

July 10, 2012

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Duke Energy Carolinas, LLC
Catawba Nuclear Station, Unit 2
Docket Number 50-414
Inservice Inspection Report and Steam Generator
Inservice Inspection Summary Report for End of Cycle 18
Refueling Outage

In accordance with Section XI of the ASME Code, please find attached the subject 90-day reports which provide the results of the inservice inspection and the steam generator inspection associated with the subject outage. Note that the steam generator inservice inspection summary report includes all of the information required to be submitted in the 180-day report required by Catawba Technical Specification 5.6.8, "Steam Generator (SG) Tube Inspection Report". Therefore, no additional report is required to be submitted for this outage.

There are no regulatory commitments contained in this letter or its attachments.

If you have any questions concerning this material, please call L.J. Rudy at (803) 701-3084.

Very truly yours,



R. Michael Glover
Interim Site Station Manager

LJR/s

Attachments

A647

Document Control Desk
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xc (with attachments):

V.M. McCree
Regional Administrator
U.S. Nuclear Regulatory Commission - Region II
Marquis One Tower
245 Peachtree Center Ave., NE Suite 1200
Atlanta, GA 30303-1257

G.A. Hutto, III, Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Catawba Nuclear Station

J.H. Thompson, Project Manager (addressee only)
U.S. Nuclear Regulatory Commission
Mail Stop 8 G9A
Washington, D.C. 20555-0001

Attachment 1

Catawba Unit 2 End of Cycle 18 Inservice Inspection Report

INSERVICE INSPECTION REPORT

DUKE POWER COMPANY CATAWBA NUCLEAR STATION UNIT 2 EIGHTEENTH REFUELING OUTAGE



A Duke Energy Company

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. Owner: Duke Energy Carolinas, LLC, 526 S. Church St., Charlotte, NC 28201-1006
(Name and Address of Owner)
2. Plant: Catawba Nuclear Station, 4800 Concord Road, York, SC 29745
(Name and Address of Plant)
3. Plant Unit: 2
4. Owner Certificate of Authorization (if required): N/A
5. Commercial Service Date: August 19, 1986
6. National Board Number for Unit: 173
7. Components Inspected:

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
	See Section 1.1 in the Attached Report			

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Total number of pages contained in this report 144

FORM NIS-1 (Back)

8. Examination Dates: October 21, 2010 to April 17, 2012
9. Inspection Period Identification: Second Period
10. Inspection Interval Identification: Third Interval
11. Applicable Edition of Section XI: 1998 Addenda 2000
12. Date / Revision of Inspection Plan: June 26, 2008 / Revision 1
13. Abstract of Examinations and Tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan: See Sections 2.0, 3.0 and 6.0
14. Abstract of Results of Examinations and Tests: See Section 4.0 and 6.0
15. Abstract of Corrective Measures: See Subsection 4.3

We 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) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A

Date 7/9/2012 Signed Duke Energy Carolinas, LLC By [Signature]
Owner

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 employed by * HSB of Connecticut have inspected the components described in this Owner's Report during the period 6-10-11 to 7-10-12, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owner's Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, 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] Commissions NB 12410 SC 233 TNA
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-10-12

* The Hartford Steam Boiler Inspection & Insurance Company of Connecticut
200 Ashford Center North
Suite 205
Atlanta, GA. 30338-4860
(800) 417-3721
www.hsbct.com

INSERVICE INSPECTION REPORT

CATAWBA - UNIT 2

2012 REFUELING OUTAGE

EOC18 (OUTAGE 5)

Location: 4800 Concord Road, York, South Carolina 29745

NRC Docket No. 50-414

National Board No. 173

Commercial Service Date: August 19, 1986

**Owner: Duke Energy Carolinas, LLC
526 South Church St.
Charlotte, N.C. 28201-1006**

Revision 0

Originated By:

James E. Cherry, Jr.

Date

07/05/2012

Checked By:

Sam D. Ambrose

Date

7/05/2012

Approved By:

Mark B.

Date

7/9/2012

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1.0 General Information

This report describes the Inservice Inspection of Duke Energy's Catawba Nuclear Station Unit 2 during Outage 5 / EOC18. This is the Third Outage of the Second Inspection Period of the Third Ten-Year Interval. ASME Section XI, 1998 Edition with 2000 Addenda, was the governing Code for selection and performance of the ISI examinations.

Included in this report are the inspection status for each examination category, the final inservice inspection plan, the inspection results for each item examined, and corrective actions taken when reportable conditions were found. In addition, there is an Owner's Report for the Repair / Replacement Section included for completed NIS-2 documentation of repairs and replacements.

1.1 Identification Numbers

Item	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Vessel	Combustion Engineering	8871	N/A	21667
Pressurizer	Westinghouse	1931	N/A	W26949
Steam Generator 2A	Westinghouse	1923	N/A	4
Steam Generator 2B	Westinghouse	1922	N/A	3
Steam Generator 2C	Westinghouse	1921	N/A	2
Steam Generator 2D	Westinghouse	1924	N/A	5
Reactor Coolant Pump 2A	Ionics, Inc.	1S-86P765	N/A	342
Reactor Coolant Pump 2B	Ionics, Inc.	2S-86P765	N/A	343

1.1 Identification Numbers (Continued)

Item	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Coolant Pump 2C	Ionics, Inc.	3S-86P765	N/A	586
Reactor Coolant Pump 2D	Ionics, Inc.	4S-86P765	N/A	587
Reactor Coolant System	Duke Power Co.	C-2NC	N/A	171
Safety Injection System	Duke Power Co.	C-2NI	N/A	172
Residual Heat Removal System	Duke Power Co.	C-2ND	N/A	154
Chemical and Volume Control System	Duke Power Co.	C-2NV	N/A	170
Auxiliary Feedwater System	Duke Power Co.	C-2CA	N/A	159
Feedwater System	Duke Power Co.	C-2CF	N/A	158
Refueling Water System	Duke Power Co.	C-2FW	N/A	141
Main Steam Supply to Auxiliary Equipment	Duke Power Co.	C-2SA	N/A	134
Main Steam System	Duke Power Co.	C-2SM	N/A	162
Main Steam Vent to Atmosphere System	Duke Power Co.	C-2SV	N/A	156
Containment Spray System	Duke Power Co.	C-2NS	N/A	150
Steam Generator Blowdown System	Duke Power Co.	C-2BB	N/A	155
Steam Generator Wet Layup Recirculation System	Duke Power Co.	C-2BW	N/A	152

1.1 Identification Numbers (Continued)

Item	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Spent Fuel Cooling System	Duke Power Co.	C-2KF	N/A	151
Boron Recycle System	Duke Power Co.	C-2NB	N/A	153
Nuclear Sampling System	Duke Power Co.	C-2NM	N/A	169
Containment Penetration Valve Injection Water System	Duke Power Co.	C-2NW	N/A	165
Liquid Radwaste System	Duke Power Co.	C-2WL	N/A	168
Excess Letdown Heat Exchanger	Atlas Industrial Manufacturing Company	3205	N/A	2583
Seal Water Heat Exchanger	Atlas Industrial Manufacturing Company	3621	N/A	2977
Vertical Letdown Heat Exchanger	Joseph Oat Corporation	2268-2B	N/A	944
Regenerative Heat Exchanger	Joseph Oat Corporation	2255-1C3	N/A	877
Residual Heat Removal Heat Exchanger	Joseph Oat Corporation	2A 2267-3C	N/A	848
		2B 2267-3D	N/A	849
Containment Spray Heat Exchanger	Joseph Oat Corporation	2A 2636-B	N/A	3449
		2B 2636-C	N/A	3456
Seal Water Injection Filter	Pall Trinity Micro Corporation	2A 35367	N/A	19025
		2B 35366	N/A	19024
Volume Control Tank	Richmond Engineering Company	N-2286.30	N/A	77171

1.1 Identification Numbers (Continued)

Item	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Residual Heat Removal Pump	Ingersoll-Rand	2A 077647	N/A	237
		2B 077648	N/A	238
Containment Spray Pump	Bingham-Willamette	2A 230342	N/A	215
		2B 230343	N/A	216
Safety Injection Pump	Pacific Pumps	2A 49361	N/A	240
		2B 49362	N/A	241
Centrifugal Charging Pump	Pacific Pumps	2A 49780	N/A	262
		2B 49779	N/A	259

1.2 Reference Documents

The following reference documents apply to the inservice inspections performed during this report period. A copy may be obtained by contacting the ISI Plan Manager at Duke Energy's Corporate Office in Charlotte, North Carolina.

Duke Energy's Catawba Nuclear Station, Unit 2 Docket Number 50-414, Request for Relief for limited weld coverage during the End-of-Cycle 18 Refueling Outage will be filed in a separate submittal at a later date.

Code Case N-460 Alternative Examination Coverage for Class 1 and Class 2 Welds Section XI, Division 1 (Applicable to items in this report where less than 100% coverage of the required weld examination volume was achieved. These items are identified in the Results Listing located in Section 4.0 of this report.).

Code Case N-624 Alternative to the Requirements of IWB-2420(a), IWC-2420(a), IWD-2420(a), and IWF-2420(a). This will allow the sequence of component examinations that were established during the first inspection interval to be modified, provided that the percentage requirements are still met.

Code Case N-663 Alternative Requirements for Class 1 and 2 Surface Examinations, Section XI, Division I.

Code Case N-683 (Method for Determining Maximum Allowable False Calls when Performing Single Sided Access Performance Demonstration in Accordance With Appendix VIII, Supplements 4 and 6.)

Code Case N-685 Lighting Requirements for Surface Examination
Section XI, Division 1.

Code Case N-695 Qualification Requirements for Dissimilar Metal Piping Welds,
Section XI, Division I.

Code Case N-700 Alternate Rules for Selection of Classes 1, 2, and 3 Vessel Welded Attachments for Examination Section XI, Division 1 (Examination Categories B-K, C-C, and D-A).

Code Case N-722-1 Additional Examinations for PWR Pressure Retaining Welds in Class 1 Components Fabricated with Alloy 600/82/182 Materials,
Section XI, Division 1.

Code Case N-729 -1 Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure – Retaining Partial – Penetration Welds, Section XI, Division.

Code Case N-770-1 Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities, Section XI, Division.

PIP Serial Number C-12-04412 The following eight welds were determined to have limited examination coverage: Summary Number C2.B3.110.0003 / Component ID 2PZR-W3, Summary Number C2.B3.110.0004 / Component ID 2PZR-W4A, Summary Number C2.B3.110.0005 / Component ID 2PZR-W4B, Summary Number C2.B9.31.0001 / Component ID 2NC11-WN7, Summary Number C2.B9.31.0002 / Component ID 2NC11-WN8, Summary Number C2.C5.11.0021/ Component ID 2CF100-60, Summary Number C2.C5.11.0093 / Component ID 2NI72-2, and Summary Number C2.C5.11.0094 / Component ID 2NI72-3.

2.0 Third Ten-Year Interval Inspection Status

The completion status of inspections required by the 1998 ASME Section XI Code, 2000 Addenda, is summarized in this section. The requirements are listed by the ASME Section XI Examination Category as defined in Table IWB-2500-1 for Class 1 Inspections, Table IWC-2500-1 for Class 2 Inspections and IWF-2500-1 for Class 1 and 2 Component Supports. Augmented / Elective Inspections are also included.

Class 1 Inspections

<i>Examination Category</i>	<i>Description</i>	<i>Inspections Required</i>	<i>Inspections Completed</i>	<i>Percentage Completed</i>	<i>¹Deferral Allowed</i>
B-A	Pressure Retaining Welds in Reactor Vessel	25	7	28%	Yes
B-B	Pressure Retaining Welds in Vessels Other than Reactor Vessels	5	3	60%	No
B-D	Full Penetration Welds of Nozzles in Vessels Inspection Program B	40	20	50%	Partial
B-F	Pressure Retaining Dissimilar Metal Welds	20	12	60%	Yes
B-G-1	Pressure Retaining Bolting Greater than 2" in Diameter	217	162	74.65%	Yes
B-G-2	Pressure Retaining Bolting 2" and Less in Diameter	34	25	73.53%	No
B-J	Pressure Retaining Welds in Piping	237	141	59.49%	No

Class 1 Inspections (Continued)

<i>Examination Category</i>	<i>Description</i>	<i>Inspections Required</i>	<i>Inspections Completed</i>	<i>Percentage Completed</i>	<i>¹Deferral Allowed</i>
B-K	Integral Attachments for Piping, Pumps and Valves	2	2	100%	No
B-L-1	Pressure Retaining Welds in Pump Casings	N/A	N/A	N/A	N/A
B-L-2	Pump Casings	1	0	0%	Yes
B-M-1	Pressure Retaining Welds in Valve Bodies	1	0	0%	Yes
B-M-2	Valve Body > 4 in. Nominal Pipe Size	6	4	66.67%	Yes
B-N-1	Interior of Reactor Vessel	3	2	66.67%	No
B-N-2	Integrally Welded Core Support Structures and Interior Attachments to Reactor Vessels	2	0	0%	Yes
B-N-3	Removable Core Support Structures	1	0	0%	Yes
B-O	Pressure Retaining Welds in Control Rod Housings	3	3	100%	Yes
B-P	All Pressure Retaining Components	REFERENCE SECTION 6.0 OF THIS REPORT			
B-Q	Steam Generator Tubing	See Note 2 below			
F-A	Class 1 Component Supports	72	45	62.50%	No

Notes:

1. Deferral of inspection to the end of the interval as allowed by ASME Section XI Table IWB 2500-1. These examination categories are exempt from percentage requirements per IWB-2412 (a), Inspection Program B.
2. Steam Generator Tubing is examined and documented by the Corporate Programs and Components Engineering Group as required by the Station Technical Specifications and is not included in this report.

Class 2 Inspections

Examination Category	Description	Inspections Required	Inspections Completed	Percentage Completed
C-A	Pressure Retaining Welds in Pressure Vessels	34	23	67.65%
C-B	Pressure Retaining Nozzle Welds in Vessels	16	9	56.25%
C-C	Integral Attachments for Vessels, Piping, Pumps, and Valves	30	19	63.33%
C-D	Pressure Retaining Bolting Greater Than 2" in Diameter	N/A	N/A	N/A
C-F-1	Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping	269	192	71.38%
C-F-2	Pressure Retaining Welds in Carbon or Low Alloy Steel Piping	64	41	64.06%
C-G	Pressure Retaining Welds in Pumps and Valves	20	14	70.00%
C-H	All Pressure Retaining Components	REFERENCE SECTION 6.0 OF THIS REPORT		
F-A	Class 2 Component Supports	250	166	66.40%

Augmented / Elective Inspections

Summary Number	Description	Percentage Complete
C2.B4.10	Bare Metal Visual Examination of the Reactor Head Surface	100% of Outage 5/EOC-18 Requirements Met
C2.B15.80	Bare Metal Visual Examination of the BMI Nozzles on the RPV Bottom Head per the requirements of ASME Code Case N-722	100% of Outage 5/EOC-18 Requirements Met
C2.B15.90	Bare Metal Visual Examination of the RPV Hot Leg Nozzles per the requirements of ASME Code Case N-722	100% of Outage 5/EOC-18 Requirements Met
C2.G3.1	Thermal Stress Piping in the Reactor Coolant System (NRC Bulletin 88-08)	100% of Outage 5/EOC-18 Requirements Met
C2.G6.2	Pressurizer Bare Metal Visual Examinations (NRC Bulletin 2004-01)	100% of Outage 5/EOC-18 Requirements Met
C2.G8.5	Bare Metal Visual Examination of the RPV Vent Nozzle and Vent Line per the requirements of EPRI MRP-139	100% of Outage 5/EOC-18 Requirements Met
C2.G8.6	Ultrasonic Examination of RPV Closure Head to UHI Tube per the requirements of ASME Code Case N-770-1	100% of Outage 5/EOC-18 Requirements Met
C2.G10.2	Nuclear Service Water (RN) System Supply Header	100% of Outage 5/EOC-18 Requirements Met
C2.G12.1	Ultrasonic Examination of Reactor Coolant (NC) System Piping Welds for detection of Thermal Fatigue Cracking per the requirements of EPRI MRP-146	100% of Outage 5/EOC-18 Requirements Met
C2.H3.1	Ultrasonic Examination of Residual Heat Removal (ND) System Piping Welds per the requirements of the Thermal Fatigue Management Program	100% of Outage 5/EOC-18 Requirements Met

3.0 Final Inservice Inspection Plan

The final Inservice Inspection Plan Report shown in this section lists all ASME Section XI Class 1, Class 2, Class 3, and Augmented / Elective Examinations credited for this report period.

DUKE ENERGY
NUCLEAR TECHNICAL SERVICES
Inservice Inspection Database Management System
Plan Report

ScheduleWorks

Catawba 2, 3rd Interval, Outage 5 (EOC-18)

This report includes all changes through addendum 3CNS2-066

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.B15.80.0001	2RPV-BMI-NOZZLES Class 1 NC	MP/O/A/7150/042E	NDE-68	VT-2	SS-Inconel		0.000 / 0.000		----
<p>Inconel Transition Weld to Stainless Steel Tube</p> <p>Bare Metal Visual Inspection by VT-2 qualified inspector of the BMI Nozzles (all nozzles) per the requirements of Code Case N-722 (Item B15.80). The bare metal visual inspection shall include an inspection of the bottom head and Alloy 600 transition weld between the Alloy 600 tube and the stainless steel tube. This exam added per QA-513J Form, dated 1/8/2009 (ER-CNS-09-01). This exam should be scheduled every other outage beginning with EOC-16. Reference Footnote 4 of Code Case N-722 for type of examination. Any questions concerning this exam should be directed to the Materials and NDE Services Group (Chris Cruz or Jody Shuping).</p> <p>Due to compliance with 10 CFR50.55a and significant consequences associated with BMI leakage, Engineering judgment supports changing the frequency of the Bare Metal Visual Inspection (VT-2) of the BMI Nozzles to every refueling outage beginning in 2EOC17/Outage #4. Reference QA-513J Form (Tracking Number ER-CNS-10-01) initiated by C.A. Cruz of the Materials and NDE Services Group.</p> <p>Beginning with 2EOC18, a bare metal visual examination by a qualified VT-2 inspector shall be performed of all BMI nozzles per the requirements of ASME Code Case N-722-1. The bare metal visual examination shall include an inspection of the bottom head and Alloy 600 transition weld between the Alloy 600 tube and the stainless steel tube. Any questions concerning this exam shall be directed to the NGO Corporate Programs Group.</p>									

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.B15.90.0001	2RPV202-121ASE								
	Class 1 NC	E 8871-171-009	NDE-68	VT-2	SS-CS		2.625 / 29.000		----
Circumferential		CNM 2201.01-74/5							
Terminal End		CNM 2201.01-0205							
Dissimilar									
			<p>Nozzle to Safe End</p> <p>RV Outlet Nozzle To Safe End At 158 Degrees (Loop A). Reactor Building Coordinate is 22 Degrees. Bare Metal Visual Inspection by a VT-2 qualified inspector of the Reactor Vessel Outlet (Hot Leg) Nozzles per the requirements of Code Case N-722 (Item No. B15.90), subject to the conditions specified in 10 CFR 50.55a paragraphs (g) (6) (ii) (E) 2 through 4. The scheduling of these examinations will begin in EOC17 (Outage #4), Fall 2010, and will be performed every refueling outage except when volumetric exams are conducted. A volumetric UT examination (C2.G7.2) is scheduled to be performed in EOC19 (Outage #6), therefore a VT-2 examination will not be performed during that refueling outage. These examinations were added to the ISI Program per QA-513J Form initiated by C.A. Cruz, Tracking Number ER-CNS-09-11.</p> <p>Note: This weld location is also required to be inspected per ASME Section XI, Item Number B05.010.006 Outage 6 (EOC19). A vendor will have to be contracted to perform this inspection.</p> <p>Beginning with 2EOC18, a bare metal visual examination by a qualified VT-2 inspector shall be performed of all the reactor vessel outlet nozzles per the requirements of ASME Code Case N-722-1. These examinations shall be performed every refueling outage except when volumetric examinations are performed. Any questions concerning this exam shall be directed to the NGO Corporate Programs Group.</p>						
C2.B15.90.0002	2RPV202-121BSE								
	Class 1 NC	E 8871-171-009	NDE-68	VT-2	SS-CS		2.625 / 29.000		----
Circumferential		CNM 2201.01-74/5							
Terminal End		CNM 2201.01-0205							
Dissimilar									
			<p>Nozzle to Safe End</p> <p>RV Outlet Nozzle To Safe End At 22 Degrees (Loop B). Reactor Building Coordinate is 158 Degrees. Bare Metal Visual Inspection by a VT-2 qualified inspector of the Reactor Vessel Outlet (Hot Leg) Nozzles per the requirements of Code Case N-722 (Item No. B15.90), subject to the conditions specified in 10 CFR 50.55a paragraphs (g) (6) (ii) (E) 2 through 4. The scheduling of these examinations will begin in EOC17 (Outage #4), Fall 2010, and will be performed every refueling outage except when volumetric exams are conducted. A volumetric UT examination (C2.G7.2) is scheduled to be performed in EOC19 (Outage #6), therefore a VT-2 examination will not be performed during that refueling outage. These examinations were added to the ISI Program per QA-513J Form initiated by C.A. Cruz, Tracking Number ER-CNS-09-11.</p> <p>Note: This weld location is also required to be inspected per ASME Section XI, Item Number B05.010.006 Outage 6 (EOC19). A vendor will have to be contracted to perform this inspection.</p> <p>Beginning with 2EOC18, a bare metal visual examination by a qualified VT-2 inspector shall be performed of all the reactor vessel outlet nozzles per the requirements of ASME Code Case N-722-1. These examinations shall be performed every refueling outage except when volumetric examinations are performed. Any questions concerning this exam shall be directed to the NGO Corporate Programs Group.</p>						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.B15.90.0003	2RPV202-121CSE								
	Class 1 NC	E 8871-171-009	NDE-68	VT-2	SS-CS		2.625 / 29.000		----
Circumferential		CNM 2201.01-74/5							
Terminal End		CNM 2201.01-0205							
Dissimilar									
			<p>Nozzle to Safe End</p> <p>RV Outlet Nozzle To Safe End At 338 Degrees (Loop C). Reactor Building Coordinate is 202 Degrees. Bare Metal Visual Inspection by a VT-2 qualified inspector of the Reactor Vessel Outlet (Hot Leg) Nozzles per the requirements of Code Case N-722 (Item No. B15.90), subject to the conditions specified in 10 CFR 50.55a paragraphs (g) (6) (ii) (E) 2 through 4. The scheduling of these examinations will begin in EOC17 (Outage #4), Fall 2010, and will be performed every refueling outage except when volumetric exams are conducted. A volumetric UT examination (C2.G7.2) is scheduled to be performed in EOC19 (Outage #6), therefore a VT-2 examination will not be performed during that refueling outage. These examinations were added to the ISI Program per QA-513J Form initiated by C.A. Cruz, Tracking Number ER-CNS-09-11.</p> <p>Note: This weld location is also required to be inspected per ASME Section XI, Item Number B05.010.006 Outage 6 (EOC19). A vendor will have to be contracted to perform this inspection.</p> <p>Beginning with 2EOC18, a bare metal visual examination by a qualified VT-2 inspector shall be performed of all the reactor vessel outlet nozzles per the requirements of ASME Code Case N-722-1. These examinations shall be performed every refueling outage except when volumetric examinations are performed. Any questions concerning this exam shall be directed to the NGO Corporate Programs Group.</p>						
C2.B15.90.0004	2RPV202-121DSE								
	Class 1 NC	E 8871-171-009	NDE-68	VT-2	SS-CS		2.625 / 29.000		----
Circumferential		CNM 2201.01-74/5							
Terminal End		CNM 2201.01-0205							
Dissimilar									
			<p>Nozzle to Safe End</p> <p>RV Outlet Nozzle To Safe End At 202 Degrees (Loop D). Reactor Building Coordinate is 338 Degrees. Bare Metal Visual Inspection by a VT-2 qualified inspector of the Reactor Vessel Outlet (Hot Leg) Nozzles per the requirements of Code Case N-722 (Item No. B15.90), subject to the conditions specified in 10 CFR 50.55a paragraphs (g) (6) (ii) (E) 2 through 4. The scheduling of these examinations will begin in EOC17 (Outage #4), Fall 2010, and will be performed every refueling outage except when volumetric exams are conducted. A volumetric UT examination (C2.G7.2) is scheduled to be performed in EOC19 (Outage #6), therefore a VT-2 examination will not be performed during that refueling outage. These examinations were added to the ISI Program per QA-513J Form initiated by C.A. Cruz, Tracking Number ER-CNS-09-11.</p> <p>Note: This weld location is also required to be inspected per ASME Section XI, Item Number B05.010.006 Outage 6 (EOC19). A vendor will have to be contracted to perform this inspection.</p> <p>Beginning with 2EOC18, a bare metal visual examination by a qualified VT-2 inspector shall be performed of all the reactor vessel outlet nozzles per the requirements of ASME Code Case N-722-1. These examinations shall be performed every refueling outage except when volumetric examinations are performed. Any questions concerning this exam shall be directed to the NGO Corporate Programs Group.</p>						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.B4.10.0001	2RPV-HEAD-SURFACE Class 1 NC	CNM 2201.01-67 CN-ISIN3-2553-1.0 CNM 2201.01-94	NDE-68		CS-Inconel		0.000 / 0.000		----
<p>Bare Metal Visual Examination Schedule starting in 2EOC18. Time between inspections may be shortened, but not lengthened. If EDY < 8 and no flaws unacceptable for continued service have been detected, the reexamination frequency may be extended to every third refueling outage or 5 calendar years, whichever is less, provided an IWA-2212 VT-2 visual examination of the head is performed under the insulation through multiple access points in outages that the VE is not completed. Last Bare Metal Visual occurred during 2EOC15, so the next full bare metal will be due in 2EOC18, provided EDY remains less than 8 and IWA-2212 VT-2 visuals are performed in every outage these VE's are not. EDY calculations will continue to be updated and if EDY equal to or >8 these VE's will be required every refueling outage, with no flexibility.</p> <p>As specified in ASME Code Case N-729-1, a direct visual examination of the bare metal surface of the entire outer surface of the head, including essentially 100% of the intersection of each nozzle with the head (J groove). For coverage requirements see Figure 1 of Code Case N-729-1. For additional information reference QA-513J Form (ER-CNS-09-07). Acceptance criteria specified in ASME Code Case N-729-1 subject to conditions in 10CFR50.55a(g)(6)(ii)(D)(2) through (6). Relevant conditions for the purpose of the VE shall include areas of corrosion, boric acid deposits, discoloration, and other evidence of nozzle leakage.</p> <p>For additional information, contact Rachel Doss in the Materials and NDE Services Section, Nuclear Technical Services Division. This inspection replaces Augmented examination C2.G5.1.0002 and C2.G5.2.0003 required by NRC Order EA-03-009. Once licensee implements this requirement the First Revised NRC Order EA-03-009 no longer applies and is deemed to be withdrawn.</p>									
C2.G10.2.0003	2ARN10-SUPPLYPIPING Class 3 RN	CN-ISIN3-1574-1.1 CN-2493-RN.00-064	PDI-UT-2	UT	SS	40	0.365 / 10.00	PDI-UT-2-C	----
<p>Initially, two different UT's were performed. One for the thickness and one for flaw detection. These examinations were completed in 2009 and the results were reported to the NRC in the Catawba 2EOC17 Outage Summary Report under Summary Number C2.G10.2.0001. For additional information reference QA-513J ER-CNS-09-09, PIP#C-08-4845 and Catawba Technical Specification Amendments 243/237 to the Tech Spec 3.7.8, Nuclear Service Water System.</p> <p>Now that the 10" RN Piping has been replaced with corrosion-resistant AL6XN, the thickness measurement is no longer required. The UT for flaw detection (volumetric) will continue to be performed on a 3 year periodic basis, but the location of the inspection will change to reflect the new RN piping route. The inspection grid will start at the anchor support 2-R-RN-0389 at the Diesel Building Wall (Column Line 76), around the entire circumference of the pipe up to, but excluding the circumferential weld at the elbow (The inspection does not include the circumferential welds at the elbow, the wall, or the nozzle weld for the 2 inch vent valve 2RNP83). These augmented examinations are a commitment, but frequency has been determined by CNS MCE Civil. Any frequency changes would need to be evaluated and documented by CNS MCE Civil.</p> <p>For additional information pertaining to this augmented examination, reference QA-513J Form 2A RN 10" Supply Piping, 2A Diesel Building, Rev. 1, Tracking Number (ER-CNS-12-05) originated by T.E. Gaye.</p>									

