



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 3, 1996

Mr. J. W. Hampton
Vice President, Oconee Site
Duke Power Company
P. O. Box 1439
Seneca, SC 29679

SUBJECT: STEAM GENERATOR 2A UPPER HEAD-TO-TUBESHEET WELD FLAW EVALUATION
OCONEE NUCLEAR STATION UNIT 2 (TAC NO. M95292)

Dear Mr. Hampton:

On May 3, 1996, you submitted a report for NRC approval in accordance with Paragraph IWB-3610 of Section XI of the American Society of Mechanical Engineers (ASME) Code. This report contains your evaluation of flaw indications in the upper head-to-tubesheet weld in Steam Generator A from ultrasonic (UT) examinations conducted during the 1996 refueling outage at the Oconee Nuclear Station, Unit 2 (Oconee 2). The examinations were performed in accordance with the requirements of the ASME Code, Section XI, 1989 Edition. The report indicates that one UT indication from the upper head-to-tubesheet weld exceeds the allowable flaw size specified in IWB-3500 of Section XI of the ASME Code and requires flaw evaluation using IWB-3610 and Appendix A of the ASME Code.

As explained in the enclosed safety evaluation, we find your analysis acceptable. The flaw at the upper head-to-tubesheet weld has flaw depth of 0.8 inch. After considering flaw growth, your evaluation indicates that the flaw satisfied the fracture mechanics criteria of Paragraph IWB-3612 of Section XI of the ASME Code. Based on your evaluation, the weld is acceptable for service for the remainder of the plant's operating license. However, the area containing this flaw shall be reexamined during the next three inspection periods as required by IWB-2420 of the ASME Code.

Sincerely,

Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-270

Enclosure: Safety Evaluation

cc: See next page

~~XC~~ → ~~JOE~~
~~WMS~~

STG
X/C Rick
Larry
Joe

~~File~~
R.O. → ~~Ken~~

Mr. J. W. Hampton
Duke Power Company

Oconee Nuclear Station

cc:

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Raleigh, North Carolina 27611-7687

INSERVICE INSPECTION REPORT

**UNIT 2 OCONEE 1996 REFUELING
OUTAGE 15**

Location: Hwy 130/183, Seneca, South Carolina 29679

NRC Docket No. 50-270

Commercial Service Date: September 9, 1974

Owner: Duke Power Company
526 South Church St.
Charlotte, N. C. 28201-1006

Revision 0

Prepared By:

RT Rouse

Date

7/8/96

Reviewed By:

Larry C. Keith

Date

7-8-96

Approved By:

Joe Barlowe

Date

7/8/96

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

As required by the Provisions of the ASME Code Rules

1. Owner: Duke Power Company, 526 S. Church St., Charlotte, NC 28201-1006
(Name and Address of Owner)
2. Plant: Oconee Nuclear Station, Highway 130/183, Seneca, SC 29679
(Name and Address of Plant)
3. Plant Unit: 2 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 9/9/74 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.
	See Section 1 Paragraph 1.1 in the Attached			

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

FORM NIS-1 (Back)

8. Examination Dates November 17, 1994 to May 7, 1996
9. Inspection Period Identification: First Period of the Third Interval
10. Inspection Interval Identification: Third Inservice Inspection Interval
11. Applicable Edition of Section XI 1989 Addenda None
12. Date/Revision of Inspection Plan: October 30, 1995/Revision 3
13. Abstract of Examinations and Test. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan. See Sections 3.0 and 4.0
14. Abstract of Results of Examination and Tests. See Section 5.0
15. Abstract of Corrective Measures. See Section 9.0

We certify that a) the statements made in this report are correct b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI.

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

Date 6/26 19 96 Signed Duke Power Co. By Jo Barbour
Owner

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of N. C. employed by * The HSBI&I Co. of Hartford, Cn. have inspected the components described in this Owners' Report during the period 11-17-94 to 5-7-96, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in the Owners' Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

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

M.B. Chapman Commissions NC 914
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-8 19 96

* The Hartford Steam Boiler Inspection & Insurance Co.
200 Ashford Center North
Suite 300
Atlanta, GA. 30338

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Hartford Steam Boiler Inspection and
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c/o C. A. Ireland

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D. E. LaBarge
Project Manager
Office of NRR
USNRC
Washington, DC 20555

INSERVICE INSPECTION PLAN

**Duke Power Company
Oconee Nuclear Station
Unit 2
Fifteenth Refueling Outage**



50-270

9607290130

7/25/96

INSERVICE INSPECTION REPORT

Duke Power Company Oconee Nuclear Station Unit Fourteenth Refueling Outage



TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Revision</u>
1.	General Information	0
2.	Summary of Inservice Inspections for Outage 15	0
3.	Third Ten Year Inspection Status	0
4.	Final Inservice Inspection Plan for Outage 15	0
5.	Results of Inspections Performed During Outage 15	0
6.	Reportable Indications	0
7.	Personnel, Equipment, and Material Certifications	0
8.	Corrective Action	0
9.	Reference Documents	0
10.	Class 1 and 2 Repairs and Replacements	0

1.0 General Information

This report describes the Inservice Inspection of Duke Power Company's Oconee Nuclear Station, Unit 2, during the 1996 refueling outage (also referred to as Outage 15). Outage 15 is in the first inspection period of the third ten year interval.

Included in this report are the final Inservice Inspection Plan, the inspection results for each item, a summary for each category of examination and corrective action taken when unacceptable conditions were found. In addition, there is a section included for repairs and replacements required since November 17, 1994.

1.1 Identification Numbers

<u>Item</u>	<u>Manufacturer or Installer</u>	<u>Manufacturer or Installer Serial No.</u>	<u>State or Province No.</u>	<u>National Board No.</u>
Reactor Vessel	Babcock & Wilcox	620-0004-51-52	N/A	N-105
Steam Generator A	Babcock & Wilcox	620-0004-55	N/A	N-107
Steam Generator B	Babcock & Wilcox	620-0004-55	N/A	N-108
Pressurizer	Babcock & Wilcox	620-0004-59	N/A	N-106

1.2 Authorized Nuclear Inservice Inspector(s)

Name: M. B. Chapman

Employer: The Hartford Steam Boiler Inspection & Insurance Company

Business Address: The Hartford Steam Boiler Inspection & Insurance Co.
200 Ashford Center North
Suite 300
Atlanta, GA 30338

2.0 Summary of Inservice Inspection for Outage 15

The information shown below provides an abstract of ASME Section XI Class 1, Class 2, and Augmented Items scheduled and examined during Outage 15 at Oconee Nuclear Station Unit 2.

2.1 *Class 1 Inspection*

Examination Category B-A

Pressure Retaining Welds in Reactor Vessel

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
B01.010	Shell Welds		
B01.011	Circumferential	0	0
B01.012	Longitudinal	0	0
B01.020	Head Welds		
B01.021	Circumferential	1	1
B01.022	Meridional Welds	NA	NA
B01.030	Shell to Flange Welds	0	0
B01.040	Head to Flange Welds	1	1
B01.050	Repair Welds		
B01.051	Beltline Region	N/A	N/A
TOTALS		2	2

Examination Category B-B

Pressure Retaining Welds in Vessels Other than Reactor Vessels

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Pressurizer		
B02.010	Shell to Head Welds		
B02.011	Circumferential	1	1
B02.012	Longitudinal	1	1

Examination Category B-B

(Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
B02.020	Head Welds		
B02.021	Circumferential	NA	NA
B02.022	Meridional Welds	NA	NA
	Steam Generator		
B02.030	Head Welds		
B02.031	Circumferential	N/A	N/A
B02.032	Meridional	N/A	N/A
B02.040	Tubesheet to Head Weld	1	1
	Heat Exchangers (Primary Side)		
B02.050	Head Welds		
B02.051	Circumferential	0	0
B02.052	Meridional	NA	NA
	Shell Welds		
B02.060	Tubesheet to Head Welds	0	0
B02.070	Longitudinal Welds	NA	NA
B02.080	Tubesheet-To-Shell Welds	NA	NA
TOTALS		3	3

Examination Category B-D

Full Penetration Welds of Nozzles in Vessels
Inspection Program B

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Reactor Vessel		
B03.090	Nozzle-To-Vessel Welds	2	Ref. RFR ONS-006
B03.100	Nozzle Inside Radius Section	2	Ref. RFR ONS-006
	Pressurizer		
B03.110	Nozzle-To-Vessel Welds	0	0
B03.120	Nozzle Inside Radius Section	0	0

Examination Category B-D (Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Steam Generators (Primary Side)		
B03.130	Nozzle-To-Vessel Welds	2	2
B03.140	Nozzle Inside Radius Section	2	2
	Heat Exchangers (Primary Side)		
B03.150	Nozzle-To-Vessel Welds	2	2
B03.160	Nozzle Inside Radius Section	2	Ref. RFR ONS-009
TOTALS		12	6

Examination Category B-E Pressure Retaining Partial Penetration Welds in Vessels

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
B04.010	Partial Penetration Welds		
B04.011	Vessel Nozzles	NA	NA
B04.012	Control Rod Drive Nozzles	0	0
B04.013	Instrumentation Nozzles	0	0
	Pressurizer		
B04.020	Heater Penetration Welds	NA	NA
TOTALS		0	0

Examination Category B-F

Pressure Retaining Dissimilar Metal Welds

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Reactor Vessel		
B05.010	Nominal Pipe Size 4" or Larger Nozzle to Safe End Butt Welds	2	Ref. RFR ONS-001
B05.020	Nominal Pipe Size Less Than 4" Nozzle to Safe End Butt Weld	NA	NA
B05.030	Nozzle-To-Safe End Socket Welds	NA	NA
	Pressurizer		
B05.040	Nominal Pipe Size 4" or Larger Nozzle to Safe End Butt Welds	1	1
B05.050	Nominal Pipe Size Less Than 4" Nozzle to Safe End Butt Weld	0	0
B05.060	Nozzle-To-Safe End Socket Welds	NA	NA
	Steam Generators		
B05.070	Nominal Pipe Size 4" or Larger Nozzle to Safe End Butt Welds	NA	NA
B05.080	Nominal Pipe Size Less Than 4" Nozzle to Safe End Butt Weld	NA	NA
B05.090	Nozzle-To-Safe End Socket Welds	NA	NA
	Heat Exchangers		
B05.100	Nominal Pipe Size 4" or Larger Nozzle to Safe End Butt Welds	NA	NA
B05.110	Nominal Pipe Size Less Than 4" Nozzle to Safe End Butt Weld	NA	NA
B05.120	Nozzle-To-Safe End Socket Welds	NA	NA
	Piping		
B05.130	Nominal Pipe Size 4" or Larger Dissimilar Metal Butt Welds	0	0

Examination Category B-F (Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
B05.140	Nominal Pipe Size Less Than 4" Dissimilar Metal Butt Welds	2	2
B05.150	Dissimilar Metal Socket Welds	NA	NA
TOTALS		5	3

Examination Category B-G-1 Pressure Retaining Bolting, Greater Than 2" in Diameter

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Reactor Vessel		
B06.010	Closure Head Nuts	9	9
B06.020	Closure Studs (in place)	NA	NA
B06.030	Closure Studs, (when removed)	9	9
B06.040	Threads in Flange	0	0
B06.050	Closure Washers, Bushings	1	1
	Pressurizer		
B06.060	Bolts and Studs	0	0
B06.070	Flange Surface (when connection disassembled)	0	0
B06.080	Nuts , Bushings and Washers	0	0
	Steam Generators		
B06.090	Bolts and Studs	NA	NA
B06.100	Flange Surface (when connection disassembled)	NA	NA
B06.110	Nuts , Bushings and Washers	NA	NA
	Heat Exchangers		
B06.120	Bolts and Studs	NA	NA

Examination Category B-G-1

(Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
B06.130	Flange Surface (when connection disassembled)	NA	NA
B06.140	Nuts , Bushings and Washers	NA	NA
	<i>Piping</i>		
B06.150	Bolts and Studs	NA	NA
B06.160	Flange Surface (when connection disassembled)	NA	NA
B06.170	Nuts , Bushings and Washers	NA	NA
	<i>Pumps</i>		
B06.180	Bolts and Studs	0	0
B06.190	Flange Surface (when connection disassembled)	0	0
B06.200	Nuts , Bushings and Washers	0	0
	<i>Valves</i>		
B06.210	Bolts and Studs	NA	NA
B06.220	Flange Surface (when connection disassembled)	NA	NA
B06.230	Nuts , Bushings and Washers	NA	NA
TOTALS		19	19

Examination Category B-G-2

Pressure Retaining Bolting, 2" and Less
in Diameter

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Reactor Vessel		
B07.010	Bolts, Studs, and Nuts	NA	NA
	Pressurizer		
B07.020	Bolts, Studs, and Nuts	1	1
	Steam Generators		
B07.030	Bolts, Studs, and Nuts	2	2
	Heat Exchangers		
B07.040	Bolts, Studs, and Nuts	NA	NA
	Piping		
B07.050	Bolts, Studs, and Nuts	1	1
	Pumps		
B07.060	Bolts, Studs, and Nuts	0	0
	Valves		
B07.070	Bolts, Studs, and Nuts	1	1
	CRD Housings		
B07.080	Bolts, Studs, and Nuts In CRD Housing When Disassembled	2	2
TOTALS		7	7

Examination Category B-H

Integral Attachments for Vessels

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Reactor Vessel		
B08.010	Integrally Welded Attachments	NA	NA
	Pressurizer		
B08.020	Integrally Welded Attachments	NA	NA
	Steam Generators		
B08.030	Integrally Welded Attachments	NA	NA
	Heat Exchangers		
B08.040	Integrally Welded Attachments	NA	NA
TOTALS		NA	NA

Examination Category B-J

Pressure Retaining Welds in Piping

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
B09.010	Nominal Pipe Size 4" or Larger		
B09.011	Circumferential Welds	12	12
B09.012	Longitudinal Welds ¹	2	2
B09.020	Nominal Pipe Size Less Than 4"		
B09.021	Circumferential Welds	12	12
B09.022	Longitudinal Welds	NA	NA
B09.030	Branch Pipe Connection Welds		

¹ Longitudinal welds that intersect circumferential welds are examined as required by Table IWB 2500-1, Examination Category B-J. However, for reporting purposes, the totals do not reflect the number of longitudinal welds examined during this outage.

Examination Category B-J (Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
B09.031	Nominal Pipe Size 4" or Larger	0	0
B09.032	Nominal Pipe Size Less Than 4"	2	2
B09.040	Socket Welds	1	1
TOTALS		29	29

Examination Category B-K-1

Integral Attachments for Piping, Pumps and Valves

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Piping		
B10.010	Integrally Welded Attachments	NA	NA
	Pumps		
B10.020	Integrally Welded Attachments	NA	NA
	Valves		
B10.030	Integrally Welded Attachments	NA	NA
TOTALS		NA	NA

Examination Category B-L-1, B-M-1

B-L-2, B-M-2

Pressure Retaining Welds in Pump Casings and Valve Bodies

Pump Casings and Valve Bodies

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	<i>Pumps</i>		
B12.010	Pump Casing Welds (B-L-1)	0	0
B12.020	Pump Casing (B-L-2) (when disassembled for Maintenance, Repair or Volumetric Examination)	0	0
B12.030	Valves, Less Than Nominal Pipe Size 4" Valve Body Welds (B-M-1)	NA	NA
B12.040	Valves, Nominal Pipe Size 4" or Larger Valve Body Welds (B-M-1)	NA	NA
B12.050	Valve Body, Exceeding 4" Nominal Pipe Size (B-M-2)	0	0
TOTALS		0	0

Examination Category B-N-1

B-N-2

B-N-3

Interior of Reactor Vessel

Integrally Welded Core Support Structures and

Interior Attachments to Reactor Vessels

Removable Core Support Structures

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	<i>Reactor Vessel</i>		
B13.010	Vessel Interior (B-N-1)	0	0
	<i>Reactor Vessel (PWR)</i>		
B13.050	Interior Attachments Within The Beltline Region (B-N-2)	NA	NA
B13.060	Interior Attachments Beyond The Beltline Region (B-N-2)	NA	NA

Examination Category B-N-1, B-N-2 & B-N-3 (Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Reactor Vessel (PWR)		
B13.070	Core Support Structure (B-N-3)	0	0
TOTALS		0	0

Examination Category B-O Pressure Retaining Welds in Control Rod Housings

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Reactor Vessel		
B14.010	Welds in CRD Housing	1	1
TOTALS		1	1

Examination Category B-P All Pressure Retaining Components

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Reactor Vessel		
B15.010	Pressure Retaining Boundary	Covered under B15.050.001	Covered under B15.050.001
B15.011	Pressure Retaining Boundary	Covered under B15.051.001	Covered under B15.051.001
	Pressurizer		
B15.020	Pressure Retaining Boundary	Covered under B15.050.001	Covered under B15.050.001
B15.021	Pressure Retaining Boundary	Covered under B15.051.001	Covered under B15.051.001

Examination Category B-P

(Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Steam Generators		
B15.030	Pressure Retaining Boundary	Covered under B15.050.001	Covered under B15.050.001
B15.031	Pressure Retaining Boundary	Covered under B15.051.001	Covered under B15.051.001
	Heat Exchangers		
B15.040	Pressure Retaining Boundary	Covered under B15.050.001	Covered under B15.050.001
B15.041	Pressure Retaining Boundary	Covered under B15.051.001	Covered under B15.051.001
	Piping		
B15.050	Pressure Retaining Boundary	1	1
B15.051	Pressure Retaining Boundary	0	0
	Pumps		
B15.060	Pressure Retaining Boundary	Covered under B15.050.001	Covered under B15.050.001
B15.061	Pressure Retaining Boundary	Covered under B15.051.001	Covered under B15.051.001
	Valves		
B15.070	Pressure Retaining Boundary	Covered under B15.050.001	Covered under B15.050.001
B15.071	Pressure Retaining Boundary	Covered under B15.051.001	Covered under B15.051.001
TOTALS		1	1

Examination Category B-Q**Steam Generator Tubing**

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
B16.010	Steam Generator Tubing in Straight Tube Design	NA ²	NA
B16.020	Steam Generator Tubing in U-Tube Design	NA	NA
TOTALS		NA	NA

Examination Category F-A**Component Supports**

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
F1.010	Class 1 Piping Supports (Reference Section 4.0 of this report)	3	3
F1.040	Class 1 Supports Other Than Piping (Reference Section 4.0 of this report)	1	1
F1.050	Class 1 Snubbers	14	14
TOTALS		18	18

² Steam Generator Tubing is examined and documented by Diversified Services Group of the Electric System Support Department as required by the Station Technical Specifications and is not included in this report.

2.2 Class 2 Inspections

Examination Category C-A

Pressure Retaining Welds in Pressure Vessel

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
C01.010	Shell Circumferential Welds	1	1
C01.020	Head Circumferential Welds	0	0
C01.030	Tubesheet to Shell Weld	1	1
TOTALS		2	2

Examination Category C-B

Pressure Retaining Nozzle Welds in Vessels

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
C02.010	Nozzles in Vessels $\leq 1/2$ " Nominal Thickness		
C02.011	Nozzle-to-Shell (or Head) Weld	0	0
C02.020	Nozzles Without Reinforcing Plate In Vessels $> 1/2$ " Nominal Thickness		
C02.021	Nozzle-to-Shell (or Head) Weld	0	0
C02.022	Nozzle Inside Radius Section	0	0
C02.030	Nozzles With Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness		
C02.031	Reinforcing Plate Welds to Nozzle and Vessel	2	2

Examination Category C-B (Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
C02.032	Nozzle-to-Shell (or Head) Welds When Inside of Vessel Is Accessible	N/A	N/A
C02.033	Nozzle-to-Shell (or Head) Welds When Inside of Vessel is Inaccessible	0	0
TOTALS		2	2

Examination Category C-C Integral Attachments For Vessels, Piping, Pumps, and Valves

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Pressure Vessels		
C03.010	Integrally Welded Attachments	2	2
	Piping		
C03.020	Integrally Welded Attachments	7	7
	Pumps		
C03.030	Integrally Welded Attachments	0	0
	Valves		
C03.040	Integrally Welded Attachments	NA	NA
TOTALS		9	9

Examination Category C-D
Pressure Retaining Bolting Greater Than 2" in Diameter

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	<i>Pressure Vessels</i>		
C04.010	Bolts and Studs	NA	NA
	<i>Piping</i>		
C04.020	Bolts and Studs	NA	NA
	<i>Pumps</i>		
C04.030	Bolts and Studs	NA	NA
	<i>Valves</i>		
C04.040	Bolts and Studs	0	0
TOTALS		0	0

Examination Category C-F-1
Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Steel Piping

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
C05.010	Piping Welds $\geq 3/8$ " Nominal Wall Thickness for Piping > NPS 4		
C05.011	Circumferential Weld	3	3
C05.012	Longitudinal Welds ³	NA	NA
C05.020	Piping Welds $> 1/5$ " Nominal Wall Thickness for Piping \geq NPS 2 and \leq NPS 4		
C05.021	Circumferential Welds	16	16
C05.022	Longitudinal Welds ³	NA	NA

³ Longitudinal welds that intersect circumferential welds are examined as required by Table IWC 2500-1, Examination Category C-F. However, for reporting purposes, the totals do not reflect the number of longitudinal welds examined during this outage.

Examination Category C-F-1 (Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
C05.030	Socket Welds	4	4
C05.040	Pipe Branch Connections of Branch Piping \geq NPS 2		
C05.041	Circumferential Weld	1	1
C05.042	Longitudinal Weld ³	NA	NA
TOTALS		24	24

Examination Category C-F-2 Pressure Retaining Welds in Carbon Steel or Low Alloy Steel Piping

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
C05.050	Piping Welds $\geq 3/8$ " Nominal Wall Thickness for Piping > NPS 4		
C05.051	Circumferential Weld	8	8
C05.052	Longitudinal Weld ³	0	0
C05.060	Piping Welds > $1/5$ " Nominal Wall Thickness for Piping \geq NPS 2 and \leq NPS 4		
C05.061	Circumferential Weld	NA	NA
C05.062	Longitudinal Weld ³	NA	NA
C05.070	Socket Welds	NA	NA
C05.080	Pipe Branch Connections of Branch Piping \geq NPS 2		
C05.081	Circumferential Weld	1	1
C05.082	Longitudinal Weld ³	NA	NA
TOTALS		9	9

Examination Category C-G

Pressure Retaining Welds in Pumps and Valves

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Pumps		
C06.010	Pump Casing Welds	NA	NA
	Valves		
C06.020	Valve Body Welds	1	1
TOTALS		1	1

Examination Category C-H

All Pressure Retaining Components

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
	Pressure Vessel		
C07.010	Pressure Retaining Components	covered under C07.030	covered under C07.030
C07.020	Pressure Retaining Components	covered under C07.040	covered under C07.040
	Piping		
C07.030	Pressure Retaining Components	23	23
C07.040	Pressure Retaining Components	0	0
	Pumps		
C07.050	Pressure Retaining Components	covered under C07.030	covered under C07.030
C07.060	Pressure Retaining Components	covered under C07.040	covered under C07.040
	Valves		
C07.070	Pressure Retaining Components	covered under C07.030	covered under C07.030
C07.080	Pressure Retaining Components	covered under C07.040	covered under C07.040
TOTALS		22	22

Examination Category F-A**Component Supports**

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
F1.020	Class 2 Supports (Reference Section 4.0 of this report)	17	17
F1.040	Class 2 Supports Other Than Piping (Reference Section 4.0 of this report)	2	2
F1.050	Class 2 Snubbers (Reference Section 4.0 of this report)	50	50
TOTALS		69	69

2.3 Augmented Inspections

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
G01.001	Reactor Coolant Pump Flywheel	4	0 (Not disassembled)
G02.001	HPI Nozzle Safe End Examinations	4	4
G03.001	Pressurizer Surge Line Examinations	0	0
G04.001	Thermal Stress Piping (NRC Bulletin 88-08)	11	11
G05.001	Pressurizer Spray Piping Thermal Transient Inspection	0	0
G06.001	Auxiliary Feedwater Header Water Hammer Examinations (PSC21-82)	0	0
G07.001	Augmented Examination of Longitudinal Piping Welds With A Nominal Wall Thickness < 3/8" and > NPS 4"	0	0

Augmented Inspections (Continued)

<i>Item Number</i>	<i>Description</i>	<i>Total Scheduled During Outage</i>	<i>Total Examined During Outage</i>
G08.001	Pressurizer Sensing/ Sampling Nozzle Safe Ends	0	0
G09.001	Class 2 Piping Welds NPS > 4" With Nominal Wall Thickness < $\frac{3}{8}$ "	9	9
G10.001	Class 1 RTE Mounting Bosses	0	0
G11.001	Reactor Coolant Pumps 3A2 and 3B1 Alternate Examinations	NA	NA
G12.001	HPI Upgrade	0	0

A detailed description of each examination listed in Sections 2.1 through 2.3 are located in Section 3.0 of this report. Results of each examination are located in Section 4.0 of this report.

3.0 Third Ten Year Inspection Status

The completion status of inspections required in the third interval by the 1989 ASME Section XI Code, no Addenda, is summarized in this section. The requirements are listed by the ASME Section XI Examination Category as defined in Table IWB-2500-1 for Class 1 Inspections, and in Table IWC-2500-1 for Class 2 Inspections. Augmented inspections are also included.

Class 1 Inspections

<u>Examination Category</u>	<u>Description</u>	<u>Inspections Required</u>	<u>Inspections Completed</u>	<u>Percentage Completed</u>	<u>⁴Deferral Allowed</u>
B-A	Pressure Retaining Welds in Reactor Vessel	8 Welds	2 Welds	25 %	Yes
B-B	Pressure Retaining Welds in Vessels Other than Reactor Vessel	11 Welds	3 Welds	27.27 %	No
B-D	Full Penetration Welds of Nozzles in Vessels	30 Inspections	12 Inspections	40 % (Ref. ONS-006)	Partial
B-E	Pressure Retaining Partial Penetration Welds in Vessels	31 Welds	0 Welds	0 %	No
B-F	Pressure Retaining Dissimilar Metal Welds	33 Welds	3 Welds	9.09 %	No
B-G-1	Pressure Retaining Bolting Greater than 2 Inch Diameter	132 Items	19 Items	14.39 %	Yes
B-G-2	Pressure Retaining Bolting 2 Inches and Less in Diameter	24 Items	7 Item	29.16 %	No
B-H	Integral Attachment for Vessels	N/A	N/A	N/A	N/A
B-J	Pressure Retaining Welds in Piping	117 Welds	29 Welds	24.78 %	No

⁴Deferral of inspection to the end of the interval as allowed by ASME Section XI Tables IWB and IWC 2500-1.

Class 1 Inspections (Continued)

<u>Examination Category</u>	<u>Description</u>	<u>Inspections Required</u>	<u>Inspections Completed</u>	<u>Percentage Completed</u>	<u>Deferral Allowed</u>
B-K-1	Integral Attachments for Piping, Pumps and Valves	N/A	N/A	N/A	N/A
B-L-1	Pressure Retaining Welds in Pump Casings	1 Weld	0 Welds	0 %	Yes
B-L-2	Pump Casings	1 Casing	0 Casings	0 %	Yes
B-M-1	Pressure Retaining Welds in Valve Bodies	N/A	N/A	N/A	N/A
B-M-2	Valve Body > 4 in. Nominal Pipe Size	3 Valves	0 Valves	0 %	Yes
B-N-1	Interior of Reactor Vessel	1 Items	0 Items	0 %	No
B-N-2	Integrally Welded Core Support Structures and Interior Attachments to Reactor Vessels	N/A	N/A	N/A	N/A
B-N-3	Removable Core Support Structures	1 Item	0 Items	0 %	Yes
B-O	Pressure Retaining Welds in Control Rod Housings	3 Housings	1 Housing	33.33 %	Yes
B-P	All Pressure Retaining Components				No
	System Leakage Test	5 Components	1 Component	20 %	
	System Hydrostatic Test	1 Component	0 Components	0 %	
B-Q	Steam Generator Tubing	N/A	N/A	N/A	N/A
F1.01	Class 1 Component Supports	22 Supports	3 Supports	13.63 %	No

Class 1 Inspections (Continued)

<u>Examination Category</u>	<u>Description</u>	<u>Inspections Required</u>	<u>Inspections Completed</u>	<u>Percentage Completed</u>	<u>Deferral Allowed</u>
F1.40	Class 1 Component Supports (Supports Other Than Piping Supports)	4 Supports	1 Supports	25 %	No
F1.50	Class 1 Component Supports (Snubbers)	14 Supports	14 Supports	100 %	No

Class 2 Inspections

<u>Examination Category</u>	<u>Description</u>	<u>Inspections Required</u>	<u>Inspections Completed</u>	<u>Percentage Completed</u>	<u>Deferral Allowed</u>
C-A	Pressure Retaining Welds in Pressure Vessels	16 Welds	2 Welds	12.50 %	No
C-B	Pressure Retaining Nozzle Welds in Vessels	8 Welds	2 Welds	25 %	No
C-C	Integral Attachments for Vessels, Piping, Pumps and Valves	76 Attachments	9 Attachments	11.84 %	No
C-D	Pressure Retaining Bolting Exceeding 2 Inches in Diameter	1	0	0 %	NA
C-F-1	Pressure Retaining Welds in Austentic Stainless Steel or High Alloy Piping	132 Welds	24 Welds	18.18 %	No
C-F-2	Pressure Retaining Welds in Carbon or Low Alloy Steel Piping	52 Welds	9 Welds	17.30 %	No
C-G	Pressure Retaining Welds in Pumps and Valves	1	1	100 %	N/A
C-H	All Pressure Retaining Components				No
	System or Component Inservice Inspection/Functional Test	78 Components	12 Components	15.38 %	

Class 2 Inspections (Continued)

<u>Examination Category</u>	<u>Description</u>	<u>Inspections Required</u>	<u>Inspections Completed</u>	<u>Percentage Completed</u>	<u>Deferral Allowed</u>
	System Hydrostatic Test	38 Components	0 Components	0 %	
F1.02	Class 2 Component Supports	103 Supports	17 Supports	16.50 %	No
F1.40	Class 2 Component Supports (Supports Other Than Piping Supports)	9 Supports	2 Supports	22.22 %	No
F1.50	Class 2 Component Supports (Snubbers)	50 Supports	50 Supports	100 %	No

Augmented Inspections

<u>Description</u>	<u>Percentage Complete</u>
Reactor Coolant Pump Flywheels (Item No. Series G01)	0 % (RCP was not disassembled)
HPI Nozzle Safe End Examinations (Item No. Series G02)	100 % for EOC15
Pressurizer Surge Line Drain Line (Item No. Series G03)	0 % (Not scheduled for examination)
Thermal Stress Piping (Item No. Series G04)	100 % for EOC15
Pressurizer Spray Piping Thermal Transient Inspection (Item No. Series G05)	NA
Auxiliary Feedwater Header Water Hammer (Item No. Series G06)	0 % (Not scheduled for examination)
Augmented Examination of Longitudinal Piping Welds With A Nominal Wall Thickness < 3/8" and > NPS 4" (Item No. Series G07)	0 % (Not scheduled for examination)
Pressurizer Sensing/ Sampling Nozzle Safe Ends (Item No. Series G08)	0 % (Not scheduled for examination)

Augmented Inspections (Continued)

Class 2 Piping Welds NPS Greater Than 4" With A
Nominal Wall Thickness Less Than $\frac{3}{8}$ " (Item No.
Series G09)

100 % for EOC15

Class 1 RTE Mounting Bosses (Item No. Series
G10)

0 % (Not scheduled for examination)

HPI Upgrade (Item No. Series G12)

NA

4.0 **Final Inservice Inspection Plan For Outage 15**

The final ISI Plan shown in this section lists all ASME Section XI Class 1 and ASME Section XI Class 2, and Augmented examinations credited for Outage 15 at Oconee Nuclear Station Unit 2.

The information shown below is a field description for the reporting format included in this Section of the report:

A. Items examined by NDE methods

Item Number	=	ASME Section XI Tables IWB-2500-1 (Class 1), IWC-2500-1 (Class 2), IWF-2500-1 (Class 1 and Class 2), Augmented Requirements
ID Number	=	Unique Identification Number
Iso / Dwg Numbers	=	Location and/or Detail Drawings
Proc	=	Examination Procedures
Insp Req	=	Examination Technique - Magnetic Particle, Dye Penetrant, etc.
Mat / Sch	=	General Description of Material
Diam / Thick	=	Diameter/Thickness
Cal Blocks	=	Calibration Block Number
Comments	=	General and/or Detail Description

CATEGORY B-A, Pressure Retaining Welds
in Reactor Vessel

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 1
06/18/96

Head Welds

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
**** Circumferential ****								
B01.021.001	2-RPV-WH5	ISI-OCN2-001	NDE-660	UT	CS	0.000	40387	Reactor Vessel Closure Head Ring Pc. 23 to Closure
	Circumferential	OM-1201-455				6.625		Head Cap Pc. 24.
	Class A				Head Ring to Closure Head Cap			
<hr/>								
Total B01.021 Items:		1						

**CATEGORY B-A, Pressure Retaining Welds
in Reactor Vessel**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 2
06/18/96

Head-to-Flange Weld

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
B01.040.001	2-RPV-WH7	ISI-OCN2-001	NDE-660	UT	CS	0.000	40387	Reactor Vessel Closure Head Ring Pc. 23 to Closure
	Circumferential	OM-1201-455				6.625		Head Flange Pc. 22. 0-360 Degrees.
Class A					Head Ring to Head Flange			
B01.040.001A	2-RPV-WH7	ISI-OCN2-001	NDE-25	MT	CS	0.000		Reactor Vessel Closure Head Ring Pc. 23 to Closure
	Circumferential	OM-1201-455				6.625		Head Flange Pc. 22 . 0-360 Degrees.
Class A					Head Ring to Head Flange			
Total B01.040 Items:		2						
Total B01 Items:		3						

Pressurizer

Oconee 2

Plan Report
Page 3
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Shell-to-Head Welds; Circumferential ****								
B02.011.001	2-PZR-WP76	ISI-OCN2-002	NDE-620	UT	CS	84.000	40387	Pressurizer Upper Head Pc. 5 to Upper Shell Course
	Circumferential	OM-1201-456	NDE-640			4.750		Pc. 1.
Class A				Head to Upper Shell				Material thickness ranges from 6.50" to 4.750" due to taper of material.
Total B02.011 Items:		1						
**** Shell-to-Head Welds; Longitudinal ****								
B02.012.001	2-PZR-WP1-1	ISI-OCN2-002	NDE-620	UT	CS	0.000	40387	Pressurizer Upper Shell Course Pc. 1 to Upper Shell
	Longitudinal	OM-1201-456	NDE-640			6.188		Course Pc. 1.
Class A				Shell to Shell				
Total B02.012 Items:		1						

**CATEGORY B-B, Pressure Retaining Welds
in Vessels Other Than Reactor Vessels**

Steam Generators (Primary Side)

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

Plan Report
Page 4
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
**** Tubesheet-to-Head Weld ****								
B02.040.001	2-SGA-WG58-1	ISI-OCN2-003	NDE-620	UT	CS	119.000	40393	Steam Generator 2A Upper Head Pc. 8 to Tubesheet Pc. 51.
	Circumferential	OM-1201-450	NDE-640			8.000		Schedule this weld during the 1st period of the 4th interval for surveillance purposes (third & final surveillance). Ref. PIP 2-O-96-0917
Class A				Head to Tubesheet				
B02.040.002	2-SGA-WG58-2	ISI-OCN2-003	NDE-620	UT	CS	119.000	40393	Steam Generator 2A Lower Head Pc. 7 to Tubesheet Pc. 50.
	Circumferential	OM-1201-450	NDE-640			8.000		Added to EOC 15 per IWB-2430(a)
Class A				Head to Tubesheet				
<hr/>								
Total B02.040 Items:		2						
Total B02 Items:		4						

**CATEGORY B-D, Full Penetration Welds of
Nozzles in Vessels**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 5
06/18/96

Reactor Vessel

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Nozzle-to-Vessel Welds ****								
B03.090.001A	2-RPV-WR13	ISI-OCN2-001	ISI-138	UT	CS	60.000	50304	Reactor Vessel X-Outlet Nozzle Pc. 19 to Upper Shell
	Circumferential	OM-1201-454				12.000		Pc.86 & 87. UT from Nozzle ID. Note: For inspection
Class A					Nozzle to			in outage 1 see Request for Relief ONS-006.
					Upper Shell Forging			
B03.090.002A	2-RPV-WR13A	ISI-OCN2-001	ISI-138	UT	CS	60.000	50304	Reactor Vessel Y-Outlet Nozzle Pc. 19 to Upper Shell
	Circumferential	OM-1201-454				12.000		Pc. 86 & Pc. 87. UT from Nozzle ID.Note: For
Class A					Nozzle to			inspection in outage 1, see Request for Relief
					Upper Shell Forging			ONS-006.
<hr/>								
Total B03.090 Items:		2						

Reactor Vessel

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

Plan Report
Page 6
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Nozzle Inside Radius Section ****								
B03.100.001	2-RPV-WR13	ISI-OCN2-001 OM-1201-454	ISI-138	UT	CS	60.000 12.000	50304	Reactor Vessel X-Outlet Nozzle Pc. 19. UT from Nozzle ID. (Inside Radius Section)Note: For inspection in outage 1, see Request for Relief ONS-006.
Class A				Nozzle to Upper Shell Forging				
B03.100.002	2-RPV-WR13A	ISI-OCN2-001 OM-1201-454	ISI-138	UT	CS	60.000 12.000	50304	Reactor Vessel Z-Outlet Nozzle Pc. 19. UT from Nozzle ID. (Inside Radius Section)Note: For inspection in outage 1, see Request for Relief ONS-006.
Class A				Nozzle to Upper Shell Forging				
Total B03.100 Items:		2						

Steam Generators (Primary Side)

Oconee 2

Plan Report
Page 7
06/18/96

Total B03.130 Items: 2

Steam Generators (Primary Side)

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Nozzle Inside Radius Section ****								
B03.140.003	2-SGB-WG50-2	ISI-OCN2-004 OM-1201-450 B&W103214D	NDE-680	UT	CS	38.380 8.500	40393	Steam Generator 2B Outlet Nozzle Pc.65 Between W-Z Axis. (Inside Radius Section)
Class A				Nozzle to Lower Head				
B03.140.004	2-SGB-WG50-1	ISI-OCN2-004 OM-1201-450 B&W103214D	NDE-680	UT	CS	38.380 8.500	40393	Steam Generator 2B Outlet Nozzle Pc.65 Between Y-Z Axis. (Inside Radius Section)
Class A				Nozzle to Lower Head				
Total B03.140 Items:		2						

**CATEGORY B-D, Full Penetration Welds of
Nozzles in Vessels**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 9
06/18/96

Heat Exchangers (Primary Side)

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Nozzle-to-Vessel Welds ****								
B03.150.001	2-LDCA-INLET-V1	1-44773-2	NDE-630	UT	SS	3.000	40411	LDC-2A Tubeside Inlet Nozzle Pc.5 to Channel Head
	Circumferential	OM-201-3107				0.875		Pc. 3.
Class A		OFD-101A-2.1		Nozzle to Channel Body				
B03.150.002	2-LDCA-OUTLET-V2	1-44773-2	NDE-630	UT	SS	3.000	40411	LDC-2A Tubeside Outlet Nozzle Pc.5 to Channel
	Circumferential	OM-201-3107				0.875		Head Pc. 3.
Class A		OFD-101A-2.1		Nozzle to Channel Body				
<hr/>								
Total B03.150 Items:		2						

**CATEGORY B-D, Full Penetration Welds of
Nozzles in Vessels**

Heat Exchangers (Primary Side)

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

Plan Report
Page 10
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
**** Nozzle Inside Radius Section ****								
B03.160.001	2-LDCA-INLET-V1	1-44773-2 OM-201-3107 OFD-101A-2.1	NDE-680	UT	SS	3.000 0.875	40411	LDC-2A Tubeside Inlet Nozzle Pc.5 (Inside Radius Section). Reference Request for Relief ONS-009.
Class A					Nozzle to Channel Body			
B03.160.002	2-LDCA-OUTLET-V2	1-44773-2 OM-201-3107 OFD-101A-2.1	NDE-680	UT	SS	3.000 0.875	40411	LDC-2A Tubeside Outlet Nozzle Pc.5 (Inside Radius Section). Reference Request for Relief ONS-009.
Class A					Nozzle to Channel Body			
<hr/>								
Total B03.160 Items:		2						
Total B03 Items:		12						

Reactor Vessel

Oconee 2

Plan Report
Page 11
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** NPS 4 or larger; Nozzle-to-Safe End Butt Welds ****								
B05.010.001	2-RPV-WR53	ISI-OCN2-001	NDE-35	PT	SS/CS	15.625		A-Side Core Flood Nozzle Safe-End Pc. 89 to Nozzle
	Circumferential	OM-1201-1528				1.688		Pc. 17 (W-Axis). See Request for Relief ONS-001.
Class A				Nozzle to				
	Dissimilar			Safe-End				
B05.010.002	2-RPV-WR53A	ISI-OCN2-001	NDE-35	PT	SS/CS	15.625		B-Side Core Flood Nozzle Safe-End Pc. 89 to Nozzle
	Circumferential	OM-1201-1528				1.688		Pc. 17 (Y-Axis). See Request for Relief ONS-001.
Class A				Nozzle to				
	Dissimilar			Safe-End				
Total B05.010 Items:		2						

■ Pressurizer

Ocone 2

Plan Report

Page 12

06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** NPS 4 or Larger; Nozzle-to-Safe End Butt Welds ****								
B05.040.001	2-PZR-WP23	ISI-OCN2-002	NDE-35	PT	SS/CS	11.375		Pressurizer Surge Line Nozzle Safe-End Pc. 37 to
Class A	Circumferential	B&W149768E				1.063		Nozzle Pc. 8.
	Dissimilar				Nozzle Pc. 8 to Safe-End Pc. 37			Material thickness ranges from 1.250 to 1.063
B05.040.001A	2-PZR-WP23	ISI-OCN2-002	NDE-610	UT	SS/CS	11.375	40414	Pressurizer Surge Line Nozzle Safe-End Pc. 37 to
Class A	Circumferential	B&W149768E				1.063		Nozzle Pc. 8. UT from Nozzle Side.
	Dissimilar				Nozzle Pc. 8 to Safe-End Pc. 37			Material thickness ranges from 1.250 to 1.063.
B05.040.001B	2-PZR-WP23	ISI-OCN2-002	NDE-610	UT	SS/CS	11.375	40354	Pressurizer Surge Line Nozzle Safe-End Pc. 37 to
Class A	Circumferential	B&W149768E				1.063		Nozzle Pc. 8. UT from Safe-End Side.
	Dissimilar				Nozzle Pc. 8 to Safe-End Pc. 37			Material thickness ranges from 1.063 to 1.050.
Total B05.040 Items:		3						

**CATEGORY B-F, Pressure Retaining
Dissimilar Metal Welds**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 13
06/18/96

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

Piping

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
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****** Less Than NPS 4; Dissimilar Metal Butt Welds ******

B05.140.004	2-PDA1-11	ISI-OCN2-011	NDE-35	PT	SS/CS	3.500		
	Circumferential	B&W146829E				0.750		

Class A

Nozzle Pc. 46 to
Safe-End Pc.47

Dissimilar

B05.140.010	2-PIB1-11	ISI-OCN2-009	NDE-35	PT	CS/Inconel	3.500		
	Circumferential	B&W146635E				0.672		

Class A

Nozzle Pc. 87 to
Safe-End Pc. 88

Dissimilar

Total B05.140 Items: 2

Total B05 Items: 7

**CATEGORY B-G-1, Pressure Retaining
Bolting, Greater than 2" In Diameter**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 14
06/18/96**

Reactor Vessel

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Closure Head Nuts ****								
B06.010.001	2-RPV-26-204-01	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.
Class A								
B06.010.016	2-RPV-26-204-16	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.
Class A								
B06.010.017	2-RPV-26-204-17	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.
Class A								
B06.010.018	2-RPV-26-204-18	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.
Class A								
B06.010.019	2-RPV-26-204-62	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.
Class A								
B06.010.057	2-RPV-26-204-57	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.
Class A								
B06.010.058	2-RPV-26-204-58	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.
Class A								
B06.010.059	2-RPV-26-204-59	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.
Class A								

**CATEGORY B-G-1, Pressure Retaining
Bolting, Greater than 2" In Diameter**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 15
06/18/96

Reactor Vessel

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
B06.010.060	2-RPV-26-204-60	OM-1201-4 B&W152009E	NDE-25	MT	CS	9.250 1.300		Reactor Vessel Closure Nut Pc. 26.

