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December 15, 2015

10 CFR 52.3

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U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Duke Energy Carolinas, LLC
William States Lee III Nuclear Station - Docket Nos. 52-018 and 52-019
AP1 000 Combined License Application for the William States Lee III
Nuclear Station Units 1 and 2 Update Roadmap
Ltr# WLG2015.12-01

References: Letter from Christopher Fallon (Duke Energy) to NRC Document Control Desk,
*Update for William States Lee III Nuclear Station Units 1 and 2 Combined License
Application*, dated November 24, 2015

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.

If you have any further questions, or need additional information, please contact me at (704) 382-4046.

Sincerely,

Robert Kitchen
Director – Nuclear Licensing
Nuclear Development

Enclosure:

1) Lee Nuclear COLA Submittal 13 Update Roadmap.

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NRO

United States Nuclear Regulatory Commission

December 15, 2015

Page 2 of 2

xc (w/o enclosure):

Laura Dudes, Deputy Regional Administrator, Region II

xc (w enclosure):

Brian Hughes, Senior Project Manager, DNRL

Enclosure 1
Duke Energy Carolinas, LLC (DEC)
William States Lee III Nuclear Station (WLS) Units 1 and 2
COLA Submittal 13 Update Roadmap
(19 pages including cover page)

Lee Nuclear COLA Submittal 13 Update Roadmap

Format Explanation (by column)

QB Change ID# - unique identifier for tracking purposes

COLA Rep - identifies the change as plant specific (WLS)

COLA Part A - affected COLA Part (Part 01 through Part 11)

Chapter A - affected FSAR chapter (FSAR 01 to 19)

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

Complete Change Description - description of the change

Basis for Change - source or reason for the change

Attachment:

APOG Tracking System - LEE COLA Roadmap of Submittal 13

Attachment

APOG Tracking System - LEE COLA Roadmap of Submittal 13

APOG Tracking System : COLA Changes | LEE COLA Roadmap of Submittal 13

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LEE COLA Roadmap of Submittal 13

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
Pt 01 (9 COLA Changes)						
11942	WLS	Pt 01		01.00.T/ T1.0-1	COLA Part 1, Administrative and Financial Information, Table 1.0-1 is revised to present updated project costs.	Duke Energy Annual Update
11934	WLS	Pt 01		01.01.01.F / F.01.01-01	COLA Part 1, Administrative and Financial Information, Figure 1.1-1 is revised to reflect updated organizational changes.	Duke Energy Annual Update
11935	WLS	Pt 01		01.01.03.01	COLA Part 1, Administrative and Financial Information, Section 1.1.3.1, the table listing the business address, names and citizenship of the current directors of Duke Energy Carolinas, LLC is revised as follows: <div> <div>Name</div> <div>Citizenship</div> <div>Good, Lynn J.</div> <div>US</div> <div>Jamil, Dhiaa M.</div> <div>US</div> <div>Yates, Lloyd M.</div> <div>US</div> </div>	Duke Energy Annual Update
11936	WLS	Pt 01		01.01.03.01	COLA Part 1, Administrative and Financial Information, Section 1.1.3.1, the table listing business address, names, current titles and citizenship of the current executive officers and senior nuclear leadership of Duke Energy Carolinas, LLC is revised as follows: <div> <div>Name</div> <div>Position</div> <div>Citizenship</div> <div>Anderson, Melissa H.,</div> <div>Senior Vice President and Chief Human Resources Officer,</div> <div>US</div> <div>Esamann, Douglas F.,</div> <div>Executive Vice President and President, Midwest and Florida Regions,</div> <div>US</div> <div>Fallon, Christopher M.,</div> <div>Vice President, Nuclear Development,</div> <div>US</div> <div>Fountain, David B.,</div> <div>President, North Carolina,</div> <div>US</div> <div>Gillespie, Jr., T. P.,</div> <div>Senior Vice President, Nuclear Operations,</div> <div>US</div> <div>Gillespy, Clark S.,</div> <div>President, South Carolina,</div> <div>US</div> <div>Good, Lynn J.,</div> <div>Chief Executive Officer,</div> <div>US</div> <div>Jamil, Dhiaa M.,</div> <div>Executive Vice President and President, Generation and Transmission,</div> <div>US</div> <div>Janson, Julia S.,</div> <div>Executive Vice President, Chief Legal Officer and Secretary,</div> <div>US</div> <div>Mullinax, A. R.,</div> <div>Executive Vice President, Strategic Services,</div> <div>US</div> <div>Pitesa, John W.,</div> <div>Senior Vice President and Chief Nuclear Officer,</div> <div>US</div> <div>Repko, Regis T.,</div> <div>Senior Vice President, Nuclear Corporate,</div> <div>US</div> <div>Savoy, Brian D.,</div> <div>Senior Vice President, Chief Accounting Officer and Controller,</div> <div>US</div> <div>Weber, Jennifer L.,</div> <div>Executive Vice President, External Affairs and Strategic Policy,</div> <div>US</div> <div>Yates, Lloyd M.,</div> <div>Executive Vice President, Market Solutions and President, Carolinas Region,</div> <div>US</div> <div>Young, Steven K.,</div> <div>Executive Vice President and Chief Financial Officer,</div> <div>US</div> </div>	Duke Energy Annual Update
11937	WLS	Pt 01		01.01.03.02	COLA Part 1, Administrative and Financial Information, Section 1.1.3.2, the table listing business address, names and citizenship of the current directors of Duke Energy Corporation is revised as follows: <div> <div>Name</div> <div>Citizenship</div> <div>Angelakis, Michael J.</div> <div>US</div> <div>Browning, Michael G.</div> <div>US</div> </div>	Duke Energy Annual Update