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.G10.2.0003	2ARN10-SUPPLYPIPING Class 3 RN	CN-ISIN3-1574-1.1 CN-2493-RN.00-064	NDE-640	UT	SS	40	0.365 / 10.00	Component	----
<p>Initially, two different UT's were performed. One for the thickness and one for flaw detection. These examinations were completed in 2009 and the results were reported to the NRC in the Catawba 2EOC17 Outage Summary Report under Summary Number C2.G10.2.0001. For additional information reference QA-513J ER-CNS-09-09, PIP#C-08-4845 and Catawba Technical Specification Amendments 243/237 to the Tech Spec 3.7.8, Nuclear Service Water System.</p> <p>Now that the 10" RN Piping has been replaced with corrosion-resistant AL6XN, the thickness measurement is no longer required. The UT for flaw detection (volumetric) will continue to be performed on a 3 year periodic basis, but the location of the inspection will change to reflect the new RN piping route. The inspection grid will start at the anchor support 2-R-RN-0389 at the Diesel Building Wall (Column Line 76), around the entire circumference of the pipe up to, but excluding the circumferential weld at the elbow (The inspection does not include the circumferential welds at the elbow, the wall, or the nozzle weld for the 2 inch vent valve 2RNP83). These augmented examinations are a commitment, but frequency has been determined by CNS MCE Civil. Any frequency changes would need to be evaluated and documented by CNS MCE Civil.</p> <p>For additional information pertaining to this augmented examination, reference QA-513J Form 2A RN 10" Supply Piping, 2A Diesel Building, Rev. 1, Tracking Number (ER-CNS-12-05) originated by T.E. Gaye.</p>									
C2.G10.2.0004	2BRN10-SUPPLYPIPING Class 3 RN	CN-ISIN3-1574-1.1 CN-2493-RN.00-068	PDI-UT-2	UT	SS	40	0.365 / 10.00	PDI-UT-2-C	----
<p>Initially, two different UT's were performed. One for the thickness and one for flaw detection. These examinations were completed in 2009 and the results were reported to the NRC in the Catawba 2EOC17 Outage Summary Report under Summary Number C2.G10.2.0002. For additional information reference QA-513J ER-CNS-09-09, PIP#C-08-4845 and Catawba Technical Specification Amendments 243/237 to the Tech Spec 3.7.8, Nuclear Service Water System.</p> <p>Now that the 10" RN Piping has been replaced with corrosion-resistant AL6XN, the thickness measurement is no longer required. The UT for flaw detection (volumetric) will continue to be performed on a 3 year periodic basis, but the location of the inspection will change to reflect the new RN piping route. The inspection grid will start at the anchor support 2-R-RN-0391 at the Diesel Building Wall (Column Line 76), around the entire circumference of the pipe up to, but excluding the circumferential weld at the elbow (The inspection does not include the circumferential welds at the elbow, the wall, or the nozzle weld for the 2 inch vent valve 2RNP85). These augmented examinations are a commitment, but frequency has been determined by CNS MCE Civil. Any frequency changes would need to be evaluated and documented by CNS MCE Civil.</p> <p>For additional information pertaining to this augmented examination, reference QA-513J Form 2A RN 10" Supply Piping, 2A Diesel Building, Rev. 1, Tracking Number (ER-CNS-12-05) originated by T.E. Gaye.</p>									

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.G10.2.0004	2BRN10-SUPPLYPIPING Class 3 RN	CN-ISIN3-1574-1.1 CN-2493-RN.00-068	NDE-640	UT	SS	40	0.365 / 10.00	Component	----
<p>Initially, two different UT's were performed. One for the thickness and one for flaw detection. These examinations were completed in 2009 and the results were reported to the NRC in the Catawba 2EOC17 Outage Summary Report under Summary Number C2.G10.2.0002. For additional information reference QA-513J ER-CNS-09-09, PIP#C-08-4845 and Catawba Technical Specification Amendments 243/237 to the Tech Spec 3.7.8, Nuclear Service Water System.</p> <p>Now that the 10" RN Piping has been replaced with corrosion-resistant AL6XN, the thickness measurement is no longer required. The UT for flaw detection (volumetric) will continue to be performed on a 3 year periodic basis, but the location of the inspection will change to reflect the new RN piping route. The inspection grid will start at the anchor support 2-R-RN-0391 at the Diesel Building Wall (Column Line 76), around the entire circumference of the pipe up to, but excluding the circumferential weld at the elbow (The inspection does not include the circumferential welds at the elbow, the wall, or the nozzle weld for the 2 inch vent valve 2RNP85). These augmented examinations are a commitment, but frequency has been determined by CNS MCE Civil. Any frequency changes would need to be evaluated and documented by CNS MCE Civil.</p> <p>For additional information pertaining to this augmented examination, reference QA-513J Form 2A RN 10" Supply Piping, 2A Diesel Building, Rev. 1, Tracking Number (ER-CNS-12-05) originated by T.E. Gaye.</p>									
C2.G12.1.0001	2NC51-12 Class 1 NC	CN-2NC-51 CN-ISIN3-2553-1.0 CN-2491-NC072	NDE-995	UT	SS	160	0.437 / 3.000	50225	----
Circumferential	<p>Pipe to Elbow</p> <p>Augmented Examination for detection of thermal fatigue cracking per EPRI MRP-146. Examination area includes the weld plus adjacent base metal as required by Procedure NDE-995. This examination will be performed every refueling outage beginning 2EOC18 for the life of the plant. Reference QA-513J Form (ER-CNS-12-03) initiated by Hesam Nekooasl of Catawba Engineering. Terry Childress of Corporate Design Support has been our contact person.</p>								
C2.G12.1.0002	2NC52-3 Class 1 NC	CN-2NC-52 CN-ISIN3-2553-1.0 CN-2491-NC077	NDE-995	UT	SS	160	0.437 / 3.000	50225	----
Circumferential	<p>Pipe to Elbow</p> <p>Augmented Examination for detection of thermal fatigue cracking per EPRI MRP-146. Examination area includes the weld plus adjacent base metal as required by Procedure NDE-995. This examination will be performed every refueling outage beginning 2EOC18 for the life of the plant. Reference QA-513J Form (ER-CNS-12-03) initiated by Hesam Nekooasl of Catawba Engineering. Terry Childress of Corporate Design Support has been our contact person.</p>								

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.G12.1.0003	2NC140-5								
Circumferential	Class 1 NC	CN-2NC-140 CN-ISIN3-2553-1.0 CN-2491-NC080	NDE-995	UT	SS	160	0.281 / 1.500	50202	----
			Nozzle to Pipe Augmented Examination for detection of thermal fatigue cracking per EPRI MRP-146. Examination area includes the weld plus adjacent base metal as required by Procedure NDE-995. This examination will be performed every refueling outage beginning 2EOC18 for the life of the plant. Reference QA-513J Form (ER-CNS-12-03) initiated by Hesam Nekooasl of Catawba Engineering. Terry Childress of Corporate Design Support has been our contact person.						
C2.G3.1.0001	2NC141-07								
	Class 1 NC	CN-2NC-141 CN-ISIN3-2562-1.0	NDE-995	UT	SS		0.281 / 1.500	50202	G03.001.001
			Nozzle to Pipe Loop 2A						
C2.G3.1.0002	2NC141-BEND-AA								
	Class 1 NC	CN-2NC-141 CN-ISIN3-2562-1.0	NDE-995	UT	SS		0.281 / 1.500	50202	G03.001.002
			Loop 2A Pipe Bend						
C2.G3.1.0003	2NC141-06								
	Class 1 NC	CN-2NC-141 CN-ISIN3-2562-1.0	NDE-995	UT	SS		0.281 / 1.500	50202	G03.001.003
			Pipe to Elbow Loop 2A						
C2.G3.1.0004	2NC141-05								
	Class 1 NC	CN-2NC-141 CN-ISIN3-2562-1.0	NDE-995	UT	SS		0.281 / 1.500	50202	G03.001.004
			Pipe to Elbow Loop 2A						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.G3.1.0005	2NC145-06 Class 1 NC	CN-2NC-145 CN-ISIN3-2562-1.0	NDE-995 UT	SS			0.281 / 1.500	50202	G03.001.005
			Nozzle to Pipe Loop 2B						
C2.G3.1.0006	2NC145-BEND-BB Class 1 NC	CN-2NC-145 CN-ISIN3-2562-1.0	NDE-995 UT	SS			0.281 / 1.500	50202	G03.001.006
			Loop 2B Pipe Bend						
C2.G3.1.0007	2NC145-05 Class 1 NC	CN-2NC-145 CN-ISIN3-2562-1.0	NDE-995 UT	SS			0.281 / 1.500	50202	G03.001.007
			Pipe to Pipe Loop 2B						
C2.G3.1.0008	2NC145-BEND-CC Class 1 NC	CN-2NC-145 CN-ISIN3-2562-1.0	NDE-995 UT	SS			0.281 / 1.500	50202	G03.001.008
			Loop 2B Pipe Bend						
C2.G3.1.0009	2NC146-06 Class 1 NC	CN-2NC-146 CN-ISIN3-2562-1.0	NDE-995 UT	SS			0.281 / 1.500	50202	G03.001.009
			Nozzle to Pipe Loop 2C						
C2.G3.1.0010	2NC146-BEND-AA Class 1 NC	CN-2NC-146 CN-ISIN3-2562-1.0	NDE-995 UT	SS			0.281 / 1.500	50202	G03.001.010
			Loop 2C Pipe Bend						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.G3.1.0011	2NC146-05 Class 1 NC	CN-2NC-146 CN-ISIN3-2562-1.0	NDE-995 Pipe to Pipe Loop 2C	UT	SS		0.281 / 1.500	50202	G03.001.011
C2.G3.1.0012	2NC146-BEND-BB Class 1 NC	CN-2NC-146 CN-ISIN3-2562-1.0	NDE-995 Loop 2C Pipe Bend	UT	SS		0.281 / 1.500	50202	G03.001.012
C2.G3.1.0013	2NC140-05 Class 1 NC	CN-2NC-140 CN-ISIN3-2562-1.0	NDE-995 Nozzle to Pipe Loop 2D	UT	SS		0.281 / 1.500	50202	G03.001.013
C2.G3.1.0014	2NC140-BEND-CC Class 1 NC	CN-2NC-140 CN-ISIN3-2562-1.0	NDE-995 Loop 2D Pipe Bend	UT	SS		0.281 / 1.500	50202	G03.001.014
C2.G3.1.0015	2NC140-BEND-BB Class 1 NC	CN-2NC-140 CN-ISIN3-2562-1.0	NDE-995 Loop 2D Pipe Bend	UT	SS		0.281 / 1.500	50202	G03.001.015
C2.G3.1.0016	2NC140-04 Class 1 NC	CN-2NC-140 CN-ISIN3-2562-1.0	NDE-995 Pipe to Pipe Loop 2D	UT	SS		0.281 / 1.500	50202	G03.001.016

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category AUG									
C2.G6.2.0001	2PZR-MANWAY Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2	NDE-68	VT-2	NA		0.000 / 0.000		G06.002.001
			Pressurizer Manway Diaphragm Seal Weld. Bare Metal Visual Examination by VT-2 qualified inspector. Examine the gap between the Pressurizer Manway Cover and Manway for evidence of diaphragm plate seal weld leakage. (For responsible individual, contact J. M. Shuping, Alloy 600 Engineer Nuclear Technical Services). Reference NRC Bulletin 2004-01)						
C2.G8.5.0001	2RPV-VENT-NOZZLE Class 1 NC	CNM 2201.01-67 E8871-107-001 E8871-101-005	NDE-70	VT-2	CS-Inconel		0.050 / 1.000		G08.005.001
Circumferential			Bare Metal Visual Examination by VT-2 qualified inspector per requirements of MRP-139. (For responsible individual, contact J.M. Shuping, Alloy 600 Engineer Nuclear Technical Services). The one inch Vent Nozzle and Vent Line. The visual inspection consists of the nozzle to Reactor Pressure Vessel Head and a series of full penetration Alloy 600 Welds connecting piping. The extent of the piping inspection is from the Reactor Pressure Vent Nozzle to the Flange.						
C2.G8.6.0001	2RPV-W79-101SE Class 1 NC	CNM 2201.01-86 E 8871-101-001 E 8871-101-005	PDI-UT-10	UT	CS-Inconel		0.625 / 6.625	50374	----
Dissimilar			Nozzle to Safe End RV Closure Head Pc. 104-101 To UHI Tube Pc. 108-202 At 270 Degrees. CNS Unit 2 shall perform a baseline examination of all auxiliary head adaptors (AHAs) welds during the Spring 2012 2EOC18 Outage and then proceed with the normal inspection frequency as specified in ASME Code Case N-770-1. The AHAs shall be categorized as Inspection Item B per ASME Code Case N-770-1 and shall receive volumetric examinations every second inspection period not to exceed 7 years.						
C2.G8.6.0002	2RPV-W80-101SE Class 1 NC	CNM 2201.01-86 E 8871-101-001 E 8871-101-005	PDI-UT-10	UT	CS-Inconel		0.625 / 6.625	50374	----
Dissimilar			Nozzle to Safe End RV Closure Head Pc. 104-101 To UHI Tube Pc. 108-202 At 0 Degrees. CNS Unit 2 shall perform a baseline examination of all auxiliary head adaptors (AHAs) welds during the Spring 2012 2EOC18 Outage and then proceed with the normal inspection frequency as specified in ASME Code Case N-770-1. The AHAs shall be categorized as Inspection Item B per ASME Code Case N-770-1 and shall receive volumetric examinations every second inspection period not to exceed 7 years.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category AUG									
C2.G8.6.0003	2RPV-W81-101SE								
	Class 1 NC	CNM 2201.01-86	PDI-UT-10	UT	CS-Inconel		0.625 / 6.625	50374	----
		E 8871-101-001							
Dissimilar		E 8871-101-005							
			Nozzle to Safe End						
			RV Closure Head Pc. 104-101 To UHI Tube Pc. 108-202 At 90 Degrees. CNS Unit 2 shall perform a baseline examination of all auxiliary head adaptors (AHAs) welds during the Spring 2012 2EOC18 Outage and then proceed with the normal inspection frequency as specified in ASME Code Case N-770-1. The AHAs shall be categorized as Inspection Item B per ASME Code Case N-770-1 and shall receive volumetric examinations every second inspection period not to exceed 7 years.						
C2.G8.6.0004	2RPV-W82-101SE								
	Class 1 NC	CNM 2201.01-86	PDI-UT-10	UT	CS-Inconel		0.625 / 6.625	50374	----
		E 8871-101-001							
Dissimilar		E 8871-101-005							
			Nozzle to Safe End						
			RV Closure Head Pc. 104-101 To UHI Tube Pc. 108-202 At 180 Degrees. CNS Unit 2 shall perform a baseline examination of all auxiliary head adaptors (AHAs) welds during the Spring 2012 2EOC18 Outage and then proceed with the normal inspection frequency as specified in ASME Code Case N-770-1. The AHAs shall be categorized as Inspection Item B per ASME Code Case N-770-1 and shall receive volumetric examinations every second inspection period not to exceed 7 years.						
C2.G8.6.0005	2RPV-W79-101								
	Class 1 NC	CNM 2201.01-67	PDI-UT-10	UT	SS-Inconel		0.625 / 6.250	50374	----
		E 8871-108-002							
Dissimilar									
			Safe End to Pipe						
			UHI Tube 270 Deg. PC. 108-202 to PC. 108-101 UT from Inconel Side. CNS Unit 2 shall perform a baseline examination of all auxiliary head adaptors (AHAs) welds during the Spring 2012 2EOC18 Outage and then proceed with the normal inspection frequency as specified in ASME Code Case N-770-1. The AHAs shall be categorized as Inspection Item B per ASME Code Case N-770-1 and shall receive volumetric examinations every second inspection period not to exceed 7 years.						
C2.G8.6.0006	2RPV-W80-101								
	Class 1 NC	CNM 2201.01-67	PDI-UT-10	UT	SS-Inconel		0.625 / 6.250	50374	----
		E 8871-108-002							
Dissimilar									
			Safe End to Pipe						
			UHI Tube 0 Deg. PC. 108-202 to PC. 108-101 UT from Inconel Side. CNS Unit 2 shall perform a baseline examination of all auxiliary head adaptors (AHAs) welds during the Spring 2012 2EOC18 Outage and then proceed with the normal inspection frequency as specified in ASME Code Case N-770-1. The AHAs shall be categorized as Inspection Item B per ASME Code Case N-770-1 and shall receive volumetric examinations every second inspection period not to exceed 7 years.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category AUG									
C2.G8.6.0007	2RPV-W81-101 Class 1 NC	CNM 2201.01-67 E 8871-108-002	PDI-UT-10	UT	SS-Inconel		0.625 / 6.250	50374	----
Dissimilar			Safe End to Pipe UHI Tube 90 Deg. PC. 108-202 to PC. 108-101 UT from Inconel Side. CNS Unit 2 shall perform a baseline examination of all auxiliary head adaptors (AHAs) welds during the Spring 2012 2EOC18 Outage and then proceed with the normal inspection frequency as specified in ASME Code Case N-770-1. The AHAs shall be categorized as Inspection Item B per ASME Code Case N-770-1 and shall receive volumetric examinations every second inspection period not to exceed 7 years.						
C2.G8.6.0008	2RPV-W82-101 Class 1 NC	CNM 2201.01-67 E 8871-108-002	PDI-UT-10	UT	SS-Inconel		0.625 / 6.250	50374	----
Dissimilar			Safe End to Pipe UHI Tube 180 Deg. PC. 108-202 to PC. 108-101 UT from Inconel Side. CNS Unit 2 shall perform a baseline examination of all auxiliary head adaptors (AHAs) welds during the Spring 2012 2EOC18 Outage and then proceed with the normal inspection frequency as specified in ASME Code Case N-770-1. The AHAs shall be categorized as Inspection Item B per ASME Code Case N-770-1 and shall receive volumetric examinations every second inspection period not to exceed 7 years.						
Category B-D									
C2.B3.110.0003	2PZR-W3 Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-820	UT	CS		2.500 / NA	50338	B03.110.003
Circumferential			Nozzle to Head Pressurizer Safety Nozzle To Upper Head. Y-Z Quadrant. Thickness per EDSK 379624B shown as a range of 1.900 / 2.500.						
C2.B3.110.0003	2PZR-W3 Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-640	UT	CS		2.500 / NA	50338	B03.110.003
Circumferential			Nozzle to Head Pressurizer Safety Nozzle To Upper Head. Y-Z Quadrant. Thickness per EDSK 379624B shown as a range of 1.900 / 2.500.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category B-D									
C2.B3.110.0004	2PZR-W4A Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-640	UT	CS		2.500 / NA	50338	B03.110.004
Circumferential			Nozzle to Head Pressurizer Safety Nozzle To Upper Head. X-Y Quadrant. Thickness per EDSK 379624B shown as a range of 1.900 / 2.500.						
C2.B3.110.0004	2PZR-W4A Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-820	UT	CS		2.500 / NA	50338	B03.110.004
Circumferential			Nozzle to Head Pressurizer Safety Nozzle To Upper Head. X-Y Quadrant. Thickness per EDSK 379624B shown as a range of 1.900 / 2.500.						
C2.B3.110.0005	2PZR-W4B Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-820	UT	CS		2.500 / NA	50338	B03.110.005
Circumferential			Nozzle to Head Pressurizer Safety Nozzle To Upper Head. W-X Quadrant. Thickness per EDSK 379624B shown as a range of 1.900 / 2.500.						
C2.B3.110.0005	2PZR-W4B Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-640	UT	CS		2.500 / NA	50338	B03.110.005
Circumferential			Nozzle to Head Pressurizer Safety Nozzle To Upper Head. W-X Quadrant. Thickness per EDSK 379624B shown as a range of 1.900 / 2.500.						
C2.B3.120.0003	2PZR-W3 Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-680	UT	CS		2.500 / NA	50237D	B03.120.003
			Nozzle to Head Pressurizer Safety Nozzle To Upper Head. (Inside Radius Section) Y-Z Quadrant . Thickness per EDSK 379624B shown as a range of 1.900 / 2.500..						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
<i>Category B-D</i>									
C2.B3.120.0004	2PZR-W4A Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-680 Nozzle to Head Pressurizer Safety Nozzle To Upper Head. (Inside Radius Section) X-Y Quadrant. Thickness per EDSK 379624B shown as a range of 1.900 / 2.500.	UT	CS		2.500 / NA	50237D	B03.120.004
C2.B3.120.0005	2PZR-W4B Class 1 NC	CNM 2201.01-110/1 CNM 2201.01-110/2 CNM 2201.01-0214	NDE-680 Nozzle to Head Pressurizer Safety Nozzle To Upper Head. (Inside Radius Section) W-X Quadrant. Thickness per EDSK 379624B shown as a range of 1.900 / 2.500.	UT	CS		2.500 / NA	50237D	B03.120.005
C2.B3.140.0001	2SGA-INLET Class 1 NC	CNM 2201.01-102/2 CNM 2201.01-113/1 CNM 2201.01-0059	NDE-680 Steam Generator 2A Primary Inlet Nozzle To Lower Head. (Inside Radius Section) W-X Quadrant. Minimum Thickness is specified as 5 inches.	UT	CS		5.160 / NA	50235	B03.140.001
C2.B3.140.0002	2SGA-OUTLET Class 1 NC	CNM 2201.01-102/2 CNM 2201.01-113/1 CNM 2201.01-0059	NDE-680 Steam Generator 2A Primary Outlet Nozzle To Lower Head. (Inside Radius Section) W-Z Quadrant. Minimum Thickness is specified as 5 inches.	UT	CS		5.160 / NA	50235	B03.140.002
C2.B3.140.0007	2SGD-INLET Class 1 NC	CNM 2201.01-102/2 CNM 2201.01-114/1 CNM 2201.01-0059	NDE-680 Steam Generator 2D Primary Inlet Nozzle To Lower Head. (Inside Radius Section) X-Y Quadrant. Minimum Thickness is specified as 5 inches.	UT	CS		5.160 / NA	50235	B03.140.007