Class A

Total B06.010 Items: 9

**CATEGORY B-G-1, Pressure Retaining
Bolting, Greater than 2" In Diameter**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 16
06/18/96**

Reactor Vessel

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
**** Closure Studs, when removed ****								
B06.030.001	2-RPV-25-204-01	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.001A	2-RPV-25-204-01	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.016	2-RPV-25-204-16	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.016A	2-RPV-25-204-16	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.017	2-RPV-25-204-17	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.017A	2-RPV-25-204-17	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.018	2-RPV-25-204-18	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.018A	2-RPV-25-204-18	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								

**CATEGORY B-G-1, Pressure Retaining
Bolting, Greater than 2" In Diameter**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 17
06/18/96**

Reactor Vessel

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
B06.030.019	2-RPV-25-204-19	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.019A	2-RPV-25-204-19	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.057	2-RPV-25-204-57	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.057A	2-RPV-25-204-57	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.058	2-RPV-25-204-58	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.058A	2-RPV-25-204-58	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.059	2-RPV-25-204-59	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.059A	2-RPV-25-204-59	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								

**CATEGORY B-G-1, Pressure Retaining
Bolting, Greater than 2" In Diameter**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 18
06/18/96

Reactor Vessel

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
B06.030.060	2-RPV-25-204-60	OM-1201-4 B&W152009E	NDE-944	UT	CS	6.500 0.000	40420	Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								
B06.030.060A	2-RPV-25-204-60	OM-1201-4 B&W152009E	NDE-25	MT	CS	6.500 0.000		Reactor Vessel Closure Studs - Removed; Pc. 25. Stud Length = 63.250.
Class A								

Total B06.030 Items: 18

Reactor Vessel

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Closure Washers, Bushings ****								
B06.050.001	2-RPV-WASH-BUSH		QAL-13	VT-1	CS	9.750		Reactor Vessel Closure Washers and Bushings. Stud
		B&W152009E				0.000		Holes 1, 15 Thru 19, 38 Thru 42, 57 Thru 60.
Class A								
Total B06.050 Items:		1						
Total B06 Items:		28						

Pressurizer

Oconee 2

Plan Report
Page 20
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Bolts, Studs, and Nuts ****								
B07.020.001	2-PZR-UHB-STUDS		QAL-13	VT-1	CS	2.000		Pressurizer Upper Heater Bundle Studs Pc. 75 (Total
		B&W149775E				0.000		16 Studs). Length = 19.312".
Class A								
Total B07.020 Items:		1						

**CATEGORY B-G-2, Pressure Retaining
Bolting, 2" And Less In Diameter**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 21
06/18/96**

Steam Generators

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Bolts, Studs, and Nuts ****								
B07.030.001	2-SGA-UMW-BOLT	OM-1201-1477	QAL-13	VT-1	SS	2.000	0.000	Steam Generator 2A Upper Head Manway Studs & Nuts (Total 16 Studs Pc. 111 and Nuts Pc. 109). Length = 11.500".
Class A								
B07.030.002	2-SGA-LMW-BOLT	OM-1201-1477	QAL-13	VT-1	SS	2.000	0.000	Steam Generator 2A Lower Head Manway Studs & Nuts (Total 16 Studs Pc. 111 and Nuts Pc. 109). Length = 11.500".
Class A								
<hr/>								
Total B07.030 Items:		2						

Piping

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Bolts, Studs, and Nuts ****								
B07.050.001	2-PZR-RC4-BOLT	OM-2245-86	QAL-13	VT-1	CS	1.125		Pressurizer EMO Valve 2RC-4 (Between W & Z Axis -
						0.000		Connected to Valve 2RC-66) Total 16 Studs Pc. 19;
Class A								16 Nuts Pc. 20.
Total B07.050 Items:		1						

Valves

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Bolts, Studs, and Nuts ****								
B07.070.003	2-53A-CF13-BOLTS		QAL-13	VT-1	CS	0.000		Core Flood B - Valve CF-13 Bolting.
		OM-245-001				0.000		
Class A		OFD-102A-2.3						
Total B07.070 Items: 1								

**CATEGORY B-G-2, Pressure Retaining
Bolting, 2" And Less In Diameter**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 24
06/18/96**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

CRD Housings

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Bolts, Studs, and Nuts ****								
B07.080.001	2-RPV-CRD-BOLTS	DPS 706599-1056	QAL-13	VT-1	CS	1.250		CRD Housing Bolts (Total 8 Bolts) CRD # 1,2,5,44,47 & 60 Inspected to date. (Inspect only if disassembled). Reference Request for Relief ONS-004 and ONS-005.
Class A		OM-201-2248				0.000		
		B&W152006E						
B07.080.002	2-RPV-CRD-RINGS	DPS 706599-1056	QAL-13	VT-1	CS	11.500		CRD Housing Rings ; 1 Pair per housing Pc.120 ; CRD # 1,2,5,44,47 & 60)Inspected to date.(Inspect only if disassembled).
Class A		OM-201-2248				1.250		
		B&W152006E						
Total B07.080 Items:		2						
Total B07 Items:		7						

CATEGORY B-J, Pressure Retaining Welds In Piping

NPS 4 or Larger

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

**Plan Report
Page 25
06/18/96**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
**** Circumferential Welds ****								
B09.011.003	2-53A-8-1	2-53A-8(1) OFD-102A-2.2	NDE-600	UT	SS	10.000 1.000		Reference Request for Relief 95-GO-03 for calibration block.
Class A	Circumferential			Pipe to Elbow				
B09.011.003A	2-53A-8-1	2-53A-8(1) OFD-102A-2.2	NDE-35	PT	SS	10.000 1.000		
Class A	Circumferential			Pipe to Elbow				
B09.011.008	2-53A-8-48	2-53A-8(2) OFD-102A-2.3	NDE-600	UT	SS	14.000 1.250		Reference Request for Relief 95-GO-03 for calibration block.
Class A	Circumferential			Pipe to Elbow				
B09.011.008A	2-53A-8-48	2-53A-8(2) OFD-102A-2.3	NDE-35	PT	SS	14.000 1.250		
Class A	Circumferential			Pipe to Elbow				
B09.011.009	2-53A-8-50	2-53A-8(2) OFD-102A-2.3	NDE-600	UT	SS	14.000 1.250		Reference Request for Relief 95-GO-03 for calibration block.
Class A	Circumferential			Pipe to Elbow				
B09.011.009A	2-53A-8-50	2-53A-8(2) OFD-102A-2.3	NDE-35	PT	SS	14.000 1.250		
Class A	Circumferential			Pipe to Elbow				
B09.011.019	2-PHA-1	ISI-OCN2-005 OM-1201-966	ISI-138	UT	CS	42.750 3.000	40350	For inspection in Outage 1, see Request for Relief ONS-006. TERMINAL END
Class A	Circumferential Term end			Nozzle Pc. 19 to Pipe Pc. 32				
B09.011.019A	2-PHA-1	ISI-OCN2-005 OM-1201-966	NDE-25	MT	CS	42.750 3.000		See Request for Relief ONS-002. TERMINAL END
Class A	Circumferential Term end			Nozzle Pc. 19 to Pipe Pc. 32				

CATEGORY B-J, Pressure Retaining Welds In Piping

NPS 4 or Larger

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

Oconee 2

**Plan Report
Page 26
06/18/96**

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
B09.011.021	2-PHB-1	ISI-OCN2-006	ISI-138	UT	CS	42.750	40350	For inspection in Outage 1, see Request for Relief ONS-006. TERMINAL END
	Circumferential	OM-1201-966				3.000		
Class A	Term end			Nozzle to Pipe				
B09.011.021A	2-PHB-1	ISI-OCN2-006	NDE-25	MT	CS	42.750		See Request for Relief ONS-002. TERMINAL END
	Circumferential	OM-1201-966				3.000		
Class A	Term end			Nozzle to Pipe				
B09.011.022	2-PHB-12	ISI-OCN2-006	NDE-600	UT	CS	42.750		B Hot Leg Pc. 36 to Steam Generator Nozzle. TERMINAL END
	Circumferential	OM-1201-966				3.000		Reference Request for Relief 95-GO-03 for calibration block.
Class A	Term end			Nozzle to Pipe				
B09.011.022A	2-PHB-12	ISI-OCN2-006	NDE-25	MT	CS	42.750		TERMINAL END
	Circumferential	OM-1201-966				3.000		
Class A	Term end			Nozzle to Pipe				
B09.011.030	2-PIB2-4	ISI-OCN2-010	NDE-600	UT	CS	33.500		Reference Request for Relief 95-GO-03 for calibration block.
	Circumferential	OM-1201-966				2.330		
Class A	Stress weld			Pipe Pc.63 to Elbow Pc. 62				
B09.011.030A	2-PIB2-4	ISI-OCN2-010	NDE-25	MT	CS	33.500		
	Circumferential	OM-1201-966				2.330		
Class A	Stress weld			Pipe Pc.63 to Elbow Pc. 62				
B09.011.032A	2-PDA1-8	ISI-OCN2-011	NDE-25	MT	CS	33.500		See Request for Relief ONS-002. TERMINAL END
	Circumferential					3.000		
Class A	Term end			Nozzle to Pipe				
B09.011.033A	2-PDA2-8	ISI-OCN2-012	NDE-25	MT	CS	33.500		See Request for Relief ONS-002. TERMINAL END
	Circumferential					3.000		
Class A	Term end			Nozzle to Pipe				

CATEGORY B-J, Pressure Retaining Welds In Piping

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 27
06/18/96**

NPS 4 or Larger

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
B09.011.034A	2-PDB1-8	ISI-OCN2-013	NDE-25	MT	CS	33.500	3.000	See Request for Relief ONS-002.TERMINAL END
	Circumferential							
Class A	Term end			Nozzle to Pipe				
B09.011.035A	2-PDB2-8	ISI-OCN2-014	NDE-25	MT	CS	33.500	3.000	See Request for Relief ONS-002.TERMINAL END
	Circumferential							
Class A	Term end			Nozzle to Pipe				
B09.011.043	2-PSL-8	ISI-OCN2-015	NDE-600	UT	SS	10.000	1.000	Reference Request for Relief 95-GO-03 for calibration block.
	Circumferential	OFD-100A-2.2						
Class A	Stress weld			Pipe to Elbow				
B09.011.043A	2-PSL-8	ISI-OCN2-015	NDE-35	PT	SS	10.000	1.000	
	Circumferential	OFD-100A-2.2						
Class A	Stress weld			Pipe to Elbow				

Total B09.011 Items: 20

****** Longitudinal Welds ******

B09.012.007	2-PIB2-62LI	ISI-OCN2-010	NDE-600	UT	CS	33.500	2.330	Reference Request for Relief 95-GO-03 for calibration block.
	Longitudinal	OM-1201-966						
Class A				Elbow Pc. 62R to Elbow Pc. 62L				
B09.012.007A	2-PIB2-62LI	ISI-OCN2-010	NDE-25	MT	CS	33.500	2.330	
	Longitudinal	OM-1201-966						
Class A				Elbow Pc. 62R to Elbow Pc. 62L				
B09.012.008	2-PIB2-62LO	ISI-OCN2-010	NDE-600	UT	CS	33.500	2.330	Reference Request for Relief 95-GO-03 for calibration block.
	Longitudinal	OM-1201-966						
Class A				Elbow Pc. 62L to Elbow Pc. 62R				
B09.012.008A	2-PIB2-62LO	ISI-OCN2-010	NDE-25	MT	CS	33.500	2.330	
	Longitudinal	OM-1201-966						
Class A				Elbow Pc. 62L to Elbow Pc. 62R				

Total B09.012 Items: 4

**CATEGORY B-J, Pressure Retaining Welds In
Piping**

Less Than NPS 4

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

**Plan Report
Page 28
06/18/96**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
**** Circumferential Welds ****								
B09.021.001	2-53A-36-1	2-53A-36	NDE-35	PT	SS	3.000		
	Circumferential	OFD-102A-2.1				0.438		
Class A					Valve 2LP-103 to Pipe			
B09.021.002	2-51A-144-1	2-51A-144	NDE-35	PT	SS	2.500		
	Circumferential	OFD-101A-2.1				0.375		
Class A					Valve Valve 2HP-2 to Pipe			
B09.021.004	2-51A-144-23	2-51A-144	NDE-35	PT	SS	3.000		
	Circumferential	OFD-101A-2.1				0.438		
Class A					Pipe to Elbow			
B09.021.007	2-51A-145-2	2-51A-145	NDE-35	PT	SS	3.000		
	Circumferential	OFD-101A-2.1				0.438		
Class A					Elbow to Pipe			
B09.021.010	2-51A-147-17	2-51A-147	NDE-35	PT	SS	2.500		
	Circumferential	OFD-101A-2.1				0.375		
Class A					Pipe to Reducer			
B09.021.036	2-51A-35-43	2-51A-35 (2)	NDE-35	PT	SS	2.500		
	Circumferential	OFD-101A-2.1				0.375		
Class A					Tee to Valve Valve 2HP-1			
B09.021.037	2-51A-35-55	2-51A-35 (2)	NDE-35	PT	SS	2.500		
	Circumferential	OFD-101A-2.1				0.375		
Class A					Tee to Pipe			
B09.021.038	2-51A-35-56	2-51A-35 (2)	NDE-35	PT	SS	2.500		
	Circumferential	OFD-101A-2.1				0.375		
Class A					Pipe to Elbow			

Less Than NPS 4

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
B09.021.040	2-51A-39-46	2-51A-39	NDE-35	PT	SS		2.500	
Class A	Circumferential	OFD-101A-2.4					0.375	
				Pipe to Valve Valve 2HP-127				
B09.021.044	2-50-11-21	2-50-11	NDE-35	PT	SS		1.500	
Class A	Circumferential	OFD-100A-2.2					0.281	
	Stress weld			Pipe to Valve Valve 2LP-46				
B09.021.048	2-50-7-17	2-50-7 (1)	NDE-35	PT	SS		1.500	
Class A	Circumferential	OFD-100A-2.1					0.281	
				Elbow to Pipe				
B09.021.058	2-PSP-7	ISI-OCN2-016	NDE-35	PT	SS		2.500	
Class A	Circumferential	OFD-100A-2.2					0.375	
	Stress weld			Tee to Pipe				
Total B09.021 Items:		12						

Branch Pipe Connection Welds

Oconee 2

Plan Report
Page 30
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Less Than NPS 4 ****								
B09.032.001	2-53A-35-1	2-53A-35	NDE-35	PT	SS	3.000		
Branch		OFD-102A-2.1				0.438		
Class A				Pipe to Pipe				
B09.032.005	2-PDB1-12	ISI-OCN2-013	NDE-35	PT	SS	2.500		Pressurizer Spray Nozzle.
Branch		OM-1201-966				2.250		
Class A	Stress weld	B&W146630E		Nozzle Pc. 51 to Pipe Safe-End Pc.49				
Total B09.032 Items:		2						

**CATEGORY B-J, Pressure Retaining Welds In
Piping**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Oconee 2

Plan Report
Page 31
06/18/96

Socket Welds

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
B09.040.002	2-50-129-13A	2-50-129	NDE-35	PT	SS		1.500	
	Socket	OFD-100A-2.2					0.281	
	Class A				Tee to Pipe			
Total B09.040 Items:		1						
Total B09 Items:		39						

Reactor Vessel

Oconee 2

Plan Report
Page 32
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Welds in CRD Housing ****								
B14.010.003	2-RPV-CRD-63WH9	OM-1201-1529 OM-1201-1530	NDE-35	PT	SS/Inconel	4.025 0.650		CRDM Housing Body to Adapter MK - 67 to MK- 55.
Class A				Adapter				
B14.010.006	2-RPV-CRD-63W60	DPS 706599-1056 OM-1201-1530	NDE-35	PT	SS/CS	5.000 0.500		CRDM Base to Motor Tube - CRDM # 63.
Class A				CRDM Base to Motor Tube				
B14.010.009	2-RPV-CRD-63	DPS 706599-1056 OM-1201-1530	NDE-35	PT	SS/CS	4.300 0.400		CRDM Motor Tube to Extension - CRDM # 63.
Class A				CRDM Motor Tube to Extension				
B14.010.012	2-RPV-CRD-63W61	DPS 706599-1056 OM-1201-1530	NDE-35	PT	SS	4.190 0.380		Peripheral CRDM Extension to Cap - CRDM # 63.
Class A				Extension to Cap				
Total B14.010 Items:		4						
Total B14 Items:		4						

CATEGORY C-A, Pressure Retaining Welds
In Pressure Vessels

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 33
06/18/96

Shell Circumferential Welds

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
C01.010.002	2-SGA-WG8-3	ISI-OCN2-003	NDE-620	UT	CS	138.000	40339	Steam Generator 2A Nozzle Belt Pc. 3 to Shell Pc. 2.
	Circumferential	OM-1201-450	NDE-640			4.188		
Class B				SGA Shell to SGA Nozzle Belt				
Total C01.010 Items:		1						

CATEGORY C-A, Pressure Retaining Welds
In Pressure Vessels

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 34
06/18/96

Tubesheet-to-Shell Weld

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
C01.030.002	2-SGB-WG59	ISI-OCN2-004	NDE-620	UT	CS	138.000	40338	Steam Generator 2B Lower Tubesheet Pc. 50 to Shell
	Circumferential	OM-1201-450	NDE-640			6.625		Pc. 6.
	Class B							
				Shell				
Total C01.030 Items:		1						
Total C01 Items:		2						

**CATEGORY C-B, Pressure Retaining Nozzle
Welds In Vessels**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 35
06/18/96

**Nozzles With Reinforcing Plate In Vessels > 1/2
in. Nominal Thickness**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
**** Reinforcing Plate Welds to Nozzle and Vessel ****								
C02.031.001	2-LPCB-INLET		NDE-35	PT	SS	16.000		LP Cooler 2B Inlet Nozzle to Shell Weld.
	Circumferential	OM-201-0286				0.500		
Class B		OFD-102A-2.2			Inlet Nozzle to Shell			
C02.031.002	2-LPCB-OUTLET		NDE-35	PT	SS	16.000		LP Cooler 2B Outlet Nozzle to Shell Weld.
	Circumferential	OM-201-0286				0.500		
Class B		OFD-102A-2.2			Outlet Nozzle to Shell			
<hr/>								
Total C02.031 Items:		2						
Total C02 Items:		2						

Pressure Vessels

Oconee 2

Plan Report
Page 36
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Integrally Welded Attachments ****								
C03.010.003	2-SGA-WG84-ZW	OM-1201-1511	NDE-25	MT	CS	0.000		Steam Generator 2A Feedwater Header Support
Class B		OM-1201-95			Attachment to Shell	1.000		Attachment Pc. 152/153 Z-W Quadrant nearest to Z-Axis.
C03.010.004	2-SGA-WG84-WZ	OM-1201-1511	NDE-25	MT	CS	0.000		Steam Generator 2A Feedwater Header Support
Class B		OM-1201-95			Attachment to Shell	1.000		Attachment Pc. 152/153 Z-W Quadrant nearest to W-Axis.
Total C03.010 Items:		2						

**CATEGORY C-C, Integral Attachments For
Vessels, Piping, Pumps, And Valves**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 37
06/18/96**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

Piping

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Integrally Welded Attachments ****								
C03.020.001	1-56-SR17	0-437B	NDE-35	PT	SS	8.000		FILE NO. OS-421, PROBLEM NO. 4-56-02, SHT 3
	Rigid restraint	OFD-104A-1.2				0.750		OF 11. SPENT FUEL COOLING.
Class B								
C03.020.014	2-01A-H9B	0-1481A	NDE-25	MT	CS	26.000		FILE NO. OSC-440
	Constant support	OFD-122A-2.1	NDE-35			1.000		PROBLEM NO. 2-01-01 PAGE 40
Class B								PT (Using procedure NDE-35) may be performed if MT is not possible.
								MAIN STEAM PIPING
C03.020.017	2-03-H15A	0-1481A	NDE-25	MT	CS	24.000		MAIN FEEDWATER WEST GEN. 2B, DWG
	Spring hanger	OFD-121B-2.3				1.500		0-1490B-3.
Class B								
C03.020.022	2-14B-H11E	0-1479A	NDE-25	MT	CS	8.000		FILE NO. OSC-1325-09
	Rigid restraint	OFD-124B-2.2				1.500		PROBLEM NO. 2-14-10 VOL.1 OF 10
Class B								REACTOR BLDG. VENTILATION
C03.020.024	2-14B-H14	0-1479A	NDE-25	MT	CS	6.000		FILE NO. OSC-1325
	Rigid restraint	OFD-124B-2.2				0.750		PROBLEM NO. 2-14-16 VOL.6 OF 12
Class B								LP SERVICE WATER
C03.020.060	2-SGA-WG87-XY	OM-201-1054	NDE-25	MT	CS	0.000		SGA FDW. HDR. S/R ATTACH.
	Rigid restraint	OFD-121B-2.3				1.000		X-Y QUAD. NEAR X-AXIS
Class B								
C03.020.071	2-SGB-WG87-ZW	OM-201-1054	NDE-25	MT	CS	0.000		SGB FDW. HDR. S/R ATTACH.
	Rigid restraint	OFD-121B-2.3				1.000		Z-W QUAD. NEAR Z-AXIS
Class B								
<hr/>								
Total C03.020 Items:		7						
Total C03 Items:		9						

Piping Welds $\geq 3/8$ in. Nominal Wall Thickness for Piping \geq NPS 4

Oconee 2

Plan Report
Page 38
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Circumferential Weld ****								
C05.011.001	2-53A-8-16	2-53A-8(1)	NDE-600	UT	SS	10.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-102A-2.2		Pipe to Valve 2LP-47		1.125		
C05.011.001A	2-53A-8-16	2-53A-8(1)	NDE-35	PT	SS	10.000		
Class B	Circumferential	OFD-102A-2.2		Pipe to Valve 2LP-47		1.125		
C05.011.002	2-53A-8-17	2-53A-8(1)	NDE-600	UT	SS	10.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-102A-2.2		Pipe to Elbow		1.125		
C05.011.002A	2-53A-8-17	2-53A-8(1)	NDE-35	PT	SS	10.000		
Class B	Circumferential	OFD-102A-2.2		Pipe to Elbow		1.125		
C05.011.003	2-53A-8-18	2-53A-8(1)	NDE-600	UT	SS	10.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-102A-2.2		Pipe to Elbow		1.125		
C05.011.003A	2-53A-8-18	2-53A-8(1)	NDE-35	PT	SS	10.000		
Class B	Circumferential	OFD-102A-2.2		Pipe to Elbow		1.125		
Total C05.011 Items:		6						

**CATEGORY C-F-1, Pressure Retaining Welds
In Austenitic SS or High Alloy Piping**

**Piping Welds > 1/5 in. Nom Wall For Piping 3 NPS
2 And 2 NPS 4**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

Plan Report
Page 39
06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Circumferential Weld ****								
C05.021.001	2-RCP-FTR2A-SH-1		NDE-12	RT	SS	4.000		Reactor Coolant Pump seal Supply Filter 2A Pc. 10 to Pc. 1.TERMINAL END
Class B	Circumferential Term end	OM-201-0473 OFD-101A-2.4			Filter Hub to Filter Housing	0.531		
C05.021.001A	2-RCP-FTR2A-SH-1		NDE-35	PT	SS	4.000		TERMINAL END
Class B	Circumferential Term end	OM-201-0473 OFD-101A-2.4			Filter Hub to Filter Housing	0.531		
C05.021.002	2-RCP-FTR2A-SH-2		NDE-12	RT	SS	4.000		Reactor Coolant Pump seal Supply Filter 2A Pc. 10 to Pc. 1.TERMINAL END
Class B	Circumferential Term end	OM-201-0473 OFD-101A-2.4			Filter Hub to Filter Housing	0.531		
C05.021.002A	2-RCP-FTR2A-SH-2		NDE-35	PT	SS	4.000		TERMINAL END
Class B	Circumferential Term end	OM-201-0473 OFD-101A-2.4			Filter Hub to Filter Housing	0.531		
C05.021.006	2-51A-129-9	2-51A-129	NDE-600	UT	SS	4.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-101A-2.4			Elbow to Pipe	0.531		
C05.021.006A	2-51A-129-9	2-51A-129	NDE-35	PT	SS	4.000		
Class B	Circumferential	OFD-101A-2.4			Elbow to Pipe	0.531		
C05.021.025	2-51A-17-100A	2-51A-17 (4)	NDE-600	UT	SS	4.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-101A-2.3			Tee to Pipe	0.531		
C05.021.025A	2-51A-17-100A	2-51A-17 (4)	NDE-35	PT	SS	4.000		
Class B	Circumferential	OFD-101A-2.3			Tee to Pipe	0.531		

**CATEGORY C-F-1, Pressure Retaining Welds
In Austenitic SS or High Alloy Piping**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 40
06/18/96**

**Piping Welds > 1/5 in. Nom Wall For Piping ³ NPS
2 And ² NPS 4**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
C05.021.026	2-51A-17-101	2-51A-17 (4) OFD-101A-2.3	NDE-600	UT	SS	4.000 0.531		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Tee to Tee				
C05.021.026A	2-51A-17-101	2-51A-17 (4) OFD-101A-2.3	NDE-35	PT	SS	4.000 0.531		
Class B	Circumferential			Tee to Tee				
C05.021.027	2-51A-17-111	2-51A-17 (5) OFD-101A-2.3	NDE-600	UT	SS	4.000 0.531		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Pipe to Valve 2HP-128				
C05.021.027A	2-51A-17-111	2-51A-17 (5) OFD-101A-2.3	NDE-35	PT	SS	4.000 0.531		
Class B	Circumferential			Pipe to Valve 2HP-128				
C05.021.028	2-51A-17-142	2-51A-17 (6) OFD-101A-2.3	NDE-600	UT	SS	4.000 0.531		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Pipe to Valve Valve 2HP-117				
C05.021.028A	2-51A-17-142	2-51A-17 (6) OFD-101A-2.3	NDE-35	PT	SS	4.000 0.531		
Class B	Circumferential			Pipe to Valve Valve 2HP-117				
C05.021.029	2-51A-17-146	2-51A-17 (6) OFD-101A-2.3	NDE-600	UT	SS	4.000 0.531		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Pipe to Valve Valve 2HP-148				
C05.021.029A	2-51A-17-146	2-51A-17 (6) OFD-101A-2.3	NDE-35	PT	SS	4.000 0.531		
Class B	Circumferential			Pipe to Valve Valve 2HP-148				

**CATEGORY C-F-1, Pressure Retaining Welds
In Austenitic SS or High Alloy Piping**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 41
06/18/96**

**Piping Welds > 1/5 in. Nom Wall For Piping ³ NPS
2 And ² NPS 4**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
C05.021.074	2-51A-28-67	2-51A-28 (3) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Tee to Pipe				
C05.021.074A	2-51A-28-67	2-51A-28 (3) OFD-101A-2.4	NDE-35	PT	SS	2.500 0.375		
Class B	Circumferential			Tee to Pipe				
C05.021.075	2-51A-28-69	2-51A-28 (3) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Elbow to Pipe				
C05.021.075A	2-51A-28-69	2-51A-28 (3) OFD-101A-2.4	NDE-35	PT	SS	2.500 0.375		
Class B	Circumferential			Elbow to Pipe				
C05.021.076	2-51A-33-10	2-51A-33 OFD-101A-2.1	NDE-600	UT	SS	2.500 0.375		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Pipe to Elbow				
C05.021.076A	2-51A-33-10	2-51A-33 OFD-101A-2.1	NDE-35	PT	SS	2.500 0.375		
Class B	Circumferential			Pipe to Elbow				
C05.021.077	2-51A-33-13	2-51A-33 OFD-101A-2.1	NDE-600	UT	SS	2.500 0.375		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Elbow to Pipe				
C05.021.077A	2-51A-33-13	2-51A-33 OFD-101A-2.1	NDE-35	PT	SS	2.500 0.375		
Class B	Circumferential			Elbow to Pipe				

**CATEGORY C-F-1, Pressure Retaining Welds
In Austenitic SS or High Alloy Piping**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 42
06/18/96**

**Piping Welds > 1/5 in. Nom Wall For Piping ³ NPS
2 And ² NPS 4**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
C05.021.083	2-51A-27-3	2-51A-27 (1) OFD-101A-2.4	NDE-600	UT	SS	4.000 0.531		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Elbow to Pipe				
C05.021.083A	2-51A-27-3	2-51A-27 (1) OFD-101A-2.4	NDE-35	PT	SS	4.000 0.531		
Class B	Circumferential			Elbow to Pipe				
C05.021.089	2-51A-27-21	2-51A-27 (1) OFD-101A-2.4	NDE-600	UT	SS	4.000 0.531		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Pipe to Elbow				
C05.021.089A	2-51A-27-21	2-51A-27 (1) OFD-101A-2.4	NDE-35	PT	SS	4.000 0.531		
Class B	Circumferential			Pipe to Elbow				
C05.021.095	2-51A-28-30	2-51A-28 (1) OFD-101A-2.4	NDE-600	UT	SS	4.000 0.531		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Pipe to Valve Valve 2HP-134				
C05.021.095A	2-51A-28-30	2-51A-28 (1) OFD-101A-2.4	NDE-35	PT	SS	4.000 0.531		
Class B	Circumferential			Pipe to Valve Valve 2HP-134				
C05.021.101	2-51A-33-24	2-51A-33 OFD-101A-2.1	NDE-600	UT	SS	2.500 0.375		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential			Pipe to Elbow				
C05.021.101A	2-51A-33-24	2-51A-33 OFD-101A-2.1	NDE-35	PT	SS	2.500 0.375		
Class B	Circumferential			Pipe to Elbow				

Total C05.021 Items: 32

CATEGORY C-F-1, Pressure Retaining Welds
In Austenitic SS or High Alloy Piping

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 Inservice Inspection Database Management System

Plan Report
 Page 43
 06/18/96

Socket Welds

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
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C05.030.002	2-51B-18-48	2-51B-18	NDE-35	PT	SS	2.000		
	Socket	OFD-101A-2.2				0.154		
Class B				Pipe to Elbow				

C05.030.008	2-53B-98-10	2LP-98	NDE-35	PT	SS	10.000		
	Socket	OFD-102A-2.2				0.375		
Class B				Flange to Reducer				

C05.030.009	2-53B-97-13	2LP-97	NDE-35	PT	SS	10.000		
	Socket	OFD-102A-2.2				0.375		
Class B		OM 201-286		Flange to Reducer				

C05.030.010	2-51A-17-44	2-51A-17 (1)	NDE-35	PT	SS	4.000		TERMINAL END
	Socket	OFD-101A-2.3				0.237		
Class B	Term end			Elbow to Flange				

Total C05.030 Items: 4

**CATEGORY C-F-1, Pressure Retaining Welds
In Austenitic SS or High Alloy Piping**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 44
06/18/96

2 Pipe Branch Connections of Branch Piping ³ NPS

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
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**** Circumferential Weld ****

C05.041.001	2-53B-96-13	2LP-96	NDE-35	PT	SS		6.000	
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Branch

OFD-102A-2.2

0.280

Class B

Pipe to
Pipe

Total C05.041 Items: 1

**CATEGORY C-F-2, Pressure Retaining Welds
In Carbon Or Low Alloy Steel Piping**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 45
06/18/96

**Piping Welds ³ 3/8 in. Nominal Wall Thickness for
Piping > NPS 4**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Circumferential Weld ****								
C05.051.007	2-01A-5-50	2-01A-5 (2)	NDE-600	UT	CS	24.000		S/G 2A Main Steam Nozzle to Reducer weld.
	Circumferential	OFD-122A-2.1				0.969		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Term end				Reducer to Nozzle S/G 2A			
C05.051.007A	2-01A-5-50	2-01A-5 (2)	NDE-25	MT	CS	24.000		S/G 2A Main Steam Nozzle to Reducer weld.TERMINAL END
	Circumferential	OFD-122A-2.1				0.969		
Class B	Term end				Reducer to Nozzle S/G 2A			
C05.051.008	2-01A-5-51	2-01A-5 (2)	NDE-600	UT	CS	24.000		S/G 2A Main Steam Nozzle to Reducer weld.
	Circumferential	OFD-122A-2.1				0.969		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Term end				Reducer to Nozzle S/G 2A			
C05.051.008A	2-01A-5-51	2-01A-5 (2)	NDE-25	MT	CS	24.000		S/G 2A Main Steam Nozzle to Reducer weld.TERMINAL END
	Circumferential	OFD-122A-2.1				0.969		
Class B	Term end				Reducer to Nozzle S/G 2A			
C05.051.016	2-03A-24-WG-106	2-03A-24	NDE-600	UT	CS	6.000		Reference Request for Relief 95-GO-03 for calibration block.
	Circumferential	OFD-121B-2.3				0.432		
Class B		OM-1201-1475			Pipe Cap to Pipe			
C05.051.016A	2-03A-24-WG-106	2-03A-24	NDE-25	MT	CS	6.000		
	Circumferential	OFD-121B-2.3				0.432		
Class B		OM-1201-1475			Pipe Cap to Pipe			
C05.051.026	2-14B-48-109	2-14B-48	NDE-600	UT	CS	8.000		Reference Request for Relief 95-GO-03 for calibration block.
	Circumferential	OFD-124B-2.2				0.500		
Class B					Valve Valve 2LPSW-21 to Pipe			
C05.051.026A	2-14B-48-109	2-14B-48	NDE-25	MT	CS	8.000		
	Circumferential	OFD-124B-2.2				0.500		
Class B					Valve Valve 2LPSW-21 to Pipe			

**CATEGORY C-F-2, Pressure Retaining Welds
In Carbon Or Low Alloy Steel Piping**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

Plan Report
Page 46
06/18/96

**Piping Welds 3/8 in. Nominal Wall Thickness for
Piping > NPS 4**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
C05.051.027	2-14B-48-111	2-14B-48	NDE-600	UT	CS	6.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-124B-2.2		Tee to Flange		0.432		
C05.051.027A	2-14B-48-111	2-14B-48	NDE-25	MT	CS	6.000		
Class B	Circumferential	OFD-124B-2.2		Tee to Flange		0.432		
C05.051.028	2-14B-48-112	2-14B-48	NDE-600	UT	CS	6.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-124B-2.2		Flange to Pipe		0.432		
C05.051.028A	2-14B-48-112	2-14B-48	NDE-25	MT	CS	6.000		
Class B	Circumferential	OFD-124B-2.2		Flange to Pipe		0.432		
C05.051.029	2-14B-48-3	2-14B-48	NDE-600	UT	CS	8.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-124B-2.2		Elbow to Elbow		0.500		
C05.051.029A	2-14B-48-3	2-14B-48	NDE-25	MT	CS	8.000		
Class B	Circumferential	OFD-124B-2.2		Elbow to Elbow		0.500		
C05.051.030	2-14B-48-4	2-14B-48	NDE-600	UT	CS	8.000		Reference Request for Relief 95-GO-03 for calibration block.
Class B	Circumferential	OFD-124B-2.2		Elbow to Pipe		0.500		
C05.051.030A	2-14B-48-4	2-14B-48	NDE-25	MT	CS	8.000		
Class B	Circumferential	OFD-124B-2.2		Elbow to Pipe		0.500		

Total C05.051 Items: 16

Pipe Branch Connections of Branch Piping³ NPS
2

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Circumferential Weld ****								
C05.081.006	2-MS12A-A-1	2-01A-5(1)/2MS-12A OFD-122A-2.1	NDE-25	MT	CS	8.000 0.906		Reference Request for Relief ONS-010.
Class B								
Total C05.081 Items:		1						
Total C05 Items:		60						

**CATEGORY C-G, Pressure Retaining Welds
In Pumps And Valves**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Oconee 2

Plan Report
Page 48
06/18/96

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
**** Valve Body Welds ****								
C06.020.001	2-FDW345	OM-245-0659	NDE-25	MT	CS	0.000		Valve Body Weld on Valve 2FDW-345.
	Circumferential	OFD-121D-2.1				0.000		
	Class B				Valve Neck to Valve Body			
<hr/>								
Total C06.020 Items:		1						
Total C06 Items:		1						

**CATEGORY D-B, Systems In Support Of ECC,
CHR, Atmos. Cleanup, And Reactor RHR**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 49
06/18/96

Integral Attachment

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
**** Component Supports and Restraints ****								
D02.020.002	2-01A-DE032A	0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
	Rigid restraint	OFD-122A-2.4				0.125		OF 4. STEAM SUPPLY TO EFWP.
Class C								
D02.020.004	2-01A-DJB-1004	4-0-1400H	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 2
	Rigid restraint	OFD-122A-2.4				0.216		OF 4.
Class C								
D02.020.005	2-01A-R20	4-0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
	Rigid restraint	OFD-122A-2.4				0.125		OF 4. STEAM SUPPLY TO EFWP.
Class C								
D02.020.006	2-01A-R23	4-0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
	Rigid restraint	OFD-122A-2.4				1.000		OF 4. STEAM SUPPLY TO EFWP.
Class C								
D02.020.011	2-03-H60	0-551	QAL-14	VT-3	NA	24.000		FILE NO. OS-454, PROBLEM NO. 2-03-01, PG 44.
	Rigid restraint	OFD-121B-2.3				0.500		
Class C								
D02.020.013	2-03A-DE015	0-1401B	QAL-14	VT-3	NA	6.000		File Number = OSC-447, Page No. 112; Problem
	Rigid restraint	OFD-121D-2.1				0.375		Number = 2-03A-05; EFW to Main Feedwater Line
Class C								
D02.020.014	2-03A-DE024	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-451, Page No. 84A; Problem
	Rigid restraint	OFD-121D-2.1				0.125		Number = 2-03A-10; Sys 03A
Class C								
D02.020.015	2-03A-DE025	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-451, Page No. 84A; Problem
	Rigid restraint	OFD-121D-2.1				0.216		Number = 2-03A-10; Sys 03A
Class C								

**CATEGORY D-B, Systems In Support Of ECC,
CHR, Atmos. Cleanup, And Reactor RHR**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 50
06/18/96**

Integral Attachment

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK CAL BLOCKS	COMMENTS
D02.020.016	1-03A-DE062	1-0-400B	QAL-14	VT-3	NA	6.000	File Number = OSC-450, Page No. 107; Problem
	Rigid restraint	OFD-121D-2.1				0.750	Number = 2-03A-09; EFW Crossover
Class C							
D02.020.017	2-03A-GC-1215	0-1401A	QAL-14	VT-3	NA	6.000	File Number = OSC-447, Page No. 110; Problem
	Rigid restraint	OFD-121D-2.1				0.375	Number = 2-03A-05; EFW to Main Feedwater Line
Class C							
D02.020.021	3-03A-H100	1-0-2400A	QAL-14	VT-3	NA	6.000	File Number = OSC-526; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.500	3-03A-09, Sht. 2 of 3; Emergency Feedwater Bypass
Class C							Line
D02.020.025	2-03A-H12	1-0-1437A	QAL-14	VT-3	NA	6.000	File Number = OSC-449; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.125	2-03A-08, Sht 3 of 6; Emergency Feedwater Bypass
Class C							Line
D02.020.027	2-03A-H13	1-0-1437A	QAL-14	VT-3	NA	6.000	File Number = OSC-449; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.125	2-03A-08, Sht 3 of 6; Emergency Feedwater Bypass
Class C							Line
D02.020.028	2-03A-H14	1-0-1437A	QAL-14	VT-3	NA	6.000	File Number = OSC-449; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.125	2-03A-08, Sht. 4 of 6; Emergency Feedwater Bypass
Class C							Line
D02.020.033	2-03A-H24	1-0-1400B	QAL-14	VT-3	NA	6.000	File Number = OSC-449; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.500	2-03A-08, Sht. 5 of 6; Emergency Feedwater Bypass
Class C							Line
D02.020.034	2-03A-H25	1-0-1400B	QAL-14	VT-3	NA	6.000	File Number = OSC-449; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.500	2-03A-08, Sht. 5 of 6; Emergency Feedwater Bypass
Class C							Line

**CATEGORY D-B, Systems In Support Of ECC,
CHR, Atmos. Cleanup, And Reactor RHR**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 51
06/18/96**

Integral Attachment

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK CAL BLOCKS	COMMENTS
D02.020.036	2-03A-H28	1-0-1400A	QAL-14	VT-3	NA	6.000	File Number = OSC-450, Page No. 106; Problem
	Rigid restraint	OFD-121D-2.1				0.500	Number = 2-03A-09; EFW Crossover
Class C							
D02.020.038	2-03A-H3	1-0-1437A	QAL-14	VT-3	NA	6.000	File Number = OSC-450, Page No. 105; Problem
	Rigid restraint	OFD-121D-2.1				0.125	Number = 2-03A-09; EFW Crossover
Class C							
D02.020.041	2-03A-H38	1-0-1400B	QAL-14	VT-3	NA	6.000	File Number = OSC-451, Page No. 83; Problem
	Rigid restraint	OFD-121D-2.1				0.375	Number = 2-03A-10; Sys 03A
Class C							
D02.020.044	2-03A-H5	1-0-1437A	QAL-14	VT-3	NA	6.000	File Number = OSC-450, Page No. 105; Problem
	Rigid restraint	OFD-121D-2.1				0.125	Number = 2-03A-09; EFW Crossover
Class C							
D02.020.051	2-03A-H95	1-0-1400A	QAL-14	VT-3	NA	6.000	File Number = OSC-1213; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.750	2-03A-12, Sht. 1 of 2; Aux Feedwater Discharge Sys.
Class C							
D02.020.061	2-03A-SR12	1-0-1437A	QAL-14	VT-3	NA	6.000	File Number = OSC-449; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.500	2-03A-08, Sht 3 of 6; Emergency Feedwater Bypass
Class C							Line
D02.020.074	2-03A-SR26	1-0-1400A	QAL-14	VT-3	NA	6.000	File Number = OSC-450, Page No. 106; Problem
	Rigid restraint	OFD-121D-2.1				0.500	Number = 2-03A-09; EFW Crossover
Class C							
D02.020.075	2-03A-SR27	1-0-1400A	QAL-14	VT-3	NA	6.000	File Number = OSC-450, Page No. 106; Problem
	Rigid restraint	OFD-121D-2.1				0.500	Number = 2-03A-09; EFW Crossover
Class C							

**CATEGORY D-B, Systems In Support Of ECC,
CHR, Atmos. Cleanup, And Reactor RHR**

**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**

**Plan Report
Page 52
06/18/96**

Integral Attachment

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
D02.020.086	2-03A-SR34	1-0-1400B	QAL-14	VT-3	NA	6.000		File Number = OSC-451, Page No. 83; Problem
	Rigid restraint	OFD-121D-2.1				0.500		Number = 2-03A-10; Sys 03A
Class C								
D02.020.091	2-03A-SR38	1-0-1400B	QAL-14	VT-3	NA	6.000		File Number = OSC-449; Problem Number =
	Rigid restraint	OFD-121D-2.1				0.500		2-03A-08, Sht. 4 of 6; Emergency Feedwater Bypass
Class C								Line
D02.020.092	2-03A-SR4	1-0-1437A	QAL-14	VT-3	NA	6.000		File Number = OSC-450, Page No. 105; Problem
	Rigid restraint	OFD-121D-2.1				0.500		Number = 2-03A-09; EFW Crossover
Class C								
D02.020.095	2-03A-SR46	1-0-1401A	QAL-14	VT-3	NA	6.000		File Number = OSC-447, Page No. 110; Problem
	Rigid restraint	OFD-121D-2.1				1.000		Number = 2-03A-05; EFW to Main Feedwater Line
Class C								
D02.020.097	2-03A-SR5	1-0-1444	QAL-14	VT-3	NA	6.000		File Number = OSC-450, Page No. 105; Problem
	Rigid restraint	OFD-121D-2.1				1.000		Number = 2-03A-09; EFW Crossover
Class C								
D02.020.098	2-03A-SR55	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-1213; Problem Number =
	Rigid restraint	OFD-121D-2.1				1.000		2-03A-12, Sht. 1 of 2; Aux Feedwater Discharge Sys.
Class C								
D02.020.101	2-03A-SR9	1-0-1401B	QAL-14	VT-3	NA	6.000		File Number = OSC-447, Page No. 112; Problem
	Rigid restraint	OFD-121D-2.1				1.000		Number = 2-03A-05; EFW to Main Feedwater Line
Class C								
D02.020.105	0-13-H7000	0-447A	QAL-14	VT-3	NA	16.000		FILE NO. OSC-1224-25
	Rigid restraint	OFD-133A-2.5				1.000		PROBLEM NO. 4-13-03
Class C								SHT.1OF1 SUCTION FOR AUX.&DIESEL ENGINE
								SWP

Total D02.020 Items: 32

**CATEGORY D-B, Systems In Support Of ECC,
CHR, Atmos. Cleanup, And Reactor RHR**

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Oconee 2

Plan Report
Page 53
06/18/96

Integral Attachment

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
**** Spring Type Supports ****								
D02.040.010	2-03A-H18	1-0-1444	QAL-14	VT-3	NA	6.000		File Number = OSC-450, Page No. 105; Problem
	Spring hanger	OFD-121D-2.1				0.500		Number = 2-03A-09; EFW Crossover
Class C								
D02.040.015	2-07A-H56	6-0-1400A	QAL-14	VT-3	NA	12.000		FILE NO. OSC-467, PROBLEM NO. 2-07-1 SHTS. 1
	Spring hanger	OFD-121A-2.8				0.750		OF 6, 2 OF 6, & 3 OF 6. CONDENSATE SYSTEM.
Class C								
D02.040.018	2-14B-H28	0-1436A	QAL-14	VT-3	NA	16.000		FILE NO. OSC-475
	Spring hanger	OFD-124B-2.1				0.187		PROBLEM NO. 2-14-6 SHT3OF3
Class C								LP SERVICE WATER
<hr/>								
Total D02.040 Items:		3						
Total D02 Items:		35						

CATEGORY D-C, Systems In Support Of RHR
From Spent Fuel Storage Pool

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Oconee 2

Plan Report
Page 54
06/18/96

Integral Attachment

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
**** Component Supports and Restraints ****								
D03.020.001	2-56-SR16	0-437B	QAL-14	VT-3	NA		8.000	Calclaton No. OS-421
	Rigid restraint	OFD-104A-1.1					0.500	Page 96.1; Problem No.4-56-02
	Class C							Spent Fuel Cooling System 56
<hr/>								
Total D03.020 Items:		1						
Total D03 Items:		1						

Plan Report
Page 55
06/18/96

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.010.005	2-51A-H9B	0-1479A	QAL-14	VT-3	NA	2.500		FILE NO. OSC-1323
	Rigid restraint	OFD-101A-2.4				0.500		PROBLEM NO.2-51-24
Class A								HPI SYSTEM WEST COOLANT LOOP SOUTH LEG
Total F01.010 Items:		1						
F01.011.006	2-53A-H28C	0-1481A	QAL-14	VT-3	NA	1.500		PROBLEM NO.2-53-14 LPINJ. TO PZR SPRAY
	Rigid restraint	OFD-100A-2.2				0.250		
Class A		0-2RB-25314-02						
Total F01.011 Items:		1						
F01.012.002	2-50-H3	0-1481A	QAL-14	VT-3	NA	2.500		FILE NO. OSC-1324-06 SHT.1 OF 2 PROBLEM
	Hyd snubber	OFD-100A-2.2				0.154		NO.2-53-14
Class A								PZR SPRAY SYSTEM. INSPECT WITH ITEM NO. F01.050.027
Total F01.012 Items:		1						

CATEGORY F-A, Supports (Category A)**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Plan Report
Page 56
06/18/96****Class 2 Weld Connections to Building Structure****Oconee 2****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.020.002 Class B	2-01A-H21 Rigid restraint	0-1401B OFD-122A-2.1	QAL-14	VT-3	NA	36.000 0.000		FILE NO. OSC-440 PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.020.007 Class B	2-14B-H11E Rigid restraint	0-1479A OFD-124B-2.2	QAL-14	VT-3	NA	8.000 1.500		FILE NO. OSC-1325-09 PROBLEM NO. 2-14-10 sht.1of10 REACTOR BLDG. VENTILATION
F01.020.012 Class B	2-51A-DE008 Rigid restraint	0-435C OFD-101A-2.4	QAL-14	VT-3	NA	4.000 0.000		FILE NO. OSC-1023 PROBLEM NO.2-51-18 PAGE 49.1 HPI SYSTEM CROSSOVER LINE
F01.020.022 Class B	2-53B-DE016 Rigid restraint	0-435B OFD-102A-2.2	QAL-14	VT-3	NA	10.000 0.000		FILE NO. OS-487, PROBLEM NO. 2-53-01, SHT 3 OF 5. L. P. INJECTION & DECAY HEAT REMOVAL SYSTEM 53B.
F01.020.027 Class B	2-53B-H10 Rigid restraint	2-0-436E OFD-101A-2.3	QAL-14	VT-3	NA	6.000 0.216		File Number = OSC-481,Page 143; Problem Number = 51-2
F01.020.035 Class B	2-54A-H1 Rigid restraint	3-0-1444 OFD-103A-2.1	QAL-14	VT-3	NA	8.000 0.500		FILE NO. OS-494, PROBLEM NO. 2-54-1, SHT 1 OF 1. REACTOR BUILDING SPRAY LINE "2A".
F01.020.041 Class B	2-56-DE008 Rigid restraint	438C OFD-104A-1.1	QAL-14	VT-3	NA	8.000 0.000		Calclaton No. OS-421 Page 97; Problem No.4-56-02 Spent Fuel Cooling System 56
F01.020.044 Class B	2-51A-H77 Rigid Restraint	3-0-1439A OFD-101A-2.1	QAL-14	VT-3	NA	4.000 0.000		Calc# OSC-483, Page 54 Problem# 2-51-06, sht. 1 of 3

Total F01.020 Items: 8

CATEGORY F-A, Supports (Category B)**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Plan Report
Page 57
06/18/96****Class 2 Weld Connections to Building Structure****Oconee 2****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.021.003 Class B	2-14B-DE193 Rigid restraint	0-1439A OFD-124B-2.2	QAL-14	VT-3	NA	8.000 0.000		FILE NO. OSC-474 PROBLEM NO. 4-14-04 SHT.30F3 L.P.S.WATER DISCHARGE
F01.021.014 Class B	2-51A-H12 Rigid restraint	2-0-1439C OFD-101A-2.4	QAL-14	VT-3	NA	4.000 0.000		FILE NO. OSC-1023 PROBLEM NO.2-51-18 PAGE 51.1 HPI SYSTEM CROSSOVER LINE
F01.021.026 Class B	2-54A-R3 Rigid restraint	3-0-1444 OFD-103A-2.1	QAL-14	VT-3	NA	8.000 0.500		FILE NO. OS-496, PROBLEM NO. 2-54-03, SHT 2 OF 2. SYSTEM 54A.
F01.021.029 Class B	2-51B-DE019 Rigid Restraint	0-436J OFD-101A-2.2	QAL-14	VT-3	NA	2.500 0.000		Calc# OSC-485, Page 43 Problem# 2-51-8, sht. 1 of 1
Total F01.021 Items:		4						
F01.022.001 Class B	2-01A-H1 Spring hanger	0-1441 OFD-122A-2.1	QAL-14	VT-3	NA	36.000 0.500		FILE NO. OSC-440 PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.022.007 Class B	2-03-H2A Constant support	0-1479A OFD-121B-2.3	QAL-14	VT-3	NA	14.000 0.000		MAIN FEEDWATER WEST GEN. 2B, DWG NO. O-1490 B-4.
F01.022.014 Class B	2-53B-EMO-H50 Spring hanger	0-435B OFD-102A-2.1	QAL-14	VT-3	NA	14.000 0.000		FILE NO. OS-487, PROBLEM NO. 2-53-01, SHT 1 OF 5. LPI TO DECAY HEAT REMOVAL SYSTEM 53B. Added to EOC16 per Engineering request. Ref. addenda ONS2-025.

