, and technical services routinely assigned to the on-site operating organization</p> <p>operational phase: that period of time during which the principal activity is associated with normal operation of the plant. This phase of plant life is considered to begin formally with commencement of initial fuel loading, and ends with plant decommissioning</p> <p>review: a deliberately critical examination, including observation of plant operation, evaluation of assessment results, procedures, certain contemplated actions, and after-the-fact investigations of abnormal conditions</p> <p>supervision: direction of personnel activities or monitoring of plant functions by an individual responsible and accountable for the activities they direct or monitor</p> <p>surveillance testing: periodic testing to verify that safety related structures, systems, and components continue to function or are in a state of readiness to perform their functions</p> <p>system: an integral part of nuclear power plant comprising components which may be operated or used as a separate entity to perform a specific function</p> <p>SECTION 2 Review of Activities Affecting Safe Plant Operation</p> <p>2.1 Onsite Operating Organization Review</p> <p>The Duke onsite organization employs reviews, both periodic and as situations demand, to evaluate plant operations and plan future activities. The important elements of the reviews are documented and subjects of</p>	NEI 06-14A Rev 7 Update

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					<p>potential concern for the independent review described below are brought to the attention of the Nuclear Station Manager. The reviews are part of the normal duties of plant supervisory personnel in order to provide timely and continuing monitoring of operating activities in order to assist the Nuclear Station Manager in keeping abreast of general plant conditions and to verify that day-to-day operations are conducted safely in accordance with the established administrative controls. The Nuclear Station Manager ensures the timely referral of the applicable matters discussed in the reviews to appropriate management and independent reviewers.</p> <p>2.2 Independent Review</p> <p>Activities occurring during the operational phase shall be independently reviewed on a periodic basis. The independent review program shall be functional prior to initial core loading. The independent review function performs the following:</p> <p>a. Reviews proposed changes to the facility as described in the safety analysis report (SAR). The independent review function also verifies that changes do not adversely affect safety and if a technical specification change or NRC review is required.</p> <p>b. Reviews proposed tests and experiments not described in the SAR prior to implementation. Verifies the determination of whether changes to proposed tests and experiments not described in the SAR require a technical specification change or license amendment.</p> <p>c. Reviews proposed technical specification changes and license amendments relating to nuclear safety prior to NRC submittal and implementation, except in those cases where the change is identical to a previously approved change.</p> <p>d. Reviews violations, deviations, and events that are required to be reported to the NRC. This review includes the results of investigations and recommendations resulting from such investigations to prevent or reduce the probability of recurrence of the event.</p> <p>e. Reviews any matter related to nuclear safety that is requested by the Site Vice President, Site Director, Plant Manager, or any independent review program member.</p> <p>f. Reviews corrective actions for significant conditions adverse to quality.</p> <p>g. Reviews internal audit reports.</p> <p>h. Reviews the adequacy of the internal audit program every 24 months.</p> <p>Independent Review Body</p> <p>A group may function as an independent review body (IRB). In discharging its review responsibilities, the IRB keeps safety considerations paramount when opposed to cost or schedule considerations. One or more organizational units may collectively perform this function.</p> <p>1. IRB reviews are supplemented as follows:</p> <p>a. A qualified person, independent of the preparer, reviews proposed changes in the procedures as described in the SAR prior to implementation of the change to determine if a technical specification change or NRC approval is required.</p> <p>b. Audits of selected changes in the procedures described in the SAR are performed to verify that procedure reviews and revision controls are effectively implemented.</p> <p>c. Competent individual(s) or group(s) other than those who performed the original design but who may be</p>	



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					<p>from the same organization verify that changes to the facility do not result in a loss of adequate design or safety margins.</p> <p>2. The results of IRB reviews of matters involving the safe operation of the facility are periodically independently reviewed. This review is intended to support management in identifying and resolving issues potentially affecting safe plant operation. This review supplements the existing corrective action programs and audits.</p> <p>a. The review is performed by a team consisting of personnel with experience and competence in the activities being reviewed, but independent from cost and schedule considerations and from the organizations responsible for those activities. The IRB supervisor or chairman has a minimum six (6) years combined managerial and technical support experience. The members of the IRB should have a minimum of five years of experience in their own area of responsibility as applicable to the activities being reviewed (i.e., a minimum of five years of experience in one of the twelve areas listed below:</p> <ul style="list-style-type: none"> <li>(1) Nuclear power plant operations</li> <li>(2) Nuclear engineering</li> <li>(3) Chemistry and radiochemistry</li> <li>(4) Metallurgy</li> <li>(5) Nondestructive testing</li> <li>(6) Instrumentation and control</li> <li>(7) Radiological safety</li> <li>(8) Mechanical engineering</li> <li>(9) Electrical engineering</li> <li>(10) Administrative control and quality assurance practices</li> <li>(11) Training</li> <li>(12) Emergency plans and related procedures and equipment.</li> </ul> <p>b. The review is supplemented by outside consultants or organizations as necessary to ensure the team has the requisite expertise and competence.</p> <p>c. Results of the review are documented and reported to responsible management.</p> <p>d. Management periodically consider issues they determine warrant special attention, such as deficient plant programs, declining performance trends, employee concerns, or other issues related to safe plant operations and determine what issues warrant the review.</p> <p>e. Management determines the scheduling and scope of review and the composition of the team performing the review.</p> <p>SECTION 3 Operational Phase Procedures</p> <p>The following is a description of the various types of procedures used by Duke to govern the design, operation, and maintenance of its nuclear generating plants. Duke follows the guidance of Appendix A to</p>	

