

ENCLOSURE 1

**Form OAR-1 Owners Activity Report (CC N-532-4)
Oconee Unit 1, Refueling Outage EOC 28.**

CASE
N-532-4

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number Owner's Activity Report for Refueling Outage 1EOC28

Plant Oconee Nuclear Station, 7800 Rochester Highway, Seneca, SC 29672

Unit No. 1 Commercial service date 7/15/1973 Refueling outage no. 1EOC28
(if applicable)

Current inspection interval 5th for Class 1, 2, & 3 Components & Supports and 3rd for Class MC Containment
(1st, 2nd, 3rd, 4th, other)

Current inspection period 1st for Class 1, 2, & 3 Components & Supports and Class MC Containment
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plans 2007 Edition through the 2008 Addenda

Date and revision of inspection plans See Attachment A

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans
Same

Code Cases used: The following Code Cases are permitted by the ISI Plans: N-513-3, N-532-4, N-586-1, N-613-1, N-639, N-643-2, N-648-1, N-663, N-706-1, N-712, N-722-1, N-729-1, N-731, N-735, N-770-1
(if applicable)

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of 1EOC28 conform to the requirements of Section XI.
(refueling outage number)

* TO THE BEST OF MY KNOWLEDGE AND BELIEF,

Signed MAURA PYLE, MAURASUR Date 2/23/2015

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by HSB Global Standards of CT have inspected the items described in this Owner's Activity Report, and state that, to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E. Zurbuch
Inspector's Signature

** Commissions 13048, 201, ANIC, IS
National Board, State, Province, and Endorsements

Date 2/25/2015

** PIP O-14-8106 & O-15-01841

Attachment A

Oconee Unit 1 End of Cycle 28 Inservice Inspection Report

Date and Revision of Inspection Plans:

1. The following documents comprise the Oconee Nuclear Station 5th Interval Inservice NDE Inspection Plan for Unit 1 (Class 1, 2, and 3 Components):
 - a. Oconee Nuclear Station - Fifth Interval Inservice Inspection Plan General Requirements Units 1, 2 and 3, Document #OISI-0169.10-0050-GEN REQ, Rev 0, dated 06/18/2014, including the following addenda:
 - i. OISI-0169.10-0050-5ONS-001
 - b. Oconee Nuclear Station Unit 1- Fifth Interval Inservice Inspection NDE Plan, Document #OISI-0169.10-0050-GEN REQ, Rev 0, dated 06/18/2014, including the following addenda:
 - i. OISI-0169.10-0050-5ONS-001 through OISI-0169.10-0050-5ONS1-007
2. The following documents comprise the Oconee Nuclear Station 5th Interval Inservice Inspection Pressure Test Plan for Unit 1:
 - a. Oconee Nuclear Station - Fifth Inspection Interval Inservice Inspection PT (Pressure Test) Plan General Requirements Units 1, 2 and 3, Document #OISI-0169.20-0050-GEN REQ, Rev 0, dated 06/18/2014, including the following addenda:
 - i. None
3. The following documents comprise the Oconee Nuclear Station 3rd Interval Containment Inservice Inspection Plan for Unit 1 (Class MC):
 - a. Oconee Nuclear Station - Third Inspection Interval Containment Inservice Inspection Plan- Document # O-ISIC3-62-0001- General Requirements Parts A,B,C & D UNIT 1, 2 AND 3, dated 06/10/2014, including the following addenda:
 - i. None

**Oconee Nuclear Unit 1
Form OAR-1 Owner's Activity Report**

**Table 1
Items with Flaws or Relevant Conditions that Required Evaluation for Continued Service**

Examination Category and Item Number	Item Description	Evaluation Description
C-H / C7.10	Boric acid residue found on valve 1HP-24 (Zone Number IZ1L-10)	Area identified in PIP O-14-11712 was evaluated by Engineering and found to be acceptable for continued service.
C-H / C7.10	Boric acid residue found on 1B LPI Cooler (Zone Number OZ1L-27B)	Area identified in PIP O-14-13369 was evaluated by Engineering and found to be acceptable for continued service.
C-H / C7.10	Boric acid residue found on valves 1LWD-331, 1LWD-332, 1LWD-274, 1LP-32, 1LP-69, (Zones Numbers OZ1L-21, 26, 27B, 28, 29, 29A, 30, and 30A)	Areas identified in PIP O-14-13370 were evaluated by Engineering and found to be acceptable for continued service.
B-G-2 / B7.20	Indication found during VT-1bolting exam on O1.B7.20.0002/1PZR-CHB-STUDS	Indications identified in PIP O-14-12461 were evaluated by Engineering and found to be acceptable for continued service.
B-G-2 / B7.20	Indication found during VT-1bolting exam on O1.B7.20.0003/1PZR-LHB-STUDS	Indications identified in PIP O-14-12461 were evaluated by Engineering and found to be acceptable for continued service.
B-J / B9.22	Indication found during Augmented exam on Weld 1HP-255-18	Indication identified in PIP O-14-12816 was evaluated in SIA Calculation 1401383.301 by Engineering and found to be acceptable for continued service.

**CASE
N-532-4**

**Oconee Nuclear Unit 1
Form OAR-1 Owner's Activity Report**

**Table 2
Abstract of Repair/Replacement Activities Required For Continued Service**

Code Class	Item Description	Description of Work	Date Completed	Repair / Replacement Plan Number
1	1A RC Cold Leg Drain Elbow	Replaced elbow and piping to first tee due to defect in elbow	11/22/2014	Work Order # 02180529
3	LPSW MDEFWP Motor piping	Replace piping containing through wall flaws between 36 inch header, LPSW-30 and LPSW-970	11/18/2014	Work Order # 02170612

Inservice Inspection Report additional Attachments 1 and 2:

Submittal of the NIS-2 Forms Omitted from 1EOC26 and 1EOC27 Refueling Outage Summary Report Submittals for the previous interval (4th).

Attachment 1

The attached NIS-2 reports detail the repair/replacement of Class 1, and 2 piping and components for Duke Energy's, Oconee Unit 1. These repairs or replacements were performed in previous outage reporting periods (for 1EOC26 or 1EOC27) of the 4th Interval but were not included with that summary report because they were not completed in time.

Piping and components were inspected/tested in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel code "Rules for Inservice Inspection of Nuclear Power Components, "1998 Edition through 2000 Addenda.

NIS 2 List for 1EOC26

Work Order #	Class
Class 1	
1967097	1

NIS 2 List for 1EOC27

Work Order #	Class
Class 1	
1967095-01,-72,-77	1
2044362	1
2067651	1
1933508	1
1941367	1
1944526	1
1993858	1
1993861	1
1998143	1
2008448	1
2008450	1
2023650	1
2024624-09	1
2053656	1
2068558-01	1
2125481-24	1
2126379-01	1
Class 2	
1995106-01,-04	2
1995107-01,-02,-25	2
2021674	2
2023452-10	2
2023453-10	2
2024297-17	2

**NIS 2 List for 1EOC27
(continued)**

2024316-33	2
2023405	2
2024222-02,-06	2
2053109-02,-09,-10	2
1893881	2
1978062-06	2
1978144-19	2
1978808	2
1983165-10	2
2023454-10	2
2024026	2
2088428-01	2
2092752-01	2

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number	Sheet
01967097	2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Letdown Cooler removed from the 1B location, S/N 53755-1, was constructed to ASME Section III, Class 3, 1980 edition, summer 1980 addenda.

② New Letdown Cooler S/N N32389-1 installed in the 1B position. The Duke Energy Catalog ID # for this cooler is 350952 and UTC # 0001896120. This cooler was constructed to ASME Section III, Class 3, 1989 edition, no addenda. Form N-1 (4 pages) is attached and includes 2 sheets, Form N-2, associated with the 2 chemical connectors (pressure seals), NPT parts, that are welded to it as part of manufacturing.

③ Piping and fittings: 3" SS pipe, CID 391686; 3" SS elbow, CID 391685; 3" SS elbow, CID 873346; 2-1/2" SS pipe, CID 295258; 2" SS pipe, CID 380266; 1" SS pipe, CID 149460; 1" SS half coupling, CID 68517; 1" SS elbow, CID 80492.