CATEGORY F-A, Supports (Category C)**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Plan Report
Page 58
06/18/96****Class 2 Weld Connections to Building Structure****Oconee 2****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.022.020	2-54A-R101	3-0-435B	QAL-14	VT-3	NA	8.000		FILE NO. OS-494, PROBLEM NO. 2-54-1, SHT 1 OF
	Hyd snubber	OFD-103A-2.1				0.000		1. REACTOR BUILDING SPRAY LINE "2A".
Class B								INSPECT WITH ITEM NO. F01.050.055
F01.022.024	2-51A-H75	3-0-1444A	QAL-14	VT-3	NA	4.000		Calc# OSC-483, Page 54
	Spring Hgr	OFD-101A-2.1				0.000		Problem# 2-51-06, sht. 1 of 3
Class B								

Total F01.022 Items: 5

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.030.006	2-03A-DE009	0-1401B	QAL-14	VT-3	NA	6.000		File Number = OSC-447, Page No. 112; Problem Number = 2-03A-05; EFW to Main Feedwater Line
Class C	Rigid restraint	OFD-121D-2.1				0.000		
F01.030.012	2-03A-H108	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-1213; Problem Number = 2-03A-12, Sht. 1 of 2; Aux Feedwater Discharge Sys.
Class C	Rigid restraint	OFD-121D-2.1				0.000		
F01.030.018	2-03A-H88	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-1213; Problem Number = 2-03A-12, Sht. 1 of 2; Aux Feedwater Discharge Sys.
Class C	Rigid restraint	OFD-121D-2.1		Sway Strut to		0.000		
F01.030.024	2-07A-H58	6-0-1400A	QAL-14	VT-3	NA	12.000		FILE NO. OSC-467, PROBLEM NO. 2-07-1 SHTS. 1 OF 6, 2 OF 6, & 3 OF 6. CONDENSATE SYSTEM.
Class C	Rigid restraint	OFD-121A-2.8				0.000		
F01.030.030	2-14B-DE105	0-400B	QAL-14	VT-3	NA	24.000		Calculation No. OS-395 Page 40 problem no. 1-14A-01 page 1 of 2 Low Pressure Service Water
Class C	Rigid restraint	OFD-124A-1.1				0.000		
F01.030.036	2-56-H29	2-0-437B	QAL-14	VT-3	NA	8.000		Calculaton No. OS-421
Class C	Rigid restraint	OFD-104A-1.1				0.000		Page 96.1; Problem No.4-56-02 Spent Fuel Cooling System 56
F01.030.038	2-14B-DE165	2-1436C	QAL-14	VT-3	NA	10.000		File No. OSC-394, Page 76
Class C	Rigid restraint	OFD-121D-1.2				0.000		Problem No. 4-14-3,sht 2 of 9 Low Pressure Service Water
Total F01.030 Items:		7						

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.031.001	0-13-H7000	0-447A	QAL-14	VT-3	NA		16.000	FILE NO. OSC-1224-25
Class C	Rigid restraint	OFD-133A-2.5					1.000	PROBLEM NO. 4-13-03
								SHT.1 OF 1 SUCTION FOR AUX.&DIESEL ENGINE SWP
F01.031.007	2-03A-H73	1-0-1400A	QAL-14	VT-3	NA		6.000	File Number = OSC-1212; Problem Number =
Class C	Rigid restraint	OFD-121D-2.1					0.000	2-03A-11, Sht. 1 of 2; Aux Feedwater Discharge System
F01.031.012	2-03A-SR3	1-0-1401A	QAL-14	VT-3	NA		6.000	File Number = OSC-447, Page No. 111; Problem
Class C	Rigid restraint	OFD-121D-2.1					0.000	Number = 2-03A-05; EFW to Main Feedwater Line
F01.031.022	2-14B-DE166	2-1436C	QAL-14	VT-3	NA		10.000	File No. OSC-394, Page 76
Class C	Rigid restraint	OFD-121D-1.2					0.000	Problem No. 4-14-3,sht 2 of 9
								Low Pressure Service Water
Total F01.031 Items:		4						
F01.032.008	2-13-H9	7-0-1400B	QAL-14	VT-3	NA		12.000	File Number = OS-471;Problem Number = 13-7, SHT.
Class C	Spring hanger	OFD-133A-2.2					0.000	1of 1; Emergengy Cooling Water Discharge
F01.032.009	2-14B-H28	0-1436A	QAL-14	VT-3	NA		16.000	FILE NO. OSC-475
Class C	Spring hanger	OFD-124B-2.1					0.187	PROBLEM NO. 2-14-6 SHT3OF3
								LP SERVICE WATER
Total F01.032 Items:		2						

CATEGORY F-A, Supports

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 61
06/18/96

**Clearances of Guides & Stops, Align of Supps,
Assembly of Supp Items**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.040.003	2-PZR-SKIRT	ISI-OCN2-002 OM-1201-858 B&W14977E	QAL-14	VT-3	CS	0.000 0.000		Pressurizer Support Stand. Class A.
Class A				Lug to Shell				
F01.040.005	2-DHRC-A-SUPPORT	OM-201-286 OFD-102A-2.2	QAL-14	VT-3	NA	0.000 0.000		Decay Heat Removal Cooler 2A Support. Class B
Class B								
F01.040.012	2-LPI-PU-A	OM-1201-1121 OFD-102A-2.2	QAL-14	VT-3	NA	0.000 0.000		LPI Pump "A" Support Pad & Legs. Class B
Class B								
Total F01.040 Items:		3						

Spring Supports & Constant Load Supports

CATEGORY F-A, Supports**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**Plan Report
Page 63
06/18/96**Spring Supports & Constant Load Supports**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.050.009	2-01A-R9-2	0-1441	QAL-14	VT-3	NA	36.000	0.688	FILE NO. OSC-440 PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
Class B	Hyd snubber	OFD-122A-2.1						
F01.050.010	2-01A-R9-3	0-1441	QAL-14	VT-3	NA	36.000	0.688	FILE NO. OSC-440 PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
Class B	Hyd snubber	OFD-122A-2.1						
F01.050.011	2-01A-R9-4	0-1441	QAL-14	VT-3	NA	36.000	0.688	FILE NO. OSC-440 PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
Class B	Hyd snubber	OFD-122A-2.1						
F01.050.012	2-53-H3	0-1478A	QAL-14	VT-3	NA	12.000	0.280	FILE NO. OSC-1320-06, PROBLEM NO. 2-53-10, PAGE 83. DECAY HEAT REMOVAL SYSTEM.
Class A	Hyd snubber	OFD-102A-2.1						
F01.050.013	2-50-H12	0-1479A	QAL-14	VT-3	NA	2.500	0.000	FILE NO. OSC-1324-06 SHT.1OF2 PROBLEM NO.2-53-14 PZR SPRAY SYSTEM
Class A	Hyd snubber	OFD-100A-2.2						
F01.050.014	2-51A-H2A	0-1479A	QAL-14	VT-3	NA	2.500	0.154	FILE NO. OSC-1324-06 SHT.4OF5 PROBLEM NO.2-53-15 HPI SYSTEM EAST COOLANT LOOP
Class A	Hyd snubber	OFD-101A-2.4						
F01.050.015	2-03-H6B	0-1480A	QAL-14	VT-3	NA	20.000	0.000	MAIN FEEDWATER EAST GEN. 2A, DWG NO. O-1490 B-2.
Class B	Hyd snubber	OFD-121B-2.3						
F01.050.016	2-03-H7A	0-1480A	QAL-14	VT-3	NA	24.000	0.237	MAIN FEEDWATER WEST GEN. 2B, DWG NO. O-1490 B-4.
Class B	Hyd snubber	OFD-121B-2.3						

Plan Report
Page 64
06/18/96

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK CAL BLOCKS	COMMENTS
F01.050.017	2-03A-H1B	0-1480A	QAL-14	VT-3	NA	6.000	File Number = OSC-1224-17, Page 49; Problem
Class C	Hyd snubber	OFD-121D-2.1				0.237	Number 2-03A-13; Aux Service Water Piping.
F01.050.018	2-50-H10	0-1480A	QAL-14	VT-3	NA	2.500	FILE NO. OSC-1324-06 SHT.1OF2 PROBLEM
Class A	Hyd snubber	OFD-100A-2.2				0.000	NO.2-53-14 PZR SPRAY SYSTEM
F01.050.019	2-50-H11	0-1480A	QAL-14	VT-3	NA	2.500	FILE NO. OSC-1324-06 SHT.1 OF 2 PROBLEM
Class A	Hyd snubber	OFD-100A-2.2				0.000	NO.2-53-14 PZR SPRAY SYSTEM.
F01.050.020	2-50-H8	0-1480A	QAL-14	VT-3	NA	2.500	FILE NO. OSC-1324-06 SHT.1 OF 2 PROBLEM
Class A	Hyd snubber	OFD-100A-2.2				0.000	NO.2-53-14 PZR SPRAY SYSTEM.
F01.050.021	2-50-H9	0-1480A	QAL-14	VT-3	NA	2.500	FILE NO. OSC-1324-06 SHT.1OF2 PROBLEM
Class A	Hyd snubber	OFD-100A-2.2				0.000	NO.2-53-14 PZR SPRAY SYSTEM
F01.050.022	2-01A-H2A	0-1481A	QAL-14	VT-3	NA	24.000	FILE NO. OSC-440
Class B	Hyd snubber	OFD-122A-2.1				0.322	PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.050.023	2-01A-H2B	0-1481A	QAL-14	VT-3	NA	24.000	FILE NO. OSC-440
Class B	Hyd snubber	OFD-122A-2.1				0.322	PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.050.024	2-01A-H8A	0-1481A	QAL-14	VT-3	NA	24.000	FILE NO. OSC-440
Class B	Hyd snubber	OFD-122A-2.1				0.322	PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING

CATEGORY F-A, Supports**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**Plan Report
Page 65
06/18/96**Spring Supports & Constant Load Supports**

Occonee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.050.025 Class B	2-01A-H8B Hyd snubber	0-1481A OFD-122A-2.1	QAL-14	VT-3	NA	24.000 0.322		FILE NO. OSC-440 PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.050.026 Class A	2-50-H1 Hyd snubber	0-1481A OFD-100A-2.2	QAL-14	VT-3	NA	2.500 0.000		FILE NO. OSC-1324-06 SHT.1 OF 2 PROBLEM NO.2-53-14 PZR SPRAY SYSTEM
F01.050.027 Class A	2-50-H3 Hyd snubber	0-1481A OFD-100A-2.2	QAL-14	VT-3	NA	2.500 0.154		FILE NO. OSC-1324-06 SHT.1 OF 2 PROBLEM NO.2-53-14 PZR SPRAY SYSTEM.
F01.050.028 Class A	2-50-H7 Hyd snubber	0-1481A OFD-100A-2.2	QAL-14	VT-3	NA	2.500 0.500		FILE NO. OSC-1324-06 SHT.1 OF 2 PROBLEM NO.2-53-14 PZR SPRAY SYSTEM
F01.050.029 Class B	2-57-H15 Hyd snubber	0-1481A OFD-100A-2.2	QAL-14	VT-3	NA	6.000 0.000		FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM NO.2-57-01 PZR RELIEF VLV SYSTEM
F01.050.030 Class B	2-57-H16 Hyd snubber	0-1481A OFD-100A-2.2	QAL-14	VT-3	NA	6.000 0.000		FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM NO.2-57-01 PZR RELIEF VLV SYSTEM.
F01.050.031 Class B	2-57-H17 Hyd snubber	0-1481A OFD-100A-2.2	QAL-14	VT-3	NA	6.000 0.000		FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM NO.2-57-01 PZR RELIEF VLV SYSTEM
F01.050.032 Class B	2-57-H20 Hyd snubber	0-1481A OFD-100A-2.2	QAL-14	VT-3	NA	6.000 0.000		FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM NO.2-57-01 PZR RELIEF VLV SYSTEM

CATEGORY F-A, Supports**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**Plan Report
Page 66
06/18/96**Spring Supports & Constant Load Supports**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK CAL BLOCKS	COMMENTS
F01.050.033	2-57-H21	0-1481A	QAL-14	VT-3	NA	6.000	FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM
	Hyd snubber	OFD-100A-2.2				0.000	NO.2-57-01
Class B							PZR RELIEF VLV SYSTEM
F01.050.034	2-57-H23	0-1481A	QAL-14	VT-3	NA	6.000	FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM
	Hyd snubber	OFD-100A-2.2				0.000	NO.2-57-01
Class B							PZR RELIEF VLV SYSTEM
F01.050.035	2-57-H25	0-1481A	QAL-14	VT-3	NA	6.000	FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM
	Hyd snubber	OFD-100A-2.2				0.000	NO.2-57-01
Class B							PZR RELIEF VLV SYSTEM
F01.050.036	2-57-H7	0-1481A	QAL-14	VT-3	NA	8.000	FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM
	Hyd snubber	OFD-100A-2.2				0.000	NO.2-57-01
Class B							PZR RELIEF VLV SYSTEM.
F01.050.037	2-57-H9	0-1481A	QAL-14	VT-3	NA	8.000	FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM
	Hyd snubber	OFD-100A-2.2				0.216	NO.2-57-01
Class B							PZR RELIEF VLV SYSTEM
F01.050.038	2-57-RJP-H0801	0-1481A	QAL-14	VT-3	NA	4.000	FILE NO. OSC-1332-06 PAGE 14.1 PROBLEM
	Hyd snubber	OFD-100A-2.2				0.000	NO.2-57-01
Class A							PZR RELIEF VLV SYSTEM.
F01.050.039	2-50-H1A	0-1479A	QAL-14	VT-3	NA	10.000	PZR Surge Line.
	Hyd snubber	OFD-100A-2.1				0.000	
Class A		0-2491B-2A					
F01.050.040	2-50-H2A	0-1479A	QAL-14	VT-3	NA	10.000	PZR Surge Line.
	Hyd snubber	OFD-100A-2.1				0.000	
Class A		0-2491B-2A					

CATEGORY F-A, Supports**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Plan Report
Page 67
06/18/96****Spring Supports & Constant Load Supports****Oconee 2****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.050.041	2-50-H3A	0-1479A	QAL-14	VT-3	NA	10.000		PZR Surge Line.
	Hyd snubber	OFD-100A-2.1				0.000		
Class A		0-2491B-2A						
F01.050.042	2-03A-SR102	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-450, Page No. 106; Problem
	Hyd snubber	OFD-121D-2.1				0.000		Number = 2-03A-09; EFW Crossover
Class C								
F01.050.043	2-03A-SR103	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-451, Page No. 85; Problem
	Hyd snubber	OFD-121D-2.1				0.000		Number = 2-03A-10; Sys 03A
Class C								
F01.050.044	2-03A-SR104	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-451, Page No. 84A; Problem
	Hyd snubber	OFD-121D-2.1				0.000		Number = 2-03A-10; Sys 03A
Class C								
F01.050.045	2-03A-SR100	1-0-1400B	QAL-14	VT-3	NA	6.000		File Number = OSC-449; Problem Number =
	Hyd snubber	OFD-121D-2.1				0.203		2-03A-08, Sht. 5 of 6; Emergency Feedwater Bypass
Class C								Line.
F01.050.046	2-03A-SR101PO	1-0-1401B	QAL-14	VT-3	NA	6.000		File Number = OSC-449; Problem Number =
	Hyd snubber	OFD-121D-2.1				0.000		2-03A-08, Sht. 4 of 6; Emergency Feedwater Bypass
Class C								Line.
F01.050.047	2-51A-SR150	1-0-1444	QAL-14	VT-3	NA	4.000		FILE NO. OSC-1023 PAGE 52.1 PROBLEM
	Hyd snubber	OFD-101A-2.4				0.000		NO.2-51-18
Class B								HPI SYSTEM CROSSOVER LINE
F01.050.048	2-01A-H40	1-1-0-1401B	QAL-14	VT-3	NA	12.000		FILE NO. OSC-442
	Hyd snubber	OFD-122A-2.2				0.000		PROBLEM NO. 2-01-02 SHT1OF5
Class B								MAIN STEAM BYPASS TO CONDENSER

CATEGORY F-A, Supports**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Plan Report
Page 68
06/18/96****Spring Supports & Constant Load Supports****Oconee 2****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.050.049	2-01A-H43	1-1-0-1401B	QAL-14	VT-3	NA	12.000		FILE NO. OSC-442
	Hyd snubber	OFD-122A-2.2				0.000		PROBLEM NO. 2-01-02 SHT2OF5
Class B								MAIN STEAM BYPASS TO CONDENSER
F01.050.050	2-01A-H44	1-1-0-1401B	QAL-14	VT-3	NA	12.000		FILE NO. OSC-442
	Hyd snubber	OFD-122A-2.2				0.000		PROBLEM NO. 2-01-02 SHT2OF5
Class B								MAIN STEAM BYPASS TO CONDENSER
F01.050.051	2-53B-SR100	2-0-435B	QAL-14	VT-3	NA	14.000		FILE NO. OS-487, PROBLEM NO. 2-53-01, SHT 1
	Hyd snubber	OFD-102A-2.1				0.000		OF 5. LPI TO DECAY HEAT REMOVAL SYSTEM
Class B								53B.
F01.050.052	2-53B-SR1000	2-0-436E	QAL-14	VT-3	NA	14.000		FILE NO. OSC-481, PROBLEM NO. 51-2, SHT 4 OF
	Hyd snubber	OFD-102A-2.1				0.000		6. HPI PUMP SUCT. HEADER W/BRANCHES FROM
Class B								B.W.S. TANK, L.S. TANK AND L.P. COOLERS "2A"
								& "2B".
F01.050.053	2-01A-R7	3-0-1401B	QAL-14	VT-3	NA	12.000		FILE NO. OSC-443
	Hyd snubber	OFD-122A-2.1				0.000		PROBLEM NO. 2-01-04 PAGE 23
Class B								MAIN STEAM PIPING.
F01.050.054	2-54A-R16	3-0-1439A	QAL-14	VT-3	NA	8.000		FILE NO. OS-496, PROBLEM NO. 2-54-03, SHT 2
	Hyd snubber	OFD-103A-2.1				0.000		OF 2. SYSTEM 54A.
Class B								
F01.050.055	2-54A-R101	3-0-435B	QAL-14	VT-3	NA	8.000		FILE NO. OS-494, PROBLEM NO. 2-54-1, SHT 1 OF
	Hyd snubber	OFD-103A-2.1				0.000		1. REACTOR BUILDING SPRAY LINE "2A".
Class B								
F01.050.056	2-54A-R2B	3-0-435B	QAL-14	VT-3	NA	8.000		FILE NO. OS-495, PROBLEM NO. 2-54-02, SHT 1
	Hyd snubber	OFD-103A-2.1				1.000		OF 1. REACTOR BUILDING SPRAY LINE "2B".
Class B								

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.050.057	2-01A-R17	4-0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
Class C	Hyd snubber	OFD-122A-2.4				0.000		OF 4. STEAM SUPPLY TO EFWP.
F01.050.058	2-01A-R18	4-0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
Class C	Hyd snubber	OFD-122A-2.4				0.000		OF 4. STEAM SUPPLY TO EFWP.
F01.050.059	2-01A-R21	4-0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
Class C	Hyd snubber	OFD-122A-2.4				0.000		OF 4. STEAM SUPPLY TO EFWP.
F01.050.060	2-01A-R22	4-0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
Class C	Hyd snubber	OFD-122A-2.4				0.000		OF 4. STEAM SUPPLY TO EFWP.
F01.050.061	2-01A-R6	4-1-0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
Class C	Hyd snubber	OFD-122A-2.4				0.000		OF 4. STEAM SUPPLY TO EFWP.
F01.050.062	2-01A-R2	4-2-0-1403C	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 2
Class C	Hyd snubber	OFD-122A-2.4				0.000		OF 4.
F01.050.063	2-53B-SR1000	5-0-435B	QAL-14	VT-3	NA	10.000		FILE NO. OS-493, PROBLEM NO. 2-53-2, SHT 1 OF
Class B	Hyd snubber	OFD-102A-2.2				0.000		4. FROM L. P. PUMPS "2A" & "2C" TO R. B. & BORATED WATER STORAGE TANK SYSTEM "53A" & "53B".
F01.050.064	2-13-SR1	7-0-1400B	QAL-14	VT-3	NA	12.000		File Number = OS-471;Problem Number = 13-7, SHT.
Class C	Hyd snubber	OFD-133A-2.2				0.000		1of 1; Emergengy Cooling Water Discharge

Spring Supports & Constant Load Supports

Oconee 2

Plan Report

Page 70

06/18/96

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
F01.050.065	2-13-SR4	7-0-1400B	QAL-14	VT-3	NA		30.000	File Number = OS-471; Problem Number = 13-7, Sht. 1 of 1; Emergency Cooling Water Discharge
Class C	Hyd snubber	OFD-133A-2.2					0.000	
F01.050.066	2-07A-DE039	0-1400A	QAL-14	VT-3	NA		24.000	FILE NO. OSC-467, PROBLEM NO. 2-07-01, PG 108. UPPER SURGE TANK TO CONDENSER SYSTEM 07A.
Class C	Mech snubber	OFD-121A-2.7					0.000	
F01.050.067	2-03-R13	0-1401A	QAL-14	VT-3	NA		24.000	FILE NO. OS-454, PROBLEM NO. 2-03-01, PG 44.
Class C	Mech snubber	OFD-121B-2.3					0.000	
F01.050.068	2-03A-DE034	0-1401A	QAL-14	VT-3	NA		6.000	FILE NO. OSC-447, PROBLEM NO. 2-03A-05, SHT 4 OF 7.
Class C	Mech snubber	OFD-121B-2.3					0.000	
F01.050.069	2-03A-H4088	0-1401A	QAL-14	VT-3	NA		6.000	File Number = OS-459; Problem Number = 2-03A-06 Sht. 1 of 4; Emergency Feedwater
Class C	Mech snubber	OFD-121D-2.1					0.000	
F01.050.070	2-01A-R11	0-1401B	QAL-14	VT-3	NA		36.000	FILE NO. OSC-440
Class B	Mech snubber	OFD-122A-2.1					0.000	PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.050.071	2-01A-R4	0-1401B	QAL-14	VT-3	NA		36.000	FILE NO. OSC-440
Class B	Mech snubber	OFD-122A-2.1					0.000	PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.050.072	2-01A-R6	0-1401B	QAL-14	VT-3	NA		36.000	FILE NO. OSC-440
Class B	Mech snubber	OFD-122A-2.1					1.000	PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING.

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.050.073	2-01A-DE076	0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1
Class C	Mech snubber	OFD-122A-2.4				0.000		OF 4. STEAM SUPPLY TO EFWP.
F01.050.074	2-01A-DE077	0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 2
Class C	Mech snubber	OFD-122A-2.4				0.000		OF 4.
F01.050.075	2-51A-H184	0-1439A	QAL-14	VT-3	NA	4.000		FILE NO. OSC-1023 PAGE 48.1 PROBLEM
Class B	Mech snubber	OFD-101A-2.4				0.000		NO.2-51-18 HPI SYSTEM CROSSOVER LINE
F01.050.076	2-51A-H167	0-1439C	QAL-14	VT-3	NA	4.000		FILE NO. OSC-1023 PAGE 47.1 PROBLEM
Class B	Mech snubber	OFD-101A-2.4				0.000		NO.2-51-18 HPI SYSTEM CROSSOVER LINE
F01.050.077	2-01A-DE060	0-1441	QAL-14	VT-3	NA	36.000		FILE NO. OSC-440
Class B	Mech snubber	OFD-122A-2.1				0.000		PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.050.078	2-01A-DE061	0-1441	QAL-14	VT-3	NA	36.000		FILE NO. OSC-440
Class B	Mech snubber	OFD-122A-2.1				0.000		PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING
F01.050.079	2-01A-R7	0-1441	QAL-14	VT-3	NA	36.000		FILE NO. OSC-440
Class B	Mech snubber	OFD-122A-2.1				1.000		PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING.
F01.050.080	2-01A-R9-1	0-1441	QAL-14	VT-3	NA	36.000		FILE NO. OSC-440
Class B	Mech snubber	OFD-122A-2.1				0.688		PROBLEM NO. 2-01-01 PAGE 40 MAIN STEAM PIPING

CATEGORY F-A, Supports**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Plan Report
Page 72
06/18/96****Spring Supports & Constant Load Supports****Oconee 2****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
F01.050.081	2-03A-NPS-H28	0-1478A	QAL-14	VT-3	NA	3.000		FILE NO. OSC-1224-17, PROBLEM NO. 2-03A-13, SHT 4 OF 5.
	Mech snubber	OFD-121B-2.5				0.000		
Class C								
F01.050.082	2-03-H6103	0-1480A	QAL-14	VT-3	NA	6.000		File Number = OSC-1224-17, Page No. 50.1; Problem Number = 2-03A-13; Aux Service Water Piping
	Mech snubber	OFD-121D-2.1				0.000		
Class B								
F01.050.083	2-03A-H3A	0-1480A	QAL-14	VT-3	NA	6.000		File Number = OSC-1224-17, Page No. 50.1; Problem Number = 2-03A-13; Aux Service Water Piping.
	Mech snubber	OFD-121D-2.1				0.237		
Class C								
F01.050.084	2-57-NWIZ	0-1480A	QAL-14	VT-3	NA	12.000		FILE NO. OSC-1332-06, PROBLEM NO. 2-57-01, PG 14.1.
	Mech snubber	OFD-107A-2.1				0.000		
Class C								
F01.050.086	2-03A-H121	1-0-1400A	QAL-14	VT-3	NA	6.000		File Number = OSC-1213; Problem Number = 2-03A-12, Sht. 1 of 2; Aux Feedwater Discharge Sys.
	Mech snubber	OFD-121D-2.1				0.000		
Class C								
F01.050.087	2-53B-DE063	1-0-1436A	QAL-14	VT-3	NA	10.000		FILE NO. OS-493, PROBLEM NO. 2-53-2, SHT 2 OF 4. FROM L. P. PUMPS "2A" & "2C" TO R. B. & BORATED WATER STORAGE TANK SYSTEM "53A" & "53B".
	Mech snubber	OFD-102A-2.2				0.000		
Class B								
F01.050.088	2-53B-DE068	1-0-1439C	QAL-14	VT-3	NA	10.000		FILE NO. OS-493, PROBLEM NO. 2-53-2, SHT 3 OF 4. FROM L. P. PUMPS "2A" & "2C" TO R. B. & BORATED WATER STORAGE TANK SYSTEM "53A" & "53B".
	Mech snubber	OFD-102A-2.2				0.000		
Class B								
F01.050.089	2-53B-DE060	1-0-435B	QAL-14	VT-3	NA	8.000		FILE NO. OS-493, PROBLEM NO. 2-53-2, SHT 1 OF 4. FROM L. P. PUMPS "2A" & "2C" TO R. B. & BORATED WATER STORAGE TANK SYSTEM "53A" & "53B".
	Mech snubber	OFD-102A-2.2				0.000		
Class B								

CATEGORY F-A, Supports**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Plan Report
Page 73
06/18/96****Spring Supports & Constant Load Supports****Oconee 2****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
F01.050.090	2-53B-DE070	1-0-438C	QAL-14	VT-3	NA	8.000		FILE NO. OS-493, PROBLEM NO. 2-53-2, SHT 3 OF 4. FROM L. P. PUMPS "2A" & "2C" TO R. B. & BORATED WATER STORAGE TANK SYSTEM "53A" & "53B".
	Mech snubber	OFD-102A-2.1				0.000		
Class B								
F01.050.091	2-53B-DE056	2-0-436E	QAL-14	VT-3	NA	14.000		FILE NO. OSC-481, PROBLEM NO. 51-2, SHT 4 OF 6. HPI PUMP SUCT. HEADER W/BRANCHES FROM B.W.S. TANK, L.S. TANK AND L.P. COOLERS "2A" & "2B".
	Mech snubber	OFD-102A-2.1				0.000		
Class B								
F01.050.092	2-01A-R19	4-0-1403D	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 1 OF 4. STEAM SUPPLY TO EFWP.
	Mech snubber	OFD-122A-2.4				0.000		
Class C								
F01.050.093	2-01A-R27	4-2-0-1400A	QAL-14	VT-3	NA	6.000		FILE NO. OSC-445, PROBLEM NO. 2-01-6, SHT 2 OF 4.
	Mech snubber	OFD-122A-2.4				0.237		
Class C								
F01.050.094	2-53B-DE057	5-0-435B	QAL-14	VT-3	NA	10.000		FILE NO. OS-487, PROBLEM NO. 2-53-01, SHT 3 OF 5. L. P. INJECTION & DECAY HEAT REMOVAL SYSTEM 53B.
	Mech snubber	OFD-102A-2.2				0.000		
Class B								
F01.050.095	2-07A-H60	6-0-1400A	QAL-14	VT-3	NA	20.000		FILE NO. OSC-467, PROBLEM NO. 2-07-1 SHTS. 1 OF 6, 2 OF 6, & 3 OF 6. CONDENSATE SYSTEM.
	Mech snubber	OFD-121A-2.8				0.000		
Class C								
F01.050.096	2-07A-H61	6-0-1400A	QAL-14	VT-3	NA	20.000		FILE NO. OSC-467, PROBLEM NO. 2-07-1 SHTS. 1 OF 6, 2 OF 6, & 3 OF 6. CONDENSATE SYSTEM.
	Mech snubber	OFD-121A-2.8				0.000		
Class C								
F01.050.097	2-07A-H62	6-0-1400A	QAL-14	VT-3	NA	24.000		FILE NO. OSC-467, PROBLEM NO. 2-07-1 SHTS. 1 OF 6, 2 OF 6, & 3 OF 6. CONDENSATE SYSTEM.
	Mech snubber	OFD-121A-2.8				0.000		
Class C								

Total F01.050 Items: 96**Total F01 Items: 132**

CATEGORY AUG, Augmented Inspections**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Plan Report
Page 74
06/18/96****High Pressure Injection Nozzle Safe End****Ocone 2****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DI/THK	CAL BLOCKS	COMMENTS
G02.001.001 Class A	2-PDA1-47	ISI-OCN2-011 B&W146629E OFD-100A-2.1	NDE-610	UT	SS-CS	3.500 0.750	40343 40416	A1 Discharge Make-Up Nozzle Safe-End Pc. 47. Reference Section 7 Paragraph 7.1.2 of the ISI Plan - Volume 1.
G02.001.001A Class A	2-PDA1-47	ISI-OCN2-011 B&W146629E OFD-100A-2.1	NDE-12	RT	SS-CS	3.500 0.750		A1 Discharge Make-Up Nozzle Safe-End Pc. 47. Reference Section 7 Paragraph 7.1.2 of the ISI Plan - Volume 1.
G02.001.002 Class A	2-PDA2-47	ISI-OCN2-012 B&W146629E OFD-100A-2.1	NDE-610	UT	SS-CS	3.500 0.750	40343 40416	A2 Discharge Make-Up Nozzle Safe-End Pc. 47. Reference Section 7 Paragraph 7.1.2 of the ISI Plan - Volume 1.
G02.001.002A Class A	2-PDA2-47	ISI-OCN2-012 B&W146629E OFD-100A-2.1	NDE-12	RT	SS-CS	3.500 0.750		A2 Discharge Make-Up Nozzle Safe-End Pc. 47. Reference Section 7 Paragraph 7.1.2 of the ISI Plan - Volume 1.
G02.001.003 Class A	2-PDB1-47	ISI-OCN2-013 B&W146629E OFD-100A-2.1	NDE-12	RT	SS-CS	3.500 0.750		B1 Discharge HPI Nozzle Safe-End Pc. 47. Reference Section 7 Paragraph 7.1.2 of the ISI Plan - Volume 1.
G02.001.004 Class A	2-PDB2-47	ISI-OCN2-014 B&W146629E OFD-100A-2.1	NDE-610	UT	SS-CS	3.500 0.750	40343 40416	B2 Discharge HPI Nozzle Safe-End Pc. 47. Reference Section 7 Paragraph 7.1.2 of the ISI Plan - Volume 1.
G02.001.004A Class A	2-PDB2-47	ISI-OCN2-014 B&W146629E OFD-100A-2.1	NDE-12	RT	SS-CS	3.500 0.750		B2 Discharge HPI Nozzle Safe-End Pc. 47. Reference Section 7 Paragraph 7.1.2 of the ISI Plan - Volume 1.
Total G02.001 Items:		7						
Total G02 Items:		7						

CATEGORY AUG, Augmented Inspections**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System****Oconee 2****Plan Report
Page 75
06/18/96****NRC Bulletin 88-08****Inservice Inspection Plan for Interval 3 Outage 1**

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS
G04.001.001 Class A	2-51A-39-90C Circumferential	2-51A-39(3) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1. Pipe to Safe-End
G04.001.002 Class A	2-51A-39-90B Circumferential	2-51A-39(3) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1. Pipe to Pipe
G04.001.003 Class A	2-51A-39-91 Circumferential	2-51A-39(3) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1. Pipe to Valve 2HP-153
G04.001.004 Class A	2-51A-39-92A Circumferential	2-51A-39(3) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1. Pipe to Safe-End
G04.001.005 Class A	2-51A-39-92B Circumferential	2-51A-39(3) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1. Pipe to Pipe
G04.001.006 Class A	2-51A-39-93 Circumferential	2-51A-39(3) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1. Pipe to Valve 2HP-152
G04.001.007 Class A	2-51A-27-73 Circumferential	2-51A-27(2) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1. Elbow to Pipe
G04.001.008 Class A	2-51A-27-81 Circumferential	2-51A-27(2) OFD-101A-2.4	NDE-600	UT	SS	2.500 0.375	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1. Elbow to Pipe

CATEGORY AUG, Augmented Inspections

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 76
06/18/96

NRC Bulletin 88-08

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIATHK	CAL BLOCKS	COMMENTS
G04.001.009	2-51A-27-82	2-51A-27(2)	NDE-600	UT	SS	2.500	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1.
Class A	Circumferential	OFD-101A-2.4		Pipe to Valve 2HP-152		0.375		
G04.001.010	2-51A-27-108	2-51A-27(3)	NDE-600	UT	SS	2.500	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1.
Class A	Circumferential	OFD-101A-2.4		Pipe to Elbow		0.375		
G04.001.012	2-51A-27-111	2-51A-27(3)	NDE-600	UT	SS	2.500	TBD	Inspect 100% of weld & 1" of base material (axial & circumferential). Reference Section 7 Paragraph 7.1.4 of ISI Plan - Volume 1.
Class A	Circumferential	OFD-101A-2.4		Pipe to Valve 2HP-153		0.375		

Total G04.001 Items: 11

Total G04 Items: 11

CATEGORY AUG, Augmented Inspections**DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System**Plan Report
Page 77
06/18/96**Circumferential Pipe Welds With A Nom. Wall
Thk. < 3/8" and > NPS 4"**

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK CAL BLOCKS	COMMENTS
G09.001.002 Class B	2-51A-17-12 Circumferential	2-51A-17 (1) OFD-101A-2.3	NDE-35	PT Elbow to Pipe	SS	6.000 0.280	Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.
G09.001.003 Class B	2-51A-17-16C Circumferential	2-51A-17 (1) OFD-101A-2.3	NDE-35	PT Pipe to Tee	SS	6.000 0.280	Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.
G09.001.006 Class B	2-53B-17-118 Circumferential	2-53B-17(3) OFD-102A-2.2	NDE-35	PT Pipe to Tee	SS	14.000 0.250	Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.
G09.001.008 Class B	2-53B-18-55 Circumferential	2-53B-18(3) OFD-102A-2.1	NDE-35	PT Pipe to Valve 2LP-8	SS	14.000 0.250	Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.
G09.001.014 Class B	2-53B-19-52 Circumferential	2-53B-19(4) OFD-102A-2.2	NDE-35	PT Pipe to Elbow	SS	10.000 0.250	Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.
G09.001.027 Class B	2-53B-31-17E Circumferential	2-53B-31(2) OFD-102A-2.2	NDE-35	PT Pipe to Elbow	SS	10.000 0.165	Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.
G09.001.028 Class B	2-53B-31-14 Circumferential	2-53B-31(2) OFD-102A-2.2	NDE-35	PT Pipe to Elbow	SS	10.000 0.165	Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.
G09.001.029 Class B	2-53B-31-8 Circumferential	2-53B-31(2) OFD-102A-2.2	NDE-35	PT Pipe to Valve 2LP-13	SS	10.000 0.165	Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.

CATEGORY AUG, Augmented Inspections

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
Inservice Inspection Database Management System

Plan Report
Page 78
06/18/96

Circumferential Pipe Welds With A Nom. Wall
Thk. < 3/8" and > NPS 4"

Oconee 2

Inservice Inspection Plan for Interval 3 Outage 1

ITEM NUMBER	ID NUMBER	ISO/DWG NUMBERS	PROC	INSP REQ	MAT/SCH	DIA/THK	CAL BLOCKS	COMMENTS	
G09.001.030	2-53B-31-20	2-53B-31(3)	NDE-35	PT	SS	10.000		Non-Legitimate Weld in Inspection Category C-F-1. Reference Section 7, Paragraph 7.1.9 in ISI Plan - Volume 1.	
	Circumferential	OFD-102A-2.2				0.250			
Class B				Pipe to Elbow					
Total G09.001 Items:		9							
Total G09 Items:		9							

B. Items examined by Pressure Testing

Item Number	=	ASME Section XI Tables IWB-2500-1 (Class 1), IWC-2500-1 (Class 2)
Drawing Number	=	Number of the Flow Diagram
Revision	=	Revision of the Flow Diagram
Test	=	Type of Pressure Test
Comp	=	Vessel, Piping or Pump
Comp Name	=	Example: Reactor Vessel, etc.; for piping - System designation will be used
Req. Insp.	=	Type inspection performed, i.e., VT2
Req. Proc	=	Required inspection procedure
Comments	=	General and/or Detail Description

PAGE NO. 1
07/03/96

OCONEE UNIT NUMBER 2 - 3rd INTERVAL
CLASS A (CATEGORY B-P) REQUIREMENTS
FOR OUTAGE NUMBER 15

ITEM NO.	DRAWING	REV	TEST	FCA NO.	SYSTEM NAME	REQ. INSP	REQ. PROC	COMMENTS
B15.050.001	SEE COMMENTS	N/A	LEAK	N/A	RC SYSTEM	VT-2	QAL-15	Drawings that make up the Class A Leakage Boundary: OFDL-100A-2.1/0, OFDL-100A-2.2/0, OFDL-100A-2.3/0, OFDL-101A-2.1/0, OFDL-101A-2.4/0, OFDL-101A-2.5/0, OFDL-102A-2.1/0, OFDL-102A-2.2/0, OFDL-102A-2.3/0, OFDL-110A-2.1/0, OFDL-110A-2.4/0, OFDL-127B-2.2/0

PAGE NO. 1
07/03/96

OCONEE UNIT NUMBER 2 - 3rd INTERVAL
CLASS B (CATEGORY C-H) REQUIREMENTS
FOR OUTAGE NUMBER 15

ITEM NO.	DRAWING	REV	TEST	FCA NO.	SYSTEM NAME	REQ. INSP	REQ. PROC	COMMENTS
C07.030.001	OFDL-101A-2.1	00	INS/FUN	N/A	HPI SYSTEM	VT-2	QAL-15	Penetrations 6 and 7
C07.030.002	OFDL-101A-2.2	00	INSERT	N/A	HPI SYSTEM	VT-2	QAL-15	
C07.030.003	OFDL-101A-2.3	00	INSERT	N/A	HPI SYSTEM	VT-2	QAL-15	
C07.030.004	OFDL-101A-2.4	00	INS/FUN	N/A	HPI SYSTEM	VT-2	QAL-15	Penetrations 8, 9, 10, 23 and 52
C07.030.005	OFDL-101A-2.5	00	INSERT	ONS2-027	HPI SYSTEM	VT-2	QAL-15	
C07.030.006	OFDL-102A-2.1	00	INS/FUN	N/A	LPI SYSTEM	VT-2	QAL-15	This test shall include VT-2 for Telltale hole of Item No. C02.033.004
C07.030.007	OFDL-104A-1.1	01	FUNCT	ONS2-027	SF SYSTEM	VT-2	QAL-15	
C07.030.008	OFDL-104A-1.2	02	INSERT	N/A	SF SYSTEM	VT-2	QAL-15	
C07.030.009	OFDL-102A-2.2	00	INS/FUN	N/A	LPI SYSTEM	VT-2	QAL-15	Penetrations 15 and 16
C07.030.010	OFDL-102A-2.3	00	FUNCT	N/A	LPI SYSTEM	VT-2	QAL-15	Penetrations 39 and 59
C07.030.017	OFDL-110A-2.1	00	FUNCT	ONS2-027	CA SYSTEM	VT-2	QAL-15	Penetrations 2 and 58
C07.030.022	OFDL-121B-2.3	00	INS/FUN	ONS2-027	FDW SYSTEM	VT-2	QAL-15	Penetrations 25 and 27
C07.030.023	OFDL-121B-2.5	00	FUNCT	ONS2-027	FDW SYSTEM	VT-2	QAL-15	Penetrations 4 and 43

PAGE NO. 2
07/03/96

OCONEE UNIT NUMBER 2 - 3rd INTERVAL
CLASS B (CATEGORY C-H) REQUIREMENTS
FOR OUTAGE NUMBER 15

ITEM NO.	DRAWING	REV	TEST	FCA NO.	SYSTEM NAME	REQ. INSP	REQ. PROC	COMMENTS
C07.030.024	OFDL-121D-2.1	00	FUNCT	ONS2-027	EFW SYSTEM	VT-2	QAL-15	Penetrations 17 and 50
C07.030.025	OFDL-122A-2.1	00	INSERT	ONS2-027	MS SYSTEM	VT-2	QAL-15	Penetrations 26 and 28
C07.030.026	OFDL-122A-2.2	00	INSERT	ONS2-027	MS SYSTEM	VT-2	QAL-15	
C07.030.027	OFDL-122A-2.3	00	INSERT	ONS2-027	MS SYSTEM	VT-2	QAL-15	
C07.030.028	OFDL-122A-2.4	00	INSERT	ONS2-027	MS SYSTEM	VT-2	QAL-15	
C07.030.029	OFDL-122B-2.1	00	INSERT	ONS2-027	MS SYSTEM	VT-2	QAL-15	
C07.030.030	OFDL-124B-2.2	00	FUNCT	N/A	LPSW SYSTEM	VT-2	QAL-15	Penetrations 30, 31, 32, 33, 34 and 35
C07.030.031	OFDL-124B-2.4	00	INSERT	N/A	LPSW SYSTEM	VT-2	QAL-15	Penetrations 21 and 22
C07.030.039	OFDL-121D-1.2	02	FUNCT	ONS2-027	FDW SYSTEM	VT-2	QAL-15	
C07.030.040	OFD-109A-1.1	10	INSERT	ONS2-028	HPI SYSTEM	VT-2	QAL-15	

5.0 Results Of Inspections Performed During Outage 15

The results of each examination shown in the final ISI Plan (Section 4.0 of this report) are included in this Section. The completion date and status for each examination are shown. Limited examinations are described in further detail in Section 5.2. All examinations revealing reportable indications are described in further detail in Section 6.0.

5.1 The information shown below is a field description for the reporting format included in this Section of the report:

A. Items examined by NDE methods

Item Number	=	ASME Section XI Tables IWB-2500-1 (Class 1), IWC-2500-1 (Class 2), IWF-2500-1 (Class 1 and Class 2), Augmented Requirements
ID Number	=	Unique Identification Number
Insp Date	=	Date of Examination
Insp Status	=	CLR Clear REC Recordable REP Reportable
Insp Limited	=	Indicates inspection was limited. Coverage obtained is listed
Geo. Ref. (Geometric Reflector applies only to UT)	=	<u>Y</u> Yes <u>N</u> No
Comments	=	General and/or Detail Description

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 1
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
B01.021.001	2-RPV-WH5	50	04/09/96	CLR	81.85%	N	Y	Request for Relief 95-04 addresses limited examination.
B01.040.001	2-RPV-WH7	50	04/09/96	CLR	48.55%	N	Y	Request for Relief 95-04 addresses limited examination.
B01.040.001A	2-RPV-WH7	50	04/13/96	CLR	---	N	N	
B02.011.001	2-PZR-WP76	50	04/15/96	REC	96.00%	Y	N	
B02.012.001	2-PZR-WP1-1	50	04/15/96	REC	---	N	N	
B02.040.001	2-SGA-WG58-1	50	04/29/96	REP	70.50%	N	Y	Fracture Mechanic Evaluation No. 31-1245901-00 addresses the indication identified during EOC 15. This weld will be examined during the next 3 periods as required by ASME Section XI. Indication was characterized as a "slag line". Request for Relief 96-02 addresses limited examination.
B02.040.002	2-SGA-WG58-2	50	04/30/96	REC	71.00%	Y	Y	Examined during EOC 15 in accordance with ASME Section XI IWB-2430(a). (Item Number B02.040.001 was reportable). Request for Relief 96-02 addresses limited examination.
B03.090.001A	2-RPV-WR13	50	01/28/92	REC	47.60%	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-006.
B03.090.002A	2-RPV-WR13A	50	02/03/92	REC	47.60%	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-006.
B03.100.001	2-RPV-WR13	50	01/27/92	REC	47.60%	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-006.
B03.100.002	2-RPV-WR13A	50	02/03/92	REC	47.60%	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-006.
B03.130.003	2-SGB-WG50-2	50	04/13/96	CLR	15.60%	N	Y	Request for Relief 95-04 addresses limited examination.
B03.130.004	2-SGB-WG50-1	50	04/13/96	CLR	15.60%	N	Y	Request for Relief 95-04 addresses limited examination.
B03.140.003	2-SGB-WG50-2	50	04/13/96	CLR	15.60%	N	Y	Request for Relief 95-04 addresses limited examination.
B03.140.004	2-SGB-WG50-1	50	04/13/96	CLR	15.60%	N	Y	Request for Relief 95-04 addresses limited examination.
B03.150.001	2-LDCA-INLET-V1	51A	04/04/96	CLR	26.96%	N	Y	Request for Relief 96-02 addresses limited examination.
B03.150.002	2-LDCA-OUTLET-V2	51A	04/04/96	CLR	26.96%	N	Y	Request for Relief 96-02 addresses limited examination.
B03.160.001	2-LDCA-INLET-V1	51A	04/04/96	CLR	26.96%	N	Y	Reference Request for Relief ONS-009.
B03.160.002	2-LDCA-OUTLET-V2	51A	04/04/96	CLR	26.96%	N	Y	Reference Request for Relief ONS-009.
B05.010.001	2-RPV-WR53	50	02/01/92	CLR	---	N	Y	This item was examined during the third period of the second interval. Request for Relief ONS-001 addresses the fact that credit is being taken for the UT examination during the second interval in lieu of performing the required surface examination.
B05.010.002	2-RPV-WR53A	50	02/02/92	CLR	---	N	Y	This item was examined during the third period of the second interval. Request for Relief ONS-001 addresses the fact that credit is being taken for the UT examination during the second interval in lieu of performing the required surface examination.