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category B-D									
C2.B3.140.0008	2SGD-OUTLET Class 1 NC	CNM 2201.01-102/2 CNM 2201.01-114/1 CNM 2201.01-0059	NDE-680	UT	CS		5.160 / NA	50235	B03.140.008
Steam Generator 2D Primary Outlet Nozzle To Lower Head. (Inside Radius Section) Y-Z Quadrant. Minimum Thickness is specified as 5 inches.									
Category B-F									
C2.B5.70.0003	2SGB-INLET-SE Class 1 NC	CNM 2201.01-106/1	NDE-12	RT	SS-CS		2.500 / 31.000		B05.070.003, B05.070.003A
Circumferential Dissimilar		CN-2NC-011 CNM 2201.01-0217	Nozzle to Safe End Steam Generator 2B Inlet Nozzle To Safe End. (B05.070.003) To Be Done With B09.011.006 -- (B05.070.003A) To Be Done With B09.011.006A. Drawings CNM 2201.01-0450, sheets 001/002, and CNM 2201.01-0104 provide additional information pertaining to the dissimilar metal weld (nozzle to buttered safe end). Reference PIP No. G-08-00185. NPS value reflects pipe ID nominal measurement.						
C2.B5.70.0004	2SGB-OUTLET-SE Class 1 NC	CNM 2201.01-106/1	NDE-12	RT	SS-CS		2.500 / 31.000		B05.070.004, B05.070.004A
Circumferential Dissimilar		CN-2NC-011 CNM 2201.01-0217	Nozzle to Safe End Steam Generator 2B Outlet Nozzle To Safe End. (B05.070.004) To Be Done With B09.011.007 -- (B05.070.004A) To Be Done With B09.011.007A. Drawings CNM 2201.01-0450, sheets 001/002, and CNM 2201.01-0104 provide additional information pertaining to the dissimilar metal weld (nozzle to buttered safe end). Reference PIP No. G-08-00185. NPS value reflects pipe ID nominal measurement.						
C2.B5.70.0007	2SGD-INLET-SE Class 1 NC	CNM 2201.01-114/1	NDE-12	RT	SS-CS		2.500 / 31.000		B05.070.007, B05.070.007A
Circumferential Dissimilar		CN-2NC-015 CNM 2201.01-0217	Nozzle to Safe End Steam Generator 2D Inlet Nozzle To Safe End. (B05.070.007) To Be Done With B09.011.014. -- (B05.070.007A) To Be Done With B09.011.014A. Drawings CNM 2201.01-0450, sheets 001/002, and CNM 2201.01-0104 provide additional information pertaining to the dissimilar metal weld (nozzle to buttered safe end). Reference PIP No. G-08-00185. NPS value reflects pipe ID nominal measurement.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category B-F									
C2.B5.70.0008	2SGD-OUTLET-SE Class 1 NC	CNM 2201.01-114/1	NDE-12	RT	SS-CS		2.500 / 31.000		B05.070.008, B05.070.008A
Circumferential Dissimilar		CN-2NC-015 CNM 2201.01-0217	Nozzle to Safe End Steam Generator 2D Outlet Nozzle To Safe End. (B05.070.008) To Be Done With B09.011.015. -- (B05.070.008A) To Be Done With B09.011.015A. Drawings CNM 2201.01-0450, sheets 001/002, and CNM 2201.01-0104 provide additional information pertaining to the dissimilar metal weld (nozzle to buttered safe end). Reference PIP No. G-08-00185. NPS value reflects pipe ID nominal measurement.						
Category B-G-2									
C2.B7.30.0005	2SGC-MW-X-Y Class 1 NC	CNM 2201.01-59/1 CNM 2201.01-105/1	NDE-62	VT-1	CS		0.000 / 1.880		B07.030.005
			Steam Generator 2C Manway Bolting (16 Studs and Nuts). Primary Manway in X-Y Quadrant (Inlet Side). Examine All Bolting Material.						
C2.B7.30.0006	2SGC-MW-Y-Z Class 1 NC	CNM 2201.01-59/1 CNM 2201.01-105/1	NDE-62	VT-1	CS		0.000 / 1.880		B07.030.006
			Steam Generator 2C Manway Bolting (16 Studs and Nuts). Primary Manway in Y-Z Quadrant (Outlet Side). Examine All Bolting Material.						
Category B-J									
C2.B9.11.0006	2NC11-2 Class 1 NC	CN-2NC-011	NDE-12	RT	SS-CS		2.500 / 31.000		B09.011.006, B09.011.006A
Circumferential Terminal End Dissimilar		CN-ISIN3-2553-1.0 CNM 2201.01-0217	Safe End to Pipe Reactor Coolant Loop 2B Hot Leg. Steam Generator 2B Inlet Nozzle Safe End To Pipe. (B09.011.006) To be done with B05.070.003. -- (B09.011.006A) To be done with B05.070.003A. Reference PIP No. G-08-00185. NPS value reflects pipe ID nominal measurement.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category B-J									
C2.B9.11.0007	2NC11-3 Class 1 NC	CN-2NC-011	NDE-12	RT	SS-CS		2.500 / 31.000		B09.011.007, B09.011.007A
Circumferential Terminal End Dissimilar		CN-ISIN3-2553-1.0 CNM 2201.01-0217	Safe End to Pipe Reactor Coolant Loop 2B Crossover Leg. Steam Generator 2B Outlet Nozzle Safe End To Pipe. (B09.011.007) To be done with B05.070.004. (B09.011.007A) To be done with B05.070.004A. Reference PIP No. G-08-00185. NPS value reflects pipe ID nominal measurement.						
C2.B9.11.0014	2NC15-2 Class 1 NC	CN-2NC-015	NDE-12	RT	SS-CS		2.500 / 31.000		B09.011.014, B09.011.014A
Circumferential Terminal End Dissimilar		CN-ISIN3-2553-1.0 CNM 2201.01-0217	Safe End to Pipe Reactor Coolant Loop 2D Hot Leg. Steam Generator 2D Inlet Nozzle Safe End To Pipe. (B09.011.014) To be done with B05.070.007. -- (B09.011.014A) To be done with B05.070.007A. Reference PIP No. G-08-00185. NPS value reflects pipe ID nominal measurement.						
C2.B9.11.0015	2NC15-3 Class 1 NC	CN-2NC-015	NDE-12	RT	SS-CS		2.500 / 31.000		B09.011.015, B09.011.015A
Circumferential Terminal End Dissimilar		CN-ISIN3-2553-1.0 CNM 2201.01-0217	Safe End to Pipe Reactor Coolant Loop 2D Crossover Leg. Steam Generator 2D Outlet Nozzle Safe End To Pipe. (B09.011.015) To be done with B05.070.008. (B09.011.015A) To be done with B05.070.008A. Reference PIP No. G-08-00185. NPS value reflects pipe ID nominal measurement.						
C2.B9.11.0064	2NC48-2 Class 1 NC	CN-2NC-48 CN-ISIN3-2553-1.0	PDI-UT-2	UT	SS	140	1.000 / 10.000	50209 PDI-UT-2-C PDI-UT-2A-C	B09.011.064, B09.011.064A
Circumferential			Pipe to Elbow Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category B-J									
C2.B9.11.0065	2NC48-3 Class 1 NC	CN-2NC-48 CN-ISIN3-2553-1.0	PDI-UT-2	UT	SS	140	1.000 / 10.000	50209 PDI-UT-2-C PDI-UT-2A-C	B09.011.065, B09.011.065A
Circumferential									
Elbow to Pipe Reference PIP No. G-08-00185.									
C2.B9.11.0066	2NC48-4 Class 1 NC	CN-2NC-48 CN-ISIN3-2553-1.0	PDI-UT-2	UT	SS	140	1.000 / 10.000	50209 PDI-UT-2-C PDI-UT-2A-C	B09.011.066, B09.011.066A
Circumferential									
Pipe to Elbow Reference PIP No. G-08-00185.									
C2.B9.11.0077	2NI183-13 Class 1 NI	CN-2NI-183 CN-ISIN3-2562-1.1	PDI-UT-2	UT	SS	140	1.000 / 10.000	50209 PDI-UT-2-C PDI-UT-2A-C	B09.011.151, B09.011.151A
Circumferential									
Elbow to Pipe Reference PIP No. G-08-00185.									
C2.B9.11.0078	2NI183-15 Class 1 NI	CN-2NI-183 CN-ISIN3-2562-1.1	PDI-UT-2	UT	SS	140	1.000 / 10.000	50209 PDI-UT-2-C PDI-UT-2A-C	B09.011.152, B09.011.152A
Circumferential									
Elbow to Pipe Reference PIP No. G-08-00185.									

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category B-J									
C2.B9.11.0079	2NI183-2 Class 1 NI	CN-2NI-183 CN-ISIN3-2562-1.1	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	B09.011.153, B09.011.153A
Circumferential									
Pipe to Elbow Reference PIP No. G-08-00185.									
C2.B9.11.0080	2NI183-4 Class 1 NI	CN-2NI-183 CN-ISIN3-2562-1.1	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	B09.011.154, B09.011.154A
Circumferential									
Pipe to Elbow Reference PIP No. G-08-00185.									
C2.B9.11.0081	2NI183-9 Class 1 NI	CN-2NI-183 CN-ISIN3-2562-1.1	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	B09.011.155, B09.011.155A
Circumferential									
Elbow to Pipe Reference PIP No. G-08-00185.									
C2.B9.11.0082	2NI184-2 Class 1 NI	CN-2NI-184 CN-ISIN3-2562-1.1	PDI-UT-2	UT	SS	140	1.000 / 10.000	50209 PDI-UT-2-C PDI-UT-2A-C	B09.011.156, B09.011.156A
Circumferential									
Pipe to Elbow Reference PIP No. G-08-00185.									

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category B-J									
C2.B9.11.0083	2NI184-4 Class 1 NI	CN-2NI-184 CN-ISIN3-2562-1.1	PDI-UT-2	UT	SS	140	1.000 / 10.000	50209 PDI-UT-2-C PDI-UT-2A-C	B09.011.157, B09.011.157A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.B9.11.0116	2NI92-2 Class 1 NI	CN-2NI-92 CN-ISIN3-2562-1.2	PDI-UT-2	UT	SS	160	0.906 / 8.000	50210 PDI-UT-2-C PDI-UT-2A-C	B09.011.190, B09.011.190A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.B9.11.0117	2NI92-3 Class 1 NI	CN-2NI-92 CN-ISIN3-2562-1.2	PDI-UT-2	UT	SS	160	0.906 / 8.000	50210 PDI-UT-2-C PDI-UT-2A-C	B09.011.191, B09.011.191A
Circumferential			Pipe to Elbow Reference PIP No. G-08-00185.						
C2.B9.11.0118	2NI92-4 Class 1 NI	CN-2NI-92 CN-ISIN3-2562-1.2	PDI-UT-2	UT	SS	160	0.906 / 8.000	50210 PDI-UT-2-C PDI-UT-2A-C	B09.011.192, B09.011.192A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category B-J									
C2.B9.31.0001	2NC11-WN7 Class 1 NC	CN-2NC-11	NDE-830	UT	SS	160	2.300 / 14.000	50386A	B09.031.001, B09.031.001A
Branch		CN-ISIN3-2553-1.0 CNM 2201.01-104/4	Branch to Pipe Reactor Coolant Loop 2B Hot Leg. Reference PIP No. G-08-00185.						
C2.B9.31.0002	2NC11-WN8 Class 1 NC	CN-2NC-11	NDE-830	UT	SS	140	2.300 / 12.000	50386A	B09.031.002, B09.031.002A
Branch		CN-ISIN3-2553-1.0 CNM 2201.01-104/4	Branch to Pipe Reactor Coolant Loop 2B Hot Leg. Reference PIP No. G-08-00185.						
C2.B9.40.0044	2NI400-2 Class 1 NI	CN-2NI-400 CN-ISIN3-2562-1.3	NDE-35	PT	SS	160	0.344 / 2.000		B09.040.074
Socket			Pipe to Elbow						
C2.B9.40.0045	2NI400-4 Class 1 NI	CN-2NI-400 CN-ISIN3-2562-1.3	NDE-35	PT	SS	160	0.344 / 2.000		B09.040.075
Socket			Pipe to Valve 2NI171						
Category C-C									
C2.C3.10.0005	2SWIFA-SUPPORT Class 2 NI	CNM 1201.04-74 CN-ISIN3-2554-1.2	NDE-35	PT	SS		0.250 / NA		C03.010.022
Rigid Support			Support Leg to Shell Seal Water Injection Filter 2A. Examine welded attachment leg, Pc. 4 (1 leg located nearest inlet side of head, to the right of 3/4" - 6000# Socket Weld Drain, shown in Section AA on Drawing Number CNM 1201.04-0074) to Head Pc 2a. Reference Code Case N-700 and PIP#G-08-00499. Thickness shown is plate thickness; the weld specified is 3/16" fillet.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category C-C									
C2.C3.20.0004	2-R-CF-1560								
Rigid Support	Class 2 CF	CN-2491-CF003 CN-ISIN3-2591-1.1	NDE-25	MT	CS		0.750 / 18.000		C03.020.013
Category C-F-1									
C2.C5.11.0021	2CF100-60								
Circumferential	Class 2 CF	CN-2CF-100 CN-ISIN3-2591-1.1	PDI-UT-2	UT	SS	80	0.432 / 6.000	50319 PDI-UT-2-C PDI-UT-2A-C	C05.011.051, C05.011.051A
			Valve 2CF168 to Elbow Reference PIP No. G-08-00185.						
C2.C5.11.0022	2CF100-61								
Circumferential	Class 2 CF	CN-2CF-100 CN-ISIN3-2591-1.1	PDI-UT-2	UT	SS	80	0.432 / 6.000	50319 PDI-UT-2-C PDI-UT-2A-C	C05.011.052, C05.011.052A
			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0023	2CF100-62								
Circumferential	Class 2 CF	CN-2CF-100 CN-ISIN3-2591-1.1	PDI-UT-2	UT	SS	80	0.432 / 6.000	50319 PDI-UT-2-C PDI-UT-2A-C	C05.011.053, C05.011.053A
			Pipe to Elbow Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category C-F-1									
C2.C5.11.0024	2CF100-63 Class 2 CF	CN-2CF-100 CN-ISIN3-2591-1.1	PDI-UT-2	UT	SS	80	0.432 / 6.000	50319 PDI-UT-2-C PDI-UT-2A-C	C05.011.054, C05.011.054A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0055	2ND23-2 Class 2 ND	CN-2ND-23 CN-ISIN3-2561-1.0	PDI-UT-2	UT	SS	STD	0.375 / 12.000	50313 PDI-UT-2-C PDI-UT-2A-C	C05.011.171, C05.011.171A
Circumferential			Pipe to Elbow Reference PIP No. G-08-00185.						
C2.C5.11.0056	2ND23-4 Class 2 ND	CN-2ND-23 CN-ISIN3-2561-1.0	PDI-UT-2	UT	SS	STD	0.375 / 12.000	50313 PDI-UT-2-C PDI-UT-2A-C	C05.011.172, C05.011.172A
Circumferential			Pipe to Tee Reference PIP No. G-08-00185.						
C2.C5.11.0090	2NI72-1 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.906 / 8.000	50210 PDI-UT-2-C PDI-UT-2A-C	C05.011.305, C05.011.305A
Circumferential			Elbow to Elbow Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category C-F-1									
C2.C5.11.0091	2NI72-10 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.306, C05.011.306A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0092	2NI72-13 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.307, C05.011.307A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0093	2NI72-2 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.906 / 8.000	50210 PDI-UT-2-C PDI-UT-2A-C	C05.011.308, C05.011.308A
Circumferential			Elbow to Tee Reference PIP No. G-08-00185.						
C2.C5.11.0094	2NI72-3 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.906 / 8.000	50210 PDI-UT-2-C PDI-UT-2A-C	C05.011.309, C05.011.309A
Circumferential			Tee to 8X6 Reducer Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category C-F-1									
C2.C5.11.0095	2NI72-4 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.310, C05.011.310A
	Circumferential		8X6 Reducer to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0096	2NI72-7 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.311, C05.011.311A
	Circumferential		Pipe to Elbow Reference PIP No. G-08-00185.						
C2.C5.11.0097	2NI72-8 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.312, C05.011.312A
	Circumferential		Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0098	2NI72-9 Class 2 NI	CN-2NI-72 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.313, C05.011.313A
	Circumferential		Pipe to Elbow Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category C-F-1									
C2.C5.11.0125	2NI88-6 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.340, C05.011.340A
Circumferential			Pipe to Elbow Reference PIP No. G-08-00185.						
C2.C5.11.0126	2NI88-2 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.906 / 8.000	50210 PDI-UT-2-C PDI-UT-2A-C	C05.011.341, C05.011.341A
Circumferential			Pipe to Elbow Reference PIP No. G-08-00185.						
C2.C5.11.0127	2NI88-3 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.906 / 8.000	50210 PDI-UT-2-C PDI-UT-2A-C	C05.011.342, C05.011.342A
Circumferential			Tee to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0128	2NI88-10 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.343, C05.011.343A
Circumferential			Pipe to 8X6 Con. Reducer Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category C-F-1									
C2.C5.11.0129	2NI88-7 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.344, C05.011.344A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0130	2NI88-13 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.345, C05.011.345A
Circumferential			Pipe to Elbow Reference PIP No. G-08-00185.						
C2.C5.11.0131	2NI88-14 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.346, C05.011.346A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.11.0132	2NI88-15 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.347, C05.011.347A
Circumferential			Pipe to Elbow Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category C-F-1									
C2.C5.11.0133	2NI88-16 Class 2 NI	CN-2NI-88 CN-ISIN3-2562-1.3	PDI-UT-2	UT	SS	160	0.719 / 6.000	50211 PDI-UT-2-C PDI-UT-2A-C	C05.011.348, C05.011.348A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.21.0002	2CA113-36 Class 2 CA	CN-2CA-113 CN-ISIN3-2592-1.1	PDI-UT-10	UT	SS-CS	80	0.337 / 4.000	50436	C05.021.002, C05.021.002A
Circumferential			Reducer to Pipe Reference PIP No. G-08-00185.						
C2.C5.21.0069	2NV23-12 Class 2 NV	CN-2NV-23 CN-ISIN3-2554-1.1	PDI-UT-2	UT	SS	40	0.237 / 4.000	8279-0416 PDI-UT-2-C PDI-UT-2A-C	C05.021.235, C05.021.235A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.21.0070	2NV23-14 Class 2 NV	CN-2NV-23 CN-ISIN3-2554-1.1	PDI-UT-2	UT	SS	40	0.237 / 4.000	8279-0416 PDI-UT-2-C PDI-UT-2A-C	C05.021.236, C05.021.236A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category C-F-1									
C2.C5.21.0071	2NV23-2 Class 2 NV	CN-2NV-23 CN-ISIN3-2554-1.1	PDI-UT-2	UT	SS	40	0.237 / 4.000	8279-0416 PDI-UT-2-C PDI-UT-2A-C	C05.021.237, C05.021.237A
Circumferential			Elbow to Pipe Reference PIP No. G-08-00185.						
C2.C5.21.0072	2NV23-5 Class 2 NV	CN-2NV-23 CN-ISIN3-2554-1.1	PDI-UT-2	UT	SS	40	0.237 / 4.000	8279-0416 PDI-UT-2-C PDI-UT-2A-C	C05.021.238, C05.021.238A
Circumferential			Pipe to Elbow Reference PIP No. G-08-00185.						
C2.C5.21.0073	2NV23-6 Class 2 NV	CN-2NV-23 CN-ISIN3-2554-1.1	PDI-UT-2	UT	SS	40	0.237 / 4.000	8279-0416 PDI-UT-2-C PDI-UT-2A-C	C05.021.239, C05.021.239A
Circumferential			Tee to Pipe Reference PIP No. G-08-00185.						
Category C-F-2									
C2.C5.51.0008	2CA68-1 Class 2 CA	CN-2CA-68 CN-ISIN3-2592-1.1	PDI-UT-1	UT	CS	120	0.562 / 6.000	PDI-UT-1-C PDI-UT-1A-C	C05.051.008, C05.051.008A
Circumferential Terminal End			Elbow to Nozzle Steam Generator 2D. Procedure NDE-600 uses the component for calibration. Procedure PDI-UT-1 may be used in lieu of NDE-600. If PDI-UT-1 is used , then the calibration block listed shall be used. Reference PIP No. G-08-00185.						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category C-F-2									
C2.C5.51.0014	2CF-10-C Class 2 CF	CN-2CF-38 CN-ISIN3-2591-1.1	PDI-UT-1	UT	CS	80	0.938 / 18.000	PDI-UT-1-C PDI-UT-1A-C	C05.051.051, C05.051.051A
Circumferential			Pipe to Elbow Procedure NDE-600 uses the component for calibration. Procedure PDI-UT-1 may be used in lieu of NDE-600. If PDI-UT-1 is used , then the calibration block listed shall be used. Reference PIP No. G-08-00185.						
C2.C5.51.0033	2SM12-3 Class 2 SM	CN-2SM-12 CN-ISIN3-2593-1.0	NDE-600	UT	CS		1.375 / 34.000	Component	C05.051.104, C05.051.104A
Circumferential			Elbow to Pipe Steam Generator 2B. Procedure NDE-600 uses the component for calibration. Procedure PDI-UT-1 may be used in lieu of NDE-600. If PDI-UT-1 is used , then the calibration block listed shall be used. Reference PIP No. G-08-00185.						
C2.C5.51.0042	2SV18-6 Class 2 SV	CN-2SV-18 CN-ISIN3-2593-1.0 CNM 1205.09-0002	NDE-600	UT	CS		1.500 / 6.000	Component	C05.051.152, C05.051.152A
Circumferential			Pipe to Valve 2SV024 Procedure NDE-600 uses the component for calibration. Procedure PDI-UT-1 may be used in lieu of NDE-600. If PDI-UT-1 is used , then the calibration block listed shall be used. Reference PIP No. G-08-00185. Thickness specified is nominal and the NPS is the pipe ID.						
C2.C5.70.0004	2CA154-11 Class 2 CA	CN-2CA-154 CN-ISIN3-2592-1.1	NDE-35	PT	CS	80	0.218 / 2.000		C05.070.004
Circumferential			Tee to Reducing Insert						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Componenet ID 2
Category C-F-2									
C2.C5.70.0005	2CA154-15								
Circumferential	Class 2 CA	CN-2CA-154 CN-ISIN3-2592-1.1	NDE-35	PT	CS	80	0.218 / 2.000		C05.070.005
			Tee to Pipe						
Category C-G									
C2.C6.20.0005	2NI-103A								
Circumferential	Class 2 NI	CNM 1205.00-231 CN-ISIN3-2562-1.2	NDE-35	PT	SS		0.500 / 6.000		C06.020.005
			Valve Body to Bonnet Valve Body Weld - Valve Numbers in Valve Group 2NI-103A, 2NI-135B, 2NI-332A, 2NI-333B, 2NI-334B.						
Category D-A									
C2.D1.20.0005	2-R-KC-0005								
Rigid Support	Class 3 KC	CN-2492-KC073 CN-ISIN3-2573-2.0	NDE-65	VT-1	NA		1.000 / 16.000		D01.020.014
			Inspect with F01.030.066.						
Category ELC									
C2.H3.1.0007	2ND16-7								
	Class 2 ND	CN-2ND-0016 CN-2561-01.01	NDE-998	UT	SS		0.438 / 14.000	Component	----
			Pipe to Tee ND System Thermal Fatigue Management Program. Examination frequency is every six years or less beginning 2EOC18 as stated in QA-513J, Tracking Number ER-CNS-10-05, originated by Bill Callaway. (Reference PIP # C-04-03193, CA #13)						
C2.H3.1.0008	2ND19-1								
	Class 2 ND	CN-2ND-0019 CN-2561-01.01	NDE-998	UT	SS		0.438 / 14.000	Component	----
			Tee to Pipe ND System Thermal Fatigue Management Program. Examination frequency is every six years or less beginning 2EOC18 as stated in QA-513J, Tracking Number ER-CNS-10-05, originated by Bill Callaway. (Reference PIP # C-04-03193, CA #13)						

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category ELC									
C2.H3.1.0009	2ND40-5 Class 2 ND	CN-2ND-0040 CN-2561-01.00	NDE-998 UT Pipe to Elbow ND System Thermal Fatigue Management Program. Examination frequency is every six years or less beginning 2EOC18 as stated in QA-513J, Tracking Number ER-CNS-10-05, originated by Bill Callaway. (Reference PIP # C-04-03193, CA #13)	UT	SS		0.438 / 14.000	Component	----
C2.H3.1.0010	2ND40-6 Class 2 ND	CN-2ND-0040 CN-2561-01.00	NDE-998 UT Elbow to Pipe ND System Thermal Fatigue Management Program. Examination frequency is every six years or less beginning 2EOC18 as stated in QA-513J, Tracking Number ER-CNS-10-05, originated by Bill Callaway. (Reference PIP # C-04-03193, CA #13)	UT	SS		0.438 / 14.000	Component	----
Category F-A									
C2.F1.20.0012	2-R-CF-1560 Class 2 CF	CN-2491-CF003 CN-ISIN3-2591-1.1	NDE-66	VT-3	NA		0.750 / 18.000		F01.020.012
	Rigid Support								
C2.F1.20.0060	2-R-NS-1140 Class 2 NS	CN-2491-NS007 CN-ISIN3-2563-1.0	NDE-66	VT-3	NA		0.000 / 8.000		F01.020.099
	Rigid Support								
C2.F1.20.0061	2-R-NS-1141 Class 2 NS	CN-2491-NS007,3CNS2-057 CN-ISIN3-2563-1.0	NDE-66	VT-3	NA		0.000 / 8.000		F01.020.100
	Rigid Support								
C2.F1.20.0062	2-R-NS-1118 Class 2 NS	CN-2491-NS009 CN-ISIN3-2563-1.0	NDE-66	VT-3	NA		0.000 / 8.000		F01.020.101
	Rigid Support								
C2.F1.20.0063	2-R-NS-1119 Class 2 NS	CN-2491-NS009 CN-ISIN3-2563-1.0	NDE-66	VT-3	NA		0.000 / 8.000		F01.020.102
	Rigid Support								

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
<i>Category F-A</i>									
C2.F1.21.0009	2-R-ND-0379								
Rigid Restraint	Class 2 ND	CN-2492-ND017 CN-ISIN3-2561-1.1	NDE-66	VT-3	NA		0.000 / 8.000		F01.021.031
C2.F1.21.0010	2-R-ND-0380								
Rigid Restraint	Class 2 ND	CN-2492-ND017 CN-ISIN3-2561-1.1	NDE-66	VT-3	NA		0.000 / 8.000		F01.021.032
C2.F1.21.0069	2-R-NV-0029								
Rigid Restraint	Class 2 NV	CN-2492-NV045 CN-ISIN3-2554-1.7	NDE-66	VT-3	NA		0.000 / 8.000		F01.021.156
C2.F1.21.0070	2-R-NV-0030								
Rigid Restraint	Class 2 NV	CN-2492-NV045 CN-ISIN3-2554-1.7	NDE-66	VT-3	NA		0.000 / 8.000		F01.021.157
C2.F1.21.0071	2-R-NV-0297								
Rigid Restraint	Class 2 NV	CN-2492-NV045 CN-ISIN3-2554-1.7	NDE-66	VT-3	NA		0.000 / 6.000		F01.021.158
C2.F1.22.0018	2-R-NI-0155								
Spring Hgr	Class 2 NI	CN-2492-NI011 CN-ISIN3-2562-1.0	NDE-66	VT-3	NA		0.000 / 6.000		F01.022.061
C2.F1.22.0019	2-R-NI-0152								
Spring Hgr	Class 2 NI	CN-2492-NI012 CN-ISIN3-2562-1.2	NDE-66	VT-3	NA		0.000 / 6.000		F01.022.062
C2.F1.30.0021	2-R-KC-0274								
Rigid Support	Class 3 KC	CN-2492-KC070 CN-ISIN3-2573-1.0	NDE-66	VT-3	NA		0.406 / 16.000		F01.030.065

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category F-A									
C2.F1.30.0022	2-R-KC-0005								
Rigid Support	Class 3 KC	CN-2492-KC073 CN-ISIN3-2573-2.0	NDE-66	VT-3	NA		1.000 / 16.000		F01.030.066
Inspect with D01.020.014.									
C2.F1.30.0051	2-R-VN-0060								
Rigid Support	Class 3 VN	CN-2493-VN002 CN-ISIN3-2609-5.0	NDE-66	VT-3	NA		0.000 / 30.000		F01.030.222
C2.F1.30.0055	2-R-YC-0001								
Rigid Support	Class 3 YC	CN-2525-YC001 CN-ISIN3-1578-2.2	NDE-66	VT-3	NA		0.000 / 8.000		F01.030.251
C2.F1.30.0056	2-R-YC-0018								
Rigid Support	Class 3 YC	CN-2525-YC001 CN-ISIN3-1578-2.2	NDE-66	VT-3	NA		0.000 / 6.000		F01.030.252
C2.F1.31.0020	2-R-KC-0586								
Rigid Restraint	Class 3 KC	CN-2492-KC348 CN-ISIN3-2573-1.0	NDE-66	VT-3	NA		0.000 / 6.000		F01.031.063
C2.F1.31.0021	2-R-KC-0587								
Rigid Restraint	Class 3 KC	CN-2492-KC348 CN-ISIN3-2573-1.0	NDE-66	VT-3	NA		0.000 / 6.000		F01.031.064
C2.F1.31.0027	2-R-RN-0172								
Rigid Restraint	Class 3 RN	CN-2492-RN117 CN-ISIN3-1574-1.1	NDE-66	VT-3	NA		0.000 / 30.000		F01.031.152
C2.F1.31.0033	2-R-YC-0004								
Rigid Restraint	Class 3 YC	CN-2525-YC001 CN-ISIN3-1578-2.2	NDE-66	VT-3	NA		0.000 / 8.000		F01.031.251

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category F-A									
C2.F1.32.0002	2-R-FD-0001								
Spring Hgr	Class 3 FD	CN-2493-FD034 CN-ISIN3-2609-3.0	NDE-66	VT-3	NA		0.000 / 6.000		F01.032.031
C2.F1.32.0014	2-R-RN-0187								
Mech Snubber	Class 3 RN	CN-2492-RN117 CN-ISIN3-1574-1.1	NDE-66	VT-3	NA		0.000 / 20.000		F01.032.152
C2.F1.32.0023	2-R-YC-0002								
Spring Hgr	Class 3 YC	CN-2525-YC001 CN-ISIN3-1578-2.2	NDE-66	VT-3	NA		0.000 / 8.000		F01.032.251
C2.F1.40.0003	2SGA-COLUMNS								
Rigid Support	Class 1 NC	CN-1070-9 CN-ISIN3-2553-1.0	NDE-66	VT-3	NA		0.000 / 0.000		F01.040.003
Steam Generator 2A Support Columns (4 Assemblies).									
C2.F1.40.0010	2SGC-LATERALS								
Rigid Restraint	Class 1 NC	CN-1070-12 CN-ISIN3-2553-1.0	NDE-66	VT-3	NA		0.000 / 0.000		F01.040.010
Steam Generator 2C Lower Laterals.									
C2.F1.40.0015	2SWIFA-SUPPORT								
Rigid Support	Class 2 NI	CNM 1201.04-74 CN-ISIN3-2554-1.2	NDE-66	VT-3	NA		0.250 / 0.000		F01.040.105
Support Leg to Shell Seal Water Injection Filter 2A Support (4 Legs).									
C2.F1.40.0022	2NIPA-SUPPORT								
Rigid Support	Class 2 NI	CNM 1201.05-45 CN-ISIN3-2562-1.2	NDE-66	VT-3	NA		0.000 / 0.000		F01.040.112
Safety Injection Pump 2A Support (4 Legs).									

