Thomas D. Gatlin
Vice President, Nuclear Operations
803.345.4342

SCE&G®
A SCANA COMPANY

March 6, 2013
RC-13-0026

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Dear Sir/Madam:

Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS), UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12
TWENTIETH REFUELING INSERVICE INSPECTION (ISI) REPORT

Attached is the Virgil C. Summer Nuclear Station Refueling Outage 20 Inservice Inspection Report required by Subsection IWA-6200 of the ASME Boiler and Pressure Vessel Code. The attached report summarizes the inspections of plant piping, components and supports performed during the interval from the end of Refueling Outage 19 to December 7, 2012. Document reviews, approvals, and certifications that were not completed by the end of the reporting period will be reported either by amendment or will be included in the next report.

The report contains the required Form NIS-1 (Owner's Data Report for Inservice Inspection) and a summary of the ASME Inservice Examination activities. The examination and repair activities are provided in the following tabbed sections:

Tab A - Pre-Service Examination Summary
Tab B - Inservice Examination Summary
Tab C - IWE/IWL Containment Inspection Report
Tab D - Repair and Replacement Summary (NIS-2, Owner's Data Report for Repair or Replacements)
Tab E - Reactor Vessel Head Examination and Repair Summary

Should you have any questions concerning the details of this report, please call Mr. Mel Browne, Manager of Quality Systems, at (803) 345-4141; Mr. Furman Miller, Supervisor of Quality Control, at (803) 345-4132; or Mr. Edward Colie IV, ISI Coordinator, at (803) 345-4154.

Very truly yours,

Thomas D. Gatlin

JG/TDG/bj
Attachment

c: (Without Attachments unless noted)
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A047
NRR

INSERVICE INSPECTION REPORT # 18
Interval 3, Period 3, Outage 2 (Refuel 20)

FOR

VIRGIL C. SUMMER NUCLEAR STATION (Unit #1)
P.O. Box 88
Jenkinsville, S. C. 29065

SOUTH CAROLINA ELECTRIC & GAS COMPANY
Cayce, S.C. 29033

Commercial Service Date 01-01-1984
Report Completion Date 03-04-2013

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS
As required by the Provisions of the ASME Code Rules

1. Owner South Carolina Electric & Gas Company - Cayce, S. C. 29033
(Name and Address of Owner)

2. Plant V. C. Summer Station - P. O. Box 88 - Jenkinsville, S. C. 29065
(Name and Address of Plant)

3. Plant Unit 1 4. Owner Certificate of Authorization N/A

5. Commercial Service Date 01/01/1984 6. National Board Number for Unit N/A

7. Components Inspected:

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
COMPONENT COOLING	DCC	CC	N/A	N/A
FEEDWATER	DCC	FW	N/A	N/A
REACTOR COOLANT	DCC	RC	N/A	N/A
RESIDUAL HEAT REMOVAL	DCC	RH	N/A	N/A
SAFETY INJECTION	DCC	SI	N/A	N/A
REACTOR BUILDING SPRAY	DCC	SP	N/A	N/A
SERVICE WATER	DCC	SW	N/A	N/A
CHILLED WATER	DCC	VU	N/A	N/A

FORM NIS-1 (back)

8. Examination Dates 9-2011 to 2-2013

9. Inspection Period Identification: 3

10. Inspection Interval Identification: 111

11. Applicable Edition of Section XI 1998 Addenda 2000

12. Date/Revision of Inspection Plan ISE-5, Dated 03-24-2011, Revision 4

13. Abstract of Examination and Tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan.

See Page 4 of 12 of Summary Report # 18

14. Abstract of Results of Examination and Tests.

See Page 5 of 12 of Summary Report # 18

15. Abstract of Corrective Measures

See Page 5 of 12 of Summary Report # 18

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 03/04/2013 Signed S. C. E. & G. By _____
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 and employed by HSBCT Company of HARTFORD, CONNECTICUT have inspected the components described in this Owner's Report during the period September 2011 to February 2013 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.

ELHOSTAFA ELKOUHI Commissions NB 13930 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

ABSTRACT

This report presents the results of the Inservice Inspection for the twentieth refueling outage, the second outage of the third period in the third interval at the Virgil C. Summer Nuclear Station, Unit 1. Examinations of piping welds, piping system components, bolting and component supports were conducted in accordance with ASME Section XI. Repair and replacement efforts included maintenance component items along with planned modifications. The inspection of the Reactor Building Containment structure was performed in accordance with the IWE/IWL program manual, ISE-4, and is discussed separately in Section 4.0 of this report and Tab C. Pressure testing of ASME code systems and their associated components was performed in accordance with the requirements of ASME Section XI, IWA-5000, IWB-5000 and IWC-5000. No flaws which exceeded the acceptance criteria established by ASME Section XI were accepted for continued operation during the scheduled preservice or inservice examinations of pressure retaining components during this reporting period.

1.0 INTRODUCTION

The Inservice Inspection of the twentieth refueling outage at the Virgil C. Summer Nuclear Station, Unit 1 was conducted in accordance with the site Technical Specifications and the Final Safety Analysis Report. These documents describe the extent to which the American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section XI, 1998 Edition 2000 Addenda applies to the Virgil C. Summer Nuclear Station Inservice Inspection program. The Containment Inservice Inspection program for American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section XI, Subsections IWE and IWL is governed by the 2001 Edition through the 2003 Addenda. This report contains a detailed item-by-item summary of examination results performed by South Carolina Electric and Gas Company personnel and their approved vendors since the last reporting of refuel nineteen. Examination reports, sketches and data sheets for the Class 1 and Class 2 system component inspections, visual examination data, examination limitations, consumable testing materials, personnel qualifications and calibration standard design criteria are retained by South Carolina Electric and Gas Company for archival review. Information for the following categories may be obtained through the South Carolina Electric and Gas Company, Virgil C. Summer Station, Unit 1, plant record system.

1. Personnel Certification
2. Examination Procedures
3. Consumable Certification
4. Inservice Inspection Drawings
5. Corrective Action Reports
6. Pressure Test Documentation
7. Examination Data Reports
8. Ultrasonic Calibration Block Material Certification
9. Repair & Replacement Records

2.0 INSERVICE EXAMINATION EVALUATION

2.1 The twentieth Inservice Examination (ISE) outage, identified as Interval 3, Period 3, Refueling Outage 20 for the South Carolina Electric and Gas Company (SCE&G) and the Virgil C. Summer Nuclear Station, Unit 1, was performed in accordance with the Inservice Inspection Program prepared by SCE&G. The program manual and procedures (Manual ISE-5, Procedures SAP-1294, ES-439, QSP-210 and QSP-211) detail the description of examination areas, extent of examination, frequency of examination, percentages of components selected for examination and code specified category relative to each. All Inservice Examinations performed were conducted by the use of site-approved procedures and documented on procedural data reports. Each data report details the component or system examined, examination method employed, the procedure used to perform the test and all pertinent equipment settings or examination conditions. Recordable indications were documented and evaluated on the individual examination data reports. The reports are retained by the Virgil C. Summer Nuclear Station permanent records system for retrieval and review for the life of the component. A summary of examinations, attached herein, contains listings of the examinations performed detailing the component identification, code class, code category, code item number, exam or test method, work document, program type (PSI or ISI), examination result and other amplifying information.

2.2 The ultrasonic examinations performed revealed flaws requiring repair in 4 reactor vessel head-to-control rod drive mechanism penetration j-groove welds. These repairs were carried out by Engineering Change Request 50846 in accordance with the requirements stipulated in request for alternative RR-III-09 under 10CFR50.55a(g)(6)(ii)(D). These repairs were based on the NRC approved Westinghouse repair process in WCAP-15987-P-A, as modified by the approved relief request [ML12325A432]. No other ultrasonic examinations performed revealed flaw indications exceeding the acceptance criteria of ASME Section XI, 1998 Edition 2000 Addenda that apply to the Virgil C. Summer Nuclear Station.

2.3 Visual or surface examinations which revealed indications requiring evaluation have been dispositioned, repaired or replaced and re-inspected in accordance with the associated Code requirements to ensure those components have been returned to their design condition.

2.4 The results of examinations performed at the Virgil C. Summer Nuclear Station during the twentieth refueling outage have been classified in one of the following manner:

A. No Recordable Indications, *NRI*
B. Procedurally recordable but Code acceptable indications, *RI*
C. Indications evaluated and repaired or dispositioned, *RI&E*

2.5 The attached ISI Examination Summary itemize the components examined for the Virgil C. Summer Nuclear Station, Unit 1, Interval 3, Period 3, Refuel 20. The following is a brief explanation of the type of information included in the ISI Examination Summary.

A. **Component Description** - Brief description of the type exam performed.

B. **Weld/Component ID** - Component identification number for components examined or tested as detailed in the SCE&G Inservice Examination Program for the third interval. Component identifications with an asterisk (*) are listed to show the component has multiple examination categories being credited. Where the examination method is the same for a specific component with multiple categories, only one examination report may be referenced.

C. **System** - Major piping system designation or plant equipment identification number for the component examined.

D. **Code Class** - Component ASME Code Classification.

E. **Code Category** - ASME Section XI, IWX-2500 component category. Augmented inservice examination programs required by 10CFR50.55a(g)(6)(ii)(D,E,F) are AUG-06, and those for thermal fatigue requirements are listed as AUG-07.

F. **Code Item** - ASME Section XI, IWX-2500 component item number. AUG-06 Code Item is the designation per Table 1 of ASME Section XI Code Cases N-722-1, N-729-1 or N-770-1.

G. **NDE Type** - The required non destructive examination listed from the ASME Section XI, IWX-2500 tables, Code Case Table 1, regulatory requirement, or industry commitment document.

H. **Work Document** - Station work document used to schedule and implement examinations.

I. **Results** – Individual results of the examination.

J. **Remarks** - Amplifying information about the performance of the examination.

2.6 Status of the Current Interval

The scheduling of examinations for the third period of the third interval is in accordance with the guidelines established in ASME Section XI, Table IWX-2412-1. The current percentage of completed NDE examinations for Interval 3 is listed by code category and tabulated for reference on pages 12-13 of this report. Some code categories which have small populations of components may have deviated from the established values shown in Table IWX-2412-1 of the code due to relief requests, or component availability in accordance with code requirements. Refuel 20 was the final outage of the 3rd interval, originally scheduled to end December 31, 2013. The 3rd

interval will be extended into the Spring of 2014, just prior to Refuel 21. The purpose of the extension is to capture one missed exam on one remaining valve type body, Category B-M-2, and the associated bolting Category B-G-2 for this valve type. This has been captured in the station corrective action program as CR-12-05434.

The number and percentages for completion of the third inservice inspection program plan vary for the reasons listed below.

A. Category B-A - Pressure retaining welds in reactor vessel. All of these exams were originally planned for the once per interval (10-year) examination of the reactor vessel scheduled for Refuel 20. The NRC granted the extension to the inspection interval of the reactor vessel examination requirements for category B-A and B-D welds from 10 years to 20 years with the SER for RR-III-07 dated July 19, 2012 [ML12191A163].

B. Category B-D - Full penetration welded nozzles in vessels. All of these exams were originally planned for the once per interval (10-year) examination of the reactor vessel scheduled for Refuel 20. The NRC granted the extension to the inspection interval of the reactor vessel examination requirements for category B-A and B-D welds from 10 years to 20 years with the SER for RR-III-07 dated July 19, 2012 [ML12191A163].

C. Category B-M-2 - Valve bodies exceeding NPS 4. Only 50% of the valve types have been disassembled for maintenance. One B-M-2 valve type was removed and disassembled for maintenance with no documentation of the VT-3 being performed. The third interval is being extended to capture this exam on a valve of the same group scheduled for the Spring of 2014.

D. Category B-N-2 - Welded core support structures and interior attachments to reactor vessels. These exams were planned for Refuel 20 originally due to the core barrel pull required for inspecting the reactor vessel welds. These exams took place during Refuel 18, but were not taken credit for due to Interval percentage requirements. The exams during RF18 were documented as Internal Vessel Visual Inspection (IVVI) items. During Cycle 21, these exam videos will be reviewed to document the VT-3 exams which were performed for item B13.60, Reactor Vessel Interior Attachments Beyond the Beltline Region. The third interval is being extended for these items.

E. Category B-N-3 - Removable core support structures. This issue is the same as is discussed in D above, except for Category B-N-3, item number B13.70, Core Support Structure. The third interval is being extended for these items.

3.0 REPAIR AND REPLACEMENT PROGRAM

3.1 The Virgil C. Summer Nuclear Station repair and replacement program for the period beginning August 1, 2011 through February 1, 2013 involved corrective maintenance replacements and scheduled engineering design changes.