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					<p>Regulatory Guide 1.33 in identifying the types of activities that should have procedures or instructions to control the activity. Each procedure shall be sufficiently detailed for a qualified individual to perform the required function without direct supervision, but need not provide a complete description of the system or plant process.</p> <p>3.1 Format and Content</p> <p>Procedure format and content may vary from one location to the other. However, procedures include the following elements as appropriate to the purpose or task to be described.</p> <p>Title/Status</p> <p>Each procedure is given a title descriptive of the work or subject it addresses, and includes a revision number and/or date and an approval status.</p> <p>Purpose/Statement of Applicability/Scope</p> <p>The purpose for which the procedure is intended is clearly stated (if not clear from the title). The systems, structures, components, processes or conditions to which the procedure applies are also clearly described.</p> <p>References</p> <p>Applicable references, including reference to appropriate Technical Specifications, are required. References are included within the body of the procedure when the sequence of steps requires other tasks to be performed (according to the reference) prior to or concurrent with a particular step.</p> <p>Prerequisites/Initial Conditions</p> <p>Prerequisites/initial conditions identify those independent actions or procedures that must be accomplished and plant conditions which must exist prior to performing the procedure. A prerequisite applicable to only a specific portion of a procedure is so identified.</p> <p>Precautions</p> <p>Precautions alert the user to those important measures to be used to protect equipment and personnel, including the public, or to avoid an abnormal or emergency situation during performance of the procedure. Cautionary notes applicable to specific steps are included in the main body of the procedure and are identified as such.</p> <p>Limitations and actions</p> <p>Limitations on the parameters being controlled and appropriate corrective measures to return the parameter to the normal control band are specified.</p> <p>Main body</p> <p>The main body of the procedure contains the step-by-step instructions in the degree of detail necessary for performing the required function or task.</p> <p>Acceptance criteria</p> <p>The acceptance criteria provide the quantitative or qualitative criteria against which the success or failure (as of a test-type activity) of the step or action would be judged.</p> <p>Checklists</p>	

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					<p>Complex procedures utilize checklists which may be included as part of the procedure or appended to it.</p> <p>3.2 Procedure Types</p> <p>Administrative Control Procedures</p> <p>These include administrative procedures, directives, policies, standards, and similar documents that control the programmatic aspects of facility activities. These administrative documents ensure that the requirements of regulatory and license commitments are implemented. Several levels of administrative controls are applied ranging from those affecting the entire Company to those prepared at the implementing group level. These documents establish responsibilities, interfaces, and standard methods (rules of practice) for implementing programs. In addition to the administrative controls described throughout this QAPD, instructions governing the following activities are provided:</p> <p>Operating Orders/Procedures</p> <p>Instructions of general and continuing applicability to the conduct of business to the plant staff are provided. Examples where these are applied include, but are not limited to, job turnover and relief, designation of confines of control room, definition of duties of operators and others, transmittal of operating data to management, filing of charts, limitations on access to certain areas and equipment, shipping and receiving instructions. Provisions are made for periodic review and updating of these documents, where appropriate.</p> <p>Special Orders</p> <p>Management instructions, which have short-term applicability and require dissemination, are issued to encompass special operations, housekeeping, data taking, publications and their distribution, plotting process parameters, personnel actions, or other similar matters. Provisions are made for periodic review, updating, and cancellation of these documents, where appropriate.</p> <p>Plant Security and Visitor Control</p> <p>Procedures or instructions are developed to supplement features and physical barriers designed to control access to the plant and, as appropriate, to vital areas within the plant. Information concerning specific design features and administrative provisions of the plant security program is confidential and thus accorded limited distribution. The security and visitor control procedures consider, for example, physical provisions, such as: fences and lighting; lock controls for doors, gates and compartments containing sensitive equipment; and provisions for traffic and access control. Administrative provisions, such as: visitor sign-in and sign-out procedures; escorts and badges for visitors; emphasis on inspection, observation and challenging of strangers by operating crews; and a program of pre-employment screening for potential employees are also considered.</p> <p>Temporary Procedures</p> <p>Temporary procedures may be used to direct operations during testing, refueling, maintenance, and modifications to provide guidance in unusual situations not within the scope of the normal procedures. These procedures ensure orderly and uniform operations for short periods when the plant, a system, or a component of a system is performing in a manner not covered by existing detailed procedures or has been modified or extended in such a manner that portions of existing procedures do not apply. Temporary Procedures include designation of the period of time during which they may be used and are subject to the procedure review process as applicable.</p> <p>Engineering Procedures</p> <p>These documents provide instructions for the preparation of engineering documents, engineering analysis,</p>	