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 2
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
B05.040.001	2-PZR-WP23	50	04/17/96	CLR	---	N	N	
B05.040.001A	2-PZR-WP23	50	04/12/96	CLR	---	N	N	
B05.040.001B	2-PZR-WP23	50	04/12/96	CLR	---	N	N	
B05.140.004	2-PDA1-11	50	04/16/96	CLR	---	N	N	
B05.140.010	2-PIB1-11	50	04/15/96	CLR	---	N	N	
B06.010.001	2-RPV-26-204-01	50	04/15/96	CLR	---	N	N	
B06.010.016	2-RPV-26-204-16	50	04/15/96	CLR	---	N	N	
B06.010.017	2-RPV-26-204-17	50	04/14/96	CLR	---	N	N	
B06.010.018	2-RPV-26-204-18	50	04/15/96	CLR	---	N	N	
B06.010.019	2-RPV-26-204-62	50	04/14/96	CLR	---	N	N	
B06.010.057	2-RPV-26-204-57	50	04/14/96	CLR	---	N	N	
B06.010.058	2-RPV-26-204-58	50	04/14/96	CLR	---	N	N	
B06.010.059	2-RPV-26-204-59	50	04/15/96	CLR	---	N	N	
B06.010.060	2-RPV-26-204-60	50	04/15/96	CLR	---	N	N	
B06.030.001	2-RPV-25-204-01	50	04/13/96	CLR	---	N	N	
B06.030.001A	2-RPV-25-204-01	50	04/14/96	CLR	---	N	N	
B06.030.016	2-RPV-25-204-16	50	04/13/96	CLR	---	N	N	
B06.030.016A	2-RPV-25-204-16	50	04/14/96	CLR	---	N	N	
B06.030.017	2-RPV-25-204-17	50	04/13/96	CLR	---	N	N	
B06.030.017A	2-RPV-25-204-17	50	04/14/96	CLR	---	N	N	
B06.030.018	2-RPV-25-204-18	50	04/13/96	CLR	---	N	N	
B06.030.018A	2-RPV-25-204-18	50	04/15/96	CLR	---	N	N	
B06.030.019	2-RPV-25-204-19	50	04/13/96	CLR	---	N	N	
B06.030.019A	2-RPV-25-204-19	50	04/15/96	CLR	---	N	N	
B06.030.057	2-RPV-25-204-57	50	04/13/96	CLR	---	N	N	
B06.030.057A	2-RPV-25-204-57	50	04/15/96	---	---	N	N	
B06.030.058	2-RPV-25-204-58	50	04/13/96	CLR	---	N	N	
B06.030.058A	2-RPV-25-204-58	50	04/14/96	CLR	---	N	N	
B06.030.059	2-RPV-25-204-59	50	04/13/96	CLR	---	N	N	
B06.030.059A	2-RPV-25-204-59	50	04/15/96	CLR	---	N	N	
B06.030.060	2-RPV-25-204-60	50	04/13/96	CLR	---	N	N	
B06.030.060A	2-RPV-25-204-60	50	04/14/96	CLR	---	N	N	
B06.050.001	2-RPV-WASH-BUSH	50	04/15/96	CLR	---	N	N	
B07.020.001	2-PZR-UHB-STUDS	50	04/08/96	CLR	---	N	N	Inspection done with bolting in place. Studs contain flange, primary nut, lacking plate and locking nut
B07.030.001	2-SGA-UMW-BOLT	50	04/06/96	CLR	---	N	N	
B07.030.002	2-SGA-LMW-BOLT	50	04/08/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 3
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
B07.050.001	2-PZR-RC4-BOLT	50	04/20/96	CLR	---	N	N	8 Outlet bolts
B07.050.001	2-PZR-RC4-BOLT	50	04/23/96	CLR	---	N	N	Inlet flange bolting. Inspected in place
B07.070.003	2-53A-CF13-BOLTS	53A	04/04/96	CLR	---	N	N	Boron on top of bonnet. None was around bolting material, light rust on bolting. Bolting inspected in place.
B07.080.001	2-RPV-CRD-BOLTS	50	04/23/96	CLR	---	N	N	CRD # 6, 12, 23, 27, 42, 47, 48 & 63
B07.080.002	2-RPV-CRD-RINGS	50	04/23/96	CLR	---	N	N	CRD # 6, 12, 23, 27, 42, 47, 48 & 63
B09.011.003	2-53A-8-1	53A	04/16/96	CLR	---	N	N	
B09.011.003A	2-53A-8-1	53A	04/16/96	CLR	---	N	N	
B09.011.008	2-53A-8-48	53A	04/15/96	CLR	---	N	N	
B09.011.008A	2-53A-8-48	53A	04/16/96	CLR	---	N	N	
B09.011.009	2-53A-8-50	53A	04/15/96	CLR	---	N	N	
B09.011.009A	2-53A-8-50	53A	04/16/96	CLR	---	N	N	
B09.011.019	2-PHA-1	50	01/25/92	REC	---	Y	Y	This item was examined during the third period of the second interval as outlined in Request for Relief ONS-006
B09.011.019A	2-PHA-1	50	01/25/92	REC	---	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-006.
B09.011.021	2-PHB-1	50	01/27/92	REC	---	Y	Y	This item was examined during the third period of the second interval as outlined in Request for Relief ONS-006
B09.011.021A	2-PHB-1	50	01/27/92	REC	---	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-006.
B09.011.022	2-PHB-12	50	04/04/96	CLR	---	N	N	
B09.011.022A	2-PHB-12	50	04/16/96	CLR	---	N	N	
B09.011.030	2-PIB2-4	50	04/10/96	CLR	---	N	N	
B09.011.030A	2-PIB2-4	50	04/15/96	CLR	---	N	N	
B09.011.032A	2-PDA1-8	50	02/01/92	REC	---	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-002.
B09.011.033A	2-PDA2-8	50	02/03/92	REC	---	N	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-002.
B09.011.034A	2-PDB1-8	50	02/01/92	REC	---	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-002.
B09.011.035A	2-PDB2-8	50	01/31/92	REC	---	Y	Y	This item was examined by UT during the third period of the second interval as outlined in Request for Relief ONS-002.
B09.011.043	2-PSL-8	50	04/10/96	CLR	---	N	N	
B09.011.043A	2-PSL-8	50	04/16/96	CLR	---	N	N	
B09.012.007	2-PIB2-62LI	50	04/10/96	CLR	---	N	N	
B09.012.007A	2-PIB2-62LI	50	04/15/96	CLR	---	N	N	
B09.012.008	2-PIB2-62LO	50	04/10/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 4
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
B09.012.008A	2-PIB2-62LO	50	04/15/96	CLR	---	N	N	
B09.021.001	2-53A-36-1	53A	04/11/96	CLR	---	N	N	
B09.021.002	2-51A-144-1	51A	04/09/96	CLR	---	N	N	
B09.021.004	2-51A-144-23	51A	04/15/96	CLR	---	N	N	
B09.021.007	2-51A-145-2	51A	04/09/96	CLR	---	N	N	
B09.021.010	2-51A-147-17	51A	04/09/96	CLR	---	N	N	
B09.021.036	2-51A-35-43	51A	04/09/96	CLR	---	N	N	
B09.021.037	2-51A-35-55	51A	04/09/96	CLR	---	N	N	
B09.021.038	2-51A-35-56	51A	04/09/96	CLR	---	N	N	
B09.021.040	2-51A-39-46	51A	04/16/96	CLR	---	N	N	
B09.021.044	2-50-11-21	50	04/15/96	CLR	---	N	N	
B09.021.048	2-50-7-17	50	04/16/96	CLR	---	N	N	
B09.021.058	2-PSP-7	50	04/15/96	CLR	---	N	N	
B09.032.001	2-53A-35-1	53A	04/15/96	CLR	---	N	N	
B09.032.005	2-PDB1-12	50	04/17/96	CLR	---	N	N	
B09.040.002	2-50-129-13A	50	04/18/96	CLR	---	N	N	
B14.010.003	2-RPV-CRD-63WH9	50	04/11/96	CLR	---	N	N	
B14.010.006	2-RPV-CRD-63W60	50	04/11/96	CLR	---	N	N	
B14.010.009	2-RPV-CRD-63	50	04/11/96	CLR	---	N	N	
B14.010.012	2-RPV-CRD-63W61	50	04/11/96	CLR	---	N	N	
C01.010.002	2-SGA-WG8-3		04/11/96	CLR	64.50%	N	Y	Request for Relief 96-02 addresses limited examination.
C01.030.002	2-SGB-WG59		04/08/96	REC	---	Y	N	
C02.031.001	2-LPCB-INLET		03/07/96	CLR	---	N	N	
C02.031.002	2-LPCB-OUTLET		03/07/96	CLR	---	N	N	
C03.010.003	2-SGA-WG84-ZW		04/10/96	CLR	---	N	N	
C03.010.004	2-SGA-WG84-WZ		04/10/96	CLR	---	N	N	
C03.020.001	1-56-SR17	56	03/13/96	CLR	---	N	N	
C03.020.014	2-01A-H9B	01A	04/16/96	CLR	---	N	N	
C03.020.017	2-03-H15A	03	04/10/96	CLR	---	N	N	
C03.020.022	2-14B-H11E	14B	04/10/96	CLR	---	N	N	
C03.020.024	2-14B-H14	14B	04/16/96	CLR	---	N	N	
C03.020.060	2-SGA-WG87-XY	03	04/10/96	CLR	---	N	N	
C03.020.071	2-SGB-WG87-ZW	03	04/16/96	CLR	---	N	N	
C05.011.001	2-53A-8-16	53A	04/05/96	CLR	---	N	N	
C05.011.001A	2-53A-8-16	53A	04/15/96	CLR	---	N	N	
C05.011.002	2-53A-8-17	53A	03/19/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Plant: Oconee 2

Run D
 Page 5
 06/25/96

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
C05.011.002A	2-53A-8-17	53A	03/13/96	CLR	---	N	N	
C05.011.003	2-53A-8-18	53A	03/19/96	CLR	---	N	N	
C05.011.003A	2-53A-8-18	53A	03/13/96	CLR	---	N	N	
C05.021.001	2-RCP-FTR2A-SH-1	51A	02/15/96	CLR	---	N	N	
C05.021.001A	2-RCP-FTR2A-SH-1	51A	02/15/96	CLR	---	N	N	
C05.021.002	2-RCP-FTR2A-SH-2	51A	02/15/96	CLR	---	N	N	
C05.021.002A	2-RCP-FTR2A-SH-2	51A	02/15/96	CLR	---	N	N	
C05.021.006	2-51A-129-9	51A	03/19/96	CLR	---	N	N	
C05.021.006A	2-51A-129-9	51A	04/17/96	CLR	---	N	N	
C05.021.025	2-51A-17-100A	51A	03/26/96	CLR	---	N	N	
C05.021.025A	2-51A-17-100A	51A	03/21/96	CLR	---	N	N	
C05.021.026	2-51A-17-101	51A	03/26/96	CLR	---	N	N	
C05.021.026A	2-51A-17-101	51A	03/21/96	CLR	---	N	N	
C05.021.027	2-51A-17-111	51A	03/26/96	REC	---	Y	N	
C05.021.027A	2-51A-17-111	51A	03/14/96	CLR	---	N	N	
C05.021.028	2-51A-17-142	51A	03/26/96	REC	---	Y	N	
C05.021.028A	2-51A-17-142	51A	03/21/96	CLR	---	N	N	
C05.021.029	2-51A-17-146	51A	03/26/96	REC	---	Y	N	
C05.021.029A	2-51A-17-146	51A	03/21/96	CLR	---	N	N	
C05.021.074	2-51A-28-67	51A	03/19/96	CLR	---	N	N	
C05.021.074A	2-51A-28-67	51A	03/13/96	CLR	---	N	N	
C05.021.075	2-51A-28-69	51A	03/19/96	CLR	---	N	N	
C05.021.075A	2-51A-28-69	51A	03/13/96	CLR	---	N	N	
C05.021.076	2-51A-33-10	51A	04/16/96	CLR	---	N	N	
C05.021.076A	2-51A-33-10	51A	04/11/96	CLR	---	N	N	
C05.021.077	2-51A-33-13	51A	04/16/96	CLR	---	N	N	
C05.021.077A	2-51A-33-13	51A	04/11/96	CLR	---	N	N	
C05.021.083	2-51A-27-3	51A	04/01/96	CLR	---	N	N	
C05.021.083A	2-51A-27-3	51A	03/29/96	CLR	---	N	N	
C05.021.089	2-51A-27-21	51A	03/21/96	CLR	---	N	N	
C05.021.089A	2-51A-27-21	51A	03/25/96	CLR	---	N	N	
C05.021.095	2-51A-28-30	51A	03/25/96	CLR	---	N	N	
C05.021.095A	2-51A-28-30	51A	03/14/96	CLR	---	N	N	
C05.021.101	2-51A-33-24	51A	04/16/96	CLR	---	N	N	
C05.021.101A	2-51A-33-24	51A	04/16/96	CLR	---	N	N	
C05.030.002	2-51B-18-48	51B	04/17/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 6
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
C05.030.008	2-53B-98-10	53B	01/12/96	CLR	---	N	N	
C05.030.009	2-53B-97-13	53B	01/12/96	CLR	---	N	N	
C05.030.010	2-51A-17-44	51A	03/20/96	CLR	---	N	N	
C05.041.001	2-53B-96-13	53B	04/21/96	CLR	---	N	N	
C05.051.007	2-01A-5-50	01A	04/09/96	REC	---	Y	N	
C05.051.007A	2-01A-5-50	01A	04/08/96	CLR	---	N	N	
C05.051.008	2-01A-5-51	01A	04/15/96	REC	---	Y	N	
C05.051.008A	2-01A-5-51	01A	04/16/96	CLR	---	N	N	
C05.051.016	2-03A-24-WG-106	03A	04/09/96	CLR	---	N	N	
C05.051.016A	2-03A-24-WG-106	03A	04/08/96	CLR	---	N	N	
C05.051.026	2-14B-48-109	14B	03/20/96	CLR	---	N	N	
C05.051.026A	2-14B-48-109	14B	03/20/96	CLR	---	N	N	
C05.051.027	2-14B-48-111	14B	03/20/96	CLR	---	N	N	
C05.051.027A	2-14B-48-111	14B	03/20/96	CLR	---	N	N	
C05.051.028	2-14B-48-112	14B	03/20/96	CLR	---	N	N	
C05.051.028A	2-14B-48-112	14B	03/20/96	CLR	---	N	N	
C05.051.029	2-14B-48-3	14B	03/20/96	CLR	---	N	N	
C05.051.029A	2-14B-48-3	14B	03/20/96	CLR	---	N	N	
C05.051.030	2-14B-48-4	14B	03/20/96	CLR	---	N	N	
C05.051.030A	2-14B-48-4	14B	03/20/96	CLR	---	N	N	
C05.081.006	2-MS12A-A-1	01A	04/17/96	CLR	---	N	N	
C06.020.001	2-FDW345	03A	04/10/96	CLR	---	N	N	
D02.020.002	2-01A-DE032A	01A	03/07/96	CLR	---	N	N	
D02.020.004	2-01A-DJB-1004	01A	04/02/96	CLR	---	N	N	
D02.020.005	2-01A-R20	01A	03/07/96	CLR	---	N	N	
D02.020.006	2-01A-R23	01A	03/07/96	CLR	---	N	N	
D02.020.011	2-03-H60	03	03/19/96	CLR	---	N	N	
D02.020.013	2-03A-DE015	03A	03/07/96	CLR	---	N	N	
D02.020.014	2-03A-DE024	03A	04/05/96	CLR	---	N	N	
D02.020.015	2-03A-DE025	03A	03/04/96	CLR	---	N	N	
D02.020.016	1-03A-DE062	03A	02/15/96	CLR	---	N	N	
D02.020.017	2-03A-GC-1215	03A	04/03/96	CLR	---	N	N	
D02.020.021	3-03A-H100	03A	03/05/96	CLR	---	N	N	
D02.020.025	2-03A-H12	03A	03/05/96	CLR	---	N	N	
D02.020.027	2-03A-H13	03A	03/05/96	CLR	---	N	N	
D02.020.028	2-03A-H14	03A	04/03/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 7
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
D02.020.033	2-03A-H24	03A	03/05/96	CLR	---	N	N	
D02.020.034	2-03A-H25	03A	03/05/96	CLR	---	N	N	
D02.020.036	2-03A-H28	03A	03/05/96	CLR	---	N	N	
D02.020.038	2-03A-H3	03A	03/05/96	CLR	---	N	N	
D02.020.041	2-03A-H38	03A	03/04/96	CLR	---	N	N	
D02.020.044	2-03A-H5	03A	03/05/96	REC	---	N	N	Saddle only tacked in two places on west side. After evaluation it was determined that this discrepancy is not service induced. Therefore, the support is acceptable for service per article IWF-3112 of Section XI of ASME Code. PAW 4/25/96 (See inspection record for additional info.)
D02.020.051	2-03A-H95	03A	01/23/96	CLR	---	N	N	
D02.020.061	2-03A-SR12	03A	03/05/96	CLR	---	N	N	
D02.020.074	2-03A-SR26	03A	03/04/96	REC	---	N	N	South lug bears against south item #. Also, gap between north item #2 & north lug is > 0.150" . (0.125" max.) Civil Engineering review found this support to be acceptable for service. PAW 4/22/96
D02.020.075	2-03A-SR27	03A	03/04/96	CLR	---	N	N	
D02.020.086	2-03A-SR34	03A	03/04/96	CLR	---	N	N	Note: Pipe has moved north such that the lugs have only 3/8" contact with hanger left. Civil Engineering was notified of this concern. TJC 4/8/96
D02.020.091	2-03A-SR38	03A	03/04/96	CLR	---	N	N	
D02.020.092	2-03A-SR4	03A	03/05/96	CLR	---	N	N	
D02.020.095	2-03A-SR46	03A	04/03/96	CLR	---	N	N	
D02.020.097	2-03A-SR5	03A	03/06/96	CLR	---	N	N	
D02.020.098	2-03A-SR55	03A	02/27/96	REC	---	N	N	Gap above pipe > 0.125". One lug minimum bears on both sides of items 1 & 2. Civil Engineering review has found this support to be acceptable for service. The discrepancies were determined to be not significant and no root cause investigation is required. PAW 4/16/96
D02.020.101	2-03A-SR9	03A	03/07/96	CLR	---	N	N	
D02.020.105	0-13-H7000	13	03/27/96	CLR	---	N	N	Inspected with F01.031.001
D02.040.010	2-03A-H18	03A	03/28/96	CLR	---	N	N	No weld symbol for Item 6 on sketch. It is welded 1/4" fillet all around. Civil Engineering was notified of this discrepancy. TJC 4/8/96
D02.040.015	2-07A-H56	07A	01/23/96	REC	---	N	N	Both east lugs have radiuses to miss pipe welds. Actual weld length to pipe 3" long. 1/16 " Cl. typ. in Sec. D-D exceeds 1/8" max. Civil Engineering has

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 8
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
								found this support to be acceptable for service. The discrepancies were determined to be not significant and no root cause investigation is required. PAW 4/22/96
D02.040.018	2-14B-H28	14B	03/06/96	CLR	---	N	N	Inspected with F01.032.009
D03.020.001	2-56-SR16	56	03/06/96	CLR	---	N	N	
F01.010.005	2-51A-H9B	51A	04/02/96	CLR	---	N	N	
F01.011.006	2-53A-H28C	53A	04/02/96	CLR	---	N	N	
F01.012.002	2-50-H3	50	04/02/96	CLR	---	N	N	Inspected with F01.050.027
F01.020.002	2-01A-H21	01A	04/01/96	CLR	---	N	N	
F01.020.007	2-14B-H11E	14B	04/17/96	CLR	---	N	N	
F01.020.012	2-51A-DE008	51A	01/29/96	CLR	---	N	N	
F01.020.022	2-53B-DE016	53B	03/06/96	REC	---	N	N	Not welded per sketch. After evaluation it was determined that this discrepancy is not service induced. Therefore, the support is acceptable for service per Article IWF-3112 of Section XI of ASME Code. Civil Engineering will update the design sketch and calculation to reflect the existing weld configuration. PAW 4/18/96
F01.020.027	2-53B-H10	53B	01/29/96	CLR	---	N	N	
F01.020.035	2-54A-H1	54A	03/06/96	CLR	---	N	N	
F01.020.041	2-56-DE008	56	02/29/96	CLR	---	N	N	
F01.020.044	2-51A-H77	51A	03/04/96	CLR	---	N	N	
F01.021.003	2-14B-DE193	14B	03/04/96	CLR	---	N	N	
F01.021.014	2-51A-H12	51A	03/04/96	CLR	---	N	N	
F01.021.026	2-54A-R3	54A	03/28/96	CLR	---	N	N	
F01.021.029	2-51B-DE019	51B	04/04/96	REC	---	N	N	Gap between base plate & wall app 3/16" @ anchor A-1. Hanger has no primer or paint. Rust, scale moderate. Civil Engineering review has found this support to be acceptable for service. The discrepancy was determined to be not significant and no root cause investigation is required. PAW 4/18/96 (see inspection report for more detail)
F01.022.001	2-01A-H1	01A	03/04/96	CLR	---	N	N	
F01.022.007	2-03-H2A	03	04/02/96	CLR	---	N	N	
F01.022.014	2-53B-EMO-H50	53B	02/15/96	REC	---	N	N	Both spring cans are out of tolerance. At the request of Civil Engineering, this support will be re-examined during Outage #16 to determine if this condition still exists. The spring cans have been returned to tolerance levels.
F01.022.020	2-54A-R101	54A	02/15/96	CLR	---	N	N	Inspected with F01.050.055
F01.022.024	2-51A-H75	51A	03/21/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 9
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
F01.030.006	2-03A-DE009	03A	03/14/96	REC	---	N	N	Item #2 butted up against existing beam. 8" line shown does not exist, 24" line and rod bears against this insulation. Civil Engineering review has found this support to be acceptable for service. The discrepancies were determined to be not significant and no root cause investigation is required. PAW 4/16/96
F01.030.012	2-03A-H108	03A	01/23/96	CLR	---	N	N	
F01.030.018	2-03A-H88	03A	03/14/96	REC	---	N	N	N. E. item #4 welded both sides; other 3 welded one side; and vertical weld on item #5 one side only. After evaluation it was determined that this discrepancy is not service induced. Therefore, the support is acceptable for service per Article IWF-3112 of Section XI of ASME Code. Civil Engineering will update the design sketch and calculation to reflect the existing condition PAW 4/15/96
F01.030.024	2-07A-H58	07A	02/27/96	REC	---	N	N	1. South item #4 has 1/4" clearance to 2C573 and has had contact with this valve. 2. South plate, southeast anchor center line to unused anchor hole edge is 1 3/8". 3. South plate, northwest anchor - not full thread - plate not bearing. Civil Engineering review has found this support to be acceptable for service. The discrepancies were determined to be not significant and no root cause investigation is required. PAW 4/16/96
F01.030.030	2-14B-DE105	14B	02/28/96	CLR	---	N	N	
F01.030.036	2-56-H29	56	02/15/96	CLR	---	N	N	
F01.030.038	2-14B-DE165	14B	01/29/96	CLR	---	N	N	
F01.031.001	0-13-H7000	13	03/27/96	CLR	---	N	N	Inspected with D02.020.105
F01.031.007	2-03A-H73	03A	01/23/96	REC	---	N	N	Grout under baseplate item #14 is slightly cracked. Civil Engineering review has found this support to be acceptable for service. The discrepancy was determined to be not significant and no root cause investigation is required. PAW 4/16/96 (See inspection report for additional comments.)
F01.031.012	2-03A-SR3	03A	03/07/96	CLR	---	N	N	
F01.031.022	2-14B-DE166	14B	01/29/96	CLR	---	N	N	
F01.032.008	2-13-H9	13	01/23/96	REC	---	N	N	1. Item #10 not welded inside both ends. 2. Can is loaded such that indicator is off scale >1560 lbs. After evaluation it was determined that the discrepancies are not service induced. Therefore, the support is acceptable for service per Article IWF-3112 of Section XI of ASME Code. PAW 4/16/96
F01.032.009	2-14B-H28	14B	03/06/96	CLR	---	N	N	Inspected with D02.040.018
F01.040.003	2-PZR-SKIRT	50	04/08/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 10
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
F01.040.005	2-DHRC-A-SUPPORT	53A	03/06/96	CLR	---	N	N	
F01.040.012	2-LPI-PU-A		03/06/96	CLR	---	N	N	
F01.050.001	2-03-R12	03	04/04/96	CLR	---	N	N	
F01.050.002	2-03-R7	03	04/08/96	REC	---	N	N	The drawing shows a hyd. snubber, whereas the bill of mtl's. reflects a mech. snubber that is installed. The north load pin has a snap ring on east side that is not engaged. Civil Engineering review has found this support to be acceptable for service. The discrepancy was determined to be not significant and no root casue investigation is required. PAW 4/15/96
F01.050.003	2-03-H4087	03	02/22/96	CLR	---	N	N	
F01.050.004	2-01A-R14	01A	02/01/96	CLR	---	N	N	
F01.050.005	2-01A-R15	01A	02/01/96	CLR	---	N	N	
F01.050.006	2-01A-R16	01A	02/01/96	REC	---	N	N	As found setting does not meet criteria for OS-0027.00-00-0002 Section 9.2 Snubber was reinspected on 4/1/96 per W/O #95086095. Cold setting was found to be within tolerance. Therefore S/R is acceptable. PAW 4/15/96
F01.050.007	2-01A-R2-1	01A	04/03/96	CLR	---	N	N	
F01.050.008	2-01A-R2-2	01A	04/03/96	CLR	---	N	N	
F01.050.009	2-01A-R9-2	01A	04/03/96	CLR	---	N	N	
F01.050.010	2-01A-R9-3	01A	04/03/96	CLR	---	N	N	
F01.050.011	2-01A-R9-4	01A	04/03/96	CLR	---	N	N	
F01.050.012	2-53-H3	53	04/02/96	CLR	---	N	N	
F01.050.013	2-50-H12	50	04/17/96	CLR	---	N	N	
F01.050.014	2-51A-H2A	51A	04/02/96	CLR	---	N	N	
F01.050.015	2-03-H6B	03	04/02/96	CLR	---	N	N	
F01.050.016	2-03-H7A	03	04/02/96	CLR	---	N	N	
F01.050.017	2-03A-H1B	03A	04/02/96	CLR	---	N	N	
F01.050.018	2-50-H10	50	04/02/96	CLR	---	N	N	
F01.050.019	2-50-H11	50	04/02/96	REC	---	N	N	Resevoir is leaking fluid. Civil Engineering review has found this support to be acceptable for service. The discrepancy was determined to be not significant and no root cause investigation is required. PAW 4/15/96
F01.050.020	2-50-H8	50	04/02/96	CLR	---	N	N	
F01.050.021	2-50-H9	50	04/02/96	CLR	---	N	N	
F01.050.022	2-01A-H2A	01A	04/02/96	CLR	---	N	N	
F01.050.023	2-01A-H2B	01A	04/02/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 11
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
F01.050.024	2-01A-H8A	01A	04/02/96	CLR	---	N	N	
F01.050.025	2-01A-H8B	01A	04/11/96	CLR	---	N	N	
F01.050.026	2-50-H1	50	04/02/96	CLR	---	N	N	
F01.050.027	2-50-H3	50	04/02/96	CLR	---	N	N	Inspected with F01.012.002
F01.050.028	2-50-H7	50	04/02/96	CLR	---	N	N	
F01.050.029	2-57-H15	57	04/26/96	CLR	---	N	N	
F01.050.030	2-57-H16	57	04/26/96	CLR	---	N	N	
F01.050.031	2-57-H17	57	04/26/96	CLR	---	N	N	
F01.050.032	2-57-H20	57	04/26/96	CLR	---	N	N	
F01.050.033	2-57-H21	57	04/26/96	CLR	---	N	N	
F01.050.034	2-57-H23	57	04/26/96	CLR	---	N	N	
F01.050.035	2-57-H25	57	04/26/96	CLR	---	N	N	
F01.050.036	2-57-H7	57	04/02/96	REC	---	N	N	<p>The bottom bolt in item #9 to item #10 lower connection is loose. Additionally, there is not sufficient bolt length for a full nut when tightened.</p> <p>After evaluation it was determined that the indication noted was not a discrepancy. PAW 4/18/96</p>
F01.050.037	2-57-H9	57	04/27/96	CLR	---	N	N	
F01.050.038	2-57-RJP-H0801	57	04/02/96	CLR	---	N	N	
F01.050.039	2-50-H1A	50	04/02/96	CLR	---	N	N	
F01.050.040	2-50-H2A	50	04/02/96	REC	---	N	N	
								<p>Sketch shows 0 degree axial. SA-PA actual SA-PA is 6.95 degrees. Max. tolerance is plus/minus 5 degrees.</p> <p>After evaluation it was determined that this support did not have a discrepancy. PAW 4/18/96</p>
F01.050.041	2-50-H3A	50	04/02/96	CLR	---	N	N	
F01.050.042	2-03A-SR102	03A	02/06/96	CLR	---	N	N	
F01.050.043	2-03A-SR103	03A	01/25/96	CLR	---	N	N	
F01.050.044	2-03A-SR104	03A	01/25/96	CLR	---	N	N	
F01.050.045	2-03A-SR100	03A	02/06/96	CLR	---	N	N	
F01.050.046	2-03A-SR101PO	03A	02/01/96	CLR	---	N	N	
F01.050.047	2-51A-SR150	51A	03/06/96	CLR	---	N	N	
F01.050.048	2-01A-H40	01A	02/01/96	CLR	---	N	N	
F01.050.049	2-01A-H43	01A	01/25/96	CLR	---	N	N	
F01.050.050	2-01A-H44	01A	02/01/96	CLR	---	N	N	
F01.050.051	2-53B-SR100	53B	02/15/96	CLR	---	N	N	
F01.050.052	2-53B-SR1000	53B	01/29/96	CLR	---	N	N	
F01.050.053	2-01A-R7	01A	02/27/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 12
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
F01.050.054	2-54A-R16	54A	01/29/96	REC	---	N	N	Hydraulic fluid on bottom of cylinder. Suppressor was re-inspected by C. Davis, Snubber Engineer, on 1/31/96 and found the snubber to be acceptable. TJC 2/1/96
F01.050.055	2-54A-R101	54A	02/15/96	CLR	---	N	N	Inspected with F01.022.020
F01.050.056	2-54A-R2B	54A	01/29/96	CLR	---	N	N	
F01.050.057	2-01A-R17	01A	02/22/96	REC	---	N	N	Oil leak from reservoir. Afer evaluation it was determined that the indication noted was not a discrepancy. PAW 4/23/96
F01.050.058	2-01A-R18	01A	01/25/96	CLR	---	N	N	
F01.050.059	2-01A-R21	01A	01/25/96	CLR	---	N	N	
F01.050.060	2-01A-R22	01A	01/25/96	CLR	---	N	N	
F01.050.061	2-01A-R6	01A	02/22/96	CLR	---	N	N	
F01.050.062	2-01A-R2	01A	01/25/96	CLR	---	N	N	
F01.050.063	2-53B-SR1000	53B	02/15/96	CLR	---	N	N	
F01.050.064	2-13-SR1	13	02/27/96	REC	---	N	N	Oil leak from reservoir. Afer evaluation it was determined that the indication noted was not a discrepancy. PAW 4/23/96
F01.050.065	2-13-SR4	13	01/25/96	CLR	---	N	N	
F01.050.066	2-07A-DE039	07A	02/06/96	CLR	---	N	N	
F01.050.067	2-03-R13	03	02/27/96	CLR	---	N	N	
F01.050.068	2-03A-DE034	03A	02/01/96	CLR	---	N	N	
F01.050.069	2-03A-H4088	03A	02/01/96	REC	---	N	N	As found setting does not meet criteria of applicable spec. Section 9.2. Afer evaluation it was determined that the indication was not a discrepancy and the support is therefore acceptable. PAW 4/16/96
F01.050.070	2-01A-R11	01A	02/27/96	CLR	---	N	N	
F01.050.071	2-01A-R4	01A	04/04/96	CLR	---	N	N	
F01.050.072	2-01A-R6	01A	02/27/96	CLR	---	N	N	
F01.050.073	2-01A-DE076	01A	02/22/96	CLR	---	N	N	
F01.050.074	2-01A-DE077	01A	01/25/96	CLR	---	N	N	
F01.050.075	2-51A-H184	51A	03/04/96	CLR	---	N	N	
F01.050.076	2-51A-H167	51A	03/04/96	CLR	---	N	N	
F01.050.077	2-01A-DE060	01A	04/03/96	CLR	---	N	N	
F01.050.078	2-01A-DE061	01A	04/03/96	CLR	---	N	N	
F01.050.079	2-01A-R7	01A	03/12/96	CLR	---	N	N	
F01.050.080	2-01A-R9-1	01A	04/03/96	CLR	---	N	N	

DUKE POWER COMPANY
 QUALITY ASSURANCE TECHNICAL SERVICES
 In-Service Inspection Database Management System
 Oconee Inservice Inspection Listing
 Interval 3 Outage 1

Run D
 Page 13
 06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
F01.050.081	2-03A-NPS-H28	03A	04/02/96	REC	---	N	N	The load pin of the pipe clamp is missing a washer at the spherical bushing. Civil Engineering review has found this support to be acceptable for service. The discrepancy was determined to be not significant and no root cause investigation is required. PAW 4/15/96
F01.050.082	2-03-H6103	03	04/02/96	CLR	---	N	N	
F01.050.083	2-03A-H3A	03A	04/02/96	CLR	---	N	N	
F01.050.084	2-57-NWIZ	57	04/02/96	CLR	---	N	N	
F01.050.086	2-03A-H121	03A	01/25/96	CLR	---	N	N	
F01.050.087	2-53B-DE063	53B	03/06/96	CLR	---	N	N	
F01.050.088	2-53B-DE068	53B	03/04/96	CLR	---	N	N	
F01.050.089	2-53B-DE060	53B	01/29/96	CLR	---	N	N	
F01.050.090	2-53B-DE070	53B	01/29/96	CLR	---	N	N	
F01.050.091	2-53B-DE056	53B	01/29/96	CLR	---	N	N	
F01.050.092	2-01A-R19	01A	01/25/96	CLR	---	N	N	
F01.050.093	2-01A-R27	01A	01/25/96	CLR	---	N	N	
F01.050.094	2-53B-DE057	53B	01/29/96	CLR	---	N	N	
F01.050.095	2-07A-H60	07A	01/25/96	CLR	---	N	N	
F01.050.096	2-07A-H61	07A	01/25/96	CLR	---	N	N	
F01.050.097	2-07A-H62	07A	02/06/96	CLR	---	N	N	
G02.001.001	2-PDA1-47	50	04/02/96	CLR	---	N	N	
G02.001.001A	2-PDA1-47	50	04/12/96	CLR	---	N	N	
G02.001.002	2-PDA2-47	50	04/02/96	CLR	---	N	N	
G02.001.002A	2-PDA2-47	50	04/12/96	CLR	---	N	N	
G02.001.003	2-PDB1-47	50	04/12/96	CLR	---	N	N	
G02.001.004	2-PDB2-47	50	04/02/96	CLR	---	N	N	
G02.001.004A	2-PDB2-47	50	04/12/96	CLR	---	N	N	
G04.001.001	2-51A-39-90C	51A	04/02/96	CLR	---	N	N	
G04.001.002	2-51A-39-90B	51A	04/02/96	CLR	---	N	N	
G04.001.003	2-51A-39-91	51A	04/02/96	CLR	---	N	N	
G04.001.004	2-51A-39-92A	51A	04/02/96	CLR	---	N	N	
G04.001.005	2-51A-39-92B	51A	04/02/96	CLR	---	N	N	
G04.001.006	2-51A-39-93	51A	04/02/96	CLR	---	N	N	
G04.001.007	2-51A-27-73	51A	04/02/96	CLR	---	N	N	
G04.001.008	2-51A-27-81	51A	04/02/96	CLR	---	N	N	
G04.001.009	2-51A-27-82	51A	04/02/96	CLR	---	N	N	
G04.001.010	2-51A-27-108	51A	04/02/96	CLR	---	N	N	

DUKE POWER COMPANY
QUALITY ASSURANCE TECHNICAL SERVICES
In-Service Inspection Database Management System
Oconee Inservice Inspection Listing
Interval 3 Outage 1

Run D
Page 14
06/25/96

Plant: Oconee 2

ITEM NUMBER	ID NUMBER	SYSTEM	INSP DATE	INSP STATUS	INSP LIMITED	GEO REF	RFR	COMMENTS
G04.001.012	2-51A-27-111	51A	04/02/96	CLR	---	N	N	
G09.001.002	2-51A-17-12	51A	03/20/96	CLR	---	N	N	
G09.001.003	2-51A-17-16C	51A	03/19/96	CLR	---	N	N	
G09.001.006	2-53B-17-118	53B	03/07/96	CLR	---	N	N	
G09.001.008	2-53B-18-55	53B	02/21/96	CLR	---	N	N	
G09.001.014	2-53B-19-52	53B	03/19/96	CLR	---	N	N	
G09.001.027	2-53B-31-17E	53B	03/26/96	CLR	---	N	N	
G09.001.028	2-53B-31-14	53B	03/26/96	CLR	---	N	N	
G09.001.029	2-53B-31-8	53B	03/26/96	CLR	---	N	N	
G09.001.030	2-53B-31-20	53B	03/26/96	CLR	---	N	N	

B. Items examined by Pressure Testing

Item Number	= ASME Section XI Tables IWB-2500-1 (Class 1), IWC-2500-1 (Class 2)
Drawing	= Number of the Flow Diagram
Examination Date	= Latest examination date
Condition	= Partial or Complete test C = Complete for the period N = Not complete for the period
Period Status 1, 2, 3	
Status	= Clear, Recordable or Reportable
Comments	= General and/or Detail Description



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

UPPER HEAD-TO-TUBESHEET WELD FLAW EVALUATION

DUKE POWER COMPANY

OCONEE NUCLEAR STATION UNIT 2

DOCKET NO. 50-270

1.0 INTRODUCTION

On May 3, 1996, the Duke Power Company (the licensee) submitted a report for NRC approval in accordance with Paragraph IWB-3610 of Section XI of the American Society of Mechanical Engineers (ASME) Code. This report contains the licensee's evaluation of flaw indications in the upper head-to tubesheet weld in Steam Generator A. The flaw was discovered during ultrasonic (UT) examination during the 1996 refueling outage at the Oconee Nuclear Station, Unit 2 (Oconee 2). The examinations were performed in accordance with the requirements of ASME Code, Section XI, 1989 Edition. The report indicates that the UT indication from the upper head-to-tubesheet weld exceeds the allowable flaw size specified in IWB-3500 of Section XI of the ASME Code and requires flaw evaluation using IWB-3610 and Appendix A of the ASME Code.

2.0 DISCUSSION

In accordance with the requirements of ASME Section XI, 1989 Edition, the licensee provided the results of the 1996 refueling outage UT examinations performed on the upper head-to-tubesheet weld. The submittal also provided the evaluation of the single flaw that exceeds the ASME acceptance criteria. This flaw was characterized as a subsurface flaw with length of 56 inches and depth of 0.8 inch, and is located 3.8 inch from the outer surface and 3.9 inch from the inner surface. The licensee did not perform an assessment of the accuracy of the UT measurements. However, in this case, the flaw evaluation indicates the flaw is relatively insensitive to flaw size because it is a subsurface flaw located close to the midplane of the weld. Hence, in this case, flaw size accuracy is not significant.

Methods and acceptance criteria that are acceptable to the staff for evaluating flaw indications exceeding the allowable flaw size in IWB-3500 are described in IWB-3610 and Appendix A of Section XI of the ASME Code for this subsurface crack.

In the licensee's fatigue analysis, the crack growth rate curves used were from air environment curves in Figure A4300-1 of Appendix A. The licensee used 420 heatup/cool-down cycles to bound the flaw growth from the normal and upset transients.

ENCLOSURE

The residual stress distribution model was based on work of Ferrill, et. al. [1]. For the upper head-to-tubesheet weld configuration this results in a residual stress at the center of the wall of a small or negative value. Hence, the licensee used no residual stress in the fatigue evaluation. Although this may be a nonconservative assumption, the margins in the flaw evaluation are extremely large and the licensee's assumption is not significant.

In determining the fracture toughness of the weld, the licensee used a reference temperature of 60°F, in accordance with the criteria in Table 3-1 of the B&W Owners Group report [2]. The weld was fabricated using a submerged arc process by Babcock & Wilcox using Mn Mo Ni filler wire with Linde 80 type flux. This weld is similar to the welds in reactor pressure vessels that have been previously reviewed and accepted by the staff. A reference temperature of 60°F is acceptable.

The licensee's evaluation indicates that the limiting condition for the evaluation is the heatup cycle. The margin in the flaw evaluation of the upper head-to-tubesheet weld exceeds the ASME Code IWB-3610 criteria by a factor of 5.13 for the heatup cycle. The licensee performed an evaluation assuming the flaw was twice the depth dimension. The margin of this flaw evaluation would exceed the ASME Code IWB-3610 criteria by a factor of 3.38 for the heatup cycle. These evaluations indicate that flaws significantly larger than the flaw discovered during UT examination would meet the ASME Code IWB-3610 criteria.

4.0 CONCLUSIONS

- 1) The licensee's evaluation indicates that the flaw in the upper head-to-tubesheet weld satisfies the criteria from Paragraph IWB-3612 of Section XI of the ASME Code.
- 2) Based on Conclusion (1), the weld is acceptable for service for the remainder of the plant's operating license. However, the area containing this flaw shall be reexamined during the next three inspection periods as required by IWB-2420 of the ASME Code.

5.0 REFERENCES

[1] Ferrill, D.A., Juhl, P.B., and Miller, D.R., "Measurement of Residual Stresses in a Heavy Weldment," Welding Journal, WRC Supplement, Vol. 45, No. 11, November 1966.

[2] BAW-10046A, Rev. 2, "Methods of Compliance With Fracture Toughness and Operational Requirements of 10 CFR 50, Appendix G," B&W Owners Group Materials Committee Topical Report, June 1986.

Principal Contributor: B. Elliot
Dated: May 3, 1996



DUKE POWER

May 3, 1996

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

Subject: Oconee Nuclear Station
Docket Nos. 50-270
Oconee Steam Generator Weld 2-SGA-WG58-1

On April 30, 1996, the ultrasonic examination of the Oconee Unit 2A Steam Generator upper head-to-tubesheet weld, 2-SGA-WG58-1, identified a subsurface flaw. A review of the flaw indicated that the flaw did not meet the acceptance criteria contained in the 1989 ASME Section XI code. Once the flaw was determined to be outside the ASME Section XI acceptance criteria, Framatome Technologies was contacted to perform a fracture mechanics analysis of the flaw.

On May 1, 1996, Duke Power provided information to the NRC about the ultrasonic examination of the Steam Generator weld. On May 2, 1996, after reviewing the information provided by Duke Power, the NRC notified Duke that in their opinion the fracture mechanics results needed to be approved by the NRC prior to the restart of Oconee Unit 2. The current expected criticality date for the Oconee Unit 2 restart is May 5, 1996.

In accordance with the NRC's request, the fracture mechanics analysis (Attachment 1) is being submitted to the NRC. In addition, the ultrasonic testing information for the Steam Generator weld is included as Attachment 2. Based on the information contained in the fracture mechanics analysis, Duke Power considers the Steam Generator weld to be acceptable for the life of the plant based on ASME Section XI rules for evaluation by analysis.

If there are any questions about this information, please contact Michael Bailey at (864) 859-7793.

Very Truly Yours,

BW for

J. W. Hampton, Site Vice President
Oconee Nuclear Station

MEB

xc: D. E. LaBarge, Project Manager
ONRR

P. E. Harmon, Senior Resident Inspector
Oconee Nuclear Station

S. D. Ebnetter, Regional Administrator
Region II

J. G. Brown,
Framatome Technologies

bxc w/o attachment:

B. L. Peele	*
J. M. Davis	*
W. W. Foster	*
G. E. Rothenberger	*
R. L. Sweigart	*
R. T. Bond	*
J. T. Campbell	*
J. E. Burchfield	*
R. L. Gill	*
T. J. Pettit	*
P. R. Newton	*
Z. L. Taylor	*
J. E. Synder	*

bxc with attachment:

B. K. Millsaps
D. A. Kelley
T. J. Coleman
J. O. Barbour
M. E. Bailey
NSRB
ELL

* - PROFS distribution

ATTACHMENT 1

FRAMATOME TECHNOLOGIES
FRACTURE MECHANICS ANALYSIS

20697-3 (12/95)



CALCULATION SUMMARY SHEET (CSS)

DOCUMENT IDENTIFIER

32-1245901-00

TITLE

Oconee-2 S/G-A Weld WG58-1 Flaw Evaluation

PREPARED BY:

REVIEWED BY:

NAME D.E. Kilian

NAME K.K. Yoon

SIGNATURE

SIGNATURE

TITLE Principal Engineer

DATE

5/3/96

TITLE Technical Consultant

DATE

5/3/96

COST CENTER

41020

REF. PAGE(S)

13

TM STATEMENT: REVIEWER INDEPENDENCE

PURPOSE AND SUMMARY OF RESULTS:

A subsurface flaw indication has been detected at Oconee Unit 2 Steam Generator A in the WG58-1 upper head-to-tubesheet weld WG58-1. A fracture mechanics assessment is performed according to the rules of the ASME Boiler and Pressure Vessel Code, Section XI, Paragraph IWB-3600, pertaining to analytical evaluation.

The initial 56" long, 0.8" deep circumferential flaw, located virtually halfway through the upper head wall, grew to a flaw depth of 0.8002" during 420 simulated heatup/cooldown and reactor trip loading cycles. Fracture toughness margins at the final flaw size are listed below for the worst case normal/upset loading condition (heatup) and for two emergency/faulted loading conditions. Additional results are presented in Section 9.0.

Fracture toughness margins at the final flaw size (must be greater than 1):

Crack Tip Location	Heatup	LOCA	FWLB
Point 1	5.13	505.	15.5
Point 2	5.90	29.3	12.3

THE FOLLOWING COMPUTER CODES HAVE BEEN USED IN THIS DOCUMENT:

CODE/VERSION/REV

CODE/VERSION/REV

THIS DOCUMENT CONTAINS
ASSUMPTIONS THAT MUST BE VERIFIED
PRIOR TO USE ON SAFETY-RELATED
WORK

YES

NO

PAGE

OF

21

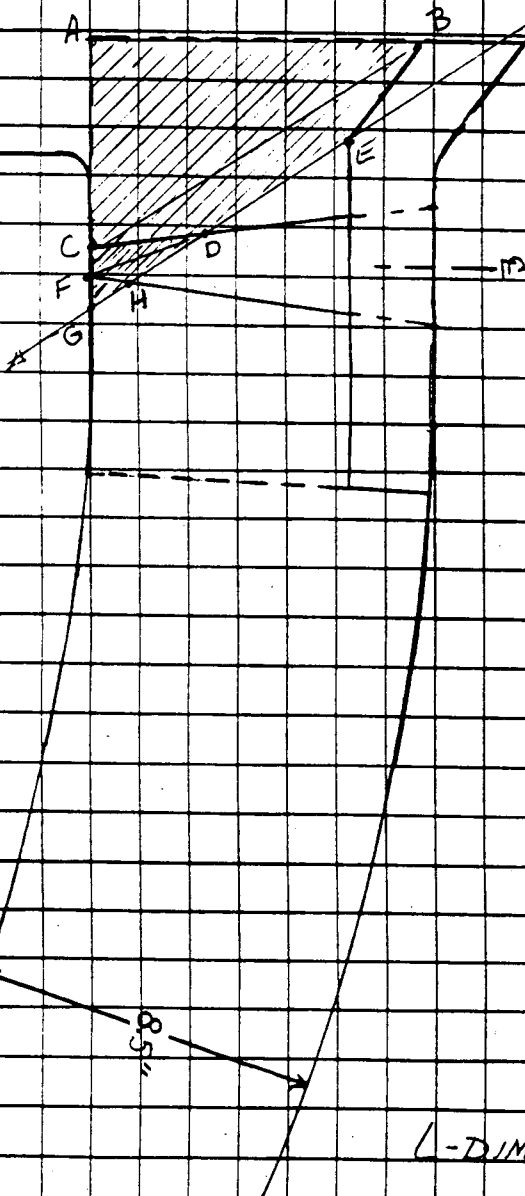
Station COONEE Unit 2 Rev. File No. Sheet 16 of 17
 Subject UPPER HEAD TO TURE SHEET 19 20
 By JANUS WILLY III Date 4-24-96
 Prob No. 2 SGA-WG58-1 Checked By Date

TURE SHEET
SURFACE 2

(70°-TAPER) = 35°

SURFACE 2 TO 1
LIMITATION DUE TO
VENT CONNECTION

VENT
CONNECTION



BASE METAL LOSS:

A-B-C $\frac{8.5 \times 5.5}{2} = 23.38 \text{ sq.in.}$
 B-C-D-E $\frac{1.2}{2} \times (10 + 5) = 8.7 \text{ sq.in.}$
 F-G-H $\frac{1.0 \times .75}{2} = .38 \text{ sq.in.}$
32.46 sq.in.

WELD METAL LOSS:

C-D-F $\frac{3.0 \times .75}{2} = 1.13 \text{ sq.in.}$
 D-F-H $\frac{3.0 \times .5}{2} = .75 \text{ sq.in.}$
1.88 sq.in.

L-DIMENSION = 2.3"

SCALE 1.0" = 5.0"

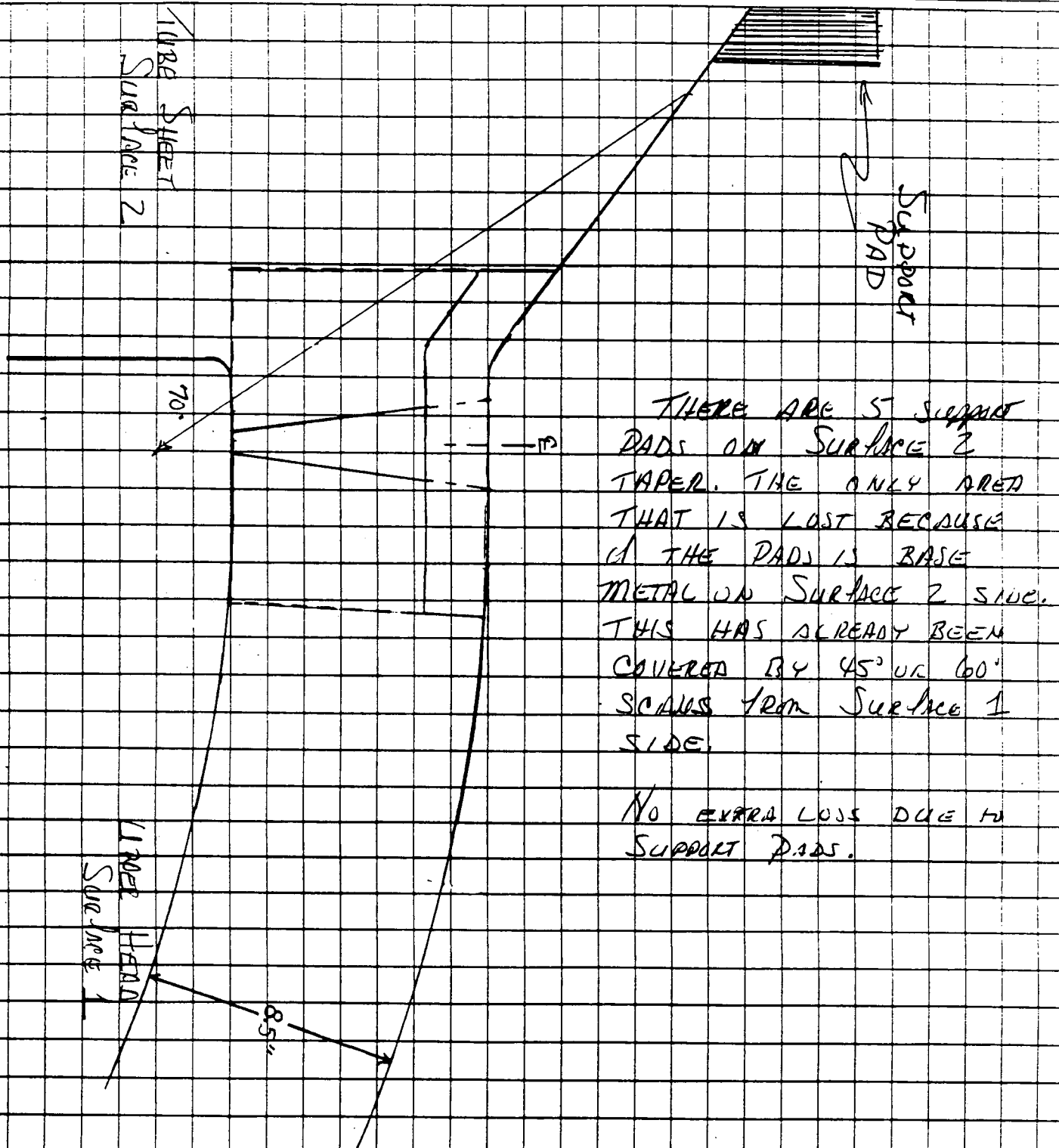
- ☐ - 100% COVERAGE
- ☒ - LESS THAN 10.5% COVERAGE
- ☐ - NO COVERAGE

ITEM # 302.040.001

BY: LEVEL #

DATE: 5/1/96

Station DOONEE Unit 2 Rev. _____ File No. _____ Sheet 17 of 17
 Subject UPPER HEAD TO TURE SHEET 20 20
LIMITED AREA FOR SUPPORT PADS By JUSTIN M Date 4-24-96
 Prob No. 2 SGA-WG58-1 Checked By _____ Date _____



SCALE 1.0" = 5.0"

- ☐ - 100% COVERAGE
- ☒ - LESS THAN 100% COVERAGE
- ☐ - NO COVERAGE

ITEM# BOZ 040.001
 BY: [Signature] LEVEL II
 DATE: 5/1/96

Duke Power Company

Indication Evaluation Report

Station/Unit ONS / 2	Weld/ID No. 2-SGA-WG58-1	ISO Dwg No. ISI-OCN2-003	Sheet No. 96020E005
Component Description Steam Gen. A upper head- to- tube sheet weld		Exam Procedure NDE-620 Rev. 3	
Code/Year/Addenda Sec XI / 1989 / none	Exam Category B-B	Acceptance Standard(Para or Table) IWB-3510-1	Ref. Report N/A
Flaw Characterization SLAG LINE		Nom/Act Wall 8.5"	Type Material C/S
Evaluator James J. McArdle <i>James J. McArdle</i>	Date 4/30/96	INF	IS/PSI ISI

Calculations/Evaluation

L = 56", a = 0.4", a/l = 0.00, a/l% = 4.7% REJECTABLE subsurface flaw. Table IWB-3510-1 allows 2% for an aspect ratio of 0.00.

