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ONS-2016-062

June 30, 2016

ATTN: Document Control Desk  
Director, Division of Spent Fuel Storage  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DD 20555-0001

10 CFR 72.4  
10 CFR 72.48  
10 CFR 72.70

Subject: Duke Energy Carolinas, (LLC) (Duke Energy)  
Oconee Nuclear Station, Units 1, 2, and 3  
Docket Nos. 72-4, 50-269, 50-270, 50-287  
Independent Spent Fuel Storage Installation  
Updated Final Safety Analysis Report, Revision 25

Pursuant to 10 CFR 72.48 (d)(2), and in accordance with 10 CFR 72.70 and 10 CFR 72.4, Duke Energy hereby submits the Oconee Nuclear Station (ONS) Independent Spent Fuel Storage Installation (ISFSI) Updated Final Safety Analysis Report (UFSAR), Revision 25. The effective date of the revision is December 31, 2015, as indicated at the bottom of each page. There were no changes made to the Oconee ISFSI UFSAR in Revision 25.

The ONS ISFSI UFSAR, Revision 25, is enclosed on one compact disk (CD). The contents are in Adobe Acrobat Portable Document Format (pdf). As required by NRC guidance for electronic submissions, Attachment 1 provides a listing of the document components that comprise the enclosed CD. Attachment 2 provides the List of Effective Pages (LOEP) for Tables and Figures. Attachment 3 provides insertion instructions for those receiving hardcopy distribution.

Attachment 4 provides the report of changes, tests, and experiments performed pursuant to 10 CFR 72.48.

This submittal document contains no new or revised regulatory commitments. If you have any questions regarding this submittal, please contact Kay Brocklesby at (864) 873-6661.

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 30, 2016.

Sincerely,

Scott L. Batson  
Vice President  
Oconee Nuclear Station

NM5520  
NM5526

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Attachments:

1. Document Components on CD
2. List of Effective Pages (LOEP) for Tables and Figures
3. Insertion Instructions (for hardcopy distribution only)
4. 10 CFR 72.48 Report

Enclosure:

CD: Oconee Nuclear Station Independent Spent Fuel Storage Installation, 2015 Update – Rev 25

xc: Ms. Catherine Haney, NRC Region II Administrator (CD)  
U.S. Nuclear Regulatory Commission  
Marquis One Tower  
245 Peachtree Center Ave., NE, Suite 1200  
Atlanta, GA 30303-1257

Mr. James R. Hall, Project Manager (CD)  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
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Mr. Eddy Crowe (hardcopy)  
Senior Resident Inspector  
Oconee Nuclear Station

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Attachment 1

Attachment 1  
Document Components on CD  
(1 page attached)

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Attachment 1

<u>Filename</u>	<u>File Size</u>
001 ONS ISFSI Rev 25 Title Page	57 KB
001 ONS ISFSI Rev 25 Text	1,632 KB
002 ONS ISFSI Rev 25 Tables	1,256 KB
003 ONS ISFSI Rev 25 Figures	25,284 KB

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Attachment 2

Attachment 2  
List of Effective Pages (LOEP) for Tables and Figures  
(3 pages attached)

**OCONEE ISFSI UFSAR - 2014 UPDATE**  
**List of Effective Pages (LOEP) for Table and Figures**

The purpose of this list is to assure that the pages in the Tables and Figures section of your manual match the most recent issue, as well as to show a full accounting of all tables and figures, including those that have been deleted. The earliest effective date, 12/31/07, was used when all tables and figures were re-issued.

<b>Effective Date</b>	<b>Table No.</b>	<b>Table Title</b>
12/31/07	A-1	Design Parameters for the Oconee ISFSI
12/31/07	A-2	Summary of ISFSI Fuel Handling Operations
12/31/07	A-3	Primary Design Parameters for the ISFSI Transport Systems
12/31/07	A-4	Major Systems, Subsystems, and Components of the Oconee ISFSI
12/31/07	A-5	Population Growth in Oconee, Pickens, and Anderson Counties, South Carolina (1980-2005)
12/31/07	A-6	Population Projections for Oconee, Pickens, and Anderson Counties, South Carolina (2010-2050)
12/31/07	A-7	Joint Frequencies of Wind Direction and Speed by Stability Class
12/31/07	A-8	Soil Permeability Test Results
12/31/07	A-9	Significant Earthquakes in the Southeast United States (Intensity V or Greater)
12/31/07	A-10	Physical Characteristics of PWR Fuel Assemblies Based on Nominal Design
12/31/07	A-11	Transfer Cask Stress Analysis for Tornado Effects
12/31/07	A-12	Oconee ISFSI Major Components and Functions
12/31/07	A-13	Oconee ISFSI Radioactive Material Confinement Barriers
12/31/07	A-14	Oconee ISFSI Major Components and Design Requirements
12/31/07	A-15	ONS ISFSI Project Transfer Trailer Design Parameters
12/31/07	A-16	Oconee ISFSI Major Components and Classification
12/31/07	A-17	Gamma Energy Spectrum
12/31/07	A-18	Shielding Analysis Results
12/31/07	A-19	Summary of Estimated On-site Doses Resulting from ISFSI Operations (Per DSC Transfer to HSM)
12/31/07	A-20	Dose Estimate for Construction of Additional Horizontal Storage Modules Based on Labor Estimates for 2 X 10 Array
12/31/07	A-21	Neutron and Gamma Energy Spectrum
12/31/07	A-22	Comparison of Total Dose Rates for HSM With and Without Air Outlet Shielding Blocks
12/31/07	A-23	Cask Drop Target Parameters

