



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

**Duke Energy**  
ON01VP | 7800 Rochester Hwy  
Seneca, SC 29672

RA-19-0368

September 9, 2019

10 CFR 50.54(q)  
10 CFR 72.44(f)

864.873.3478  
864.873.4208  
Ed.Burchfield@duke-energy.com

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

Subject: Duke Energy Carolinas, LLC  
Oconee Nuclear Station, Units 1, 2, and 3  
Docket Nos. 50-269, -270, and -287  
Emergency Plan Revision 2019-004

Pursuant to 10 CFR 50.54(q), and 10 CFR 72.44(f), Duke Energy is submitting the attached summary of changes to the Oconee Nuclear Station (ONS) Emergency Plan which became effective September 9, 2019.

This revision has been evaluated in accordance with 10 CFR 50.54(q) and it was determined that the change did not reduce the effectiveness of the ONS Emergency Plan. The revised ONS Emergency Plan continues to meet the requirements of Appendix E to 10 CFR 50 and the planning standards of 10 CFR 50.47(b).

If there are any questions or concerns pertaining to this revision please call Sheila Dalton, Manager Nuclear Support Services, at 864-873-3657.

Sincerely,

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

Attachment

Oconee Nuclear Station Emergency Plan 10 CFR 50.54(q) Summary of Changes Attachment 1

RA-19-0368

U. S. Nuclear Regulatory Commission  
September 9, 2019  
Page 2

xc: Ms. Laura Dudes  
Administrator, USNRC Region II  
Marquis One Tower  
245 Peachtree Center., NE Suite 1200  
Atlanta GA 30303-1257

Ms. Audrey Klett  
Project Manager  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Mail Stop O-8G9A  
Rockville, MD 20852-2738

Mr. Adam Ruh  
NRC Senior Resident Inspector (Acting)  
Oconee Nuclear Station

**Change Matrix**  
**ONS Emergency Plan Section B, P, App 5**      Page 1 of 4  
**Rev 2019-004**

Attachment to 50.54q <b>CHANGE MATRIX</b>				
#	Page /Section	Current	Proposed Change	Reason
1.	p. B-6  deleted OAC Support and re-numbered remaining sections	7) <u>OAC Support</u> The OAC Support position reports to the Assistant Emergency Coordinator. Key responsibilities include: <ul style="list-style-type: none"> <li>• Monitor facility equipment (e.g., computer, communications) for proper operation</li> <li>• Activate ERDS or confirm ERDS Operation</li> </ul>	<i>deleted</i>	combined OAC and IT responsibilities for more efficient use of personnel
2.	p. B-18  deleted Admin Support and re-numbered remaining sections	4) <u>Admin Support (Near Site JIC)</u> The Admin Support position reports to the Logistics Lead. Key responsibilities include: <ul style="list-style-type: none"> <li>• Coordinate distribution of news releases, statements and messages</li> <li>• Prepare for facility activation (rooms, work area, equipment, etc.)</li> <li>• Provide administrative support for facility operation</li> <li>• Distribute forms, reports, etc. as needed</li> </ul>	<i>deleted</i>	combined responsibilities for more efficient use of personnel
3.	p. B-19  deleted Registration Liaison and renumbered remaining sections	7) <u>Registration Liaison (Near Site JIC)</u> The Registration Liaison reports to the Logistics Lead. Key responsibilities include: <ul style="list-style-type: none"> <li>• Register personnel at the assigned location</li> <li>• Monitor facility entrance areas</li> <li>• Prepare for facility activation (rooms, work area, equipment, etc.)</li> </ul>	<i>deleted</i>	combined responsibilities for more efficient use of personnel
4.	old p.B-25 Table B-1b	<b>Current</b>		combined OAC and IT responsibilities

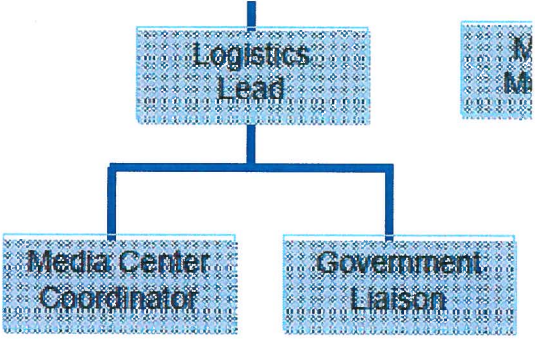
**Change Matrix**  
**ONS Emergency Plan Section B, P, App 5**  
**Rev 2019-004**