3.2 The work documents for those components affected by the repair and replacement program undergo extensive evaluation and review by station organizations and the Authorized Nuclear Inservice Inspection Agency. Work package information included within this summary report are those which have completed all required reviews, final engineering approval and the required "ANII" NIS-2 certification prior to the close of the reporting period specified in ASME Section XI, IWA-6230 and the ISE program Manual ISE-5. The station has established February 1, 2013 as the end of the reporting period for Refuel 20 and the document closing date for this reporting period. Work evolutions performed during the twentieth refueling outage whose document review, approval and certification process which was not finalized by the established closing date shall be reported either by an amendment to this original Refuel 20 NIS-2 summary or shall be included in the next report for Refuel 21 within the guidelines of ASME Section XI, IWA-6230.

3.3 The enclosed repair and replacement summary and the attached original ASME Section XI, NIS-2 forms (attached as Tab D) detail the system, component, component description, work document and a description of the work activity. Complete repair and replacement documentation for the specific component is maintained at the Virgil C. Summer Nuclear Station permanent records facility and is retrievable through the work document package.

4.0 REACTOR CONTAINMENT BUILDING EXAMINATION PROGRAM

A Containment Inservice Inspection (CISI) Program Plan (ISE-4) was developed for the Virgil C. Summer Nuclear Station (VCSNS) Unit1 which details the requirements for the examination and testing of ASME Section XI Class MC and Class CC components. This Program Plan was developed in accordance with the requirements of the 2001 Edition (with Addenda through 2003) of the ASME Boiler and Pressure Vessel Code, Section XI, Division 1, Subsections IWE and IWL, as modified by NRC final rulemaking to 10 CFR 50.55a published in the Federal Register on October 1, 2004. This Program Plan was developed using the guidance in EPRI's Containment Inspection Program Guide, (ASME Section XI, Subsections IWE and IWL), GC-110698. Implementation of the CISI Program Plan was conducted in accordance with Quality Services Procedure STP-803.006, IWE and IWL Visual Examination.

The inspections performed during the Refuel 20 cycle included field inspections and engineering evaluation of the Containment structure to include the post-tensioning system, Class MC pressure retaining components and Class CC reinforced concrete containment.

The engineering report detailing the inspection activities performed and the responsible engineer evaluation is attached as Tab C to this report.

5.0 REFUEL 19 HYDRO/LEAK TEST SUMMARY

Leak test inspections were performed in accordance with ASME Section XI, plant technical specifications and station procedure SAP-145, "Containment Leakage Rate and Inservice Testing Programs". Performance of system and component pressure test is in accordance with station procedure GTP-304, "Inservice Inspection System Pressure Testing, Third Ten Year Interval". Also included within GTP-304 are the relief requests utilized in the conduct of the credited pressure tests. The table below lists those tests performed since the last summary report of Refuel 19.

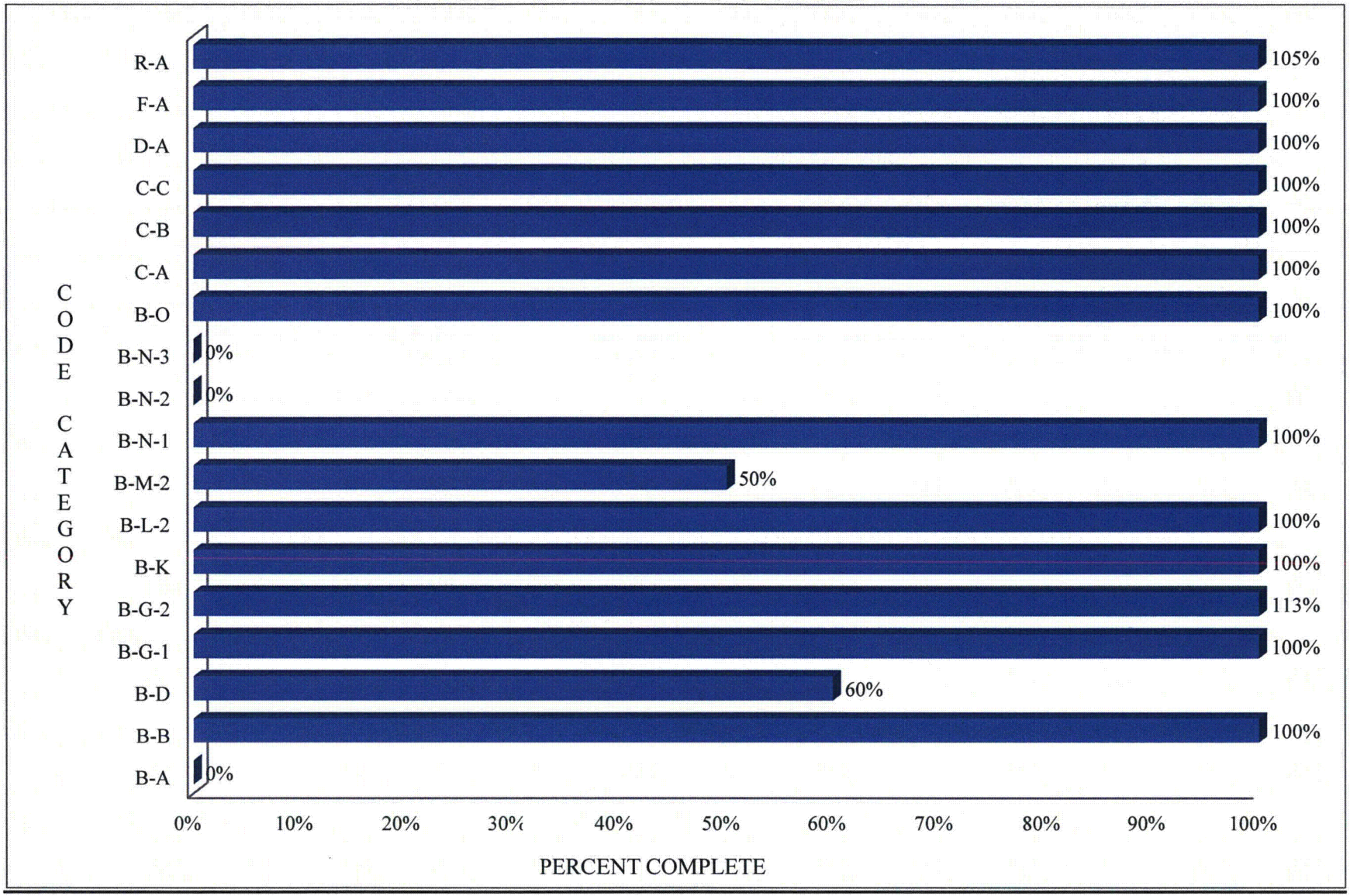
SYSTEM	SYSTEM DESCRIPTION	CODE CLASS	PROCEDURE	WORK DOCUMENT
MC	Containment Liner	MC	GTP-304	1114364
SW	Service Water Sys.	2 / 3	GTP-304	1116279
EF	Emerg. Feedwater	2 / 3	GTP-304	1201697
SW	Service Water Sys.	2 / 3	GTP-304	1210657
CVCS	Chem. Volume Control Sys.	2 / 3	GTP-304	1211906
RC	Reactor Coolant	1	STP0250.001 B	1209726
SI/CVCS	Safety Injection	2 / 3	STP-250.002	1116304
RHR	Residual Heat Removal	2	STP-250.004A	1116326
CCW	Component Cooling Water	2 / 3	STP-250.006A	1112187
EF	Emerg. Feedwater	2 / 3	STP-250.010A	1200263
MS	Main Steam	2	STP-250.012	1112608
VU	Chilled Water Sys.	3	STP-250.013	1116322 1116363
HR	Hydrogen Removal	3	STP-250.016	1116364
CS	Boric Acid	2 / 3	STP-250.017	1116325

6.0 AUGMENTED EXAMINATION PROGRAM

The Augmented Examination Program included in this summary document the inspections performed to satisfy regulatory documents other than ASME Section XI. During this reporting period, examinations were conducted in accordance with plant technical specifications, engineering documents and the Nuclear Regulatory Commission required examinations of the Reactor Vessel exterior for evidence of boric acid residue. These examinations and data reports are not subject to the interface review by the Authorized Nuclear Inservice Inspection Agency for compliance with ASME Section XI requirements for personnel and examination, as is required by 10CFR50.55a, or other industry commitments.

The Augmented exams are summarized in Tab B on the Inservice Examination Summary.

7.0 INTERVAL EXAMINATION NUMBERS AND PERCENTAGES



*B-A, B-D, B-N1, B-N-2, B-N-3 percentages were impacted by RR-III-07 for Rx Vessel inspection extension to 20 years

*RF20 B-N-1 item is of the inside of the Upper Head on the stand

*RF-20 B-G-1 number of 58 = 58 B6.10, 58 B6.30, 58 B6.40, 58 B6.50 - actually 232 individual code items

*B-G-2 extra done to correct for valve type requirement

*B-M-2 Only required if valve is disassembled - Only 50% have been disassembled

7.0 INTERVAL EXAMINATION NUMBERS AND PERCENTAGES

ASME SECTION XI INTERVAL III COMPLETION STATUS

		BREAKER OPEN DATE		4/12/2005	10/14/2006	4/25/2008	10/17/2009	4/15/2011	10/13/2012		
		BREAKER CLOSED DATE		6/1/2005	11/22/2006	6/14/2008	12/10/2009	5/31/2011	12/7/2012		
			TOTAL	SP 2005	Fall 2006	SP 2008	Fall 2009	SP 2011	Fall 2012		
		% COMPLETE	SELECTED	RF-15	RF-16	RF-17	RF-18	RF-19	RF-20	# DONE	# LEFT
RX VESSEL	B-A	0%	18	0	0	0	0	0	0	0	18
OTHER VESSELS	B-B	100%	5	2	0	0	1	2	0	5	0
NOZZLE/SHELL	B-D	60%	30	5	0	0	11	0	2	18	12
> 2" BOLTS	B-G-1	100%	82	0	0	24	0	0	58	82	0
≤ 2" BOLTS	B-G-2	113%	244	92	0	0	68	30	86	276	-32
INTEGRAL (CC 509)	B-K	100%	2	0	1	0	0	0	1	2	0
PUMP CASING	B-L-2	100%	1	1	0	0	0	0	0	1	0
VALVE BODY	B-M-2	50%	8	2	1	0	0	0	1	4	4
RX INTERIOR	B-N-1	100%	3	0	1	0	1	0	1	3	0
RX ATTACHMENTS	B-N-2	0%	1	0	0	0	0	0	0	0	1
CORE SUPPORTS	B-N-3	0%	1	0	0	0	0	0	0	0	1
CRDM WELDS	B-O	100%	3	0	0	0	0	0	3	3	0
VESSELS	C-A	100%	6	0	2	0	2	0	2	6	0
NOZZLES	C-B	100%	5	0	2	0	1	0	2	5	0
INTEGRAL	C-C	100%	17	4	2	4	1	2	4	17	0
INTEGRAL	D-A	100%	11	3	0	0	4	2	2	11	0
SUPPORTS	F-A	100%	203	32	32	32	35	33	39	203	0
RISK PIPING	R-A	105%	98	16	18	31	7	18	13	103	-5
			738	157	59	91	131	87	214	739	

*B-A, B-D, B-N-1, B-N-2, B-N-3 percentages were impacted by RR-III-07 for Reactor Vessel inspection extension to 20 years. ML

*R-A category exceeded due to Risk Informed ISI being a living program

*RF-20 B-G-1 number of 58 = 58 B6.10, 58 B6.30, 58 B6.40, 58 B6.50 - actually 232 individual code items

*B-G-2 extra done to correct for valve type requirement

*B-M-2 Only required if valve is disassembled - Only 50% have been disassembled

INSERVICE INSPECTION REPORT #18

REFUEL 20

INDEX OF EXAMINATIONS

Document Control Desk
RC-13-0026
Attachment

VIRGIL C. SUMMER NUCLEAR STATION (VCSNS), UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12