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					DeLoach, Jr., Harris E. US DiMicco, Daniel R. US Forsgren, John H. US Good, Lynn J. US Gray, Ann Maynard US Hance, Jr., James H. US Herron, John T. US Hyler, Jr., James B. US Kennard, William E. US McKee, E. Marie US Meserve, Richard A. US Rhodes, James Thomas US Saladrigas, Carlos A. US	
11938	WLS	Pt 01		01.01.03.02	COLA Part 1, Administrative and Financial Information, Section 1.1.3.2, the table listing The business address, names, current titles and citizenship of the current executive officers of Duke Energy Corporation is revised as follows: Name Position Citizenship Anderson, Melissa H., Senior Vice President and Chief Human Resources Officer, US Esamann, Douglas F, Executive Vice President and President, Midwest and Florida Regions, US Good, Lynn J., Vice Chairman, President and Chief Executive Officer, US Jamil, Dhiaa M., Executive Vice President and President, Generation and Transmission, US Janson, Julia S., Executive Vice President, Chief Legal Officer and Secretary, US Mullinax, A. R., Executive Vice President, Strategic Services, US Pitesa, John W., Senior Vice President and Chief Nuclear Officer, US Savoy, Brian D., Senior Vice President, Chief Accounting Officer and Controller, US Weber, Jennifer L., Executive Vice President, External Affairs and Strategic Policy, US Yates, Lloyd M., Executive Vice President, Market Solutions and President, Carolinas Region, US Young, Steven K., Executive Vice President and Chief Financial Officer, US	Duke Energy Annual Update
11939	WLS	Pt 01		01.01.06	COLA Part 1, Administrative and Financial Information, Section 1.1.6, second paragraph, first sentence is revised as follows: Duke Energy Carolinas, LLCs 2015 Integrated Resource Plan as submitted to both the North Carolina Utility Commission and the South Carolina Public Service Commission reflects a commercial operation date of 2024 for the first unit of the Lee Nuclear Station.	Duke Energy Annual Update
11940	WLS	Pt 01		01.03.01	COLA Part 1, Administrative and Financial Information, Section 1.3.1 is revised as follows: 1.3.1 DECOMMISSIONING COST ESTIMATE Lee Nuclear Station is a two-unit PWR (Units 1 and 2) that is to be built in accordance with the Westinghouse AP1000 certified design. The AP1000 design has a per unit thermal power rating of 3400 MWt. The decommissioning cost estimate calculated in accordance with 10 CFR 50.75(c) and using NUREG-1307, Revision 15, is computed on a per-unit basis (in 2015 dollars) as described in this section. Pursuant to the requirements of 10 CFR 50.75(c)(1)(i), for a PWR equal to 3400 MWt, the minimum amount required to demonstrate reasonable assurance of funds for decommissioning is \$105 million (in 1986 dollars). The amount is adjusted for inflation to 2015 dollars using an overall adjustment factor equal to $0.65(L) + 0.13(E) + 0.22(B)$. 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 15, which is applicable in 2015 per NRCs RIS 2014-12, "Decommissioning Fund Status Report Calculations – Update to Low-level Waste Burial Charge Information." This calculation is presented in 2015 dollars. The escalation factor for labor costs, L, for the South Region, is calculated as the Base Lx (from	Duke Energy Annual Update

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>NUREG-1307) times the Employment Cost Index (ECI) (from BLS), divided by 100. For second quarter 2015, $L_x = 123.9$ and $L = (1.98 * 123.9)/100 = 2.4532$. 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-1307, Section 3.2, Energy Adjustment Factors, as $0.58Px + 0.42Fx$.</p> <p>The values of Px and Fx 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 237.0 for August 2015 and 114.2 for January 1986. The PPI values provided for light fuel oils are 180.9 for August 2015 and 82.0 for January 1986. The values of Px and Fx are equal to the ratio of the August 2015 Producer Price Indexes to the corresponding indexes for January 1986 for industrial electric power and light fuel oils, respectively.</p> $E = 0.58(Px) + 0.42(Fx)$ $= 0.58(237.0/114.2) + 0.42(180.9/82.0)$ $= 0.58(2.075) + 0.42(2.206)$ $= 2.130$ <p>The escalation factor for waste burial, B, for a member of the Atlantic Compact with a PWR using a combination of compact-affiliated (Barnwell, South Carolina Site) and non-compact facility waste disposal strategy is 13.885, as provided in Table 2.1 of NUREG-1307, Revision 15.</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 \$520 million (in 2015 dollars) per unit, as calculated below.</p> $MDF = \$105 \text{ million } [0.65(L) + 0.13(E) + 0.22(B)]$ $= \$105 \text{ million } [0.65(2.4532) + 0.13(2.130) + 0.22(13.885)]$ $= \$105 \text{ million } [4.926]$ $= \$517 \text{ million (in 2015 dollars) per unit}$ <p>This cost estimate is updated annually using the adjustment factor described in 10 CFR 50.75(c) (2).</p>	
11941	WLS	Pt 01		01.03.02	<p>COLA Part 1, Administrative and Financial Information, Section 1.3.2, second paragraph, fourth sentence is revised as follows:</p> <p>The decommissioning funding status for these existing operating plants is reported to the NRC every two years; the most recent report was submitted to the Commission on March 30, 2015.</p>	Duke Energy Annual Update
Pt 02 (18 COLA Changes)						
11932	WLS	Pt 02	FSAR 01	01.01.T / T.01.01-203	COLA Part 2, FSAR Chapter 1, Table 1.1-203 is revised under the Unit 1 Activity, Site Preparations to record the Start as 3rd Q 2017 and the Duration of 12 mo.	Duke Energy Annual Update
11916	WLS	Pt 02	FSAR 01	01.08.T / T.01.08-201 03.02-01	COLA Part 2, FSAR Chapter 1, Table 1.8-201 is revised at the entry for WLS DEP 3.2-1 to add TS Surveillance Requirement 3.5.4.7 to the Departure Description Summary and the FSAR Section or Subsection columns.	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 1, WLG2014.12-01
11944	WLS	Pt 02	FSAR 01	01.08.T / T.01.08-201 07.03-01	COLA Part 2, FSAR Chapter 1, Table 1.8-201 is revised to add the entry for WLS DEP 7.3-1 as reflected on Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #1.	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #1, WLG2015.09-01
11911	WLS	Pt 02	FSAR 03	03.09.03		