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					<p>and implementation of engineering programs. This includes activities such as designs; calculations; fabrication, equipment, construction, and installation specifications; drawings; analysis and topical reports; and testing plans or procedures. They include appropriate references to industry codes and standards, design inputs, and technical requirements.</p> <p>Installation Procedures</p> <p>These documents provide instructions for the installation of components generally related to new construction and certain modification activities. They include appropriate reference to industry standards, installation specifications, design drawings, and supplier and technical manuals for the performance of activities. These documents include provisions, such as hold or witness points, for conducting and recording results of required inspections or tests. These documents may include applicable inspection and test instructions subject to the requirements for test and inspection procedures below.</p> <p>System Procedures</p> <p>These documents contain instructions for energizing, filling, venting, draining, starting up, shutting down, changing modes of operation, and other instructions appropriate for operations of systems related to the safety of the plant. Actions to correct off-normal conditions are invoked following an operator observation or an annunciator alarm indicating a condition which, if not corrected, could degenerate into a condition requiring action under an emergency procedure. Separate procedures may be developed for correcting off-normal conditions for those events where system complexity may lead to operator uncertainty. Appropriate procedures will also be developed for the fire protection program.</p> <p>Start-up Procedures</p> <p>These documents contain instructions for starting the reactor from cold or hot conditions and establishing power operation. This includes documented determination that prerequisites have been met, including confirmation that necessary instruments are operable and properly set; valves are properly aligned, necessary system procedures, tests and calibrations have been completed; and required approvals have been obtained.</p> <p>Shutdown Procedures</p> <p>These documents contain guidance for operations during controlled shutdown and following reactor trips, including instructions for establishing or maintaining hot shutdown/standby or cold shutdown conditions, as applicable. The major steps involved in shutting down the plant are specified, including instructions for such actions as monitoring and controlling reactivity, load reduction and cooldown rates, sequence for activating or deactivating equipment, requirements for prompt analysis for causes of reactor trips or abnormal conditions requiring unplanned controlled shutdowns, and provisions for decay heat removal.</p> <p>Power Operation and Load Changing Procedures</p> <p>These documents contain instructions for steady-state power operation and load changing. These type documents include, as examples, provisions for use of control rods, chemical shim, coolant flow control, or any other system available for short-term or long-term control of reactivity, making deliberate load changes, responding to unanticipated load changes, and adjusting operating parameters.</p> <p>Process Monitoring Procedures</p> <p>These documents contain instructions for monitoring performance of plant systems to assure that core thermal margins and coolant quality are maintained in acceptable status at all times, that integrity of fission product barriers is maintained, and that engineered safety features and emergency equipment are in a state of readiness to keep the plant in a safe condition if needed. Maximum and minimum limits for process parameters are appropriately identified. Operating procedures address the appropriate nature and frequency</p>	

