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10 CFR 50.71(e) and 10 CFR 50.4(b)(6)

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July 1, 2013

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U. S. Nuclear Regulatory Commission
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Subject: Duke Energy Carolinas, LLC (Duke Energy)
Oconee Nuclear Station, Units 1, 2, and 3
Docket Nos. 50-269, 50-270, 50-287
Updated Final Safety Analysis Report (UFSAR)
2012 Revision

Pursuant to 10 CFR 50.71(e) and 10 CFR 50.4(b)(6), enclosed is a copy of the 2012 revision of the Updated Final Safety Analysis Report (UFSAR) for Oconee Nuclear Station. The effective date of the revision is December 31, 2012.

The first part of the enclosure provides instructions for inserting this revision into the existing manuals including a list of effective pages required by 10 CFR 50.71(e). Changes made in this revision are indicated by a change bar in the margin of the changed page. The attachment provides a list which summarizes information removed from the UFSAR in this revision. The attachment complies with Regulatory Guide 1.181 (NEI 98-03 Revision 1).

Several changes to the summaries of aging management programs credited for license renewal contained in Chapter 18 are included in this 2012 revision. As required by 10 CFR 54.37(b) and with guidance and clarification provided by an NRC license renewal Frequently Asked Questions (FAQ), aging management reviews supporting changes to these programs are being addressed in a separate submittal.

This submittal document contains no regulatory commitments.

If there are any questions, please contact Susan Perry at (864) 873-4370.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 1st day of July, 2013.

Sincerely,

Scott L. Batson

Enclosure and Attachment

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NR12

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xc:

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Bxc (w/attachment): ELL – ECO50
 ONS Document Management Information Services

Bxc (w/o attachment): Regulatory Affairs
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 T. L. Patterson
 R. H. Guy
 S. C. Perry

**ONS UFSAR UPDATE
INSERTION INSTRUCTIONS**

Submittal Due Date: 6/30/13

Effective Date: 12/31/12

1. Replace List of Effective Pages (LOEP) for Tables and Figures with the 2012 LOEP Update.
2. Replace entire text portions (including the Table of Contents, List of Figures, and List of Tables) for each chapter with the updated text portion.
3. Update Tables and Figures according to the following instructions.

Note: Tables and Figures from prior year were re-issued in order to remove all revision bars.

	<u>Remove</u>	<u>Insert</u>
Chapter 3	Table 3-68 (7 pgs)	Table 3-68 (8 pgs)
Chapter 4	Table 4-3 (2 pgs) Table 4-4 Table 4-6 Table 4-9 Table 4-10 Table 4-11 Table 4-20 Figure 4-5 Figure 4-6	Table 4-3 (2 pgs) Table 4-4 Table 4-6 Table 4-9 Table 4-10 Table 4-11 Table 4-20 Figure 4-5 Figure 4-6
Chapter 5	Table 5-16	Table 5-16
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Chapter 7	Table 7-1 Table 7-2 Table 7-3 Table 7-4 Figure 7-1 (11 x 17) (1 pg) Figure 7-4 (11 x 17) (1 pg) Figure 7-5 (11 x 17) (1 pg) Figure 7-6 (11 x 17) (1 pg) Figure 7-8 Figure 7-9 Figure 7-10	Table 7-1 Table 7-2 Table 7-3 Table 7-4 Figure 7-1 (11 x 17 Sht. 1 of 16 only) (16 pgs) Figure 7-4 (11 x 17) (1 pg) Figure 7-5 (11 x 17 Sht. 1 of 8 only) (8 pgs) Figure 7-6 (11 x 17) (1 pg) Figure 7-8 Figure 7-9 Figure 7-10
Chapter 8	Figure 8-4 (11 x 17) (3 pgs) Figure 8-5 (11 x 17) (1 pg)	Figure 8-4 (11 x 17) (3 pgs) Figure 8-5 (11 x 17) (1 pg)
Chapter 9	Table 9-6 Table 9-16 Figure 9-24 (11 x 17) (1pg)	Table 9-6 Table 9-16 Figure 9-24 (11 x 17) (1 pg)
Chapter 11	Table 11-6 (7 pgs)	Table 11-6 (7 pgs)