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable _____

Certificate of Authorization Number _____ Not Applicable _____ Expiration Date _____ Not Applicable _____

Signed James H. Batton, engineer Date 5/17/2011
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4.11.11 to 4.18.13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature Mark E. Zurbuch Commissions 13048, ZOI, A, N, I, JS
National Board, State, Province, and Endorsements
Date 4/18/13 **MARK E. ZURBUCH**

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

				Work Order Number <div style="text-align: center;">01967097</div>		Sheet <div style="text-align: center;">1 of 2</div>																																																																																									
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006			2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672			Unit <div style="text-align: center;">ONS - 1</div>																																																																																									
						Date <div style="text-align: center;">5/16/2011</div>																																																																																									
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Type Code Symbol Stamp</td> <td style="text-align: center;">Not Applicable</td> </tr> <tr> <td style="text-align: center;">Authorization Number</td> <td style="text-align: center;">Not Applicable</td> </tr> <tr> <td style="text-align: center;">Expiration Date</td> <td style="text-align: center;">Not Applicable</td> </tr> </table>				Type Code Symbol Stamp	Not Applicable	Authorization Number	Not Applicable	Expiration Date	Not Applicable																																																																																		
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4. Identification of System, ASME Class High Pressure Injection system (Letdown Cooler 1B - designed as Class 3), ASME Class 1																																																																																															
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>None</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>																																																																																															
6. Identification of Components <table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width:12.5%;">Name of Component</th> <th style="width:12.5%;">Name of Manufacturer</th> <th style="width:12.5%;">Manufacturer Serial Number</th> <th style="width:12.5%;">National Board No.</th> <th style="width:12.5%;">Other Identification</th> <th style="width:12.5%;">Year Built</th> <th style="width:12.5%;">Corrected, Removed, or Installed</th> <th style="width:12.5%;">ASME Code Stamped (Yes / No)</th> </tr> </thead> <tbody> <tr> <td>1B Letdown Cooler - old (1)</td> <td>Graham Manufacturing Corp.</td> <td>53755-1</td> <td>14352</td> <td>None</td> <td>1985</td> <td>Removed</td> <td>YES</td> </tr> <tr> <td>3B Letdown Cooler - new (2)</td> <td>Energy Steel & Supply Co.</td> <td>N32389-1</td> <td>None</td> <td>None</td> <td>2006</td> <td>Installed</td> <td>YES</td> </tr> <tr> <td>Piping</td> <td>Duke Energy</td> <td>None</td> <td>None</td> <td>None</td> <td>2011</td> <td>Installed</td> <td>NO</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>								Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)	1B Letdown Cooler - old (1)	Graham Manufacturing Corp.	53755-1	14352	None	1985	Removed	YES	3B Letdown Cooler - new (2)	Energy Steel & Supply Co.	N32389-1	None	None	2006	Installed	YES	Piping	Duke Energy	None	None	None	2011	Installed	NO																																																								
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7. Description of Work Removed the entire 1B Letdown Cooler, S/N 53755-1, and replaced it with a new Letdown Cooler (S/N N32389-1) of same basic design. Sections of 3", 2-1/2", 2" and 1" dia HPI piping & fittings were replaced for radiation ALARA reasons. Note: The Letdown Cooler tube side was originally designed as ASME Section III, Class 3.																																																																																															
8. Test Conducted <table style="width:100%;"> <tr> <td><input type="checkbox"/> Hydrostatic</td> <td><input type="checkbox"/> Pneumatic</td> <td><input checked="" type="checkbox"/> Nominal Operating Pressure</td> <td><input type="checkbox"/> Exempt</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td colspan="2">Pressure _____ PSI</td> <td colspan="3">Test Temperature _____ °F</td> </tr> </table>								<input type="checkbox"/> Hydrostatic	<input type="checkbox"/> Pneumatic	<input checked="" type="checkbox"/> Nominal Operating Pressure	<input type="checkbox"/> Exempt	<input type="checkbox"/> Other _____	Pressure _____ PSI		Test Temperature _____ °F																																																																																
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Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 1967095-01, -72, -77	Sheet: 1 of 2																																																																																
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Piping	DEC	None	None	None	2011	Corrected	NO																																																																												
7. Description of Work EC105527 Replace the 1A Letdown Cooler and modify the HPI and CC piping to connect cooler.																																																																																			
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input checked="" type="checkbox"/> Nominal Operating Pressure <input type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1967095-01

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Cooler Support pad enlarged using 1" Thk. Plate, UTC# 1963586

② Anchor lengthened using 7/8" Dia. Round Bar, UTC# 979528

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed K. W. Rannou Sr. K.W. Rannou Sr. Engineer Date 7/11/2011
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 3-31-11 to 4-18-13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions

13048, 201, A, N, E, I, S
National Board, State, Province, and Endorsements

Date

4-18-13

MARK E. ZURBUCH

As required by the provisions of the ASME Code Section XI

Work Order Number		Sheet					
02044362		1 of 2					
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672					
		Unit ONS - 1					
		Date 11/6/2012					
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable					
		Authorization Number Not Applicable					
		Expiration Date Not Applicable					
4. Identification of System, ASME Class Reactor Coolant System, ASME Class 1							
5. (a) Applicable Construction Code: USAS B31.7 19 69 Edition, No Addenda, Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 98 Edition, 2000 Addenda. (c) Applicable Section XI Code Case(s)							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
1RC-162	Target Rock	503 & 504	UKN	303280-2	UKN	Installed	NO
1RC-162	Target Rock	516,526,&529	UKN	204855-2	UKN	Installed	NO
7. Description of Work Replaced Bonnet assembly and main disc pilot assembly.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number	Sheet
02044362	2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① CID# 492150, UTC# 1986273 Bonnet Assembly, Data Package attached

② CID# 492154, UTC#1905493 Main Disc and Pilot, Data Package attached

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed Robert Bell Robert Bell / Senior Tech Specialist Date 11/6/2012
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 8-1-2012 to 4-10-2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E. Zurbuch Commission's 13048, 201, A, N, I
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-10-13 **MARK E. ZURBUCH**

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Work Order Number</td> <td style="padding: 2px;">02067651</td> </tr> </table>					Work Order Number	02067651	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Sheet</td> <td style="padding: 2px;">1 of 2</td> </tr> </table>			Sheet	1 of 2																																																																																			
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7. Description of Work Replaced Valve and Pipe																																																																																														
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F																																																																																														

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02067651

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① CID# 529511, UTC#2003265 Complete Valve, Globe Bellows Sealed, Data Pack Attached

② CID# 149458, UTC#1996521, Pipe. 1/2", SS, ASME SA 376 TP304, SCH 160 ANSI B36.10

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed Aaron Best Aaron Best / Engineer Date 2/14/2013

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11.16.12 to 4.11.2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions

13040, 201, A, N, I, I, S
National Board, State, Province, and Endorsements

Date

4.11.2013

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number <div style="text-align: center;">1933508</div>	Sheet <div style="text-align: center;">1 of 2</div>																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit <div style="text-align: center;">ONS - 1</div> <hr/> Date <div style="text-align: center;">1/9/2013</div>																																																																																	
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1-64-479D-H6416	DUKE	N/A	N/A	N/A	1973	Corrected	NO																																																																												
7. Description of Work Replaced bolts and washers																																																																																			
8. Test Conducted <table style="width:100%;"> <tr> <td><input type="checkbox"/> Hydrostatic</td> <td><input type="checkbox"/> Pneumatic</td> <td><input type="checkbox"/> Nominal Operating Pressure</td> <td><input checked="" type="checkbox"/> Exempt</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td colspan="2">Pressure _____ PSI</td> <td colspan="3">Test Temperature _____ °F</td> </tr> </table>				<input type="checkbox"/> Hydrostatic	<input type="checkbox"/> Pneumatic	<input type="checkbox"/> Nominal Operating Pressure	<input checked="" type="checkbox"/> Exempt	<input type="checkbox"/> Other _____	Pressure _____ PSI		Test Temperature _____ °F																																																																								
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Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1933508

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Washer, hardened steel, circular, 1/2", ASTM F436, UTC: 0001984348, Trace: M HT#100880

② Bolt, heavy hex, 1/2", carbon stl, ASME SA325, UTC: 0001991678, Trace:M HT#SA19164

③ Nut, heavy hex, 1/2", carbon stl, ASME SA194 Gr 2H, UTC: 0001987147, Trace:M HT#7223080

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed Dana W. G., Engineer II Date 1-9-13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/15/13 to 1/15/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Danny Chittels Shuter
Inspector's Signature

Commissions NB8447 NC1169ABNI IS
National Board, State, Province, and Endorsements