INSERVICE INSPECTION REPORT #18
REFUEL 20
TAB A
PRE-SERVICE EXAMINATION SUMMARY

Pre Service Examination Summary

V. C. Summer Nuclear Station
Interval III, Period 3, Outage 2
Refuel 20

DRAWING	*COMPONENT*	*SYSTEM*	*CATEGORY*	*ITEM*	*NDE*	*WORK ORDER #*	*REMARKS*
S-321-671-0219	CSH-0219	RC	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-671-0934	CSH-0934	RC	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-671-0941	CSH-0941	CS	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-671-0944	CSH-0944	CS	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-671-0946	CSH-0946	CS	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-671-1801	CSH-1801	CS	F-A	F1.20	VT-3	0705691	RE-INSTALLED PIPE SUPPORT
S-321-671-1899	CSH-1899	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-4037	CSH-4037	RC	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-671-4038	CSH-4038	RC	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-671-5055	CSH-5055	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5056	CSH-5056	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5057	CSH-5057	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5058	CSH-5058	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5059	CSH-5059	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5060	CSH-5060	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5061	CSH-5061	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5062	CSH-5062	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5063	CSH-5063	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5064	CSH-5064	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5065	CSH-5065	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5066	CSH-5066	CS	F-A	F1.20	VT-3	1103681	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5073	CSH-5073	CS	F-A	F1.20	VT-3	1203743	ADDED NEW SUPPORT TO SYSTEM

DRAWING	COMPONENT	SYSTEM	CATEGORY	ITEM	NDE	WORK ORDER #	REMARKS
S-321-671-5074	CSH-5074	CS	F-A	F1.20	VT-3	1203743	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5075	CSH-5075	CS	F-A	F1.20	VT-3	1203743	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5076	CSH-5076	CS	F-A	F1.20	VT-3	1203743	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5078	CSH-5078	CS	F-A	F1.20	VT-3	1203743	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5081	CSH-5081	CS	F-A	F1.20	VT-3	1203743	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5082	CSH-5082	CS	F-A	F1.20	VT-3	1203743	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5083	CSH-5083	CS	F-A	F1.20	VT-3	1203743	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5087	CSH-5087	CS	F-A	F1.20	VT-3	1202798	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5088	CSH-5088	CS	F-A	F1.20	VT-3	1202798	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5089	CSH-5089	CS	F-A	F1.20	VT-3	1202798	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5090	CSH-5090	CS	F-A	F1.20	VT-3	1202798	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5091	CSH-5091	CS	F-A	F1.20	VT-3	1202798	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5092	CSH-5092	CS	F-A	F1.20	VT-3	1202798	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5094	CSH-5094	CS	F-A	F1.20	VT-3	1202798	ADDED NEW SUPPORT TO SYSTEM
S-321-671-5095	CSH-5095	CS	F-A	F1.20	VT-3	1202798	ADDED NEW SUPPORT TO SYSTEM
S-321-085-0047	EFH-0047	SW	F-A	F1.30	VT-3	1016476	RE-INSTALLED PIPE SUPPORT
S-321-271-5192	IAH-5192	IA	F-A	F1.30	VT-3	1200504	REPLACED PIPE SUPPORT
302-602	PCV00444C-R	RC	B-G-2	B7.70	VT-1	1211920	REPLACED BOLTING
S-321-601-0002	RCH-0002	CS	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-601-0004	RCH-0004	CS	F-A	F1.10	VT-3	1113202	SUPPORT RETURNED TO SERVICE
S-321-691-1189	SIH-1189	SI	F-A	F1.20	VT-3	1213735	RE-INSTALLED PIPE SUPPORT
1MS-07-136	XRE-0001-19	RC	AUG-06	B4.20	PT	1212234	PT OF WELD OVERLAY REPAIR, BASELIN
1MS-07-136	XRE-0001-31	RC	AUG-06	B4.20	PT	1212232	PT OF WELD OVERLAY REPAIR, BASELIN
1MS-07-136	XRE-0001-37	RC	AUG-06	B4.20	PT	1212233	PT OF WELD OVERLAY REPAIR, BASELIN
1MS-07-136	XRE-0001-52	RC	AUG-06	B4.20	PT	1212229	PT OF WELD OVERLAY REPAIR, BASELIN

Document Control Desk
RC-13-0026
Attachment

VIRGIL C. SUMMER NUCLEAR STATION (VCSNS), UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12

INSERVICE INSPECTION REPORT #18
REFUEL 20
TAB B
INSERVICE EXAMINATION SUMMARY

ISI Examination Summary

V. C. Summer Nuclear Station
Interval III, Period 3, Outage 2
Refuel 20

Component Description	Weld Number or Component ID	System	Code Class	Code Category	Code Item	NDE Type	Results	Work Document	Remarks
BMV OF S/G INLET NOZZLE TO SAFE END WELD	1-4100A-31(DM)	RC	1	AUG-06	A-2	VE, N-770-1	NRI	1200462-003	RR-III-08
BMV OF S/G INLET NOZZLE TO SAFE END WELD	1-4200A-28(DM)	RC	1	AUG-06	A-2	VE, N-770-1	NRI	1200463-003	RR-III-08
BMV OF NOZZLE WELD	1-4300A-29(DM)	RC	1	AUG-06	A-2	VE, N-770-1	NRI	1200464-003	RR-III-08
BMV OF S/G OUTLET NOZZLE TO SAFE END WELD	1-4100A-32(DM)	RC	1	AUG-06	B	VE, N-770-1	NRI	1200462-007	RR-III-08
BMV OF S/G OUTLET NOZZLE TO SAFE END WELD	1-4200A-29(DM)	RC	1	AUG-06	B	VE, N-770-1	NRI	1200463-007	RR-III-08
BMV OF NOZZLE WELD	1-4300A-30(DM)	RC	1	AUG-06	B	VE, N-770-1	NRI	1200464-007	RR-III-08
Rx VESSEL BMI NOZZLE,BMV,WCAP-16388-P-R2	1-1100B-BMI NOZZLES	RC	1	AUG-06	B15.80	VE, N-722-1	NRI	1200461-020	Nozzle Exterior Surfaces
UPPER HEAD & ALL PENETRATIONS	1-1100-XRE1	RC	1	AUG-06	B4.10	VE, N-729-1	NRI	1200461-024	
UPPER HEAD TO CRDM TUBE, J GROOVE WELD	1-1100-XRE1	RC	1	AUG-06	B4.20	UT-PDI, N-729-1	RI&E	1200461-015	4 nozzle repairs per WCAP-15987-NP-2A; RR-III-09
BIMETAL (INCONEL) WELD. R.V. LOOP C OUTLET NOZZLE TO SAFE END	1-4300A-1(DM)	RC	1	AUG-06	D	UT/ET-PDI, N-770-1	RI	1200461-004	UT & ET; NO CHANGE
INCONEL WELD. SAFE END/PIPE	1-4300A-2	RC	1	AUG-06	D	UT/ET-PDI, N-770-1	RI	1200461-004	UT & ET; NO CHANGE
BIMETAL (INCONEL) WELD. R.V. LOOP B OUTLET	1-4200A-1(DM)	RC	1	AUG-06	E	UT/ET-PDI, N-770-1	RI	1200461-004	UT NRI; ET NO CHANGE
INCONEL WELD. SAFE END/PIPE	1-4200A-2	RC	1	AUG-06	E	UT/ET-PDI, N-770-1	RI	1200461-004	UT NRI; ET NO CHANGE
PIPE TO ELBOW AND ELBOW BASE METAL	1-4103A-14	SI	1	AUG-07	N/A	UT-PDI/88-08-2	NRI	1200465-032	
PIPE AND ELBOW AT WELD #3 PER MRP-146, 2.4.2.2	1-4308-3	CS	1	AUG-07	N/A	VT-2/BMV	NRI	1200465-025	MRP-146

ISI Examination Summary

Component Description	Weld Number or Component ID	System	Code Class	Code Category	Code Item	NDE Type	Results	Work Document	Remarks
PIPE BASE METAL AT WELD #3 PER MRP-146, CR-06-02167-005	1-4308-3	CS	1	AUG-07	N/A	UT/PDI/MRP-146	NRI	1200465-025	Scanned according to MRP-146.24.2.2
PIPE AND ELBOW AT WELD #4 PER MRP-146, 2.4.2.2	1-4308-4	CS	1	AUG-07	N/A	VT-2/BMV	NRI	1200465-025	MRP-146
PIPE BASE METAL AT WELD #4 PER MRP-146, CR-06-02167-005	1-4308-4	CS	1	AUG-07	N/A	UT/PDI/MRP-146	NRI	1200465-025	Scanned according to MRP-146.24.2.2
PIPE TO ELBOW	1-4103A-12	SI	1	AUG-07	R.1.11	UT-PDI/88-08-2	NRI	1200465-032	
PIPE TO ELBOW	1-4103A-13	SI	1	AUG-07	R1.11	UT-PDI/88-08-2	NRI	1200465-032	
PIPE TO ELBOW AND ELBOW BASE METAL	1-4103A-15	SI	1	AUG-07	R1.11	UT-PDI/88-08-2	NRI	1200465-032	
PRESSURIZER SURGE LINE NOZZLE TO VESSEL WELD	1-2100A-8	RC	1	B-D	B3.110	UT	NRI	1200466-004	Ltd coverage due to heaters/insul - 75.5%
PRESSURIZER SURGE LINE NOZZLE INNER RADIUS	1-2100A-8-IR	RC	1	B-D	B3.120	UT	NRI	1200466-004	
R.V. CLOSURE HEAD HYDRANUTS #01-58	1-1400-XRE1-NUT-01	RC	1	B-G-1	B6.10	VT-1	NRI	1200461-009	residue - tested - dried oil
R.V. CLOSURE HEAD STUD #01-58	1-1400-XRE1-SRM-01	RC	1	B-G-1	B6.30	UT-PDI	NRI	1200461-009	
R.V. FLANGE THREADS #01-58	1-1100A-THRD-01	RC	1	B-G-1	B6.40	W/UT-PDI	NRI	1200461-003	
R.V. CLOSURE HEAD WASHERS #01-58	1-1400-XRE1-WSHR-01	RC	1	B-G-1	B6.50	VT-1	NRI	1200461-009	
R.C. PUMP SEAL INJECTION LINE FLANGE BOLTING, 4 STUDS & 8 NUTS	1-4114-FLANGE 1	CS	1	B-G-2	B7.50	VT-1	NRI	1200467-001	
SAFETY VALVE XVS-8010A INLET FLANGE BOLTING, 12 STUDS & 12 NUTS	1-4501-FLANGE 1	RC	1	B-G-2	B7.50	VT-1	NRI	1117192-001	
REACTOR COOLANT PUMP 'C' - #1 SEAL HOUSING BOLTS - 12@	1-5100A-1C	RC	1	B-G-2	B7.60	VT-1	NRI	1110097-011	

ISI Examination Summary

Component Description	Weld Number or Component ID	System	Code Class	Code Category	Code Item	NDE Type	Results	Work Document	Remarks
CHECK VALVE BOLTING, 16 STUDS & NUTS	1-4203A-8988B*	SI	1	B-G-2	B7.70	VT-1	NRI	1200468-002	*Bolting
CHECK VALVE BOLTING, 16 STUDS & NUTS	1-4203A-8993B*	SI	1	B-G-2	B7.70	VT-1	NRI	1200469-002	*Bolting
CHECK VALVE BOLTING, 18 STUDS & NUTS	1-4301-8948C*	SI	1	B-G-2	B7.70	VT-1	NRI	1200470-001	*Bolting
RX HEAD VENT BOLTING	XVT08096B-RC	RC	1	B-G-2	B7.70	VT-1	NRI	1201166-001	
NOZZLE-BUTTER TO PIPE-BUTTER WELD.	1-4100A-35	RC	1	B-J	B9.11	UT/ET-PDI, N-770-1	RI	1200461-004	UT NRI; ET NO CHANGE
WELDED ATTACHMENT (SIH-413 ANCHOR)	1-4311-WS-1	SI	1	B-K	B10.20	VT-1	NRI	1200471-001	
SAFETY VALVE INTERNALS	1-4501-8010A	RC	1	B-M-2	B12. 50	VT-3		CR-12-05434	3rd Interval extension to Spr 2014
RX HEAD VENT VALVE BODY INTERNALS	XVT08096B-RC	RC	1	B-M-2	NA	VT-3	NRI	1201166-001	NPS 2 valve resealed
R.V. INTERIOR, UPPER HEAD ON STAND	1-1100- XRE1	RC	1	B-N-1	B13.10	VT-3	NRI	1200461-018	RV Head Interior Surface
CRDM HOUSING WELD	1-1300A-16	RC	1	B-O	B14.10	PT	NRI	1200461-016	change from 1-1300A-15 RF20 due to shield access
CRDM HOUSING WELD	1-1300A-25	RC	1	B-O	B14.10	PT	NRI	1200461-016	change from 1-1300A-20 RF20 due to shield access
CRDM HOUSING WELD	1-1300A-9	RC	1	B-O	B14.10	PT	NRI	1200461-016	change from 1-1300A-7 RF20 due to shield access
'C' STEAM GENERATOR SHELL TO UPPER HEAD WELD	2-1100-20C	S/G 'C'	2	C-A	C1.20	UT	NRI	1200464-015	
'C' STEAM GENERATOR SHELL TO TUBESHEET	2-1100-15C	S/G 'C'	2	C-A	C1.30	UT	NRI	1200464-011	