Comments

This indication was not recorded in previous exams because of the change in recording criteria starting with the 1989 Section XI. The examinations performed this outage are 2.5 time more sensitive.

Technical Review N/A	Date	Non-Technical Review <i>[Signature]</i>	Date 5/1/96
-------------------------	------	--	----------------

Framatome Technologies

32-1245901-00

RECORD OF REVISIONS

<u>Revision</u>	<u>Pages</u>	<u>Description</u>	<u>Date</u>
0	All	Original issue	5/96

10.0 Class 1 and 2 Repairs and Replacements

As required by ASME Section XI 1989 Edition, no Addenda, a record (Form NIS-2) of the Class 1 and Class 2 Repairs and Replacements for work performed from December 17, 1994 through May 7, 1996 is provided and is included in this section of the report. Additionally, a Repair/Replacement Log for the remainder of the second inservice inspection interval is included. This log addresses work performed from November 16, 1994 through December 16, 1994. The individual work request documents are on file at Oconee Nuclear Station. Also included is the Repair/Replacement Log for work activities prior to Oconee Unit 2 coming under the rules of the 1989 Edition of ASME Section XI.

REPAIR/REPLACEMENT LOG

ASME SECTION XI 1980

OCONEE NUCLEAR STATION

UNIT 2 RFO # 15

INTERVAL COVERED FROM: 11-16-94

TO : 12-16-94

PREPARED BY: C.R. Hanson DATE 4-16-96

CHECKED BY: Pat Hooper DATE 4-16-96

REVIEWED BY: W.M.C. Clune DATE 4-16-96

TRANSMITTED TO QA MANAGER TECHNICAL SERVICES

BY: C.R. Hanson DATE 4-16-96

WORK ORDER	ASME CLASS	DESCRIPTION
94056800	1	Replaced bolting "A"OTSG Upper Primary Manway
94077903	2	Replaced 2B HPI Pump
94056458	2	Replaced bolting valve 2LPSW 565
94056460	2	Replaced bolting valve 2LPSW 566
94058495	1	Replaced bolting valve 2HP 152
94062824	1	Replaced valve 2RC 66
94061999	1	Replaced valve 2RC 68
94063171	1	Replaced bolting "B" OTSG Upper Primary Handhole
94077036	1	Replaced bolting CRDM Nozzle # 3
94062830	2	Replaced Plug/Seat Chamber Valve 2HP 120
94074124	2	Replaced bolting "B" OTSG Auxillary FDW Nozzle # 2
94078657	2	Replaced bolting LPSW Flanges on 2B2 RCP Motor Air Coolers
94072216	2	Replaced bolting on LPSW Flanges to 2B2 RCP Oil Coolers
94063164	1	Replaced bolting "A" OTSG Primary Manway
94074162	2	Replaced bolting "B" OTSG Aux. FDW Nozzle # 5
94074176	2	Replaced bolting "B" OTSG Aux. FDW Nozzle # 6
94074074	2	Replaced bolting "B" OTSG Aux. FDW Riser # 1
94063173	1	Replaced bolting "B" OTSG Primary Manway

WORK ORDER	ASME CLASS	DESCRIPTION
94061998	1	Replaced Valve 2RC 67
94056439	2	Replaced Body/Bonnet bolting and wedge valve 2LPSW 6
94023513	2	Replaced Body/Bonnet bolting valve 2HP 130
94072677	2	Replaced Body/Bonnet bolting 2HP 122
95018262	2	Replaced Orifice downstream of valve SSF HP 426
94081552	2	Repaired Lifting Lug on Fuel Transfer Tube Cover
94040915	2	Repaired "B" OTSG Main FDW Riser # 18
94041136	2	Repaired "B" OTSG Main FDW Header and Riser Flanges # 21
94056458	2	Repaired Disc Guide valve 2LPSW 565
93078823	Unknown	Installed bolting SR# 2-01A-0-1401B-H23

REPAIRS/REPLACEMENT LOG
ASME SECTION XI - 1980
OCONEE NUCLEAR STATION

DATE	WORK REQUEST #	UNIT	DESCRIPTION	ASME CLASS
11-29-94	94056800	2	Replaced Bolting A OTSG ^{upper} PRIMARY Manway	1
			Repaired Steam Cut	
11-29-94	94077903	2	Replaced 2B HPI PUMP	2
12-5-94	94056458	2	Replaced bolting VALVE 2LPSW-565	2
12-5-94	94056460	2	Replaced bolting VALVE 2LPSW-566	2
12-5-94	94058495	2	Replaced bolting VALVE 2HP-152	1
12-6-94	94062824-C7	2	Replaced valve 2RC-66	1
	94061999-06	2	" " 2RC-68	1
12-8-94	94063171	2	Replaced bolting OTSG B ^{PRIMARY} Upper ¹ Handhole	1
12-12-94	94077036	2	Replaced bolting CRDM Nozzle #3	1
12-15-94	94062830	2	Replaced plug + seat chamber 2HP-120	2
12-22-94	94074124	2	Replaced bolting ^{BOTSG} Aux Fdw No 33/c #2	2
1-5-95	94078657	2	Replaced bolting on LPSW Flanges to 2B2 RCP Motor Air Cooler	2
1-5-95	94072216	2	Replaced bolting on LPSW Flanges to 2B2 RCP Oil Coolers	2
1-5-95	94063164	2	Replaced bolting A OTSG Primary Manway	1
1-5-95	94074162	2	Replaced bolting BOTSG Aux Fdw ^{NZ} #5	2
1-5-95	94074176	2	Replaced bolting B OTSG Aux Fdw NZ #6	2

DATE PERIOD FROM 11-16-94 TO 12-16-94 DATE (1)
TRANSMITTED TO ISI SUPERVISOR _____

NOTES:

- (1) UNIT # 2 REFUELING OUTAGE # 15 START-UP LEAK TEST
- (2) INDETERMINATE FROM WORK REQUEST REVIEW
- (3) DATE PERIOD FROM _____ TO _____

PAGE / OF

[illegible]

DATE PERIOD FROM 11-16-94 TO _____ DATE (1)
TRANSMITTED TO ISI SUPERVISOR _____ /

NOTES:

- (1) UNIT # _____ REFUELING OUTAGE # _____ START-UP LEAK TEST
(2) INDETERMINATE FROM WORK REQUEST REVIEW
(3) DATE PERIOD FROM _____ TO _____

OCONEE NUCLEAR STATION
UNIT 2
SUPPORT/RESTRAINT
REPAIR/REPLACEMENT LOG

[illegible]

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-9-96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95064587
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # 0E-5885

4. Identification of System MS Class B+C (2+3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, - Addenda, - Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>ZMS-85</u>	<u>ANCHOR DARLING</u>	<u>ET491-6-1</u>	<u>NA</u>		<u>NA</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B	<u>ZMS-85</u>	<u>ANCHOR DARLING</u>	<u>EA938-3-6</u>	<u>NB-1193</u>		<u>89</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
C	<u>PIPING</u>	<u>D.P.C.</u>	<u>NA</u>	<u>NA</u>		<u>7/67</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work

REPLACED ZMS-85 W/ ITEM No. DMV-897.

8. Test Conducted:

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks

PERFORMED SYS. LEAKAGE TEST AT SYS. TEMP. &
PRESSURE & NDE PER ASME CODE CASE N-416-1
IN LIEU OF HYDRO.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**Certificate of Authorization No. **N/A**Expiration Date **N/A**

Signed

JB Mason Tech Spec
 Owner or Owner's Designee, Title

Date 5-8, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-8-96; 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.

W.B. Chapman
 Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 5-8, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-23-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96029231
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # 9055

4. Identification of System FDW Class 2

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, - Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	VLV. ZFDW-202	KEROTEST	8212-71	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	VLV. ZFDW-202	KEROTEST	688C	NA		1975	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
C	PIPING	D.P.C.	NA	NA		9/74	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work

REPLACED 2FDW-202 W/DMV-924

8. Test Conducted: ☐ Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐ Exempt

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks

Tested IAW ASME Code Case N416-1

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**Certificate of Authorization No. **N/A**Expiration Date **N/A**

Signed

D. S. Mason Tech Spec
Owner or Owner's Designee, TitleDate 5-8, 1996

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-22-96 to 5-8-96; 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.

M.B. Chapman
Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 5-8, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date

4/17/96Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order #

96031029

Repair Organization Job #

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM #

9082

4. Identification of System RC Class 1

5. (a) Applicable Construction Code ANSI B31.7 1969 Edition, - Addenda, - Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	THERMAL WELL	ROSEMOUNT ENG. CO.	N10520	NA		N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	THERMAL WELL	NO INFORMATION AVAILABLE					<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work SEAL WELDED THE THERMAL WELL FOR ZRC-RD-
0006A/6E

8. Test Conducted: ☐ Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐ Exempt

Pressure _____ psig Test Temp. _____ °F

Pressure _____ psig Test Temp. _____ °F

Pressure _____ psig Test Temp. _____ °F

9. Remarks Tested IALL ASME Code Case N416-1

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed DB Mason Tech Spec Date 5-8, 1996
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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-12-96 to 5-8-96; 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.

W.B. Chapman
Inspector's Signature

Commissions N.C. 914
National Board, State, Providence and Endorsements

Date 5-8, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-10-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95064579
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or ~~MM~~ # 8319

4. Identification of System HP Class II

5. (a) Applicable Construction Code ANSI B31.7 19 69 Edition, - Addenda, - Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	ZHP-Z7	CONTROL COMPONENTS INC.	658951-1-5	NA		1995	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B	ZHP-Z7	NO INFORMATION ON	VLU.			NA	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
C	PIPING	D.P.C.	NA	NA		9/74	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work REPLACED ZHP-27 W/ ITEM NO. DMV-1022

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED SYS. LEAKAGE TEST AT SYS. TEMP. & PRESSURE & NDE PER ASME CODE CASE N416-1 IN LIEU OF HYDRO.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed JS Mason
Owner or Owner's Designee, Title

Date 5-8, 1996

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-8-96; 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.

MB Chapman
Inspector's Signature

Commissions NC914
National Board, State, Providence and Endorsements

Date 5-8, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-10-96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95064580
 Repair Organization Job # _____

3b. NSM or ~~MM~~ # 8318

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

4. Identification of System HP Class II

5. (a) Applicable Construction Code ASME B31.7 1969 Edition, - Addenda, - Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	ZHP-409	CONTROL COMPONENTS INC.	658951-Z-6	NA		1995	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B	ZHP-409	NO INFORMATION ON JLV.				-	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> NA <input type="checkbox"/> Yes
C	PIPING	D.P.C.	NA	NA		9/74	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work REPLACED ZHP-409 W/ ITEM No. DMV-1023

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED SYS. LEAKAGE TEST AT SYS. TEMP.
+ PRESSURE + NDE PER ASME CODE CASE
N-416-1 IN LIEU OF HYDRO.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed Q. N. Mason QA Spec
Owner or Owner's Designee, Title

Date 5-8, 1996

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-8-96; 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.

M. B. Chapman
Inspector's Signature

Commissions NC 914

National Board, State, Providence and Endorsements

Date 5-8, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 2

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94073020-01

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

Repair Organization Job # _____

3b. ~~NST~~ or MM # 6862

4. Identification of System OIA (MS) Class B

5. (a) Applicable Construction Code B31.1 19 67 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-OIA-0-1441-DE061</u> <u>HYDR. SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>3387</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>HYDR. SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>12075</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>HYDR. SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>3585</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D	<u>HYDR. SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>7755</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work PERMANENTLY REMOVED PACIFIC SCIENTIFIC SUBBERS TO BE REPLACED WITH NEW LISEGA HYDRA. SNUBBERS.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed _____

Wm. Clue
 Owner or Owner's Designee, Title

Date 5/1, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

M.B. Chapman
 Inspector's Signature

Commissions NC914

National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 2 of 2

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94073020-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 6862

4. Identification of System OIA (ms) Class B

5. (a) Applicable Construction Code B31.1 19 67 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-OIA-0-144-DE061</u> <u>HYDR. SNUBBER</u>	<u>LISEGA</u>	<u>61297/08</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>HYDR. SNUBBER</u>	<u>LISEGA</u>	<u>61290/49</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>HYDR. SNUBBER</u>	<u>LISEGA</u>	<u>61297/40</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D	<u>HYDR. SNUBBER</u>	<u>LISEGA</u>	<u>61290/55</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REPLACED EXISTING PACIFIC SCIENTIFIC HYDRA. SNUBBERS

7. Description of Work WITH NEW LISEGA HYDRA. SNUBBERS.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/0/4/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed John C. Clive
Owner or Owner's Designee, Title

Date 3/1/96, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

M.B. Chapman
Inspector's Signature

Commissions N.C. 914
National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/6/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 43
 WTM

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95086097-01

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

Repair Organization Job #

3b. NSM or MM # N/A

4. Identification of System 04A (FDW) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-04A-D-1478A-NPS-H46</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>7809</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>S/R</u> <u>2-04A-D-1478A-NPS-H46</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>8935</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>S/R</u> <u>2-04A-D-1478A-NPS-H11</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>10652</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D	<u>S/R</u> <u>2-04A-D-1478A-NPS-HH</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>20502</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REMOVED EXISTING PSA SNUBBERS AND INSTALLED NEW

7. Description of Work PSA SNUBBERS.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/O/A/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed W. McClure
Owner or Owner's Designee, Title

Date 5/6, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-28-96 to 5-7-96; 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.

MB Chapman
Inspector's Signature

Commissions NC914

National Board, State, Providence and Endorsements

Date 5-7, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/6/96
 Sheet 2 of 4 ³
 WTM

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95086097-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System 67 (PR) Class B

5. (a) Applicable Construction Code B31.7 1969 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-67-1439B-H5145</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>16354</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>S/R</u> <u>2-67-1439B-H5145</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>20622</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>S/R</u> <u>2-67-1439B-H5145</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>16403</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D	<u>S/R</u> <u>2-67-1439B-H5145</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>20623</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REMOVED EXISTING PSA SNUBBER AND INSTALLED NEW

7. Description of Work PSA SNUBBER.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/Q/A/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed _____

Wm C. Cloud
Owner or Owner's Designee, Title

Date 5/6, 19 96

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 Providence of NC and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 3-28-96 to 5-7-96; 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.

W.B. Chapman
Inspector's Signature

Commissions NC914

National Board, State, Providence and Endorsements

Date 5-7, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/6/96
 Sheet 3 of 4 3
WTM

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95086097-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System OIA (ms) Class B

5. (a) Applicable Construction Code B31.1 19 67 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-OIA-D-1401B-R4</u>	<u>DPC</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REPLACED EXISTING STUD AND NUTS WITH NEW

7. Description of Work MATERIAL.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed _____

Wm C. Clue
Owner or Owner's Designee, Title

Date 5/6, 19 96

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 Providence of N. C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 3-28-96 to 5-7-96; 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.

M. B. Chapman
Inspector's Signature

Commissions _____

NC914

National Board, State, Providence and Endorsements

Date 5-7, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4/10/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 3

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95020436
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 2975

4. Identification of System HP Class I

5. (a) Applicable Construction Code ANSI B31.7 19 69 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	ZHP-152	VELAN INC.	962044-4	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B	ZHP-152	NO INFORMATION AVAILABLE				NA	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	ZHP-489	ANCHOR DARLING	E2496-1.5	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
D	ZHP-153	VELAN INC.	962044-2	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
E	ZHP-153	NO INFORMATION AVAILABLE				NA	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
F	ZHP-488	ANCHOR DARLING	E2496-1-3	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes

Form NIS-2 (Back)

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7. Description of Work

REPLACED VLV'S ZHP-126, 127, 152 & 153.
ADDED VLV'S ZHP-486, 487, 488 & 489

8. Test Conducted:

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks

PERFORMED SYS. LEAKAGE TEST AT TEMP. & PRESS.
& NDE PER ASME CODE CASE N416-1 IN LIEU
OF HYDRO.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair or replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed

ES Mason Tech Spec
Owner or Owner's Designee, Title

Date 5-15, 1996

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-9-96 to 5-21-96; 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.

MB Chapman
Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 5-21, 1996

OCONEE UNIT NUMBER 2 - 3rd INTERVAL
CLASS A (CATEGORY B-P) LEAKAGE TEST RESULTS

ITEM NUMBER: B15.050.001

<u>OUTAGE NUMBER</u>	<u>EXAMINATION DATE</u>	<u>STATUS:</u>	<u>RESULTS</u>
EOC # 15	05/04/96	RECORDABLE	COMPLETE
EOC # 16	/ /	N/A	NOT TESTED
EOC # 17	/ /	N/A	NOT TESTED
EOC # 18	/ /	N/A	NOT TESTED
EOC # 19	/ /	N/A	NOT REQUIRED
EOC # 20	/ /	N/A	NOT TESTED

OCONEE UNIT NUMBER 2 - 3rd INTERVAL
CLASS B (CATEGORY C-H) RESULTS
THROUGH OUTAGE NUMBER 15

ITEM NO.	DRAWING	1ST PERIOD			2ND PERIOD			3RD PERIOD		
		EXAM. DATE	STATUS	RESULTS	EXAM. DATE	STATUS	RESULTS	EXAM. DATE	STATUS	RESULTS
C07.030.001	OFDL-101A-2.1	05/04/96	PARTIAL	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.002	OFDL-101A-2.2	04/27/96	PARTIAL	RECORDABLE	//	NOT TESTED	N/A	//	NOT TESTED	N/A
C07.030.003	OFDL-101A-2.3	05/02/96	PARTIAL	RECORDABLE	//	NOT TESTED	N/A	//	NOT TESTED	N/A
C07.030.004	OFDL-101A-2.4	05/05/96	PARTIAL	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.005	OFDL-101A-2.5	04/28/96	COMPLETE	CLEAR	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.006	OFDL-102A-2.1	05/02/96	PARTIAL	RECORDABLE	//	NOT TESTED	N/A	//	NOT TESTED	N/A
C07.030.007	OFDL-104A-1.1	04/28/96	COMPLETE	CLEAR	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.008	OFDL-104A-1.2	05/02/96	PARTIAL	RECORDABLE	//	NOT REQUIRED	N/A	//	NOT TESTED	N/A
C07.030.009	OFDL-102A-2.2	05/02/96	PARTIAL	RECORDABLE	//	NOT TESTED	N/A	//	NOT TESTED	N/A
C07.030.010	OFDL-102A-2.3	03/28/96	PARTIAL	CLEAR	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.017	OFDL-110A-2.1	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.022	OFDL-121B-2.3	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.023	OFDL-121B-2.5	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.024	OFDL-121D-2.1	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A

OCONEE UNIT NUMBER 2 - 3rd INTERVAL
CLASS B (CATEGORY C-H) RESULTS
THROUGH OUTAGE NUMBER 15

ITEM NO.	DRAWING	1ST PERIOD			2ND PERIOD			3RD PERIOD		
		EXAM. DATE	STATUS	RESULTS	EXAM. DATE	STATUS	RESULTS	EXAM. DATE	STATUS	RESULTS
C07.030.025	OFDL-122A-2.1	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.026	OFDL-122A-2.2	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.027	OFDL-122A-2.3	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.028	OFDL-122A-2.4	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.029	OFDL-122B-2.1	05/05/96	COMPLETE	RECORDABLE	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.030	OFDL-124B-2.2	05/04/96	PARTIAL	CLEAR	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.031	OFDL-124B-2.4	05/04/96	PARTIAL	CLEAR	//	NOT TESTED	N/A	//	NOT REQUIRED	N/A
C07.030.039	OFDL-121D-1.2	05/05/96	COMPLETE	RECORDABLE	//			//		
C07.030.040	OFD-109A-1.1	04/18/96	PARTIAL	CLEAR	//			//		

- 5.2 Limited examinations (i.e., less than 90% of the required examination coverage obtained) identified during Outage 15 are shown below. A copy of the Request for Relief is contained in Section 9.0 of this report

<u>Item Number</u>	<u>Request for Relief Serial Number</u>
B01.021.001	95-04
B01.040.001	95-04
B02.040.001	96-02
B02.040.002	96-02
B03.130.003	95-04
B03.130.004	95-04
B03.140.003	95-04
B03.140.004	95-04
B03.150.001	96-02
B03.150.002	96-02
C01.010.002	96-02

6.0 Reportable Indications

One reportable indication was discovered during Outage 15. The indication was identified by ultrasonic examination on Item Number B02.040.001, weld number 2-SGA-WG58-1. This weld joins the Upper Head-To-Tubesheet on Steam Generator A.

In accordance with ASME Section XI IWB-2430, the examination population was increased to include additional welds. Since there were no additional welds in this examination category remaining to be examined in this period, the only other weld required to be examined during the third 10 year inservice inspection interval was selected. This was item number B02.040.002, weld 2-SGA-WG58-2, the Lower Head-To-Tubesheet weld on Steam Generator A. This examination of this weld proved to be acceptable. Based on this, the remainder of the Head-To-Tubesheet welds on Steam Generator B were not required to be examined.

Additionally, Item Number B02.040.001 has been scheduled for re-examination during the next 3 inspection periods as required by ASME Section XI, IWB-2420(b).

The indication exceeded the acceptance criteria of ASME Section XI, IWB-3510 and was evaluated by Framatome Technologies in accordance with ASME Section XI, IWB-3600 and was found to be acceptable for continued service. A copy of Framatome Technologies Fracture Mechanics Evaluation (FME) Report 32-1245901-00 is included in Section 9.0 of this report. In addition, the Nuclear Regulatory Commission has reviewed the FME as required by ASME Section XI, IWB-3134 and has issued a Safety Evaluation Report (SER) documenting it's review and acceptance of the FME. A copy of the SER is also contained in Section 9.0 of this report.

7.0 Personnel, Equipment and Material Certifications

All personnel who performed or evaluated the results of inservice inspections from November 17, 1994 to May 7, 1996 at Oconee Nuclear Station, Unit 2, were certified in accordance with the requirements of 1989 Edition of ASME Section XI with no addenda. The appropriate certification records for each inspector are on file at Oconee Nuclear Station or copies can be obtained by contacting Duke Power's Corporate Office in Charlotte, North Carolina.

Records of periodic calibration of inspection equipment are on file at Oconee Nuclear Station or copies can be obtained by contacting Duke Power's Corporate Office in Charlotte, North Carolina.

Records of materials used, (i.e., NDE consumables) are on file at Oconee Nuclear Station or copies can be obtained by contacting Duke Power's Corporate Office in Charlotte, North Carolina.

8.0 Corrective Action

PIP 2-O96-0509 was originated to document an unacceptable weld prior to performing the required surface examination of Item Number C02.031.004. This weld is on the Borated Water Storage Tank and was fabricated under the auspices of American Water Works Association Code. The weld did not match the drawing. This was discovered by the crew preparing the weld for surface examination. Since the condition identified was not service induced; but, rather a fabrication problem, it was not necessary to increase the sample size. It should be pointed out that this weld has never been examined in accordance with ASME Section XI. A copy of PIP 2-O96-0509 is located in Section 9.0 of this report.

PIP 2-O96-0917 was originated to document a reportable indication identified during ultrasonic examination of Item Number B02.040.001. A copy of PIP 2-O96-0917 is located in Section 9.0 of this report.

9.0 Reference Documents

The following reference documents apply to the inservice inspection performed during Outage 15 at Oconee 2.

Duke Power Company Request for Relief ONS-001

Duke Power Company Request for Relief ONS-002

Duke Power Company Request for Relief ONS-006

Duke Power Company Request for Relief ONS-009

Duke Power Company Request for Relief 95-04

Duke Power Company Request for Relief 96-02

Duke Power Company Problem Investigation Process Report 2-O96-0509

Duke Power Company Problem Investigation Process Report 2-O96-0917

Framatome Technologies Fracture Mechanics Evaluation 32-1245901-00

Inservice Inspection Evaluation Report for Weld 2-SGA-WG58-1

Nuclear Regulatory Commission Safety Evaluation Report dated May 3, 1996

DUKE POWER COMPANY
Request for Relief From
Inservice Inspection Requirement

Station: **Oconee**

Unit: **1,2 & 3**

Requesting Department: **Nuclear Generation**

Reference Code: **ASME Boiler and Pressure Vessel Code, Section XI 1989
Edition, no Addenda**

I. Component for which exemption is requested:

a. Name and Identification Number:

Core Flood Nozzle-to-Safe End and Safe End-to-Pipe Welds Drawing
OM-201-92 (Attachment "A"), OM-1201-1528 (Attachment "B") and
B&W Drawing 149906E (Attachment "C").

Oconee 1

<u>Item No.</u>	<u>ID No.</u>	<u>Description</u>
B09.011.090A	1-53A-02-43L	SE to Pipe Weld
B09.011.100A	1-53A-01-1L	SE to Pipe Weld
B05.010.001	1-RPV-WR53	Noz to SE Weld
B05.010.002	1RPV-WR53A	Noz to SE Weld

Oconee 2

<u>Item No.</u>	<u>ID No.</u>	<u>Description</u>
B09.011.011A	2-53A-8-63	SE to Pipe Weld
B09.011.013A	2-53A-8-64	SE to Pipe Weld
B05.010.001	2-RPV-WR53	Noz to Pipe Weld
B05.010.002	2-RPV-WR53A	Noz to Pipe Weld

Oconee 3

<u>Item No.</u>	<u>ID No.</u>	<u>Description</u>
B05.010.001	3-RPV-WR53	Noz to SE Weld
B05.010.002	3RPV-WR53A	Noz to SE Weld
B09.011.040A	3-53A -15-44	SE to Pipe Weld
B09.011.045A	3-53A-16-01	SE to Pipe Weld

- b. Function:
Provides reactor vessel core flooding capability
- c. ASME Section XI Code Class:
Class 1
- d. Construction Code and Class (If Applicable):
ASME Section III, Class 1
- e. Valve Category (If Applicable):
NA

II. Reference Code Requirement that has been determined to be impractical:

Table IWB-2500-1; Category B-F; Item No.B05.10 - Surface Examination
and Category B-J; Item B09.011 - Surface Examination

III. Basis for Requesting Relief:

Relief requested from surface examination only.

Approximately 40 man-hours would be required to prepare each of the two core flood nozzle safe ends for inspection. The preparation would involve removal of the refueling canal seal plate, shielding bricks, shielding supports in the nozzle area, and insulation. The radiation levels in this area are expected to be 0.51 R/hr. An alternative approach is to enter from the bottom of the vessel and build a scaffold approximately 30 feet high to reach the nozzles. This approach would require approximately 80 man-hours, 40 in 0.51 R/hr. area and the other 40 in the 1-2 R/hr. radiation present at the bottom of the reactor vessel, for a total exposure of 80-140 Man-Rem. Shielding is considered impractical in this area. Any remote inspection would require practically the same preparation work.

IV. Alternate Examination:

Welds will be examined by automated UT from the inside surface using the technique demonstrated by the B&W Owners Group in Lynchburg VA, on August 11, 1993 for the NRC. This will provide an acceptable level of quality and safety and not endanger the public health and safety.

V. Implementation Schedule:

Core Flood nozzle-to-safe end and safe end-to-pipe welds will be inspected at or near the end of the third ten year interval.

Evaluated By:

R. J. Hogge, Jr.

Date

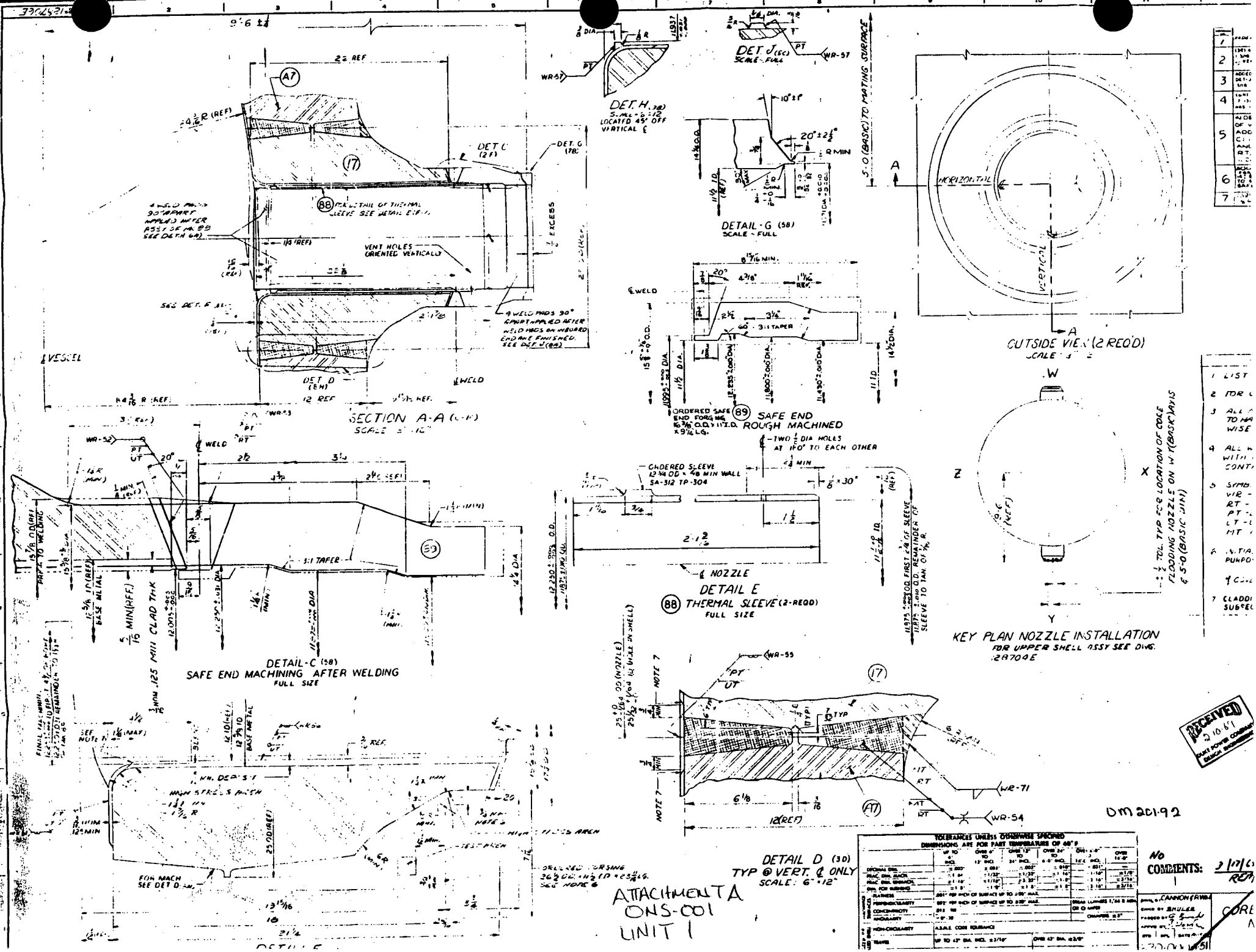
8-18-94

Reviewed By:

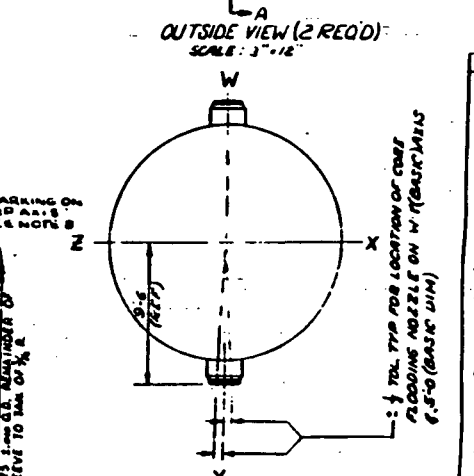
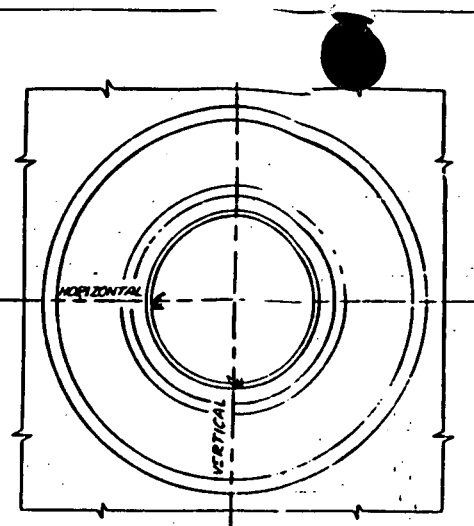
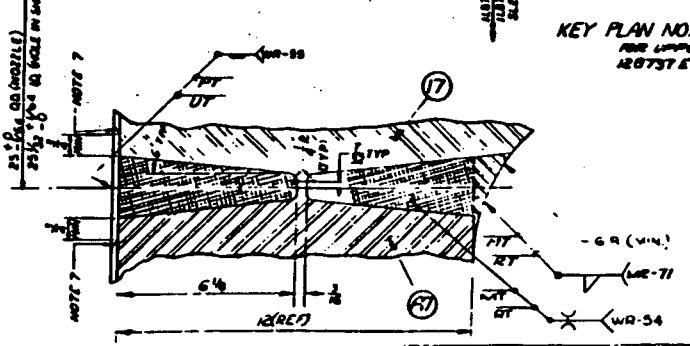
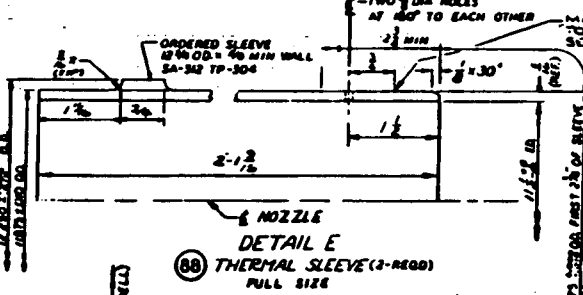
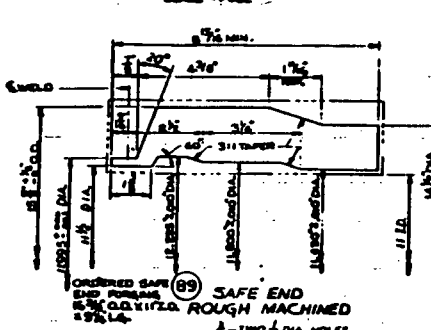
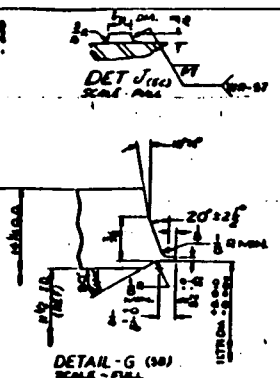
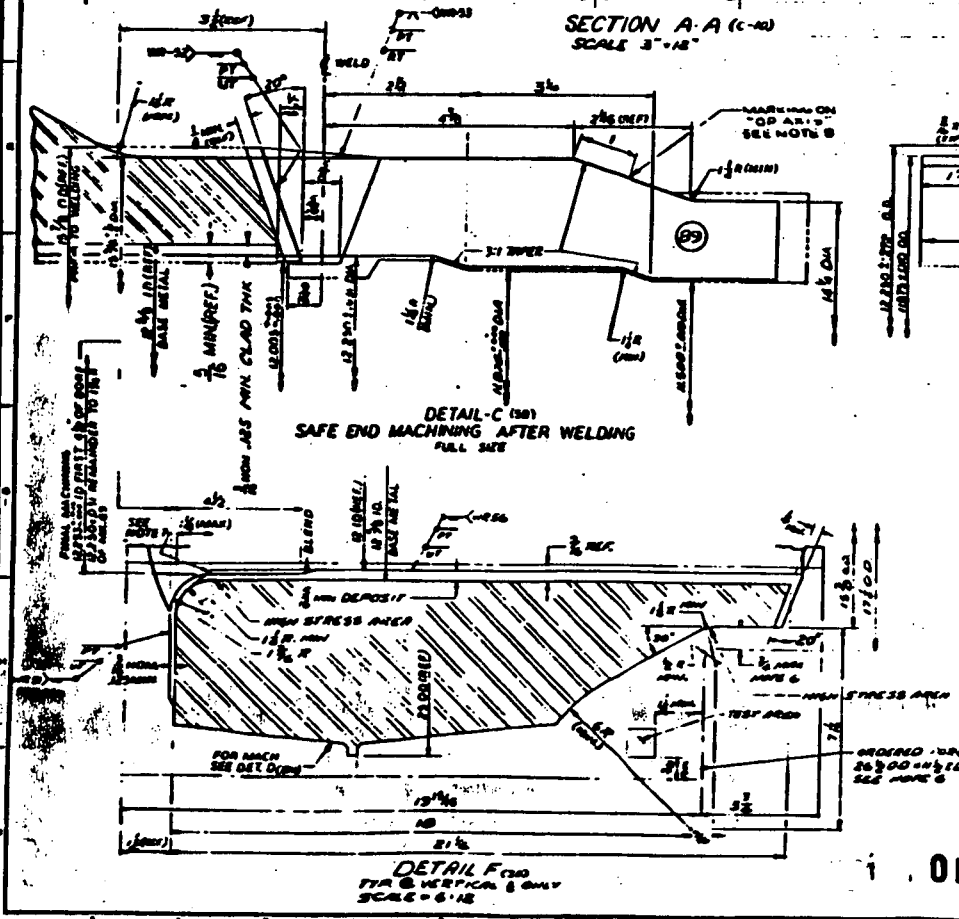
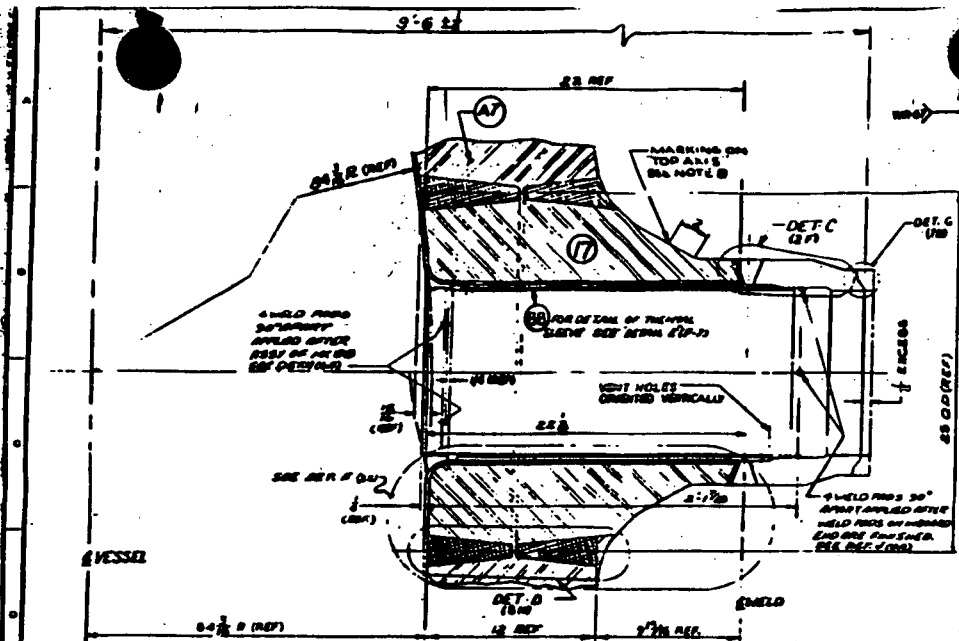
John Barkner

Date

8/23/94



RECEIVED
2-10-69
DUKE POWER COMPANY
DUKE ENGINEERING



NO.	REVISION
1	ISSUED FOR CONSTRUCTION
2	REVISION
3	REVISION

1. LIST OF
2. FOR GENERAL
3. ALL PARTS TO HAVE E. WARE NOT.
4. ALL WELDING WITH MSTR CONTROL
5. SYMBOLS: WE - WELD, RT - RADIO, PT - LIQUID, UT - ULTRA, MT - MAGNETIC
6. INITIAL PNL PURPOSES ON
7. COVERAGE
8. ALL PERMANENT MARKINGS INTERFERED SECTION III, 4-5.1. THE MARKING SHALL BE IN EACH OPERA STRESS REL

NOTE:
FOR FURTHER
SEE FLOW RI
DWG. 154738E

ATTACHMENT B
DNS-001
UNIT 2

ON 1201. -1528 001

REMARKS (UNLESS OTHERWISE SPECIFIED)	
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	
2. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED	
3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED	
4. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED	
5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED	
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9. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED	
10. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED	

FILE COPY

QA CO

CORE FLO
NOZZLE

NOTED

DUKE POWER COMPANY

Request for Relief From
Inservice Inspection Requirement

Station: Oconee

Unit: 1,2 & 3

Requesting Department: Nuclear Generation

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI 1989
Edition, no Addenda

I. Component for which exemption is requested:

a. Name and Identification Number:

Reactor Vessel Nozzle to Pipe Welds.

Isometrics: System 50, ISO 26 (Unit 1) (Attachment "A")
System 50, ISO 9 (Unit 2) (Attachment "B")
System 50, ISO 29 (Unit 3) (Attachment "C")

Oconee 1

Item No.

ID No.

B09.011.065A	1-PHA-1
B09.011.015A	1-PDA1-9
B09.011.031A	1-PDA2-9
B09.011.077A	1-PHB-1
B09.011.047A	1-PDB1-9
B09.011.063A	1-PDB2-9

Oconee 2

Item No.

ID No.

B09.011.019A	2-PHA-1
B09.011.032A	2-PDA1-8
B09.011.033A	2-PDA2-8
B09.011.021A	2-PHB-1
B09.011.034A	2-PDB1-8
B09.011.035A	2-PDB2-8

Oconee 3

Item No.

ID No.

B09.011.001A
B09.011.018A
B09.011.020A
B09.011.003A
B09.011.022A
B09.011.024A

3-PHA-1
3-PDA1-8
3-PDA2-8
3-PHB-1
3-PDB1-8
3-PDB2-8

b. Function:

Provides reactor coolant flow to steam generators

c. ASME Section XI Code Class:

Class 1

d. Construction Code and Class (If Applicable):

ASME Section III, Class 1

e. Valve Category (If Applicable):

NA

II. Reference Code Requirement that has been determined to be impractical:

Table IWB-2500-1; Category B-J; Item B9.11; Surface examination

III. Basis for Requesting Relief:

Relief requested from surface examination only.

There are four inlet and two outlet nozzle to pipe welds in each Oconee Reactor Coolant System. These nozzles are SA 508 Cl. 2, welded to A106 Gr. C pipe. The inlet nozzle welds are 33.50" in diameter, 2.33" nominal wall thickness and the outlet nozzles are 36" diameter, 2.86" nominal wall thickness. These welds will be volumetrically inspected from the inside surface using a contact automated ultrasonic technique, which will not require access to the OD surface of the weld. Preparing these welds for surface inspection will require removal of the refueling canal seal plate, shielding bricks, shielding supports in the nozzle areas, and insulation. This would require approximately 300 man-hours of work in a 700-1000 MR/hour area. Shielding would be impractical in this area due to the limited space and close proximity to the reactor vessel.

IV. Alternate Examination:

Welds will be examined by automated UT from the inside surface using the technique demonstrated by the B&W Owners Group in Lynchburg VA, on August 11, 1993 for the NRC. This will provide an acceptable level of quality and safety and not endanger the public health and safety.

V. Implementation Schedule:

The outlet nozzle to pipe welds were examined during the third inspection period of the second interval. The inlet nozzle to pipe welds will be examined during the third inspection period of the third interval.

Evaluated By:

A. L. Hogge Jr.

Date

8-18-94

Reviewed By:

J. B. Barkner

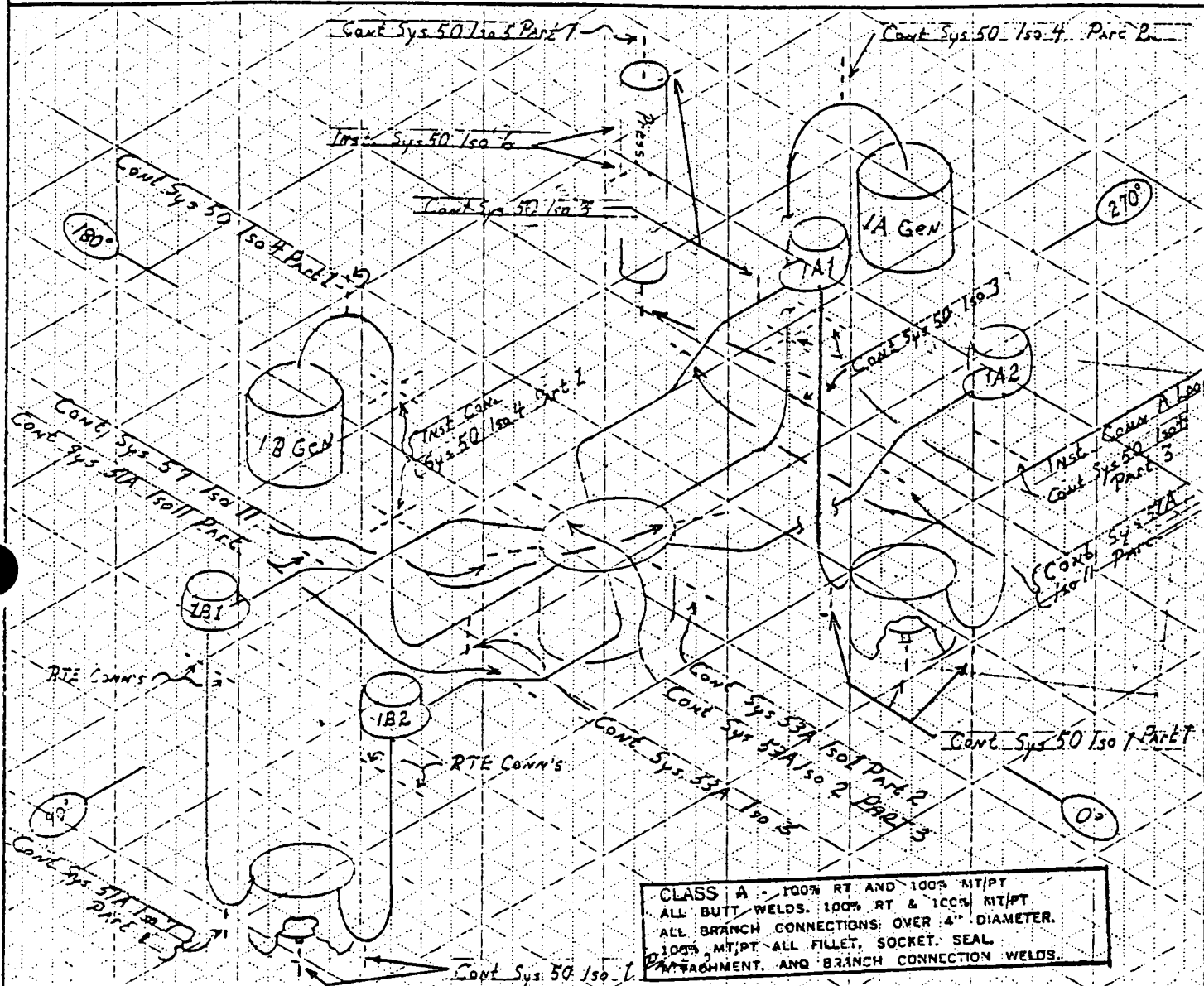
Date

8/23/94

1

MAIN COOLANT LOOP REFERENCE

PROJECT OC0455 SYSTEM 50 SUB SYSTEMS _____ UNIT 1 ISO. NO. * 26 REV. NO. 0
CLASS _____ MATERIAL B-111 F4980 WELDING PROCEDURE _____ LAST WELD NO. * _____ DATE 2-2-77

[illegible]

*ALL WELD NUMBERS SHOWN ABOVE ARE PRECEDED BY THE ISO. NO.