This report includes all changes through addendum 3CNS2-066

Catawba 2, 3rd Interval, outage 5 (EOC-18)

Summary Num	Component ID Class / System	ISO/DWG Numbers	Procedure Description Comments	Insp Req	Material	Sched	Thick/NPS	Cal Blocks	Component ID 2
Category F-A									
C2.F1.40.0023	2NSPA-SUPPORT								
	Class 2 NS	CNM 1201.05-126	NDE-66	VT-3	NA		0.000 / 0.000		F01.040.113
Rigid Support		CN-ISIN3-2563-1.0							
Containment Spray Pump 2A Support (4 Legs).									
C2.F1.40.0032	2TDCAP2-SUPPORT								
	Class 3 CA	CNM 1201.05-130	NDE-66	VT-3	NA		0.000 / 0.000		F01.040.208
Rigid Support		CN-ISIN3-2592-1.0							
Turbine Driven Auxillary FeedWater Pump / Auxiliary Feedwater Pump Turbine Engine Support.									
End of Report									
STATISTICS ONLY									
	Class 1	77	Class 2	58	Class 3	18	Total by Class	153	Systems 153 Total Count 153

4.0 Results of Inspections Performed

The results of each examination shown in the final Inservice Inspection Plan Report (Section 3.0 of this report) are included in this section. The completion date and status for each examination are shown. All examinations revealing reportable indications and any corrective action required as a result are described in further detail in Subsections 4.1 and 4.2. Corrective measures performed and limited examinations are described in further detail in Subsections 4.3 and 4.4.

4.1 Reportable Indications

No Reportable Condition was detected during Outage 5/EOC18.

4.2 Corrective Action

Corrective action is action taken to resolve flaws and relevant conditions, including supplemental examinations, analytical evaluations, repair / replacement activities, and corrective measures. There were no recordable conditions that required corrective action during this report period.

4.3 Corrective Measures

Corrective measures are actions (such as maintenance) taken to resolve relevant conditions, but not including supplemental examinations, analytical evaluations, and repair / replacement activities. Any corrective measures performed for examinations associated with this report period will be shown on the examination data sheets which are on file at the Duke Energy Corporate Office in Charlotte, North Carolina.

4.4 Limited Examinations

Limitations (i.e. 90% or less of the required examination coverage obtained) identified for examinations associated with this report period are shown below. A relief request will be submitted to seek NRC acceptance of the limited coverage. This information will be on file at the Duke Energy Corporate Office in Charlotte, North Carolina. See Subsection 1.2 for additional information on relief request.

Summary Number

Relief Request Serial Numbers

C2.B3.110.0003
C2.B3.110.0004
C2.B3.110.0005
C2.B9.31.0001

To be filed later
To be filed later
To be filed later
To be filed later

Summary Number

C2.B9.31.0002
C2.C5.11.0021
C2.C5.11.0093
C2.C5.11.0094

Relief Request Serial Numbers

To be filed later
To be filed later
To be filed later
To be filed later

DUKE ENERGY CORPORATION
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System
Inspection Results

Scheduleworks

Catawba 2, 3rd Interval, Outage 5 (EOC-18)

INSPECTION RESULTS FOR 2EOC18

Summary No	Component ID	System	Insp Date	Insp Status	Insp Limited	Geo Ref	RFR	Comment
C2.B15.80.0001	2RPV-BMI-NOZZLES	NC	03/12/12	CLR	N	N	N	VT-12-686
C2.B15.90.0001	2RPV202-121ASE	NC	03/12/12	CLR	N	N	N	VT-12-688
C2.B15.90.0002	2RPV202-121BSE	NC	03/12/12	CLR	N	N	N	VT-12-691
C2.B15.90.0003	2RPV202-121CSE	NC	03/12/12	CLR	N	N	N	VT-12-692
C2.B15.90.0004	2RPV202-121DSE	NC	03/12/12	CLR	N	N	N	VT-12-693
C2.B3.110.0003	2PZR-W3	NC	03/16/12	CLR	Y	N	Y	UT-12-590
		NC	03/16/12	CLR	Y	N	Y	UT-12-593 (Page 1)
		NC	03/16/12	CLR	Y	N	Y	UT-12-593 (Page 2)
		NC	03/16/12	CLR	Y	N	Y	UT-12-593 (Page 3)
		NC	03/16/12	CLR	Y	N	Y	UT-12-593 (Page 4)
Percentage of coverage obtained less than or equal to 90%. Reference PIP Serial No. C-12-04412.								
C2.B3.110.0004	2PZR-W4A	NC	03/16/12	CLR	Y	N	Y	UT-12-591
		NC	03/16/12	CLR	Y	N	Y	UT-12-594 (Page 1)

INSPECTION RESULTS FOR 2EOC18

Summary No	Component ID	System	Insp Date	Insp Status	Insp Limited	Geo Ref	RFR	Comment
C2.B3.110.0004	2PZR-W4A	NC	03/16/12	CLR	Y	N	Y	UT-12-594 (Page 2)
		NC	03/16/12	CLR	Y	N	Y	UT-12-594 (Page 3)
		NC	03/16/12	CLR	Y	N	Y	UT-12-594 (Page 4)
								Percentage of coverage obtained less than or equal to 90%. Reference PIP Serial No. C-12-04412.
C2.B3.110.0005	2PZR-W4B	NC	03/16/12	CLR	Y	N	Y	UT-12-592
		NC	03/16/12	CLR	Y	N	Y	UT-12-595 (Page 1)
		NC	03/16/12	CLR	Y	N	Y	UT-12-595 (Page 2)
		NC	03/16/12	CLR	Y	N	Y	UT-12-595 (Page 3)
		NC	03/16/12	CLR	Y	N	Y	UT-12-595 (Page 4)
								Percentage of coverage obtained less than or equal to 90%. Reference PIP Serial No. C-12-04412.
C2.B3.120.0003	2PZR-W3	NC	03/16/12	CLR	N	N	N	UT-12-587
C2.B3.120.0004	2PZR-W4A	NC	03/16/12	CLR	N	N	N	UT-12-588
C2.B3.120.0005	2PZR-W4B	NC	03/16/12	CLR	N	N	N	UT-12-589
C2.B3.140.0001	2SGA-INLET	NC	03/15/12	CLR	N	N	N	UT-12-560 (Page 1)
		NC	03/15/12	CLR	N	N	N	UT-12-560 (Page 2)
		NC	03/15/12	CLR	N	N	N	UT-12-560 (Page 3)

INSPECTION RESULTS FOR 2EOC18

<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.B3.140.0002	2SGA-OUTLET	NC	03/15/12	CLR	N	N	N	UT-12-561 (Page 1)
		NC	03/15/12	CLR	N	N	N	UT-12-561 (Page 2)
		NC	03/15/12	CLR	N	N	N	UT-12-561 (Page 3)
C2.B3.140.0007	2SGD-INLET	NC	03/15/12	CLR	N	N	N	UT-12-562 (Page 1)
		NC	03/15/12	CLR	N	N	N	UT-12-562 (Page 2)
		NC	03/15/12	CLR	N	N	N	UT-12-562 (Page 3)
C2.B3.140.0008	2SGD-OUTLET	NC	03/15/12	CLR	N	N	N	UT-12-563 (Page 1)
		NC	03/15/12	CLR	N	N	N	UT-12-563 (Page 2)
		NC	03/15/12	CLR	N	N	N	UT-12-563 (Page 3)
C2.B4.10.0001	2RPV-HEAD-SURFACE	NC	03/24/12	CLR	N	N	N	VT-12-700
C2.B5.70.0003	2SGB-INLET-SE	NC	03/23/12	REC	N	N	N	RT-12-004
C2.B5.70.0004	2SGB-OUTLET-SE	NC	03/23/12	REC	N	N	N	RT-12-005
C2.B5.70.0007	2SGD-INLET-SE	NC	03/23/12	REC	N	N	N	RT-12-006
C2.B5.70.0008	2SGD-OUTLET-SE	NC	03/22/12	REC	N	N	N	RT-12-007
C2.B7.30.0005	2SGC-MW-X-Y	NC	03/26/12	CLR	N	N	N	VT-12-697

INSPECTION RESL FOR 2EOC18

<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.B7.30.0006	2SGC-MW-Y-Z	NC	03/26/12	REC	N	N	N	VT-12-698
								Condition found acceptable based on Evaluation Report No. EV-12-094 by C.B.Cauthen.
C2.B9.11.0006	2NC11-2	NC	03/23/12	REC	N	N	N	RT-12-008
C2.B9.11.0007	2NC11-3	NC	03/23/12	REC	N	N	N	RT-12-009
C2.B9.11.0014	2NC15-2	NC	03/23/12	REC	N	N	N	RT-12-010
C2.B9.11.0015	2NC15-3	NC	03/22/12	REC	N	N	N	RT-12-011
C2.B9.11.0064	2NC48-2	NC	03/15/12	CLR	N	N	N	UT-12-573
C2.B9.11.0065	2NC48-3	NC	03/15/12	CLR	N	N	N	UT-12-574
C2.B9.11.0066	2NC48-4	NC	03/15/12	CLR	N	N	N	UT-12-575
C2.B9.11.0077	2NI183-13	NI	03/16/12	CLR	N	N	N	UT-12-578 (Page 1)
		NI	03/16/12	CLR	N	N	N	UT-12-578 (Page 2)
C2.B9.11.0078	2NI183-15	NI	03/16/12	CLR	N	N	N	UT-12-579 (Page 1)
		NI	03/16/12	CLR	N	N	N	UT-12-579 (Page 2)
C2.B9.11.0079	2NI183-2	NI	03/16/12	CLR	N	N	N	UT-12-582 (Page 1)
		NI	03/16/12	CLR	N	N	N	UT-12-582 (Page 2)

INSPECTION RESULTS FOR 2EOC18

<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.B9.11.0080	2NI183-4	NI	03/16/12	CLR	N	N	N	UT-12-583
C2.B9.11.0081	2NI183-9	NI	03/16/12	CLR	N	N	N	UT-12-584
C2.B9.11.0082	2NI184-2	NI	03/17/12	CLR	N	N	N	UT-12-585
C2.B9.11.0083	2NI184-4	NI	03/17/12	CLR	N	Y	N	UT-12-586
C2.B9.11.0116	2NI92-2	NI	03/14/12	CLR	N	N	N	UT-12-557
C2.B9.11.0117	2NI92-3	NI	03/14/12	CLR	N	N	N	UT-12-558
C2.B9.11.0118	2NI92-4	NI	03/14/12	CLR	Y	N	N	UT-12-559 (Page 1)
		NI	03/14/12	CLR	Y	N	N	UT-12-559 (Page 2)
								Percentage of coverage obtained greater than 90%. No relief request required.
C2.B9.31.0001	2NC11-WN7	NC	03/19/12	CLR	Y	N	Y	UT-12-606 (Page 1)
		NC	03/19/12	CLR	Y	N	Y	UT-12-606 (Page 2)
								Percentage of coverage obtained less than or equal to 90%. Reference PIP Serial No. C-12-04412.
C2.B9.31.0002	2NC11-WN8	NC	03/19/12	CLR	Y	N	Y	UT-12-607 (Page 1)
		NC	03/19/12	CLR	Y	N	Y	UT-12-607 (Page 2)
								Percentage of coverage obtained less than or equal to 90%. Reference PIP Serial No. C-12-04412.
C2.B9.40.0044	2NI400-2	NI	03/13/12	CLR	N	N	N	PT-12-385

INSPECTION RESULTS FOR 2EOC18

Summary No	Component ID	System	Insp Date	Insp Status	Insp Limited	Geo Ref	RFR	Comment
C2.B9.40.0045	2NI400-4	NI	03/13/12	CLR	N	N	N	PT-12-386
C2.C3.10.0005	2SWIFA-SUPPORT	NI	03/08/12	CLR	N	N	N	PT-12-384
C2.C3.20.0004	2-R-CF-1560	CF	03/19/12	CLR	N	N	N	MT-12-117
C2.C5.11.0021	2CF100-60	CF	03/20/12	CLR	Y	Y	Y	UT-12-609 (Page 1)
		CF	03/20/12	CLR	Y	N	Y	UT-12-609 (Page 2)
		Percentage of coverage obtained less than or equal to 90%. Reference PIP Serial No. C-12-04412.						
C2.C5.11.0022	2CF100-61	CF	03/20/12	CLR	N	Y	N	UT-12-610
C2.C5.11.0023	2CF100-62	CF	03/20/12	CLR	N	Y	N	UT-12-611
C2.C5.11.0024	2CF100-63	CF	03/20/12	CLR	N	Y	N	UT-12-612
C2.C5.11.0055	2ND23-2	ND	03/18/12	CLR	N	N	N	UT-12-616 (Page 1)
		ND	03/18/12	CLR	N	N	N	UT-12-616 (Page 2)
C2.C5.11.0056	2ND23-4	ND	03/18/12	CLR	N	N	N	UT-12-615 (Page 1)
		ND	03/18/12	CLR	N	N	N	UT-12-615 (Page 2)
C2.C5.11.0090	2NI72-1	NI	03/13/12	CLR	N	N	N	UT-12-552 (Page 1)
		NI	03/13/12	CLR	N	N	N	UT-12-552 (Page 2)

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Summary No	Component ID	System	Insp Date	Insp Status	Insp Limited	Geo Ref	RFR	Comment
C2.C5.11.0091	2NI72-10	NI	03/13/12	CLR	N	N	N	UT-12-550 (Page 1)
		NI	03/13/12	CLR	N	N	N	UT-12-550 (Page 2)
C2.C5.11.0092	2NI72-13	NI	03/13/12	CLR	N	N	N	UT-12-551 (Page 1)
		NI	03/13/12	CLR	N	N	N	UT-12-551 (Page 2)
C2.C5.11.0093	2NI72-2	NI	03/13/12	CLR	Y	N	Y	UT-12-553 (Page 1)
		NI	03/13/12	CLR	Y	N	Y	UT-12-553 (Page 2)
		NI	03/13/12	CLR	Y	N	Y	UT-12-553 (Page 3)
Percentage of coverage obtained less than or equal to 90%. Reference PIP Serial No. C-12-04412.								
C2.C5.11.0094	2NI72-3	NI	03/13/12	CLR	Y	N	Y	UT-12-554 (Page 1)
		NI	03/13/12	CLR	Y	N	Y	UT-12-554 (Page 2)
		NI	03/13/12	CLR	Y	N	Y	UT-12-554 (Page 3)
Percentage of coverage obtained less than or equal to 90%. Reference PIP Serial No. C-12-04412.								
C2.C5.11.0095	2NI72-4	NI	03/13/12	CLR	N	N	N	UT-12-555 (Page 1)
		NI	03/13/12	CLR	N	Y	N	UT-12-555 (Page 2)
C2.C5.11.0096	2NI72-7	NI	03/13/12	CLR	N	N	N	UT-12-547
C2.C5.11.0097	2NI72-8	NI	03/13/12	CLR	N	N	N	UT-12-548 (Page 1)

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<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.C5.11.0097	2NI72-8	NI	03/13/12	CLR	N	N	N	UT-12-548 (Page 2)
C2.C5.11.0098	2NI72-9	NI	03/13/12	CLR	N	N	N	UT-12-549
C2.C5.11.0125	2NI88-6	NI	03/13/12	CLR	N	N	N	UT-12-542 (Page 1)
		NI	03/13/12	CLR	N	N	N	UT-12-542 (Page 2)
C2.C5.11.0126	2NI88-2	NI	03/13/12	CLR	N	Y	N	UT-12-543 (Page 1)
		NI	03/13/12	CLR	N	N	N	UT-12-543 (Page 2)
C2.C5.11.0127	2NI88-3	NI	03/13/12	CLR	N	Y	N	UT-12-544 (Page 1)
		NI	03/13/12	CLR	N	N	N	UT-12-544 (Page 2)
		NI	03/13/12	CLR	N	N	N	UT-12-544 (Page 3)
C2.C5.11.0128	2NI88-10	NI	03/13/12	CLR	N	Y	N	UT-12-545 (Page 1)
		NI	03/13/12	CLR	N	N	N	UT-12-545 (Page 2)
C2.C5.11.0129	2NI88-7	NI	03/13/12	CLR	N	N	N	UT-12-546 (Page 1)
		NI	03/13/12	CLR	N	N	N	UT-12-546 (Page 2)
C2.C5.11.0130	2NI88-13	NI	03/13/12	CLR	N	N	N	UT-12-564
C2.C5.11.0131	2NI88-14	NI	03/13/12	CLR	N	N	N	UT-12-565

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C2.C5.11.0132	2NI88-15	NI	03/13/12	CLR	N	N	N	UT-12-566
C2.C5.11.0133	2NI88-16	NI	03/13/12	CLR	N	N	N	UT-12-567
C2.C5.21.0002	2CA113-36	CA	03/19/12	CLR	N	N	N	UT-12-597 (Page 1)
		CA	03/19/12	CLR	N	N	N	UT-12-597 (Page 2)
		CA	03/19/12	CLR	N	N	N	UT-12-597 (Page 3)
		CA	03/19/12	CLR	N	N	N	UT-12-597 (Page 4)
		CA	03/19/12	CLR	N	N	N	UT-12-597 (Page 5)
C2.C5.21.0069	2NV23-12	NV	03/13/12	CLR	N	N	N	UT-12-537 (Page 1)
		NV	03/13/12	CLR	N	N	N	UT-12-537 (Page 2)
C2.C5.21.0070	2NV23-14	NV	03/13/12	CLR	N	N	N	UT-12-538 (Page 1)
		NV	03/13/12	CLR	N	N	N	UT-12-538 (Page 2)
C2.C5.21.0071	2NV23-2	NV	03/13/12	CLR	N	N	N	UT-12-539 (Page 1)
		NV	03/13/12	CLR	N	N	N	UT-12-539 (Page 2)
C2.C5.21.0072	2NV23-5	NV	03/13/12	CLR	N	N	N	UT-12-540 (Page 1)
		NV	03/13/12	CLR	N	N	N	UT-12-540 (Page 2)
C2.C5.21.0073	2NV23-6	NV	03/13/12	CLR	N	N	N	UT-12-541 (Page 1)

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<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.C5.21.0073	2NV23-6	NV	03/13/12	CLR	N	N	N	UT-12-541 (Page 2)
C2.C5.51.0008	2CA68-1	CA	03/21/12	CLR	N	N	N	UT-12-614 (Page 1)
		CA	03/21/12	CLR	N	N	N	UT-12-614 (Page 2)
C2.C5.51.0014	2CF-10-C	CF	03/17/12	CLR	N	N	N	UT-12-617
C2.C5.51.0033	2SM12-3	SM	03/20/12	CLR	N	N	N	UT-12-608
C2.C5.51.0042	2SV18-6	SV	03/21/12	CLR	N	N	N	UT-12-613
C2.C5.70.0004	2CA154-11	CA	03/14/12	CLR	N	N	N	PT-12-387
C2.C5.70.0005	2CA154-15	CA	03/14/12	CLR	N	N	N	PT-12-388
C2.C6.20.0005	2NI-103A	NI	03/15/12	CLR	N	N	N	PT-12-389
C2.D1.20.0005	2-R-KC-0005	KC	03/10/12	CLR	N	N	N	VT-12-707
C2.F1.20.0012	2-R-CF-1560	CF	03/16/12	CLR	N	N	N	VT-12-719
C2.F1.20.0060	2-R-NS-1140	NS	03/14/12	CLR	N	N	N	VT-12-702
C2.F1.20.0061	2-R-NS-1141	NS	03/14/12	CLR	N	N	N	VT-12-701
C2.F1.20.0062	2-R-NS-1118	NS	03/10/12	CLR	N	N	N	VT-12-705
C2.F1.20.0063	2-R-NS-1119	NS	03/10/12	CLR	N	N	N	VT-12-704

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Summary No	Component ID	System	Insp Date	Insp Status	Insp Limited	Geo Ref	RFR	Comment
C2.F1.21.0009	2-R-ND-0379	ND	03/14/12	CLR	N	N	N	VT-12-709
C2.F1.21.0010	2-R-ND-0380	ND	03/14/12	CLR	N	N	N	VT-12-703
C2.F1.21.0069	2-R-NV-0029	NV	03/10/12	CLR	N	N	N	VT-12-715
C2.F1.21.0070	2-R-NV-0030	NV	03/10/12	CLR	N	N	N	VT-12-714
C2.F1.21.0071	2-R-NV-0297	NV	03/10/12	CLR	N	N	N	VT-12-713
C2.F1.22.0018	2-R-NI-0155	NI	03/11/12	CLR	N	N	N	VT-12-710
C2.F1.22.0019	2-R-NI-0152	NI	03/11/12	CLR	N	N	N	VT-12-706
C2.F1.30.0021	2-R-KC-0274	KC	03/10/12	REC	N	N	N	VT-12-726 Condition found acceptable based on Evaluation Report No. EV-12-099 by M.D.Shutt.
C2.F1.30.0022	2-R-KC-0005	KC	03/10/12	CLR	N	N	N	VT-12-708
C2.F1.30.0051	2-R-VN-0060	VN	03/07/12	CLR	N	N	N	VT-12-685
C2.F1.30.0055	2-R-YC-0001	YC	03/16/12	REC	N	N	N	VT-12-721 Condition found acceptable based on Evaluation Report No. EV-12-095 by M.D.Shutt.
C2.F1.30.0056	2-R-YC-0018	YC	03/16/12	CLR	N	N	N	VT-12-712
C2.F1.31.0020	2-R-KC-0586	KC	03/10/12	CLR	N	N	N	VT-12-711

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<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.F1.31.0021	2-R-KC-0587	KC	03/10/12	REC	N	N	N	VT-12-722 Condition found acceptable based on Evaluation Report No. EV-12-096 by M.D.Shutt.
C2.F1.31.0027	2-R-RN-0172	RN	03/16/12	REC	N	N	N	VT-12-725 Condition found acceptable based on Evaluation Report No. EV-12-098 by M.D.Shutt.
C2.F1.31.0033	2-R-YC-0004	YC	03/16/12	CLR	N	N	N	VT-12-717
C2.F1.32.0002	2-R-FD-0001	FD	03/07/12	CLR	N	N	N	VT-12-716
C2.F1.32.0014	2-R-RN-0187	RN	03/16/12	CLR	N	N	N	VT-12-718
C2.F1.32.0023	2-R-YC-0002	YC	03/16/12	REC	N	N	N	VT-12-724 Condition found acceptable based on Evaluation Report No. EV-12-097 by M.D.Shutt.
C2.F1.40.0003	2SGA-COLUMNS	NC	03/17/12	CLR	N	N	N	VT-12-696
C2.F1.40.0010	2SGC-LATERALS	NC	03/17/12	CLR	N	N	N	VT-12-695
C2.F1.40.0015	2SWIFA-SUPPORT	NI	03/07/12	CLR	N	N	N	VT-12-694
C2.F1.40.0022	2NIPA-SUPPORT	NI	03/16/12	CLR	N	N	N	VT-12-689
C2.F1.40.0023	2NSPA-SUPPORT	NS	03/16/12	CLR	N	N	N	VT-12-690
C2.F1.40.0032	2TDCAP2-SUPPORT	CA	03/20/12	CLR	N	N	N	VT-12-720

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C2.G10.2.0003	2ARN10-SUPPLYPIPING	RN	08/02/11	CLR	N	N	N	UT-12-618
		RN	08/02/11	CLR	N	N	N	UT-12-620
C2.G10.2.0004	2BRN10-SUPPLYPIPING	RN	08/02/11	CLR	N	N	N	UT-12-619
		RN	08/02/11	CLR	N	N	N	UT-12-621
C2.G12.1.0001	2NC51-12	NC	03/14/12	CLR	N	N	N	UT-12-556 (Page 1)
		NC	03/14/12	CLR	N	N	N	UT-12-556 (Page 2)
C2.G12.1.0002	2NC52-3	NC	03/14/12	CLR	N	N	N	UT-12-568 (Page 1)
		NC	03/14/12	CLR	N	N	N	UT-12-568 (Page 2)
C2.G12.1.0003	2NC140-5	NC	03/15/12	CLR	N	N	N	UT-12-630
C2.G3.1.0001	2NC141-07	NC	03/16/12	CLR	N	N	N	UT-12-576 (Page 1)
		NC	03/16/12	CLR	N	N	N	UT-12-576 (Page 2)
C2.G3.1.0002	2NC141-BEND-AA	NC	03/16/12	CLR	N	N	N	UT-12-577 (Page 1)
		NC	03/16/12	CLR	N	N	N	UT-12-577 (Page 2)
C2.G3.1.0003	2NC141-06	NC	03/16/12	CLR	N	N	N	UT-12-580 (Page 1)
		NC	03/16/12	CLR	N	N	N	UT-12-580 (Page 2)
C2.G3.1.0004	2NC141-05	NC	03/16/12	CLR	N	N	N	UT-12-581 (Page 1)

<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.G3.1.0004	2NC141-05	NC	03/16/12	CLR	N	N	N	UT-12-581 (Page 2)
C2.G3.1.0005	2NC145-06	NC	03/19/12	CLR	N	N	N	UT-12-598 (Page 1)
		NC	03/19/12	CLR	N	N	N	UT-12-598 (Page 2)
C2.G3.1.0006	2NC145-BEND-BB	NC	03/19/12	CLR	N	N	N	UT-12-599 (Page 1)
		NC	03/19/12	CLR	N	N	N	UT-12-599 (Page 2)
C2.G3.1.0007	2NC145-05	NC	03/19/12	CLR	N	N	N	UT-12-600 (Page 1)
		NC	03/19/12	CLR	N	N	N	UT-12-600 (Page 2)
C2.G3.1.0008	2NC145-BEND-CC	NC	03/19/12	CLR	N	N	N	UT-12-601 (Page 1)
		NC	03/19/12	CLR	N	N	N	UT-12-601 (Page 2)
C2.G3.1.0009	2NC146-06	NC	03/19/12	CLR	N	N	N	UT-12-602 (Page 1)
		NC	03/19/12	CLR	N	N	N	UT-12-602 (Page 2)
C2.G3.1.0010	2NC146-BEND-AA	NC	03/19/12	CLR	N	N	N	UT-12-603 (Page 1)
		NC	03/19/12	CLR	N	N	N	UT-12-603 (Page 2)
C2.G3.1.0011	2NC146-05	NC	03/19/12	CLR	N	N	N	UT-12-604 (Page 1)
		NC	03/19/12	CLR	N	N	N	UT-12-604 (Page 2)
C2.G3.1.0012	2NC146-BEND-BB	NC	03/19/12	CLR	N	N	N	UT-12-605 (Page 1)