Date 1/15/2013

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 1941367	Sheet 1 of 2				
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672		Unit ONS - 1			
				Date 1/3/2013			
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable					
		Authorization Number Not Applicable					
		Expiration Date Not Applicable					
4. Identification of System, ASME Class Reactor Coolant, ASME Class I							
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda (c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
1-50-481A-H6328	DUKE	N/A	N/A	N/A	1973	Corrected	NO
7. Description of Work Added shims to S/R to ensure gap between pipe and angles is no more than 1/16" on either side.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1941367

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Plate, 1/4" thk x 8" wd, carbon stl, ASTM A36, hot rolled

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed Anna W. Davis, Engineer II Date 1-9-13

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10-24-12 to 5-21-13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions

13048, 201, A, N, I, 15
National Board, State, Province, and Endorsements

Date 5/21/13

MARK E. ZURBUCH

As required by the provisions of the ASME Code Section XI

AS required by the provisions of the ASME Code Section XI					Work Order Number 1944526		Sheet 1 of 2	
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006			2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672				Unit ONS - 1 Date 1/9/2013	
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006					Type Code Symbol Stamp Not Applicable Authorization Number Not Applicable Expiration Date Not Applicable			
4. Identification of System, ASME Class Sampling Liquid, ASME Class I								
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>								
6. Identification of Components								
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)	
1-64-479E-H6531	DUKE	N/A	N/A	N/A	1973	Corrected	NO	
7. Description of Work Replaced U-bolt								
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F								

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1944526

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Bolt, bent, U, 1/4" dia., CARBON STL, UTC: 0001980618, Trace: M PN#137N

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed Anna W. Cain, Engineer II Date 1-9-13

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10-17-12 to 5-2-13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E. Zurbuch
Inspector's Signature

Commissions 13048, 201, A, N, I, I, S
National Board, State, Province, and Endorsements

Date 5-2-13

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 01993858	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1 <hr/> Date 01/10/2013																																																																																	
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4. Identification of System, ASME Class High Pressure Injection, ASME Class 1																																																																																			
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1) Piping	DEC	None	None	None	2012	Installed	NO																																																																												
7. Description of Work EC102632 - Replace 1 in. Drain Valve IHP-334 With A 1 in. Globe Valve																																																																																			
8. Test Conducted <table style="width:100%;"> <tr> <td><input type="checkbox"/> Hydrostatic</td> <td><input type="checkbox"/> Pneumatic</td> <td><input type="checkbox"/> Nominal Operating Pressure</td> <td><input checked="" type="checkbox"/> Exempt</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td colspan="2">Pressure _____ PSI</td> <td colspan="3">Test Temperature _____ °F</td> </tr> </table>				<input type="checkbox"/> Hydrostatic	<input type="checkbox"/> Pneumatic	<input type="checkbox"/> Nominal Operating Pressure	<input checked="" type="checkbox"/> Exempt	<input type="checkbox"/> Other _____	Pressure _____ PSI		Test Temperature _____ °F																																																																								
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Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

01993858

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Installed piping

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed David Hubbard / David Hubbard / Technical Specialist II Date 01/10/2013

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1.23.12 to 7.3.13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions

1304B, 201, A, N, E, I, S
National Board, State, Province, and Endorsements

Date

7-13 7.3.13

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 01993861	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1 Date 7/30/2013																																																																																	
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable Authorization Number Not Applicable Expiration Date Not Applicable																																																																																	
4. Identification of System, ASME Class Reactor Coolant system, ASME Class 1																																																																																			
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>																																																																																			
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Piping	DPCo	None	None	None	2012	Installed	NO																																																																												
7. Description of Work EC103135, Replace 1/2", Class AC, Vent Valve IRC-184																																																																																			
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input checked="" type="checkbox"/> Nominal Operating Pressure <input type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

01993861

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed Rick Burgess Rick Burgess, Sr. Technical Specialist Date 7/30/2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10/11/12 to 9/17/13, and state that to the best of my knowledge and belief the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions

13048, ZOL, A, N, T, I, S
National Board, State, Province, and Endorsements

Date

9/17/13

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 1998143	Sheet 1 of 2				
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1					
		Date 12/3/2012					
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable					
		Authorization Number Not Applicable					
		Expiration Date Not Applicable					
4. Identification of System, ASME Class High Pressure Injection, ASME Class I							
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>None</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
1HP-545	Flowserve	34BRG	2703	None	UNK	Removed	YES
1HP-545	Flowserve	33BGC	1663	UTC#-1820914	2006	Installed	YES
1HP-546	Flowserve	31BRG	2700	None	UNK	Removed	YES
1HP-546	Flowserve	83BSZ	2792	UTC#-1987253	UNK	Installed	YES
Piping	DECo	None	None	None	2012	Installed	NO
7. Description of Work EC107442 replaced 1/2" vent valves 1HP-545 and 1HP-546 and the associated piping with 1" valves and piping.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1998143

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp

Not Applicable

Certificate of Authorization Number

Not Applicable

Expiration Date

Not Applicable

Signed

Rick Burgess

Rick Burgess, Sr. Technical Specialist

Date

12/3/2012

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10/11/12 to 9/17/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions

13048, 201, A, N, I, JS

National Board, State, Province, and Endorsements

Date

9/17/13

MARK E. ZURBUCH

As required by the provisions of the ASME Code Section XI

8. Test Conducted
☐ Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐ Exempt ☐ Other _____
 Pressure _____ PSI Test Temperature _____ °F

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02008448

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① The seal contains the following components: UTC # 0002005500, Flowserve mechanical seal, UTC # 0001979515, Flowserve housing, upper RCP seal, and UTC # 0002007410, Flowserve washer, lock, seal cartridge

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed Rick Burgess Rick Burgess, Sr. Technical Specialist Date 8/1 2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 3/14/2012 to 2/10/2015, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E. Zurbuch
Inspector's Signature

Commissions

13048, 201, A, N, I, C, T, S
National Board, State, Province, and Endorsements

Date

2/10/15

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 2px;">Work Order Number 02008450</td> <td style="width: 40%; padding: 2px;">Sheet 1 of 2</td> </tr> </table>					Work Order Number 02008450	Sheet 1 of 2																																																																														
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1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672			Unit ONS - 1																																																																																
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Expiration Date Not Applicable																																																																																				
4. Identification of System, ASME Class <div style="text-align: center;">Reactor Coolant System, ASME Class 1</div>																																																																																				
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>																																																																																				
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1RCPU0004	Flowserve	UNK	UNK	UNK	2012	Installed	NO																																																																													
7. Description of Work EC106786, Replaced "1A1" and "1B2" reactor coolant pump seals with Flowserve N-9000 seals. WO#2008450 replaced the "1B2" seal.																																																																																				
8. Test Conducted <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Hydrostatic</td> <td><input type="checkbox"/> Pneumatic</td> <td><input checked="" type="checkbox"/> Nominal Operating Pressure</td> <td><input type="checkbox"/> Exempt</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td colspan="2">Pressure _____ PSI</td> <td colspan="3">Test Temperature _____ °F</td> </tr> </table>					<input type="checkbox"/> Hydrostatic	<input type="checkbox"/> Pneumatic	<input checked="" type="checkbox"/> Nominal Operating Pressure	<input type="checkbox"/> Exempt	<input type="checkbox"/> Other _____	Pressure _____ PSI		Test Temperature _____ °F																																																																								
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Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02008450

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① The seal contains the following components: UTC # 0001976170, Flowserve mechanical seal, UTC # 0001979516, Flowserve housing, upper RCP seal, and UTC # 0002007410, Flowserve washer, lock, seal cartridge.