ISI Examination Summary

Component Description	Weld Number or Component ID	System	Code Class	Code Category	Code Item	NDE Type	Results	Work Document	Remarks
'C' STEAM GENERATOR SHELL TO FEEDWATER NOZZLE WELD	2-1100-23C	S/G 'C'	2	C-B	C2.21	UT/MT	NRI	1200464-019	
'C' STEAM GENERATOR SHELL TO FEEDWATER NOZZLE INNER RADIUS	2-1100-23IR-C	S/G 'C'	2	C-B	C2.22	UT	NRI/NRI	1200464-019	
WELDED ATTACHMENT (RHH-0223 RIGID)	2-2521-WS- 2	SI	2	C-C	C3.20	VT-1	NRI	1200472-003	
WELDED ATTACHMENT (RHH-4037 RIGID)	2-2521-WS- 8	SI	2	C-C	C3.20	VT-1	NRI	1200472-003	
WELDED ATTACHMENT (CSH-0131 RIGID)	2-2522B-WS- 4	CS	2	C-C	C3.20	VT-1	NRI	1200467-002	
WELDED ATTACHMENT (SPH-0111)	2-3000-WS- 3	SP	2	C-C	C3.20	VT-1	NRI	1200473-001	
INTEGRAL ATTACHMENT	CCH-0149*	CC	3	D-A	D1.20	VT-1/VT-3	NRI/NRI	1200474-001	
INTEGRAL ATTACHMENT	CCH-0379*	CC	3	D-A	D1.20	VT-1	NRI	1200474-012	
ANCHOR	SIH-0413	SI	1	F-A	F1.10A	VT-3	NRI	1200471-001	
RIGID	SIH-0298	SI	1	F-A	F1.10R	VT-3	NRI	1200471-001	
RIGID	SIH-0387	SI	1	F-A	F1.10R	VT-3	NRI	1200471-007	
RIGID	SIH-0396	SI	1	F-A	F1.10R	VT-3	NRI	1200471-006	
RIGID	SIH-0444	SI	1	F-A	F1.10R	VT-3	NRI	1200471-009	
SPRING	RCH-0002	RC	1	F-A	F1.10SP	VT-3	NRI	1200465-027	
SPRING	RCH-0178	RC	1	F-A	F1.10SP	VT-3	NRI	1200465-028	
SPRING	RCH-0209	RC	1	F-A	F1.10SP	VT-3	NRI	1200465-028	
SPRING	RHH-0182	SI	1	F-A	F1.10SP	VT-3	RI&E	1200472-005	RI - Jam nut loose; tightened on WO 1212452-001

ISI Examination Summary

Component Description	Weld Number or Component ID	System	Code Class	Code Category	Code Item	NDE Type	Results	Work Document	Remarks
SPRING	SIH-0195	SI	1	F-A	F1.10SP	VT-3	NRI	1200471-006	
SPRING	SIH-0395	SI	1	F-A	F1.10SP	VT-3	NRI	1200471-006	
SPRING	SIH-0422	SI	1	F-A	F1.10SP	VT-3	NRI	1200471-008	
ANCHOR	XRP-304	SW	2	F-A	F1.20A	VT-3	NRI	1200475-001	100% of accessible areas
RIGID	CSH-0131	CS	2	F-A	F1.20R	VT-3	NRI	1200467-002	
RIGID	CSH-0136	CS	2	F-A	F1.20R	VT-3	NRI	1200467-002	
RIGID	RHH-0007	RHR	2	F-A	F1.20R	VT-3	NRI	1200472-005	
RIGID	RHH-0223	RHR	2	F-A	F1.20R	VT-3	NRI	1200472-003	
RIGID	RHH-4017	RHR	2	F-A	F1.20R	VT-3	NRI	1200472-005	
RIGID	RHH-4037	RHR	2	F-A	F1.20R	VT-3	NRI	1200472-003	
RIGID	SIH-0019	SI	2	F-A	F1.20R	VT-3	NRI	1200471-002	
RIGID	SIH-0020	SI	2	F-A	F1.20R	VT-3	NRI	1200471-002	
RIGID	SIH-0053	SI	2	F-A	F1.20R	VT-3	NRI	1200471-003	
RIGID	SIH-0101	SI	2	F-A	F1.20R	VT-3	NRI	1200471-004	
RIGID	SIH-0179	SI	2	F-A	F1.20R	VT-3	NRI	1200471-005	
RIGID	SPH-0011	SP	2	F-A	F1.20R	VT-3	NRI	1200473-001	
RIGID	SWH-0104	SW	2	F-A	F1.20R	VT-3	NRI	1200476-006	100% of accessible areas
SPRING	RHH-0276	RHR	2	F-A	F1.20SP	VT-3	NRI	1200472-006	
SPRING	SIH-0393	SI	2	F-A	F1.20SP	VT-3	NRI	1200471-006	
SPRING	SPH-0295	SP	2	F-A	F1.20SP	VT-3	NRI	1200473-001	

ISI Examination Summary

Component Description	Weld Number or Component ID	System	Code Class	Code Category	Code Item	NDE Type	Results	Work Document	Remarks
SPRING	SPH-0296	SP	2	F-A	F1.20SP	VT-3	NRI	1200473-001	
RIGID	CCH-0146	CC	3	F-A	F1.30R	VT-3	NRI	1200474-001	
RIGID	CCH-0379	CC	3	F-A	F1.30R	VT-3	NRI	1200474-012	
RIGID	SWH-4015	SW	3	F-A	F1.30R	VT-3	NRI	1200476-006	100% of accessible areas
RIGID	VUH-0088	VU	3	F-A	F1.30R	VT-3	NRI	1200477-002	100% of accessible areas
RIGID	VUH-0089	VU	3	F-A	F1.30R	VT-3	NRI	1200477-002	100% of accessible areas
RIGID	VUH-0090	VU	3	F-A	F1.30R	VT-3	NRI	1200477-002	100% of accessible areas
RIGID	VUH-0091	VU	3	F-A	F1.30R	VT-3	NRI	1200477-002	100% of accessible areas
COMPONENT SUPPORT (REACTOR BLDG COOLER 2A)	XAA-0002A	SW	3	F-A	F1.40	VT-3	NRI	1200478-001	100% of accessible areas
COMPONENT SUPPORT (CCW HEAT EXCHANGER A)	XHE-0002A	CC	3	F-A	F1.40	VT-3	NRI	1200479-001	100% of accessible areas
COMPONENT SUPPORT (CCW PUMP A)	XPP-0001A	CC	3	F-A	F1.40	VT-3	NRI	1200480-001	100% of accessible areas
PIPE TO VALVE (XVC-8998B),	1-4202A-15	SI	1	R-A	R1.11	UT-PDI	NRI	1200465-010	Single-Sided PDI
PIPE TO ELBOW	1-4202A-16	SI	1	R-A	R1.11	UT	NRI	1200465-010	
PIPE TO ELBOW	1-4202A-17	SI	1	R-A	R1.11	UT	NRI	1200465-010	
ELBOW TO PIPE-RISK BASED ISI	2-2302- 33	FW	2	R-A	R1.11	UT-PDI	NRI	1200481-003	
BIMETAL(INCONEL)WELD.RV NOZZLE BUTTER WELD.	1-4100A-33(DM)	RC	1	R-A	R1.15	UT/ET-PDI, N-770-1	RI	1200461-004	UT NRI; ET NO CHANGE
BIMETAL(INCONEL)WELD.PIPE BUTTER WELD.	1-4100A-34(DM)	RC	1	R-A	R1.15	UT/ET-PDI, N-770-1	RI	1200461-004	UT NRI; ET NO CHANGE
PIPE TO ELBOW	1-4201A-11	SI	1	R-A	R1.20	UT-PDI	NRI	1200465-004	

ISI Examination Summary

Component Description	Weld Number or Component ID	System	Code Class	Code Category	Code Item	NDE Type	Results	Work Document	Remarks
PIPE TO ELBOW.RISK BASED ISI.	1-4201A-12	SI	1	R-A	R1.20	UT-PDI	NRI	1200465-004	
PIPE TO ELBOW.RISK BASED ISI	1-4302-2	SI	1	R-A	R1.20	UT-PDI	NRI	1200465-015	NR Geometry - Supplemented by 60 deg scan
PIPE TO ELBOW.RISK BASED ISI	1-4302-3	SI	1	R-A	R1.20	UT-PDI	NRI	1200465-015	NR Geometry - Supplemented by 60 deg scan
PIPE TO ELBOW.RISK BASED ISI	1-4304-2	SI	1	R-A	R1.20	UT-PDI	NRI	1200465-020	
PIPE TO ELBOW.RISK BASED ISI	2-2521-12	SI	2	R-A	R1.20	UT-PDI	NRI	1200472-003	
PIPE TO TEE	2-2557A-2	SW	2	R-A	R1.20	UT-PDI	RI	1200476-004	Geometry - Root geometry seen intermittently w/70

Document Control Desk
RC-13-0026
Attachment

VIRGIL C. SUMMER NUCLEAR STATION (VCSNS), UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12

INSERVICE INSPECTION REPORT #18
REFUEL 20
TAB C
IWE / IWL CONTAINMENT INSPECTION REPORT

CONTAINMENT INSERVICE INSPECTION - 2012
ASME SECTION XI, SUBSECTIONS IWE AND IWL

VIRGIL C. SUMMER NUCLEAR STATION

RESPONSIBLE ENGINEER EVALUATION REPORT

February 21, 2013

Prepared By: Dale D. Krause

Dale D. Krause, P.E.
IWE/IWL Responsible Engineer

CONTAINMENT INSERVICE INSPECTION - 2012
ASME SECTION XI, SUBSECTIONS IWE AND IWL
RESPONSIBLE ENGINEER EVALUATION REPORT

TABLE OF CONTENTS

CONTAINMENT INSERVICE INSPECTION - 2012
ASME SECTION XI, SUBSECTIONS IWE AND IWL
RESPONSIBLE ENGINEER EVALUATION REPORT

1.0 INTRODUCTION

This report evaluates the Containment Inservice Inspections which were conducted in accordance with the requirements of 10CFR50.55a at the Virgil C. Summer Nuclear Station (VCSNS) during the period of October-November, 2012 concurrent with RF 20.

2.0 SCOPE

The Containment Inservice Inspection (CISI) Program Plan (ISE-4) details the requirements for the examination and testing of ASME Section XI Class MC and Class CC components at the VC Summer Nuclear Station (VCSNS). This Program Plan was developed in accordance with the requirements of the 2001 Edition (with Addenda through 2003) of the ASME Boiler and Pressure Vessel Code, Section XI, Division 1, Subsections IWE and IWL, as modified by NRC final rulemaking to 10 CFR 50.55a published in the Federal Register on October 1, 2004. This Program Plan was developed using the guidance in EPRI's Containment Inspection Program Guide, (ASME Section XI, Subsections IWE and IWL, GC-110698).

The components subject to ASME Section XI, Subsection IWE and IWL requirements are those that make up the containment structure, its leak tight barrier (including integral attachments) and those that contribute to its structural integrity.

Specifically included are Class MC pressure retaining components and their integral attachments, (including metallic shell and penetration liners of Class CC pressure retaining components and their integral attachments), per IWE-1100; and Class CC reinforced concrete containments and post-tensioning systems, per IWL-1100.

The terms "Class MC" and "Class CC" are used in Section XI to identify components which meet the functional definitions in IWE-1100 and IWL-1100; these terms should not be equated with components and items that are designed per ASME Section III, Class MC and Class CC rules. Typically, the scope of components and items subject to ASME Section III rules for Class MC Containment vessels and Class CC pre-stressed and reinforced concrete containments extends beyond that of ASME Section XI, Subsections IWE and IWL.

This Program Plan is effective from January 1, 2007 to December 31, 2016 for Subsection IWE and Subsection IWL activities. IWE and IWL inspections will be

performed according to the schedules shown on Tables 4.1.2.4-1 and 4.2.2.4-1 in ISE-4.

This report includes Period 2 IWE and IWL Inspections performed during the Planned Outage for RF-20 during the Fall of 2012.

