



J. Ed Burchfield, Jr.
Vice President
Oconee Nuclear Station

Duke Energy
ON01VP | 7800 Rochester Hwy
Seneca, SC 29672

o: 864.873.3478
f: 864.873.5791
Ed.Burchfield@duke-energy.com

ONS 2018-038

June 29, 2018

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2746

10 CFR 72.4
10 CFR 72.48
10 CFR 72.70

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Station, Units 1, 2, and 3
Docket Numbers 72-4, 50-269, 50-270, and 50-287
Independent Spent Fuel Storage Installation
Updated Final Safety Analysis Report, Revision 27

Pursuant to 10 CFR 72.48(d)(2), and in accordance with 10 CFR 72.70 and 72.4, Duke Energy Carolinas, LLC (Duke Energy) hereby submits the Oconee Nuclear Station (ONS) Independent Spent Fuel Storage Installation (ISFSI) Updated Final Safety Analysis Report (UFSAR), Revision 27. The effective date of the UFSAR revision is December 31, 2017, as indicated at the bottom of each page of text. There were no changes made to the Oconee ISFSI UFSAR in Revision 27.

The Oconee ISFSI UFSAR, Revision 27, 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.

There were no changes, tests, or experiments performed pursuant to 10 CFR 72.48, for the 2017 calendar year.

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This submittal document contains no new or revised regulatory commitments. If you have any questions regarding the submittal, please contact Chris Wasik, Regulatory Affairs Manager, at (864) 873-5789.

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 29, 2018.

Sincerely,



J. Ed Burchfield, Jr.
Vice President
Oconee Nuclear Station

Attachments:

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

Enclosure:

CD containing Oconee Nuclear Station Independent Spent Fuel Storage Installation
Updated Final Safety Analysis Report, 2017 Update - Rev 27

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xc (with attachments /or enclosure):

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

Ms. Audrey Klett, Project Manager (CD)
(by electronic mail only)
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Stop O-8G9A
11555 Rockville Pike
Rockville, Maryland 20852

Mr. Eddy Crowe (hard copy)
NRC Senior Resident Inspector
Oconee Nuclear Station

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Attachment 1- Page 1 of 1
Oconee ISFSI UFSAR - 2017 Update
Document Components on CD

	File Name	File Size (KB)
001	ONS ISFSI Text and Tables Rev 27	2,420
002	ONS ISFSI Figures Rev 27	24,969

Attachment 2 - Page 1 of 3
Oconee ISFSI UFSAR - 2017 Update
List of Effective Pages (LOEP) for Tables 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.

Effective Date	Table No.	Table Title
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

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List of Effective Pages (LOEP) for Tables and Figures

Effective Date	Table No.	Table Title
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

Effective Date	Figure No.	Figure Title
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

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Effective Date	Figure No.	Figure Title
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
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 - Page 1 of 1
Oconee ISFSI UFSAR - 2017 Update
Update Insertion Instructions
For Hard Copy Distribution Only

1. Replace the 2016 List of Effective Pages (LOEP) for Tables and Figures with the 2017 List of Effective Pages (LOEP) for Tables and Figures.
2. Replace entire text portions for each chapter with the updated text portion, including the List of Abbreviations, Table of Contents, List of Figures, and List of Tables.
3. Note: There were no Tables or Figures updated during this revision.