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate of Authorization Number: Not Applicable Expiration Date: Not Applicable

Signed: Rick Burgess Rick Burgess, Sr. Technical Specialist Date: 8/1/2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 3/14/12 to 11/20/14, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions

13048, 201, A, N, I, C, I, S
National Board, State, Province, And Endorsements

Date

11/20/14 **MARK E. ZURBUCH**

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 2023650	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1																																																																																	
		Date 1/9/2013																																																																																	
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable																																																																																	
		Authorization Number Not Applicable																																																																																	
		Expiration Date Not Applicable																																																																																	
4. Identification of System, ASME Class Sampling Liquid, ASME Class 1																																																																																			
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>																																																																																			
6. Identification of Components <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 12.5%;">Name of Component</th> <th style="width: 12.5%;">Name of Manufacturer</th> <th style="width: 12.5%;">Manufacturer Serial Number</th> <th style="width: 12.5%;">National Board No.</th> <th style="width: 12.5%;">Other Identification</th> <th style="width: 12.5%;">Year Built</th> <th style="width: 12.5%;">Corrected, Removed, or Installed</th> <th style="width: 12.5%;">ASME Code Stamped (Yes / No)</th> </tr> </thead> <tbody> <tr> <td>I-64-479D-H6347</td> <td>DUKE</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>1973</td> <td>Corrected</td> <td>NO</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)	I-64-479D-H6347	DUKE	N/A	N/A	N/A	1973	Corrected	NO																																																																
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I-64-479D-H6347	DUKE	N/A	N/A	N/A	1973	Corrected	NO																																																																												
7. Description of Work Replaced bolts, washers and nuts																																																																																			
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

2023650

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Bolt, heavy hex, 1/2", carbon stl, ASTM A325, UTC: 0001977955, Trace: M HT#A03284

② Washer, hardened stl, circular, 1/2", carbon stl, ASTM F436, UTC: 0001984348, Trace: M HT#100880

③ Bolt, heavy hex, 1/2", carbon stl, ASME SA325, UTC: 0001979435, Trace: M HT#1D3358

④ Nut, heavy hex, 1/2", carbon stl, ASME SA194 Gr 2H, UTC: 0001987147, Trace: M HT#7223080

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed Anna W. [Signature], Engineer II Date 1-9-13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11.6.12 to 5.2.13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]
Inspector's Signature

Commissions 13048, 201 A, N, I, IS
National Board, State, Province, and Endorsements

Date 5.2.13

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number	Sheet
2024624-09	4 of 4

9. Remarks (Applicable Manufacturer's Data Reports to be attached)	
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10	PIP 0-13-367 - 0-13-00082

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed Aaron Best Aaron Best, Engineer Date 1/3/2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/24/13 to 1/24/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Woney C. Ritchie-Slighter Commissions NB8447 NC1169 ABNT IS
Inspector's Signature National Board, State, Province, and Endorsements

Date 1/24/13

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 02053656	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672		Unit ONS - 1 Date 12-4-2012																																																																																
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Type Code Symbol Stamp</td> <td>Not Applicable</td> </tr> <tr> <td>Authorization Number</td> <td>Not Applicable</td> </tr> <tr> <td>Expiration Date</td> <td>Not Applicable</td> </tr> </table>		Type Code Symbol Stamp	Not Applicable	Authorization Number	Not Applicable	Expiration Date	Not Applicable																																																																										
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Authorization Number	Not Applicable																																																																																		
Expiration Date	Not Applicable																																																																																		
4. Identification of System, ASME Class <div style="text-align: center;">Reactor Coolant, ASME Class I</div>																																																																																			
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>																																																																																			
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IRC-IV-0162	Kerotest	Unk	Unk	Unk	Unk	Removed	NO																																																																												
IRC-IV-0162	Flowserve	53BPJ	2497	UTC 1945254	Unk	Installed	YES																																																																												
Piping	DPCo	Unk	Unk	Unk	2012	Installed	NO																																																																												
7. Description of Work EC108749 replaced IRC-IV-0162 after previous online leak injection repair.																																																																																			
8. Test Conducted <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div> <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input checked="" type="checkbox"/> Nominal Operating Pressure <input type="checkbox"/> Exempt <input type="checkbox"/> Other _____ </div> <div> Pressure _____ PSI Test Temperature _____ °F </div> </div>																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02053656

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed Ronald B. Bogle Mechanical Engineer Date 12/4/2012
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/14/13 to 1/14/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nancy C. Ritchie-Slaughter
Inspector's Signature

Commissions

NB 8447 NC 1169 AB NF IS
National Board, State, Province, and Endorsements

Date

1/14/13

As required by the provisions of the ASME Code Section XI

[illegible]

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

2068558-01

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① (8) CRDM tube hold down bolts, 1 1/8", SA453 Gr 660 Class A, UTC# 1977937

(2) Split nut ring flanges (1 set), SA320 L43, UTC# 1075364

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⑩ * PIP 0-13-01700 4626/2/13

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp

Not Applicable

Certificate of Authorization Number

Not Applicable

Expiration Date

Not Applicable

Signed



Aaron Best, Engineer

Date

2/13/2013

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 2-13-13 to 5-2-13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature



Commissions

13048, 201, A, N, I, IS

National Board, State, Province, and Endorsements

Date 5-2-13

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 02125481-24	Sheet 1 of 2				
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672		Unit ONS - 1			
		Date 11/25/2013					
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable					
		Authorization Number Not Applicable					
		Expiration Date Not Applicable					
4. Identification of System, ASME Class High Pressure Injection, ASME Class I							
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
IHP-489	Anchor Darling	EZ 496-1-11	1960	See Remarks	1996	Corrected	YES
7. Description of Work Body to bonnet joint nuts were replaced with like from stock.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02125481-24

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Nuts, Heavy Hex, 7/8", 9UNC-2B, Carbon Steel ASME SA194 Gr 2H, UTC# 0002018022 (qty 7)

② Nuts, Heavy Hex, 7/8", 9UNC-2B, Carbon Steel ASME SA194 Gr 2H, UTC# 0002018512 (qty 1)

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp

Not Applicable

Certificate of Authorization Number

Not Applicable

Expiration Date

Not Applicable

Signed

Will Beekman

Will Beekman, Engineer II

Date

11/25/2013

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11.21.2013 to 1.3.14, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E. Zurbuch
Inspector's Signature

Commissions

15048, ZOI, A, N, I, C, TS

National Board, State, Province, and Endorsements

Date

4/3/14

MARK E. ZURBUCH

As required by the provisions of the ASME Code Section XI

☐ Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐ Exempt ☐ Other _____

Pressure PSI Test Temperature °F

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

2126379-01

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable _____

Certificate of Authorization Number _____ Not Applicable _____ Expiration Date _____ Not Applicable _____

Signed  Aaron Best, Senior Engineer Date 1/20/2015
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB Global Standards of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11-19-13 to 2-11-15, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

 Commissions 13048, 201, A, N, T, C, I, S
Inspector's Signature National Board, State, Province, and Endorsements
Date 2/11/15 **MARK E. ZURBUCH**

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 01995106-01, -04	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1 <hr/> Date 11/8/2012																																																																																	
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable <hr/> Authorization Number Not Applicable <hr/> Expiration Date Not Applicable																																																																																	
4. Identification of System, ASME Class LPSW - 4" dia piping to 1C Reactor Building Cooling Unit (RBCU) Coils, ASME Class 2																																																																																			
5. (a) Applicable Construction Code: <u>USAS B31.1</u> 19 <u>67</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda (c) Applicable Section XI Code Case(s) <u>None</u>																																																																																			
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Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)																																																																												
1C RBCU Coil bolting - for coils 1, 2, 3 & 4 (1)	Duke	Unknown	None	See Remarks	2012	Installed	NO																																																																												
7. Description of Work Corrective work on the 1C RBCU Coils # 1, #2, #3 & #4 (tube cleaning) required removal of the cooler waterbox. This involved disassembling the Low Pressure Service (LPSW) piping from the coils. The 5/8-inch diameter LPSW piping bolting material for piping-to-coil flanges required replacement due to surface degradation.																																																																																			
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

01995106-01, -04

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Replaced one hundred twenty-eight (128) 5/8-inch diameter nuts and sixty-four (64) 5/8-inch diameter studs on the 1C RBCU, #1, #2, #3 and #4 Coils' flanges. The Catalog ID # for the nuts is 293556 and the UTC # is 0001997880. The Catalog ID # for the stud material (threaded rod) is 297412 and the UTC # is 0001996044.