<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.G3.1.0012	2NC146-BEND-BB	NC	03/19/12	CLR	N	N	N	UT-12-605 (Page 2)
C2.G3.1.0013	2NC140-05	NC	03/15/12	CLR	N	N	N	UT-12-569 (Page 1)
		NC	03/15/12	CLR	N	N	N	UT-12-569 (Page 2)
C2.G3.1.0014	2NC140-BEND-CC	NC	03/15/12	CLR	N	N	N	UT-12-570 (Page 1)
		NC	03/15/12	CLR	N	N	N	UT-12-570 (Page 2)
C2.G3.1.0015	2NC140-BEND-BB	NC	03/15/12	CLR	N	N	N	UT-12-571 (Page 1)
		NC	03/15/12	CLR	N	N	N	UT-12-571 (Page 2)
C2.G3.1.0016	2NC140-04	NC	03/15/12	CLR	N	N	N	UT-12-572 (Page 1)
		NC	03/15/12	CLR	N	N	N	UT-12-572 (Page 2)
C2.G6.2.0001	2PZR-MANWAY	NC	03/14/12	CLR	N	N	N	VT-12-687
C2.G8.5.0001	2RPV-VENT-NOZZLE	NC	03/24/12	CLR	N	N	N	VT-12-699
C2.G8.6.0001	2RPV-W79-101SE	NC	03/24/12	CLR	Y	N	N	UT-12-622 (Page 1)
		NC	03/24/12	CLR	Y	N	N	UT-12-622 (Page 2)
		NC	03/24/12	CLR	Y	N	N	UT-12-622 (Page 3)
								Augmented Examination. No code percentage of coverage is required, therefore no relief request is required.
C2.G8.6.0002	2RPV-W80-101SE	NC	03/24/12	CLR	Y	N	N	UT-12-623 (Page 1)

INSPECTION RESULTS FOR 2EOC18

Summary No	Component ID	System	Insp Date	Insp Status	Insp Limited	Geo Ref	RFR	Comment
C2.G8.6.0002	2RPV-W80-101SE	NC	03/24/12	CLR	Y	N	N	UT-12-623 (Page 2)
		NC	03/24/12	CLR	Y	N	N	UT-12-623 (Page 3)
								Augmented Examination. No code percentage of coverage is required, therefore no relief request is required.
C2.G8.6.0003	2RPV-W81-101SE	NC	03/24/12	CLR	Y	N	N	UT-12-624 (Page 1)
		NC	03/24/12	CLR	Y	N	N	UT-12-624 (Page 2)
		NC	03/24/12	CLR	Y	N	N	UT-12-624 (Page 3)
								Augmented Examination. No code percentage of coverage is required, therefore no relief request is required.
C2.G8.6.0004	2RPV-W82-101SE	NC	03/24/12	CLR	Y	N	N	UT-12-625 (Page 1)
		NC	03/24/12	CLR	Y	N	N	UT-12-625 (Page 2)
		NC	03/24/12	CLR	Y	N	N	UT-12-625 (Page 3)
								Augmented Examination. No code percentage of coverage is required, therefore no relief request is required.
C2.G8.6.0005	2RPV-W79-101	NC	03/24/12	CLR	N	N	N	UT-12-626 (Page 1)
		NC	03/24/12	CLR	N	N	N	UT-12-626 (Page 2)
		NC	03/24/12	CLR	N	N	N	UT-12-626 (Page 3)
C2.G8.6.0006	2RPV-W80-101	NC	03/24/12	CLR	N	N	N	UT-12-627 (Page 1)
		NC	03/24/12	CLR	N	N	N	UT-12-627 (Page 2)
		NC	03/24/12	CLR	N	N	N	UT-12-627 (Page 3)

INSPECTION RESI FOR 2EOC18

<i>Summary No</i>	<i>Component ID</i>	<i>System</i>	<i>Insp Date</i>	<i>Insp Status</i>	<i>Insp Limited</i>	<i>Geo Ref</i>	<i>RFR</i>	<i>Comment</i>
C2.G8.6.0007	2RPV-W81-101	NC	03/24/12	CLR	N	N	N	UT-12-628 (Page 1)
		NC	03/24/12	CLR	N	N	N	UT-12-628 (Page 2)
		NC	03/24/12	CLR	N	N	N	UT-12-628 (Page 3)
C2.G8.6.0008	2RPV-W82-101	NC	03/24/12	CLR	N	N	N	UT-12-629 (Page 1)
		NC	03/24/12	CLR	N	N	N	UT-12-629 (Page 2)
		NC	03/24/12	CLR	N	N	N	UT-12-629 (Page 3)
C2.H3.1.0007	2ND16-7	ND	03/19/12	CLR	N	N	N	UT-12-596
C2.H3.1.0008	2ND19-1	ND	03/02/12	CLR	N	N	N	UT-12-534
C2.H3.1.0009	2ND40-5	ND	03/02/12	CLR	N	N	N	UT-12-535
C2.H3.1.0010	2ND40-6	ND	03/02/12	CLR	N	N	N	UT-12-536

5.0 Owner's Report for Repair / Replacement Activities

As required by the applicable code, records of Class 1 and Class 2 Repair and Replacement work are included in the NIS-2 forms in this section.

The NIS-2 forms included in this section were completed for work performed during this report period.

No items were determined to have work performed outside this report period.

The individual work request documents and manufacturers' data reports are on file at Catawba Nuclear Station.

5.1 Class 1 and 2 Preservice Examinations

As required by the applicable code, Preservice Inspection (PSI) Examinations were performed on ISI Class 1 and 2 Items during this report period.

Section XI Repair/Replacement Activities For 2EOC18

Work Order	Code Class	Sys	MOD No.	Description of Work	Repair, Replacement	Flaw Indication Maint/ ISI (*Yes No)	Owner Final	ANII Final
1987162-03	A	NC	NA	Valve 2NC-002	Replacement	No	5/8/2012	5/8/2012
1987163-03	A	NC	NA	Valve 2NC-003	Replacement	No	5/8/2012	5/9/2012
1987164-02	A	NC	NA	Valve 2NC-001	Replacement	No	5/14/2012	5/14/2012
1987428-05	A	NC	NA	SG"D" Manway Cover Bolting	Replacement	No	6/11/2012	6/11/2012
1987430-05	A	NC	NA	SG"B" Manway Cover Bolting	Replacement	No	6/11/2012	6/11/2012
2034314-01	A	NC	NA	2-R-NC-1524	Replacement	No	5/14/2012	5/14/2012
1950430-01	B	YM	NA	2YM-119 Valve Disc	Replacement	No	5/10/2012	5/14/2012
1955115-06	B	NI	EC101315	NI Piping	Replacement	No	4/17/2012	5/3/2012
1958587-07	B	NV	EC101318	NV Piping System	Replacement	No	4/30/2012	5/8/2012
1965570-01	B	ND	NA	2-R-ND-370	Replacement	No	2/2/2011	2/3/2011
1966379-04	B	KC	NA	Valve 2KC-72	Replacement	No	4/30/2012	5/3/2012
1966381-04	B	KC	NA	Valve 2KC-66	Replacement	No	4/30/2012	5/7/2012
1966383-04	B	KC	NA	Valve 2KC-480	Replacement	No	4/30/2012	5/7/2012
1966384-04	B	KC	EC104619	Valve 2KC-479	Replacement	No	5/15/2012	5/23/2012
1966562-07	B	NV	NA	Valve 2NV-181A	Replacement	No	5/15/2012	5/16/2012
1967161-01	B	CF	NA	2CAFE5100 Bolting	Replacement	No	4/18/2012	4/25/2012
1967563-09	B	SV	NA	2SV-13 Plug Assembly	Replacement	No	2/21/2011	2/24/2011
1986427-01	B	CF	NA	2CF168 Valve Disc	Replacement	No	4/18/2012	5/1/2012
1986431-01	B	CF	NA	2CF169 Valve Disc	Replacement	No	4/18/2012	4/25/2012
1986433-01	B	CF	NA	2CF166 Valve Disc	Replacement	No	4/18/2012	4/25/2012
1986679-01	B	CF	NA	2CF167 Valve Disc	Replacement	No	4/18/2012	4/25/2012
1986715-11	B	SV	NA	2SV013 Bonnet/Plug Ass.	Replacement	No	5/10/2012	5/16/2012
1986715-13	B	SV	NA	2-R-SV-1580 Pipe Clamp	Replacement	No	4/18/2012	4/25/2012
1986715-28	B	SV	NA	2SVFE5210 Bolting	Replacement	No	5/7/2012	5/8/2012
1986715-34	B	SV	NA	2SV-013 Helicoil	Repair	No	6/11/2012	6/12/2012
1986788-03	B	RN	NA	Valve 2RN438	Replacement	No	4/18/2012	4/26/2012
1986789-01	B	VI	NA	2VI-79 Bonnet Bolt	Replacement	No	4/18/2012	4/25/2012
1986792-01	B	VY	NA	2VY-16 Bolting	Replacement	No	4/11/2012	4/11/2012
1986796-01	B	NV	NA	CCP Oil Cooler Bolting	Replacement	No	5/22/2012	5/22/2012
1995978-09	B	SM	NA	SG"B" Hand Hole Cover Bolting	Replacement	No	6/4/2012	6/4/2012
2009251-04	B	NV	NA	Valve 2NV-205	Replacement	No	5/7/2012	5/7/2012
2032589-01	B	CF	NA	2-R-CF-1523	Replacement	No	4/12/2012	4/23/2012
2032816-01	B	SM	NA	2-R-SM-1542	Replacement	No	4/12/2012	5/1/2012
2036698-01	B	NV	NA	2-R-NV-1622 Bolting	Replacement	No	6/4/2012	6/4/2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/8/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1987162-03
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System NC- Reactor Coolant System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve	Dresser	BS-02867	NA	2NC-002	1979	<u>Removed</u>	<u>Yes</u>
Valve	Dresser	BS-02872	NA	2NC-002	1976	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 2235 PSI Test Temp. 653

9. Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 6" in. (nominal)System Class: ASME Class 1Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned *Paul L. Smith Tech Spec. II* Date 5/8, 20 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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period4-11-12 to 5-8-12, 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.

Kenneth A. Smith
Inspector's SignatureCommissions NB 12410 SC 233 INA
National Board, State, Province, and EndorsementsDate 5-8, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/8/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1987163-03
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System NC- Reactor Coolant System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve	Dresser	BS-02869	NA	2NC-003	1980	<u>Removed</u>	<u>Yes</u>
Valve	Dresser	DA-20661	NA	2NC-003	2009	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 2235 PSI Test Temp. 653
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 6" in. (nominal)System Class: ASME Class 1Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Paul D. Smith Tech Spec. II Date 5/8, 20 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

4-11-12 to 5-9-12, 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.

Kenneth D. Smith
Inspector's SignatureCommissions NB 12410 SC 277 IKA
National Board, State, Province, and EndorsementsDate 5-9, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/14/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1987164-02
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System NC- Reactor Coolant System
5. (a) Applicable Construction Code Section III 1974 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve	Dresser	BS-02865	NA	2NC-001	1979	<u>Removed</u>	<u>Yes</u>
Valve	Dresser	BS-02871	NA	2NC-001	1980	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 2235 PSI Test Temp. 653

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: NA in. (nominal)

System Class: ASME Class 1

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed *Paula L. Silva Tech Spec. II* Date 5/14, 20 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

4-11-12 to 5-14-12, 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.

Kenneth A. DeWitt
Inspector's Signature

Commissions NB 12 410 SC 233 JHn
National Board, State, Province, and Endorsements

Date 5-14, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 6/11/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1987428-05
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System NC Reactor Coolant System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bolting	NA	NA	NA	SG "D" Manway Cover	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: NA in. (nominal)System Class: ASME Class 1Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Paul L. Smith Tech Spec. II Date 6/11, 20 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

4-2-12 to 6-11-12, 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.

Kenneth R. Douthett
Inspector's SignatureCommissions NB 12410 SC 233 I N A
National Board, State, Province, and EndorsementsDate 6-11, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 6/11/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1987430-05
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System NC Reactor Coolant System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bolting	NA	NA	NA	SG "B" Manway Cover	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: NA in. (nominal)System Class: ASME Class 1Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NA

Signed

Paul D. Smith Tech Spec. II
Owner or Owner's Designee, TitleDate 6/11, 20 12**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 Carolinaand employed by HSBCT

of

Hartford Conn.

have inspected the components described in this Owner's Report during the period

4-2-12to 6-11-12

, 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.

Kenneth J. Smith
Inspector's SignatureCommissions NB 12410 SC 237
National Board, State, Province, and EndorsementsDate 6-11, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/14/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 2034314-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System NC- Reactor Coolant System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Snubber	PSA	28160	NA	2-R-NC-1524	1983	<u>Removed</u>	<u>Yes</u>
Snubber	Lisega	3110525/001	NA	2-R-NC-1524	NA	<u>Installed</u>	<u>Yes</u>
Snubber	PSA	9940	NA	2-R-NC-1524	1979	<u>Removed</u>	<u>Yes</u>
Snubber	Lisega	3110525/002	NA	2-R-NC-1524	NA	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: NA in. (nominal)

System Class: ASME Class 1

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): Na

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Paul L. Smith Tech Spec. II
Owner or Owner's Designee, Title

Date 5/14, 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

South Carolina and employed by HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

3-29-12 to 5-14-12, 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.

Kenneth A. Smith
Inspector's Signature

Commissions NB 12410 SC233 TNA
National Board, State, Province, and Endorsements

Date 5-14, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/10/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1950430-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System YM Makeup Demineralized Water System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve Disc	Kerotest	NA	NA	2YM-119	NA	<u>Removed</u>	<u>Yes</u>
Valve Disc	Kerotest	72522287	NA	2YM-119	NA	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 2" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NA

Signed

Paul L. Smith Tech Spec. II
Owner or Owner's Designee, TitleDate 5/10, 20 12**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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

3-22-12 to 5-24-12, 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.

Kenneth A. Burt
Inspector's SignatureCommissions NB 12410 SC 237 ENA
National Board, State, Province, and EndorsementsDate 5-14, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/17/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1955115-06
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System NI- Safety Injection System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Pipe/Fittings	Duke Energy	C-2NI	172	NI System Piping	1983	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 22 PSI Test Temp. 78
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 1.5" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): CN 2NI-0032Flow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: EC101315

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NA

Signed

Paul L. St. Tech Spec. II
Owner or Owner's Designee, TitleDate 4/17, 20 12**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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

12-1-11 to 5-3-12, 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.

Kenneth D. Dant
Inspector's SignatureCommissions NB 12410 SC 233 INN
National Board, State, Province, and EndorsementsDate 5-3, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/30/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1958587-07
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System NV- Chemical & Volume Control System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Pipe/Fittings	Duke Energy	C-2NV	170	NV Piping System	1985	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 24.2 PSI Test Temp. 94

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 1.5" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): CN2NV-018Flow Diagram No(s): CN 2554-1.1Support/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: EC 101318

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Paul J. Smith Tech Spec II Date 4/30, 20 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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period1-11-12 to 5-8-12, 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.

Herbert A. Bontat
Inspector's SignatureCommissions NB 12412 SC 2331NA
National Board, State, Province, and EndorsementsDate 5-8, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 2/2/2011
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1965570-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System ND- Residual Heat Removal System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Snubber	PSA	9790	NA	2-R-ND-370	1980	<u>Removed</u>	<u>Yes</u>
Snubber	Lisega	30700492/010	NA	2-R-ND-370	NA	<u>Installed</u>	<u>Yes</u>
Bolting	NA	NA	NA	2-R-ND-370	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: NA in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed *Publ 2 SSTA Tech Spec. II* Date 2/2, 20 11
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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period

1-17-11 to 2-3-11, 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.

Kenneth Aden
Inspector's Signature

Commissions NB 12410 I NA SC 33
National Board, State, Province, and Endorsements

Date 2-3, 20 11

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/30/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1966379-04
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System KC- Component Cooling System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Pipe/Fittings	Duke Energy	C-2KC	166	KC Piping System	1985	<u>Installed</u>	<u>Yes</u>
Valve	Kerotest	UD8-2	19491	2KC-72	1977	<u>Removed</u>	<u>Yes</u>
Valve	Flowserve	20BPB	2482	2KC-72	2009	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 100 PSI Test Temp. 83.8

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 2" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): CN-2KC-561

Flow Diagram No(s): CN 2573-1.7

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: EC 104619

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed *Paul A. STA Tech Spec. II* Date 4/30, 20 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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period

9-6-11 to 5-3-12, 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.

Kenneth P. Smith
Inspector's Signature

Commissions NB 12412 SC 233 IMA
National Board, State, Province, and Endorsements

Date 5-3, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/30/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1966381-04
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System KC- Component Cooling System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Pipe/Fittings	Duke Energy	C-2KC	166	KC Piping System	1985	<u>Installed</u>	<u>Yes</u>
Valve	Kerotest	TZ3-2	13173	2KC-66	1977	<u>Removed</u>	<u>Yes</u>
Valve	Flowserve	19BPB	2481	2KC-66	2009	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 100 PSI Test Temp. 82.8

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 2" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): CN-2KC-357Flow Diagram No(s): CN 2573-1.7Support/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: EC 104619

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Paul D. Smith Tech Spec. II Date 3/30, 20 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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period9-6-11 to 5-7-12, 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.

Kenneth A. Smith
Inspector's SignatureCommissions NB 12410 SC 233 E NA
National Board, State, Province, and EndorsementsDate 5-7, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/30/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1966383-04
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System KC- Component Cooling System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Pipe/Fittings	Duke Energy	C-2KC	166 ^	KC Piping System	1985	<u>Installed</u>	<u>Yes</u>
Valve	Kerotest	WL5-24	19778	2KC-480	1977	<u>Removed</u>	<u>Yes</u>
Valve	Flowserve	28BKS	2146	2KC-480	2008	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 100 PSI Test Temp. 81.8

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 2" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): cn-2KC-411Flow Diagram No(s): CN 2573-1.0Support/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: EC 104619

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NA

Signed

Balth L SSB Tech Spec. II
Owner or Owner's Designee, TitleDate 4/30, 20 12**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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

10-18-11 to 5-7-12, 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.

HB Kenneth A. Daulton
Inspector's SignatureCommissions NB 12410 SC 233 I NA
National Board, State, Province, and EndorsementsDate 5-7, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/15/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1966384-04
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System KC- Component Cooling System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve	Kerotest	TZ1-22	12065	2KC-479	1976	<u>Removed</u>	<u>Yes</u>
Valve	Kerotest	27BK5	2145	2KC-479	2008	<u>Installed</u>	<u>Yes</u>
Pipe/Fittings	Duke Energy	C-2KC	166	KC Piping System	1985	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 100 PSI Test Temp. 83.8

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 2" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): CN 2KC-483

Flow Diagram No(s): CN 2573-1.4

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: EC 104619

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Paul L. St. Tech Spec. II
Owner or Owner's Designee, Title

Date 5/15, 20 12

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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

10-18-11 to 5-23-12, 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.

Kenneth W. D. III
Inspector's Signature

Commissions NB 12410 5233 IN 11
National Board, State, Province, and Endorsements

Date 5-23, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/15/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1966562-07
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System NV- Chemical & Volume Control System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve Bonnet	Kerotest	DAP-7-4	32104	2NV-181A	1981	<u>Removed</u>	<u>Yes</u>
Valve Bonnet	Kerotest	FAL 4-2	35921	2NV-181A	1983	<u>Installed</u>	<u>Yes</u>
Valve Disc	Kerotest	32043-3-12	NA	2NV-181A	NA	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 37.4 PSI Test Temp. 94
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 2" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed *Paul A. Smith Tech Spec. II*
Owner or Owner's Designee, Title

Date 5/15, 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

South Carolina and employed by HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

4-11-12 to 5-16-12, 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.

Kenneth A. Smith
Inspector's Signature

Commissions NB12410 SC233INA
National Board, State, Province, and Endorsements

Date 5-16, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/18/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1967161-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System CA- Auxiliary Feedwater System
5. (a) Applicable Construction Code Section III 1974 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bolting	NA	NA	NA	2CAFE5100	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 6" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Paul D. STA Tech Spec II
Owner or Owner's Designee, Title

Date 4/18, 20 12

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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period
3-27-12 to 4-25-12, 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.

Kenneth W. Smith
Inspector's Signature

Commissions NB12410 SC237 INA
National Board, State, Province, and Endorsements

Date 4-25, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 2/21/2011
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address

2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd, York, S.C. 29745 Work Order 1967563-09
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)

3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA

4. Identification of System SV- Main Steam Vent To Atmosphere

5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case

(b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda

(c) Applicable Section XI Code Case(s) _____

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 or No)
Plug Assembly	Control Comp	7	NA	2SV-13	NA	<u>Removed</u>	<u>No</u>
Plug Assembly	Control Comp	602445-1	NA	2SV-13	NA	<u>Installed</u>	<u>No</u>
Bolting	NA	NA	NA	2SV-13	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 1Component Line Size: 6" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Paul A. Smith Tech Spec II Date 2/21, 20 11

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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period1-30-2011 to 2-24-2011, 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.

Kenneth A. Smith
Inspector's SignatureCommissions NB 12410 SC 233 I/N/A
National Board, State, Province, and EndorsementsDate 2-24, 20 11

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/18/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986427-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System CF- Feedwater System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve Disc	Atwood/Morrill	NA	NA	Valve 2CF-168	NA	<u>Removed</u>	<u>Yes</u>
Valve Disc	Atwood/Morrill	AA578	NA	Valve 2CF-168	NA	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 6" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Burt L Smith Tech Spec. II
Owner or Owner's Designee, Title

Date 4/18, 20 12

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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period

5-1-12 to 5-1-12, 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.

Kenneth A. Butler
Inspector's Signature

Commissions NB 12410 SC 233 ENN
National Board, State, Province, and Endorsements

Date 5-1, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/18/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986431-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System CF- Feedwater System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve Disc	Atwood/Morrill	Y23	NA	Valve 2CF-169	2006	<u>Removed</u>	<u>Yes</u>
Valve Disc	Atwood/Morrill	AA577	NA	Valve 2CF-169	2009	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 6" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Paul D. Sk Tech Spec. II
Owner or Owner's Designee, Title

Date 4/18, 20 12

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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period

3-20-12 to 4-25-12, 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.

Kenneth W. Smith
Inspector's Signature

Commissions NB12410
National Board, State, Province, and Endorsements

SC233INA

Date 4-25, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/18/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986433-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System CF- Feedwater System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve Disc	Atwood/Morrill	NA	NA	Valve 2CF-166	NA	<u>Removed</u>	<u>Yes</u>
Valve Disc	Atwood/Morrill	AD-2	NA	Valve 2CF-166	NA	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 6" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Paul L Smith Tech Spec II
Owner or Owner's Designee, Title

Date 4/18, 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

South Carolina and employed by HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period

3-20-12 to 4-25-12, 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.

Kenneth A. Douthett
Inspector's Signature

Commissions SC 233 INA
National Board, State, Province, and Endorsements

Date 4-25, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/18/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986679-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System CF- Feedwater System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve Disc	Atwood/Morrill	NA	NA	Valve 2CF-167	NA	<u>Removed</u>	<u>Yes</u>
Valve Disc	Atwood/Morrill	AD-3	NA	Valve 2CF-167	NA	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 6" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NA

Signed

Paul L. Smith Tech Spec. II
Owner or Owner's Designee, TitleDate 4/18, 20 12**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 HSBCT ofHartford Conn. have inspected the components described in this Owner's Report during the period3-21-12 to 4-25-12, 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.

Kenneth Routh

Inspector's Signature

Commissions NB 12410 SC 233 I NA

National Board, State, Province, and Endorsements

Date 4-25, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/10/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986715-11
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System SV- Main Steam Vent to Atmosphere
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bonnet	CCI	7	NA	2SV-013	NA	<u>Removed</u>	<u>Yes</u>
Bonnet	CCI	6	NA	2SV-013	NA	<u>Installed</u>	<u>Yes</u>
Plug Assembly	CCI	1	NA	2SV-013	2008	<u>Removed</u>	<u>Yes</u>
Plug Assembly	CCI	601085-2	NA	2SV-013	2007	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 1070 PSI Test Temp. 557.1
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 6" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NA

Signed

Paula L Smith Tech Spec II
Owner or Owner's Designee, TitleDate 5/10, 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

South Carolina and employed by HSBCT of
Hartford Conn.have inspected the components described in this Owner's Report during the period
3-27-12 to 5-16-12, 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.

Kenneth A. Smith
Inspector's SignatureCommissions NB 12410 SC 233 INN
National Board, State, Province, and EndorsementsDate 5-16, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/18/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986715-13
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System SV- Main Steam Vent to Atmosphere
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Pipe Clamp	NA	NA	NA	2-R-SV-1580	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____
- °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: NA in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned *Paul D. Smith Tech Spec. II* Date 4/18, 20 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

4-1-12 to 4-25-12, 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.

Kenneth Douthett
Inspector's SignatureCommissions ND 12410 SC 277 INA
National Board, State, Province, and EndorsementsDate 4-25, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/7/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986715-28
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System SV- Main Steam Vent to Atmosphere
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bolting	NA	NA	NA	2SVFE5210 Orifice Flg.	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: NA in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Paul D. Smith Tech Spec. II
Owner or Owner's Designee, TitleDate 5/7, 20 12**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

Seaboard Carolina and employed by HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

3-28-12 to 5-8-12, 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.

Kenneth A. DeWitt
Inspector's SignatureCommissions NB 12410 5233 INA
National Board, State, Province, and EndorsementsDate 5-8, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 6/11/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986715-34
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System SV- Main Steam Vent to Atmosphere
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Helicoil	NA	NA	NA	Valve 2SV-013	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

9F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: NA in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NA

Signed

Paul L. Smith Tech Spec. II
Owner or Owner's Designee, TitleDate 6/11, 20 12**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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period3-30-12 to 6-12-12, 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.

Kenneth D. Smith
Inspector's SignatureCommissions NR 12410
National Board, State, Province, and EndorsementsSC 233 INADate 6-12, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/18/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986788-03
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System RN- Nuclear Service Water System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve	Anderson/Greenwood	N22722	1593	Valve 2RN438	1985	<u>Removed</u>	<u>Yes</u>
Valve	Anderson/Greenwood	N22724	1595	Valve 2RN438	1985	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 76.4 PSI Test Temp. 68.5 °F
 Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 12" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed *Paul L. Seta Tech Spec. II*
Owner or Owner's Designee, Title

Date 4/18, 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

South Carolina and employed by HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period

3-30-12 to 4-26-12, 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.

Kenneth D. Ditt
Inspector's Signature

Commissions ND12410 SC 233INA
National Board, State, Province, and Endorsements

Date 4-26-12, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/18/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986789-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System VI- Instrument Air Line
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bonnet Bolt	NA	NA	NA	Valve 2VI-79	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: 2" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Paul L. Smith Tech Spec. II Date 4/18, 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

3-29-12 to 4-25-12, 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.

Kenneth A. Smith
Inspector's SignatureCommissions NB 12410 SC 233 TNA
National Board, State, Province, and EndorsementsDate 4-25, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/11/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986792-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System VY- Containment Sample and Purge
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bolting	NA	NA	NA	Valve 2VY-16	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

9. Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

Sheet 2 of 2

9. Remarks (Should Include the Following Information, as Applicable):

Component Line Size: 4" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NA

Signed

Paul L. Smith Tech Spec. II
Owner or Owner's Designee, TitleDate 4/11, 20 12**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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period7-16-12 to 4-11-12, 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.