The scope of inspections in accordance with the ISE-4 RF-20 Outage Plan for Interval 2, Period 2 included the following component inspections:

- Entire Accessible Steel Cylinder and Dome Liner
- Moisture Barrier at 412' Basement slab perimeter concrete to steel liner.(Augmented)
- Concrete Tendon Access Gallery (Augmented)
- Valve Chambers and Guard Pipes for "A" and "B" RHR and Spray (Augmented)
- Penetrations and Hatches
- Leak Chase Pressure Test Connections (special inspections)

Design Guideline ST-07, Containment Inservice Inspection Evaluation Criteria, was developed to support this program, and provides inspection criteria used to identify degradation mechanisms requiring documentation as "Recordable Indications". Also included are descriptions of suspect conditions which require evaluation and resolution by the Responsible Engineer.

3.0 INSPECTION PERSONNEL

Detailed inspections were conducted by or under the supervision of Quality Control (QC) Personnel and the Responsible Engineer. Each inspector was qualified to meet the requirements of the VCSNS CISI Program Plan ISE-4 or an equivalent vendor program.

The IWE/IWL Responsible Engineer participated interactively with the QC supervision and inspection personnel. The Responsible Engineer, Dale D. Krause, has a BS Degree in Civil Engineering from Lehigh University, with over 15 years of experience in the design, modification, and inspection of Virgil C. Summer Nuclear Station and over 30 years experience in structural engineering in the field of nuclear power plants. The Responsible Engineer is a Registered Professional Engineer in the State of Pennsylvania (PE-020392-E) and is the Principal Civil Engineer at Virgil C. Summer Nuclear Station.

4.0 IWE / IWL INSPECTIONS

The 2012 IWE and IWL inspections were conducted as an ongoing assessment of the condition of the containment structure. The IWE/IWL inspections and tests were started in October and completed in November 2012.

The IWE inspections included a combination of General Visual, VT-3, and VT-1 examinations using QC inspector walk downs. Inspections were made of all accessible containment liner surface areas using direct line of sight from permanent vantage points. The QC inspector walk downs were used for all containment liner surfaces (including penetrations) as well as the containment liner surfaces in the dome above the spring line. QC inspections were also made on the containment isolation valve containers and guard pipes for the RHR and Reactor Building Spray Systems which are defined as extensions of containment located in the Auxiliary Building at Elevation 397'.

It is noted that the exterior surfaces of the carbon steel guard pipes within the penetration sleeves were prepared and recoated during RF 20. The surface of the guard pipes was visually inspected by fiber scope prior to and after recoating.

In addition to the required visual Augmented Inspections of the RHR and Containment Spray Penetrations, the augmented inspection of the recoated guard pipe surfaces during RF 20 included visual examination by fiber scope of the recoated guard pipes within the penetration sleeves.

5.0 INSPECTION PHILOSOPHY

The 2012 inspection is an ongoing inspection and assessment program in compliance with ASME Section XI Subsections IWE and IWL. Previous examinations had identified areas for augmented examination. The augmented examinations were conducted to determine whether continued degradation had occurred or if the degradation had stabilized relative to the results of the previous inspection.

6.0 RESPONSIBLE ENGINEER EVALUATION

Based on the inspections and examinations during RF-20, no degraded conditions were identified by the Responsible Engineer evaluation which are considered to be abnormal degradation or of structural function significance. Additionally, no new conditions which exceeded the ST-07 threshold criteria (i.e.

are likely to experience accelerated degradation or aging) were identified during the inspections.

6.1 IWE Evaluation

For the IWE inspections, accessible areas are defined as visible using direct line of sight from permanent vantage points. On the inside of containment there were containment liner surface areas which were previously determined to be inaccessible either due to high radiation or obscured by direct line of sight from permanent vantage points. These inaccessible areas are a small fraction of the total surface area inspected and are also subject to the same environmental and/or service conditions as the much larger representative areas that were inspected.

6.1.1 IWE Augmented Inspections

Augmented inspections of the following components have been conducted since their identification during the baseline inspection in 2000 and were performed during this 2012 inspection.

- Moisture Barrier Integrity
- RHR and RB Spray Penetration Guard Pipes

Augmented inspections of the following components were not performed during RF 20 because these items had been deleted previously from the Augmented Inspection list:

- Liner Plate Bulges (Deleted from Augmented Inspection list after RF 17 Inspection because no change in the condition since first observed in 2000.
- Liner Plate Dome Coatings (Deleted from Augmented Inspection list after RF 18 Inspection because no change in the condition since first observed in 2000.)

6.1.1.1 Moisture Barrier Integrity:

All accessible areas of the Containment Moisture Barrier between the perimeter of the basement floor slab at Elevation 412' and the Containment liner were examined during RF 20. The Containment Moisture Barrier seals the small gap between the perimeter of the concrete floor slab and the containment steel liner

plate. This sealant joint has been subject to inspections and maintenance over the years because it has been observed that minor degradation has occurred at the sealant detail along with some light rusting in a few local areas of the RB liner plate typically where the sealant loses adhesion to the liner. This location has been the subject of NRC Information Notice 2004-09 Corrosion of Steel Containment and Containment Liner because typical minor degradation in the sealant and minor rusting on the adjacent liner has been identified at a number of plants. None of the inspection findings documented below reduced the design basis thickness of the RB liner plate nor reduced the capability of the liner to perform the required design basis containment function under the required loads and conditions. The examination was in accordance with the ISE-4 plan and specifically the ASME Code for IWE, Table 2500-1 in the 2001 Edition with the 2003 Addenda.

The Augmented Inspection of the moisture barrier seal performed during RF-20 identified a number of locations where the sealant detail required maintenance rework to continue to perform its design function. The local spots were reworked to the acceptable design condition as described in the NC/CR 12-05160.

It is noted that CER 04-1517,CR 08-01993, and CR 09-04879 documented similar observations found during previous IWE Inspections of the moisture barrier seal and the actions that were taken to perform the maintenance to rework the identified locations to meet design requirements.

Augmented Inspections will continue during each refueling outage to ensure the moisture barrier seal condition is maintained so that it serves its design function to protect the liner from corrosion.

6.1.1.2 RHR & Spray Guard Pipes

Early during the RF-19 outage in 2011, the Augmented Inspection of the RHR and RB Spray Guard Pipes was performed by Quality Control and Design Engineering. The purpose of the inspection was to continue to monitor issues previously identified during the initial IWE / IWL inspections (Fall 2000). The interspace between the penetration Guard Pipes and the surrounding sleeve pipe has exhibited in leakage of groundwater with some corrosion on the exterior of the carbon steel Guard pipes. It had been confirmed that the guard pipe thickness met the minimum required design thickness. The completion of the implementation of ECR-50560, "Dewatering System Design and Installation" since the last Augmented Inspection during RF 17 had reduced to a large extent the groundwater in leakage at the guard pipes which facilitated the rework to prepare and recoat the guard pipes during RF18.

The inspections performed during RF 19 including direct visual and remote visual by fiberscope found that groundwater in leakage was still occurring resulting in conditions that were found to be supporting corrosion of the guard pipes at some of the newly coated areas from RF 18. This condition was evaluated under CR-11-03206. The evaluation determined that the guard pipe wall thickness measurements from ultrasonic examination after the hydrolazing prior to recoating during RF 18 indicated thickness with adequate margin to meet design requirements until the next Augmented Inspection during RF 20 in consideration of the rate of corrosion that has been observed over a period of many years on the guard pipes. The proposed corrective actions from CR 11-03206 include performing maintenance work to prepare and recoat the pipe during RF 20. The QC fiber scope inspection of the guard pipes during the initial part of RF 20 identified that the guard pipes recoating to be done during RF 20 had not been completed. The condition was identified and evaluated by CR 12-05536. Subsequently, during RF 20 the guard pipes were prepared, recoated and reinspected with a fiber scope with acceptable conditions observed.

There were no observable changes to the condition of the containment isolation valve containers compared to the previous inspection.

The following historical information is noted. Subsequent, to the early RF-18 Augmented Inspection of the guard pipes, the non-conformance CR-06-03337 Actions 7 and 9 were implemented during RF-18 to perform coating maintenance rework on the exterior surface of the guard pipes. The surface of the guard pipes within the penetration sleeves was prepared by removing existing coatings and corrosion. CR-06-03337 Actions 10 performed inspection to ensure the pipe thickness both locally and in general met the acceptance criteria established in the design basis calculations. The inspection consisted of 100% visual examination of the surface using a fiber scope. Local spots of pitting were identified and the thickness determined using measurements taken with a mechanical pit gauge. In addition accessible and representative locations on each guard pipe were identified and thickness measured by Ultrasonic Testing Method (UT at representative general locations. The Responsible Engineers Technical Work Record attached to CR06-03337 Action 10, documents the UT measurements of wall thickness for the guard pipes and compares the measurements to the minimum required thickness. In all cases there is a good margin between the measured wall thickness and the required wall thickness. The current CR 12-05536 evaluation from RF 20 found the guard pipe thickness to be acceptable.

6.1.2 Pressure Test Connections to Leak Chases on Inaccessible Bottom Liner Plate

During RF 19 it was determined that the IWE program did not include, and that there had never previously been, a General Visual examination of any of the pressure test connections to the bottom liner leak chases since they had been installed during plant construction over 30 years ago. This condition was identified and evaluated under CR11-02834. There are 51 leak chase zones over liner plate welds for the inaccessible containment bottom liner plate. The ¼ inch thick carbon steel bottom liner plate is located directly beneath the 4 foot thick reinforced concrete interior basement floor slab at Elev. 412' and on top of the 12 foot thick Reactor Building foundation mat. The liner serves as the leaktight pressure boundary for the containment. The liner does not serve as a strength element in the containment design. The pressure test connections served during construction for pressure-drop testing of each leak chase test zone to demonstrate no leakage in the zone both before and after concrete placement. Each test connection is located within a small junction box with cover plate whose top is flush with the floor surface. The junction box cover design does not include a gasket or sealant against potential ingress of miscellaneous wash down water from the floor into the boxes during refueling outages or other leakage should it occur during the cycle.

The pressure test connection details which include a threaded pipe plug closure were found to be installed and performing their function to preclude any water from getting from the junction box down into the leak chases to the containment liner for 47 of the 51 junction boxes. However, for the remaining 4 of the 51 junction boxes, the pipe plug closure was found not to have been installed during plant construction. Water was found in the leak chases for 3 of the 4. The water was removed to maximum extent. Remote visual examinations were attempted with limited success by flexible fiber scopes. Very little corrosion was observed on the inside surfaces of the leak chase channels. The liner surface and liner weld surfaces were generally not visible. The limited leak chase surfaces that could be seen indicated very little corrosion had occurred over the years in these areas. Pressure-drop tests performed on these four zones found no leakage.

The pressure test connections within the junction boxes were added to the IWE inspection program for RF 20 (Refer to ISE-4 Revision 1B) as described in the actions in CR11-02834.

New stainless steel pipe plugs were installed in the 4 pressure test connections with missing plugs during RF 19. The condition evaluation then found all 51 to be in an acceptable condition capable of performing the required function to keep any water that gets into the junction boxes from getting to the containment liner

within the leak chase zones until the boxes could be permanently repaired during RF 20.

The limited visual inspections and pressure drop testing of the four leak chase zones demonstrated no abnormal degradation of the liner is occurring within the leak chases and that there is no impact on the capability of the containment liner to serve as a leaktight pressure barrier component in the overall containment design.

During RF 20 all 51 junction boxes were visually examined after the cover plate was removed to ensure all of the stainless steel pipe plugs remained properly installed in the test connections. The four zones which had been found with missing pipe plug closures during the RF 19 inspection were completely dried out by vacuum pump and visually reexamined to the extent possible by remote boroscope. Pressure drop leak testing was performed on these four zones again to ensure no leakage degradation. All 51 junction boxes were then cleaned out of any loose materials and completely dried. The boxes and pipe plugs were reinspected by QC to ensure pipe plus installed and the boxes were clean and dry. The boxes were then permanently filled with epoxy grout. New stainless steel cover plates were permanently epoxy bonded to the surface of the epoxy grout fill in each box. In this fully repaired configuration with each box filled to the top and the pressure test connection with pipe plug fully encased within the epoxy grout fill there is no possibility for any unobserved water to inadvertently get into the boxes. The cover plates are fully bonded to the underlying fill and are no longer removable. All of the above inspections and repairs were performed under NC/CR11-02834

It is noted that the pressure test connections and junction boxes are not within the defined code boundary of the ASME Section XI examinations. However, the inspections described above and testing were performed under the Section XI program by the qualified Section XI QC inspectors including the inspections of all of the 51 repairs. The ISE-4 program plan will be revised during the cycle between RF 20 and RF 21 to delete the Position Statement and any related information (refer to ISE-4 para. 3.1.4) regarding the inspections and repair of the 51 junction boxes because that permanent repair has been completed during RF 20. No further inspections in the future of the pressure test connections within the junction boxes are required or are physically possible.