RLM

ONS-002 ATTACHMENT "A"

System #50(1) UNIT #2 R.B.

Note #1: System Elastication "C"
 Applied to Material Requirements
 Only

NOTE 2: Downstream Instrumentation
 SHOWN, ON SYS. 50 ISO. 78

WELD NUMBER	WELD
1" x 250 38, 40, 43, 47, 51, 55, 59, 63	316 A
1/2" x 120 38, 42, 45, 49, 53, 57, 61	316 B
1" x 250 66, 67, 69, 59, 54, 30, 71	316 A
1" x 250 37, 31, 34, 48, 52, 56, 60, 64	316 C

ADDED WELDS

HA

19AA

Note

23, 24, 25

REVISE WELDS

35, 36, 37, 38, 39, 40

CONT. ON SHT. 12

INST. WELD

1-H, 5A, 6A, 11

8A, 21, 21A,

22A, 22B,

WELDING PROCEDURE

P-7 OR P-8 OR

L-115 L-231, L-229

P-11 OR WOMET

WELDING PROCEDURE

P-7 OR P-8 OR

L-115 L-231, L-229

P-11 OR WOMET

WELDING PROCEDURE

P-7 OR P-8 OR

L-115 L-231, L-229

P-11 OR WOMET

WELDING PROCEDURE

P-7 OR P-8 OR

L-115 L-231, L-229

P-11 OR WOMET

WELDING PROCEDURE

P-7 OR P-8 OR

L-115 L-231, L-229

CLASS A 100% IRT AND 100% IRT
 ALL BUTT WELDS, 100% IRT
 ALL BRANCH CONNECTIONS OVER 4" DIAMETER
 100% MT/PT ALL FILLET, SOCKET, BRACKET
 ATTACHMENT, AND BRANCH CONNECTION WELDS

CONT. ON SHT. 39 (SYS. 51A)

WT-3-3

WT-3-4

WT-3-5

WT-3-6

WT-3-7

WT-3-8

WT-3-9

WT-3-10

WT-3-11

WT-3-12

WT-3-13

WT-3-14

WT-3-15

WT-3-16

WT-3-17

WT-3-18

WT-3-19

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WT-3-22

WT-3-23

WT-3-24

WT-3-25

WT-3-26

WT-3-27

WT-3-28

WT-3-29

WT-3-30

WT-3-31

WT-3-32

WT-3-33

WT-3-34

WT-3-35

WT-3-36

WT-3-37

ADDED WELDS

19A, 21A

REVISION

8A

5A, 6A

22A, 22B

REVISION

TO 1" DIA

DETAIL A

WT-3-4

WT-3-4

WT-3-4

WT-3-4

WT-3-4

WT-3-4

WT-3-4

WT-3-4

WT-3-4

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WT-3-4

ISO. REV. NO.

CHANGES

WELD NOS

1. HA WLS 3331E

2. 34 WLS 3332E

3. 44-64, 24-

34

35-65 WLS 3334J

37, 60H, 33324H

38, 53, 53, 53

39, 53, 53, 53

40, 53, 53, 53

41, 53, 53, 53

42, 53, 53, 53

43, 53, 53, 53

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67, 53, 53, 53

68, 53, 53, 53

69, 53, 53, 53

1. W. Dear: 16 Feb 72

NOTES: 1. W. Dear: 16 Feb 72

REV 29

ATTACHMENT "C"

REVISION:

111

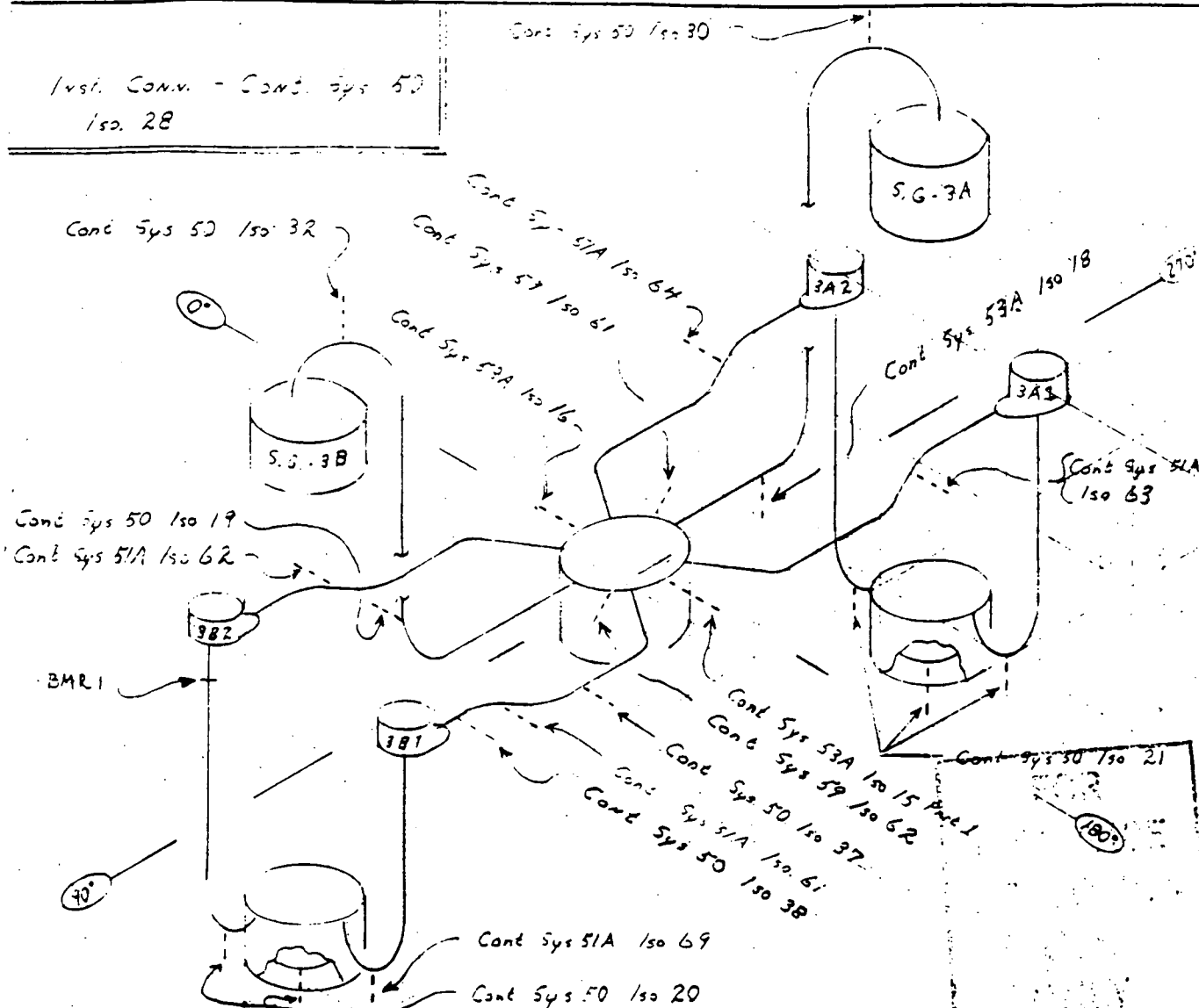
Main Coolant Loop - Unit 5

Is danger for P...
purposes.

ISOMETRIC SKETCH

PROJECT CCORNEE SYSTEM 50 SUB SYSTEMS (1) UNIT 3RB ISO. NO. * 29 REV. NO. 1
CLASS A MATERIAL VA WELDING PROCEDURE 2.4 LAST WELD NO. * 1 DATE 8-10-72

Inst. Conv. - Cont. pgs 50
p. 28

[illegible]

*ALL WELD NUMBERS SHOWN ABOVE ARE PRECEDED BY THE ISO. NO

P. m.

DUKE POWER COMPANY
Request for Relief From
Inservice Inspection Requirement

Station: Oconee

Unit: 1, 2 & 3

Requesting Department: Nuclear Generation

Reference Code: ASME Section XI, 1989 Edition, no addenda

I. Component for which exemption is requested:

a. Name and Identification Number:

Reactor Pressure Vessel 36" outlet nozzle-to-vessel welds and outlet nozzle-to-pipe welds (Unit 1 OM-201-5) Attachment ("A"); (Unit 2 OM-1201-4) Attachment ("B"); (Unit 3 OM-2201-52) Attachment ("C").

Oconee 1

<u>Item No.</u>	<u>ID No.</u>	<u>Description</u>
B03.090.001A	1-RPV-WR13	Noz. to Vsl
B03.090.002A	1-RPV-WR13A	Noz. to Vsl
B03.100.001	1-RPV-WR13	Inside Radius
B03.100.002	1-RPV-WR13A	Inside Radius
B09.011.065	1-PHA-1	Noz. to Pipe
B09.011.077	1-PHB-1	Noz. to Pipe

Oconee 2

<u>Item No.</u>	<u>ID No.</u>	<u>Description</u>
B03.090.001A	2-RPV-WR13	Noz. to Vsl
B03.090.002A	2-RPV-WR13A	Noz. to Vsl
B03.100.001	2-RPV-WR13	Inside Radius
B03.100.002	2-RPV-WR13A	Inside Radius
B09.011.019	2-PHA-1	Noz. to Pipe
B09.011.021	2-PHB-1	Noz. to Pipe

Oconee 3

<u>Item No.</u>	<u>ID No.</u>	<u>Description</u>
B03.090.001A	3-RPV-WR13	Noz to Vsl
B03.090.002A	3-RPV-WR13A	Noz to Vsl
B03.100.001	3-RPV-WR13	Inside Radius
B03.100.002	3-RPV-WR13A	Inside Radius
B09.011.001	3-PHA-1	Noz to Pipe
B09.011.003	3-PHB-1	Noz to Pipe

b. Function:

Welded connection between the reactor pressure vessel and respective reactor coolant piping providing a flow path to the steam generator.

c. ASME Section XI Code Class:

Class 1

d. Construction Code and Class (If Applicable):

ASME Section III, 1965 Edition with Summer 1967 Addenda; Class 1

e. Valve Category (If Applicable):

N/A

II. Reference Code Requirement that has been determined to be impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1989 Edition, no addenda, Table IWB-2500-1 (Category B-D), Item Numbers B3.90 and B3.100. NOTE (2): At least 25% but not more than 50% (credited) of the nozzles shall be examined by the end of the first inspection period of each inspection interval.

ASME Boiler and Pressure Vessel Code Section XI, paragraph IWB-2420(a): The sequence of component examinations established during the first inspection interval shall be repeated during each successive inspection interval to the extent practical.

III. Basis for Requesting Relief:

During the first period of the second ten year inspection interval at Oconee Nuclear Station the reactor vessel 36" outlet nozzle-to-vessel welds, including nozzle-to-pipe welds, were examined using Babcock & Wilcox's Automated Reactor Inspection Tool (ARIS). The two nozzle welds examined met the 25% requirement of Table

IWB-2500-1. No recordable indications were detected.

During the third period of the second ten year inspection interval all reactor vessel nozzle-to-vessel and respective nozzle-to-pipe welds were examined using ARIS. Included in this examination was the 36" outlet nozzle-to-vessel and nozzle-to-pipe welds examined during the first period. The re-examination of these 36" outlet nozzles was performed meeting the requirements of the 1989 ASME Section XI Code. Credit will be applied to the third interval, first period requirement for the 36" outlet nozzle-to-vessel welds. Category B-D, Items B3.90 and B3.100. These examinations will not be performed during the first period of the third inspection interval.

Following this inspection sequence will substantially reduce radiation exposure (2 man-rem), critical path time (300 man hours), contaminated shipments, and generation of rad-waste, without effecting the safe operation or reliability of the of the reactor vessel.

IV. Alternate Examination:

Automated re-examination of all the reactor vessel nozzle-to-vessel welds, including respective nozzle-to-pipe welds will be deferred to the last period of the third ten year inspection interval.

V. Implementation Schedule:

Examinations are scheduled to be performed during the third inspection period as follows:

Refueling Outage 21, 2003 (Unit 1)

Refueling Outage 20, 2003 (Unit 2)

Refueling Outage 21, 2004 (Unit 3)

Evaluated By:

G. J. Hogge, Jr.

Date

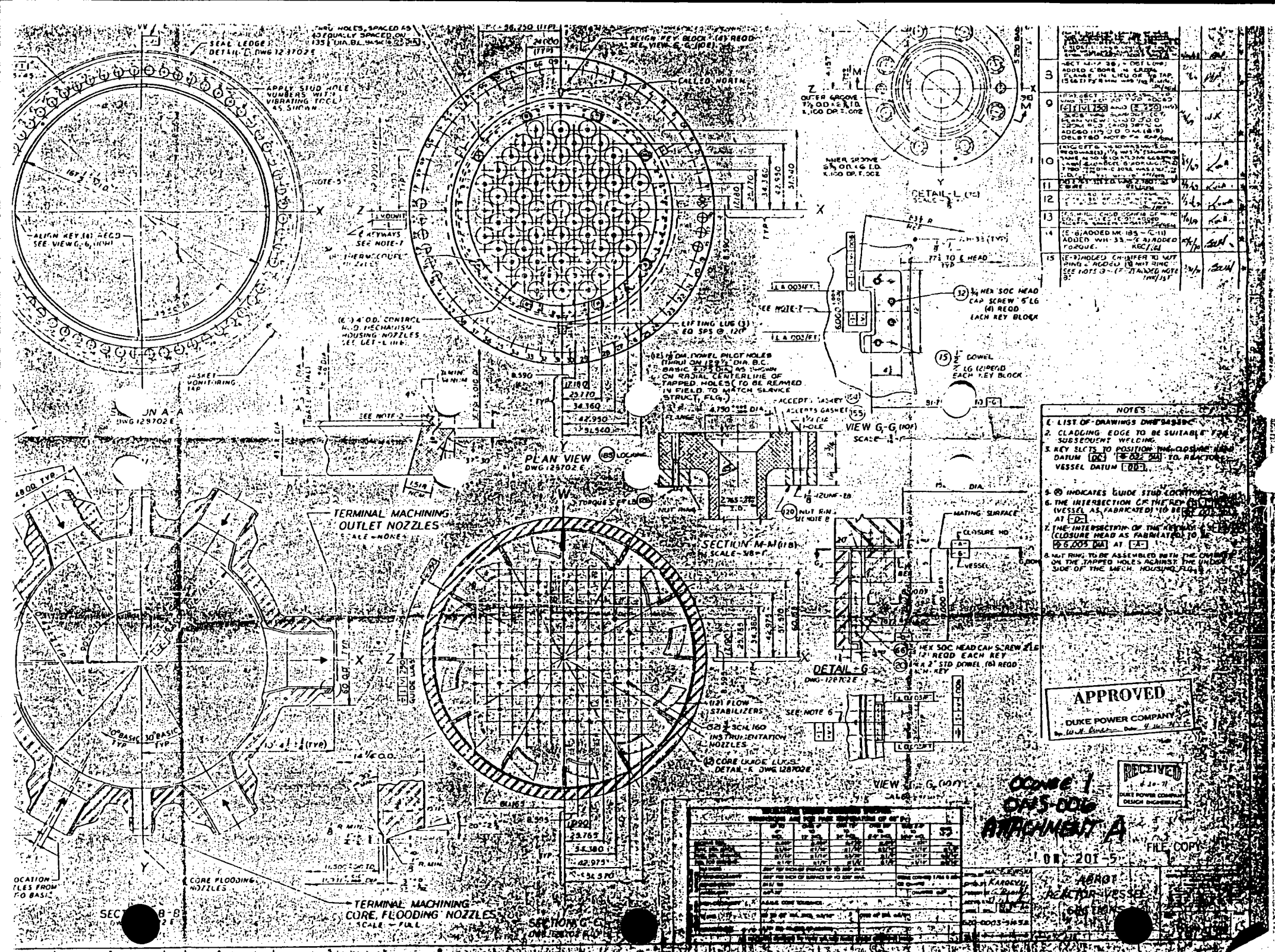
8-18-94

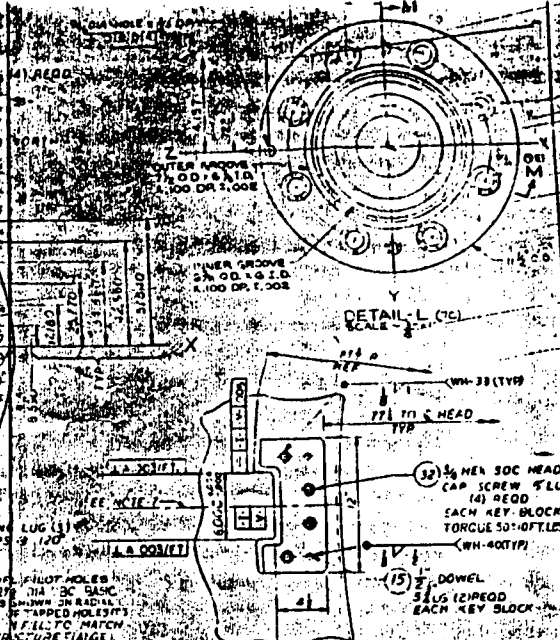
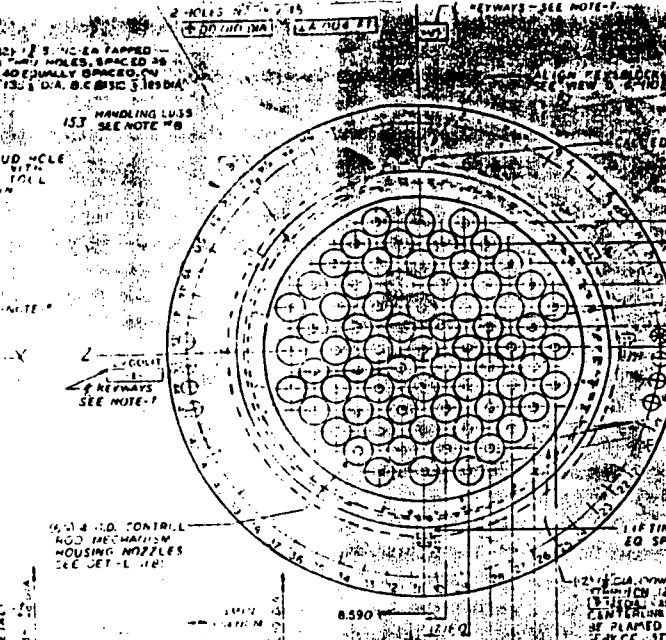
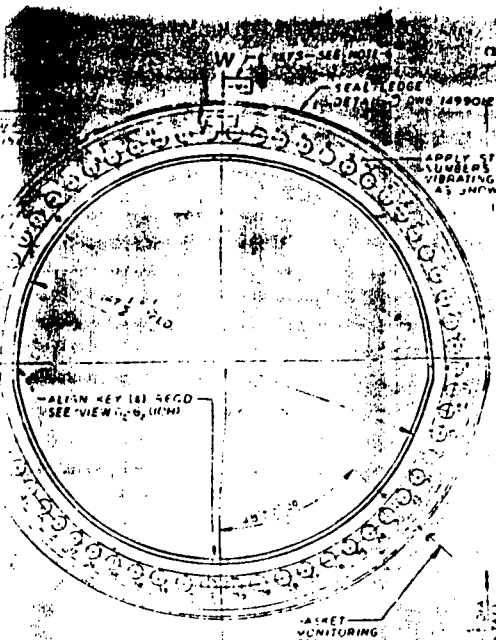
Reviewed By:

G. J. Barlow

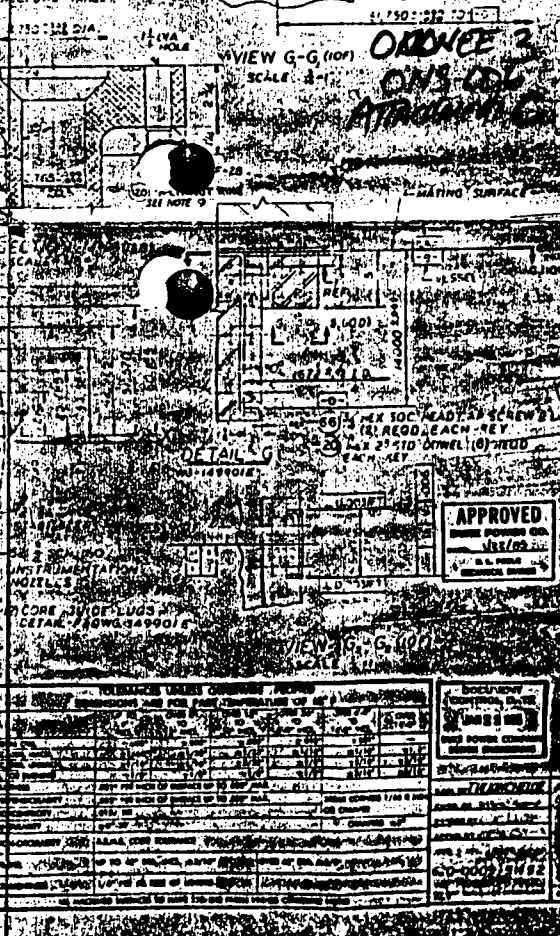
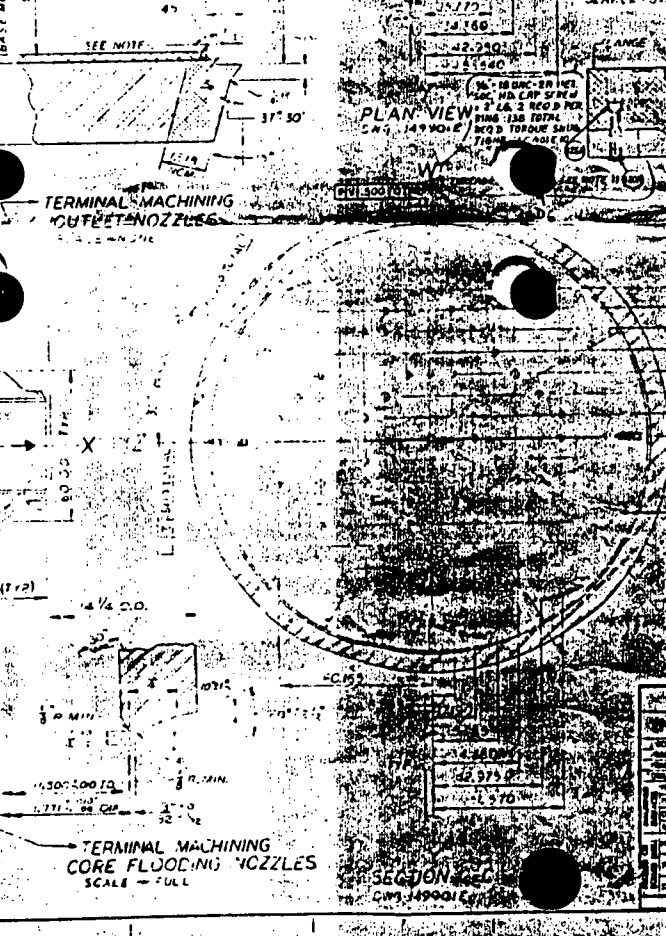
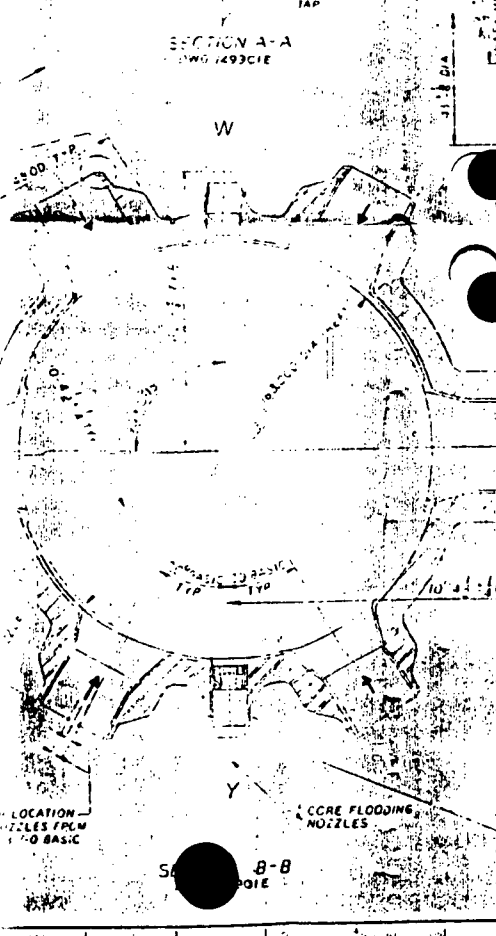
Date

8/23/94





NO.	REVISION	DESCRIPTION
1		REVISION 1
2		REVISION 2
3		REVISION 3
4		REVISION 4
5		REVISION 5
6		REVISION 6
7		REVISION 7
8		REVISION 8
9		REVISION 9
10		REVISION 10
11		REVISION 11
12		REVISION 12
13		REVISION 13
14		REVISION 14
15		REVISION 15
16		REVISION 16
17		REVISION 17
18		REVISION 18
19		REVISION 19
20		REVISION 20



NO.	REVISION	DESCRIPTION
1		REVISION 1
2		REVISION 2
3		REVISION 3
4		REVISION 4
5		REVISION 5
6		REVISION 6
7		REVISION 7
8		REVISION 8
9		REVISION 9
10		REVISION 10
11		REVISION 11
12		REVISION 12
13		REVISION 13
14		REVISION 14
15		REVISION 15
16		REVISION 16
17		REVISION 17
18		REVISION 18
19		REVISION 19
20		REVISION 20

DUKE POWER COMPANY

Request for Relief From
Inservice Inspection Requirement

Station: **Oconee**

Unit: **1, 2 & 3**

Requesting Department: **Nuclear Generation**

Reference Code: **ASME Section XI, 1989 Edition , no addenda**

I. Component for which exemption is requested:

a. Name and Identification Number:

Letdown Cooler Nozzles (Inside Radius Section) for Units 1, 2 & 3
OM-201-3107 (Attachment "A"). The following item numbers are
affected:

Oconee 1

Item No.

ID No.

B03.160.001
B03.160.002
B03.160.003
B03.160.004

1-LDCA-IN-V1
1-LDCA-OUT-V2
1-LDCB-IN-V1
1-LDCB-OUT-V2

Oconee 2

Item No.

ID No.

B03.160.001
B03.160.002
B03.160.003
B03.160.004

2-LDCA-INLET-V2
2-LDCA-OUTLET-V5
2-LDCB-INLET-V1
2-LDCB-OUTLET-V2

Oconee 3

<u>Item No.</u>	<u>ID No.</u>
B03.160.001	3-LDCA-IN-V1
B03.160.002	3-LDCA-OUT-V2
B03.160.003	3-LDCB-IN-V1
B03.160.004	3-LDCB-OUT-V2

b. Function:

The Letdown Cooler reduces the temperature of the letdown flow from the Reactor Coolant System to a temperature suitable for demineralization.

c. ASME Section XI Code Class:
Class 1

d. Construction Code and Class (If Applicable):

N/A

e. Valve Category (If Applicable):

N/A

II. Reference Code Requirement that has been determined to be impractical:

Table IWB-2500, Examination Category B-D, Item Number B03.160. Table requires that an inside radius volumetric examination be performed on heat exchanger nozzles.

III. Basis for Requesting Relief:

Due to the size and geometry of the nozzle inside radius on the Letdown Coolers, we have been unable to perform a meaningful (i.e. unable to get sound into the area of interest) volumetric examination.

IV. Alternate Examination:

Perform the volumetric examination on the weld volume, as required by ASME Section XI, Table IWB-2500-1, Examination Category B-D, Item Number B03.150. This will provide adequate Assurance of the welded connection. The alternate proposed inservice testing will provide an acceptable level of quality and safety and ensures the level of public health and safety is not reduced.

V. Implementation Schedule:

Oconee 1

<u>Item No.</u>	<u>RFO</u>
B03.160.001	16
B03.160.002	16
B03.160.003	20
B03.160.004	20

Oconee 2

<u>Item No.</u>	<u>RFO</u>
B03.160.001	15
B03.160.002	15
B03.160.003	20
B03.160.004	20

Oconee 3

<u>Item No.</u>	<u>RFO</u>
B03.160.001	17
B03.160.002	17
B03.160.003	21
B03.160.004	21

Evaluated By:

A. J. Hogge Jr

Date

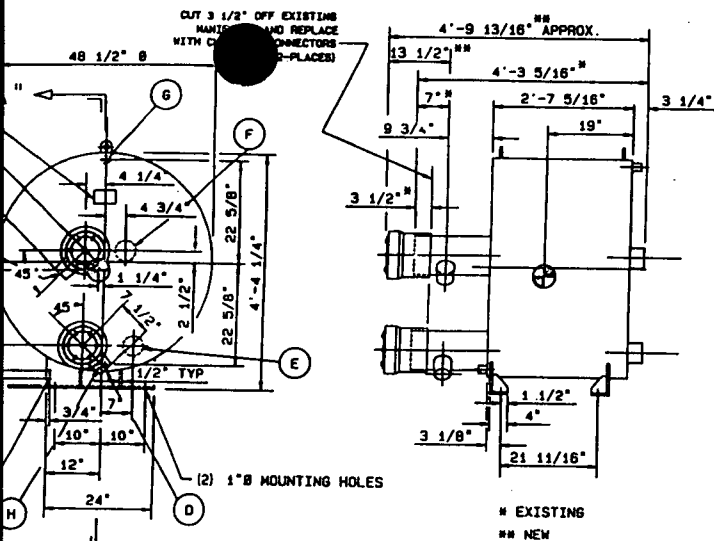
5-11-94

Reviewed By:

J. Barlow

Date

5/12/94



INLET --- 3" SCH. 160 (.438")
 OUTLET --- 3" SCH. 160 (.438")
 INLET --- 4" SCH. 40 (.237")
 OUTLET --- 4" SCH. 40 (.237")
 VENT --- 1" 3000# SOCKET WELD
 DRAIN --- 1" 3000# SOCKET WELD

END BEVELED FOR CONSUMABLE INSERT WELDING
 END BEVELED FOR BUTT WELDING

UNIT PLAN

NOTES:
 1. U-GROOVE WELD WITH CONSUMABLE INSERT OR V-GROOVE WELD WITHOUT CONSUMABLE INSERT IS ACCEPTABLE.
 2. FOR TUBE PLUGGING INFO. AND LETDOWN COOLER DESIGNATION SEE OM-201-3120, ATTACHMENT 1

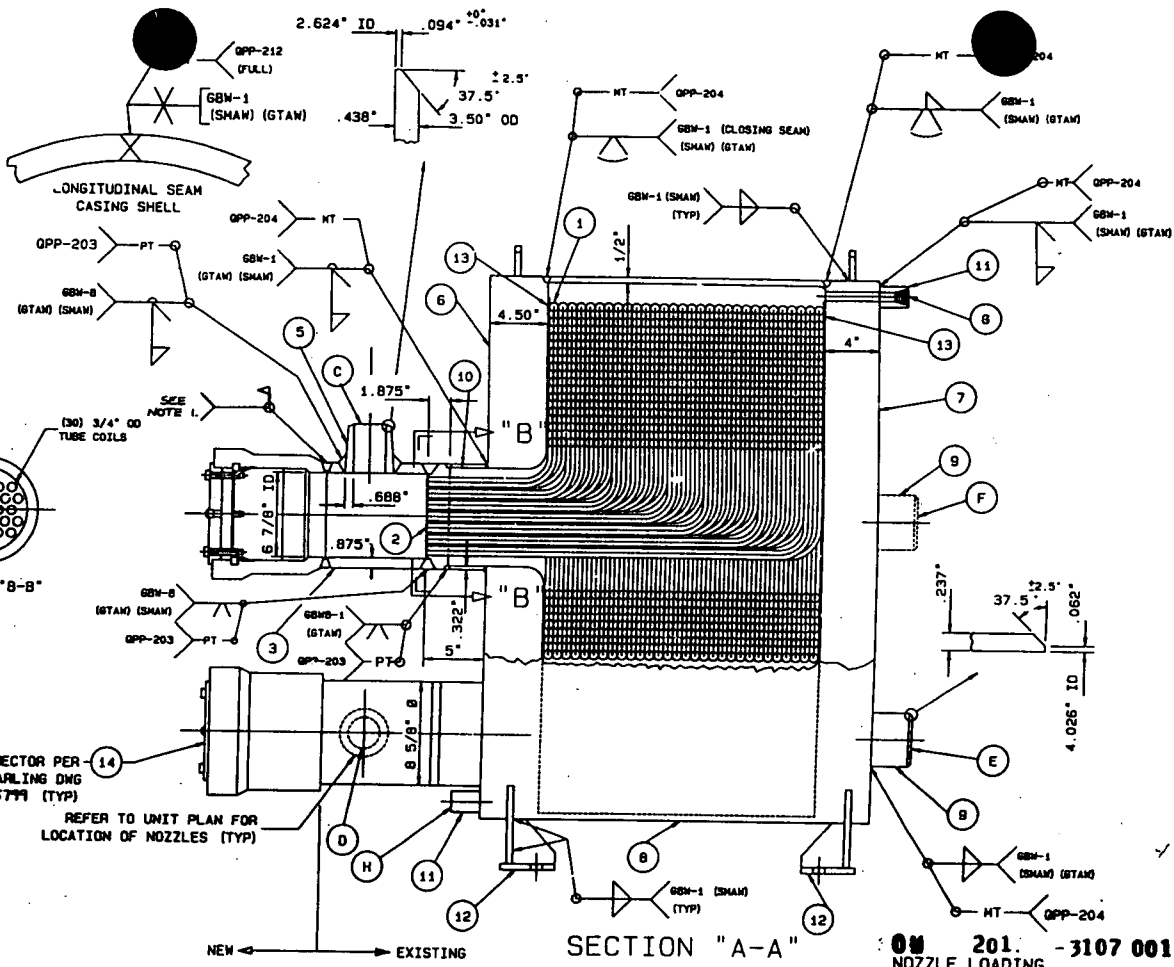
MATERIAL LIST			
PART NAME	MATERIAL	SPEC.	REMARKS
COILS	T-316L S.S.	SA-213	.070 BWG. SML'S, ULTRASONIC TESTED
SHEET	T-316L S.S.	SA-240	PLATE
SIDE CHANNEL BODY	T-316L S.S.	SA-182	FORGED BAR
NOZZLE	T-316L S.S.	SA-182	FORGED BAR
BASE PLATE	CARB. STEEL	SA-516-70	PLATE
END PLATE	CARB. STEEL	SA-516-70	PLATE
SHELL	CARB. STEEL	SA-516-70	PLATE
NOZZLE PIPE	CARB. STEEL	SA-106-B	SEAMLESS PIPE
PIPE TO TUBE SHEET	CARB. STEEL	SA-106-B	SEAMLESS PIPE
WELD CPLG	FORGED STEEL	SA-105	
ITS	CARB. STEEL	SA-516-70	PLATE
AL	T-304 S.S.		
AL CONNECTOR	MATERIALS PER ANCHOR/DARLING DWG. 93-15799(OM-201-3094).		

MILL POWER SUPPLY CO.
 N46923-13
 64770HC (ORIGINAL JOB NO. FOR COOLERS- 34097HC AND 44773HC) A
 A.S.M.E. SECT. III, CL-3 (1980), ADDENDUM THRU SUMMER 1980
 A.S.M.E.
 A.S.M.E. & CUSTOMER
 A.S.M.E. ("N" STAMP REQ'D)
 COMM GRIT BLAST CARBON STEEL
 (1) PRIME COAT CARBO-ZINC 11 (3) MILS D.F.T.
 (1) FINISH COAT PHENOLINE 305 (4) MILS D.F.T.
 PER DUKE POWER CO. NUCLEAR COATING SPEC. 5001-1, REV 12/1/78

ATTACHMENT A
 ONS-009

D. SPECIFICATION NO. --- OSS-0201.00-00-0004 REV. 1

CERTIFIED CORRECT
 GRAHAM MFG. CO. INC.
 E.A. Jankowski



"NUCLEAR SAFETY RELATED"
 G.A. CONDITION #1

LOAD CASE	Gx (PSI)	Gy (PSI)	ALLOWABLE (REF Z)
NORMAL OP.			.6Sy=
NORMAL OP. + OBE			.6Sy=
NORMAL OP. + SSE			.8Sy=

STATION- OCONEE
 D.E. FILE # - 83741201.06-00-0002-00
 MPS ORD # - N46923-13

ESTIMATED WEIGHT	
EMPTY	6560 LBS
FLOODED	8060 LBS

TUBE SIDE	Fa (LB)	Fsr (LB)	Mt (IN-LB)	Mdr (IN-LB)
INLET & OUTLET	842	842	11000	1100
NORMAL OP.	1684	1684	12000	1200
NORMAL OP. + SSE	2105	2105	14380	1438

SHELL SIDE	Fa (LB)	Fsr (LB)	Mt (IN-LB)	Mdr (IN-LB)
INLET & OUTLET	634	634	6420	6420
NORMAL OP.	1268	1268	12840	1284
NORMAL OP. + SSE	1585	1585	16050	1605

	M.A.W.P.	TEST PRESS	DESIGN TEMP
SHELL SIDE	200 PSIG	300 PSIG	350°F
TUBE SIDE	2500 PSIG	3750 PSIG	600°F

GRAHAM MANUFACTURING CO., INC.
 20 FLORENCE AVE. BATAVIA, NEW YORK

MODIFICATION OF EXISTING LETDOWN COOLER (PLUGGABLE DESIGN) WITH MECHANICAL JOINT (CHEMICAL CONNECTOR) FOR CHANNEL ACCESS

QUAL CONTROL APPROVAL				DATE	DWG. NO.
SCALE	MADE	CHKD	APPD	DATE	DWG. NO.
NONE	CS	MS	MS	2-11-88	NU-D-1124-1

REV	DESCRIPTION	Q.C.	MADE	CHKD	DATE
A	DE	REV PER DE-6820 & DE-6840			
DD	DD	REV PER DE-4337, DE-2169 & OP-3004			
DC	DC	REV PER DE-2583			
DB	DB	REV PER DE-2578			
A	ADDED				2-26-88
O	ORIGINAL ISSUE				

Duke Power Company

Station Oconee Unit 1, 2 & 3

10-YEAR INTERVAL REQUEST FOR RELIEF NO. 95-04

I. System/Component(s) for Which Relief is Requested:

a. Reactor vessel head welds;

1-RPV-WH5, Item Number B01.021.001
2-RPV-WH5, Item Number B01.021.001
3-RPV-WH5, Item Number B01.021.001

b. Reactor vessel head-to-flange welds:

1-RPV-WH7, Item Number B01.040.001
2-RPV-WH7, Item Number B01.040.001
3-RPV-WH7, Item Number B01.040.001

c. Steam generator nozzle-to-vessel welds:

1-SGA-WG50-2, Item Number B03.130.001
1-SGA-WG50-1, Item Number B03.130.002
2-SGA-WG50-2, Item Number B03.130.003
2-SGA-WG50-1, Item Number B03.130.004
3-SGA-WG50-2, Item Number B03.130.001
3-SGA-WG50-1, Item Number B03.130.002

d. Steam generator nozzle inside radius welds:

1-SGA-WG50-2, Item Number B03.140.001
1-SGA-WG50-1, Item Number B03.140.002
2-SGA-WG50-2, Item Number B03.140.003
2-SGA-WG50-1, Item Number B03.140.004
3-SGA-WG50-2, Item Number B03.140.001
3-SGA-WG50-1, Item Number B03.140.002

II. Code Requirement:

Section XI Table IWB-2500-1, Examination Category B-A, Pressure Retaining Welds In Reactor Vessel, Figure IWB-2500-3, Note 2 requires essentially 100% of the weld length be examined.

Section XI Table IWB-2500-1, Examination Category B-A, Pressure Retaining Welds In Reactor Vessel, Figure IWB-2500-5, Note 2 requires essentially 100% of the weld length be examined.

Section XI Table IWB-2500-1, Examination Category B-D, Full Penetration Welds Of Nozzles In Vessels - Inspection Program B, Figures IWB-2500-7(a) through IWB-2500-7(d) requires essentially 100% of the nozzle weld and radius be examined.

III. Code Requirement from which Relief is Requested:

Relief is requested from the requirement of examining essentially 100% of the weld length. Due to part geometry and actual physical barriers, obtaining even 90% of the weld length as outlined in Code Case N-460 is not possible.

ASME Section V, Article 4, T-441.3.2 Scanning Requirements, 1989 Edition with no addenda as modified by Code Case N-460.

This Paragraph requires scanning of the examination volume(s) using three angle beams and a straight beam from both sides of the weld. When scanning for reflectors parallel to the weld, the angle beams shall be aimed at right angles to the weld axis, with the search unit(s) manipulated so that the ultrasonic beams pass through the entire volume of weld metal. The adjacent base metal in the examination volume must be completely scanned by two angle beams, but need not be completely scanned by both angle beams from both directions (any combination of two angle beams will satisfy the requirement).

When scanning for reflectors transverse to the weld, the angle beam search units shall be aimed parallel to the axis of longitudinal and circumferential welds. The search unit shall be manipulated so that the ultrasonic beams pass through all of the examination volume.

Scanning shall be done in two directions 180 degrees to each other to the extent possible. Areas blocked by geometric conditions shall be examined from at least one direction.

Code Case N-460 allows credit for full volume coverage if it can be shown that at least 90% of the required volume has been examined.

IV. Basis for Relief:

Item Number B01.021.001 (3RPV-WH5), RPV Head Weld was examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, 1989 Edition. The additional requirements of Regulatory Guide 1.150, Revision 1, Appendix A were also used in the examination.

Because of geometric conditions, i.e., lifting lugs adjacent to the weld, 81.85% of the near surface volume and 79.85% of the weld and base metal volumes were covered. In order to achieve more coverage of the required volumes the lifting lugs would have to be moved away from the weld area.

Item Number B01.040.001 (3RPV-WH7), RPV Head-to-Flange Weld was examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, 1989 Edition. The additional requirements of Regulatory Guide 1.150, Revision 1, Appendix A were also used in the examination.

Because of geometric conditions, i.e., single sided access, 63.35% of the near surface volume and 48.55% of the weld and base metal volumes were covered. In order to achieve more coverage of the required volumes, the weld must be at a greater distance from the flange.

Item Numbers B03.130.001 (3-SGA-WG50-2, nozzle weld), B03.130.002 (3-SGA-WG50-1, nozzle weld), B03.140.001 (3-SGA-WG50-2, inside radius) and B03.140.002 (3-SGA-WG50-1, inside radius), Steam Generator A Primary Outlet Nozzle-to-Lower Head Weld were examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, 1989 Edition.

Because of geometric conditions, i.e., single sided access and support skirt location, 15.6% of the required examination volume was covered. In order to achieve more coverage the support skirt would have to be cut away from the nozzle.

All three units for Oconee are being addressed in this request for relief as addressed in NRC correspondence dated May 5, 1995 concerning NRC Inspection Report No. 50-269/95-05, 50-270/95-05, 50-287/95-05.

V. Alternate Examinations or Testing:

Duke Power Company will continue to perform an ultrasonic examination of Item Numbers B01.021.001, 3RPV-WH5, RPV Head Weld and B01.040.001, 3RPV-WH7, RPV Head-to-Flange Weld to the maximum extent practical in accordance with the requirements of ASME Section V, Article 4, 1989 Edition and Regulatory Guide 1.150, Revision 1, Appendix A.

Duke Power Company will continue to perform an ultrasonic examination of Item Numbers B03.130.002, B03.130.001, B03.140.002 and B03.140.001, Steam Generator A Primary Outlet Nozzle-to-Lower Head Weld and Inside Radius to the maximum extent practical in accordance with the requirements of ASME Section V, Article 4, 1989 Edition.

VI. Justification for the Granting of Relief:

As stated above, Duke Power Company will continue to ultrasonically examine the welds and components (inside radius) to the extent practical within the limits of original design and construction. This will provide reasonable assurance of weld / component integrity. Thus, an acceptable level of quality and safety will have been achieved and public health and safety will not be endangered by allowing relief from the aforementioned Code requirements.

VII. Implementation Schedule:

Unit 3, Refueling Outage 15

Unit 1, Refueling Outages 16 & 17

Unit 2, Refueling Outage 15

Evaluated By:

RT & Roue

Date

10/2/95

Reviewed By:

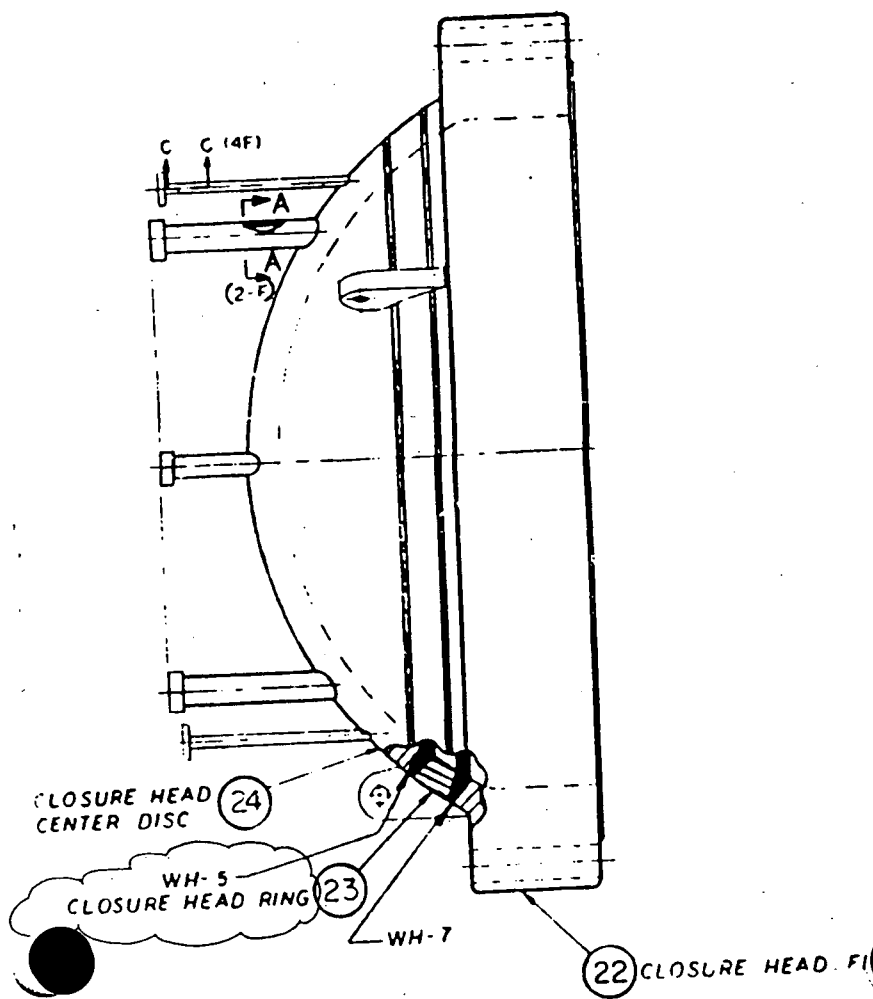
J C Shopshire

Date

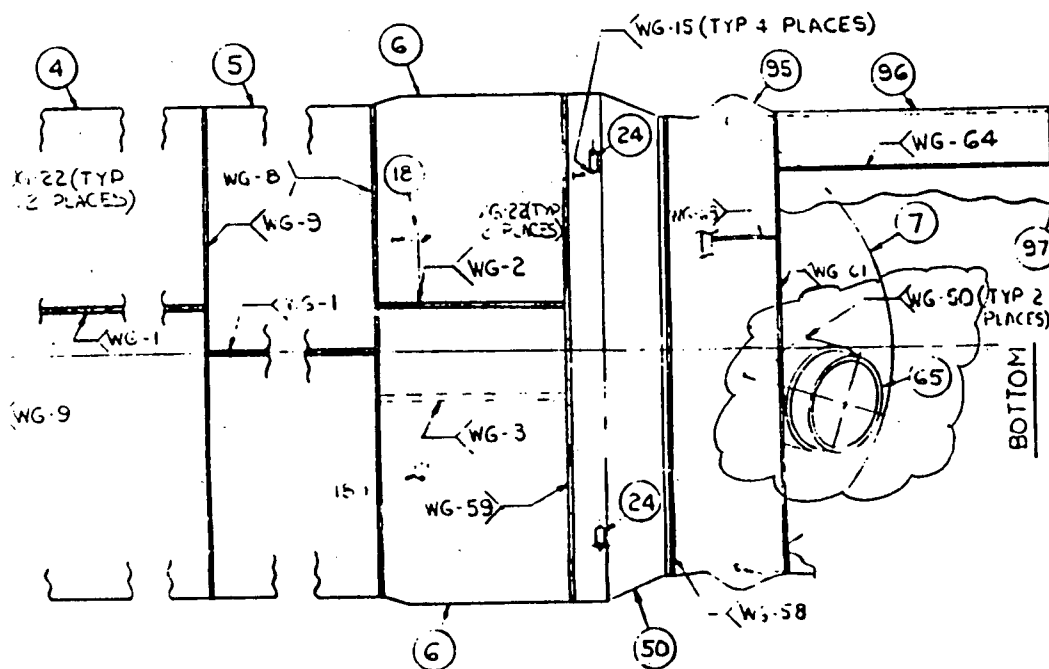
10/2/95

REVISIONS		
NO.	DESCRIPTION	DATE
1	PLAN VIEW - RELOCATED LIFTING LUGS 90° CLOCKWISE X10/AMT	6/27/67 G. R. R.
2	15B1 ADDED THERMOCOUPLE PENETRATIONS 14F1 ADDED SECTION C-C BUN/AMT	6/27/68 G. R. R.
3	(ZONE C-8) RELOCATED SECT. A-A IN- DICATION. (ZONE I-II) REMOVED REF. TO CONTRACTS 620-0004 & 620-0009. (ZONE C-2 H-2) IN SECT. B-B: EXTENDED VIEW TO INCLUDE WH-152 (WH-38, 42, 44-1, 64-3 WAS T50.	11/24/68 RRP
4	(62) RELOCATED CALLOUT FOR SECT. A-A (28/38); DELETED WH-152 & WH-38. (4F) CHGD CONFIG. OF WELD PREP TO SUIT DETAIL DWG. REL/REF	8/10/69 K. U. S.
5	(SECTION 'A-A'/'B-B') MOVED SOURCE & PENETRATOR OUTSIDE OF CRDM HOUSING & (SECTION 'B-B') FINE GRAIN FILM WAS AA OR EQUIV. 200KV TO 400KV X-RAY WAS IR-192, 36" ADDED MIN FOCAL DIST 36" 104/SGS	9/11/70 B. W.