Kenneth Abent
Inspector's SignatureCommissions NB 12410 SC I NA
National Board, State, Province, and EndorsementsDate 4-11, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/22/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 1986796-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System NV- Chemical & Volume Control System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bolting	NA	NA	NA	CCP "2B" Oil Cooler	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: NA in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): NA

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Paul L. Smith Tech Spec. II
Owner or Owner's Designee, Title

Date 5/22, 20 12

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 HSBCT of
Hartford Conn. have inspected the components described in this Owner's Report during the period

3-20-12 to 5-22-12, 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.

Kenneth Quint
Inspector's Signature

Commissions SC 233 INA NB12910
National Board, State, Province, and Endorsements

Date 5-22, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 6/4/2012
526 South Church Street, Charlotte, NC, 28201
Address Sheet 1 of 2

2. Plant Catawba Nuclear Station Unit 2
Name
4800 Concord Rd. York, S.C. 29745
Address Work Order 1995978-09
Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)

3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
Name
526 South Church Street, Charlotte, NC 28201-1006
Address Authorization No.: NA
Expiration Date: NA

4. Identification of System SM Main Steam System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
(b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
(c) Applicable Section XI Code Case(s) _____

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 or No)
Bolting	NA	NA	NA	SG "B" Hand Hole Cover	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: NA in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Robert L. Smith Tech Spec. II
Owner or Owner's Designee, TitleDate 6/4, 20 12**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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

3-29-12 to 6-4-12, 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.

Kenneth A. Smith
Inspector's SignatureCommissions NB 12410 SC 233 INA
National Board, State, Province, and EndorsementsDate 6-4, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 5/7/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 2009251-04
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name
526 South Church Street, Charlotte, NC 28201-1006 Authorization No.: NA
 Address Expiration Date: NA
4. Identification of System NV- Chemical & Volume Control System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Valve	Dresser	TJ99387	1963	2NV-205	1994	<u>Removed</u>	<u>Yes</u>
Valve	Dresser	TG80195	1899	2NV-205	1986	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☒ Exempt ☐ Other ☐ Pressure 37.4 PSI Test Temp. 94
 °F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

Sheet 2 of 2

9. Remarks (Should Include the Following Information, as Applicable):

Component Line Size: 6" in. (nominal)System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): NAOther Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned Paul L. Smith Tech. Spec. II Date 5/7, 20 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

4-11-12 to 5-7-12, 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.

Harmon R. DeWitt
Inspector's SignatureCommissions NB 12410 SC 2337 NA
National Board, State, Province, and EndorsementsDate 5-7, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/12/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 2032589-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System CF- Feedwater System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Snubber	PSA	12073	NA	2-R-CF-1523	1981	<u>Removed</u>	<u>Yes</u>
Snubber	Lisega	30700524/006	NA	2-R-CF-1523	NA	<u>Installed</u>	<u>Yes</u>
Snubber	PSA	41276	NA	2-R-CF-1523	2000	<u>Removed</u>	<u>Yes</u>
Snubber	Lisega	30700524/013	NA	2-R-CF-1523	NA	<u>Installed</u>	<u>Yes</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 18" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): 2-R-CF-1523

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Paul L. Seta Tech Spec II Date 4/12, 20 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

3-23-12 to 4-23-12, 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.

Kevin M. Patten
Inspector's Signature

Commissions NB 12410 SC 233 TWA
National Board, State, Province, and Endorsements

Date 4-23, 20 12

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 4/12/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 2032816-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System SM- Main Steam System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Snubber	PSA	11928	NA	2-R-SM-1542	1981	<u>Removed</u>	<u>Yes</u>
Snubber	Lisega	30700524/007	NA	2-R-SM-1542	NA	<u>Installed</u>	<u>Yes</u>
Bolting	NA	NA	NA	2-R-SM-1542	NA	<u>Installed</u>	<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____ °F
 Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2

Component Line Size: 34" in. (nominal)

System Class: ASME Class 2

Weld Isometric Drawing No(s): NA

Flow Diagram No(s): NA

Support/Restraint Sketch/Drawing No(s): 2-R-SM-1542

Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Paul D. Smith Tech Spec II Date 4/12, 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

3-23-12 to 5-1-12, 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.

Kenneth Dentist
Inspector's Signature

Commissions NB 12410 SC 237 INA
National Board, State, Province, and Endorsements

Date 5-1, 2012

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

1. Owner Duke Energy Carolinas, LLC Date 6/4/2012
526 South Church Street, Charlotte, NC, 28201 Sheet 1 of 2
 Address
2. Plant Catawba Nuclear Station Unit 2
 Name
4800 Concord Rd. York, S.C. 29745 Work Order 2036698-01
 Address Work Order # (or Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by Duke Energy Carolinas, LLC Type Code Symbol Stamp: NA
 Name Authorization No.: NA
526 South Church Street, Charlotte, NC 28201-1006 Expiration Date: NA
 Address
4. Identification of System NV- Chemical & Volume Control System
5. (a) Applicable Construction Code Section III 19 74 Edition, S'75 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI used for Repair/Replacement Activity 1998 Edition with the 1999 and 2000 Addenda
 (c) Applicable Section XI Code Case(s) _____

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 or No)
Bolting	NA	NA	NA	2-R-NV-1622	NA		<u>No</u>

7. Description of Work Replaced Component/Part/Appurtenance

Additional Description _____

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operation Pressure ☐ Exempt ☒ Other ☐ Pressure _____ PSI Test Temp. _____

°F Description (Optional): _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

9. Remarks (Should Include the Following Information, as Applicable):

Sheet 2 of 2Component Line Size: NA in. (nominal) System Class: ASME Class 2Weld Isometric Drawing No(s): NAFlow Diagram No(s): NASupport/Restraint Sketch/Drawing No(s): 2-R-NV-1622Other Applicable Information (e.g., W.O. No., EC No.) if not included elsewhere on NIS-2 Form: NA

Applicable Manufacturer's Data Reports to be attached

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 NACertificate of Authorization No. NAExpiration Date NASigned [Signature] Tech Spec. II Date 6/4, 20 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 HSBCT of
Hartford Conn.

have inspected the components described in this Owner's Report during the period

4-15-12 to 6-4-12, 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 SignatureCommissions NB 12410 SC 237 INA
National Board, State, Province, and EndorsementsDate 6-4, 20 12

6.0 Pressure Testing

This summary is a pressure test completion status for the second period of the third ten-year interval for Catawba Unit 2. Table 6-1 shows the number of pressure test zones completed from refueling outage EOC17 through refueling outage EOC18. There was no through-wall leakage observed during these pressure tests. During the Class 1 leakage test, inactive boric acid leakage was observed on RCP-2C and RCP-2D seal housing area and associated bolting. These areas were evaluated by Engineering using Code Case N-566-2 and found to be acceptable. The evaluations are documented in PIPs C-12-3673 and C-12-3672.

Table 6-1 Refueling Cycle Specific Summary		
Examination Category	Test Requirement	Total Examinations Credited For This Cycle
B-P	System Leakage Test (IWB-5220)	1
C-H	System Leakage Test (IWC-5220)	1

Table 6-2 shows the number of pressure test zones completed during the second period of the third ten-year interval.

Table 6-2 Period Specific Summary				
Examination Category	Test Requirement	Total Examinations Required For This Period	Total Examinations Credited For This Period	Total Examinations Remaining
B-P	System Leakage Test (IWB-5220)	3	3	0
C-H	System Leakage Test (IWC-5220)	33	33	0

The Class 1 (Category B-P) pressure test zone is required each refueling outage. Table 6-3 shows a completion status of the Class 1 (Category B-P) pressure test zone conducted during refueling cycle EOC18.

Table 6-3 Class 1 EOC18 Completion Status				
Zone Number	Boundary Dwg	EOC18 Completion Status	EOC18 VT-2 Examination Date	Code Case(s) Used
2NC-001L-A	CN-ISIL3-2553-1.0 CN-ISIL3-2553-1.1 CN-ISIL3-2554-1.0 CN-ISIL3-2554-1.5 CN-ISIL3-2562-1.0 CN-ISIL3-2562-1.1 CN-ISIL3-2562-1.2 CN-ISIL3-2562-1.3 CN-ISIL3-2561-1.0 CN-ISIL3-2561-1.1	Complete	04/14/2012	N-533-1 N-566-2

Class 2 (Category C-H) pressure test zones are required once each inspection period. Table 6-4 shows a completion status of Class 2 (Category C-H) pressure test zones required for the second period of the third ten-year interval which ends 10/15/2012.

Table 6-4 Class 2 2nd Period Completion Status					
	Zone Number	Boundary Dwg	Completion Status	VT-2 Examination Date	Code Case(s) Used
1	2BB-001L-B	CN-ISIL3-2565-2.6 CN-ISIL3-2572-1.4 CN-ISIL3-2580-1.0 CN-ISIL3-2584-1.0	Complete	04/17/2009	None
2	2CA-001L-B	CN-ISIL3-2584-1.0 CN-ISIL3-2591-1.1 CN-ISIL3-2592-1.1 CN-ISIL3-2593-1.0 CN-ISIL3-2593-1.1 CN-ISIL3-2593-1.7	Complete	04/17/2009	None
3	2FW-001L-B	CN-ISIL3-2554-1.7 CN-ISIL3-2563-1.0 CN-ISIL3-2571-1.0 CN-ISIL3-2554-1.2 CN-ISIL3-2561-1.0 CN-ISIL3-2562-1.2 CN-ISIL3-2570-1.0	Complete	02/11/2009	None
4	2FW-002L-B	CN-ISIL3-2571-1.0	Complete	02/10/2009	None
5	2NC-001L-A	CN-ISIL3-2553-1.2	Complete	04/17/2009	None

6	2NC-005L-B	CN-ISIL3-2553-1.0	Complete	04/17/2009	None
7	2NC-006L-B	CN-ISIL3-2553-1.1 CN-ISIL3-2572-1.0	Complete	04/17/2009	None
8	2ND-001L-B	CN-ISIL3-2561-1.0 CN-ISIL3-2561-1.1 CN-ISIL3-2562-1.2 CN-ISIL3-2562-1.3 CN-ISIL3-2563-1.0 CN-ISIL3-2571-1.0 CN-ISIL3-2572-1.0	Complete	03/11/2009	N-566-2
9	2ND-002L-B	CN-ISIL3-2561-1.0 CN-ISIL3-2561-1.1 CN-ISIL3-2562-1.3 CN-ISIL3-2562-1.2 CN-ISIL3-2563-1.0 CN-ISIL3-2571-1.0 CN-ISIL3-2572-1.0	Complete	03/10/2009	N-566-2
10	2ND-003L-B	CN-ISIL3-2561-1.0 CN-ISIL3-2554-1.0	Complete	04/14/2009	None
11	2ND-004L-B	CN-ISIL3-2554-1.7 CN-ISIL3-2561-1.0	Complete	04/10/2009	None
12	2NI-001L-B	CN-ISIL3-2562-1.1 CN-ISIL3-2572-1.1	Complete	04/17/2009	None
13	2NI-002L-B	CN-ISIL3-2562-1.1 CN-ISIL3-2562-1.2	Complete	11/16/2010	None
14	2NI-003L-B	CN-ISIL3-2562-1.2 CN-ISIL3-2562-1.3	Complete	05/27/2009	None
15	2NI-004L-B	CN-ISIL3-2562-1.3	Complete	04/10/2009	None
16	2NI-005L-B	CN-ISIL3-2562-1.2	Complete	02/19/2009	None
17	2NI-006L-B	CN-ISIL3-2562-1.2	Complete	10/14/2010	None
18	2NI-007L-B	CN-ISIL3-2562-1.2	Complete	04/10/2009	None
19	2NI-008L-B	CN-ISIL3-2562-1.2	Complete	04/10/2009	None
20	2NI-009L-B	CN-ISIL3-2562-1.2	Complete	04/10/2009	None
21	2NI-010L-B	CN-ISIL3-2562-1.0	Complete	04/09/2009	None
22	2NS-001L-B	CN-ISIL3-2563-1.0	Complete	07/01/2009	None
23	2NS-002L-B	CN-ISIL3-2563-1.0	Complete	07/09/2009	None
24	2NV-001L-B	CN-ISIL3-2554-1.0 CN-ISIL3-2554-1.5 CN-ISIL3-2554-1.8	Complete	04/17/2009	N-566-2
25	2NV-002L-B	CN-ISIL3-2554-1.7	Complete	02/06/2009	None
26	2NV-003L-B	CN-ISIL3-2554-1.7	Complete	09/03/2009	N-533-1 N-566-2
27	2NV-004L-B	CN-ISIL3-2554-1.2	Complete	07/22/2009	None
28	2NV-005L-B	CN-ISIL3-2554-1.2	Complete	08/05/2009	None

29	2NV-006L-B	CN-ISIL3-1554-1.4 CN-ISIL3-1556-1.0 CN-ISIL3-2554-1.0 CN-ISIL3-2554-1.1 CN-ISIL3-2554-1.2 CN-ISIL3-2554-1.5 CN-ISIL3-2554-1.6 CN-ISIL3-2554-1.7 CN-ISIL3-2562-1.0 CN-ISIL3-2562-1.2	Complete	02/06/2009	None
30	2NV-008L-B	CN-ISIL3-2554-1.0 CN-ISIL3-1554-1.2	Complete	04/17/2009	None
31	2NW-001L-B	CN-ISIL3-2569-1.0 CN-ISIL3-2573-1.3 CN-ISIL3-2565-2.6 CN-ISIL3-2565-2.1 CN-ISIL3-2574-2.2 CN-ISIL3-2565-2.4 CN-ISIL3-2565-2.0 CN-ISIL3-2554-1.0 CN-ISIL3-2563-1.0 CN-ISIL3-2562-1.3 CN-ISIL3-2553-1.1 CN-ISIL3-1599-2.1 CN-ISIL3-2574-2.7 CN-ISIL3-2562-1.2	Complete	06/26/2012	None
32	2SA-001L-B	CN-ISIL3-2593-1.1	Complete	05/17/2009	None
33	2SA-001L-C	CN-ISIL3-2593-1.1	Complete	05/17/2009	None

Section 6 Prepared By:	Date:
<i>Jim Beughman</i>	<i>6/28/12</i>
Section 6 Reviewed By:	Date:
<i>R. H. Hudson</i>	<i>7/2/12</i>

Attachment 2

Catawba Unit 2 End of Cycle 18 Steam Generator Inservice Inspection Summary Report

***Steam Generator
In-service Inspection Summary Report***

***Catawba Nuclear Station
Unit 2 EOC18
March 2012***

Location: 4800 Concord Road, York South Carolina 29745

NRC Docket No. 50-414

National Board No. 173

Commercial Service Date: August 19, 1986

Owner: Duke Energy Corporation

526 South Church St.

Charlotte, N.C. 28201-1006

Revision 0

Prepared By: Charles Cauthen *CCauthen* Date: 6-26-2012

Reviewed By: Dan Mayes *DBM Mayes* Date: 6/26/2012

Approved By: Parker Downing *P.W. Downing* Date: 6/26/2012

Distribution

- 1) Catawba Nuclear Station - Master File CN-208.21
- 2) NRC Document Control

FORM NIS-1 OWNER'S DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. Owner: Duke Energy Corporation, 526 S. Church St., Charlotte, NC 28201-1006

(Name and Address of Owner)

2. Plant: Catawba Nuclear Station, 4800 Concord Road, York, S. C. 29745

(Name and Address of Plant)

3. Plant Unit: 2

4. Owner Certificate of Authorization (if required) N/A

5. Commercial Service Date: August 19, 1986

6. National Board Number for Unit 173

7. Components Inspected:

<u>Component</u>	<u>Manufacturer</u>	<u>Manufacturer Serial No.</u>	<u>State or Province No.</u>	<u>National Board No.</u>
Steam Generator 2A	Westinghouse	1923	N/A	4
Steam Generator 2B	Westinghouse	1922	N/A	3
Steam Generator 2C	Westinghouse	1921	N/A	2
Steam Generator 2D	Westinghouse	1924	N/A	5

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (Back)

8. Examination Dates 10/21/10 to 4/17/12
9. Inspection Period Identification: Second
10. Inspection Interval Identification: Third
11. Applicable Edition of Section XI 1998 Addenda 2000
12. Date/Revision of Inspection Plan: February 21, 2007/Per Technical Specification (5.5.9)
13. Abstract of Examinations and Test. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan. Reference attached response to Technical Specification 5.6.8.
14. Abstract of Results of Examination and Tests. Reference attached response to Technical Specification 5.6.8.
15. Abstract of Corrective Measures. Reference attached response to Technical Specification 5.6.8.

We 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) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) NA Expiration Date NA

Date JUNE 28 20 12 Signed Duke Energy Corp. By CP Carthen
Owner

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 of Province of SC employed by *The Hartford Steam Boiler Inspection and Insurance Company of Connecticut have inspected the components described in this Owners' Report during the period 3-10-12 to 6-28-12, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in the Owners' Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, test, and corrective measures described in this Owners' 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

Kenneth Dentist Commissions NB 12410 SC 233 I NA
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-28 20 12

Catawba 2 EOC18 Steam Generator Tube Inspection Report
(reference Catawba technical Specification 5.6.8)

Summary of inspections and inspection results:

a) The scope of inspections performed on each SG

The Baseline inspection scope included full length data acquisition and bobbin coil data analysis on all four (4) steam generators as follows.

- 1) All in-service tubes with the exception of tight radius u-bends in rows 1-5.*

The Special Interest inspection scope included data acquisition and array probe data analysis as follows:

- 1) Special interest based on new bobbin calls*
- 2) 100% of hot leg tubesheet region in all four (4) steam generators from TEH to TSH +3 inches.*
- 3) 100% row 1 u-bends*
- 4) 35% sample of row 2-5 u-bends*
- 5) 20% sample of row 10 u-bends (first non-stress relieved u-bend row)*
- 6) 20% sample of per-heater expansions in all four (4) steam generators*
- 7) Periphery tubes two tubes deep (TSH to 01H, TSC to 19C) in all 4 steam generators (outer perimeter, open lane and T-slot)*
- 8) Periphery tubes at the 18th tube support plate on the cold leg (two rows deep) in all four (4) steam generators*
- 9) New dent indications and existing dent indications not analyzed during EOC17*
- 10) Bounding inspections around all Possible Loose Parts (PLP) indications confirmed with array*
- 11) Bounding inspections around all historical PLP indications that were still present and confirmed with array.*

The Plug inspection scope was as follows:

- 1) Visual inspection of all plugs*

Secondary visual inspection (FOASR)

- 1) Visual inspection and foreign object retrieval was performed in all steam generators pre-heater region.*

b. Active degradation mechanisms found

Degradation found included wear at support structures; wear from foreign objects, and crack-like indications near the tube ends.

c. Non-destructive examination techniques utilized for each degradation mechanism

The bobbin probe was utilized for the detection of wear at support structures and freespan locations and to size some wear at support structures. The array probe was

used for detection of indications within the tubesheet and U-bend regions and to size tube wear at support plate locations and foreign object wear. The rotating coil was used to acquire supplemental information on tube wear due to foreign objects.

- d. Location, orientation (if linear), and measured sizes (if available) of service induced indications.

The complete listing for service induced indications is attached.

- e. Number of tubes plugged during the inspection outage for each active degradation mechanism

Steam Generator 2A and 2B:

No tubes were plugged.

Steam Generator 2C:

One tube was plugged for wear with a possible foreign object present.

One tube was plugged with a possible foreign object present.

Two tubes were preventatively plugged downstream of the possible foreign object noted above.

Steam Generator 2D:

One tube was plugged for wear with a possible foreign object present.

- f. The total number and percentage of tubes plugged to date

<i>Steam Generator¹</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>Total</i>
<i>Prior to EOC18</i>	<i>69</i>	<i>114</i>	<i>57</i>	<i>89</i>	<i>329</i>
<i>EOC18</i>	<i>0</i>	<i>0</i>	<i>4</i>	<i>1</i>	<i>5</i>
<i>Total</i>	<i>69</i>	<i>114</i>	<i>61</i>	<i>90</i>	<i>334</i>
<i>% Plugged</i>	<i>1.51</i>	<i>2.49</i>	<i>1.31</i>	<i>1.97</i>	<i>1.82</i>

1= There are 4578 tubes per steam generator

- g. The results of condition monitoring, including the results of tube pulls and in-situ testing.

Condition monitoring was met for all degradation. All structural performance criteria were met with more than adequate margin projected through the next planned inspection at EOC19.

Plug visual inspections detected no abnormal conditions.

Secondary inspection of the lower pre-heater baffle plate of each steam generator identified foreign objects as has been experienced since EOC13. All foreign objects that were not removed have a technical evaluation demonstrating that tube integrity will be met through the next scheduled inspection of this region at EOC20.

No in-situ tests or tube pulls were performed.

- h. For Unit 2, the primary to secondary LEAKAGE rate observed in each SG (if it is not practical to assign leakage to an individual SG, the entire primary to secondary LEAKAGE should be conservatively assumed to be from one SG) during the cycle preceding the inspection which is the subject of the report.

There was no primary to secondary leakage above detection limits during the preceding Cycle 18 operation.

- i. For Unit 2, the calculated leakage rate from the portion of the tubes below 14.01 inches from the top of the tubesheet for the most limiting accident in the most limiting SG. In addition, if the calculated accident leakage rate from the most limiting accident is less than 3.27 times the maximum primary to secondary LEAKAGE rate, the report shall describe how it was determined.

There was no degradation detected in the portion of the tubes from 14.01 inches below the top of the tubesheet that resulted in calculated leakage.

- j. For Unit 2, the results of monitoring for tube axial displacement (slippage). If slippage is discovered, the implications of the discovery and corrective action shall be provided.

No indications of slippage were detected.

The complete listings of service induced indications are on the following pages. The codes and their descriptions used in the inspection data base are provided here to assist in review of these lists.

<u>Indication Code</u>	<u>Description</u>
ADI	Absolute Drift Indication
ADS	Absolute Drift Signal
ARC	Circumferential Extent Measurement
BLG	Bulge
BOR	Boron
CHT	Chatter
DEP	Deposit
DNT	Dent
DWI	Dent With Indication
EXP	Expansion
FC	Final Calibration
FCL	Final Calibration Late
HLC	History Location Changed
HNC	Has Not Changed
HNI	Has Not Changed Indication
IC	Initial Calibration
ICR	Incomplete Roll
IDI	Inner Diameter Indication
INF	Indication Not Found
INR	Indication Not Reportable
IPE	Incomplete Parse Extent
IRR	Irregular Roll
L3R	Level III Reviewed Indication
LEN	Axial Extent Measurement
LPI	Loose Part With Indication
MAI	Multiple Axial Indication
MCI	Multiple Circumferential Indication
MMI	Mixed-Mode Indication
MSG	Analyst Message
MVI	Multiple Volumetric Indication
NDD	No Degradation Detected
NDF	No Degradation Found
NEX	No Expansion
NFC	No Final Calibration
NQI	Non-Quantifiable Indication
NSR	Needs SGME Review
OBS	Test Obstruction
ODI	Outer Diameter Indication
OVR	Over Roll
EXP	Over Expansion
PAC	Previous Array Call
PBC	Previous Bobbin Call
PCT	Percent Indication
PID	Positive Identification
PLG	Plugged
PLP	Possible Loose Parts
PRC	Previous Rotating Call

PRM	Permeability Variation
PVN	Permeability Variation
R36	Retest - Rotating Coil
R3C	Retest With 3-Coil RPC
RAE	Retest - Array Coil is bad or Missing Extent
RBD	Retest - Bad Data
RCL	Retest For Clarification
RGP	Retest with Ghent Probe
RIC	Test Retest - Incomplete
RMB	Retest with Mag-Bias Probe
RNC	Retest - Tube Number Check
ROB	Test Retest - Obstructed
RPD	Retest - Positive Identification
RRC	Retest - Rotating Coil
RVB	Retest - AVB
SAI	Single Axial Indication
SAT	Satisfactory
SCI	Single Circumferential Indication
SCM	SEE COMMENT
SKR	Skip Roll
SLG	Sludge
SSA	Secondary Side Anomaly
SVI	Single Volumetric Indication
UDS	Signal Undefinable Signal
VOL	Volumetric
WAR	Wear