Page 2 of 4

Attachment to 50.54q																																																						
CHANGE MATRIX																																																						
#	Page /Section	Current		Proposed Change		Reason																																																
		<table><tr><th rowspan="2">Functional Area</th><th rowspan="2">Major Tasks</th><th rowspan="2">Standard ERO Emergency Positions</th><th colspan="3">Minimum Staffing</th><th rowspan="2">Full Staff</th></tr><tr><th>45 Min</th><th>75 Min</th><th>Min</th></tr><tr><td rowspan="7">Resource Allocation and Admin</td><td rowspan="3">Administration</td><td>Log Keeper (TSC)</td><td></td><td></td><td></td><td>1</td></tr><tr><td>Log Keeper (OSC)</td><td></td><td></td><td></td><td>1</td></tr><tr><td>Log Keeper (EOF)</td><td></td><td></td><td></td><td>1</td></tr><tr><td rowspan="4">Facility Operations</td><td>Services Manager (EOF)</td><td></td><td></td><td></td><td>1</td></tr><tr><td>OAC Support (TSC)</td><td></td><td></td><td></td><td>1</td></tr><tr><td>IT Support (TSC)</td><td></td><td></td><td></td><td>1</td></tr><tr><td></td><td></td><td></td><td></td><td>1</td></tr></table>	Functional Area	Major Tasks	Standard ERO Emergency Positions	Minimum Staffing			Full Staff	45 Min	75 Min	Min	Resource Allocation and Admin	Administration	Log Keeper (TSC)				1	Log Keeper (OSC)				1	Log Keeper (EOF)				1	Facility Operations	Services Manager (EOF)				1	OAC Support (TSC)				1	IT Support (TSC)				1					1				for more efficient use of personnel
Functional Area	Major Tasks	Standard ERO Emergency Positions				Minimum Staffing				Full Staff																																												
			45 Min	75 Min	Min																																																	
Resource Allocation and Admin	Administration	Log Keeper (TSC)				1																																																
		Log Keeper (OSC)				1																																																
		Log Keeper (EOF)				1																																																
	Facility Operations	Services Manager (EOF)				1																																																
		OAC Support (TSC)				1																																																
		IT Support (TSC)				1																																																
						1																																																
new p.B-24 Table B-1b	<b>Proposed</b>	<table><tr><th rowspan="2">Functional Area</th><th rowspan="2">Major Tasks</th><th rowspan="2">Standard ERO Emergency Positions</th><th colspan="3">Minimum Staffing</th><th rowspan="2">Full Staff</th></tr><tr><th>45 Min</th><th>75 Min</th><th>Min</th></tr><tr><td rowspan="7">Resource Allocation and Admin</td><td rowspan="3">Administration</td><td>Log Keeper (TSC)</td><td></td><td></td><td></td><td>1</td></tr><tr><td>Log Keeper (OSC)</td><td></td><td></td><td></td><td>1</td></tr><tr><td>Log Keeper (EOF)</td><td></td><td></td><td></td><td>1</td></tr><tr><td rowspan="4">Facility Operations</td><td>Services Manager (EOF)</td><td></td><td></td><td></td><td>1</td></tr><tr><td>IT Support (TSC)</td><td></td><td></td><td></td><td>1</td></tr><tr><td>Data Coordinator (EOF)</td><td></td><td></td><td></td><td>1</td></tr><tr><td></td><td></td><td></td><td></td><td>1</td></tr></table>	Functional Area	Major Tasks	Standard ERO Emergency Positions	Minimum Staffing			Full Staff	45 Min	75 Min	Min	Resource Allocation and Admin	Administration	Log Keeper (TSC)				1	Log Keeper (OSC)				1	Log Keeper (EOF)				1	Facility Operations	Services Manager (EOF)				1	IT Support (TSC)				1	Data Coordinator (EOF)				1					1				combined OAC and IT responsibilities for more efficient use of personnel
Functional Area	Major Tasks	Standard ERO Emergency Positions				Minimum Staffing				Full Staff																																												
			45 Min	75 Min	Min																																																	
Resource Allocation and Admin	Administration	Log Keeper (TSC)				1																																																
		Log Keeper (OSC)				1																																																
		Log Keeper (EOF)				1																																																
	Facility Operations	Services Manager (EOF)				1																																																
		IT Support (TSC)				1																																																
		Data Coordinator (EOF)				1																																																
						1																																																
5.	old p.B-26 new p.B-25 Fig. B-1	<pre>graph TD     AEC1[Assistant Emergency Coordinator] --- SC1[Security Coordinator]     AEC1 --- SEC1[Site Evacuation Coordinator]     AEC1 --- OS1[OAC Support]     AEC1 --- IS1[IT Support]     AEC2[Assistant Emergency Coordinator] --- SC2[Security Coordinator]     AEC2 --- SEC2[Site Evacuation Coordinator]     AEC2 --- IS2[IT Support]</pre>				combined OAC and IT responsibilities for more efficient use of personnel																																																
6.	old p.B-29 Fig. B-4	<b>Current</b>	<pre>graph TD     LL[Logistics Lead] --- AS[Admin Support]     LL --- MCC[Media Center Coordinator]     LL --- GL[Government Liaison]     LL --- RL[Registration Liaison]     LL --- MM[Media Monitor]     LL --- JIC[JIC Te Liaison]</pre>				combined responsibilities for more efficient use of personnel																																															