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PIP 0-13-367

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp

Not Applicable

Certificate of Authorization Number

Not Applicable

Expiration Date

Not Applicable

Signed

James H. Batton, Sr. Engineer
Owner or Owner's Designee, Title

Date

11/8/2012

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/23/13 to 1/23/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nancy C. Ritchie Slaughter
Inspector's Signature

Commissions

NB8447 NC1169 ABNI IS

National Board, State, Province, and Endorsements

Date

1/23/2013

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 01995107-01, -02, -25	Sheet 1 of 2				
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1					
		Date 11/9/2012					
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable					
		Authorization Number Not Applicable					
		Expiration Date Not Applicable					
4. Identification of System, ASME Class LPSW - 4" dia piping to 1A Reactor Building Cooling Unit (RBCU) Coils, ASME Class 2							
5. (a) Applicable Construction Code: <u>USAS B31.1</u> 19 <u>67</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
1A RBCU Coil bolting - for coils 1, 2, 3 & 4 (1)	Duke	Unknown	None	See Remarks	2012	Installed	NO
7. Description of Work Corrective work on the 1A RBCU Coils # 1, #2, #3 & #4 (tube cleaning) required removal of the cooler waterbox. This involved disassembling the Low Pressure Service (LPSW) piping from the coils. The 5/8-inch & 3/4-inch diameter LPSW piping bolting material for piping-to-coil flanges required replacement due to surface degradation.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

01995107-01, -02, -25

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

- ① Replaced one hundred twenty-eight (128) 5/8-inch diameter nuts and sixty-four (64) 5/8-inch diameter studs on the 1A RBCU, #1, #2, #3 and #4 Coils' flanges. The Catalog ID # for the nuts is 293556 and the UTC #'s are 0001997880, 0001979149, 0001977583. The Catalog ID # for the stud material (threaded rod) is 297412 and the UTC #'s are 0001996044, 0002000449.
- ② Replaced 3/4-inch diameter nuts (SA194 Gr 2H) and studs (SA193 B7 threaded rod) on the 1A RBCU LPSW piping flanges.
- 3/4-inch 10-UNC-2B nut, Cat ID # 131796, UTC # 001984733.
- 3/4-inch 10 UNC-2A stud from threaded rod, Cat ID # 297413, UTC # 0001995162.

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⑩ PIP-13-367

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp

Not Applicable

Certificate of Authorization Number

Not Applicable

Expiration Date

Not Applicable

Signed

James H. Batton Sr. Engineer
Owner or Owner's Designee, Title

Date

11/9/2012

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/23/13 to 1/23/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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Nancy C. Ritchie-Slozka
Inspector's Signature

Commissions

NB8447/NC1169 ABNE IS

National Board, State, Province, and Endorsements

Date

1/23/2013

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 02021674	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672		Unit ONS - 1 Date 11/29/2012																																																																																
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable Authorization Number Not Applicable Expiration Date Not Applicable																																																																																	
4. Identification of System, ASME Class Low Pressure Injection, ASME Class 2																																																																																			
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1) Piping	DEC	None	None	None	2012	Installed	NO																																																																												
7. Description of Work EC103120 - Replace 2 in. Block Valve 1LP-96 With A 2 in. Globe Valve																																																																																			
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Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02021674

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Installed Piping (1) Elbow

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed David L. Hubbard David L. Hubbard, Technical Specialist II Date 11/29/2012
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1-23-2012 to 4-11-2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions 13048, 201, A, N, E, I, S
National Board, State, Province, and Endorsements

Date 4-11-2013

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 02023452-10	Sheet 1 of 2				
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1					
		Date 11/15/2012					
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable					
		Authorization Number Not Applicable					
		Expiration Date Not Applicable					
4. Identification of System, ASME Class LPSW - Piping to 1A2 RCP Motor Air Coolers (RCPMAC) Upper, ASME Class 2							
5. (a) Applicable Construction Code: <u>USAS B31.1</u> 19 <u>67</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
1A2 RCPMUAC bolting (1)	Duke	Unknown	None	None	2012	Installed	NO
7. Description of Work Work on the 1A2 RCP Motor Coolers (tube cleaning) required removal of the cooler waterbox and disassembling the Low Pressure Service (LPSW) piping from the coils. The 1/2-inch dia. waterbox bolting material required replacement due to surface degradation & maintenance convenience.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02023452-10

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Replaced RCP Motor Air Cooler waterbox studs and nuts. -- Nuts, Hex, Heavy Hex, 1/2", 13 UNC-2B, Carbon Steel, ASME SA194 Gr 2H, ANSI B18.2.2, ASME SA 194 Gr 2H, Duke Energy Catalog ID 313135, UTC # 0001987147.
- Studs - cut from Rod, Threaded, 1/2", 13 UNC-2A, Alloy Steel, ASME SA193 Gr B7, Duke Energy Catalog ID # 297411, UTC # - 0001935521

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed James H. Patton Sr. engineer Date Nov. 15, 2012
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 9-17-12 to 5-22-13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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Inspector's Signature

Commissions

13048, 201, A, N, I, IS
National Board, State, Province, and Endorsements

Date 5-22-13

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 02023453-10	Sheet 1 of 2																																																																																
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Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02023453-10

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Replaced RCP Motor Air Cooler waterbox studs and nuts. - Nuts, Hex, Heavy Hex, 1/2", 13 UNC-2B, Carbon Steel, ASME SA194 Gr 2H, ANSI B18.2.2, ASME SA 194 Gr 2H, Duke Energy Catalog ID 313135, UTC # 0001987147.
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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed James H. Patton Sr. Engineer Date Nov. 15, 2012
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 9.17.12 to 5.22.13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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Inspector's Signature

Commissions

1304B, 201, A, N, I, TS
National Board, State, Province, and Endorsements

Date 5.22.13

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 2024297-17	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1																																																																																	
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7. Description of Work Replaced existing load stud with new pivot pin to restore correct configuration.																																																																																			
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number	Sheet
2024297-17	2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)	
1	Anvil 3/8" Pivot Pin UTC 1966656, HT # 71A used to replace existing load stud
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10	PIP 013-537

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed E. K. Smith Eric K. Smith / Engineer Date 11/29/12

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/16/13 to 1/16/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nancy C. Pitcher-Snyder
Inspector's Signature

Commissions NB8447 NC1169 ABNI IS
National Board, State, Province, and Endorsements

Date 1/16/2013

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 2024316-33		Sheet 1 of 2			
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672		Unit ONS - 1			
				Date 11/29/2012			
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006				Type Code Symbol Stamp Not Applicable			
				Authorization Number Not Applicable			
				Expiration Date Not Applicable			
4. Identification of System, ASME Class Feedwater, ASME Class 2							
5.							
(a) Applicable Construction Code: <u>USAS B31.1</u> 19 <u>67</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case							
(b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda.							
(c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
04A-0-478A-NPS-H35	Lisega	61296/35	UNK	None	UNK	Removed	NO
04A-0-478A-NPS-H35	Lisega	30800150/035	UNK	UTC 01916749	UNK	Installed	NO
7. Description of Work Snubber 04A-0-478A-NPS-H35 Replaced							
8. Test Conducted							
<input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

2024316-33

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp

Not Applicable

Certificate of Authorization Number

Not Applicable

Expiration Date

Not Applicable

Signed

E. K. Smith

Eric K. Smith / Engineer

Date

11/29/2012

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/10/13 to 1/10/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nonny R. Shafter
Inspector's Signature

Commissions

NB84470/L1169 ABNE IS

National Board, State, Province, and Endorsements

Date

1/10/2013

As required by the provisions of the ASME Code Section XI

[illegible]

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

2023405

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① 1" Turnbuckle, UTC #:0001051785, Trace: M PN#230N

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed Amos W. Si, Engineer II Date 11/12/12
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 2-7-12 to 12-19-13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E. Zurbuch
Inspector's Signature

Commissions 13048, 201A, N, E, IS
National Board, State, Province, and Endorsements

Date 12-19-13

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 02024222-02, -06	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:100%;">Unit ONS - 1</td> </tr> <tr> <td>Date 11/8/2012</td> </tr> </table>		Unit ONS - 1	Date 11/8/2012																																																																														
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Expiration Date Not Applicable																																																																																			
4. Identification of System, ASME Class LPSW - 4" dia piping to 1B Reactor Building Cooling Unit (RBCU) Coils , ASME Class 2																																																																																			
5. (a) Applicable Construction Code: <u>USAS B31.1</u> 19 <u>67</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>																																																																																			
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1B RBCU Coil bolting - for coils 1, 2, 3 & 4 (1)	Duke	Unknown	None	See Remarks	2012	Installed	NO																																																																												
7. Description of Work Preventative maintenance work on the 1B RBCU Coils # 1, #2, #3 & #4 (tube cleaning) required removal of the cooler waterbox. This involved disassembling the Low Pressure Service (LPSW) piping from the coils. The 5/8-inch diameter LPSW piping bolting material for piping-to-coil flanges required replacement due to surface degradation.																																																																																			
8. Test Conducted <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> Pressure _____ PSI Test Temperature _____ °F </div>																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02024222-02, -06

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Replaced one hundred twenty-eight (128) 5/8-inch diameter nuts and sixty-four (64) 5/8-inch diameter studs on the 1B RBCU, #1, #2, #3 and #4 Coils' flanges. The Catalog ID # for the nuts is 293556 and the UTC # is 0001997880. The Catalog ID # for the stud material (threaded rod) is 297412 and the UTC # is 0001992623.