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	30	13	1.01	0	PCT	15	P4	AV3	.00					TEC	TEH	.610	CBACC	98	H
	32	15	.76	0	PCT	14	P4	AV2	.03					TEC	TEH	.610	CBACC	94	H
	35	16	.72	0	PCT	13	P4	AV2	.00					TEC	TEH	.610	CBACC	92	H
	35	16	1.19	0	PCT	18	P4	AV3	.03					TEC	TEH	.610	CBACC	92	H
	37	17	.48	0	PCT	8	P4	AV2	.03					TEC	TEH	.610	CBACC	94	H
	37	17	.81	0	PCT	13	P4	AV3	.08					TEC	TEH	.610	CBACC	94	H
	38	17	.72	0	PCT	13	P4	AV1	.00					TEC	TEH	.610	CBACC	92	H
	38	17	1.00	0	PCT	16	P4	AV3	.00					TEC	TEH	.610	CBACC	92	H
	38	17	.59	0	PCT	11	P4	AV4	.00					TEC	TEH	.610	CBACC	92	H
	40	18	.71	0	PCT	13	P4	AV1	-.11					TEC	TEH	.610	CBACC	92	H
	40	18	2.19	0	PCT	27	P4	AV3	.08					TEC	TEH	.610	CBACC	92	H
	38	19	.59	0	PCT	12	P4	AV1	-.16					TEC	TEH	.610	CBACC	94	H
	38	21	.89	0	PCT	14	P4	AV2	.00					TEC	TEH	.610	CBACC	94	H
	39	21	.49	0	PCT	9	P4	AV2	.00					TEC	TEH	.610	CBACC	94	H
	38	22	.77	0	PCT	14	P4	AV2	.00					TEC	TEH	.610	CBACC	92	H
	38	22	.72		PCT	13	P4	AV3	.00					TEC	TEH	.610	CBACC	92	H
	7	23	4.69	38	MAI			150 TEH	.15					TSH	TEH	.610	ZYSXA	30	H
	30	23	.60	0	PCT	12	P4	AV2	-.09					TEC	TEH	.610	CBACC	94	H
	33	23	.63	0	PCT	11	P4	AV2	.00					TEC	TEH	.610	CBACC	94	H
	38	23	.77	0	PCT	14	P4	AV2	.00					TEC	TEH	.610	CBACC	92	H
	43	23	.60	0	PCT	11	P4	AV1	.08					TEC	TEH	.610	CBACC	92	H
	43	23	.69	0	PCT	13	P4	AV2	.00					TEC	TEH	.610	CBACC	92	H
	44	23	.77	0	PCT	14	P4	AV1	.03					TEC	TEH	.610	CBACC	92	H
	44	23	1.57	0	PCT	22	P4	AV2	.00					TEC	TEH	.610	CBACC	92	H
	44	23	3.87	0	PCT	36	P4	AV3	.00					TEC	TEH	.610	CBACC	92	H
	44	23	1.18		PCT	18	P4	AV4	.21					TEC	TEH	.610	CBACC	92	H
	42	24	1.18	0	PCT	18	P4	AV2	.00					TEC	TEH	.610	CBACC	92	H
	42	24	1.13		PCT	18	P4	AV3	.05					TEC	TEH	.610	CBACC	92	H
	31	25	.26	0	PCT	9	P12	02H	-.70		.30	.24	37	02H	02H	.610	ZYSXA	77	C
	38	25	.94	0	PCT	14	P4	AV3	.00					TEC	TEH	.610	CBACC	94	H
	44	25	1.21	0	PCT	17	P4	AV2	.00					TEC	TEH	.610	CBACC	94	H
	44	25	.88	0	PCT	14	P4	AV3	.09					TEC	TEH	.610	CBACC	94	H
	45	26	.57	0	PCT	11	P4	AV2	.00					TEC	TEH	.610	CBACC	88	H
	45	26	1.78	0	PCT	24	P4	AV3	.00					TEC	TEH	.610	CBACC	88	H
	37	27	.70	0	PCT	12	P4	AV2	.00					TEC	TEH	.610	CBACC	88	H
	47	27	.88	0	PCT	15	P4	AV2	.00					TEC	TEH	.610	CBACC	88	H
	47	27	2.15	0	PCT	27	P4	AV3	.00					TEC	TEH	.610	CBACC	88	H
	35	28	.55	0	PCT	10	P4	AV2	.11					TEC	TEH	.610	CBACC	88	H
	35	28	1.09	0	PCT	17	P4	AV3	.00					TEC	TEH	.610	CBACC	88	H
	41	30	.51	0	PCT	10	P4	AV2	.03					TEC	TEH	.610	CBACC	88	H
	44	31	.74	0	PCT	12	P4	AV2	.00					TEC	TEH	.610	CBACC	90	H
	41	36	.76	0	PCT	13	P4	AV3	.00					TEC	TEH	.610	CBACC	88	H
	37	39	.61	0	PCT	10	P4	AV2	.00					TEC	TEH	.610	CBACC	86	H
	41	44	1.09	0	PCT	18	P4	AV1	.00					TEC	TEH	.610	CBACC	84	H
	41	44	1.09	0	PCT	18	P4	AV2	.19					TEC	TEH	.610	CBACC	84	H
	41	44	.54	0	PCT	10	P4	AV3	.11					TEC	TEH	.610	CBACC	84	H
	27	49	.60	0	PCT	19	P9	18C	.40		.22	.22	34	18C	TEC	.610	ZYSXA	118	H
	38	68	.38	0	PCT	11	P23	18C	.39		.18	.25	39	18C	TEC	.610	ZYSXA	49	C
	23	70	.33	0	PCT	13	P26	03H	-.63		.30	.28	43	03H	03H	.610	ZYSXA	81	C
	23	70	.48	0	PCT	16	P19	05H	.69		.39	.34	51	05H	05H	.610	ZYSXA	81	C
	23	70	.30	0	PCT	12	P15	05H	1.02		.30	.26	40	05H	05H	.610	ZYSXA	81	C
	49	70	.47	0	PCT	11	P4	AV1	.00					TEH	TEC	.610	CBACC	25	C
	49	73	.91		PCT	16	P4	AV3	-.03					TEH	TEC	.610	CBACC	27	C
	41	75	1.75		PCT	24	P4	AV2	-.18					TEH	TEC	.610	CBACC	27	C
	37	77	1.08	0	PCT	16	P4	AV2	.14					TEH	TEC	.610	CBACC	23	C
	37	77	1.46	0	PCT	20	P4	AV3	.22					TEH	TEC	.610	CBACC	23	C
	37	77	.87	0	PCT	14	P4	AV4	-.23					TEH	TEC	.610	CBACC	23	C
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	41	77	.89	0	PCT	14	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	41	81	2.47	0	PCT	28	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	41	81	.87	0	PCT	14	P4	AV3	.00					TEH	TEC	.610	CBACC	23	C
	41	81	.69	0	PCT	11	P4	AV4	.00					TEH	TEC	.610	CBACC	23	C
	42	81	.94	0	PCT	14	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	42	81	.88	0	PCT	14	P4	AV4	.00					TEH	TEC	.610	CBACC	23	C
	49	81	.89	0	PCT	14	P4	AV1	-.06					TEH	TEC	.610	CBACC	23	C
	41	83	1.50	0	PCT	20	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	41	83	1.49	0	PCT	20	P4	AV3	.00					TEH	TEC	.610	CBACC	23	C
	41	83	.93	0	PCT	14	P4	AV4	.00					TEH	TEC	.610	CBACC	23	C
	41	85	1.84	0	PCT	23	P4	AV3	.00					TEH	TEC	.610	CBACC	23	C
	42	85	2.92	0	PCT	30	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	42	85	1.60	0	PCT	21	P4	AV3	.00					TEH	TEC	.610	CBACC	23	C
	48	85	.41	0	PCT	10	P4	AV3	-.24					TEH	TEC	.610	CBACC	21	C
	48	85	.58		PCT	13	P4	AV4	-.08					TEH	TEC	.610	CBACC	21	C
	39	86	.75		PCT	15	P4	AV3	-.16					TEH	TEC	.610	CBACC	21	C
	39	86	.63	0	PCT	14	P4	AV4	.13					TEH	TEC	.610	CBACC	21	C
	48	86	.46		PCT	11	P4	AV3	-.11					TEH	TEC	.610	CBACC	21	C
	48	86	.70		PCT	15	P4	AV4	-.08					TEH	TEC	.610	CBACC	21	C
	46	88	.79		PCT	16	P4	AV3	.00					TEH	TEC	.610	CBACC	21	C
	38	89	1.38	0	PCT	19	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	38	89	.40	0	PCT	7	P4	AV3	.00					TEH	TEC	.610	CBACC	23	C
	41	90	.85		PCT	17	P4	AV3	-.03					TEH	TEC	.610	CBACC	21	C
	42	90	.82		PCT	16	P4	AV3	.00					TEH	TEC	.610	CBACC	21	C
	44	90	.77		PCT	16	P4	AV3	.00					TEH	TEC	.610	CBACC	21	C
	44	90	.51	0	PCT	12	P4	AV4	-.09					TEH	TEC	.610	CBACC	21	C
	45	90	1.15		PCT	20	P4	AV3	.03					TEH	TEC	.610	CBACC	21	C
	38	91	1.12	0	PCT	16	P4	AV2	.03					TEH	TEC	.610	CBACC	23	C
	38	91	.98	0	PCT	15	P4	AV4	.00					TEH	TEC	.610	CBACC	23	C
	42	91	1.15	0	PCT	17	P4	AV3	.00					TEH	TEC	.610	CBACC	23	C
	43	91	.63	0	PCT	10	P4	AV1	.00					TEH	TEC	.610	CBACC	23	C
	43	91	1.13	0	PCT	17	P4	AV2	-.03					TEH	TEC	.610	CBACC	23	C
	43	91	1.16	0	PCT	17	P4	AV3	.00					TEH	TEC	.610	CBACC	23	C
	43	91	1.72	0	PCT	22	P4	AV4	.00					TEH	TEC	.610	CBACC	23	C
	45	91	1.01	0	PCT	19	P4	AV2	-.08					TEH	TEC	.610	CBACC	21	C
	45	91	.98	0	PCT	19	P4	AV3	-.19					TEH	TEC	.610	CBACC	21	C
	45	91	1.60		PCT	24	P4	AV4	.03					TEH	TEC	.610	CBACC	21	C
	41	92	1.21		PCT	21	P4	AV3	.16					TEH	TEC	.610	CBACC	21	C
	41	92	.77	0	PCT	16	P4	AV4	.00					TEH	TEC	.610	CBACC	21	C
	44	92	1.11	0	PCT	20	P4	AV3	-.03					TEH	TEC	.610	CBACC	21	C
	44	92	.81		PCT	16	P4	AV4	.03					TEH	TEC	.610	CBACC	21	C
	33	93	1.57	0	PCT	21	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	37	93	.69	0	PCT	11	P4	AV4	.00					TEH	TEC	.610	CBACC	23	C
	38	93	.97	0	PCT	15	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	41	93	1.06	0	PCT	16	P4	AV3	.00					TEH	TEC	.610	CBACC	23	C
	41	93	.87	0	PCT	13	P4	AV4	.00					TEH	TEC	.610	CBACC	23	C
	43	93	.80		PCT	18	P4	AV3	.05					TEH	TEC	.610	CBACC	21	C
	43	93	1.03		PCT	19	P4	AV4	-.08					TEH	TEC	.610	CBACC	21	C
	40	94	1.98		PCT	27	P4	AV2	-.19					TEH	TEC	.610	CBACC	21	C
	40	94	.73	0	PCT	15	P4	AV4	.03					TEH	TEC	.610	CBACC	21	C
	41	94	1.41		PCT	23	P4	AV2	-.16					TEH	TEC	.610	CBACC	21	C
	41	94	2.46		PCT	30	P4	AV3	-.08					TEH	TEC	.610	CBACC	21	C
	41	94	.82		PCT	16	P4	AV4	.05					TEH	TEC	.610	CBACC	21	C
	40	95	1.91	0	PCT	24	P4	AV2	.00					TEH	TEC	.610	CBACC	23	C
	40	95	1.29	0	PCT	18	P4	AV4	.00					TEH	TEC	.610	CBACC	23	C
	38	96	2.96	0	PCT	33	P4	AV2	.00					TEH	TEC	.610	CBACC	21	C
	38	96	.96		PCT	18	P4	AV3	-.03					TEH	TEC	.610	CBACC	21	C
	38	96	.82		PCT	16	P4	AV4	.00					TEH	TEC	.610	CBACC	21	C
	39	96	.80		PCT	13	P4	AV3	.14					TEH	TEC	.610	CBACC	21	C

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	38	97	3.37	0	PCT	34	P4	AV2	-.05					TEH	TEC	.610	CBACC	33	C
	38	97	1.30	0	PCT	20	P4	AV3	.16					TEH	TEC	.610	CBACC	33	C
	38	97	1.20	0	PCT	19	P4	AV4	-.03					TEH	TEC	.610	CBACC	33	C
	15	98	.16	0	PCT	6	P5	04H	-.66		.15	.17	26	04H	04H	.610	ZYSXA	77	C
	33	98	.46	0	PCT	11	P4	AV2	.00					TEH	TEC	.610	CBACC	35	C
	36	98	.52	0	PCT	12	P4	AV4	.23					TEH	TEC	.610	CBACC	35	C
	38	98	1.12	0	PCT	19	P4	AV2	.09					TEH	TEC	.610	CBACC	33	C
	38	98	.77	0	PCT	14	P4	AV3	.08					TEH	TEC	.610	CBACC	33	C
	38	98	.58	0	PCT	13	P4	AV4	.00					TEH	TEC	.610	CBACC	33	C
	33	99	.73	0	PCT	14	P4	AV2	.00					TEH	TEC	.610	CBACC	33	C
	34	99	.46	0	PCT	11	P4	AV3	.30					TEH	TEC	.610	CBACC	33	C
	34	99	.70	0	PCT	14	P4	AV4	-.25					TEH	TEC	.610	CBACC	33	C
	33	100	.85	0	PCT	17	P4	AV3	.00					TEH	TEC	.610	CBACC	35	C
	31	102	.72	0	PCT	14	P4	AV2	.00					TEH	TEC	.610	CBACC	39	C
	31	102	.55	0	PCT	11	P4	AV4	.03					TEH	TEC	.610	CBACC	39	C
	31	103	1.65	0	PCT	24	P4	AV2	.00					TEH	TEC	.610	CBACC	37	C
	31	103	.80	0	PCT	15	P4	AV3	.00					TEH	TEC	.610	CBACC	37	C
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	11	2	.37	0	PCT	6	P6	05H	-.55					05H	TEH	.610	ZBAZC	94	H
	11	2	.29	0	PCT	6	P8	05H	-.45		.24	.27	42	05H	TEH	.610	ZYSXA	96	H
	1	6	1.14	46	SAI			142	TEH	.06				01H	TEH	.610	ZYSXA	18	H
	1	8	2.10	38	SAI			142	TEH	.09				01H	TEH	.610	ZYSXA	18	H
	1	10	6.39	28	SAI			142	TEH	.24				01H	TEH	.610	ZYSXA	18	H
	2	14	1.42	36	SAI			54	TEH	.15				01H	TEH	.610	ZYSXA	20	H
	3	14	2.24	37	SAI			42	TEH	.11				TSH	TEH	.610	ZYSXA	18	H
	4	14	1.69	83	SAI			58	TEH	.09				TSH	TEH	.610	ZYSXA	20	H
	1	16	9.65	26	SAI			138	TEH	.31				01H	TEH	.610	ZYSXA	18	H
	37	16	.29	0	PCT	5	P6	05H	-.68					05H	TEH	.610	ZBAZC	94	H
	37	16	.33	0	PCT	7	P10	05H	-.66		.33	.33	50	05H	TEH	.610	ZYSXA	96	H
	3	21	7.66	19	SAI			142	TEH	.27				TSH	TEH	.610	ZYSXA	18	H
	30	21	1.25	53	SAI			42	TEH	.31				TSH	TEH	.610	ZYSXA	44	H
	23	23	.27	0	PCT	12	P17	10C	-1.15		.21	.21	32	10C	10C	.610	ZYSXA	92	H
	3	24	3.32	38	SAI			138	TEH	.30				TSH	TEH	.610	ZYSXA	18	H
	45	24	.75	0	PCT	14	P4	AV4	.00					TEH	TEC	.610	ZBAZC	55	C
	3	25	3.40	15	SAI			182	TEH	.30				TSH	TEH	.610	ZYSXA	18	H
	8	25	.45	0	PCT	7	P6	05H	-.52					05H	TEH	.610	ZBAZC	94	H
	8	25	.59	0	PCT	11	P16	05H	-.66		.27	.25	39	05H	TEH	.610	ZYSXA	96	H
	23	26	2.13	65	SAI			58	TEH	.09				TSH	TEH	.610	ZYSXA	32	H
	1	27	26.74	1	MCI			18	TEH	.09				01H	TEH	.610	ZYSXA	18	H
	2	27	4.27	88	SAI			42	TEH	.11				01H	TEH	.610	ZYSXA	20	H
	4	27	4.79	16	SAI			166	TEH	.36				TSH	TEH	.610	ZYSXA	20	H
	9	27	1.37	17	MAI			26	TEH	.30				TSH	TEH	.610	ZYSXA	18	H
	10	27	.77	49	SAI			54	TEH	.07				TSH	TEH	.610	ZYSXA	20	H
	47	27	.70	0	PCT	14	P4	AV2	.03					TEH	TEC	.610	ZBAZC	55	C
	47	27	1.30	0	PCT	21	P4	AV3	-.29					TEH	TEC	.610	ZBAZC	55	C
	47	27	.87	0	PCT	16	P4	AV4	-.03					TEH	TEC	.610	ZBAZC	55	C
	8	28	6.52	50	SAI			58	TEH	.30				TSH	TEH	.610	ZYSXA	20	H
	3	29	5.30	27	SAI			142	TEH	.33				TSH	TEH	.610	ZYSXA	18	H
	4	29	2.10	43	SAI			38	TEH	.36				TSH	TEH	.610	ZYSXA	20	H
	1	30	16.99	29	SCI			62	TEH	.21				01H	TEH	.610	ZYSXA	18	H
	2	30	.72	16	SAI			166	TEH	.18				01H	TEH	.610	ZYSXA	20	H
	3	30	3.65	40	MAI			6	TEH	.30				TSH	TEH	.610	ZYSXA	18	H
	5	31	3.59	36	SAI			134	TEH	.30				TSH	TEH	.610	ZYSXA	18	H
	9	31	1.07	122	SAI			118	TEH	.33				TSH	TEH	.610	ZYSXA	18	H
	25	31	4.31	32	SAI			134	TEH	.30				TSH	TEH	.610	ZYSXA	42	H
	15	32	8.39	84	SAI			86	TEH	.14				TSH	TEH	.610	ZYSXA	32	H
	20	32	3.92	33	SAI			138	TEH	.30				TSH	TEH	.610	ZYSXA	30	H
	2	33	5.58	35	MAI			42	TEH	.19				01H	TEH	.610	ZYSXA	20	H
	3	33	3.96	35	SAI			134	TEH	.34				TSH	TEH	.610	ZYSXA	18	H
	20	33	3.99	22	SAI			142	TEH	.30				TSH	TEH	.610	ZYSXA	30	H
	21	33	4.73	31	SAI			54	TEH	.14				TSH	TEH	.610	ZYSXA	32	H
	32	33	.15	0	PCT	3	P29	04H	1.67		.24	.20	31	05H	04H	.610	ZYSXA	96	H
	1	34	8.52	28	MAI			146	TEH	.31				01H	TEH	.610	ZYSXA	18	H
	2	34	4.33	32	MAI			22	TEH	.19				01H	TEH	.610	ZYSXA	20	H
	3	34	.96	31	SAI			138	TEH	.31				TSH	TEH	.610	ZYSXA	18	H
	4	34	2.15	56	MAI			38	TEH	.21				TSH	TEH	.610	ZYSXA	20	H
	7	34	2.67	31	SAI			142	TEH	.31				01H	TEH	.610	ZYSXA	18	H
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	12	35	.14	0	PCT	8	P23	11C	-.96		.22	.23	35	11C	12C	.610	ZYSXA	103	C
	15	35	1.05	53	SAI		90	TEH	.06					TSH	TEH	.610	ZYSXA	32	H
	1	36	5.98	17	SAI		138	TEH	.28					01H	TEH	.610	ZYSXA	18	H
	2	36	1.09	25	SAI		42	TEH	.19					01H	TEH	.610	ZYSXA	20	H
	3	36	7.23	32	SAI		142	TEH	.30					TSH	TEH	.610	ZYSXA	18	H
	8	36	6.79	16	SAI		146	TEH	.27					TSH	TEH	.610	ZYSXA	20	H
	12	36	5.10	37	SAI		90	TEH	.12					TSH	TEH	.610	ZYSXA	32	H
	15	36	8.36	34	SAI		86	TEH	.08					TSH	TEH	.610	ZYSXA	32	H
	1	38	7.97	30	MAI		150	TEH	.37					01H	TEH	.610	ZYSXA	18	H
	1	39	5.28	21	SAI		146	TEH	.31					01H	TEH	.610	ZYSXA	18	H
	2	39	2.30	9	SAI		90	TEH	.15					01H	TEH	.610	ZYSXA	20	H
	7	39	8.71	41	SAI		134	TEH	.34					TSH	TEH	.610	ZYSXA	18	H
	10	39	2.21	166	SAI		86	TEH	.24					TSH	TEH	.610	ZYSXA	20	H
	1	40	14.22	20	MAI		134	TEH	.27					01H	TEH	.610	ZYSXA	18	H
	4	40	2.66	41	SAI		42	TEH	.16					TSH	TEH	.610	ZYSXA	20	H
	18	40	.54	0	PCT	19	P1	14C	.42		.18	.17	26	14C	14C	.610	ZYSXA	92	H
	1	42	4.80	31	MAI		150	TEH	.28					01H	TEH	.610	ZYSXA	18	H
	1	43	3.04	50	MAI		146	TEH	.33					01H	TEH	.610	ZYSXA	18	H
	14	43	4.65	21	SAI		74	TEH	.24					TSH	TEH	.610	ZYSXA	30	H
	1	44	5.53	19	MAI		150	TEH	.28					01H	TEH	.610	ZYSXA	18	H
	2	44	6.93	26	SAI		138	TEH	.28					01H	TEH	.610	ZYSXA	16	H
	5	44	9.47	22	SAI		130	TEH	.28					TSH	TEH	.610	ZYSXA	14	H
	6	44	5.48	11	SAI		154	TEH	.27					TSH	TEH	.610	ZYSXA	20	H
	6	45	.49	0	PCT	19	P10	05H	-.90		.22	.35	53	05H	05H	.610	ZYSXA	90	H
	16	45	5.26	8	MAI		166	TEH	.34					TSH	TEH	.610	ZYSXA	18	H
	1	46	11.95	26	SAI		142	TEH	.28					01H	TEH	.610	ZYSXA	14	H
	8	48	5.78	16	SAI		150	TEH	.09					TSH	TEH	.610	ZYSXA	16	H
	18	49	2.37	48	SAI		138	TEH	.28					TSH	TEH	.610	ZYSXA	18	H
	1	50	16.28	20	SCI		46	TEH	.18					01H	TEH	.610	ZYSXA	14	H
	10	50	.32	0	PCT	5	P6	04H	-.71					04H	TEH	.610	ZBAZC	94	H
	10	50	.43	0	PCT	9	P10	04H	-.69		.30	.35	53	05H	TEH	.610	ZYSXA	98	H
	27	52	.48	0	PCT	18	P1	09C	-.63		.15	.22	34	09C	09C	.610	ZYSXA	92	H
	1	54	23.98	36	SCI		46	TEH	.09					01H	TEH	.610	ZYSXA	14	H
	3	55	4.55	79	SAI		134	TEH	.30					TSH	TEH	.610	ZYSXA	14	H
	7	56	2.40	106	MAI		134	TEH	.31					TSH	TEH	.610	ZYSXA	14	H
	15	56	1.00	0	PCT	17	P4	AV4	.00					TEC	TEH	.610	ZBAZC	72	H
	33	56	5.21	21	SAI		154	TEH	.30					01H	TEH	.610	ZYSXA	38	H
	35	56	.34		PCT	8	P4	AV2	.03					TEH	TEC	.610	ZBAZC	63	C
	27	59	2.77	49	SAI		38	TEH	.39					02H	TEH	.610	ZYSXA	42	H
	39	59	.51		PCT	12	P4	AV4	-.08					TEH	TEC	.610	ZBAZC	71	C
	27	60	1.43	0	PCT	22	P4	AV2	.00					TEC	TEH	.610	CBACC	88	H
	1	62	15.98	13	SCI		62	TEH	.09					01H	TEH	.610	ZYSXA	14	H
	4	63	3.02	23	SAI		10	TEH	.12					TSH	TEH	.610	ZYSXA	16	H
	8	63	5.48	16	SAI		38	TEH	.18					TSH	TEH	.610	ZYSXA	16	H
	11	63	3.53	25	SAI		146	TEH	.30					TSH	TEH	.610	ZYSXA	14	H
	13	63	4.54	31	MAI		142	TEH	.30					TSH	TEH	.610	ZYSXA	18	H

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	21	63	4.54	28	SAI		190	TEH	.18					02H	TEH	.610	ZYSXA	42	H
	24	63	5.70	29	SAI		138	TEH	.30					02H	TEH	.610	ZYSXA	18	H
	1	64	3.44	75	SAI		138	TEH	.43					01H	TEH	.610	ZYSXA	14	H
	8	64	2.51	26	SAI		134	TEH	.12					TSH	TEH	.610	ZYSXA	16	H
	10	64	7.68	26	SAI		38	TEH	.15					TSH	TEH	.610	ZYSXA	16	H
	12	64	8.92	31	SAI		58	TEH	.18					TSH	TEH	.610	ZYSXA	16	H
	16	64	2.57	9	SAI		154	TEH	.30					TSH	TEH	.610	ZYSXA	44	H
	18	64	7.91	20	SAI		158	TEH	.30					TSH	TEH	.610	ZYSXA	44	H
	9	65	5.23	19	SAI		122	TEH	.30					TSH	TEH	.610	ZYSXA	14	H
	21	65	6.39	40	SAI		86	TEH	.31					02H	TEH	.610	ZYSXA	44	H
	28	65	.26	0	PCT	6	P4	04H	1.40		.27	.29	45	05H	04H	.610	ZYSXA	96	H
	11	66	5.61	33	SAI		158	TEH	.27					TSH	TEH	.610	ZYSXA	14	H
	11	69	4.07	24	SAI		38	TEH	.27					TSH	TEH	.610	ZYSXA	4	H
	15	69	4.84	25	MAI		42	TEH	.36					TSH	TEH	.610	ZYSXA	4	H
	40	69	.55		PCT	12	P4	AV2	.14					TEH	TEC	.610	ZBAZC	71	C
	2	70	3.38	40	SAI		58	TEH	.27					01H	TEH	.610	ZYSXA	2	H
	3	70	1.50	105	MAI		54	TEH	.27					TSH	TEH	.610	ZYSXA	2	H
	11	70	5.60	23	SAI		38	TEH	.30					TSH	TEH	.610	ZYSXA	2	H
	13	70	3.18	27	SAI		42	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	15	70	2.02	18	SAI		90	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	7	74	.23	0	PCT	11	P2B	03H	-.57		.27	.29	45	03H	03H	.610	ZYSXA	78	H
	38	75	.57		PCT	13	P4	AV2	.17					TEH	TEC	.610	ZBAZC	71	C
	2	76	2.01	20	MAI		70	TEH	.39					01H	TEH	.610	ZYSXA	2	H
	3	76	4.22	38	SAI		146	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	4	76	1.37	17	SAI		42	TEH	.36					TSH	TEH	.610	ZYSXA	2	H
	5	76	4.41	35	MAI		74	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	9	76	6.92	19	MAI		54	TEH	.30					TSH	TEH	.610	ZYSXA	2	H
	10	76	3.73	15	MAI		150	TEH	.30					TSH	TEH	.610	ZYSXA	2	H
	49	76	.51		PCT	12	P4	AV1	.23					TEH	TEC	.610	ZBAZC	71	C
	2	77	2.89	24	SAI		138	TEH	.31					01H	TEH	.610	ZYSXA	4	H
	3	77	3.45	13	MAI		158	TEH	.34					TSH	TEH	.610	ZYSXA	4	H
	6	77	9.63	38	MAI		54	TEH	.30					TSH	TEH	.610	ZYSXA	4	H
	7	77	3.27	25	MAI		166	TEH	.27					TSH	TEH	.610	ZYSXA	4	H
	9	77	2.82	13	SAI		170	TEH	.24					TSH	TEH	.610	ZYSXA	4	H
	11	77	8.98	28	MAI		106	TEH	.27					TSH	TEH	.610	ZYSXA	4	H
	2	78	5.47	41	MAI		54	TEH	.30					01H	TEH	.610	ZYSXA	2	H
	3	78	4.59	30	SAI		74	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	4	78	2.60	35	MAI		90	TEH	.36					TSH	TEH	.610	ZYSXA	2	H
	9	78	4.44	24	MAI		154	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	10	78	5.39	22	SAI		182	TEH	.27					TSH	TEH	.610	ZYSXA	2	H
	2	79	3.11	23	MAI		6	TEH	.28					01H	TEH	.610	ZYSXA	4	H
	3	79	2.93	19	SAI		150	TEH	.31					TSH	TEH	.610	ZYSXA	4	H
	4	79	7.78	33	MAI		6	TEH	.30					TSH	TEH	.610	ZYSXA	4	H
	5	79	3.53	35	SAI		142	TEH	.30					TSH	TEH	.610	ZYSXA	4	H
	6	79	3.01	37	SAI		118	TEH	.03					TSH	TEH	.610	ZYSXA	4	H
	7	79	11.47	21	MAI		22	TEH	.03					TSH	TEH	.610	ZYSXA	4	H
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	12	79	4.00	36	MAI		22	TEH	.24					TSH	TEH	.610	ZYSXA	4	H
	3	80	4.96	21	SAI		150	TEH	.39					TSH	TEH	.610	ZYSXA	2	H
	4	80	6.28	33	SAI		54	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	5	80	8.34	40	MAI		74	TEH	.21					TSH	TEH	.610	ZYSXA	2	H
	6	80	1.87	38	SAI		54	TEH	.36					TSH	TEH	.610	ZYSXA	2	H
	7	80	5.53	25	MAI		154	TEH	.36					TSH	TEH	.610	ZYSXA	2	H
	8	80	7.22	32	MAI		90	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	5	81	1.56	60	MAI		166	TEH	.30					TSH	TEH	.610	ZYSXA	6	H
	6	81	3.82	55	SAI		134	TEH	.12					TSH	TEH	.610	ZYSXA	8	H
	8	81	1.88	42	SAI		6	TEH	.12					TSH	TEH	.610	ZYSXA	8	H
	10	81	2.62	32	MAI		106	TEH	.06					TSH	TEH	.610	ZYSXA	8	H
	2	82	6.04	27	MAI		142	TEH	.34					01H	TEH	.610	ZYSXA	4	H
	5	82	6.21	35	SAI		162	TEH	.30					TSH	TEH	.610	ZYSXA	6	H
	6	82	2.74	33	MAI		6	TEH	.12					TSH	TEH	.610	ZYSXA	8	H
	8	82	2.55	47	SAI		6	TEH	.06					TSH	TEH	.610	ZYSXA	8	H
	9	82	4.04	23	SAI		150	TEH	.36					TSH	TEH	.610	ZYSXA	6	H
	2	83	5.63	33	MAI		146	TEH	.31					01H	TEH	.610	ZYSXA	4	H
	3	83	3.53	40	MAI		166	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	4	83	4.13	41	SAI		70	TEH	.27					TSH	TEH	.610	ZYSXA	4	H
	5	83	2.31	37	SAI		154	TEH	.30					TSH	TEH	.610	ZYSXA	6	H
	2	84	3.46	34	SAI		138	TEH	.31					01H	TEH	.610	ZYSXA	4	H
	3	84	3.02	40	SAI		142	TEH	.36					TSH	TEH	.610	ZYSXA	2	H
	6	84	2.14	74	SAI		6	TEH	.12					TSH	TEH	.610	ZYSXA	8	H
	7	84	3.68	61	SAI		142	TEH	.36					TSH	TEH	.610	ZYSXA	6	H
	8	84	1.70	144	SAI		106	TEH	.24					TSH	TEH	.610	ZYSXA	8	H
	10	84	2.91	57	SAI		122	TEH	.10					TSH	TEH	.610	ZYSXA	8	H
	3	85	1.61	28	SAI		134	TEH	.19					TSH	TEH	.610	ZYSXA	2	H
	9	85	2.33	36	SAI		154	TEH	.30					TSH	TEH	.610	ZYSXA	8	H
	33	85	.30	0	PCT	13	P26	09C	-.82		.18	.22	34	09C	09C	.610	ZYSXA	92	H
	2	86	3.13	35	MAI		142	TEH	.34					01H	TEH	.610	ZYSXA	4	H
	6	86	1.39	28	SAI		146	TEH	.22					TSH	TEH	.610	ZYSXA	8	H
	7	86	1.50	60	MAI		6	TEH	.33					TSH	TEH	.610	ZYSXA	6	H
	47	88	.66	0	PCT	14	P4	AV2	-.20					TEH	TEC	.610	ZBAZC	71	C
	47	88	.72		PCT	15	P4	AV4	-.19					TEH	TEC	.610	ZBAZC	71	C
	1	91	9.35	28	SAI		182	TEH	.27					01H	TEH	.610	ZYSXA	2	H
	2	91	2.20	29	SAI		118	TEH	.34					01H	TEH	.610	ZYSXA	4	H
	44	91	1.02		PCT	19	P4	AV2	.18					TEH	TEC	.610	ZBAZC	71	C
	44	91	.52		PCT	12	P4	AV4	-.19					TEH	TEC	.610	ZBAZC	71	C
	2	92	2.75	17	SAI		6	TEH	.34					01H	TEH	.610	ZYSXA	4	H
	4	92	1.07	28	SAI		166	TEH	.41					TSH	TEH	.610	ZYSXA	76	H
	12	92	4.51	19	SAI		190	TEH	.12					TSH	TEH	.610	ZYSXA	8	H
	2	93	2.74	26	SAI		118	TEH	.34					01H	TEH	.610	ZYSXA	4	H
	1	94	1.44	114	MAI		170	TEH	.33					01H	TEH	.610	ZYSXA	2	H
	2	95	4.29	39	SAI		118	TEH	.28					01H	TEH	.610	ZYSXA	4	H
	3	95	1.86	13	SAI		142	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	4	95	2.91	26	SAI		170	TEH	.10					TSH	TEH	.610	ZYSXA	76	H
	1	96	4.22	56	MAI		10	TEH	.33					01H	TEH	.610	ZYSXA	2	H