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>COLA Part 2, FSAR Chapter 3 is revised to add the following to Section 3.9:</p> <p>3.9.3 ASME Code Classes 1, 2, and 3 Components, Component Supports, and Core Support Structures</p> <p>Add the following at the end of DCD Subsection 3.9.3:</p> <p>When performing an as-built reconciliation of piping analysis packages, Duke Energy and Westinghouse will also use Reference 205 to justify existing analysis instead of having to create a new analysis to incorporate slightly different dimensional changes in the models. Parameters like location of supports, centerline lengths to fittings, angular deviations of the pipe centerline, and valve concentrated weights, all have some tolerance that, if met, maintain the applicability of the design basis analysis without a formal reanalysis. Reference 205 has a basic assumption that the seismic analysis used to qualify the piping package used uniform envelope response spectra. The NRC has accepted this approach to as-built reconciliation and Reference 205 is cited in the AP1000 DCD, Revision 19 (DCD Subsection 3.6.3.2).</p> <p>The analyses described in Reference 206 demonstrate that the Lee site-specific spectra and HRHF spectra are similar. Detailed stress analysis of selected piping systems indicate that the site-specific pipe stresses are enveloped by the CSDRS pipe stresses. Therefore, as described in FSAR Subsection 3.7.2.15, standard design practices for AP1000 piping systems have considered cases enveloping the Lee site-specific requirements. In some cases the as-built reconciliation review using Reference 205 may indicate that a detailed as-built re-analysis of certain piping systems is needed. For those cases, as-built piping systems will be qualified using the DCD CSDRS/HRHF seismic spectra, since all piping systems were analyzed and designed for both CSDRS and HRHF. In addition, for these cases when as-built re-analyses are needed, the as-built piping system will also be qualified using the Lee site-specific spectra to confirm that configuration changes during construction have not affected the piping system qualification for site-specific demands.</p>	Duke Energy response to RAI Letter 116, S1, RAI 03.12-2, Item 1, WLG2015.01-02
11930	WLS	Pt 02	FSAR 03	03.09.03	<p>COLA Part 2, FSAR Chapter 3, Section 3.9.3, second paragraph, second sentence is revised as follows:</p> <p>Detailed stress analysis of selected piping systems indicates that the site-specific pipe stresses are enveloped by the CSDRS pipe stresses.</p>	Editorial correction to Duke Energy response to RAI Letter 116, S1, RAI 03.12-2, Item 1, WLG2015.01-02
11912	WLS	Pt 02	FSAR 03	03.09.09	<p>COLA Part 2, FSAR Chapter 3 is revised to add the following to Section 3.9.9:</p> <p>205. Electric Power Research Institute, "Guidelines for Piping System Reconciliation (NCIG-05, Revision 1), Document ID NP-5639, May 5, 1988.</p> <p>206. Westinghouse Electric Company, LLC, "Effect of William S. Lee Site Specific Seismic Requirements on AP1000 SSCs," WLG-GW-GLR-815, Revision 0, January 17, 2014.</p>	Duke Energy response to RAI Letter 116, S1, RAI 03.12-2, Item 2, WLG2015.01-02 N214
11931	WLS	Pt 02	FSAR 03	03.09.09	<p>COLA Part 2, FSAR Chapter 3, Section 3.9.9, Reference 205 is revised as follows:</p> <p>205. Electric Power Research Institute, "Guidelines for Piping System Reconciliation (NCIG-05, Revision 1), Document ID NP-5639, May 1988.</p>	Editorial correction to Duke Energy response to RAI Letter 116, S1, RAI 03.12-2, Item 2, WLG2015.01-02
11929	WLS	Pt 02	FSAR 06	06.03.01.01.01	<p>COLA Part 2, FSAR Chapter 6, Subsection 6.3.1.1.1, first bullet is revised as follows:</p> <ul style="list-style-type: none"> The passive residual heat removal heat exchanger automatically actuates to provide reactor coolant system cooling. 	Correction to Duke Energy's voluntary submittal, William States Lee III Nuclear Station Units 1 and 2 Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, WLG2014.09-01

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
						(ML14274A316), Enclosure 7, Attachment 1D, Item 6.
11945	WLS	Pt 02	FSAR 07	07.02.F / F.7.2-201	COLA Part 2, FSAR Chapter 7, Figure 7.2-201 is added with the annotation, WLS DEP 7.3-1 as reflected on Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Change #2.	Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #2. WLG2015.09-01
11946	WLS	Pt 02	FSAR 07	07.03	COLA Part 2, FSAR Chapter 7, Section 7.3 is revised as follows: 7.3 ENGINEERED SAFETY FEATURES This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.	Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #3, WLG2015.09-01
11947	WLS	Pt 02	FSAR 07	07.03.01.02.14	COLA Part 2, FSAR Chapter 7, Subsection 7.3.1.2.14 is added with left margin annotation WLS DEP 7.3-1 as follows: 7.3.1.2.14 Boron Dilution Block Revise the fourth paragraph of DCD Subsection 7.3.1.2.14 to read: Condition 1 is an average of the source range count rate, sampled at least N times over the most recent time period T1, compared to a similar average taken at time period T2 earlier. If the ratio of the current average count rate to the earlier average count rate is greater than a preset value, a partial trip is generated in the division. On a coincidence of excessively increasing source range neutron flux in two of the four divisions, boron dilution is blocked. The Flux Doubling function is also delayed from actuating each time the source range detector's high voltage power is energized to prevent a spurious dilution block due to the short term instability of the processed source range values. This source range flux doubling signal may be manually blocked to permit plant startup and normal power operation when reactor coolant average temperature is above the P-8 setpoint. It is automatically reinstated when reactor power is decreased below the P-6 power level during shutdown or reactor coolant average temperature decreases below the P-8 setpoint. The Flux Doubling function can also be manually blocked during shutdown conditions when below the P-8 reactor coolant average temperature. When blocked during shutdown conditions, the CVS demineralized water system isolation valves are automatically closed to prevent inadvertent boron dilution.	Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #4, WLG2015.09-01
11948	WLS	Pt 02	FSAR 07	07.03.T / T.07.03-201	COLA Part 2, FSAR Chapter 7, Table 7.3-201 is added with left margin annotation WLS DEP 7.3-1 as reflected on Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #5.	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #5. WLG2015.09-01
11949	WLS	Pt 02	FSAR 07	07.03.T / T.07.03-202	COLA Part 2, FSAR Chapter 7, Table 7.3-202 is added with left margin annotation WLS DEP 7.3-1 as reflected on Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #6.	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3,