**Change Matrix**  
**ONS Emergency Plan Section B, P, App 5**  
**Rev 2019-004**

Page 3 of 4

Attachment to 50.54q				
CHANGE MATRIX				
#	Page /Section	Current	Proposed Change	Reason
	new p.B-28 Fig. B-4	<p><b>Proposed</b></p>  <pre> graph TD     A[Logistics Lead] --&gt; B[Media Center Coordinator]     A --&gt; C[Government Liaison] </pre>		combined responsibilities for more efficient use of personnel
7.	App 5	<ul style="list-style-type: none"> <li>Greenville Health System</li> </ul>	<ul style="list-style-type: none"> <li>Prisma Health (formerly Greenville Health System)</li> </ul>	Name change
8.	App 5	<ul style="list-style-type: none"> <li>Memorandum of Understanding (Joint Information Center)</li> </ul>	<i>deleted</i>	Incorporated in to State, County LOA's
9.	B5	OMP 2-16 Shift Turnover	<i>deleted row</i>	not an implementing procedure.
10.	J2 J3 J5/J6  adjusted remaining rows in table	NSD-114 Site Assembly/Site Evacuation	<i>deleted row</i>	superseded to RP/0/A/1000/009 and RP/0/A/1000/010
11.	I2  adjusted remaining rows in table	CSM 5.1 Emergency Response Guidelines	<i>deleted row</i>	EMERGENCY RESPONSE GUIDELINES SUPERSEDED by RP/0/A/1000/009, Procedure for Site Assembly, RP/0/A/1000/010, Procedure For Emergency Evacuation/Relocation of Site

**Change Matrix**  
**ONS Emergency Plan Section B, P, App 5**      Page 4 of 4  
**Rev 2019-004**

Attachment to 50.54q		CHANGE MATRIX		
#	Page /Section	Current	Proposed Change	Reason
				Personnel, AD-EP-ALL-0106, ACTIVATION AND OPERATION OF THE OPERATIONS SUPPORT CENTER, AD-EP-ALL-0100, EMERGENCY RESPONSE ORGANIZATION (ERO)