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P.I.P. 0-13-367

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed James H. Batten, Sr. Engineer
Owner or Owner's Designee, Title

Date 11/8/2012

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/23/13 to 1/23/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

North Carolina
Inspector's Signature

Commissions 1B8447 NL1169 AB/IE IS
National Board, State, Province, and Endorsements

Date 1/23/2013

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 02053109-02, -09, -10	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Unit ONS - 1</td> <td style="width:50%;">Date 11/15/2012</td> </tr> </table>		Unit ONS - 1	Date 11/15/2012																																																																														
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Type Code Symbol Stamp Not Applicable	Authorization Number Not Applicable																																																																																		
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4. Identification of System, ASME Class Unit 1A1 Reactor Coolant Pump Motor Upper Bearing Oil Cooler, LPSW System, ASME Class 2																																																																																			
5. (a) Applicable Construction Code: <u>USAS B31.1</u> 19 <u>67</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>																																																																																			
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1A1 RCP Motor Brg Oil Cooler to LPSW piping flange bolting (1)	Duke	Unknown	None	See Remarks	2012	Installed	NO																																																																												
7. Description of Work This work includes preventative replacement of 1A1 RCP Motor Upper Bearing Oil Cooler and associated piping bolting due to normal wear and tear and Maintenance convenience.																																																																																			
8. Test Conducted <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ </div> <div> Pressure _____ PSI Test Temperature _____ °F </div> </div>																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02053109-02, 09, 10

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Replaced 5/8-inch diameter nuts on the 1A1 RCP Motor Oil Cooler to LPSW piping flanges. The Catalog ID # for the nuts is 293556 and the UTC #s is 0001997880.

Replaced 5/8-inch studs - cut from Rod, Threaded, 5/8", 11 UNC-2A, ALLOY STL, ASME SA193 GR B7, 1007B1AR1C0A005, Duke Energy Catalog ID # 297412, UTC #s 0002000449.

② Replaced existing Oil Cooler with used Oil Cooler, Catalog ID 588684, UTC # 0002003227.

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed James H. Botton Sr. Engineer Date Nov. 15, 2012

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10.19.12 to 4.23.13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E. Zurbuch
Inspector's Signature

Commissions

13048, 201, A, N, E, I, S

National Board, State, Province, and Endorsements

MARK E. ZURBUCH

Date 4.23.13

As required by the provisions of the ASME Code Section XI

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1893881

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① 1" dia. round bar, carbon steel, ASTM A36, UTC 0001951530, Trace M HT#JD6543

② 1" clevis, forged stl, UTC 0000952686, Trace M P/N#299N

③ 1" turnbuckle, UTC 0000856616, Trace M TD4722

④ 1" heavy hex nuts carbon stl, ASME SA194 GR 2H, UTC 0001951881, Trace AM HT#323217

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed Anna W. Davis, Engineer II Date 1/9/12
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 9.8.2010 to 12.19.2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E. Zurbuch
Inspector's Signature

Commissions

13048, 201, A, N, I, TS
National Board, State, Province, and Endorsements

Date 12-19-2013

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

<table border="1" style="display: inline-table; width: 150px;"> <tr> <td style="padding: 2px;">Work Order Number</td> <td style="text-align: center; padding: 2px;">1978062-06</td> </tr> </table> <table border="1" style="display: inline-table; width: 100px; margin-left: 10px;"> <tr> <td style="padding: 2px;">Sheet</td> <td style="text-align: center; padding: 2px;">1 of 2</td> </tr> </table>					Work Order Number	1978062-06	Sheet	1 of 2																																																																													
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7. Description of Work Rebuilt pipe clamp support after having to cut existing bolts to inspect pipe clamp for wear.																																																																																					
8. Test Conducted <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Hydrostatic</td> <td><input type="checkbox"/> Pneumatic</td> <td><input type="checkbox"/> Nominal Operating Pressure</td> <td><input checked="" type="checkbox"/> Exempt</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td colspan="2">Pressure _____ PSI</td> <td colspan="3">Test Temperature _____ °F</td> </tr> </table>						<input type="checkbox"/> Hydrostatic	<input type="checkbox"/> Pneumatic	<input type="checkbox"/> Nominal Operating Pressure	<input checked="" type="checkbox"/> Exempt	<input type="checkbox"/> Other _____	Pressure _____ PSI		Test Temperature _____ °F																																																																								
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Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number
1978062-06

Sheet
2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Support Rebuild included: (10) heavy hex nut 2 1/2" ASTM 194 Grade 2H UTC#1970851 & (2") Round bar 2 1/2" ASTM A193 B7 UTC#1941115 & (24") threaded rod, 2 1/2" ASME 197 Grade B7 UTC#1971602

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed E. K. Smith Eric K Smith / Engineer Date 12/5/2012
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/18/13 to 1/18/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nancy C. Ritchie Slaughter Commissions NB 8447 NC1169 AB NE IS
Inspector's Signature National Board, State, Province, and Endorsements

Date 1/18/2013

As required by the provisions of the ASME Code Section XI

[illegible]

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1978144

Sheet

4 of 4

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed E. K. Smith Eric K. Smith / Engineer Date 12/5/2012

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10-19-2012 to 4-10-2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions

13048, 201, A, N, E, IS
National Board, State, Province, and Endorsements

Date

4-10-2013

MARK E. ZURBUCH

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 1978808	Sheet 1 of 2																																																																																
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1																																																																																	
		Date 1/9/2013																																																																																	
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I-01A-0-550-H20	DUKE	N/A	N/A	N/A	1973	Corrected	NO																																																																												
7. Description of Work Welded on S/R to add margin																																																																																			
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F																																																																																			

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1978808

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Weld material, 3/32, Stock No. 0000082453, Lot No. 2H116D01, Heat No. M100139, UTC1987222

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⑩ PIP 0-13-367

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp

Not Applicable

Certificate of Authorization Number

Not Applicable

Expiration Date

Not Applicable

Signed

Anna W. Gair

Engineer II

Date

1-9-13

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/17/13 to 1/17/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nancy C. Ricketts-Snyder
Inspector's Signature

Commissions

NB8447 NC1169 ABNI IS

National Board, State, Province, and Endorsements

Date

1/17/13

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 1983165-10	Sheet 1 of 2				
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672		Unit ONS - 1			
		Date 12/5/2012					
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable					
		Authorization Number Not Applicable					
		Expiration Date Not Applicable					
4. Identification of System, ASME Class Feedwater, ASME Class 2							
5.							
(a) Applicable Construction Code: <u>USAS B31.1</u> 19 <u>67</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case							
(b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda.							
(c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
04A-0-478A-NPS-H35A	Lisega	61296/34	UNK	None	UNK	Removed	NO
04A-0-478A-NPS-H35A	Lisega	30800150/036	UNK	UTC 1924465	UNK	Installed	NO
7. Description of Work Replace lisega snubber found with incorrect type of hydraulic fluid inside containment.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

1983165-10

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed E. K. Smith Eric K. Smith / Engineer Date 12/5/12
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/14/13 to 1/16/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nancy C. Ritchie-Slaughter
Inspector's Signature

Commissions NB 8447 NC 1169 ABNI IS
National Board, State, Province, and Endorsements

Date 1/16/2013

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number: 02023454-10	Sheet 1 of 2				
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1					
		Date 11/13/2012					
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable					
		Authorization Number Not Applicable					
		Expiration Date Not Applicable					
4. Identification of System, ASME Class LPSW - Piping to 1B1 RCP Motor Air Coolers (RCPMAC) Upper, ASME Class 2							
5. (a) Applicable Construction Code: <u>USAS B31.1</u> 19 <u>67</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
1B1 RCPMUAC bolting (1)	Duke	Unknown	None	None	2012	Installed	NO
7. Description of Work Work on the 1B1 RCP Motor Coolers (tube cleaning) required removal of the cooler waterbox and disassembling the Low Pressure Service (LPSW) piping from the coils. The 1/2-inch dia. waterbox bolting material required replacement due to surface degradation & maintenance convenience.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02023454-10