6.1.3 IWE Reportable Conditions

There are no IWE Reportable Conditions as a result of the RF-20 year 2012 inspections.

6.1.4 IWE Reportable Conditions Requiring Augmented Inspections

None of the results of the IWE inspection were found to exceed the evaluation criteria of Design Guide ST-07 or determined to be of concern that could potentially progress to an unacceptable structural condition prior to the next regularly scheduled surveillance in approximately 18 months during RF-21 (Spring 2014).

6.2 IWL Evaluation

6.2.1 IWL Augmented Inspections

Augmented Inspection of the Containment Tendon Access Gallery (TAG) has been conducted during each inspection following its identification for Augmented Inspection during the baseline inspection in 2000. Prior to the current inspection performed during RF 20, the Augmented Inspection of the Containment Tendon Access Gallery was performed by Quality Control and Design Engineering during RF 19 in 2011. The inspection included previously identified issues from the IWE / IWL inspections (Fall 2000) and subsequent Augmented Inspections (2002, 2003, 2005, 2008, and 2009). The following were examined:

- Corrosion build-up on the outer TAG wall near Tendon V-15
- Concrete leaching at several locations within the TAG
- Housekeeping of the TAG

The corrosion build-up was inspected and determined to be continuing but comparable to that observed during the prior 2000-2008 inspections.

The entire TAG was inspected for any changes in the amount of concrete leaching. The amount of groundwater inflow leakage remained minimal and additional accumulation of leaching materials was determined to be unchanged. Sumps remained clear of debris to allow for drainage if required. Because the condition of concrete leaching has been stable for the past three inspections, inspection of the TAG for concrete leaching will be removed from the IWL Augmented Inspection list which required VT-1 inspection. Similarly, the housekeeping in the TAG has been found to be acceptable for the past three inspections. The inspections for concrete leaching and general housekeeping will continue as general visual examinations using standard preventative maintenance work orders to document the inspection during each refueling outage but will not be performed as Augmented Inspections under the ASME Section XI IWE/IWL program.

Augmented VT-1 inspection of the Tendon Access Gallery performed immediately prior to RF 20 by Quality Control and Design Engineering identified several areas of leaching and discoloration but with no or minor increase from the previous inspection during RF 19. The inspection included the 3 small active leaks observed during RF 19 and observed no change. Therefore, the condition of leaching that has been evaluated previously is unchanged and acceptable. Only minor traces of grease seepage were observed coming across the gasket at a few tendon end caps. The quantity was insignificant and did not represent any degradation of the tendon corrosion protection system.

Summarizing, the Tendon Access Gallery area was found to be acceptable. Only the corrosion near tendon V-15 on the outer wall will remain on the list for Augmented Inspections.

6.2.2 IWL Reportable Conditions

No reportable items or items indicative of abnormal degradation were identified by the IWL inspections for:

(1) Augmented Inspection of the Tendon Access Gallery.

6.2.3 IWL Reportable Conditions Requiring Augmented Inspections

None.

7.0 SUMMARY AND CONCLUSIONS

The ASME Section XI IWE inspections performed for VCSNS during period October-November 2012 concurrent with RF 20 are the continuation of the ongoing required inspection of the containment structure. These inspections provide the necessary basis for comparison with future surveillance results.

All recordable indications identified as meeting or potentially exceeding acceptance criteria were evaluated by the Responsible Engineer and found to be acceptable with no impact on the capability of the Reactor Containment Building to meet its design functions.

Minor areas of groundwater inflow leakage and some concrete leaching formation that have been observed during previous inspections were identified during the IWL Augmented Inspection of the Tendon Access Gallery. The observed conditions were unchanged compared to the previous examination during RF 19. None of these observations impact the design function of the reinforced concrete structures. The Tendon Access Gallery will be reinspected during the next Augmented Inspection but only for the corrosion buildup on the outer TAG wall near tendon V-15.

The Augmented Inspection performed during RF 20 found the Moisture Barrier seal required some rework to restore it to required condition in a number of local areas. The condition was evaluated and reworked under NC/CR12-05160. The observations and reworked locations were typical and comparable to previous inspection observations identified by CRs in the past. The observations included local spots of debonding of the sealant from the steel liner or the concrete floor and minor low spots to be filled with sealant.

The following areas shall remain on the Augmented Inspection list:

Moisture Barrier Integrity
Guard Pipe Containment Boundary at Auxiliary Building Elevation 397'
Tendon Access Gallery Corrosion

Each of the Augmented Inspection areas shall be inspected during each refueling outage (at approximately 18 month intervals) to ensure that any structural degradation should it occur during the period between inspections will be examined and evaluated.

The four leak chase zones 16, 25, 44, and 56 found during RF 19 with missing pressure test connection pipe plug closures had the pressure-drop tests repeated during RF 20 with essentially the same pressure-drops (insignificant) as previously found during testing in RF 19.The leak chase zones for 16, 25, 44,

and 56 were dried out by vacuum pumping method. The pipe plug closures were reinstalled in the test connections. All 51 leak chase zone test boxes were cleaned, dried, inspected to ensure pipe plug properly installed and not loose. The 51 boxes were then permanently repaired by filling completely with epoxy grout and permanently securing a new stainless steel plate cover over each box by epoxy bonding over the entire surface. No future IWE/IWL inspection of the repaired 51 leak chase zone pressure test connection junction boxes is required. It is noted that the pressure test connections and junction boxes although inspected under the IWE/IWL program during RF-20 were outside of the boundary of ASME Section XI IWE/IWL inspections.

Document Control Desk
RC-13-0026
Attachment

VIRGIL C. SUMMER NUCLEAR STATION (VCSNS), UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12

INSERVICE INSPECTION REPORT #18
REFUEL 20
TAB D
REPAIR & REPLACEMENT SUMMARY

Repair Replacement, NIS-2 Summary

V. C. Summer Nuclear Station
Interval III, Period 3, Outage 2
Refuel 20

Plant System	*Associated Component*	*Work Order*	*PSI, NDE Required*	*Description of Activity*
Chemical & Volume Control	CSH-5055	1103681	VT-3	Pipe support installation
Chemical & Volume Control	CSH-5056	1103681	VT-3	Pipe support installation
Chemical & Volume Control	CSH-5057	1103681	VT-3	Pipe support installation
Chemical & Volume Control	CSH-5058	1103681	VT-3	Pipe support installation
Chemical & Volume Control	CSH-5059	1103681	VT-3	Pipe support installation
Chemical & Volume Control	CSH-5060	1103681	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5061	1103681	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5062	1103681	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5063	1103681	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5067	1103681	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5068	1103681	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5069	1103681	VT-3	Pipe support installation
Chemical & Volume Control	Pipe	1103681	VT-2	Replaced Valve, Associated Piping
Chemical & Volume Control	Pipe	1103681	VT-2	Replaced Valve, Associated Piping
Chemical & Volume Control	Pipe Attachment	1103681	VT-2	Replaced Valve, Associated Piping
Chemical & Volume Control	Pipe Attachment	1103681	VT-2	Replaced Valve, Associated Piping
Chemical & Volume Control	XVC-18529	1103681	VT-2	Check valve and piping modification
Chemical & Volume Control	XVG-18523	1103681	VT-2	Pipe cap installation
Chemical & Volume Control	CSH-5012	1202798	VT-3	Added New Support to System

Repair Replacement, NIS-2 Summary

V. C. Summer Nuclear Station
Interval III, Period 3, Outage 2
Refuel 20

Plant System	*Associated Component*	*Work Order*	*PSI, NDE Required*	*Description of Activity*
Chemical & Volume Control	CSH-5057	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5058	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5067	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5087	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5088	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5089	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5090	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5091	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5092	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5093	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5094	1202798	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5095	1202798	VT-3	Added New Support to System
Chemical & Volume Control	XPP-0230	1202798	Material	Skid Installation
Chemical & Volume Control	Pipe	1202799	VT-2	Replaced Valve, Associated Piping
Chemical & Volume Control	Pipe Attachment	1202799	VT-2	Replaced Valve, Associated Piping
Chemical & Volume Control	Round Bar	1202799	VT-2	Replaced Valve, Associated Piping
Chemical & Volume Control	CSH-5070	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5071	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5072	1203743	VT-3	Added New Support to System

Repair Replacement, NIS-2 Summary

V. C. Summer Nuclear Station
Interval III, Period 3, Outage 2
Refuel 20

Plant System	*Associated Component*	*Work Order*	*PSI, NDE Required*	*Description of Activity*
Chemical & Volume Control	CSH-5073	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5074	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5075	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5076	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5077	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5078	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5079	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5080	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5081	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5082	1203743	VT-3	Added New Support to System
Chemical & Volume Control	CSH-5083	1203743	VT-3	Added New Support to System
Chilled Water	PIPE	1105215	VT-2	Replaced Valve, Associated Piping
Chilled Water	Pipe Fitting	1105215	VT-2	Replaced Valve, Associated Piping
Chilled Water	XVA-36361B	1105215	VT-2	Replaced Valve
Chilled Water	XVA-36362B	1105215	VT-2	Replaced Valve
Chilled Water	XVA-36363B	1105215	VT-2	Replaced Valve
Emergency Feedwater	XVG-01037A-EF	1016476	VT-2	Stud and Nuts Replaced
Emergency Feedwater	XVG-01037A-EF	1016476	MT	Replaced Piping
Emergency Feedwater	XVG-01037A-EF	1016476	MT	Replaced Piping

Repair Replacement, NIS-2 Summary

V. C. Summer Nuclear Station
Interval III, Period 3, Outage 2
Refuel 20

Plant System	*Associated Component*	*Work Order*	*PSI, NDE Required*	*Description of Activity*
Emergency Feedwater	XVG-01036	1106059	VT-2	Valve Removed
Emergency Feedwater	XVG-01036	1106059	VT-2	Valve Installed
Emergency Feedwater	IFV03531-EF	1108077	VT-2	Plug/stem replaced
Emergency Feedwater	IFV03541-EF	1108774	VT-2	Plug/Stem Assembly(Corrected)
Emergency Feedwater	IFV03541-EF	1108774	VT-2	Replaced Valve Internals
Emergency Feedwater	IFV03551-EF	1108775	VT-2	Replaced Valve Internals
Instrument Air	Pipe Fitting	1200504	VT-2	Added New Component to System
Main Steam	XVT-02869C	0613556	VT-1, VT-2	Replaced/Repaired Valve Internals
Main Steam	IPV-02010-MS	0906451	VT-2	Replaced Bolting
Main Steam	IPV-02010-MS	0906451	VT-2	Replaced Valve Internals
Main Steam	IPV-02000-MS	1101435	VT-2	Replaced Valve Internals
Main Steam	IPV02020-MS	1101436	VT-2	Replaced Valve Internals
RBCU	Pipe Drain	1106194	Material	Condensate Drain/RBCU modification
RBCU	Pipe Fitting	1106194	Material	Condensate Drain/RBCU modification
Reactor Coolant	XVT-08095B-RC	1201164	VT-2	Replaced Valve Internals
Reactor Coolant	XVT-08096B-RC	1201166	VT-2	Replaced Valve Internals
Reactor Coolant	PCV00444C-RC	1211920	VT-2	Replaced Valve Internals
Reactor Coolant	PCV00444C-RC	1211920	VT-1	Stud and Nuts Replaced
Reactor Coolant	XRE-0001-52	1212229	PT/UT	Weld Overlay Repair

Repair Replacement, NIS-2 Summary

V. C. Summer Nuclear Station
Interval III, Period 3, Outage 2
Refuel 20

Plant System	*Associated Component*	*Work Order*	*PSI, NDE Required*	*Description of Activity*
Reactor Coolant	XRE-0001-31	1212232	PT/UT	Weld Overlay Repair
Reactor Coolant	XRE-0001-37	1212233	PT/UT	Weld Overlay Repair
Reactor Coolant	XRE-0001-19	1212234	PT/UT	Weld Overlay Repair
Reactor Coolant	XDO-0002	1213354	VT-2	Tube Cap Installed
Residual Heat Removal	XVR08708A-RH	1112173	VT-2	Replaced Valve
Service Water	XVB03123B-SW	0612909	VT-2	Replaced Valve, Associated Bolting
Service Water	Pipe	0717731	VT-2	Replaced Valve, Associated Piping
Service Water	Pipe Attachment	0717731	VT-2	Replaced Valve, Associated Piping
Service Water	XVB-03107B-SW	1000223	VT-2	Replaced Valve
Service Water	XVB03123A-SW	1001316	VT-2	Replaced Valve
Service Water	XVB03107B-SW	1012749	VT-2	Replaced Valve
Service Water	XVB 03129D	1118145	VT-2	Piping Replacement/(Corrected)
Service Water	XVB 03129D	1118145	VT-2	Piping Replacement/(Installed)
Service Water	Pipe	1205196	VT-2	Added New Component to System
Service Water	SWH-1127	1210387	VT-3	PIPE STRAP REMOVAL AND REINSTALLATION
Service Water	XVG-03172B	1210387	VT-2	PIPING REPLACEMENT
Service Water	XVG-03172B	1210387	MT	PIPING REPLACEMENT

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — Work Order 1103681/ECR50780 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System (CS) Chemical And Volume Control
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
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)
Support Components	Maintenance	N/A	N/A	CSH-5067	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5069.	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5068	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5055 .	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5056.	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5057.	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5058.	N/A	Installed	No

7. Description of Work Added new component Supports Per ECR50780-ALT Seal Inj. Ben 3/4/13
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
   Other ☒ VT3 Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: _____
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 N/A

Certificate of Authorization No. _____ Expiration Date _____

Signed Ronald L Ouder for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford, Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 To Feb 2013 to , 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.