Attachment to 50.54q					CHANGE MATRIX																																																												
#	Page /Section	Current			Proposed Change			Reason																																																									
1.	p. D-64	<div>ATTACHMENT 1 EAL Bases</div> <div>Category: ISFSI Subcategory: Confinement Boundary Initiating Condition: Damage to a loaded cask CONFINEMENT BOUNDARY EAL:</div> <div><div>EU1.1 Unusual Event</div><div>Damage to a loaded canister CONFINEMENT BOUNDARY as indicated by an on-contact radiation reading on the surface of a loaded spent fuel cask &gt; any Table E-1 ISFSI dose limit</div></div> <div><table><tr><th colspan="4">Table E-1 ISFSI Dose Limits</th></tr><tr><th>Location</th><th>24PHB</th><th>37PTH</th><th>69BTH</th></tr><tr><td>HSM front bird screen</td><td>1,050 mrem/hr</td><td>1,050 mrem/hr</td><td>500 mrem/hr</td></tr><tr><td>Outside HSM door</td><td>40 mrem/hr</td><td>4 mrem/hr</td><td>4 mrem/hr</td></tr><tr><td>End shield wall exterior</td><td>550 mrem/hr</td><td>8 mrem/hr</td><td>8 mrem/hr</td></tr></table></div> <div>Mode Applicability:</div>							Table E-1 ISFSI Dose Limits				Location	24PHB	37PTH	69BTH	HSM front bird screen	1,050 mrem/hr	1,050 mrem/hr	500 mrem/hr	Outside HSM door	40 mrem/hr	4 mrem/hr	4 mrem/hr	End shield wall exterior	550 mrem/hr	8 mrem/hr	8 mrem/hr	Update ONS specific dry cask models																																				
	Table E-1 ISFSI Dose Limits																																																																
Location	24PHB	37PTH	69BTH																																																														
HSM front bird screen	1,050 mrem/hr	1,050 mrem/hr	500 mrem/hr																																																														
Outside HSM door	40 mrem/hr	4 mrem/hr	4 mrem/hr																																																														
End shield wall exterior	550 mrem/hr	8 mrem/hr	8 mrem/hr																																																														
	current																																																																
	p. D-64	<div>ATTACHMENT 1 EAL Bases</div> <div>Category: ISFSI Subcategory: Confinement Boundary Initiating Condition: Damage to a loaded cask CONFINEMENT BOUNDARY EAL:</div> <div><div>EU1.1 Unusual Event</div><div>Damage to a loaded canister CONFINEMENT BOUNDARY as indicated by an on-contact radiation reading on the surface of a loaded spent fuel cask &gt; any Table E-1 ISFSI dose limit</div></div> <div><table><tr><th colspan="7">Table E-1 ISFSI Dose Limits</th></tr><tr><th colspan="7">HSM Module</th></tr><tr><th></th><th>E1-E20, W1-W20</th><th>E21-E42, W21-W42</th><th>E43-E67, W43-W67</th><th>E68-E74, W68-W74</th><th>E75-E80, W75-W80</th><th>E81-E92, W81-W92</th></tr><tr><th>Location</th><th>24P*</th><th>24P**</th><th>24PHB</th><th>24PHB</th><th>24PTH</th><th>24PTH</th></tr><tr><td>HSM Front Surface</td><td>400 mrem/hr</td><td>800 mrem/hr</td><td>1,000 mrem/hr</td><td></td><td></td><td></td></tr><tr><td>HSM Front Bird Screen</td><td></td><td></td><td></td><td>1,050 mrem/hr</td><td>1,050 mrem/hr</td><td>1,200 mrem/hr</td></tr><tr><td>Outside HSM Door</td><td></td><td>200 mrem/hr</td><td>40 mrem/hr</td><td>40 mrem/hr</td><td>140 mrem/hr</td><td>160 mrem/hr</td></tr><tr><td>End shield wall exterior</td><td></td><td>40 mrem/hr</td><td>600 mrem/hr</td><td>550 mrem/hr</td><td>600 mrem/hr</td><td>800 mrem/hr</td></tr></table></div> <div>* HSM E1-E20 and W1-W20 were loaded with 24P canisters under the Site Specific License SNM-2503 and only have Technical Specification dose rate limit for HSM Surface. ** HSMs E21-E42 and W21-W42 were loaded with 24P canisters under the General License CoC 1004</div> <div>Mode Applicability:</div>							Table E-1 ISFSI Dose Limits							HSM Module								E1-E20, W1-W20	E21-E42, W21-W42	E43-E67, W43-W67	E68-E74, W68-W74	E75-E80, W75-W80	E81-E92, W81-W92	Location	24P*	24P**	24PHB	24PHB	24PTH	24PTH	HSM Front Surface	400 mrem/hr	800 mrem/hr	1,000 mrem/hr				HSM Front Bird Screen				1,050 mrem/hr	1,050 mrem/hr	1,200 mrem/hr	Outside HSM Door		200 mrem/hr	40 mrem/hr	40 mrem/hr	140 mrem/hr	160 mrem/hr	End shield wall exterior		40 mrem/hr	600 mrem/hr	550 mrem/hr	600 mrem/hr	800 mrem/hr	Update ONS specific dry cask models
	Table E-1 ISFSI Dose Limits																																																																
HSM Module																																																																	
	E1-E20, W1-W20	E21-E42, W21-W42	E43-E67, W43-W67	E68-E74, W68-W74	E75-E80, W75-W80	E81-E92, W81-W92																																																											
Location	24P*	24P**	24PHB	24PHB	24PTH	24PTH																																																											
HSM Front Surface	400 mrem/hr	800 mrem/hr	1,000 mrem/hr																																																														
HSM Front Bird Screen				1,050 mrem/hr	1,050 mrem/hr	1,200 mrem/hr																																																											
Outside HSM Door		200 mrem/hr	40 mrem/hr	40 mrem/hr	140 mrem/hr	160 mrem/hr																																																											
End shield wall exterior		40 mrem/hr	600 mrem/hr	550 mrem/hr	600 mrem/hr	800 mrem/hr																																																											
	proposed																																																																
2.	p. D-65 2nd par.	Confinement boundary is defined as the barrier(s) between areas containing radioactive substances and the environment. Therefore, damage to a confinement boundary must be a confirmed			Confinement boundary is defined as the barrier(s) between areas containing radioactive substances and the environment. Therefore, damage to a confinement boundary must be a confirmed physical breach			editorial, correct typographical error																																																									