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					<p>of this monitoring.</p> <p>Fuel Handling Procedures</p> <p>These documents contain instructions for core alterations, accountability of fuel and partial or complete refueling operations that include, for example, continuous monitoring of neutron flux throughout core loading, periodic data recording, audible annunciation of abnormal flux increases, and evaluation of core neutron multiplication to verify safety of loading increments. Procedures are also provided for receipt and inspection of new fuel, and for fuel movements in the spent fuel storage areas. Fuel handling procedures include prerequisites to verify the status of systems required for fuel handling and movement; inspection of replacement fuel and control rods; designation of proper tools, proper conditions for spent fuel movement, proper conditions for fuel cask loading and movement; and status of interlocks, reactor trip circuits and mode switches. These procedures provide requirements for refueling, including proper sequence, orientation and seating of fuel and components, rules for minimum operable instrumentation, actions for response to fuel damage, verification of shutdown margin, communications between the control room and the fuel handling station, independent verification of fuel and component locations, criteria for stopping fuel movements, and documentation of final fuel and component serial numbers (or other unique identifiers) and locations.</p> <p>Maintenance Procedures</p> <p>These documents contain instructions in sufficient detail to permit maintenance work to be performed correctly and safely, and include provisions, such as hold or witness points, for conducting and recording results of required inspections or tests. These documents may include applicable inspection or test instructions subject to the requirements for test and inspection procedures below. Appropriate referencing to other procedures, standards, specifications, or supplier manuals is provided. When not provided through other documents, instructions for equipment removal and return to service, and applicable radiation protection measures (such as protective clothing and radiation monitoring) will be included. Additional maintenance procedure requirements are addressed in NQA-1-1994, Subpart 2.18, Section 2.2, Procedures.</p> <p>Radiation Control Procedures</p> <p>These documents contain instructions for implementation of the radiation control program requirements necessary to meet regulatory commitments, including acquisition of data and use of equipment to perform necessary radiation surveys, measurements and evaluations for the assessment and control of radiation hazards. These procedures provide requirements for monitoring both external and internal exposures of employees, utilizing accepted techniques; routine radiation surveys of work areas; effluent and environmental monitoring in the vicinity of the plant; radiation monitoring of maintenance and special work activities, and for maintaining records demonstrating the adequacy of measures taken to control radiation exposures to employees and others.</p> <p>Calibration and Test Procedures</p> <p>These documents contain instructions for periodic calibration and testing of instrumentation and control systems, and for periodic calibration of measuring and test equipment used in activities affecting the quality of these systems. These documents provide for meeting surveillance requirements and for assuring measurement accuracy adequate to keep safety-related parameters within operational and safety limits.</p> <p>Chemical and Radiochemical Control Procedures</p> <p>These documents contain instructions for chemical and radiochemical control activities and include: the nature and frequency of sampling and analyses; instructions for maintaining coolant quality within prescribed limits; and limitations on concentrations of agents that could cause corrosive attack, foul heat transfer surfaces, or become sources of radiation hazards due to activation. These documents also provide for the control, treatment and management of radioactive wastes, and control of radioactive calibration</p>	

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					<p>sources.</p> <p>Emergency Operating Procedures</p> <p>These documents contain instructions for response to potential emergencies so that a trained operator will know in advance the expected course of events that will identify an emergency and the immediate actions that are taken in response. Format and content of emergency procedures are based on NUREG and Owners Group(s) guidance that identify potential emergency conditions and require such procedures to include, as appropriate, a title, symptoms to aid in identification of the nature of the emergency, automatic actions to be expected from protective systems, immediate operator actions for operation of controls or confirmation of automatic actions, and subsequent operator actions to return the reactor to a normal condition or provide for a safe extended shutdown period under abnormal or emergency conditions.</p> <p>Emergency Plan Implementing Procedures</p> <p>These documents contain instructions for activating the Emergency Response Organization and facilities, protective action levels, organizing emergency response actions, establishing necessary communications with local, state and federal agencies, and for periodically testing the procedures, communications and alarm systems to assure they function properly. Format and content of such procedures are such that requirements of each facility's NRC approved Emergency Plan are met.</p> <p>Test and Inspection Procedures</p> <p>These documents provide the necessary measures to assure quality is achieved and maintained for the nuclear facilities. The instructions for tests and inspections may be included within other procedures, such as installation and maintenance procedures, but will contain the objectives, acceptance criteria, prerequisites for performing the test or inspection, limiting conditions, and appropriate instructions for performing the test or inspection, as applicable. These procedures also specify any special equipment or calibrations required to conduct the test or inspection and provide for appropriate documentation and evaluation by responsible authority to assure test or inspection requirements have been satisfied. Where necessary, hold or witness points are identified within the procedures and require appropriate approval for the work to continue beyond the designated point. These procedures provide for recording the date, identification of those performing the test or inspection, as-found condition, corrective actions performed (if any), and as-left condition, as appropriate for the subject test or inspection.</p> <p>SECTION 4 Control of Systems and Equipment in the Operational Phase</p> <p>Permission to release systems and equipment for maintenance or modification is controlled by designated operating personnel and documented. Measures, such as installation of tags or locks and releasing stored energy, are used to ensure personnel and equipment safety. When entry into a closed system is required, Duke has established control measures to prevent entry of extraneous material and to assure that foreign material is removed before the system is reclosed.</p> <p>Administrative procedures require the designated operating personnel to verify that the system or equipment can be released and determine the length of time it may be out of service. In making this determination, attention is given to the potentially degraded degree of protection where one subsystem of a redundant safety system is not available for service. Conditions to be considered in preparing equipment for maintenance include, for example: shutdown margin; method of emergency core cooling; establishment of a path for decay heat removal; temperature and pressure of the system; valves between work and hazardous material; venting, draining and flushing; entry into closed vessels; hazardous atmospheres; handling hazardous materials; and electrical hazards.</p> <p>When systems or equipment are ready to be returned to service, designated operating personnel control placing the items in service and document its functional acceptability. Attention is given to restoration of normal conditions, such as removal of jumpers or signals used in maintenance or testing, or actions such as</p>	