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
						Attachment 1, Change #6. WLG2015.09-01
11952	WLS	Pt 02	FSAR 09	09.03.06.03.07	<p>COLA Part 2, FSAR Chapter 9, Subsection 9.3.6.3.7 is added with left margin annotation WLS DEP 7.3-1 as follows:</p> <p>9.3.6.3.7 Chemical and Volume Control System Valves</p> <p>Revise the paragraph under the subheading Demineralized Water System Isolation Valves as follows:</p> <p>Demineralized Water System Isolation Valves</p> <p>These normally open, air-operated butterfly valves are located outside containment in the line from the demineralized water storage and transfer system. These valves close on a signal from the protection and safety monitoring system derived by either a reactor trip signal, a source range flux doubling signal, low input voltage (loss of ac power) to the 1E dc and uninterruptible power supply system battery chargers, or a safety injection signal, isolating the demineralized water source to prevent inadvertent boron dilution events and, during shutdown conditions, whenever the flux doubling signal is blocked to prevent inadvertent boron dilution. Manual control for these valves is provided from the main control room and at the remote shutdown workstation.</p>	Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #8, WLG2015.09-01
11953	WLS	Pt 02	FSAR 09	09.03.06.04.05.01	<p>COLA Part 2, FSAR Chapter 9, Subsection 9.3.6.4.5.1 is added with left margin annotation WLS DEP 7.3-1 as follows:</p> <p>9.3.6.4.5.1 Boron Dilution Events</p> <p>Add the following at the end of the third paragraph of DCD Subsection 9.3.6.4.5.1:</p> <p>In addition, when the flux doubling signal is blocked during shutdown, the demineralized water system isolation valves are closed to prevent inadvertent boron dilution.</p>	Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #9, WLG2015.09-01
11954	WLS	Pt 02	FSAR 09	09.03.06.07	<p>COLA Part 2, FSAR Chapter 9, Subsection 9.3.6.7 is added with left margin annotation WLS DEP 7.3-1 as follows:</p> <p>9.3.6.7 Instrumentation Requirements</p> <p>Revise the fourth bullet following the third paragraph of DCD Subsection 9.3.6.7 as follows:</p> <ul style="list-style-type: none"> Demineralized water system isolation valves – To prevent inadvertent boron dilution, the demineralized water system isolation valves close on a signal from the protection and safety monitoring system derived from either a reactor trip signal, a source range flux doubling signal, low input voltage (loss of ac power) to the 1E dc and uninterruptible power supply system battery chargers, or a safety injection signal providing a safety-related method of stopping an inadvertent dilution. In addition, when the flux doubling logic is blocked during shutdown, the valves are closed to prevent inadvertent boron dilution. The main control room and remote shutdown workstation provide manual control for these valves. 	Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #10, WLG2015.09-01
11955	WLS	Pt 02	FSAR 14	14.03.T / T.14.3-203	COLA Part 2, FSAR Chapter 14, Table 14.3-203 is added with left margin annotation WLS DEP 7.3-1 as reflected on Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Item 11.	Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Item 11. WLG2015.09-01
11956	WLS	Pt 02	FSAR 19	19.E.2.7.2	COLA Part 2, FSAR Appendix 19E revised with the addition of Subsection 19E.2.7.2 with left margin annotation WLS DEP 7.3-1 as follows:	Duke Energy's Voluntary Submittal of Exemption Request and Design Change

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
					<p>19E.2.7.2 Design Features to Address Shutdown Safety</p> <p>Revise the third paragraph of DCD Subsection 19E.2.7.2 as follows:</p> <p>The safety analysis of boron dilution accidents is provided in Chapter 15 and is discussed in subsection 19E.4.5 of this appendix. For dilution events that occur during shutdown, the source range flux-doubling signal closes the safety-related remotely operated CVS makeup line isolation valves to terminate the event. In addition, the signal is used to isolate the line from the demineralized water system to the makeup pump suction by closing the two safety-related remotely operated valves. The three-way pump suction control valve aligns the makeup pumps to take suction from the boric acid tank and, therefore, stops the dilution.</p>	Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 1, Change #12, WLG2015.09-01
Pt 04 (4 COLA Changes)						
11957	WLS	Pt 04		03.03.02	COLA Part 4, Technical Specifications, Engineered Safeguards Actuation System Instrumentation, Table 3.3.2-1 is revised at the entries 15 and 18 with left margin annotation WLS DEP 7.3-1 as reflected on Duke Energy's voluntary submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 2, Item 1.	Duke Energy's Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 2, Item 1, WLG2015.09-01
11917	WLS	Pt 04		03.05.04.07	COLA Part 4, Technical Specifications Section 3.5, SURVEILLANCE REQUIREMENTS, SR 3.5.4.7 is revised under 'Surveillance' to read:	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 2, WLG2014.12-01
					Verify by visual inspection that the IRWST gutter and downspout screens are not restricted by debris.	
11958	WLS	Pt 04		B.03.03.02	COLA Part 4, Technical Specifications, Bases 3.3.2, Applicable Safety Analyses, LCOs, and Applicability, ESFAS protective functions 15 and 18 are revised with left margin annotation WLS DEP 7.3-1 as reflected on Duke Energy's voluntary submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 - 1991, Enclosure 3 Attachment 2, Item 2.	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 - 1991, Enclosure 3, Attachment 2, Item 2, WLG2015.09-01
11918	WLS	Pt 04		B.03.05.04	COLA Part 4, Technical Specifications Bases 3.5, SURVEILLANCE REQUIREMENTS, SR 3.5.4.7 is revised to read:	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 3, WLG2014.12-01
					BASES	
					SURVEILLANCE REQUIREMENTS (continued)	
					SR 3.5.4.7	
					This surveillance requires visual inspection of the IRWST gutter and downspout screens to verify that the return flow to the IRWST will not be restricted by debris. A Frequency of 24 months is adequate, since there are no known sources of debris with which the gutter or downspout screens could become restricted.	
Pt 05 (1 COLA Change)						
11933	WLS	Pt 05		APP.4	COLA Part 5, Appendix 2, Section 5 is revised as follows:	Clarification of evacuation times discussed in the Duke Energy supplemental response to RAI 13.03-098, WLG2015.02-01
					A compilation of selected information is presented in the figures and tables provided in the body of the report. The maximum calculated ETE for evacuating 100% of the general population from the Plume Exposure Pathway EPZ under adverse weather conditions is approximately four hours. The	

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					maximum calculated ETE for evacuating 100% of the transit-dependent population from the Plume Exposure Pathway EPZ under adverse weather conditions is approximately five hours. If a three-wave evacuation of Cherokee County schools is required, the total time for evacuation of schools and the transit-dependent population is estimated to be between 8 hours and 9 hours 15 minutes. Additional resources are available through the South Carolina Statewide Mutual Aid Agreement for Catastrophic Disaster Response and Recovery to provide a more rapid evacuation. The ETE did not identify any impediments to the development of emergency plans for the Lee Nuclear Station site.	
Pt 07 (15 COLA Changes)						
11959	WLS	Pt 07		A	COLA Part 7, Departures and Exemption Requests is revised to add the following departure to the table presented in Section A as follows: Departure Number Description WLS DEP 7.3-1 Compliance with IEEE 603	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 3, Item 1, WLG2015.09-01
11960	WLS	Pt 07		A.2 07.03-01	COLA Part 7, Departures and Exemption Requests is revised to add the following departure to the table presented in Section A.2, Departures That Require NRC Approval Prior to Implementation as follows: Departure Number Description WLS DEP 7.3-1 Compliance with IEEE 603	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 3, Item 2, WLG2015.09-01
11919	WLS	Pt 07		A.2 03.02-01	COLA Part 7, Departures and Exemptions Requests, Section A.2 is revised at Departure Number WLS DEP 3.2-1, under the subheadings of Affected DCD/FSAR Sections and Summary of Departure are revised as follows: Departure Number: WLS DEP 3.2-1: Affected DCD/FSAR Sections: Tier 1 Table 2.2.3-1 and Table 2.2.3-2, Tier 2 Table 3.2-3 (Sheet 16 of 75), Figure 3.8.2-1 (Sheet 3), Subsections 5.4.11.2 and 5.4.14.1, Subsections 6.3.1.1.1, 6.3.1.1.4, 6.3.1.1.6, 6.3.1.2, 6.3.1.3, 6.3.2.1, 6.3.2.1.1, 6.3.2.2.7, 6.3.2.8, 6.3.3, and 6.3.3.2.1.1, Chapter 6, Figure 6.3-1 (Sheets 1 through 3), Figure 6.3-2 (Not Used), Subsection 7.4.1.1, Table 14.3-2 (Sheets 7 and 8 of 17), Subsection 15.0.13, Chapter 16 (TS Surveillance Requirement 3.5.4.7, TS Bases B 3.3.3 and B 3.5.4), Subsections 19E.4.10.2 and 19E.9, Table 19E.4.10-1, and Figures 19E.4.10-1 through 19E.4.10-4. Summary of Departure: Modifications to the Polar Crane Girder (PCG), Internal Stiffener, and Passive Core Cooling System (PXS) gutter were made. The fabrication holes at the top surface of the PCG and in the stiffener are blocked, drainage holes in the bottom of the PCG boxes are blocked, and flow communication holes between PCG boxes are added. A downspout piping network is added to collect and transport condensation from the top and interior of the PCG and the stiffener to the PXS Collection Boxes. Eight new PXS downspout screens are added at the entrance of each of the downspouts at the top of the PCG and the stiffener to prevent any larger debris from blocking the downspout piping. Visual inspection requirements to verify that the return flow to the IRWST will not be restricted by debris have been added to the Technical Specifications and Technical Specification Bases.	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 4, WLG2014.12-01
11920	WLS	Pt 07		A.2 03.02-01	COLA Part 7, Departures and Exemptions Requests, Section A.2 is revised at Departure Number WLS DEP 3.2-1, under the subheading of Scope/Extent of Departure, last paragraph, last sentence is revised as follows:	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to