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Replaced RCP Motor Air Cooler waterbox studs and nuts. - Nuts, hex, heavy hex, 1/2", 13 UNC-2B, carbon stl, ASME SA194 GR 2H, ANSI B18.2.2, ASME SA 194 Gr 2H, Catalog ID 313135, UTC # 0001987147. - Studs - cut from rod, threaded, 1/2", 13 UNC-2A, alloy stl, ASME SA193 GR B7, Catalog ID # 297411, UTC # 0001987156.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp

Not Applicable

Certificate of Authorization Number

Not Applicable

Expiration Date

Not Applicable

Signed

James H. Patton

Sr. Engineer

Date

Nov. 15, 2012

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/12/13 to 1/12/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Wm. C. Ritchie-Slaughter

Inspector's Signature

Commissions

NB8447 NC1169 ABNI IS

National Board, State, Province, and Endorsements

Date

1/12/2013

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Work Order Number</td> <td style="text-align: center; padding: 2px;">2024026</td> </tr> </table>					Work Order Number	2024026	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Sheet</td> <td style="text-align: center; padding: 2px;">1 of 2</td> </tr> </table>			Sheet	1 of 2																																																																												
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4. Identification of System, ASME Class SSF RC Makeup System, SSF RC makeup 10 Gallon Accumulator, ASME Class 2																																																																																							
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ON1SFAC0001	Greer Hydraulics	UNK	UNK	Part No. 1855-845140	UNK	Corrected	YES																																																																																
7. Description of Work The work being completed is a regular preventative maintenance practice that is done on the SSF RCMUP 10 GAL. Accumulator																																																																																							
8. Test Conducted <table style="width:100%;"> <tr> <td><input type="checkbox"/> Hydrostatic</td> <td><input type="checkbox"/> Pneumatic</td> <td><input type="checkbox"/> Nominal Operating Pressure</td> <td><input checked="" type="checkbox"/> Exempt</td> <td><input type="checkbox"/> Other</td> </tr> <tr> <td colspan="2">Pressure _____ PSI</td> <td colspan="3">Test Temperature _____ °F</td> </tr> </table>								<input type="checkbox"/> Hydrostatic	<input type="checkbox"/> Pneumatic	<input type="checkbox"/> Nominal Operating Pressure	<input checked="" type="checkbox"/> Exempt	<input type="checkbox"/> Other	Pressure _____ PSI		Test Temperature _____ °F																																																																								
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Pressure _____ PSI		Test Temperature _____ °F																																																																																					

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02024026

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

1 Valve core UTC 001070869 was installed by the subject WO.

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp Not Applicable

Certificate of Authorization Number Not Applicable Expiration Date Not Applicable

Signed Matthew J. Dineen Engineer III Date 12/3/2012
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1/11/13 to 1/11/13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nancy C. Ritchie-Smythe
Inspector's Signature

Commissions NB84470/L1169ABNI IS
National Board, State, Province, and Endorsements

Date 1/11/2013

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

		Work Order Number 02088428-01	Sheet 1 of 2				
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672		Unit ONS - 1 Date 2/20/2014				
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable Authorization Number Not Applicable Expiration Date Not Applicable					
4. Identification of System, ASME Class Building Spray, ASME Class 2							
5. (a) Applicable Construction Code: <u>USAS B31.7</u> 19 <u>69</u> Edition, <u>No</u> Addenda, <u>No</u> Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 19 <u>98</u> Edition, <u>2000</u> Addenda. (c) Applicable Section XI Code Case(s) <u>None</u>							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
IBS-4	Crane	unk	unk	unk	unk	Corrected	NO
7. Description of Work Replaced body to bonnet studs and nuts due to lack of full thread engagement..							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure _____ PSI Test Temperature _____ °F							

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02088428-01

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Replaced the body to bonnet bolting for IBS-4 using the following materials: 32 7/8" nuts, (20) UTC 1961095 and (14) UTC 1971070, replaced all 16 studs using 7/8" threaded rod from UTC-2026175.

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed James R Kiser /James R Kiser, Lead Engineer Date 2/20/2014
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11-5-13 to 12-4-14, and state that to the best of my knowledge and belief the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Mark E Zurbuch Commissions 13048, 201, A, N, I, C, I, S
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/4/2014 **MARK E. ZURBUCH**

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Work Order Number</td> <td style="padding: 2px;">02092752-01</td> </tr> </table>					Work Order Number	02092752-01	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Sheet</td> <td style="padding: 2px;">1 of 2</td> </tr> </table>			Sheet	1 of 2																																																																												
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Sheet	1 of 2																																																																																						
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IBS-18	Crane Co	5021447-03	UNK	See Remarks	UNK	Corrected	NO																																																																																
7. Description of Work Replace body to bonnet studs, reuse existing nuts.																																																																																							
8. Test Conducted <table style="width:100%;"> <tr> <td><input type="checkbox"/> Hydrostatic</td> <td><input type="checkbox"/> Pneumatic</td> <td><input type="checkbox"/> Nominal Operating Pressure</td> <td><input checked="" type="checkbox"/> Exempt</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td colspan="2">Pressure _____ PSI</td> <td colspan="3">Test Temperature _____ °F</td> </tr> </table>								<input type="checkbox"/> Hydrostatic	<input type="checkbox"/> Pneumatic	<input type="checkbox"/> Nominal Operating Pressure	<input checked="" type="checkbox"/> Exempt	<input type="checkbox"/> Other _____	Pressure _____ PSI		Test Temperature _____ °F																																																																								
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Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

02092752-01

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Rod, Threaded, 3/4" 10UNC-2A, SS ASME SA193 FR B8M Class 1, UTC# 0001899917

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate of Authorization Number: Not Applicable Expiration Date: Not Applicable

Signed: Will Beckman Will Beckman, Engineer II Date: 9/4/2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 7/23/14 to 7/23/14, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Nancy Rithel Slaughter
Inspector's Signature

Commissions

NB8447 NC1169 ABNI IS
National Board, State, Province, and Endorsements

Date

7/23/14

Submittal of the NIS-2 Forms performed prior to implementing Code Case N-532-4 in the current interval (5th).

Attachment 2

The attached NIS-2 reports detail the repair/replacement of Class 1, 2 and 3 piping and components for Duke Energy's, Oconee Unit 1. These repairs or replacements were performed prior to the implementation of Code Case N-532-4.

Piping and components were inspected/tested in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel code "Rules for Inservice Inspection of Nuclear Power Components, "2007 Edition through 2008 Addenda.

NIS 2 List for 1EOC28

Work Order #	Class
Class 1	
2139572	1
2139991	1

As required by the provisions of the ASME Code Section XI

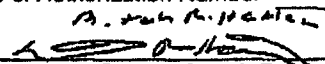
Work Order Number		Sheet					
2139572		1 of 2					
1. Owner Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006	2. Plant Oconee Nuclear Station 7800 Rochester Hwy Seneca, SC 29672	Unit ONS - 1 Date 11/16/2014					
3. Work Performed by Duke Energy Carolinas, LLC 526 South Church Street Charlotte, NC 28201-1006		Type Code Symbol Stamp Not Applicable Authorization Number Not Applicable Expiration Date Not Applicable					
4. Identification of System, ASME Class Reactor Coolant, ASME Class I							
5. (a) Applicable Construction Code: ASME Section III / 2007 Edition, No Addenda, No Code Case (b) Applicable Edition Section XI Utilized For R/R Activity 2007 Edition, 2008 Addenda. (c) Applicable Section XI Code Case(s) None							
6. Identification of Components							
Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes / No)
Steam Generator 1B ONIRCHX000B	BWC	006K02	206	See Remarks	2003	Corrected	YES
7. Description of Work Plugging of Steam Generator primary tubing.							
8. Test Conducted <input type="checkbox"/> Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Other _____ Pressure PSI Test Temperature °F							

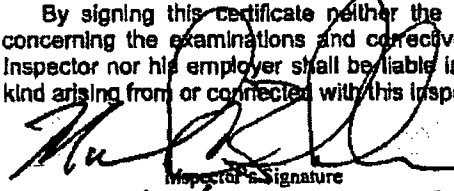
Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number	Sheet
2139572	2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)	
①	Installed 17 mechanical rolled plugs in the 1B Steam Generator Outlet Tube sheet. (Reference Attached Plugging List) Plugs were removed from the Warehouse in one batch; Mechanical – UTC 2045965 – 17ea;
②	Installed 17 threaded rolled plugs in the 1B Steam Generator Inlet Tube sheet. (Reference Attached Plugging List) Plugs were removed from the Warehouse in one batch; Threaded – UTC 2045972 – 17ea
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⑦	
⑧	
⑨	
⑩	