ONS UFSAR UPDATE
INSERTION INSTRUCTIONS
 Submittal Due Date: 6/30/13
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	<u>Remove</u>	<u>Insert</u>
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Chapter 15	----- Table 15-2 (2 pgs) Table 15-15 (4 pgs) Table 15-16 (2 pgs) Table 15-32 (2 pgs) Table 15-33 Table 15-34 (8 pgs) Table 15-35 (2pgs) Table 15-47 Table 15-60 Table 15-62 (2pgs) Table 15-63 (2pgs) Table 15-64 ----- ----- Figure 15-141 Figure 15-150 Figure 15-151 Figure 15-152 Figure 15-153 Figure 15-154 Figure 15-155 Figure 15-156 Figure 15-170 Figure 15-219 Figure 15-220 Figure 15-221 Figure 15-222 Figure 15-223 Figure 15-224 Figure 15-225 Figure 15-226 Figure 15-227 Figure 15-228 Figure 15-229 Figure 15-230 Figure 15-231 Figure 15-232	Tab 15.18 Table 15-2 (2 pgs) Table 15-15 (4 pgs) Table 15-16 (2 pgs) Table 15-32 (2 pgs) Table 15-33 Table 15-34 (8 pgs) Table 15-35 (2 pgs) Table 15-47 Table 15-60 Table 15-62 (2 pgs) Table 15-63 (2pgs) Table 15-64 Table 15-65 (new) Table 15-66 (new) Figure 15-141 Figure 15-150 Figure 15-151 Figure 15-152 Figure 15-153 Figure 15-154 Figure 15-155 Figure 15-156 Figure 15-170 Figure 15-219 Figure 15-220 Figure 15-221 Figure 15-222 Figure 15-223 Figure 15-224 Figure 15-225 Figure 15-226 Figure 15-227 Figure 15-228 Figure 15-229 Figure 15-230 Figure 15-231 Figure 15-232
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OCONEE UFSAR - 2012 UPDATE

List of Effective Pages (LOEP) for Tables

The purpose of this list is to assure that the pages in the Tables section of your manual match the most recent issue, as well as to show a full accounting of all tables, including those that have been deleted. The earliest effective date, 12/31/00, was used when all tables were re-issued.

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12/31/08	2-9	Duration and Frequency (in Hours) of Calm and Near-Calm Winds Average of Three Locations* (1/59 - 12/63)
12/31/08	2-10	Annual Surface Wind Rose For Greenville, South Carolina (1/59 – 12/63)*
12/31/08	2-11	Percent Frequency of Wind Speeds at Various Hours Through the Day - Greenville, S. C. (1/59 - 12/63)*
12/31/08	2-12	Duration and Frequency of Calm and Near-Calm Winds Average of Three Locations* (1/59 - 12/63)
12/31/08	2-13	Percentage Distribution of Athens, Georgia Annual Winds at 0630 Eastern Standard Time (800-1300 Feet Above Ground)
12/31/08	2-14	Percentage Distribution of Athens, Georgia Annual Winds at 0630 Eastern Standard Time (2300-2800 Feet Above Ground)
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12/31/08	15-208	0.15 ft ² CLPD, 102% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-Pressure
12/31/08	15-209	0.15 ft ² CLPD, 102% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-Break and ECCS Mass Flow Rates
12/31/08	15-210	0.15 ft ² CLPD, 102% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-Hot Channel Levels
12/31/08	15-211	0.15 ft ² CLPD, 102% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-Peak Cladding Temperature
12/31/08	15-212	0.15 ft ² CLPD, 102% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-HC Vapor Temperature at Core Exit
12/31/08	15-213	77% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Spectrum Analysis
12/31/08	15-214	0.075 ft ² CLPD, 77% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-Pressure
12/31/08	15-215	0.075 ft ² CLPD, 77% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-Break and ECCS Mass Flow Rates
12/31/08	15-216	0.075 ft ² CLPD, 77% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-Hot Channel Levels
12/31/08	15-217	0.075 ft ² CLPD, 77% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-Peak Cladding Temperature
12/31/08	15-218	0.075 ft ² CLPD, 77% of 2568 MWt, Mark-B-HTP Mixed-Core SBLOCA Case-HC Vapor Temperature at Core Exit
12/31/11	15-219	Mark-B-HTP Full-Core BOL LBLOCA - Reactor Vessel Upper Plenum Pressure
12/31/11	15-220	Mark-B-HTP Full-Core BOL LBLOCA - Break Mass Flow Rates
12/31/11	15-221	Mark-B-HTP Full-Core BOL LBLOCA - Hot Channel Mass Flow Rates
12/31/11	15-222	Mark-B-HTP Full-Core BOL LBLOCA - Core Flooding Rates
12/31/11	15-223	Mark-B-HTP Full-Core BOL LBLOCA - Hot Pin Fuel & Clad Temperatures at Ruptured Location
12/31/11	15-224	Mark-B-HTP Full-Core BOL LBLOCA - Hot Pin Fuel & Clad Temperatures at