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					Visual inspection requirements to verify that the return flow to the IRWST will not be restricted by debris have been added to the Technical Specifications and Technical Specification Bases.	Address Containment Condensate Return Cooling Design, Enclosure 7, Item 4, WLG2014.12-01
11921	WLS	Pt 07		A.2 03.02-01	COLA Part 7, Departures and Exemptions Requests, Section A.2 is revised at Departure Number WLS DEP 3.2-1, under the subheading of Departure Evaluation, fifth sentence is revised as follows: Visual inspection requirements to verify that the return flow to the IRWST will not be restricted by debris have been added to Technical Specifications and Technical Specification Bases.	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 4, WLG2014.12-01
11922	WLS	Pt 07		A.2 03.02-01	COLA Part 7, Departures and Exemptions Requests, Section A.2 is revised at Departure Number WLS DEP 3.2-1, under the subheading of NRC Approval Requirement is revised as follows: This departure requires an exemption from the requirements of 10 CFR Part 52, Appendix D, Section III.B, which requires compliance with Tier 1 requirements of the AP1000 DCD and the generic Technical Specifications. Therefore, an exemption is requested in Part B of this COL Application Part.	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 4, WLG2014.12-01
11961	WLS	Pt 07		A.2 07.03-01	COLA Part 7, Departures and Exemption Requests is revised to add the following departure in Section A.2, Departures That Require NRC Approval Prior to Implementation as follows: Departure Number WLS DEP 7.3-1 Affected DCD/FSAR Sections: DCD Figure 7.2-1 (Sheet 3 of 21), Table 7.3-1 (Sheets 6 and 7 of 9), Table 7.3-2 (Sheet 1 of 4), Subsections 7.3.1.2.14, 9.3.6.3.7, 9.3.6.4.5.1, 9.3.6.7, Table 14.3-2 (Sheets 9 and 12 of 17), Chapter 16 (TS Table 3.3.2-1 (Pages 9 and 10 of 13), TS Bases B 3.3.2), and Subsection 19E.2.7.2. Discussion and justification for each of these requests is provided in the following pages. Summary of Departure: IEEE 603 is a standard for safety systems imposed directly by 10 CFR part 50.55a(h). Clause 6.6 of this standard establishes three requirements for "Operating Bypasses". This logic is included for many PMS functions to permit them to be blocked, so normal plant operations can occur without the unnecessary and onerous actuation of safety systems. Portions of the block/reset associated with the flux doubling logic does not comply with IEEE 603 Section 6.6. A permissive is required for bypasses in safety systems. The flux doubling actuation bypass does not have a permissive to prevent operating the bypass for the function. With regard to IEEE 603 - 1991, the Source Range nuclear Instrumentation includes a flux doubling function, the P-6 permissive instates this actuation. This actuation, when blocked, automatically reinstates the function when reset by P-6, which satisfies a part of IEEE 603 for automatic removal of the block. However this function does not employ an operating bypass permissive to prevent blocking the function; or actuating the function when the conditions are not met. Scope / Extent of Departure: Changes are made to ensure compliance with IEEE 603 and to support normal plant operation needs, as follows: 1. Add a new permissive, P-8, to permit blocking the flux logic during reactor startup. (Prevents blocking of flux doubling below 551°F RCS temperature for reactor startup, 510°F is the minimum temperature for criticality) 2. Add logic that will cause the PMS to force CVS valves 136A and 136B closed if the flux doubling logic is blocked during shutdown conditions (< 551°F). (Actuation if flux doubling is bypassed below 551°F RCS temperature, which is one option from IEEE 603, the other is to prevent the blocking, and this design change actuates the function). 3. Include new permissive and actuation in Tech Specs, and describe the changes in Tier 2 information. Departure Justification:	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 3, Item 3, WLG2015.09-01