UNCONTROLLED



UNCONTROLLED



NO.	DESCRIPTION	DATE	BY
1	RELOCATED WG-68 ZONE GR10 TO F-7 CHGD WELD DET ZONE 3-1 CHGD LOC 1 DET SECTION D-D ADDED DET & CHART ZONE 3-8	1/16/67	CHH
2	RELOCATED WG-20, ADDED WG-18 & CHGD TABLE D-D TO AGREE	1/23/68	CHH
3	ADDED LOWER WK-8 WELD WITH 760 AND 811 DELETED WELD NUMBERS WG-54, WG-55, WG-56, WG-57, WG-58, WG-59, WG-60, WG-61, WG-62, WG-63, WG-64, WG-65, WG-66, WG-67, WG-68, WG-69, WG-70, WG-71, WG-72, WG-73, WG-74, WG-75, WG-76, WG-77, WG-78, WG-79, WG-80, WG-81, WG-82, WG-83, WG-84, WG-85, WG-86, WG-87, WG-88, WG-89, WG-90, WG-91, WG-92, WG-93, WG-94, WG-95, WG-96, WG-97, WG-98, WG-99, WG-100	2/6/68	CHH
4	CHGD WG-50 FROM SECT 'CC' TO SECT 'B-B'	1/16/68	CHH
5	REMOVED CONTRACT NOS 620-0004-S, 620-0005-S AND ADD UNIT #1 & SHEET #1 IN TITLE BLOCK. DELETED WG-117, WG-118, WG-119, WG-120 TO WG-121 (SECT 'D-D')	2/6/68	CHH
6	CHGD SECT 'E-E' (WG-15) FROM SINGLE WALL TO DOUBLE WALL SHOT & MOVED LOCATION OF SECT 'E-E' FROM (H-10) TO (D-2). ADDED TUBESHEET PLUG X-RAY INFORMATION (H-10) - JSE/ED	1/16/68	CHH
7	REMOVED BACKING RING AT WELD WG-60 ZONE (3-2). DELETED WELD WG-29 & SECT. A-A (10-2, 10-10) TO	2/6/68	CHH

NOTES

- FOR GENERAL NOTES SEE LOCATION SECTION DRAWING

STEAM GENERATOR

WELD ID

2-SGA-WG50-2
2-SGA-WG50-1

ITEM NOS.

B03.130.001
B03.140.001

B03.130.002
B03.140.002



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 3, 1996

Mr. J. W. Hampton
Vice President, Oconee Site
Duke Power Company
P.O. Box 1439
Seneca, SC 29679

SUBJECT: OCONEE NUCLEAR STATION, UNIT 1 - THIRD TEN-YEAR INTERVAL INSERVICE
INSPECTION REQUEST FOR RELIEF NO. 95-04 (TAC NOS. M93944, M93945,
AND M93946)

Dear Mr. Hampton:

By letter dated October 5, 1995, you submitted Request for Relief No. 95-04 from certain ASME Code requirements that you determined to be impractical to perform at Oconee Nuclear Station, Units 1, 2, and 3, during the third 10-year interval inservice inspection. Supplemental information was provided in your submittal dated February 27, 1996. Relief was requested from the requirements of Section XI of the ASME Code to perform a volumetric examination of greater than 90 percent of the weld area for the specific welds covered by this request. Performance of the Code-required examination coverage is precluded by component interfaces. To meet the Code requirements, extensive design modifications would be necessary to provide access for examination. We note that in the case of Oconee Units 1 and 2, the percent of coverage obtainable for the subject welds was estimated based on examinations performed on equivalent Oconee Unit 3 components. If the actual examination coverage for Units 1 and 2 is less than this estimate, you must submit a new request for relief based on the actual coverage obtained.

The NRC staff, with technical assistance from its contractor, the Idaho National Engineering Laboratory, has reviewed and evaluated your request and has concluded that certain requirements of the Code are impractical. The staff has determined that the extent of coverage obtained for the specific welds covered by this request provides reasonable assurance of the structural reliability and operational readiness of the reactor pressure vessel welds and steam generator nozzle welds. Therefore, pursuant to 10 CFR 50.55a(g)(6)(i), for Unit 3, relief is granted as requested for Request for Relief 95-04 and, for Units 1 and 2, relief is granted provided that the examination coverage for welds at Units 1 and 2 is as much as that estimated using Unit 3 examinations. The staff's evaluation and conclusions are contained in the enclosed Safety Evaluation. This relief is authorized by law and will not

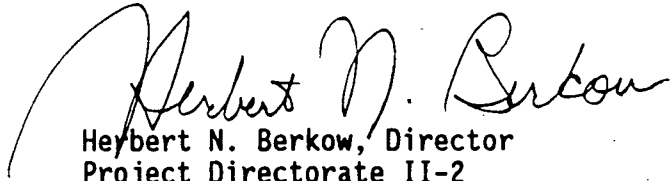
Mr. J. W. Hampton

-2-

May 3, 1996

endanger life or property or the common defense and security, and is otherwise in the public interest, giving due consideration to the burden that could result if the requirements were imposed on your facility.

Sincerely,

A handwritten signature in cursive script, reading "Herbert N. Berkow". The signature is written in dark ink and is positioned above the printed name and title.

Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270
and 50-287

Enclosure: Safety Evaluation

cc w/encl: See next page

Mr. J. W. Hampton
Duke Power Company

Oconee Nuclear Station

cc:
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County Supervisor of Oconee County
Walhalla, South Carolina 29621



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
OF THE THIRD TEN YEAR INTERVAL INSERVICE INSPECTION PROGRAM PLAN

REQUEST FOR RELIEF NO. 95-04

FOR

DUKE POWER COMPANY

OCONEE NUCLEAR STATION UNITS 1, 2, and 3

DOCKET NOS. 50-269, 50-270, AND 50-287

1.0 INTRODUCTION

The Technical Specifications for Oconee Nuclear Station, Units 1, 2, and 3 state that the inservice inspection of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). Section 50.55a(a)(3) states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if (i) the proposed alternatives would provide an acceptable level of quality and safety or (ii) compliance with the specified requirements would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The applicable edition of Section XI of the ASME Code for the Oconee Nuclear Station, Units 1, 2, and 3 third 10-year inservice inspection (ISI) interval is the 1989 Edition. The components (including supports) may meet the requirements set forth in subsequent editions and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein and subject to Commission approval.

Pursuant to 10 CFR 50.55a(g)(5), if the licensee determines that conformance with an examination requirement of Section XI of the ASME Code is not practical for its facility, information shall be submitted to the Commission in support of that determination and a request made for relief from the ASME Code requirement. After evaluation of the determination, pursuant to 10 CFR 50.55a(g)(6)(i), the Commission may grant relief and may impose alternative requirements that are determined to be authorized by law, will not endanger life, property, or the common defense and security, and are otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed. In a letter dated October 5, 1995, Duke Power Company, submitted to the NRC its Third Ten-Year Interval Inservice Inspection Program Plan Request for Relief No. 95-04 for Oconee Nuclear station, Units 1, 2, and 3. The licensee provided additional information in its letter dated February 27, 1996.

2.0 EVALUATION AND CONCLUSIONS

The staff, with technical assistance from its contractor, the Idaho National Engineering Laboratory (INEL), has evaluated the information provided by the licensee in support of its Third Ten-Year Interval Inservice Inspection Program Plan, Request for Relief No. 95-04 for Oconee Nuclear Station, Units 1, 2, and 3. The licensee provided additional information in its letter dated February 27, 1996.

Based on the information submitted, the staff adopts the contractor's conclusions and recommendations presented in the attached Technical Letter Report. The staff has concluded that performing the Code-required volumetric examinations of the subject areas to the extent required by the Code is impractical for Oconee Nuclear Station, Units 1, 2, and 3. The licensee has proposed to perform the required volumetric examinations on each of the subject welds to the extent practical and the Code-required surface examinations (as applicable). This combination provides reasonable assurance of operational readiness. Therefore, relief is granted for Request for Relief 95-04 (Parts 1 and 2) pursuant to 10 CFR 50.55a(g)(6)(i) for Unit 3 as requested. Relief is also granted for Units 1 and 2 provided that the percentage of coverage obtainable at those units is as much as estimated, based on examinations performed on Unit 3 components. As the coverage on Units 1 and 2 is verified when the examinations are performed and if the actual coverages are less than estimated for Units 1 and 2, the licensee is required to resubmit the request for relief based on actual coverages.

Attachment: Technical Letter
Report

Principal Contributor: T. McLellan

Date: May 3, 1996

TECHNICAL LETTER REPORT
ON THE THIRD 10-YEAR INSERVICE INSPECTION INTERVAL
REQUEST FOR RELIEF 95-04
FOR
DUKE POWER COMPANY
OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3
DOCKET NUMBER: 50-269, -270, AND -287

1.0 INTRODUCTION

By letter dated October 5, 1995, Duke Power Company submitted Request for Relief 95-04 for Oconee Nuclear Station, Units 1, 2, and 3. In a letter dated February 27, 1996, the licensee submitted additional information. The Idaho National Engineering Laboratory (INEL) staff has reviewed the request for relief in the following section.

2.0 EVALUATION

The Code of record for Oconee Nuclear Station, Units 1, 2, and 3, third 10-year inservice inspection (ISI) interval, is the 1989 Edition of the *American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI*. The information provided by the licensee in support of the request for relief from Code requirements has been evaluated and the basis for disposition is documented below.

While the request for relief is for Units 1, 2, and 3, the actual examinations have not yet been performed on Units 1 and 2. The licensee has determined that the percent of coverage obtainable for Units 1 and 2 is equivalent to that for Unit 3 as the component designs are the same. This coverage should be verified when the examinations are performed. If the actual coverages are less than the estimated coverages, the licensee must resubmit the request for relief.

Request for Relief 95-04 (Part 1 of 2), Examination Category B-A, Item B1.21, Reactor Pressure Vessel Head Welds, Item B1.40, Reactor Pressure Vessel Head-to-Flange Weld

Code Requirement: Table IWB-2500-1, Examination Category B-A, Item B1.21 requires 100% volumetric examination of the accessible portion of all reactor pressure vessel (RPV) circumferential head welds as defined in Figure IWB-2500-3.

Table IWB-2500-1, Examination Category B-A, Item B1.40 requires 100% volumetric and surface examination of the RPV head-to-flange weld as defined in Figure IWB-2500-5.

Licensee's Code Relief Request: The licensee requested relief from performing the volumetric examination to the extent required by the Code for the following examination areas:

Reactor Vessel Head Welds:

- 1-RPV-WH5, Item Number B01.021.001
- 2-RPV-WH5, Item Number B01.021.001
- 3-RPV-WH5, Item Number B01.021.001

Reactor Vessel Head-to-Flange Welds:

- 1-RPV-WH7, Item Number B01.040.001
- 2-RPV-WH7, Item Number B01.040.001
- 3-RPV-WH7, Item Number B01.040.001

Licensee's Basis for Requesting Relief (as stated):

"Item Number B01.021.001 (3-RPV-WH5), RPV Head Weld was examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, 1989 Edition. The additional requirements of Regulatory Guide 1.150, Revision 1, Appendix A were also used in the examination.

"Because of geometric conditions, i.e., lifting lugs adjacent to the weld, 81.85% of the near surface volume and 79.85% of the weld and base metal volumes were covered. In order to achieve more coverage of required volumes the lifting lugs would have to be moved away from the weld area.

"Item Number B01.040.001 (3-RPV-WH7), RPV Head-to-Flange Weld was examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, 1989 Edition. The additional requirements of Regulatory Guide 1.150, Revision 1, Appendix A were also used in the examination.

"Because of geometric conditions, i.e. single sided access, 63.35% of the near surface volume and 48.55% of the weld and base metal volumes were covered. In order to achieve more coverage of the required volumes, the weld must be at a greater distance from the flange."

Licensee's Proposed Alternative Examination (as stated):

"Duke Power Company will continue to perform an ultrasonic examination of Item Numbers B01.021.001, 3-RPV-WH5, RPV Head Weld and B01.040.001, 3-RPV-WH7, RPV Head-to-Flange Weld to the maximum extent practical in accordance with the requirements of ASME Section V, Article 4, 1989 Edition and Regulatory Guide 1.150, Revision 1, Appendix A."

Evaluation: The Code requires that the subject reactor pressure vessel welds receive 100% volumetric examination. However, due to the examination area configuration, the limited available scanning surfaces preclude complete ultrasonic coverage. As a result, 100% volumetric examination is impractical. To obtain complete volumetric coverage, design modifications or replacement of the component with one providing for complete examination would be required. Imposition of this requirement would cause a considerable burden for the licensee.

The subject volumetric examinations, when performed to the extent practical, provide approximately 80% coverage of the RPV head circumferential weld and 55% coverage of the RPV head-to-flange weld. Based on the significant percent of coverage obtainable, in combination with the Code-required surface examination of the RPV head-to-flange weld, it can be concluded that significant degradation, if present, will be detected. As a result, reasonable assurance of structural integrity is provided. Therefore, it is recommended that the licensee's request for relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

Request for Relief 95-04 (Part 2 of 2), Examination Category B-D, Item B3.130, Steam Generator (Primary Side) Nozzle-to-Vessel Welds and Item B3.140, Steam Generator (Primary Side) Nozzle Inside Radius Section

Code Requirement: Table IWB-2500-1, Examination Category B-D, Item B3.130 requires 100% volumetric examination of the steam generator nozzle-to-shell weld as defined by Figure IWB-2500-7.

Table IWB-2500-1, Examination Category B-D, Item B3.140 requires 100% volumetric examination of the steam generator nozzle inner radius section as defined by Figure IWB-2500-7.

Licensee's Code Relief Request: The licensee requested relief from performing the volumetric examination to the extent required by Code for the following examination areas:

Steam generator nozzle-to-vessel welds:

- 1-SGA-WG50-2, Item Number B03.130.001
- 1-SGA-WG50-1, Item Number B03.130.002
- 2-SGA-WG50-2, Item Number B03.130.003
- 2-SGA-WG50-1, Item Number B03.130.004
- 3-SGA-WG50-2, Item Number B03.130.001
- 3-SGA-WG50-1, Item Number B03.130.002

Steam generator nozzle inside radius welds:

- 1-SGA-WG50-2, Item Number B03.140.001
- 1-SGA-WG50-1, Item Number B03.140.002
- 2-SGA-WG50-2, Item Number B03.140.003
- 2-SGA-WG50-1, Item Number B03.140.004
- 3-SGA-WG50-2, Item Number B03.140.001
- 3-SGA-WG50-1, Item Number B03.140.002

Licensee's Basis for Requesting Relief (as stated):

"Item Numbers B03.130.001 (3-SGA-WG50-2, nozzle weld), B03.130.002, (3-SGA-WG50-1, nozzle weld), B03.140.001 (3-SGA-WG50-2, inside radius) and B03.140.002 (3-SGA-WG50-1, inside radius), Steam Generator A Primary Outlet Nozzle-to-Lower Head Weld were examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, 1989 Edition."

"Because of geometric conditions, i.e., single sided access and support skirt location, 15.6% of the required examination volume was covered. In order to achieve more coverage the support skirt would have to be cut away from the nozzle."

Licensee's Proposed Alternative Examination (as stated):

"Duke Power Company will continue to perform an ultrasonic examination of Item Numbers B03.130.002, B03.130.001, B03.140.002 B03.140.001, B03.130.003, B03.130.004, B03.140.003, and B03.140.004 Steam Generator A Primary Outlet Nozzle-to-Lower Head Weld and Inside Radius to the maximum extent practical in accordance with the requirements of ASME Section V, Article 4, 1989 Edition."

Evaluation: The Code requires that steam generator nozzle-to-shell and nozzle inner radius sections be 100% volumetrically examined during the inspection interval. However, due to the geometry of the examination area and examination interference from the support skirt, complete examination of the subject examination areas is impractical. To obtain complete volumetric coverage, design modifications of the component would be required. Imposition of this requirement would cause a considerable burden for the licensee.

The examinations, when performed to the extent practical, result in an estimated 15.6% coverage of each nozzle-to-shell weld and inner radius section. Based on the percent of coverage that can be obtained for each nozzle and considering the combined coverage achieved when all nozzles are examined (essentially 100% of one nozzle), it can be concluded that significant degradation, if present, will be detected. As a result, reasonable assurance of structural integrity is provided.

Conclusion: Performing the Code-required volumetric examination for the subject nozzle-to-shell and inner radius sections to the extent required by the Code is impractical for Oconee Nuclear Station, Units 1, 2, and 3. Therefore, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

3.0 Conclusion:

Performing the Code-required volumetric examinations of the subject areas to the extent required by Code is impractical for Oconee Nuclear Station, Units 1, 2, and 3. The licensee will perform the required volumetric examinations on each of the subject welds to the extent practical. This, in combination with the Code-required surface examinations (as applicable), provides reasonable assurance of operational readiness. Therefore, it is recommended that relief be granted for Request for Relief 95-04 (Parts 1 and 2) pursuant to 10 CFR 50.55a(g)(6)(i). It should be noted that in the case of Units 1 and 2, the licensee has estimated the percent of coverage obtainable. This coverage should be verified when the examinations are performed. If the actual coverages are less than estimated, the licensee must resubmit the request for relief based on actual coverages.

Duke Power Company

Station Oconee Unit 1, 2 & 3

10-YEAR INTERVAL REQUEST FOR RELIEF NO. 96-02

I. System/Component(s) for Which Relief is Requested:

- a. Steam Generator (Primary Side) Tubesheet-To-Head Weld
2-SGA-WG58-1, Item Number B02.040.001
2-SGA-WG58-2, Item Number B02.040.002
- b. Heat Exchangers (Primary Side) Nozzle-To-Vessel Welds
2-LDCA-INLET-V1, Item Number B03.150.001
2-LDCA-OUTLET-V2, Item Number B03.150.002
- c. Pressure Retaining Welds In Pressure Vessels, Shell
Circumferential Welds
2-SGA-WG8-3, Item Number C01.010.002

II. Code Requirement:

Figure IWB-2500-6, Examination Category B-B, Pressure Retaining Welds Other Than Reactor Vessel, Note 4 "Includes essentially 100% of the weld length".

Figure IWB-2500-7, Examination Category B-D, Full Penetration Welds Of Nozzles In Vessels, Inspection Program B.

Figure IWC-2500-1, Examination Category C-A, Pressure Retaining Welds In Pressure Vessel, Note 1 "Includes essentially 100% of the weld length".

III. Code Requirement from which Relief is Requested:

Relief is requested from the requirement of examining essentially 100% of the weld length. The applicable code required is ASME Section V, Article 4, T-441.3.2, Scanning Requirements, 1989 Edition with no Addenda as modified by Code Case N-460. Due to part geometry and actual physical

barriers, obtaining at least 90% of the weld length as outlined in Code Case N-460 is not possible with existing ultrasonic techniques.

Code Case N-460 allows credit for full volume coverage if it can be shown that at least 90% of the required volume has been examined.

The specified Code requirements identified in Section 2 of this request require scanning of the examination volume(s) using three angle beams and a straight beam from both sides of the weld. When scanning for reflectors parallel to the weld, the angle beams shall be aimed at right angles to the weld axis, with the search unit(s) manipulated so that the ultrasonic beams pass through the entire volume of weld metal. The adjacent base metal in the examination volume must be completely scanned by both angle beams from both directions (any combination of two angle beams will satisfy the requirement).

When scanning for reflectors transverse to the weld, the angle beam search units shall be aimed parallel to the axis of longitudinal and circumferential welds. The search unit shall be manipulated so that the ultrasonic beams pass through all of the examination volume.

Scanning shall be done in two directions 180 degrees to each other to the extent possible. Areas blocked by geometric conditions shall be examined from at least one direction.

IV. Basis for Relief:

Steam Generator (Primary Side) Tubesheet-To-Head Welds Weld 2-SGA-WG58-1 and 2-SGA-WG58-2 (Item Numbers B02.040.001 and B02.040.002 respectively) were examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, and ASME Section XI, Appendix I, 1989 Edition. Reference Attachment A for drawing.

Weld 2-SGA-WG58-1 is limited to 72.5% coverage of the required volume because of Upper Tube Sheet geometry, i.e., taper.

Weld 2-SGA-WG58-2 is limited to 71% coverage of the required volume because of Lower Tube Sheet geometry, i.e., taper and support skirt interference.

Heat Exchangers (Primary Side) Nozzle-To-Vessel Welds 2-LDCA-INLET-V1 and 2-LDCA-OUTLET-V2 (Item Numbers B03.150.001 and B03.150.002 respectively) were examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, and ASME Section XI, Appendix I, 1989 Edition. Reference Attachment B for drawing.

Weld 2-LDCA-INLET-V1 is limited to 26.96% coverage of the required volume because of branch connection interference.

Weld 2-LDCA-OUTLET-V2 is limited to 26.96% coverage of the required volume because of branch connection interference.

Pressure Retaining Welds In Pressure Vessels, Shell Circumferential Weld 2-SGA-WG8-3 (Item Number C01.010.002) was examined to the maximum extent practical using ultrasonic techniques in accordance with the requirements of ASME Section V, Article 4, and ASME Section XI, Appendix I, 1989 Edition. Reference Attachment A for drawing.

This weld is limited to 64.5% coverage of the required volume because of shell geometry, i.e., taper.

All three units are being documented in this request for relief as outlined in NRC correspondence dated May 5, 1995 concerning NRC Inspection Report No. 50-269/95-05, 50-270/95-05, and 50-287.

For welds and components listed in this request for relief, all configurations, including interferences, are the same for Units 1 and 3. If for some reason the actual examination coverage of the welds referenced in this request for relief for Units 1 and 3 are less than those listed for Unit 2, additional requests for relief will be submitted on a case by case basis.

V. Alternate Examinations or Testing:

Duke Power company will continue to perform ultrasonic examination of all welds identified in Section 1 of this request (for all units) to the maximum extent practical, within the limits of original design and construction, in accordance with the requirements of ASME Section V, Article 4, and ASME Section XI, Appendix I, 1989 Edition, and Code Case N-460.

VI. Justification for the Granting of Relief:

Duke Power Company will continue to ultrasonically examine the welds, including inside radii, to the extent practical within the limits of original design and construction. This will provide reasonable assurance of weld/component integrity. Thus, an acceptable level of quality and safety will have been achieved and public health and safety will not be endangered by allowing relief from the aforementioned Code requirements.

VII. Implementation Schedule:

Unit 1, Refueling Outage 16

Unit 2, Refueling Outages 17 and 18

Unit 3, Refueling Outage 16

Evaluated By:

R. J. Rame

Date

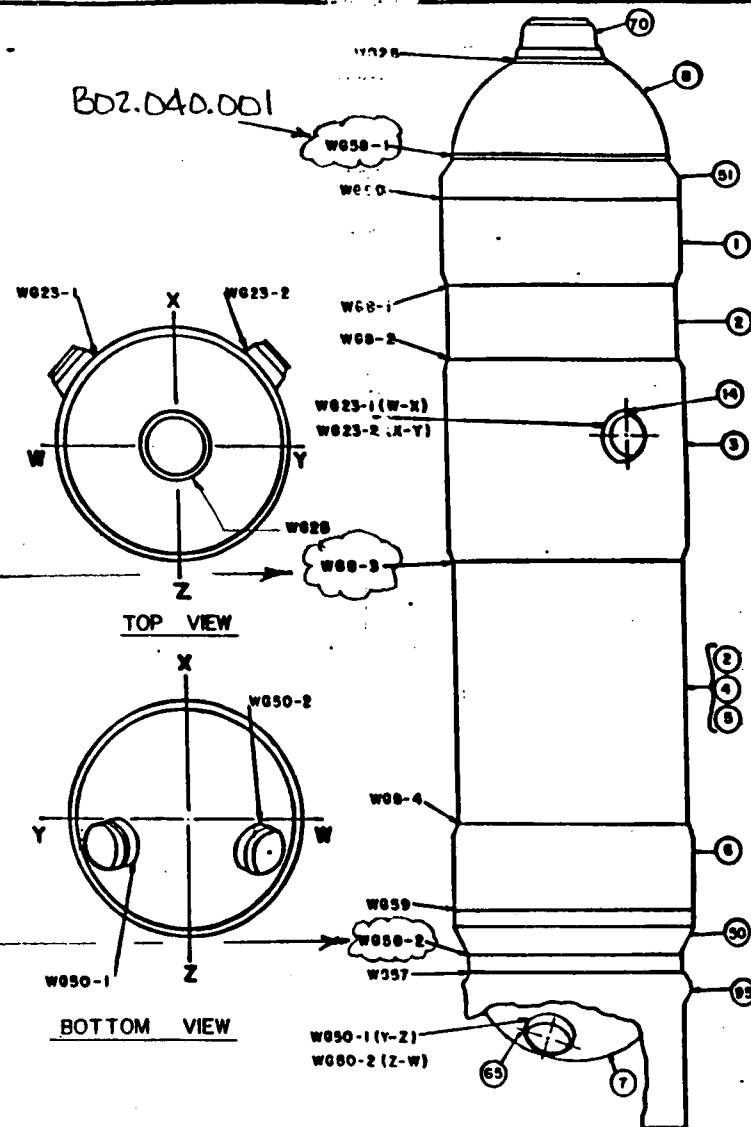
6/26/96

Reviewed By

J. B. Barlow

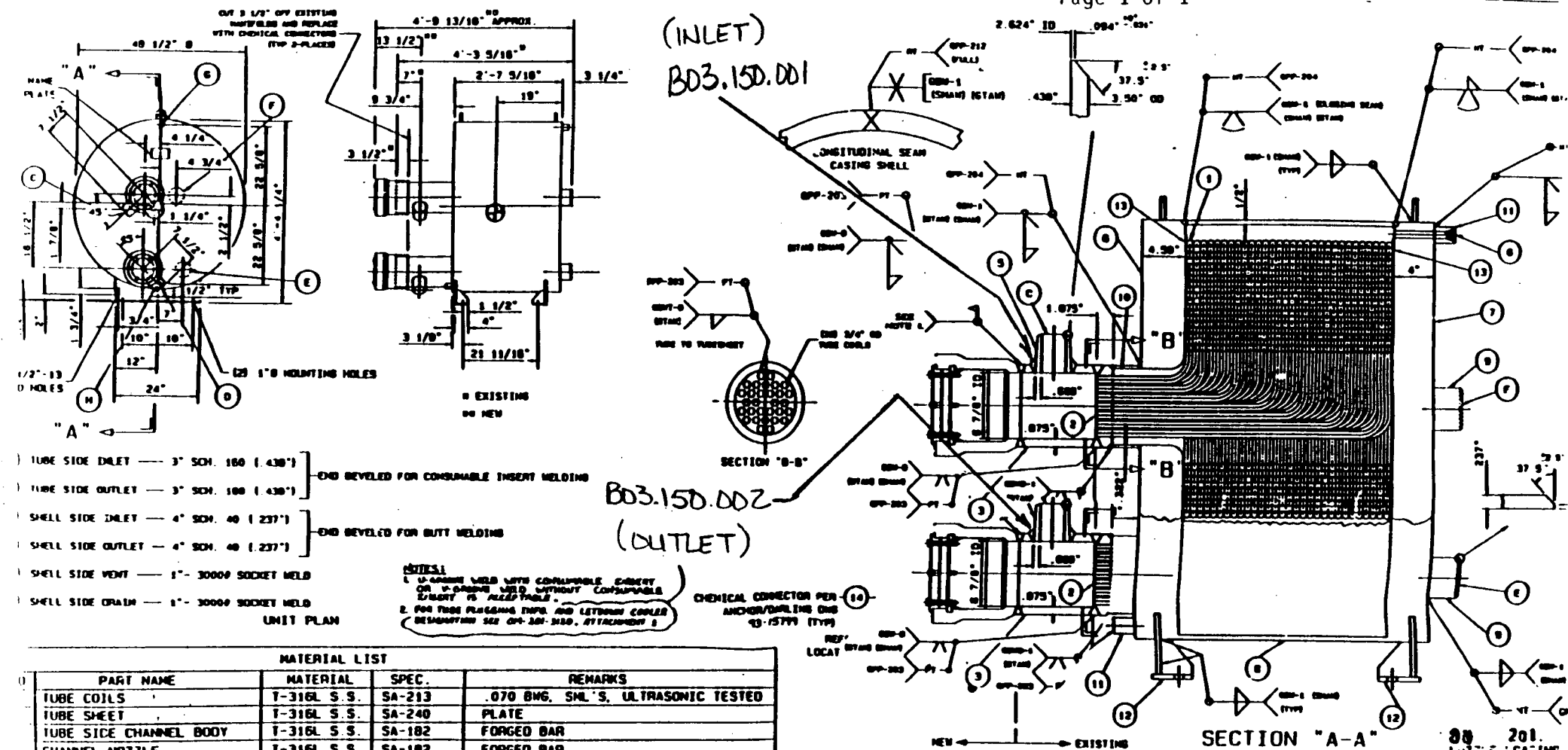
Date

6/26/96

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NOTES:

1	EXPLICITLY MARKED MEASUREMENTS AND P.E. DIMENSIONS	DATE	APPD	TITLE STEAM GENERATOR A WELD OUTLINE	REV. 1
O	ORIGINAL	DATE	APPD		
NO.	REVISION	DATE	APPD		



FOR INSERVICE INSPECTION USE ONLY

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0509
MSE Serial No:

LER Serial No:
Other Report:

I. Problem ID

Discovered Time/Date: 13:00 03/13/96 Occurred Time/Date:

Unit(s): 2	Status at Time Discovered:	Unit 1	Unit 2	Unit 3
	Mode:	N/A	1	N/A
	% Power:		100	

Unit Status Remarks: Operating at 100%

System(s) Affected: LPI Other Low Pressure Injection Equipment

Affected Equipment:	Comp.	Manufacturer
<u>WMS Equipment ID No.</u>	<u>Code</u>	<u>Name</u>

Location of Problem - Bldg: BWT Column Line: 76 & X Elev: 798'

Location Remarks:

Reinforcing plate on 14" pipe at BWST

Method Used to Discover Problem:

During weld prep for ISI Exam on the reinforcing plate.

Brief Problem Description:

Inadequate weld on the bottom of the reinforcing plate on the BWST at the 14" borated water supply pipe.

Detail Problem Description:

The 5/16" fillet weld at the bottom of the reinforcing plate (mark # 108RP on OM 1201-86) is inadequate. The weld is a horizontal pass joining the reinforcing plate to the baseplate of the tank and does not affect the structural integrity of the 14" pipe-to-tank joint. NO operability issue is involved. This weld was scheduled for a surface exam in accordance with the 1989 Edition of ASME Section XI. During weld prep it was noted that the weld was not like the sketch and would not pass a MT or PT exam.

This is an "original" field fabrication weld and up to now has not been subject to any code inspection requirements.

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 03/13/96

Last Updated By: MJROBINS Team: DAK7363 Group: MCE Date: 03/14/96

Other Units/Components/Systems/Areas Affected (Y,N,U): N

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0509
MSE Serial No:

LER Serial No:
Other Report:

Industry Plants Affected (Y,N,U):

N

Immediate Corrective Actions:

none

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 03/13/96

Problem Found While Working with Document No. :

Immediate Corrective Action Work Request / Work Order No. :

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date:</u>
Problem Identified By:	TJCOLEM	DAK7363	MCE	03/13/96
Problem Entered By:	TJCOLEM	DAK7363	MCE	03/13/96

II. Significance

Is the Problem Significant? N Action Category: 3

OEP No:

Other Report Nos:

Event Codes: B1 Procedures/Directives/Policies

Screening Remarks:

This event does not meet the MSE significance criteria, screened by the CST.

Originated By: HDUMEYER Team: LVW7310 Group: SRG Date: 03/14/96

Responsible Group for Proposed Resolution(s): MCE Mech/Civil Eq. Eng.

Responsible Group for Problem Evaluation: MCE Mech/Civil Eq. Eng.

Responsible Group for Overall PIP approval: MCE Mech/Civil Eq. Eng.

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date:</u>
Screened By:	HDUMEYER	LVW7310	SRG	03/14/96

III. Problem Evaluation

System(s) Affected: LPI Other Low Pressure Injection Equipment

Affected Equipment:

WMS Equipment ID No.

Comp.
Code

Manufacturer
Name

Problem Evaluation: Group: MCE Status: Closed

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0509
MSE Serial No:

LER Serial No:
Other Report:

The BWST was built according to the AWWA Code. The visual exam required by the AWWA Code obviously did not discover the inadequate weld.

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 03/28/96

Event	Cause Cd	Cause Description	Primary	Causing Group(s)
B1	F6	Worker's Preparation Practices	Yes	PSM
B1	N2o	Quality problems (workmanship, etc)	Yes	WFP
B1	N4c	Inappropriate construction	Yes	BNS WFP

Responsible Group(s) for Proposed Resolution: MCE

Mech/Civil Eq. Eng.

	Indiv	Team	Group	Date
Accepted By:	KWGEORGE	TKR7315	MCE	03/18/96
Assigned To:	TJCOLEM	DAK7363	MCE	03/27/96
Due Date:	04/12/96			
Ready for Approval:	TJCOLEM	DAK7363	MCE	04/11/96
Approved By:	DAKELLEY	BKM7360	MCE	04/11/96

Proposed Resolution From: Group: MCE Status: Closed

Work Request #96011364 (Work Order # 96022718) was written to repair the weld. No other corrective action is required. No additional examinations required by IWC-2430 of ASME Section XI will be performed since this was not a service induced degradation but a construction error.

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 03/28/96

After the weld is repaired a surface exam (MT or PT) will be performed on all of the welds on the 14" reinforcing collar in accordance with the 1989 Edition of the Section XI ASME Code (Ref. W.R. 95050921 ISI Item # C02.031.004).

Last Updated By: TJCOLEM Team: DAK7363 Group: MCE Date: 04/08/96

	Indiv	Team	Group	Date
Accepted By:	KWGEORGE	TKR7315	MCE	03/18/96
Assigned To:	TJCOLEM	DAK7363	MCE	03/27/96
Due Date:	04/12/96			
Ready for Approval:	TJCOLEM	DAK7363	MCE	04/08/96
Approved By:	DAKELLEY	BKM7360	MCE	04/10/96

Remarks:

IV. Corrective Actions

No Corrective Actions for this PIP.

Oconee Nuclear Station
Problem Investigation Process
Problem Investigation Form

PIP Serial No: **2-O96-0509**
MSE Serial No:

LER Serial No:
Other Report:

V. Final and Overall PIP Approval

Criterion XVI Review:

XVI Review Not Required for this PIP.

<u>Overall PIP Approval:</u>	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Accepted By:	KWGEORGE	TKR7315	MCE	04/03/96
Assigned To:	TJCOLEM	DAK7363	MCE	03/18/96
Due Date:				
Ready for Approval:				
Approved By:	DAKELLEY	BKM7360	MCE	04/11/96

<u>Closure Document Type</u>	<u>Closure Document No</u>
------------------------------	----------------------------

Supplemental Concurrences - These do not affect PIP closure.

Concurrences Associated with External Commitments:

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Concurred By:				

VI. Attachments

Environmental:

No Environmental for this PIP.

Maintenance Rule:

No Maintenance Rule for this PIP.

Failure Prevention Investigation:

No FPI for this PIP.

End of the Document for PIP No: 2-O96-0509
The status of this PIP is: Closed
The duration of this PIP was 29 days.

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0917
MSE Serial No:

LER Serial No:
Other Report:

I. Problem ID

Discovered Time/Date: 08:00 04/30/96 Occurred Time/Date:

Unit(s): 2	Status at Time Discovered:	Unit 1	Unit 2	Unit 3
	Mode:	N/A	5	N/A
	% Power:		0	

Unit Status Remarks:

Shutdown for r

System(s) Affected: RC Reactor Coolant

Affected Equipment:

WMS Equipment ID No.

Comp.
Code

Manufacturer
Name

Location of Problem - Bldg: R

Column Line: "A" cav

Elev: 840'

Location Remarks:

Weld 2-SGA-WG58-1 @ 2A OTSG

Method Used to Discover Problem:

During ultrasonic examination of weld 2-SGA-WG58-1 (ISI item # B02.040.001).

Brief Problem Description:

During UT of weld 2-SGA-WG58-1 (ref. dwg. ISI-OCN-003) a rejectable subsurface flaw was identified.

Detail Problem Description:

During UT of weld 2-SGA-WG58-1 a rejectable subsurface flaw was identified. The flaw is ~56" in length at mid

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0917
MSE Serial No:

LER Serial No:
Other Report:

wall and is characterized as a slag line. Framatome will address any operability concerns through flaw evaluation (fracture mech.analysis, stress analysis). Work Order 96036016 was written to do an additional examination as required by IWB-2430(a) of the 1989 Edition of ASME Section XI Code.

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 04/30/96

Last Updated By: TJCOLEM Team: DAK7363 Group: MCE Date: 05/01/96

Other Units/Components/Systems/Areas Affected (Y,N,U): N

Industry Plants Affected (Y,N,U): N

Immediate Corrective Actions:

Work Order 96036016 was written to do an additional exam on weld 2-SGA-WG58-2. Framatome was contracted to do engineering analysis to determine the acceptability of the UT indications found in weld 2-SGA-WG58-1.

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 04/30/96

Problem Found While Working with Document No. :

Immediate Corrective Action Work Request / Work Order No. : W.O. 96036016

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date:</u>
Problem Identified By:	TJCOLEM	DAK7363	MCE	04/30/96
Problem Entered By:	TJCOLEM	DAK7363	MCE	04/30/96

II. Significance

Is the Problem Significant?	N	Action Category:	3
Significance Codes:			
MSE No:	LER No:	OEP No:	
Other Report Nos:			
Event Codes:	F8	Testing	

Screening Remarks:

This meets the MSE criteria of requiring Operability assistance from Engineering. Screened by the CST.

Originated By: SWBALDWI Team: LJA2713 Group: SES Date: 05/01/96

This event is being downgraded to an LSE due to the present and past operabilities being operable and the event is not reportable.

Last Updated By: RSMATHES Team: LVW7310 Group: SRG Date: 05/13/96

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0917
MSE Serial No:

LER Serial No:
Other Report:

Responsible Group for Proposed Resolution(s): MCE Mech/Civil Eq. Eng.
Responsible Group for Problem Evaluation: MCE Mech/Civil Eq. Eng.
Responsible Group for Overall PIP approval: MCE Mech/Civil Eq. Eng.

Screened By: Indiv RSMATHES Team LVW7310 Group SRG Date: 05/13/96

This PIP has been downgraded from an MSE to an LSE status

Present Operability:

Sys/Comp Operable?(Y,N,C,E) : Y

Status: Closed

Responsible Group: MCE

Required Mode: N/A

Due Date: 05/03/1996

Comments:

1. Statement of Problem: A subsurface flaw indication was detected on Unit 2A OTSG in the upper tubesheet to head weld (WG-58). The flaw was characterized as a slag line ~56" long in the midwall with a thru wall of .4".

2. Relation to QA Condition: The steam generator is QA condition 1 containing Reactor Coolant (RC).

3. Applicable codes And standards: 1989 Edition of ASME Section XI.

4. Evaluation Inputs/Methods Used: Framatome Technologies was contracted to perform analysis for the analytical evaluation required by ASME Section XI, IWB-3600 (ref. Framatome report 32-1245901-00).

Identification of appropriate ASME codes, ANSI standards, etc, which are pertinent to the evaluation.

5. Other Evaluation Criteria: Reference Framatome report 32-1245901-00.

6. Applicable Licensing References: None

7. Assumptions: Reference Framatome report 32-1245901-00

8. References: UT data for ISI Item # B02.040.001 I.D. 2-SGA-WG-58-1, Framatome report 32-1245901-00, J. W. Hampton's letter to NRR dated May 3, 1996.

9. Calculation/Evaluation: Reference Framatome report 32-1245901-00.

Center of the evaluation. This section provides the discussions needed to determine operability and the

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0917
MSE Serial No:

LER Serial No:
Other Report:

analysis of support operability. This section should include the following:

- a. Design basis definition of SSC under evaluation
- b. Discussion of conditions to be evaluated
 - 1) LOCA events
 - 2) Seismic events
 - 3) LOOP events
 - 4) Non-LOCA design basis events(MELB, passive failures, pipe ruptures caused by HELBs)
 - 5) Remote Shutdown(ASP) events
 - 6) Fire/Flood/Security events
 - 7) Loss of Control Room events
 - 8) Loss of Instrument Air events

10. Compensatory Actions Required for Operability

Summary of the actions needed to be place to maintain SSC operability: An additional examination on weld 2-SGA-58-2 was performed with no reportable indications (ISI Item # B02.040.002). Addenda # ONS2-024 was written to the ISI Plan scheduling weld 2-SGA-58-1 for inspections in the next three successive periods.

11. Conclusions

Summary statement relating problem description to evaluation results and identifying limits beyond: Reference Framatome report 32-1245901-00. In the summary of the report the following statement is made. The Oconee-2 S/G-A WG58-1 flaw indication is considered to be acceptable for the life of the plant based on ASME Code Section XI rules for evaluation by analysis. Thus no operability concerns exist.
Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 05/03/96

Last Updated By: TJCOLEM Team: DAK7363 Group: MCE Date: 05/03/96

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Accepted By :	KWGEORGE	TKR7315	MCE	05/01/96
Assigned To :	TJCOLEM	DAK7363	MCE	05/03/96
Due Date:	05/03/96			
Checked By:	VBDIXON	DAK7363	MCE	05/03/96
Approved By:	DAKELLEY	BKM7360	MCE	05/03/96
Evaluated By :	RSMATHES	LVW7310	SRG	05/05/96

Past Operability:

Sys/Comp Operable?(Y,N,C,E) :	Y	Status:	Closed
Responsible Group:	MCE		
Required Mode:	N/A	Due Date:	05/30/96
Comments:			

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0917
MSE Serial No:

LER Serial No:
Other Report:

1. Statement of Problem: A subsurface flaw indication was detected on Unit 2A OTSG in the upper tubesheet to head weld (WG58). The flaw was characterized as a slag line ~56" long in the midwall with a thru wall of .4". The flaw was not discovered or noted previously because the UT was being performed to the 1980 Edition Winter of 80 Addenda of the ASME Code and the recordable limits were much higher. The current sensitivity is 2.5 times greater than previously used.

2. Relation to QA Condition: The steam generator is QA condition 1 containing reactor coolant (RC).

3. Applicable codes And standards: 1980 Edition Winter 80 Addenda of ASME Section XI Code and currently under the 1989 Edition ASME Section XI Code.

4. Evaluation Inputs/Methods Used: Framatome Technologies was contracted to perform analysis for the analytical evaluation required by ASME Section XI, IWB-3600(ref. Framatome report 32-1245901-00).

Identification of appropriate ASME codes, ANSI standards, etc, which are pertinent to the evaluation.

5. Other Evaluation Criteria: Framatome report 32-1245901-00

6. Applicable Licensing References: None

7. Assumptions: Reference Framatome report 32-1245901-00.

8. References: 1980 Edition Winter 80 Addenda ASME Section XI Code, 1989 Edition of ASME Section XI Code, UT data for ISI Item # B02.040.001 I.D. # 2-SGA-WG58-1, Framatome report 32-1245901-00, J.W. Hampton's letter to NRR dated May 3, 1996.

9. Calculation/Evaluation: Reference Framatome report 32-1245901-00.

Center of the evaluation. This section provides the discussions needed to determine operability and the analysis of support operability. This section should include the following:

- a. Design basis definition of SSC under evaluation
- b. Discussion of conditions to be evaluated

- 1) LOCA events
- 2) Seismic events
- 3) LOOP events
- 4) Non-LOCA design basis events(MELB, passive failures, pipe ruptures caused by HELBs)
- 5) Remote Shutdown(ASP) events
- 6) Fire/Flood/Security events
- 7) Loss of Control Room events

Oconee Nuclear Station

Problem Investigation Process

Problem Investigation Form

PIP Serial No: 2-O96-0917
MSE Serial No:

LER Serial No:
Other Report:

8) Loss of Instrument Air events

10. Compensatory Actions Required for Operability

Summary of the actions needed to be place to maintain SSC operability: An additional examination weld 2-SGA-58-2 was performed with no reportable indications (ISI Item # B02.040.002). Addenda # ONS2-024 was written to the ISI plan scheduling weld 2-SGA-WG 58-1 for inspections the next three successive periods.

11. Conclusions

Summary statement relating problem description to evaluation results and identifying limits beyond: Reference Framatome report 32-1245901-00. In the summary of the report the following statement is made. The Oconee-2 S/G WG58-1 flaw indication is considered to be acceptable for the life of the plant based on ASME Code Section XI rules for evaluation by analysis. Thus no past operability concerns exist.

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 05/03/96

Last Updated By: TJCOLEM Team: DAK7363 Group: MCE Date: 05/03/96

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Accepted By :	KWGEORGE	TKR7315	MCE	05/02/96
Assigned To :	TJCOLEM	DAK7363	MCE	05/02/96
Due Date:	05/30/96			
Checked By:	VBDIXON	DAK7363	MCE	05/08/96
Approved By:	DAKELLEY	BKM7360	MCE	05/13/96
Evaluated By :	RSMATHES	LVW7310	SRG	05/13/96

Reportability:

Problem Reportability?(Y,N,E) : N

Reportable Per:

Responsible Group for Reportability: SRG

Due Date:

Comments:

This event is not reportable per the present and past operabilities.

Originated By: RSMATHES Team: LVW7310 Group: SRG Date: 05/13/96

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Accepted By:	HDUMEYER	LVW7310	SRG	05/02/96
Assigned To:			SRG	05/01/96
Due Date:				
Ready For Approval:	RSMATHES	LVW7310	SRG	05/13/96
Approved By:	RSMATHES	LVW7310	SRG	05/13/96

Oconee Nuclear Station
Problem Investigation Process
Problem Investigation Form

PIP Serial No: **2-O96-0917**
MSE Serial No:

LER Serial No:
Other Report:

Investigation Report:

Responsible Group for Investigation Report:

Investigator:

Group:

Date:

Act Date:

Date Due to VP or Sta. Mgr:

Date Regulatory or Agency Rpt Due:

Date Investigation Report Approved:

NRC Cause Codes:

III. Problem Evaluation

System(s) Affected: RC Reactor Coolant

Affected Equipment:

WMS Equipment ID No.

Comp.

Code

Manufacturer

Name

Problem Evaluation:

Group:

MCE

Status:

Closed

During ultrasonic examination of ISI Item # B02.040.001, ID # 2-SGA-WG-1, a rejectable subsurface flaw was found. The flaw was characterized as a slag line in the mid wall region, which would indicate that the flaw had existed since construction. This weld had been inspected in previous outages with no recordable indications. The reason for the flaw not being recorded or reported is that the 1980 Edition, Winter 1980, Addenda of ASME Section XI (previous code) did not require a response to be investigated unless it was 50% of the reference level. The 1989 Edition of ASME Section XI Code (present code) requires a response greater than 20% of the reference level to be investigated. The sensitivity now being used is 2.5 times greater than the sensitivity previously used.

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 05/07/96

<u>Event</u>	<u>Cause Cd</u>	<u>Cause Description</u>	<u>Primary</u>	<u>Causing Group(s)</u>
F8	N2e	Fabrication deficiency	Yes	BNW

Responsible Group(s) for Proposed Resolution: MCE

Mech/Civil Eq. Eng.