MOSTAFA ELKOUH Commissions NB 13930 SC864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1103681/ECR50780 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
Expiration Date N/A
4. Identification of System (CS) Chemical And Volume Control
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
(c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Support Components	Maintenance	N/A	N/A	CSH5060	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH5061	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH5062	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH5063	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH5059	N/A	Installed	No

7. Description of Work Added new component Supports Per ECR50780.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
Other ☐ VT3 Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: _____
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Ronald L Oates for Maint. mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford, Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 To Feb 2013 to , 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.

ELMOSTAFA ELKOUH Commissions NB 13930 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — Work Order 1103681/ECR50780 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System (CS)Chemical And Volume Control
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 EVC 3/6/13
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Valve	Borg Warner	62832	N/A	XVG18523 (duplicate) EVC 3/4/13	1980	Installed	Yes
Valve	Rockwell Edwards	04ABS	N/A	XVC18529	1974	Installed	Yes
Pipe	Maintenance	N/A	N/A	Alternate Seal Injection	N/A	Installed	No
Pipe Attachment	Maintenance	N/A	N/A	Alternate Seal Injection	N/A	Installed	No

7. Description of Work Alternate Seal Injection piping Modification.
8. Tests Conducted: Hydrostatic (X) Pneumatic ( ) Nominal Operating Pressure (X) Exempt ( )
   Other ( ) Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

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

FORM NIS-2 (Back)

9. Remarks: Post maintenance test performed on Work Order 1103891-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Ronald L Dotson for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOURA Commissions NB 13330 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/12/13
COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) ECR50780/Work Order 1103681 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
Expiration Date N/A
4. Identification of System Chemical And Volume Control
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
(c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 2/5/13
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	Maintenance	N/A	N/A	XPP-0230	N/A	Installed	No
Pipe Attachment	Maintenance	N/A	N/A	XPP-0230	N/A	Installed	No
Valve	Borg Warner	62832	N/A	XVG18523	1980	Installed	Yes

7. Description of Work Added new Stem Per ECR50780C
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Test performed on Work Order 1103891-001
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 N/A

Certificate of Authorization No. _____ Expiration Date _____

Signed _____ MGR MAINT Date 2/28/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford,Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELOUM Commissions NB 13930 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/12/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 3
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — ECR50780/Work Order 1202798 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System Chemical And Volume Control
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
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)
Support Components	Maintenance	N/A	N/A	CSH-5094	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5095	N/A	Installed	No
Pump	Clyde Union	PM110306AN-1	N/A	XPP0230	N/A	Installed	Yes
Support Components	Maintenance	N/A	N/A	CSH-5057	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5058	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5067	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5012	N/A	Installed	NO

7. Description of Work Added new Stem Per ECR50780C
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ VT-3 Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/12/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 2 of 3
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — ECR50780/Work Order 1202798 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System Chemical And Volume Control
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
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)
Support Components	Maintenance	N/A	N/A	CSH-5087	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5088	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5089	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5090	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5091	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5092	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5093	N/A	Installed	NO

7. Description of Work Added new Supports per ECR 50780
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
   Other ☑ VT-3 Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: _____
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 ~~_____~~ N/A ~~_____~~

Certificate of Authorization No. _____ Expiration Date ~~_____~~

Signed [signature] MGR MAINT Date 2/28/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford,Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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ELMOSTAFA ELKOUM Commissions NB 13330 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/12/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — ECR50780C/Work Order 1202799 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System Chemical And Volume Control
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 EMOW 3/6/13
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	Maintenance	N/A	N/A	XPP-0230	N/A	Installed	No
Pipe Attachment	Maintenance	N/A	N/A	XPP-0230	N/A	Installed	No
Round Bar	Maintenance	N/A	N/A	XPP-0230	N/A	Installed	No

7. Description of Work Added new Stem Per ECR50780C
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Test performed on Work Order 1201155-049 and 053
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 N/A

Certificate of Authorization No. ______ Expiration Date ______

Signed [signature] MGR MAINT Date 2/28/13, ______
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by HSBCT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[signature] Commissions NB 13930 SC 866 ANI
Inspector's Signature — National Board, State, Province, and Endorsements

Date 03/04/2013, ______

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/12/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 3
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — ECR50780C/Work Order 1203743 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System Chemical And Volume Control
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
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)
Support Components	Maintenance	N/A	N/A	CSH-5070	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5071	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5072	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5073	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5074	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5075	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5076	N/A	Installed	NO

7. Description of Work Added new Supports per. ECR50780C
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
   Other ☑ VT-3 Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Date 2/12/13
Sheet 2 of 3

2. Plant V. C. SUMMER STATION (Name)
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address)
Unit #1
ECR50780C/Work Order 1203743 (Repair/Replacement Organization P.O. No., Job No., etc.)

3. Work Performed by SCE&G (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Chemical And Volume Control

5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)

(c) Applicable Section XI Code Cases N/A

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)
Support Components	Maintenance	N/A	N/A	CSH-5077	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5078	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5079	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5080	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5081	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5082	N/A	Installed	No
Support Components	Maintenance	N/A	N/A	CSH-5083	N/A	Installed	NO

7. Description of Work Added new Supports per. ECR50780C

8. Tests Conducted: Hydrostatic ☾ Pneumatic ☾ Nominal Operating Pressure ☾ Exempt ☾

Other ☾VT-3 Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: _____
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 N/A

Certificate of Authorization No. _____ Expiration Date _____

Signed _____ MGR MAINT Date 2/28/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford,Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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EMOSTAFA ELKOUM Commissions NB 13530 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1105215/ECR50585J (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
Expiration Date N/A
4. Identification of System (VU) Chilled Water
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
(c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 GNL 3/6/13
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Valve	Flowserve	L7304-1-1	N-1562	XVA36361B	1974	Installed	Yes
Valve	Flowserve	L7304-1-2	N-1562	XVA36362B	1974	Installed	Yes
Pipe	Maintenance	N/A	N/A	"B" Chiller Bypass Modification	N/A	Installed	No
Pipe Fittings	Maintenance	N/A	N/A	"B" Chiller Bypass Modification	N/A	Installed	No
Valve	Flowserve	L7304-1-3	N-1562	XVA36363B	1974	Installed	Yes

7. Description of Work Installed pipe and valves for "B" Chiller Bypass.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure. N/A psi Test Temp. N/A °F

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FORM NIS-2 (Back)

9. Remarks: Leak Test Work order 1105125-023

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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Ronald L. Dr for, Maint. Mgr. Date 3-1-2013

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

ELMOSTAFA ELKOUM Commissions NB 13930 SC 264 ANI

Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1016476/ECR50695 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
Expiration Date N/A
4. Identification of System (EF) Emergency Feed & (SW) Service Water
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
(c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 ENE 3/6/13
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Pipe	Maintenance	N/A	N/A	XVG1037A-EF	N/A	Installed	No
Pipe Fittings	Maintenance	N/A	N/A	XVG1037A-EF	N/A	Installed	No
Studs & Nuts	Maintenance	N/A	N/A	XVG1037A-EF	N/A	Installed	No

7. Description of Work Service Water "A" Train (EFW) system Flow control Enhancements.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1016476-014
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Dutton for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

EMOSTAFA ELKOUHI Commissions NB 13930 SC 266 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1106059 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (EF) Emergency Feed
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N-416-2
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Valve	Anchor Darling	E-6188-45-9	N/A	XVG-01036	N/A	Removed	YES
Valve	Flowserve	BM542	N1562	XVG-01036	1974	Installed	YES

7. Description of Work Valve Replacement
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1201697-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Ouellette for maint. mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

ElMostafa ElYoum Commissions NB 13930 SC 2664 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1108774 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
Expiration Date N/A
4. Identification of System (EF) Emergency Feed
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
(c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Plug/Stem Assy.	Fisher	N/A	N/A	IFV03541-EF	N/A	Corrected	No

7. Description of Work Replaced Valve Internals
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

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

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1110298-002
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Ronald L Dietz for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of HARTFORD CONNECTICUT have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOUH Commissions NB 13780 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Date 2/28/13
Sheet 1 of 2

2. Plant V. C. SUMMER STATION (Name)
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address)
Unit #1
Work Order 1108775 (Repair/Replacement Organization P.O. No., Job No., etc.)

3. Work Performed by SCE&G (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System (EF) Emergency Feed

5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)

(c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Plug/Stem Assy.	Fisher	N/A	N/A	IFV03551-EF	N/A	Corrected	No

7. Description of Work Replaced Valve Internals

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1110276-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold D. Jr for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ElKouh Commissions NB 13930 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1108077 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (EF) Emergency Feed
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Plug Assy 3HTS Plug/Stem Assy.	Fisher	N/A	N/A	IFV03531-EF	N/A	Corrected	No

7. Description of Work PLUG/STEM ASSEMBLY REPLACED Rem 3/6/13
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1110276-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Dutra for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

ALMOSTAFA ELKOURI Commissions NB 13930 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — Work Order 1200504/ECR50768B (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System (IA) Instrument Air
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N-416-2
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Pipe Fitting	Maintenance	N/A	N/A	ECR50768B Sketch M-14	N/A	Installed	No

7. Description of Work Added new component to system
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post maintenance test performed on Work Order 1200504-114
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Dolan for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

EMOSTAFA ELKOULI Commissions NB 13530 SC 866 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — Work Order 0613556 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System ~~Service Water~~ MAIN STEAM 3/6/13
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
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)
Disc	Maintenance	N/A	N/A	XVT-02869C-MS	N/A	Installed	No

7. Description of Work Added new Disc to Valve XVT-02869C-MS
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

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

FORM NIS-2 (Back)

9. Remarks: Post Maintenance test performed on Work Order 1111471-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold Lord for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford, Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 To Feb 2013 to , 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.

EMOSTAFA ELKOUM Commissions NB 13930 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Date 2/12/13
Sheet 1 of 2

2. Plant V. C. SUMMER STATION (Name)
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address)
Unit #1
Work Order 0906451 (Repair/Replacement Organization P.O. No., Job No., etc.)

3. Work Performed by SCE&G (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Main Steam

5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)

(c) Applicable Section XI Code Cases N/A

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	Fisher	N/A	N/A	IPV02010-MS	N/A	Corrected	No
Nut	Maintenance	N/A	N/A	IPV02010-MS	N/A	Installed	No
All Thread Rod	Maintenance	N/A	N/A	IPV02010-MS	N/A	Installed	No

7. Description of Work Added new Plug/Stem Assy.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Test performed on Work Order 1011388-005
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 N/A

Certificate of Authorization No. _____ Expiration Date _____

Signed _____ MGR MAINT Date 2/28/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford,Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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MOSTAFA ELKOUH Commissions VB 13530 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — Work Order 1101435 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System (MS) Main Steam
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Plug/Stem Assy.	Fisher	SER.264784-2A-1	N/A	IPV02000-MS	N/A	Corrected	No

7. Description of Work Plug/Stem Assembly Replaced
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1111471-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Dietz for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOUH Commissions NB 13930 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — Work Order 1101436 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System (MS) Main Steam
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Pilot Beam 3/4/13 Pilot Plug Assy.	Fisher	RO303112-1-1A	NR87	IPV02020-MS	N/A	Corrected	No

7. Description of Work Replaced Valve Internals Bem 3/6/13
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1111471-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Ronald L DuBois for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford, Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOUK Commissions NB 13530 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2

2. Plant V. C. SUMMER STATION (Name) Unit #1
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1106194/ECR50756 (Repair/Replacement Organization P.O. No., Job No., etc.)