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					<p>Preventing criticality from an inadvertent RCS dilution is the design function and the Source Range Neutron Flux doubling function is an input to it. Adding a permissive, as required by IEEE 603 -1991, for blocking this function when plant conditions require it to be active, prevents dilution water being added to the RCS. When blocked with an RCS temperature less than 551°F (Tech Spec minimum temperature for criticality), the demineralized water dilution valves are closed. This change satisfies IEEE 603 - 1991, Clause 6.6, and is consistent with accident analyses, as described in Chapter 19 and maintains reactor protection as required. This change provides protection from blocking the source range flux doubling signal when required for plant operation. Therefore, there are not any adverse effects on the design function.</p> <p>Procedures currently provide guidance for operation of the flux doubling feature during plant operations and will continue to do so. Therefore, this is not an adverse change to procedures which control the Chemical And Volume Control System (CVS) during plant startup. This departure does not involve revising or replacing a described evaluation of methodology used to for RCS inadvertent dilution. This change is consistent with the DCD analysis for inadvertent RCS dilution and does not affect any evaluation methodology. This activity does not involve a test or experiment not described in the plant-specific DCD, and is within the reference bounds of the design bases for preventing inadvertent dilution.</p> <p>Departure Evaluation:</p> <p>This departure makes the changes stated above. The departure does not involve a significant reduction in the margin of safety and does not reduce the redundancy or diversity of any safety-related SSCs. Therefore, this departure does not:</p> <ol style="list-style-type: none"> 1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD. 2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety and previously evaluated in the plant-specific DCD. 3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD. 4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD. 5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD. 6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD. 7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered. 8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses. <p>This departure does not affect resolution of a severe accident issue identified in the plants-specific DCD. Therefore, this departure has no safety significance.</p> <p>NRC Approval Requirement:</p> <p>This departure requires an exemption from the requirements of 10 CFR Part 52, Appendix D, Section III.B, which requires compliance with generic Technical Specifications of the AP1000 DCD. Therefore, an exemption is requested in Part B of this COL Application Part.</p>	
11962	WLS	Pt 07		B	<p>COLA Part 7, Departures and Exemption Requests is revised to add the following exemption in Section B, William States Lee, Units 1 and 2 Exemption Requests as follows:</p> <p>B. Lee Nuclear Station Exemption Requests</p> <p>Duke requests the following exemptions related to:</p> <p>4) Source Range Neutron Flux Doubling Block Permissive</p>	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 3, Item 4, WLG2015.09-01
11923	WLS	Pt 07		B.3	<p>COLA Part 7, Departures and Exemptions Requests, Part B, Exemption Request 3, the two paragraphs following bullet B, are revised to read:</p> <p>Pursuant to 10 CFR §52.63(b)(1), an exemption from elements of the design as certified in the 10 CFR Part 52, Appendix D, design certification rule is requested for plant-specific Tier 1 material</p>	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate

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					<p>departures from the AP1000 DCD for Tier 1 information and for a material departure from the generic Technical Specifications. These material departures are contained in Tier 1 Subsection 2.2.3, Tables 2.2.3-1 and 2.2.3-2, and involve the addition of components to the condensate return design to enable the Passive Core Cooling System to more effectively perform its design functions. The material departures also include a change to Technical Specifications Surveillance Requirement 3.5.4.7 which involves adding the downspout screens. This exemption request is in accordance with the provisions of 10 CFR §50.12, 10 CFR §52.7, and 10 CFR Part 52, Appendix D.</p> <p>Discussion:</p> <p>The changes requested to Tier 1 Table 2.2.3-1 and Table 2.2.3-2 and associated Tier 2 changes, to Table 3.2-3, Figure 3.8.2-1, Subsections 5.4.11.2 and 5.4.14.1, Subsections 6.3.1.1.1, 6.3.1.1.4, 6.3.1.1.6, 6.3.1.2, 6.3.1.3, 6.3.2.1, 6.3.2.1.1, 6.3.2.2.7, 6.3.2.8, 6.3.3, and 6.3.3.2.1.1 and Figures 6.3-1 and 6.3-2, Subsection 7.4.1.1, Table 14.3-2, Subsection 15.0.3, Technical Specifications Surveillance Requirement 3.5.4.7, Technical Specification Bases B 3.3.3 and B 3.5.4, Subsections 19E.4.10.2 and 19E.9, Table 19E.4.10-1, and Figures 19E.4.10-1 through 19E.4.10-4 provide additional equipment and surveillance requirements, provide reasonable assurance that the facility has been constructed and will be operated in conformity with the applicable design criteria, codes and standards, and demonstrate acceptable Passive Core Cooling System (PXS) system performance during design basis scenarios.</p>	Return Cooling Design, Enclosure 7, Item 5, WLG2014.12-01
11924	WLS	Pt 07		B.3	<p>COLA Part 7, Departures and Exemptions Requests, Part B, Exemption Request 3, under the subheading Conclusion, item 2, first paragraph, first sentence is revised as follows:</p> <p>The proposed exemption from the requirements of 10 CFR 52, Appendix D, Section III.B would allow changes to elements of the plant-specific Tier 1 DCD to depart from the AP1000 certified (Tier 1) design information and a change to a Technical Specifications Surveillance Requirement to depart from the AP1000 certified (Tier 2) information.</p>	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 5, WLG2014.12-01
11925	WLS	Pt 07		B.3	<p>COLA Part 7, Departures and Exemptions Requests, Part B, Exemption Request 3, under the subheading Conclusion, item 3, first paragraph, first sentence is revised as follows:</p> <p>The exemption from the requirements of 10 CFR 52, Appendix D, Section III.B would change elements of the plant-specific Tier 1 DCD by departing from the AP1000 certified (Tier 1) design information relating to the condensate return portion of the passive core cooling system and departing from the Tier 2 generic Technical Specifications to include surveillance of added plant equipment.</p>	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 5, WLG2014.12-01
11926	WLS	Pt 07		B.3	<p>COLA Part 7, Departures and Exemptions Requests, Part B, Exemption Request 3, under the subheading Conclusion, item 4, the second, third and forth paragraphs are revised as follows:</p> <p>The rule under consideration in this request for exemption from Tier 1 Subsection 2.2.3, Tables 2.2.3-1 and 2.2.3-2, and the Tier 2 generic Technical Specifications is 10 CFR 52, Appendix D, Section III.B, which requires that an applicant referencing the AP1000 Design Certification Rule (10 CFR Part 52, Appendix D) shall incorporate by reference and comply with the requirements of Appendix D, including Tier 1 information and generic Technical Specifications. The WLS Units 1 and 2 COLA references the AP1000 Design Certification Rule and incorporates by reference the requirements of 10 CFR Part 52, Appendix D, including Tier 1 information and generic Technical Specifications. The underlying purpose of Appendix D, Section III.B is to describe and define the scope and contents of the AP1000 design certification, and to require compliance with the design certification information in Appendix D to maintain the level of safety in the design.</p> <p>The proposed changes to the condensate return portion of the passive core cooling system maintain the design margins of the Passive Core Cooling System. This change does not impact the ability of any structures, systems, or components to perform their functions or negatively impact safety. Accordingly, this exemption from the certification information in Tier 1 Subsection</p>	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 5, WLG2014.12-01