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	1	97	5.03	33	SAI		106	TEH	.36					01H	TEH	.610	ZYSXA	2	H
	2	98	2.81	32	SAI		6	TEH	.34					01H	TEH	.610	ZYSXA	4	H
	36	98	.83	0	PCT	14	P4	AV4	.00					TEH	TEC	.610	ZBAZC	85	C
	37	98	.93	0	PCT	15	P4	AV3	-.28					TEH	TEC	.610	ZBAZC	85	C
	1	99	11.94	27	MAI		102	TEH	.36					01H	TEH	.610	ZYSXA	2	H
	3	99	3.03	36	SAI		26	TEH	.33					TSH	TEH	.610	ZYSXA	2	H
	36	99	.80	0	PCT	16	P4	AV4	.00					TEH	TEC	.610	ZBAZC	83	C
	37	99	1.34	0	PCT	22	P4	AV4	-.03					TEH	TEC	.610	ZBAZC	83	C
	32	102	.48	0	PCT	9	P4	AV1	.00					TEH	TEC	.610	ZBAZC	85	C
	32	103	.95	0	PCT	18	P4	AV2	.00					TEH	TEC	.610	ZBAZC	83	C
	32	103	.72	0	PCT	15	P4	AV3	.00					TEH	TEC	.610	ZBAZC	83	C
	32	103	.90	0	PCT	17	P4	AV4	.00					TEH	TEC	.610	ZBAZC	83	C
	30	104	.73	0	PCT	15	P4	AV1	.00					TEH	TEC	.610	ZBAZC	83	C
	30	104	.90	0	PCT	17	P4	AV3	.03					TEH	TEC	.610	ZBAZC	83	C
	5	106	2.43	54	SAI		122	TEH	.33					TSH	TEH	.610	ZYSXA	6	H
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L
	1	6	5.67	34	SAI		118	TEH	.62					01H	TEH	.610	ZYSXA	30	H
	27	9	2.41	0	PCT	28	P4	AV2	-.11					TEH	TEC	.610	CBACC	75	C
	25	10	.64	0	PCT	23	P31	18C	.65		.25	.24	37	18C	TEC	.610	ZYSXA	99	C
	28	10	1.18	0	PCT	18	P4	AV2	.00					TEH	TEC	.610	CBACC	75	C
	29	10	.60	0	PCT	11	P4	AV2	-.19					TEH	TEC	.610	CBACC	75	C
	29	10	.92	0	PCT	15	P4	AV3	.00					TEH	TEC	.610	CBACC	75	C
	28	11	.64	0	PCT	13	P4	AV2	.00					TEH	TEC	.610	CBACC	77	C
	1	12	2.27	19	SAI		134	TEH	.25					01H	TEH	.610	ZYSXA	30	H
	29	12	.73	0	PCT	14	P4	AV2	-.15					TEH	TEC	.610	CBACC	77	C
	29	12	.76	0	PCT	15	P4	AV3	.00					TEH	TEC	.610	CBACC	77	C
	31	12	1.73		PCT	23	P4	AV3	.03					TEH	TEC	.610	CBACC	75	C
	33	12	1.24		PCT	19	P4	AV1	-.16					TEH	TEC	.610	CBACC	75	C
	33	12	1.33	0	PCT	20	P4	AV2	.00					TEH	TEC	.610	CBACC	75	C
	33	12	.81	0	PCT	16	P26	AV1	.00					09C	07H	.610	ZYSXA	84	H
	29	14	.45	0	PCT	10	P4	AV3	.00					TEH	TEC	.610	CBACC	79	C
	33	14	1.12	0	PCT	19	P4	AV2	-.07					TEH	TEC	.610	CBACC	77	C
	33	14	.81	0	PCT	15	P4	AV3	.00					TEH	TEC	.610	CBACC	77	C
	30	15	.99	0	PCT	19	P4	AV4	.14					TEH	TEC	.610	CBACC	81	C
	38	17	.63	0	PCT	12	P4	AV1	-.20					TEH	TEC	.610	CBACC	75	C
	38	17	1.52	0	PCT	21	P4	AV2	-.10					TEH	TEC	.610	CBACC	75	C
	38	17	.96	0	PCT	16	P4	AV4	.00					TEH	TEC	.610	CBACC	75	C
	39	17	.69	0	PCT	13	P4	AV1	-.05					TEH	TEC	.610	CBACC	75	C
	39	18	.75	0	PCT	13	P4	AV2	-.14					TEH	TEC	.610	CBACC	75	C
	1	19	2.25	36	SAI		146	TEH	.12					01H	TEH	.610	ZYSXA	18	H
	40	20	1.18	0	PCT	18	P4	AV2	-.13					TEH	TEC	.610	CBACC	75	C
	41	20	.77	0	PCT	14	P4	AV1	.03					TEH	TEC	.610	CBACC	79	C
	41	20	.79	0	PCT	14	P4	AV2	.19					TEH	TEC	.610	CBACC	79	C
	41	20	1.06	0	PCT	18	P4	AV3	.00					TEH	TEC	.610	CBACC	79	C
	1	21	1.49	95	SAI		130	TEH	.06					01H	TEH	.610	ZYSXA	18	H
	35	21	.41	0	PCT	8	P4	AV4	.13					TEH	TEC	.610	CBACC	75	C
	40	22	.90	0	PCT	16	P4	AV2	.22					TEH	TEC	.610	CBACC	77	C
	43	22	.89	0	PCT	16	P4	AV1	.17					TEH	TEC	.610	CBACC	79	C
	38	23	.87	0	PCT	15	P4	AV2	.00					TEH	TEC	.610	CBACC	71	C
	38	23	.93	0	PCT	16	P4	AV4	.00					TEH	TEC	.610	CBACC	71	C
	44	23	.51	0	PCT	10	P4	AV3	-.22					TEH	TEC	.610	CBACC	79	C
	44	23	.66	0	PCT	13	P4	AV4	-.08					TEH	TEC	.610	CBACC	79	C
	36	25	.69	0	PCT	13	P4	AV2	-.16					TEH	TEC	.610	CBACC	71	C
	31	27	.81	0	PCT	15	P4	AV1	-.27					TEH	TEC	.610	CBACC	71	C
	39	27	1.11	0	PCT	18	P4	AV3	.09					TEH	TEC	.610	CBACC	71	C
	40	27	.91	0	PCT	16	P4	AV2	.27					TEH	TEC	.610	CBACC	71	C
	36	33	.48	0	PCT	11	P4	AV2	.05					TEH	TEC	.610	CBACC	69	C
	38	34	.79	0	PCT	14	P4	AV2	-.03					TEH	TEC	.610	CBACC	67	C
	36	37	.37	0	PCT	9	P4	AV2	-.08					TEH	TEC	.610	CBACC	69	C
	5	49	1.45	25	SAI		102	TEH	.12					TSH	TEH	.610	ZYSXA	18	H
	3	51	2.86	39	SAI		102	TEH	.05					TSH	TEH	.610	ZYSXA	18	H
	5	51	4.24	39	SAI		146	TEH	.33					TSH	TEH	.610	ZYSXA	18	H
	16	52	3.75	18	SAI		54	TEH	.15					TSH	TEH	.610	ZYSXA	18	H
	33	55	1.53	0	PCT	23	P4	AV3	-.21					TEH	TEC	.610	CBACC	61	C
	22	70	2.51	57	SAI		190	TEH	.21					02H	TEH	.610	ZYSXA	14	H
	7	72	.32	0	PCT	7	P10	04H	-.62		.22	.20	31	04H	04H	.610	ZYSXA	78	H
	49	76	1.81	0	PCT	23	P4	AV1	-.22					TEH	TEC	.610	CBACC	27	C
	3	78	.31	0	PCT	13	P22	13C	.74		.21	.20	31	13C	13C	.610	ZYSXA	95	C
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L

INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L	
	46	79	1.57	252	PCT	31	P10	15C	.79		.30	.32	48	15C	TEC	.610	ZYSXA	95	C	
	46	79	1.57	252	SVI		P10	15C	.79		.30	.32	48	15C	TEC	.610	ZYSXA	95	C	
	46	79	.43	268	SVI		P4	15C	.55		.19	.24	37	15C	15C	.610	ZPS3C	111	C	
	49	79	.38	0	PCT	7	P4	AV1	-.25						TEH	TEC	.610	CBACC	27	C
	10	80	5.99	37	MAI		106	TEH	.13						TSH	TEH	.610	ZYSXA	36	H
	44	81	2.59	0	PCT	30	P4	AV2	.11						TEH	TEC	.610	CBACC	19	C
	44	81	1.50	0	PCT	23	P4	AV3	-.03						TEH	TEC	.610	CBACC	19	C
	44	81	.63	0	PCT	13	P4	AV4	.19						TEH	TEC	.610	CBACC	19	C
	49	82	.55		PCT	11	P4	AV4	-.05						TEH	TEC	.610	CBACC	17	C
	46	88	.53		PCT	11	P4	AV2	-.03						TEH	TEC	.610	CBACC	17	C
	42	90	.16	0	PCT	9	P24	18C	.72		.21	.24	37	18C	18C	.610	ZYSXA	97	C	
	43	93	.52		PCT	11	P4	AV2	.00						TEH	TEC	.610	CBACC	17	C
	43	93	.94		PCT	16	P4	AV3	-.16						TEH	TEC	.610	CBACC	17	C
	43	93	.54		PCT	11	P4	AV4	-.25						TEH	TEC	.610	CBACC	17	C
	39	94	1.01	0	PCT	17	P4	AV3	.08						TEH	TEC	.610	CBACC	17	C
	34	95	9.32	49	SCI		110	TEH	.10						TSH	TEH	.610	ZYSXA	6	H
	38	97	1.11	0	PCT	19	P4	AV2	.00						TEH	TEC	.610	CBACC	19	C
	39	97	.46	0	PCT	10	P4	AV1	-.29						TEH	TEC	.610	CBACC	17	C
	39	97	.84		PCT	15	P4	AV2	.16						TEH	TEC	.610	CBACC	17	C
	39	97	.77		PCT	14	P4	AV3	-.17						TEH	TEC	.610	CBACC	17	C
	39	97	1.25		PCT	20	P4	AV4	-.19						TEH	TEC	.610	CBACC	17	C
	36	98	.92		PCT	16	P4	AV2	.08						TEH	TEC	.610	CBACC	17	C
	38	99	1.50		PCT	22	P4	AV3	.00						TEH	TEC	.610	CBACC	17	C
	38	99	2.77		PCT	31	P4	AV4	-.14						TEH	TEC	.610	CBACC	17	C
	33	100	.31	0	PCT	7	P4	AV2	.00						TEH	TEC	.610	CBACC	23	C
	33	101	.66	0	PCT	13	P4	AV4	.00						TEH	TEC	.610	CBACC	23	C
	33	102	1.01	0	PCT	18	P4	AV2	.00						TEH	TEC	.610	CBACC	35	C
	28	103	.35	0	PCT	8	P4	AV3	.00						TEH	TEC	.610	CBACC	23	C
	28	105	1.14	0	PCT	17	P4	AV3	.06						TEH	TEC	.610	CBACC	27	C
INSPDATE	ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	CRWID	CEG	BEGT	ENDT	PDIA	PTYPE	CAL	L	

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	L
26	8	.60	0	PCT	11	P4	AV3	.00		TEH	TEC	.610	ZBAZC	37	C
28	10	.50	0	PCT	10	P4	AV3	.00		TEH	TEC	.610	ZBAZC	35	C
28	10	.60	0	PCT	12	P4	AV4	.03		TEH	TEC	.610	ZBAZC	35	C
32	12	.46	0	PCT	9	P4	AV2	.03		TEH	TEC	.610	ZBAZC	35	C
33	13	1.69	0	PCT	24	P4	AV2	.00		TEH	TEC	.610	ZBAZC	35	C
33	13	.85	0	PCT	15	P4	AV3	.00		TEH	TEC	.610	ZBAZC	35	C
33	13	.57	0	PCT	11	P4	AV4	.00		TEH	TEC	.610	ZBAZC	35	C
35	14	2.83	0	PCT	31	P4	AV2	.00		TEH	TEC	.610	ZBAZC	35	C
35	14	.70		PCT	13	P4	AV4	.00		TEH	TEC	.610	ZBAZC	35	C
33	15	.67	0	PCT	11	P4	AV4	.08		TEH	TEC	.610	CBACC	33	C
36	16	.57	0	PCT	11	P4	AV1	.00		TEH	TEC	.610	ZBAZC	35	C
36	16	2.89	0	PCT	32	P4	AV2	.00		TEH	TEC	.610	ZBAZC	35	C
36	16	.82	0	PCT	15	P4	AV3	.00		TEH	TEC	.610	ZBAZC	35	C
36	16	.74	0	PCT	14	P4	AV4	.00		TEH	TEC	.610	ZBAZC	35	C
35	17	5.04	17	SCI		2	TEH	.20		01H	TEH	.610	ZYSXA	20	H
37	17	.95	0	PCT	16	P4	AV2	.03		TEH	TEC	.610	ZBAZC	41	C
37	17	.88	0	PCT	15	P4	AV4	.14		TEH	TEC	.610	ZBAZC	41	C
38	18	1.50	0	PCT	22	P4	AV2	.00		TEH	TEC	.610	ZBAZC	45	C
38	18	1.14	0	PCT	18	P4	AV4	.00		TEH	TEC	.610	ZBAZC	45	C
38	19	.54	0	PCT	11	P4	AV2	.03		TEH	TEC	.610	ZBAZC	45	C
38	20	.77	0	PCT	12	P4	AV2	-.01		TEH	TEC	.610	CBACC	47	C
38	20	.65	0	PCT	10	P4	AV4	.12		TEH	TEC	.610	CBACC	47	C
41	20	.59	0	PCT	12	P4	AV4	.08		TEH	TEC	.610	ZBAZC	45	C
38	21	.47	0	PCT	10	P4	AV2	.00		TEH	TEC	.610	ZBAZC	45	C
38	22	4.84	15	MCI		30	TEH	.47		TSH	TEH	.610	ZYSXA	22	H
43	22	.56	0	PCT	11	P4	AV1	.00		TEH	TEC	.610	ZBAZC	45	C
43	22	.65	0	PCT	12	P4	AV2	.00		TEH	TEC	.610	ZBAZC	45	C
43	22	1.78	0	PCT	24	P4	AV3	.00		TEH	TEC	.610	ZBAZC	45	C
43	22	1.09	0	PCT	18	P4	AV4	.00		TEH	TEC	.610	ZBAZC	45	C
42	23	1.41	0	PCT	21	P4	AV2	.08		TEH	TEC	.610	ZBAZC	45	C
42	23	.61	0	PCT	12	P4	AV4	-.05		TEH	TEC	.610	ZBAZC	45	C
44	24	.70	0	PCT	13	P4	AV3	-.11		TEH	TEC	.610	ZBAZC	45	C
38	26	.68	0	PCT	11	P4	AV2	.00		TEH	TEC	.610	CBACC	47	C
6	28	1.22	128	SAI		182	TEH	.20		TSH	TEH	.610	ZYSXA	6	H
33	28	.54	0	PCT	10	P4	AV2	.00		TEH	TEC	.610	ZBAZC	37	C
43	29	.54	0	PCT	11	P4	AV2	.06		TEH	TEC	.610	ZBAZC	45	C
42	30	.76	0	PCT	12	P4	AV2	.00		TEH	TEC	.610	CBACC	47	C
42	32	.73	0	PCT	11	P4	AV2	-.05		TEH	TEC	.610	CBACC	47	C
44	34	.61	0	PCT	10	P4	AV2	.00		TEH	TEC	.610	CBACC	43	C
49	37	.31	0	PCT	6	P4	AV1	.16		TEH	TEC	.610	ZBAZC	41	C

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	L
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ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	L
35	43	4.61	74	SCI		30	TEH	.26		TSH	TEH	.610	ZYSXA	18	H
49	45	.90	0	PCT	14	P6	13C	.43		TEC	TEH	.610	CBACC	128	H
44	46	1.47	0	PCT	23	P4	AV3	.00		TEC	TEH	.610	ZBAZC	90	H
17	55	.31	0	PCT	14	P20	01H	-.69		01H	01H	.610	ZYSXA	110	H
21	57	.27	0	PCT	13	P31	05H	-.68		05H	05H	.610	ZYSXA	110	H
29	64	.56	0	PCT	21	P31	04H	1.24		05H	04H	.610	ZYSXA	112	H
29	64	.56	0	SVI		P31	04H	1.24		05H	04H	.610	ZYSXA	112	H
38	64	1.18		PCT	20	P4	AV2	.00		TEC	TEH	.610	CBACC	64	H
36	65	1.46	0	PCT	24	P4	AV3	.00		TEC	TEH	.610	CBACC	66	H
49	66	.85		PCT	16	P4	AV4	.11		TEC	TEH	.610	CBACC	64	H
28	71	1.24	0	PCT	22	P4	AV2	.00		TEC	TEH	.610	CBACC	66	H
49	74	.60	0	PCT	13	P4	AV4	.19		TEC	TEH	.610	CBACC	68	H
41	77	1.30		PCT	21	P4	AV2	.01		TEC	TEH	.610	CBACC	72	H
41	77	.54	0	PCT	12	P4	AV3	.00		TEC	TEH	.610	CBACC	72	H
38	78	1.05	0	PCT	19	P4	AV3	.00		TEC	TEH	.610	CBACC	70	H
43	78	1.84	0	PCT	26	P4	AV2	.00		TEC	TEH	.610	CBACC	70	H
43	78	2.74	0	PCT	32	P4	AV3	.00		TEC	TEH	.610	CBACC	70	H
33	79	.47		PCT	10	P4	AV1	-.18		TEC	TEH	.610	CBACC	72	H
33	79	.80	0	PCT	15	P4	AV2	.00		TEC	TEH	.610	CBACC	72	H
15	80	.29	0	PCT	13	P31	03H	-.84		03H	03H	.610	ZYSXA	110	H
33	81	.85	0	PCT	16	P4	AV2	.16		TEC	TEH	.610	CBACC	76	H
39	81	.74	0	PCT	14	P4	AV2	.18		TEC	TEH	.610	CBACC	76	H
39	81	.64	0	PCT	13	P4	AV4	.00		TEC	TEH	.610	CBACC	76	H
48	82	.43	0	PCT	11	P4	AV1	.00		TEC	TEH	.610	CBACC	74	H
1	84	2.35	103	SAI		26	TEH	.50		01H	TEH	.610	ZYSXA	36	H
49	84	.47		PCT	12	P4	AV1	-.21		TEC	TEH	.610	CBACC	74	H
42	85	1.18		PCT	19	P4	AV2	-.10		TEC	TEH	.610	CBACC	76	H
42	85	.51	0	PCT	11	P4	AV3	.00		TEC	TEH	.610	CBACC	76	H
47	87	.43	0	PCT	11	P4	AV4	.08		TEC	TEH	.610	CBACC	74	H
38	90	.65	0	PCT	14	P4	AV2	.00		TEC	TEH	.610	CBACC	78	H
39	90	.66	0	PCT	14	P4	AV2	.00		TEC	TEH	.610	CBACC	78	H
44	90	.27	0	PCT	3	P4	AV1	.00		TEC	TEH	.610	CBACC	78	H
44	91	.72	0	PCT	14	P4	AV2	.00		TEC	TEH	.610	CBACC	78	H
44	91	.59	0	PCT	13	P4	AV4	.00		TEC	TEH	.610	CBACC	78	H
45	91	.42	0	PCT	10	P4	AV2	.00		TEC	TEH	.610	CBACC	78	H
45	91	.54	0	PCT	12	P4	AV4	-.11		TEC	TEH	.610	CBACC	78	H

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	L
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ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	L
36	93	1.22		PCT	20	P4	AV2	-.05		TEC	TEH	.610	CBACC	80	H
38	93	2.22		PCT	28	P4	AV2	-.11		TEC	TEH	.610	CBACC	80	H
38	93	.55	0	PCT	12	P4	AV3	-.29		TEC	TEH	.610	CBACC	80	H
40	93	.97		PCT	18	P4	AV2	-.20		TEC	TEH	.610	CBACC	80	H
36	94	.57	0	PCT	12	P4	AV1	.00		TEC	TEH	.610	CBACC	78	H
36	94	.77	0	PCT	15	P4	AV2	.00		TEC	TEH	.610	CBACC	78	H
38	94	.52	0	PCT	11	P4	AV3	-.14		TEC	TEH	.610	CBACC	78	H
40	94	1.02	0	PCT	18	P4	AV2	.00		TEC	TEH	.610	CBACC	78	H
40	94	1.07	0	PCT	19	P4	AV3	.00		TEC	TEH	.610	CBACC	78	H
32	96	.70	0	PCT	15	P4	AV2	.27		TEC	TEH	.610	CBACC	82	H
35	96	.30	0	PCT	8	P4	AV2	-.03		TEC	TEH	.610	CBACC	82	H
36	96	.97	0	PCT	18	P4	AV2	.00		TEC	TEH	.610	CBACC	82	H
36	96	.63	0	PCT	14	P4	AV3	.08		TEC	TEH	.610	CBACC	82	H
39	96	1.09	0	PCT	20	P4	AV3	.00		TEC	TEH	.610	CBACC	82	H
36	97	1.41	0	PCT	23	P4	AV2	.00		TEC	TEH	.610	CBACC	84	H
40	97	.65	0	PCT	12	P4	AV1	.00		TEH	TEC	.610	ZBAZC	45	C
40	97	.53	0	PCT	11	P4	AV3	.00		TEH	TEC	.610	ZBAZC	45	C
40	97	.63	0	PCT	14	P4	AV1	-.08		TEC	TEH	.610	ZBAZC	90	H
40	97	.76	0	PCT	15	P4	AV3	.05		TEC	TEH	.610	ZBAZC	90	H
34	98	1.58	0	PCT	23	P4	AV2	.00		TEC	TEH	.610	CBACC	84	H
36	98	.97	0	PCT	18	P4	AV3	.00		TEC	TEH	.610	CBACC	84	H
39	98	.41		PCT	10	P4	AV1	.03		TEC	TEH	.610	CBACC	82	H
34	99	.95	0	PCT	18	P4	AV2	.00		TEC	TEH	.610	CBACC	84	H
34	100	.93	0	PCT	17	P4	AV3	.00		TEC	TEH	.610	CBACC	84	H
36	100	1.44	0	PCT	20	P4	AV3	-.29		TEC	TEH	.610	CBACC	82	H
36	100	2.78	0	PCT	32	P4	AV3	.27		TEC	TEH	.610	CBACC	82	H
30	102	1.64	0	PCT	24	P4	AV3	.00		TEC	TEH	.610	CBACC	84	H
29	104	.58	0	PCT	13	P4	AV2	-.11		TEC	TEH	.610	CBACC	84	H
28	105	1.01	0	PCT	19	P4	AV2	.11		TEC	TEH	.610	CBACC	82	H
25	107	1.25	0	PCT	22	P4	AV2	.00		TEC	TEH	.610	CBACC	82	H
25	107	.43		PCT	10	P4	AV3	.03		TEC	TEH	.610	CBACC	82	H
27	107	.79		PCT	16	P4	AV2	.26		TEC	TEH	.610	CBACC	82	H
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	L