3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
Expiration Date N/A

4. Identification of System (RD) RBCU Drain

5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)

(c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 3/6/13

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Pipe	Maintenance	N/A	N/A	Condensate Drain Modification	N/A	Installed	No
Pipe Fittings	Maintenance	N/A	N/A	Condensate Drain Modification	N/A	Installed	No

7. Description of Work Installed access port for A and B train 6"RBCU condensate drain line.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Leak Test exempted per IWA-5222.g of ASME XI "PT" required for root pass and final welds ASME Class-3 welds.
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold Dostie for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOUM Commissions NB 13530 SC 2614 AUI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1201164 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
Expiration Date N/A
4. Identification of System (RC) Reactor Coolant
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
(c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Kit,trim Assembly	Copes Vulcan	N/A	N/A	XVT08095B-RC	N/A	Installed	No

7. Description of Work Replaced Valve Internals
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post maintenance test performed on Work Order 1110081-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Dodge for MAINT. MGR. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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AMOSTAFA AKOUM Commissions NB 13530 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1201166 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (RC) Reactor Coolant
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Trim Kit	Copes Vulcan	N/A	N/A	XVT08096B-RC	N/A	Corrected	No

7. Description of Work Replaced trim kit on valve XVT08096B-RC due to leaking past seat.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Leak Test on Work Order 1110086-001

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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold Dist for Maint. Mgr. Date 3-1-2013

Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOUNI Commissions NB13930 SC264 ANI

Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1211920 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (RC) Reactor Coolant
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Valve Assembly Vee Ball	Fisher	N/A	N/A	PCV00444C-RC	N/A	Corrected	No
Stud & Nut	Maintenance	N/A	N/A	PCV00444C-RC	N/A	Corrected	No

7. Description of Work Replaced Valve Internals, Studs and Nuts
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Leak Test Work order 1110081-001 and 1211920-004
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold J Dyl for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOUH Commissions NB 13530 SC 964 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) ECR50846 /Work Order 1212229-001 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (RC) Reactor Coolant
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases 729-1
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Weld Repair	CBI	T39	N/A	XRE-0001	N/A	Corrected	No

7. Description of Work Weld repair on Reactor Vessel upper head penetration ID#52 per ECR 50846.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ PT/UT Pressure. N/A psi Test Temp. N/A °F

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

FORM NIS-2 (Back)

9. Remarks: Post maintenance leakage test performed on Work Order 1112301-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed _____ Date 3/4/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

ELMOSTAFA Elkoudi Commissions NB 13530 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) ECR50846 /Work Order 1212232-001 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (RC) Reactor Coolant
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases 729-1
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Weld Repair	CBI	T39	N/A	XRE-0001	N/A	Corrected	No

7. Description of Work Weld repair on Reactor Vessel upper head penetration ID#31 per ECR 50846.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ PT/UT Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

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

FORM NIS-2 (Back)

9. Remarks: Post maintenance leakage test performed on Work Order 1112301-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed _____ Date 3/4/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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ELMOSTAFA ELKOUM Commissions NB 13930 SC 866 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) ECR50846 /Work Order 1212233-001 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
Expiration Date N/A
4. Identification of System (RC) Reactor Coolant
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
(c) Applicable Section XI Code Cases 729-1
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Weld Repair	CBI	T39	N/A	XRE-0001	N/A	Corrected	No

7. Description of Work Weld repair on Reactor Vessel upper head penetration ID#37 per ECR 50846.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ PT/UT Pressure. N/A psi Test Temp. N/A °F

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FORM NIS-2 (Back)

9. Remarks: Post maintenance leakage test performed on Work Order 1112301-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed _____ Date 3/4/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOUSH Commissions NB 13980 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) ECR50846 /Work Order 1212234-001 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (RC) Reactor Coolant
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases 729-1
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Weld Repair	CBI	T39	N/A	XRE-0001	N/A	Corrected	No

7. Description of Work Weld repair on Reactor Vessel upper head penetration ID#19 per ECR 50846.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ PT/UT Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

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

FORM NIS-2 (Back)

9. Remarks: Post maintenance leakage test performed on Work Order 1112301-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed _____ Date 3/4/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOURD Commissions NB 13930 SC 960 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1213354 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (RC) Reactor Coolant
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 3/5/13
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Tube Cap	Maintenance	N/A	N/A	XDO-0002	N/A	Installed	No

7. Description of Work Installed Swagelok Caps at seal table locations A-9 and F-13
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: _____
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Ronald L Dot for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA Akoush Commissions NB 13930 SC 966 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1112173 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (RH) Residual Heat Removal
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 CMC 3/6/13
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Valve	Maintenance	N56904-00-0046	N/A	XVR08708A-RH	N/A	Removed	YES
Valve	Flow Serve	N56904-00-0002	N/A	XVR08708A-RH	N/A	Installed	YES

7. Description of Work Valve Replacement
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1109977-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold Ort for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

ELMOSTAFA ELKOUH Commissions NB#13930 SC 266 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Date 2/28/13
Sheet 1 of 2

2. Plant V. C. SUMMER STATION (Name)
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address)
Unit #1
Work Order 0612909
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by SCE&G (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Service Water

5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)

(c) Applicable Section XI Code Cases N/A

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	Henry Pratt	D-0092-7-4	N/A	XVB-3123B	1974	Removed	Yes
Valve	Henry Pratt	923565DD-1-1	N/A	XVB-3123B	1974	Installed	Yes
Bolting	Maintenance	N/A	N/A	XVB-3123B	N/A	Removed	No
Bolting	Maintenance	N/A	N/A	XVB-~~3132B~~ 3123B	N/A	Installed	No

7. Description of Work REMOVED/INSTALLED XVB-3123B ~~Added new Disc to Valve XVT-02869C-MS~~ Bam 3/5/13

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure N/A psi Test Temp. N/A °F

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FORM NIS-2 (Back)

9. Remarks: Post Maintenance test performed on Work Order 1111471-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold E Odom for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford, Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that To the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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MOSTAFA ELKOUH Commissions NB 18930 SC 266 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/12/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — ECR 50585/Work Order 0717731 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System Service Water
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 EAB 3/6/13
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	Maintenance	N/A	N/A	XVA-13147	N/A	Removed	No
Pipe	Maintenance	N/A	N/A	XVA-13147	N/A	Installed	No
Pipe Attachment	Maintenance	N/A	N/A	XVA-13147	N/A	Installed	No

7. Description of Work Added new component per ECR50585B
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure N/A psi Test Temp. N/A °F

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FORM NIS-2 (Back)

9. Remarks: Post Maintenance Test performed on Work Order 1011388-005
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 N/A

Certificate of Authorization No. _____ Expiration Date _____

Signed [signature] MGR MAINT Date 2/28/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford,Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

ELMOSTAFA ELKOUH Commissions NB 13930 SC 864 AUI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1000223 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (SW) Service Water
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Valve	Flow Serve	BG749	N/A	XVB03107B-SW	N/A	Removed	YES
Valve	Flow Serve	BA328	N/A	XVB03107B-SW	1974	Installed	YES

7. Description of Work Valve Replacement
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1000223-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Dufau for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

MOSTAFA ELKOUM Commissions NB 13932 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Date 2/28/13
Sheet 1 of 2

2. Plant V. C. SUMMER STATION (Name)
P.O. BOX 88, JENKINSVILLE, SC 29065 (Address)
Unit #1
Work Order 1001316 (Repair/Replacement Organization P.O. No., Job No., etc.)

3. Work Performed by SCE&G (Name)
COLUMBIA, SOUTH CAROLINA 29218 (Address)
Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System (SW) Service Water

5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)

(c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Valve	Maintenance	N/A	N/A	XVB03123A-SW	N/A	Removed	YES
Valve	Henry Pratt	NXL 1100	N1030	XVB03123A-SW	1974	Installed	YES

7. Description of Work Valve Replacement

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Testing on Work Order 1109861-001
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Ronald L Dodson for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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MOSTAFA ELKOUN Commissions NB 13930 SC 264 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) Work Order 1118145 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) Authorization No. N/A
   Expiration Date N/A
4. Identification of System (SW) service Water
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 3/6/13
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Pipe	Maintenance	N/A	N/A	XVB-03129D	N/A	Corrected	No
Pipe Fittings	Maintenance	N/A	N/A	XVB-03129D	N/A	Installed	No

7. Description of Work Replacement due to min wall concerns.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Leak Test (VT-2) on Work Order 1118145-020
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Dotson for Maint. Mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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MOSTAFA ELKOUH Commissions NB 13930 SC 8611 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/12/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — Work Order 1205196-004 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System Service Water
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases N/A
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	Maintenance	N/A	N/A	XVG-03181B	N/A	Removed	No
Pipe	Maintenance	N/A	N/A	XVG-03181B	N/A	Installed	No

7. Description of Work Added new component per NC-12-01836
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post Maintenance Test performed on Work Order 1205196-008
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 N/A

Certificate of Authorization No. _____ Expiration Date _____

Signed _____ MGR MAINT Date 2/28/13
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT Hartford,Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

AHOSTAFA ELKOURA Commissions NB 13930 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

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

1. Owner SOUTH CAROLINA ELECTRIC AND GAS (Name) — Date 2/28/13
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Sheet 1 of 2
2. Plant V. C. SUMMER STATION (Name) — Unit #1
   P.O. BOX 88, JENKINSVILLE, SC 29065 (Address) — Work Order 1210387 (Repair/Replacement Organization P.O. No., Job No., etc.)
3. Work Performed by SCE&G (Name) — Type Code Symbol Stamp N/A
   COLUMBIA, SOUTH CAROLINA 29218 (Address) — Authorization No. N/A
   Expiration Date N/A
4. Identification of System (SW) Service Water
5. (a) Applicable Construction Code ASME III, 1971 (Year) Edition, S 1973 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1998 (Year)
   (c) Applicable Section XI Code Cases ~~N/A~~ N-416-2 EMC 3/6/13
6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes/No)
Pipe	Maintenance	N/A	N/A	XVG-03172B	N/A	Installed	No
Pipe Attachment	Maintenance	N/A	N/A	XVG-03172B	N/A	Installed	No
Pipe Support	Maintenance	N/A	N/A	SWH-1127	N/A	Installed	No

7. Description of Work XVG-03172B Piping Replacement..
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
   Other ☐ MT Pressure. N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks: Post maintenance test performed on Work Order 1210657-001 (VT-2) and VT-3 for the support performed on Work Order 120387-007
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 N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Arnold L Dube for maint. mgr. Date 3-1-2013
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of South Carolina and employed by of HSBCT of Hartford Connecticut have inspected the components described in this Owner's Report during the period Sep 2011 to Feb 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Almost Akouly Commissions NB 13930 SC 864 ANI
Inspector's Signature National Board, State, Province, and Endorsements

Date 03/04/2013

Document Control Desk
RC-13-0026
Attachment

VIRGIL C. SUMMER NUCLEAR STATION (VCSNS), UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12

INSERVICE INSPECTION REPORT #18
REFUEL 20
TAB E
REACTOR VESSEL HEAD EXAMINATION AND REPAIR SUMMARY

Reactor Vessel Upper Head Examination and Repair Summary

The VCSNS Unit 1 Reactor Pressure Vessel Upper Head (RPVUH) was examined during Refuel 20 through Ultrasonic Testing (UT), Eddy Current Testing (ET), Dye Penetrant Testing (PT), and Visual Examination (VE). During RF20, the reactor vessel head was examined in accordance with ASME Section XI Code Case N-729-1 for the integrity of the 65 CRDM penetration and J-groove welds and 1 vent line. The CRDM penetrations were examined via UT, and the vent line was examined via ET. All personnel, procedures and equipment were qualified in accordance with the EPRI PDI program. The top of the head was examined visually per the VE requirements of Code Case N-729-1 with no indications of leakage.

During the UT examination, flaws were detected growing in the tube which appeared to be emanating from just below the toe of the J-groove welds of 4 CRDM Penetration nozzles. These penetrations were 19, 31, 37 and 52. Subsequent PT of the outside diameter (OD) of these CRDM penetrations confirmed that the suspected nozzles did have Primary Water Stress Corrosion Cracking (PWSCC) emanating down the tube OD, with none of the PT showing the cracking growing into the J-groove welds.

The Westinghouse/PCI WCAP-15987-P Revision 2-P-A processes were followed for the embedded flaw repair, as amended by the request for alternative RR-III-09 and associated Verbal Authorization [ML12325A432]. The weld overlay embeds the flaw below a new surface and arrests the crack from growing any further. The pre-service examination of the weld overlay repairs consisted of PT examination and a new baseline UT examination for each penetration.