**Change Matrix**  
**ONS Emergency Plan, Rev 2019-004**

Page 2 of 2

Attachment to 50.54q		CHANGE MATRIX		
#	Page /Section	Current	Proposed Change	Reason
		physical breach between the spent fuel and the environment for the TSC	between the spent fuel and the environment for the DSC.	
3.	p. D-65 3rd par.	The Table E-1 values shown are 2 times the limits specified in the ISFSI Certificate of Compliance Technical Specifications for radiation external to the applicable loaded DSC (ref. 1, 2).	The Table E-1 values shown are 2 times the limits specified in the ISFSI Certificate of Compliance Technical Specifications for radiation external to the applicable loaded DSC (ref. 1, 2, 4).	editorial, added reference
4.	p. D-65	1. USNRC Certificate of Compliance for Spent Fuel Storage Casks, No. 1004, Amendment 13, Attachment A, Technical Specifications for Transnuclear, Inc., Standardized NUHOMS Horizontal Modular Storage System 2. OSC-8716, Oconee ISFSI Dose Rate Evaluations, Rev. 0 (4/29/05) 3. NEI 99-01 E-HU1	1. USNRC Certificate of Compliance for Spent Fuel Storage Casks, No. 1004, Amendments 0,1,2,3,4,6,7,8,9,13, and 15 Attachment A, Technical Specifications for Transnuclear, Inc., Standardized NUHOMS Horizontal Modular Storage System 2. OSC-8716, Oconee ISFSI Dose Rate Evaluations, Rev. 0 (4/29/05) 3. NEI 99-01 E-HU1 4. Site Specific License SNM 2503, Appendix A	Editorial, update references
5.	p. D-64 last paragraph  p.D-65 first paragraph	The Standardized NUHOMS® System is a horizontal canister system composed of a steel dry shielded canister (DSC), a reinforced concrete horizontal storage module (HSM), and a transfer cask (TC). The welded DSC provides confinement and criticality control for the storage and transfer of irradiated fuel. The concrete module provides radiation shielding while allowing cooling of the DSC and fuel by natural convection during storage (ref. 1, 2). The ONS ISFSI utilizes the 24PHB, 37PTH and 69BTH DSC designs.	The Standardized NUHOMS® System is a horizontal canister system composed of a steel dry shielded canister (DSC), a reinforced concrete horizontal storage module (HSM), and a transfer cask (TC). The welded DSC provides confinement and criticality control for the storage and transfer of irradiated fuel. The concrete module provides radiation shielding while allowing cooling of the DSC and fuel by natural convection during storage (ref. 1, 2). The ONS ISFSI utilizes the 24P, 24PHB, and 24PTH DSC designs.	Update ONS specific dry cask models