Effective Date	Figure No.	Figure Title
		Unruptured Location
12/31/11	15-225	Mark-B-HTP Full-Core BOL LBLOCA - Quench Front Advancement
12/31/11	15-226	Mark-B-HTP Full-Core BOL LBLOCA - Hot Pin Heat Transfer Coefficients
12/31/11	15-227	102% of 2568 MWt, Full Core Mark-B-HTP SBLOCA Break Spectrum Analysis
12/31/11	15-228	0.15ft ² CLPD, 102% of 2568 MWt, Full Core Mark-B-HTP SBLOCA - Pressure
12/31/11	15-229	0.15ft ² CLPD, 102% of 2568 MWt, Full Core Mark-B-HTP SBLOCA - Break and ECCS Mass Flow Rates
12/31/11	15-230	0.15ft ² CLPD, 102% of 2568 MWt, Full Core Mark-B-HTP SBLOCA - RV Collapsed Liquid Level & Hot Channel Mixture Level
12/31/11	15-231	0.15ft ² CLPD, 102% of 2568 MWt, Full Core Mark-B-HTP SBLOCA - Hot Pin Peak Clad Temperature
12/31/11	15-232	0.15ft ² CLPD, 102% of 2568 MWt, Full Core Mark-B-HTP SBLOCA - Hot Channel Vapor Temperature at Core Exit

ATTACHMENT

**SUMMARY OF INFORMATION REMOVED
FROM REVISION 22 OF THE UFSAR**

Attachment
Oconee Nuclear Station UFSAR 2012 Update
List of Removed Items

UFSAR Table 7-3

Notes 4 & 5 concerning Low Pressure Service Water (LPSW) valves 1055 & 1061, and LPSW-1054 & -1062 respectively, were deleted as a result of the Engineered Safeguards Protective System/Reactor Protective System modification.

UFSAR Section 9.5.1

Section 9.5.1 was re-written as a result of National Fire Protection Association (NFPA) 805 implementation. Sections 9.5.1.3 - 9.5.1.7.4 were removed/replaced by NFPA 805 information.

UFSAR Section 9.6.4.6.1

During re-write resulting from NFPA 805 implementation, information related to cold shutdown was deleted.

UFSAR Section 9.6.5

During re-write resulting from NFPA 805 implementation, unnecessary information concerning Appendix R events was deleted.

UFSAR Section 9.6.6

During re-write resulting from NFPA 805 implementation, references that were no longer applicable were deleted.

Table 15-16

Irrelevant entries, associated with the Large Main Steam Line Break and Small Main Steam Line Break, were deleted as a result of the Table update to include calculated Total Effective Dose Equivalent (TEDE) doses in accordance with AST methodology.

UFSAR Section 18.3.1.2

Deleted paragraph that referenced EA-03-009 since it no longer applies.

UFSAR Table 18-1

The "Boric Acid Corrosion Program" entry that was listed after "Flow Accelerated Corrosion Program" was deleted; the "Boric Acid Corrosion Program" was then placed in the correct location in the Table.