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					<p>2.2.3, Tables 2.2.3-1 and 2.2.3-2, and Technical Specifications Surveillance Requirement 3.5.4.7 will enable the applicant to safely construct and operate the AP1000 facility consistent with the design certified by the NRC in 10 CFR 52, Appendix D.</p> <p>Therefore, special circumstances are present, because application of the current generic certified design information in Tier 1 and the generic Technical Specification as required by 10 CFR Part 52, Appendix D, Section III.B, in the particular circumstances discussed in this request is not necessary to achieve the underlying purpose of the rule.</p>	
11927	WLS	Pt 07		B.3	<p>COLA Part 7, Departures and Exemptions Requests, Part B, Exemption Request 3, under the subheading Conclusion, item 5, second paragraph is revised as follows:</p> <p>Based on the nature of the changes to the plant-specific Tier 1 information and Tier 2 generic Technical Specifications and the understanding that these changes support the design function of the Passive Core Cooling System, it is likely that other AP1000 applicants and licensees will request this exemption. However, if this is not the case, the special circumstances continue to outweigh any decrease in safety from the reduction in standardization because the key design functions of the Passive Core Cooling System associated with this request will continue to be maintained. This exemption request and the associated marked-up tables and Technical Specifications Surveillance Requirements demonstrate that the Passive Core Cooling System function continues to be maintained following implementation of the change from the generic AP1000 DCD, thereby minimizing the safety impact resulting from any reduction in standardization.</p>	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 5, WLG2014.12-01
11928	WLS	Pt 07		B.3	<p>COLA Part 7, Departures and Exemptions Requests, Part B, Exemption Request 3, under the subheading Conclusion, item 6, the first and second paragraphs are revised as follows:</p> <p>The exemption revises the plant-specific DCD Tier 1 information by adding components to Subsection 2.2.3, Tables 2.2.3-1 and 2.2.3-2, which were added to the condensate return design to enable the Passive Core Cooling System to more effectively perform its design functions. This exemption also revises the generic Technical Specifications Surveillance Requirement 3.5.4.7 to add the downspout screens to the surveillance. Because the Passive Core Cooling System design functions are met, there is no reduction in the level of safety.</p> <p>Therefore, the design change and associated change to the Technical Specifications will not result in a significant decrease in the level of safety.</p>	Duke Energy Supplement to Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Containment Condensate Return Cooling Design, Enclosure 7, Item 5, WLG2014.12-01
11963	WLS	Pt 07		B.4	<p>COLA Part 7, Departures and Exemption Requests, Exemption Request 3, Discussion and Justifications is added as follows:</p> <p>4) Source Range Neutron Flux Doubling Block Permissive Applicable Regulation(s): 10 CFR Part 52 Appendix D, Section III.B Specific wording from which exemption is requested: "III. Scope and Contents B. An applicant or licensee referencing this appendix, in accordance with Section IV of this appendix, shall incorporate by reference and comply with the requirements of this appendix, including Tier 1, Tier 2 (including the investment protection short-term availability controls in Section 16.3 of the DCD), and the generic TS except as otherwise provided in this appendix. Conceptual design information in the generic DCD and the evaluation of severe accident mitigation design alternatives in appendix 1B of the generic DCD are not part of this appendix." Pursuant to 10 CFR §52.63(b)(1), an exemption from elements of the design as certified in the 10 CFR Part 52, Appendix D, design certification rule is requested from the AP1000 DCD for a departure from the generic TS. These material departures involve the addition of a permissive to the source range flux doubling function to prevent bypassing the CVS makeup isolation actuation upon a source range flux doubling to more effectively perform its design function and provide reactor protection as analyzed. The departures includes a change to TS Table 3.3.2-1 which involves adding the P-8 permissive to the instrument Table. This exemption request is in</p>	Duke Energy Voluntary Submittal of Exemption Request and Design Change Description for Departure from AP1000 DCD Revision 19 to Address Compliance With IEEE 603 1991, Enclosure 3, Attachment 3, Item 5, WLG2015.09-01

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					<p>accordance with the provisions of 10 CFR §50.12, 10 CFR §52.7, and 10 CFR Part 52, Appendix D.</p> <p>Discussion:</p> <p>The changes requested to Tier 2 changes, to Figure 7.2-1 (Sheet 3 of 21), Subsection 7.3.1.2.14, Table 7.3-1 (Sheet 6 of 9), Table 7.3-1 (Sheet 7), Table 7.3.2, (Sheet 1 of 4), Subsection 9.3.6.3.7, Section 9.3.6.4.5.1, Subsection 9.3.6.7, Table 14.3-2 (Sheet 9 of 17), Table 14.3-2 (Sheet 12), Subsection 19E2.7.2, Technical Specifications Table 3.3.2-1 (Page 9, 10 of 13), Tech Spec Bases Section B3.3.2 ACTIONS (Page 3.3.2-57), Tech Spec Bases Section B3.3.2, Subsection 15, Tech Spec Bases Section B3.2.2, add Subsection 18.d. provide additional equipment and TS requirements, provide reasonable assurance that the facility has been constructed and will be operated in conformity with the applicable design criteria, codes and standards, and demonstrates acceptable performance during design basis scenarios and reactor startup.</p> <p>Conclusion:</p> <p>This exemption request is evaluated in accordance with 10 CFR Part 52, Appendix D, Section VIII.A.4, 10 CFR §50.12, 10 CFR §52.7 and 10 CFR §52.63, which state that the NRC may grant exemptions from the requirements of the regulations provided the following six conditions are met: 1) the exemption is authorized by law [§50.12(a)(1)]; 2) the exemption will not present an undue risk to the health and safety of the public [§50.12(a)(1)]; 3) the exemption is consistent with the common defense and security [§50.12(a)(1)]; 4) special circumstances are present [§50.12(a)(2)]; 5) the special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption [§52.63(b)(1)]; and 6) the design change will not result in a significant decrease in the level of safety [Part 52, Appendix D, VIII.A.1]. The requested exemption satisfies the criteria for granting specific exemptions, as described below.</p> <p>1. This exemption is authorized by law</p> <p>The NRC has authority under 10 CFR §§ 50.12, 52.7, and 52.63 to grant exemptions from the requirements of NRC regulations. Specifically, 10 CFR §§50.12 and 52.7 state that the NRC may grant exemptions from the requirements of 10 CFR Part 52 upon a proper showing. No law exists that would preclude the changes covered by this exemption request. Additionally, granting of the proposed exemption does not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations.</p> <p>Accordingly, this requested exemption is "authorized by law," as required by 10 CFR §50.12(a)(1).</p> <p>2. This exemption will not present an undue risk to the health and safety of the public</p> <p>The proposed exemption from the requirements of 10 CFR 52, Appendix D, Section III.B would allow changes to elements of the generic Technical Specifications to depart from the AP1000 certified (Tier 2) information. The plant-specific Tier 1 DCD will continue to reflect the approved licensing basis for the applicant, and will maintain a consistent level of detail with that which is currently provided elsewhere in Tier 1 of the plant-specific DCD. Because the change to the source range flux doubling function description maintains its design functions, the changed design will ensure the protection of the health and safety of the public. Therefore, no adverse safety impact which would present any additional risk to the health and safety of the public is present. The affected Design Description in the generic Technical Specifications will continue to provide the detail necessary to support the performance of the function requirements. Therefore, the requested exemption from 10 CFR 52, Appendix D, Section III.B would not present an undue risk to the health and safety of the public.</p> <p>3. The exemption is consistent with the common defense and security</p> <p>The exemption from the requirements of 10 CFR 52, Appendix D, Section III.B would change elements of the generic Technical Specifications by departing from the AP1000 certified design information relating to the flux doubling portion of the source ranges neutron flux and departing from the Tier 2 generic TS to include operability requirements of added plant equipment (P-8 permissive). The exemption does not alter the design, function, or operation of any structures or plant equipment that are necessary to maintain a safe and secure status of the plant. The proposed exemption has no impact on plant security or safeguards procedures. Therefore, the requested exemption is consistent with the common defense and security.</p> <p>4. Special circumstances are present</p> <p>10 CFR §50.12(a)(2) lists six "special circumstances" for which an exemption may be granted.</p>	