CERTIFICATE OF COMPLIANCE			
I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.			
Type Code Symbol Stamp	Not Applicable		
Certificate of Authorization Number	Not Applicable	Expiration Date	Not Applicable
Signed	 Owner or Owner's Designee, Title	Date	2/3/2015

CERTIFICATE OF INSERVICE INSPECTION	
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of <u>SOUTH CAROLINA</u> and employed by <u>HSB Global Standards</u> of <u>Hartford, Connecticut</u> have inspected the components described in this Owner's Report during the period <u>11/15/14</u> to <u>2/4/15</u> , and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.	
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.	
Inspector's Signature 	Commissions <u>13048, 301, A, U, I, C, I, S</u> National Board, State, Province, and Endorsements
Date <u>2/4/15</u>	MARK E. ZURBUCH

12:33 AM 11/16/2014



STEAM GENERATOR REPAIR LIST
OCONEE UNIT 1, EOC-28,
November 2014
SG B
Tube Plugging

Page 1 of 1

REVISION 0

STEAM GENERATOR	REPAIR METHOD				COMMENTS
	ROW	COL	HL	CL	
Revision 0					
B	57	1	ST,P	P	TSP Wear ≥ 40%
B	63	2	ST,P	P	TSP Wear ≥ 40%
B	72	4	ST,P	P	TSP Wear ≥ 40%
B	73	5	ST,P	P	TSP Wear ≥ 40%
B	76	5	ST,P	P	TSP Wear ≥ 40%
B	92	5	ST,P	P	TSP Wear ≥ 40%
B	80	17	ST,P	P	TSP Wear ≥ 40%
B	68	18	ST,P	P	TSP Wear ≥ 40%
B	72	18	ST,P	P	TSP Wear ≥ 40%
B	147	27	ST,P	P	TSP Wear ≥ 40%
B	143	38	ST,P	P	TSP Wear ≥ 40%
B	144	39	ST,P	P	TSP Wear ≥ 40%
B	141	43	ST,P	P	TSP Wear ≥ 40%
B	140	46	ST,P	P	TSP Wear ≥ 40%
B	129	48	ST,P	P	TSP Wear ≥ 40%
B	140	48	ST,P	P	TSP Wear ≥ 40%
B	140	50	ST,P	P	TSP Wear ≥ 40%

Count 17

APPROVALS:

DB Maye 11/16/2014

SGME Technical Support

W. J. Kip 16 Nov 2014

SAW Lead

Matthew A. Webb 11/16/2014

SAW Data Management

Rick John 11/16/2014

Duke's Independent QDA

KEY TO REPAIRS:

P - Rolled Plug

ST - Rolled Plug w/ Full length Wire Rope Stabilizer

TER - Tube end repair

As required by the provisions of the ASME Code Section XI

[illegible]

Form NIS-2 Owner's Report for Repair/Replacement Activity

As required by the provisions of the ASME Code Section XI

Work Order Number

2139991

Sheet

2 of 2

9. Remarks (Applicable Manufacturer's Data Reports to be attached)

① Installed 35 mechanical rolled plugs in the 1A Steam Generator Outlet Tube sheet. (Reference Attached Plugging List) Plugs were removed from the Warehouse in three batches; Mechanical - UTC 2045966 - 14ea, Mechanical - UTC 2045962 - 2ea, Mechanical - UTC 2045965 - 19ea

② Installed 35 threaded rolled plugs in the 1A Steam Generator Inlet Tube sheet. (Reference Attached Plugging List) Plugs were removed from the Warehouse in two batches; Threaded - UTC 2045970 - 14ea, Threaded - UTC 2045972 - 21ea

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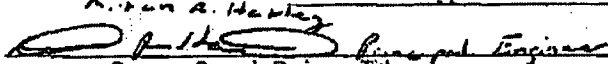
⑩

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp _____ Not Applicable

Certificate of Authorization Number _____ Not Applicable Expiration Date _____ Not Applicable

Signed  Date 2/3/15
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of SOUTH CAROLINA and employed by HSB Global Standards of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 12/15/14 to 2/4/15, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.


Inspector's SignatureCommissions 1304B, 201, A, N, I, C, I, S
National Board, State, Province, and EndorsementsDate 2/4/15**MARK E. ZURBUCH**

2:01 PM 11/16/2014

STEAM GENERATOR REPAIR LIST

OCONEE UNIT 1, EOC-28,

November 2014

SG A

Tube Plugging

Page 1 of 2

REVISION 1

STEAM GENERATOR	ROW	COL	HL	CL	COMMENTS
Revision 1					
A	62	5	ST,P	P	TSP Wear ≥ 40 % TW
A	10	15	ST,P	P	TSP Wear ≥ 40 % TW
A	146	17	ST,P	P	TSP Wear ≥ 40 % TW
A	6	33	ST,P	P	TSP Wear ≥ 40 % TW
A	7	35	ST,P	P	TSP Wear ≥ 40 % TW
A	146	35	ST,P	P	TSP Wear ≥ 40 % TW
A	54	44	ST,P	P	TSP Wear ≥ 40 % TW
A	9	48	ST,P	P	TSP Wear ≥ 40 % TW
A	9	49	ST,P	P	TSP Wear ≥ 40 % TW
A	141	49	ST,P	P	TSP Wear ≥ 40 % TW
A	12	53	ST,P	P	TSP Wear ≥ 40 % TW
A	14	55	ST,P	P	TSP Wear ≥ 40 % TW
A	15	50	ST,P	P	TSP Wear ≥ 40 % TW
A	11	62	ST,P	P	TSP Wear ≥ 40 % TW
A	17	62	ST,P	P	TSP Wear ≥ 40 % TW
A	17	64	ST,P	P	TSP Wear ≥ 40 % TW
A	137	64	ST,P	P	TSP Wear ≥ 40 % TW
A	130	82	ST,P	P	TSP Wear ≥ 40 % TW
A	22	85	ST,P	P	TSP Wear ≥ 40 % TW
A	125	91	ST,P	P	TSP Wear ≥ 40 % TW
A	34	102	ST,P	P	TSP Wear ≥ 40 % TW
A	111	104	ST,P	P	TSP Wear ≥ 40 % TW
A	45	107	ST,P	P	TSP Wear ≥ 40 % TW
A	46	113	ST,P	P	TSP Wear ≥ 40 % TW
A	74	117	ST,P	P	TSP Wear ≥ 40 % TW
A	101	117	ST,P	P	TSP Wear ≥ 40 % TW
A	70	118	ST,P	P	TSP Wear ≥ 40 % TW
A	74	118	ST,P	P	TSP Wear ≥ 40 % TW
A	71	123	ST,P	P	TSP Wear ≥ 40 % TW
A	61	124	ST,P	P	TSP Wear ≥ 40 % TW
A	69	124	ST,P	P	TSP Wear ≥ 40 % TW
A	87	125	ST,P	P	TSP Wear ≥ 40 % TW
A	86	125	ST,P	P	TSP Wear ≥ 40 % TW
A	86	126	ST,P	P	TSP Wear ≥ 40 % TW
A	64	127	ST,P	P	TSP Wear ≥ 40 % TW

Count 35

KEY TO REPAIRS:

P - Rolled Plug

ST - Rolled Plug w/ Full Length Wire Rope Stabilizer

TER - Tube end repair

2:01 PM 11/19/2014



STEAM GENERATOR REPAIR LIST
OCONEE UNIT 1, EOC-28,
November 2014
SG A
Tube Plugging

Page 2 of 2
REVISION 1

<u>STEAM</u>			<u>REPAIR METHOD</u>		
<u>GENERATOR</u>	<u>ROW</u>	<u>COL</u>	<u>HL</u>	<u>CL</u>	<u>COMMENTS</u>

APPROVALS:

JB Mays 11/16/2014

SGME Technical Support

Joe G. Brown 11/16/14

BAW ECT Lead

David D. [Signature] 11/16/14

BAW Data Management

Michael [Signature] 11/16/14

Duke's Independent QDA

KEY TO REPAIRS:

P - Rolled Plug
ST - Rolled Plug w/ Full Length Wire Rope Stabilizer
TER - Tube end repair