<b>Effective Date</b>	<b>Figure No.</b>	<b>Figure Title</b>
12/31/07	B-1	Location of ISFSI
12/31/07	B-2	General Location
12/31/07	B-3	Site Plan
12/31/07	B-4	ISFSI Layout
12/31/07	B-5	Topography Within 5 Miles
12/31/07	B-6	Relative Positions of Meteorological Instruments
12/31/07	B-7	Relative Elevations of Meteorological Instruments
12/31/07	B-8	Areal Groundwater Survey
12/31/07	B-9	Groundwater Survey at Station Site
12/31/07	B-10	Well Permeameter Test Apparatus
12/31/07	B-11	Formulae for Determining Permeability
12/31/07	B-12	General Site Area
12/31/07	B-13	Site Boring Plan
12/31/07	B-14	Core Boring Record
12/31/07	B-15	Core Boring Record
12/31/07	B-16	Core Boring Record
12/31/07	B-17	Core Boring Record
12/31/07	B-18	Core Boring Record
12/31/07	B-19	Core Boring Record
12/31/07	B-20	Core Boring Record
12/31/07	B-21	Core Boring Record
12/31/07	B-22	Core Boring Record
12/31/07	B-23	Core Boring Record
12/31/07	B-24	Core Boring Record
12/31/07	B-25	Core Boring Record
12/31/07	B-26	Core Boring Record
12/31/07	B-27	Core Boring Record
12/31/07	B-28	ISFSI Foundation Profile
12/31/07	B-29	Site Layout and Route
12/31/07	B-30	Site Plan

<b>Effective Date</b>	<b>Figure No.</b>	<b>Figure Title</b>
12/31/07	B-31	Transfer Cask Lifting Yoke
12/31/07	B-32	Transfer Cask Lift Extension
12/31/07	B-33	Spent Fuel Pool Area
12/31/07	B-34	Spent Fuel Pool Area
12/31/07	B-35	Spent Fuel Pool Area
12/31/07	B-36	NUHOMS® System Loading Operations Flowchart
12/31/07	B-37	NUHOMS® System Loading Operations Flowchart
12/31/07	B-38	NUHOMS® System Loading Operations Flowchart
12/31/07	B-39	NUHOMS® System Loading Operations Flowchart
12/31/07	B-40	NUHOMS® System Loading Operations Flowchart
12/31/07	B-41	NUHOMS® System Loading Operations Flowchart
12/31/07	B-42	Location of Dose Rates
12/31/07	B-43	Dose Rate Versus Distance From Surface of HSM
12/31/07	B-44	Dose From Filled HSM Array
12/31/07	B-45	Dose From Filled HSM Array
12/31/07	B-46	Radiation Zone Map of Modules Surface Dose Rates
12/31/07	B-47	Deleted Per 1991 Update
12/31/07	B-48	Fuel Assembly Burnup Requirements



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Attachment 3

Attachment 3  
Insertion Instructions  
(for hardcopy distribution only)  
(1 page attached)

Insertion Instructions  
(for hardcopy distribution only)

1. Replace List of Effective Pages (LOEP) for Tables and Figures with the 2015 LOEP Update.
2. Replace entire text portions with the updated text portion (including the List of Abbreviations, Table of Contents, List of Tables, and List of Figures.)
3. Update Tables and Figures according to the following instructions.

**NOTE:** There were no Tables or Figures updated during this revision.

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Attachment 4

Attachment 4  
10 CFR 72.48 Report  
(1 page attached)

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Attachment 4

Oconee Nuclear Station hereby informs the Nuclear Regulatory Commission that no changes, tests or experiments were made under the provisions of 10 CFR 72.48 between January 1, 2015 and December 31, 2015.