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					<p>Pursuant to the regulation, it is necessary for one of these special circumstances to be present in order for the NRC to consider granting an exemption request. The requested exemption meets the special circumstances of 10 CFR §50.12(a)(2)(ii). That subsection defines special circumstances as when "Application 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." The rule under consideration in this request for exemption from Tier 2 generic TS is 10 CFR 52, Appendix D, Section III.B, which requires an applicant referencing the AP1000 Design Certification Rule (10 CFR Part 52, Appendix D) shall incorporate by reference and comply with the requirements of Appendix D, including Tier 1 information and generic TS. The Lee Units 1 and 2 COLA references the AP1000 Design Certification Rule and incorporates by reference the requirements of 10 CFR Part 52, Appendix D, including generic TS. The underlying purpose of Appendix D, Section III.B is to describe and define the scope and contents of the AP1000 design certification, and to require compliance with the design certification information in Appendix D to maintain the level of safety in the design.</p> <p>The proposed changes to the source range neutron flux doubling function maintain the design margins. This change does not impact the ability of any structures, systems, or components to perform their functions or negatively impact safety. Accordingly, this exemption from the certification information in Tier 2 TS Table 3.3.2-1 will enable the applicant to safely construct and operate the AP1000 facility consistent with the design certified by the NRC in 10 CFR 52, Appendix D.</p> <p>Therefore, special circumstances are present, because application of the generic TS as required by 10 CFR Part 52, Appendix D, Section III.B, in the particular circumstances discussed in this request is not necessary to achieve the underlying purpose of the rule.</p> <p>5. The special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption</p> <p>Based on the nature of the changes to the plant-specific Tier 2 and the generic TS and the understanding that these changes support the design function of the source range neutron flux doubling, it is likely that other AP1000 applicants and licensees will request this exemption. However, if this is not the case, the special circumstances continue to outweigh any decrease in safety from the reduction in standardization because the key design functions of the source range neutron flux doubling associated with this request will continue to be maintained. This exemption request and the associated TS marked-up tables demonstrate the source range neutron flux doubling function continues to be maintained following implementation of the change from the generic AP1000 DCD, thereby minimizing the safety impact resulting from any reduction in standardization.</p> <p>Therefore, the special circumstances associated with the requested exemption outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption. In fact, as described in Condition 6, below, the exemption will result in no reduction in the level of safety.</p> <p>6. The design change will not result in a significant decrease in the level of safety. The exemption revises the generic Technical Specifications by adding components to TS Table 3.3.2-1. Because the Source Range neutron flux doubling design function is met, there is no reduction in the level of safety.</p> <p>Therefore, the design change and associated change to the TS will not result in a significant decrease in the level of safety. As demonstrated above, this exemption request satisfies NRC requirements for an exemption to the design certification rule for the AP1000.</p>	
Pt 08 (1 COLA Change)						
11913	WLS	Pt 08		Cover	COLA Part 8, Cover sheet is restored to read 'Revision 3.'	Updated cover sheet to reflect proper revision number.
Pt 09 (1 COLA Change)						
11943	WLS	Pt 09		01.00.T/ T1.0-1		Duke Energy Annual Update

QB Change ID#	COLA REP	COLA Part A	Chapter A	Section / Page A	Complete Change Description	Basis for Change
COLA Part 9, Administrative and Financial Information, Table 1.0-1 is revised to present updated project costs.						
Pt 10 (5 COLA Changes)						
11914	WLS	Pt 10		LC#04	COLA Part 10, License Condition 4, Emergency Planning Actions is revised to add a new last paragraph as follows: Prior to initial operation greater than 5 percent of rated thermal power of WLS Unit 1, Duke Energy shall demonstrate that administrative and physical means have been established for alerting and providing instructions to the public within the plume exposure pathway EPZ. This includes demonstrating that the primary prompt public alert and notification system will have the capability to essentially complete the initial alerting and initiate notification of the public within the plume exposure pathway EPZ within about 15 minutes.	Duke Energy supplemental response to RAI Letter 111, SRP 13.03, Enclosure 1, Attachment 2, Item 2, WLG2014.06-06
11908	WLS	Pt 10		LC#14	COLA Part 10, License Condition 14 is deleted.	Deleted because LC 14 is associated with non-safety-related SSCs.
11915	WLS	Pt 10		LC#15	COLA Part 10, new License Condition 15 is added as follows: 15. REMOVAL OF LEGACY STORMWATER DRAIN LINE Prior to fuel load, the licensee shall confirm that a single legacy Cherokee project stormwater drain line (designed to transfer stormwater from the Cherokee power block area to Hold-Up Pond A) and any associated bedding material representing a potential preferential groundwater pathway have been removed and the excavation has been backfilled with compacted native soils.	Added LC15 consistent with the licensing action currently described in FSAR Section 2.4.12.2.3.
11909	WLS	Pt 10		LC#APP B 03.03-10	COLA Part 10, Appendix B, under the DCD Tier Section 3.3, Seismic Category II Building ITAAC is deleted.	Deleted because ITAAC 3.3-10 is associated with non-safety-related SSCs.
11910	WLS	Pt 10		LC#APP B T.03.03-10	COLA Part 10, Appendix B, under the DCD Tier Section 3.3, Table 3.3-10 is deleted.	Deleted because ITAAC 3.3-10 is associated with non-safety-related SSCs.
Pt 11 (1 COLA Change)						
11964	WLS	Pt 11		Cover Page	COLA Part 11, Cover Sheet is updated to reflect the current revision number.	Cover Sheet is updated to reflect the current revision number.

SUMMARY	
COLA Part A	Number of COLA Changes
Pt 01	9
Pt 02	18
Pt 04	4
Pt 05	1
Pt 07	15
Pt 08	1

COLA Part A	Number of COLA Changes
Pt 09	1
Pt 10	5
Pt 11	1
Totals (9 groups)	55