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					<p>returning valves, breakers or switches to proper start-up or operating positions from "test" or "manual" positions. Where necessary, the equipment placed into service receives additional surveillance during the run-in period.</p> <p>Independent verifications, where appropriate, are used to ensure that the necessary measures have been implemented correctly. The minimum requirements and standards for using independent verification are established in company documents.</p> <p>SECTION 5 Plant Maintenance</p> <p>Duke establishes controls for the maintenance or modification of items and equipment subject to this QAPD to ensure quality at least equivalent to that specified in original design bases and requirements, such that safety-related structures, systems and components are maintained in a manner that assures their ability to perform their intended safety function(s). Maintenance activities (both corrective and preventive) are scheduled and planned so as not to unnecessarily compromise the safety of the plant.</p> <p>In establishing controls for plant maintenance, Duke commits to compliance with NQA-1-1994, Subpart 2.18, with the following clarifications:</p> <p>Where Subpart 2.18 refers to the requirements of ANS-3.2, it shall be interpreted to mean the applicable standards and requirements established within the Duke Energy Carolinas QAPD</p> <p>Section 2.3 requires cleanliness during maintenance to be in accordance with Subpart 2.1. The commitment to Subpart 2.1 is described in the Duke Energy Carolinas QAPD, Part II, Section 13.2.</p>	
9896	WLS,STD	Pt 11		11B- LOLA	COLA Part 11, Enclosures is revised by including Enclosure 11.B, Loss of Large Areas of the Plant Due to Explosions or Fire, Mitigative Strategies Description and Plans Required by 10 CFR 52.80 (d).	<p>Duke Energy Voluntary Submittal Loss of Large Areas, WLG2009.07-02</p> <p>Duke Energy Voluntary Submittal Loss of Large Areas, WLG2011.01-02</p> <p>Duke Energy response to RAI LTR 88, WLG2010.03-06</p> <p>Duke Energy Concurrence with Standard Content, WLG2010.11-01 &amp; WLG2011.04-06</p>
9937	WLS,STD	Pt 11		11C- CSP	COLA Part 11, Enclosures is revised to update Enclosure 11.C to include changes identified by R-COLA, Voluntary letter Regarding Cyber Security Scope Clarification for Balance of Plant Systems. The actual document should be withheld from disclosure in accordance with 10 CFR 2.390(d), because it contains security-related information. The information is presented in Part 9.	<p>Duke Energy Concurrence with Standard Content WLG2011.04-06</p> <p>SNC Voluntary letter Regarding Cyber Security Scope Clarification for Balance of Plant Systems ND-11-0207</p>
9725	WLS,STD	Pt 11		11D- MC&A	COLA Part 11, Enclosures is revised by the addition of a new Enclosure 11.D, Special Nuclear Material Control and Accounting Program Description.	<p>Duke Energy Concurrence with Standard Content WLG2011.04-06</p> <p>VEGP-RAI-LTR-064</p>

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						response to RAI 01.05-003 item 7 SNC Ltr ND-10-2257
9895	WLS,STD	Pt 11		11E- NFS	COLA Part 11, Enclosures is revised by including Enclosure 11E, New Fuel Shipping Plan	Duke Energy Concurrence with Standard Content WLG2011.05-03 SNC-LTR-065 S1, RAI 13.06-037 VR1 ND-11-0894
10238	WLS,STD	Pt 11		11F, Part 70 License App Info	COLA Part 11, Enclosures is revised by including Enclosure 11F, Supplemental Information in Support of 10 CFR Part 70 Special Nuclear Material License Application.	Duke Energy Concurrence with Standard Content WLG2011.07-05, 7/28/11; SNC ND-11-1211, 6-22-11.

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Pt 02	226
Pt 04	471
Pt 07	4
Pt 09	13
Pt 10	36
Pt 11	49
<b>TOTALS (7 groups)</b>	<b>810</b>