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Accepted By:	KWGEORGE	TKR7315	MCE	05/01/96
Assigned To:	TJCOLEM	DAK7363	MCE	05/01/96
Due Date:	05/30/96			
Ready for Approval:	KWGEORGE	TKR7315	MCE	05/29/96
Approved By:	DAKELLEY	BKM7360	MCE	05/29/96

Oconee Nuclear Station
Problem Investigation Process
Problem Investigation Form

PIP Serial No: **2-O96-0917**
MSE Serial No:

LER Serial No:
Other Report:

Proposed Resolution From: Group: MCE Status: Closed
Perform analytical evaluation for acceptance of weld 2-SGA-WG58-1. Perform UT exam on weld 2-SGA-WG58-2 for additional examination selection. Write addenda adding weld 2-SGA-WG58-1 for successive inspections.

Originated By: TJCOLEM Team: DAK7363 Group: MCE Date: 05/02/96

Addenda ONS2-024 written to ISI Plan to schedule additional inspections over next 3 successive periods.

Last Updated By: DAKELLEY Team: BKM7360 Group: MCE Date: 05/29/96

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Accepted By:	KWGEORGE	TKR7315	MCE	05/01/96
Assigned To:	DAKELLEY	DAK7363	MCE	05/29/96
Due Date:	05/30/96			
Ready for Approval:	DAKELLEY	BKM7360	MCE	05/29/96
Approved By:	DAKELLEY	BKM7360	MCE	05/29/96

Remarks:

IV. Corrective Actions

No Corrective Actions for this PIP.

V. Final and Overall PIP Approval

Criterion XVI Review:
XVI Review Not Required for this PIP.

<u>Overall PIP Approval:</u>	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Accepted By:	KWGEORGE	TKR7315	MCE	05/01/96
Assigned To:			MCE	05/01/96
Due Date:				
Ready for Approval:				
Approved By:				

Closure Document Type

Closure Document No

Supplemental Concurrences - These do not affect PIP closure.

Concurrences Associated with External Commitments:

	<u>Indiv</u>	<u>Team</u>	<u>Group</u>	<u>Date</u>
Concurred By:				

Oconee Nuclear Station
Problem Investigation Process
Problem Investigation Form

PIP Serial No: **2-O96-0917**

LER Serial No:

MSE Serial No:

Other Report:

VI. Attachments

Environmental:

No Environmental for this PIP.

Maintenance Rule:

<u>Maintenance Rule SSC:</u>	<u>SSC</u>	<u>Description</u>	<u>Risk Significant</u>
	RC	Reactor Coolant System	

Equipment Group:

Functional Failure: Yes MPFF:

Repetitive MPFF:

Function Failure Comments:

MPFF Comments:

Repetitive MPFF Comments:

Reactor Trip:

Safety System Actuation:

Loss of Heat Decay Removal:

Contrib. Force Outage Rate:

Comments:

Resp Group:

SES

Date:

05/13/96

Failure Prevention Investigation:

No FPI for this PIP.

End of the Document for PIP No: 2-O96-0917

The status of this PIP is: Screened

The duration of this PIP was 13 days.

Framatome Technologies

32-12-5901-00

CONTENTS

<u>Section</u>	<u>Heading</u>	<u>Page</u>
1.0	Introduction	5
2.0	Assumptions	5
3.0	Geometry of the Upper Head-to-Tubesheet Weld and Indicated Flaw	6
4.0	Material Properties	7
5.0	Fracture Mechanics Methodology	8
6.0	Loading Conditions	9
7.0	Acceptance Criteria	10
8.0	Analytical Procedure	11
9.0	Summary of Results	12
10.0	References	13
<u>Appendix</u>		
A	Fracture Mechanics Calculations	14
B	Indication Evaluation Report	18

Framatome Technologies

32-1245901-00

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	Geometry of the Upper Head-to-Tubesheet Weld and Indicated Flaw	6

Framatome Technologies

32-1245901-00

1.0 Introduction

A subsurface flaw indication has been detected at Oconee Unit 2 in the WG58-1 upper head-to-tubesheet weld in Steam Generator A. Duke Power Company personnel performed a flaw size evaluation to the acceptance standards of ASME Code, Section XI, IWB-3500 [1], as reported in Appendix B, and found the indication to be rejectable. The purpose of the present analysis is to perform a fracture mechanics assessment according to the rules of ASME Code, Section XI, IWB-3600 [1] for an analytical evaluation. The subsurface flaw indication will be evaluated using available normal/upset and emergency/faulted condition stresses. Fracture toughness margins will be calculated and compared with ASME Code, Section XI, IWB-3612 acceptance criteria for applied stress intensity factors, considering the potential for fatigue flaw growth.

2.0 Assumptions

Listed below are assumptions that are pertinent to the present fracture mechanics evaluation.

1. A conservatively high value of 600 °F is assumed for the hot leg temperature in the area of the upper head-to-tubesheet weld. This temperature is utilized to determine the material yield strength used in calculating the flaw shape parameter Q, which decreases with decreasing yield strength. The conservatism inherent in this assumption arises from the stress intensity factor being inversely proportional to flaw shape parameter.
2. A value of 325 °F is assumed for the crack tip temperature to determine fracture toughness values from ASME Code, Section XI, Appendix A [1]. This is a conservatively low value equal to the LTOP enable temperature [13].

Framatome Technologies

32-12-5901-00

4.0 Material Properties

The components of interest for the evaluation of the flaw indication in weld WG58-1 are the steam generator upper head and tubesheet. The head is formed from SA-302, Gr-B Mn- $\frac{1}{2}$ Mo carbon steel plate material [2], and the tubesheet is a carbon steel forging made from A-508-64, Cl-2 material [2]. From ASME Code, Section III, Appendix I [3], the minimum yield strength for these two materials is 50 ksi at room temperature, and 43.8 ksi at 600 °F.

The weld metal where the flaw indication is located is a Mn-Mo-Ni submerged-arc/Linde 80 flux weld. In Ref. 5, a summary table of RTNDT values for all materials is provided. The highest measured RTNDT value is 60F. This value was selected for this analysis.

Fracture Toughness

Lower bound fracture toughness curves from ASME Code, Section XI, Fig. A-4200-1 [1] will be used for the weld material. These curves are specified for use with SA-533, Gr-B, Cl-1 and SA-508, Cl-2 materials, but are not specifically designated for use with SA-302, Gr-B material. Since the nominal compositions of SA-302, Gr-B Mn- $\frac{1}{2}$ Mo and SA-533, Gr-B, Cl-1 Mn- $\frac{1}{2}$ Mo- $\frac{1}{2}$ Ni plate materials are similar, these curves should be applicable to the weld between the upper head and tubesheet materials. These curves can be described by the following relationships [4]:

$$K_{Ia} = 26.8 + 1.233 \exp [0.0145 (T - RT_{NDT} + 160 ^\circ F)]$$

$$K_{Ic} = 33.2 + 2.806 \exp [0.02 (T - RT_{NDT} + 100 ^\circ F)],$$

where K_{Ia} and K_{Ic} are fracture toughness values for crack arrest and fracture initiation, respectively, T is the crack tip temperature, and RT_{NDT} is the reference nil-ductility temperature. K_{Ia} and K_{Ic} are expressed in terms of ksi \sqrt{in} , and T and RT_{NDT} are in °F. Fracture toughness will be limited to an upper shelf, or cut-off value, of 200 ksi \sqrt{in} , as indicated by the ASME Code curves.

Table 3-1 of the B&W Owners Group report [5] on fracture mechanics methodology recommends an RT_{NDT} of 60 °F for SA-508, Cl-2 forging materials. This value will be used in the present evaluation for the WG58-1 weld material. As demonstrated later in this analysis, the critical loading condition is heatup to operating temperature. For an assumed crack tip temperature of 325 °F, fracture toughness values are determined to be:

$$K_{Ia} = 200 \text{ ksi}\sqrt{in}$$

$$K_{Ic} = 200 \text{ ksi}\sqrt{in}$$

Framatome Technologies

52-1245901-00

Fatigue Flaw Growth

Flaw growth due to cyclic loading is calculated using the fatigue crack growth rate model from Article A-4000 of Section XI of the ASME Code [1],

$$\frac{da}{dN} = C(\Delta K)^n$$

where ΔK is the range of applied stress intensity factor in terms of ksi $\sqrt{\text{in}}$, da/dN is in terms of inches/cycle, and the constants C and n are obtained from Fig. A-4300-1 [1] for a subsurface flaw in an air environment, as follows:

$$C = 2.67 \times 10^{-11}$$

$$n = 3.726$$

5.0 Fracture Mechanics Methodology

The subsurface flaw indication will be analyzed using the stress intensity factor equation of ASME Code, Section XI, Appendix A [1]:

$$K_I = (\sigma_m M_m + \sigma_b M_b) \sqrt{\frac{\pi a}{Q}}$$

where

σ_m	=	membrane stress, ksi,
σ_b	=	bending stress, ksi,
a	=	minor half-diameter, in.
Q	=	flaw shape parameter.
M_m	=	correction factor for membrane stress,
M_b	=	correction factor for bending stress.

The flaw shape parameter, shown graphically in Fig. A-3300-1 [1], may also be described by [12]:

$$Q = 1 + 4.593(a/l)^{1.65} - 0.212(\sigma/\sigma_y)^2$$

where σ is conservatively taken as the sum of the absolute values of the membrane and bending stresses, and σ_y is the material yield strength. The ratio σ/σ_y is not allowed to exceed unity.

Although the M_m and M_b membrane and bending correction factors are available from Figs. A-3300-2 and A-3300-4 [1], polynomial forms of the ASME Code curves, as derived by Cipolla [6], will be used in the present evaluation.

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32-1245901-00

6.0 Loading Conditions

Loading conditions that contribute to stress in the upper head-to-tubesheet weld are the normal and upset transients listed below from the steam generator stress report [7] and a loss of coolant accident (LOCA), a feedwater line break (FWLB), and a main steam line break (MSLB) described in Ref. [8].

Normal and Upset Transients with Number of Cycles from Ref. [14]

- Heatup from 70 °F to 15% power and cooldown from 15% power to 150 °F (360 cycles)
- Loading from 15% to 100% power and unloading from 100% to 15% power (36000 cycles)
- Step load increase and decrease (16000 cycles)
- Step load reduction to auxiliary load (310 cycles)
- Reactor trip (60 cycles)
- Rapid depressurization (40 cycles)
- Change of flow (412 cycles)
- Rod withdrawal (40 cycles)
- Turbine trip (cycles included in step load reduction cycles above)
- Loss of station power (40 cycles)
- OBE seismic (650 cycles)

Of the above listed transients, only the heatup/cooldown and 15%-100%-15% loading/unloading transients were deemed significant enough for analysis in the stress report [7]. The loading/unloading transient was analyzed in the stress report because of a high number of design cycles (36,000), even though the resulting stresses are small and contributed insignificantly to cumulative fatigue damage. This seems reasonable since the temperature differential for this transient is only about 50 °F as opposed to about 500 °F for the heatup/cooldown transient. Accordingly, the 15%-100%-15% loading/unloading transient is not included in the present fracture mechanics evaluation. The reactor trip transient is addressed, however, by adding its 60 design cycles to the 360 design cycles of the heatup/cooldown transient, for a total of 420 heatup/cooldown cycles.

Analyzed Transients

- Heatup from 70 °F to 15% power and cooldown from 15% power to 150 °F (420 lumped cycles from heatup/cooldown plus reactor trip)

Concerning emergency and faulted conditions, a FWLB bounds a MSLB in the area of the upper head-to-tubesheet weld [8]. Thus emergency/faulted condition stresses are included for both the LOCA and FWLB postulated events.

Consideration of residual stresses is warranted since the analyzed flaw is located in a structural weld. Welding processes generate residual stresses within the welded zone. Subsequent heat treatment reduces the severity of the residual stress levels although complete relief is not

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32-1245901-00

possible. Several attempts have been made to evaluate levels of residual stresses in welded structures. Residual stresses are self-equilibrating across any thickness. However, residual stresses are treated conservatively as having a fixed stress distribution for analysis. Framatome Technologies developed residual stress distribution models [9] based on the work of Ferriil, et al. [10]. For the case of a circumferential single J-groove weld, the normalized residual stress distribution, σ_r/σ_y , takes the form

$$\sigma_r/\sigma_y = -0.06 + 0.18(x/t)^2$$

Near the center of the wall thickness, t , where the WG58-1 flaw indication is located, the residual stress from this distribution is small or negative. Residual stresses need not, therefore, be considered in the present flaw evaluation.

7.0 Acceptance Criteria

A flaw is acceptable if the applied stress intensity factor satisfies the following criteria from Paragraph IWB-3612 of Section XI of the ASME Boiler and Pressure Vessel Code [1]:

For normal and upset conditions:

$$K_I(a_f) < \frac{K_{Ia}}{\sqrt{10}}$$

For emergency and faulted conditions:

$$K_I(a_f) < \frac{K_{Ic}}{\sqrt{2}}$$

where:

- $K_I(a_f)$ = the maximum applied stress intensity factor for the final flaw depth,
- K_{Ia} = crack arrest fracture toughness at temperature, and
- K_{Ic} = crack initiation fracture toughness at temperature.

Per ASME Code, Section XI, IWB-3610(d)(2) [1], the potential for net section collapse must be analyzed as a separate evaluation condition. This requirement is satisfied by inspection since the associated flaw area is insignificant with respect to the ~~total~~ cross-sectional area.

8.0 Analytical Procedure

The upper head-to-rubesheet weld flaw indication will be evaluated by linear elastic fracture mechanics according to the following analytical procedure:

1. Establish an initial flaw depth, a , and eccentricity, e .
2. From curve fits of through-wall stress distributions for normal/upset [11] and emergency/faulted [8] condition loadings, determine stresses at the two crack tips of the subsurface flaw (Points 1 and 2 in Fig. 1). Develop membrane and bending stress components from these crack tip stresses for each loading condition.
3. Calculate a stress intensity factors, K_I , for the cyclic membrane and bending stresses,
4. Calculate a flaw depth increment, da , and eccentricity increment, de , for twenty heatup/cooldown cycles ($dN=20$) using the fatigue flaw growth relationship of Section 4.0 by first calculating the growth at Points 1 and 2, $daPt1$ and $daPt2$, followed by:

$$da = (daPt1 + daPt2)/2$$
$$de = (daPt1 - daPt2)/2$$

5. Calculate an updated flaw depth, a , and eccentricity, e , from

$$da = a + da$$
$$de = e + de$$

6. Repeat Steps 3 through 5 for all applied load cycles.
7. Calculate normal/upset and emergency/faulted fracture toughness margins, K_I/K_{Ic} and K_{II}/K_{IIc} , for the final flaw size and compare with the acceptance criteria of Section 7.0.

The analytical procedure outlined above has been implemented in a spreadsheet (Appendix A). Numerical results are also summarized in Section 9.0.

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32-1245901-00

9.0 Summary of Results

A subsurface flaw indication in upper head-to-tubesheet weld WG58-1 at Oconee-2 S/G-A was evaluated according to Section XI, Paragraph IWB-3600 requirements of the ASME Boiler and Pressure Vessel Code [1].

The initial 56" long, 0.8" deep circumferential flaw, located virtually halfway through the upper head wall, grew to a flaw depth of 0.8002" during 420 simulated heatup/cooldown and reactor trip loading cycles. Fracture toughness margins at the final flaw size are tabulated below for the worst case normal/upset loading condition (heatup) and for two emergency/faulted loading conditions.

Fracture Toughness Margins at Final Flaw Size (must be greater than 1)			
Crack Tip Location	$K_{Ia}/\sqrt{10} / K_I$	$K_{Ic}/\sqrt{2} / K_I$	
	Heatup	LOCA	FWLB
Point 1	5.13	505	15.5
Point 2	5.90	29.3	12.3

As a check on sensitivity of these fracture mechanics results to the initial flaw size, additional calculations were performed for 1.2" and 1.6" deep flaws, using the same membrane and bending stresses developed for the more shallow flaw. Although these linearized stresses only approximate for the new flaw sizes considered, the following results for the critical heatup/cooldown fracture toughness margin show that considerable safety margins exist for larger flaw sizes.

Fracture Toughness Margins for Heatup Loads with Increasing Initial Flaw Size	
Initial Flaw Depth (2a)	$K_{Ia}/\sqrt{10} / K_I$
0.8"	5.13
1.2"	4.05
1.6"	3.38

Conclusion

The Oconee-2 S/G-A WG58-1 flaw indication is considered to be acceptable for the postulated design life of the plant based on ASME Code Section XI rules for evaluation by analysis.

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32-1245901-00

10.0 References

1. ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition.
2. B&W Dwg. 146454E6, "List of Material," Oconee-2.
3. ASME Boiler and Pressure Vessel Code, Section III, Division 1, Appendices, 1989 Edition.
4. Marston, T.U., Flaw Evaluation Procedures: ASME Section XI, EPRI Report NP-719-SR, Electric Power Research Institute, Palo Alto, California, August 1978.
5. BAW-10046A, Rev. 2, "Methods of Compliance With Fracture Toughness and Operational Requirements of 10 CFR 50, Appendix G," B&W Owners Group Materials Committee Topical Report, June 1986.
6. Cipolla, R.C., FAA-EPRI-75-4-3, April 1975.
7. Duke Power Company Stress Report for Oconee Units 1&2 Steam Generator, (FTI Microfilm Roll Nos. 80-7 and 80-8).
8. B&W Calc. Pkg. 32-1173627-00, "ANO-1 OTSG Flaw Evaluation," November 1988.
9. BAW-1605, "Accident Transients Fracture Analysis for 177-FA Reactor Vessel Beltline Region," January 1980.
10. Ferrill, D.A., Juhl, P.B., and Miller, D.R., "Measurement of Residual Stresses in a Heavy Weldment," Welding Journal, WRC Supplement, Vol. 45, No. 11, November 1966.
11. BWNT Calc. Pkg. 32-1218901-00, "OC-3 OTSG Flaw Evaluation," September 1992.
12. Bloom, J.M., "Assessment of Defects and Design of Components Allowing for Defects," Alliance Research Center Report RDD:92:1420-02-01:01, Rev. 4, Babcock & Wilcox Co., Alliance, Ohio, October 1991.
13. Duke Power Co. Design Basis Specification for Reactor Coolant System, Doc. 0254.00-00-1033, Section 20.2.1.4.
14. BWNT Doc. 18-1130828-04, "Functional Specification for Reactor Coolant System for Oconee Units 1, 2, and 3," May 1993.

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32-1245901-00

Appendix A

Fracture Mechanics Calculations

Stress intensity factors are calculated for a subsurface flaw per ASME Code, Section XI, Appendix A

Notes: Point 1 is closest to the surface.
Point 2 is farthest from the surface.

Geometry Data

t = 8.5 in.

Initial Flaw Size

a = 0.400 in.

e = 0.050 in.

l = 56.0 in.

Material Data

Sy = 43.8 ksi at 600 F

Fracture Toughness

$$K_{Ia} = 26.8 + 1.233 \exp [0.0145 (T - RTndt + 160)]$$

$$K_{Ic} = 33.2 + 2.806 \exp [0.02 (T - RTndt + 100)]$$

K_{Ia} and K_{Ic} are limited to an upper shelf value of 200 ksi*in^{0.5}

			Fracture Toughness		
			Calc.	Used	
T =	325	F			
RTndt =	60	F	K _{Ia} = 612	200	ksi*in ^{0.5}
T-RTndt =	265	F	K _{Ic} = 4187	200	ksi*in ^{0.5}

Fatigue Flaw Growth Parameters

$$da/dN = C \cdot (dK)^n \text{ inches/cycle}$$

C	n
2.67E-11	3.726

Applied Stresses

		Normal/Upset		Emergency/Faulted		
		Heatup	Cooldown	LOCA	FWLB	
Membrane stress:	S _m =	9.7	-0.5	2.5	9.0	ksi
Bending stress:	S _b =	14.0	-26.2	-37.2	-20.3	ksi

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02-1245901-00

Stress Intensity Factor

$$B2 = 0.5948$$

$$B4 = 0.4812 + 0.7861*(e/a) + 1.9502*(e/a)^2$$

$$B6 = 0.3963 + 0.4207*(e/a) + 1.8806*(e/a)^2 + 1.8028*(e/a)^3 + 3.1913*(e/a)^4$$

$$B8 = 0.3354$$

$$B5 = 0.3030 \text{ for Point 1, } 0.0 \text{ for Point 2}$$

Note: In the following expressions for Mm and Mb, "a/t" and "e/t" actually designate "2a/t" and "2e/t", respectively, for the case of subsurface flaws.

$$Mm = 1 + B2*(a/t)^2 + B4*(a/t)^4 + B6*(a/t)^6 + B8*(a/t)^8 + B5 * [(a/t)/(1-(e/t))]^{20} / [1-(e/t)-(a/t)]^{0.5}$$

$$Mb(Pt1) = 0.84086850 + \{ (e/t)*[1.509002 + (e/t)*(-0.60377800 + 0.12940970*(a/t)) + (a/t)*(-0.7731469 + 0.04428677*(a/t))] + (a/t)*(0.8841885 - 0.07410377*(a/t)) - 0.8338377 \} / [1-(e/t)-(a/t)]^{0.5}$$

$$Mb(Pt2) = -0.004379676 + (e/t)*[1.052083 + (e/t)*(-0.05479575 + 0.3805255*(a/t)) - (a/t)*(-0.08603191 + 0.03725713*(a/t))] + (a/t)*(-0.44209 - 0.1208828*(a/t))$$

$$Sratio = \min([abs(Sm)+abs(Sb)]/Sy, 1.0)$$

$$Q = 1 + 4.593*(a/t)^{1.65} - 0.212*(Sratio)^2$$

$$K = (Sm Mm + Sb Mb) [\pi a/Q]^{0.5}$$

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32-1245901-00

Fatigue Analysis

$$da = dN \cdot C \cdot (dK)^n$$

$$dN = 20$$

$$daPt = da @ Pts. 1 \& 2$$

$$da = (daPt1 + daPt2)/2$$

$$de = (daPt1 - daPt2)/2$$

Cycle	a (in.)	s (in.)	Point	Heatup	Cooldown	daPt (in.)	da (in.)	de (in.)
				Kmax ksi*(in.) ^{0.5}	Kmin ksi*(in.) ^{0.5}			
0	0.40000	0.05000	1	12.31811	-2.54791	6.18E-06	4.93E-06	1.25E-06
			2	10.71619	0.47687	3.68E-06		
20	0.40000	0.05000	1	12.31820	-2.54795	6.18E-06	4.93E-06	1.25E-06
			2	10.71626	0.47668	3.68E-06		
40	0.40001	0.05000	1	12.31829	-2.54799	6.18E-06	4.93E-06	1.25E-06
			2	10.71632	0.47669	3.68E-06		
60	0.40001	0.05000	1	12.31838	-2.54803	6.18E-06	4.93E-06	1.25E-06
			2	10.71638	0.47670	3.68E-06		
80	0.40002	0.05001	1	12.31847	-2.54808	6.18E-06	4.93E-06	1.25E-06
			2	10.71645	0.47671	3.68E-06		
100	0.40002	0.05001	1	12.31856	-2.54812	6.18E-06	4.93E-06	1.25E-06
			2	10.71651	0.47672	3.68E-06		
120	0.40003	0.05001	1	12.31865	-2.54816	6.18E-06	4.93E-06	1.25E-06
			2	10.71658	0.47673	3.68E-06		
140	0.40003	0.05001	1	12.31875	-2.54820	6.18E-06	4.93E-06	1.25E-06
			2	10.71664	0.47674	3.68E-06		
160	0.40004	0.05001	1	12.31884	-2.54824	6.18E-06	4.93E-06	1.25E-06
			2	10.71670	0.47675	3.68E-06		
180	0.40004	0.05001	1	12.31893	-2.54829	6.18E-06	4.93E-06	1.25E-06
			2	10.71677	0.47676	3.68E-06		
200	0.40005	0.05001	1	12.31902	-2.54833	6.18E-06	4.93E-06	1.25E-06
			2	10.71683	0.47677	3.68E-06		
220	0.40005	0.05001	1	12.31911	-2.54837	6.18E-06	4.93E-06	1.25E-06
			2	10.71689	0.47678	3.68E-06		
240	0.40006	0.05002	1	12.31920	-2.54841	6.18E-06	4.93E-06	1.25E-06
			2	10.71696	0.47679	3.68E-06		
260	0.40006	0.05002	1	12.31929	-2.54846	6.18E-06	4.93E-06	1.25E-06
			2	10.71702	0.47680	3.68E-06		
280	0.40007	0.05002	1	12.31938	-2.54850	6.18E-06	4.93E-06	1.25E-06
			2	10.71708	0.47681	3.68E-06		
300	0.40007	0.05002	1	12.31948	-2.54854	6.18E-06	4.93E-06	1.25E-06
			2	10.71715	0.47682	3.68E-06		
320	0.40008	0.05002	1	12.31957	-2.54858	6.18E-06	4.93E-06	1.25E-06
			2	10.71721	0.47683	3.68E-06		
340	0.40008	0.05002	1	12.31966	-2.54863	6.18E-06	4.93E-06	1.25E-06
			2	10.71727	0.47684	3.68E-06		
360	0.40009	0.05002	1	12.31975	-2.54867	6.18E-06	4.93E-06	1.25E-06
			2	10.71734	0.47685	3.68E-06		
380	0.40009	0.05002	1	12.31984	-2.54871	6.18E-06	4.93E-06	1.25E-06
			2	10.71740	0.47686	3.68E-06		
400	0.40010	0.05003	1	12.31993	-2.54875	6.18E-06	4.93E-06	1.25E-06
			2	10.71747	0.47687	3.68E-06		
420	0.40010	0.05003	1	12.32002	-2.54879	6.18E-06	4.93E-06	1.25E-06
			2	10.71753	0.47688	3.68E-06		

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32-1245901-00

Analysis of Emergency/Faulted Condition Stresses at Final Flaw Size

a (in.)	e (in.)	a/l (in.)	Point	e/a	B4	B6	B8
0.40010	0.05003	0.0071	1	0.1250	0.6100	0.4822	0.3030
			2	-0.1250	0.4134	0.3707	0.0000

Point	Mm	Mb
1	1.0053	0.0642
2	1.0053	-0.0348

LOCA Condition:

Sratio Calc.	Sratio Used	Q	Point	K ksi*(in) ^{1.5}
0.9087	0.9087	0.8263	1	0.28
			2	4.82

FWLB Condition:

Sratio Calc.	Sratio Used	Q	Point	K ksi*(in) ^{1.5}
0.6689	0.6689	0.9065	1	9.12
			2	11.49

Fracture Toughness Margins at Final Flaw Size

Final Flaw Size:

a = 0.40010 in.

e = 0.05003 in.

Fracture Toughness Margins:

	Heatup K _{IIa} /3.162 /KI	LOCA K _{IIc} /1.414 /KI	FWLB K _{IIc} /1.414 /KI
Point 1	5.13	504.7	15.51
Point 2	5.90	29.34	12.31

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32-1245901-00

Appendix B

Indication Evaluation Report

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32-1245901-00

Duke Power Company Indication Evaluation Report

System Line CNS / 2	Welding No. 2-SGA-WG58-1	ISI Div. No. ISI-OCN2-003	Sheet No. 96020E005
Component Description Steam Gen. A upper head-to-tube sheet weld		Exam Procedure NDE-820 Rev. 3	
Code/Year/Standard Sec XI / 1989 / none	Exam Category B-B	Acceptance Standard (Para or Table) IWB-3510-1	Ref. Report N/A
Flaw Characterization SLAG LINE		How/Art Weld 8.5"	Type Material C/S
Examiner James J. McArdle <i>James J. McArdle</i>		Date 4/30/96	INP ISI

Calculations/Evaluation:
 $L = 56"$, $a = 0.6"$, $a/L = 0.00$, $a/\sqrt{L} = 4.7\%$ REJECTABLE subsurface flaw. Table IWB-3510-1 allows 2% for an aspect ratio of 0.00.

Jim McArdle Level III UT
Phone # 704-875-5227

Comments

This indication was not recorded in previous exams because of the change in recording criteria starting with the 1989 Section XI. The examinations performed this outage are 2.5 times more sensitive.

Technical Review	Date	Non-Technical Review	Date
------------------	------	----------------------	------

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32-1245901-00

DUKE POWER COMPANY

Part 60184 (RA-25)

Station _____	Unit _____	Rev. _____	File No. _____	Sheet _____	Of _____
Subject _____			By _____		
Date _____			Date _____		
Prob No. _____		Checked By _____		Date _____	

Upper Head	Plan View of Weld	1. Saw 1/8" 58.1
FRONT VIEW CENTER LINE		
VASE SHEET TRANSMISSION		

ATTACHMENT 2

OCONEE UNIT 2A STEAM GENERATOR
ULTRASONIC EXAMINATION INFORMATION

DUKE POWER COMPANY

FORM NDE-U

ULTRASONIC CALIBRATION SHEET FOR USK-7D INSTRUMENTS

REVISION 2

Station: OCONEE Nuc. STATIONUnit: IIDate: 4-29-96Sheet Number: 9602089Procedure: NDE 640Rev: 1FIC: 95-18
95-19Couplant: ULTRA-Gel IIBatch Number: 95395Examiner: Jamar W. SitzerLevel: IIICalibration Block ID: 40393Pyrometer S/N: MCNDE27022Examiner: B. Deh GallyLevel: ICalibration Block Temp: 72°Cal. due: 961003

REFERENCE BLOCK

ID: 798583Type: 11WMaterial: cds

SIMULATOR BLOCK

ID: 798583Reflector Type: BwGain: 12.0Signal Ampl: 80%Metal Path: 1.0

INSTRUMENT

Manufacturer: KrautkramerSerial No: 32810-3019

TRANSDUCER

Type: Single ☒ Dual ☐ Size: 1.0" Freq: 2.25 Mhz Wedge INTManufacturer: KBA Ser no: K05229 Meas. A 0°

INSTRUMENT SETTINGS

Gain 22.5
 Range 10.0
 MTVEL 233.0
 Delay 0.0
 Pulser HIGH
 Reject OFF
 Freq 1-5
 Zero .81
 Display FULL
 PRF FULL-HIGH

CALIBRATION

Reflector Type SDH
 Amplitude 80
 Metal Path 2.1
1 /8 node
2 /8 node 63 4.4
3 /8 node 40 6.6
/8 node

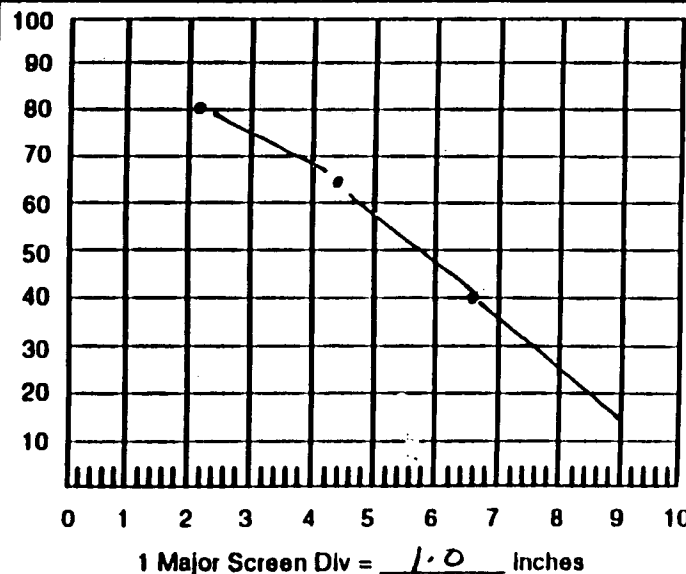
other

Cal Direction: axial ☐ circ. ☐

Wave Mode: Long ☒ shear ☐
 surf. ☐

Remarks:

METHOD



CABLES

RG58 ☒RG174 ☐Length: 6

Initial Cal Time

0809

Cal Checks

Time Initials

<u>0930</u>	<u>JWS</u>
<u>1005</u>	<u>JWS</u>
<u>1215</u>	<u>JWS</u>
<u>FINAL</u>	

Jack: T ☐ R ☒Item No: B02.040.001Reviewer: JWSLevel: IIDate: 5/1/96Authorized Inspector: JWSDate: 5/1/96

DUKE POWER COMPANY

FORM NDE-UT-12

ULTRASONIC CALIBRATION SHEET FOR USK-7D INSTRUMENTS

REVISION 2

Station: Ocoee Ave. StationUnit: IIDate: 4-29-96Sheet Number: 9602090Procedure: NDE 620Rev: 3FIC: 96-02Couplant: ULTRA-Gel IIBatch Number: 95395Examiner: Larry L. BellLevel: IIICalibration Block ID: 40393Pyrometer S/N: MCNDE27022Examiner: James A. PanselLevel: ICalibration Block Temp: 72°Cal. due: 961003

REFERENCE BLOCK

ID: 798583Type: 11WMaterial: cds

SIMULATOR BLOCK

ID: 798583Reflector Type: RadiusGain: 18.5Signal Ampl: 80%Metal Path: 4"

INSTRUMENT

Manufacturer: KrautkramerSerial No: 32810-1392

TRANSDUCER

Type: Single ☒ Dual ☐ Size: 1.0 Freq: 2.25 Mhz Wedge SWSManufacturer: KBA Ser no: F21879Meas. 4 35°

INSTRUMENT SETTINGS

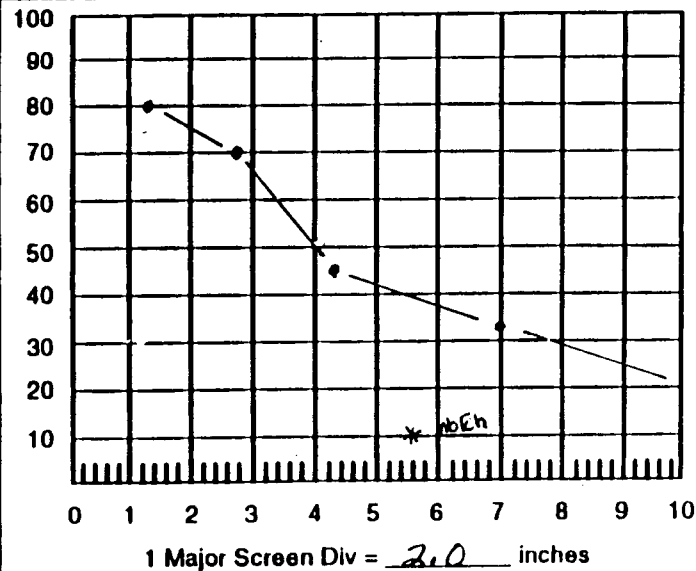
Gain 36.5
 Range 20.0
 MTVEL 126.0
 Delay 9.5
 Pulser HIGH
 Reject OFF
 Freq 1-5
 Zero 10.43
 Display FULL
 PRF HIGH

CALIBRATION

Reflector Type	Amplitude %FSH	Metal Path Inches
<u>HOLE</u>		
<u>1 /8 node</u>	<u>80</u>	<u>2.67</u>
<u>2 /8 node</u>	<u>70</u>	<u>5.51</u>
<u>3 /8 node</u>	<u>45</u>	<u>8.30</u>
<u>5 /8 node</u>	<u>32</u>	<u>14.0</u>
<u>other NOTCH</u>	<u>10</u>	<u>11.3</u>

Cal Direction: axial ☒ circ. ☐Wave Mode: Long ☐ shear ☒
surf. ☐Remarks: 3db diff

METHOD



CABLES

RG58 ☐RG174 ☒Length: 6'

Initial Cal Time

0857

Cal Checks

Time	Initials
<u>1041</u>	<u>JLP</u>
<u>1404</u>	<u>JLP</u>
<u>1840</u>	<u>JLP</u>
<u>2228</u>	<u>JLP</u>
<u>2314</u>	<u>JLP</u>

FINAL

Jack: T ☐ R ☒Item No: B02.040.001Reviewer: [Signature]Level: IIDate: 5/1/96Authorized Inspector [Signature]Date: [Signature]

DUKE POWER COMPANY

FORM NDE-UT

ULTRASONIC CALIBRATION SHEET FOR USK-7D INSTRUMENTS

REVISION 2

Station: <u>OCONEE Nuc. STATION</u>	Unit: <u>II</u>	Date: <u>4-29-96</u>	Sheet Number: <u>4602041</u>
Procedure: <u>NDE 620</u>	Rev: <u>3</u>	FIC: <u>96-02</u>	Couplant: <u>ULTRA-GEL II</u>
Examiner: <u>DE Hower</u>	Level: <u>II</u>	Calibration Block ID: <u>40393</u>	Pyrometer S/N: <u>MCNDE27022</u>
Examiner: <u>Harry Moss</u>	Level: <u>II</u>	Calibration Block Temp: <u>72°</u>	Cal. due: <u>961003</u>

REFERENCE BLOCK

ID: 798583

Type: 11W Material: cls

SIMULATOR BLOCK

ID: 798583 Reflector Type: RADIUS

Gain: 22db Signal Ampl: 80% Metal Path: 4"

INSTRUMENT

Manufacturer: Krautkramer

Serial No: 32810-3015

TRANSDUCER

Type: Single ☒ Dual ☐ Size: 1.0 Freq: 2.25 Mhz Wedge SWS

Manufacturer: KBA Ser no: B07961 Meas. 4 45°

INSTRUMENT SETTINGS

Gain: 43.5

Range: 20.0

MTVEL: 126.0

Delay: 10.5

Pulser: HIGH

Reject: OFF

Freq: 1-5

Zero: 12.85

Display: FULL

PRF: HIGH

CALIBRATION

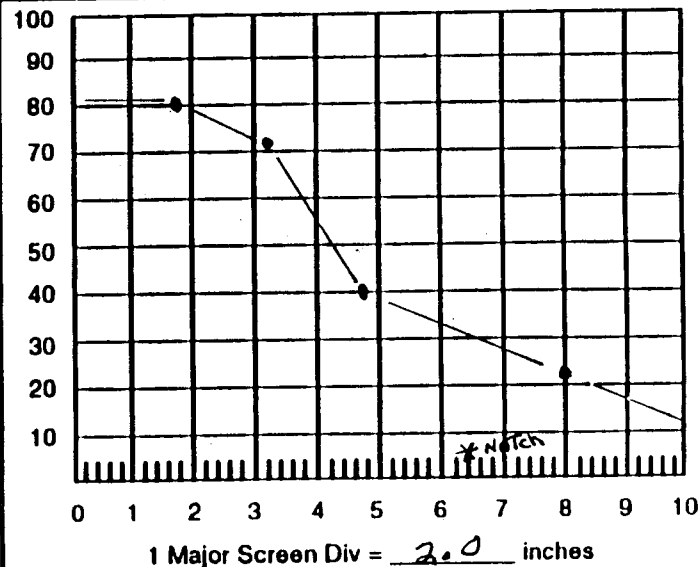
Reflector Type	Amplitude %FSH	Metal Path Inches
<u>Hole</u>		
<u>1 /8 node</u>	<u>80</u>	<u>3.15</u>
<u>2 /8 node</u>	<u>71</u>	<u>6.38</u>
<u>3 /8 node</u>	<u>40</u>	<u>9.64</u>
<u>5 /8 node</u>	<u>22</u>	<u>15.9</u>
<u>other NOTch</u>	<u>5</u>	<u>12.95</u>

Cal Direction: axial ☒ circ. ☒Wave Mode: Long. ☐ shear ☒
surf. ☐

Remarks:

Jack: T ☐ R ☒Item No: B02.040.001

METHOD



CABLES

RG58 ☐

RG174 ☒

Length: 6'

Initial Cal Time

0841

Cal Checks

Time	Initials
<u>1118</u>	<u>DEH</u>
<u>1402</u>	<u>DEH</u>
<u>1838</u>	<u>DEH</u>
<u>2230</u>	<u>DEH</u>
<u>2305</u>	<u>DEH</u>

FINAL

Reviewer: <u>[Signature]</u>	Level: <u>II</u>	Date: <u>5/1/96</u>	Authorized Inspector: <u>[Signature]</u>	Date: <u>5/1/96</u>
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DUKE POWER COMPANY

FORM NDE-UT-1E

ULTRASONIC CALIBRATION SHEET FOR USK-7D INSTRUMENTS

REVISION 2

Station: Ocoee Ave. StationUnit: IIDate: 4-29-96Sheet Number: 9602092Procedure: NDE 620Rev: 3FIC: 96-02Couplant: ULTRA-GEL IIBatch Number: 95395Examiner: DE FunderLevel: IICalibration Block ID: 40393Pyrometer S/N: MCNDE27022Examiner: Ray/MossLevel: IBCalibration Block Temp: 72°Cal. due: 961003

REFERENCE BLOCK

ID: 798583Type: 11WMaterial: CS

SIMULATOR BLOCK

ID: 798583Reflector Type: RADGain: 26.5Signal Ampl: 80%Metal Path: 4.0"

INSTRUMENT

Manufacturer: KrautkramerSerial No: 32810-3015

TRANSDUCER

Type: Single ☒ Dual ☐ Size: 1.0 Freq: 2.25 Mhz Wedge SWISManufacturer: KBA Ser no: F21878 Meas. A 60°

INSTRUMENT SETTINGS

Gain 42/49.5
 Range 30.0
 MTVEL 126.0
 Delay 15.4
 Pulser HIGH
 Reject OFF
 Freq 1-5
 Zero 17.55
 Display FULL
 PRF FOH ^{HIGH} _{JWS}

Jack: T ☐ R ☒

CALIBRATION

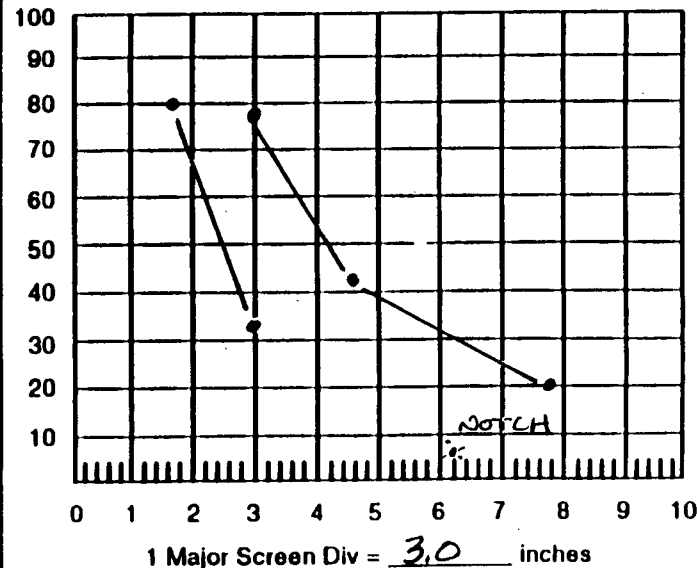
Reflector Type	Amplitude %FSH	Metal Path Inches
SDH		
1 /8 node	80	4.4
2 /8 node	32/78	9.0
3 /8 node	42	14.4
5 /8 node	20	22.7
other NOTCH	5	18.5

Cal Direction: axial ☒ circ. ☒
 Wave Mode: Long. ☐ shear ☒
 surf. ☐

Remarks:

Item No: B02.040.001

METHOD



CABLES

RG58 ☐RG174 ☒Length: 6

Initial Cal Time

0838

Cal Checks

Time	Initials
0932	DEL
1400	DEL
1800	DEL
1836	DEL
2300	DEL
FINIC	

Reviewer: [Signature]Level: IIDate: 5/1/96Authorized Inspector [Signature]Date: 5/1/96

DUKE POWER COMPANY

FORM NDE-UT-1E

ULTRASONIC CALIBRATION SHEET FOR USK-7D INSTRUMENTS

REVISION 2

Station: <u>Ocoee Nuc. Station</u>	Unit: <u>II</u>	Date: <u>4-29-96</u>	Sheet Number: <u>4602093</u>
Procedure: <u>NDE 620</u>	Rev: <u>3</u>	FIC: <u>96-02</u>	Couplant: <u>ULTRA-Gel II</u>
Examiner: <u>Lucy L. Bill</u>	Level: <u>III</u>	Calibration Block ID: <u>40393</u>	Batch Number: <u>95395</u>
Examiner: <u>James A. Panch</u>	Level: <u>I</u>	Calibration Block Temp: <u>72°</u>	Pyrometer S/N: <u>MCNDE27022</u>
		Cal. due: <u>961003</u>	

REFERENCE BLOCK

ID: <u>798583</u>
Type: <u>11W</u>
Material: <u>cls</u>

SIMULATOR BLOCK

ID: <u>798583</u>	Reflector Type: <u>Radius</u>
Gain: <u>34</u>	Signal Ampl: <u>80%</u>
Metal Path: <u>4"</u>	

INSTRUMENT

Manufacturer: <u>Krautkramer</u>
Serial No: <u>32810-1392</u>

TRANSDUCER

Type: Single <input checked="" type="checkbox"/> Dual <input type="checkbox"/>	Size: <u>1.0"</u>	Freq: <u>2.25</u> Mhz	Wedge: <u>SWS</u>
Manufacturer: <u>KBA</u>	Ser no: <u>G12908</u>	Meas. <u>Δ</u> <u>70</u> °	

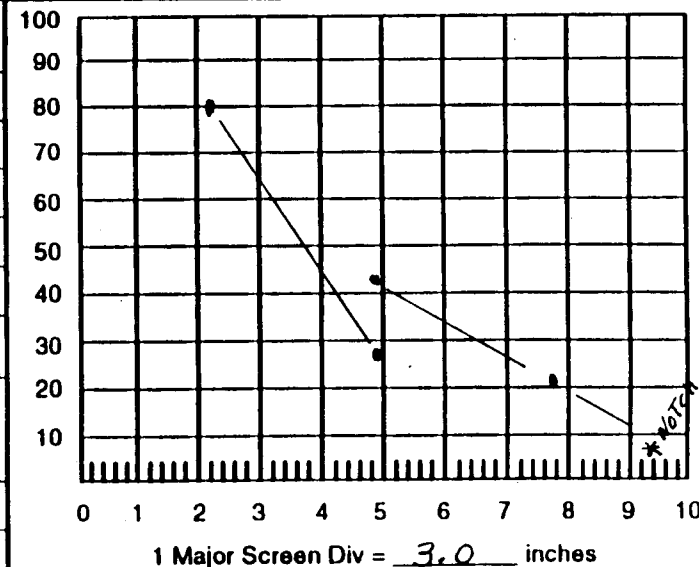
INSTRUMENT SETTINGS

CALIBRATION

METHOD

CABLES

Gain	<u>57.5/62.5</u>	Reflector Type	<u>HOLE</u>	Amplitude	<u>%FSH</u>	Metal Path	<u>inches</u>
Range	<u>30.0</u>	1	<u>1/8 node</u>	<u>80</u>	<u>6.63</u>		
MTVEL	<u>126.0</u>	2	<u>1/8 node</u>	<u>28/42</u>	<u>14.61</u>		
Delay	<u>21.2</u>	3	<u>1/8 node</u>	<u>21</u>	<u>22.4</u>		
Pulser	<u>HIGH</u>		<u>1/8 node</u>				
Reject	<u>OFF</u>	other	<u>NOTCH</u>	<u>3%</u>	<u>28.0</u>		
Freq	<u>1-5</u>	Cal Direction:	axial <input checked="" type="checkbox"/>	circ. <input type="checkbox"/>			
Zero	<u>22.63</u>	Wave Mode:	Long. <input type="checkbox"/>	shear <input checked="" type="checkbox"/>			
Display	<u>FULL</u>		surf. <input type="checkbox"/>				
PRF	<u>HIGH</u>	Remarks:					



RG58 <input type="checkbox"/>
RG174 <input checked="" type="checkbox"/>
Length: <u>6'</u>

Initial Cal Time

0905

Cal Checks

Time	Initials
<u>0934</u>	<u>JLP</u>
<u>1039</u>	<u>JLP</u>
<u>1403</u>	<u>JLP</u>
<u>2317</u>	<u>JLP</u>
<u>FINAL</u>	

Jack: T ☐ R ☒Item No: B02.040.001

Reviewer: <u>[Signature]</u>	Level: <u>II</u>	Date: <u>5/1/96</u>	Authorized Inspector: <u>[Signature]</u>	Date: <u>5/1/96</u>
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DUKE POWER COMPANY

FORM NDE-UT-2

ULTRASONIC CALIBRATION SHEET FOR USK-7D INSTRUMENTS

REVISION 2

Station: OCOREE Nuc. STATIONUnit: IIDate: 4-29-96Sheet Number: 9602094Procedure: NDE 620Rev: 3FIG: 96-02Couplant: ULTRA-GEL IIBatch Number: 95395Examiner: Jama W. StyerLevel: IIICalibration Block ID: 40393Pyrometer S/N: MCNDE27022Examiner: B. Dale JolleyLevel: ICalibration Block Temp: 72°Cal. due: 961003

REFERENCE BLOCK

ID: 798583Type: 11WMaterial: CS

SIMULATOR BLOCK

ID: 798583Reflector Type: RAD.Gain: 31.0Signal Ampl: 80%Metal Path: 4.0"

INSTRUMENT

Manufacturer: KrautkramerSerial No: 32810-3019

TRANSDUCER

Type: Single ☐ Dual ☒ Size: 2 (24x42) Freq: 2.25 Mhz Wedge: 1ATManufacturer: RTD Ser no: 94-694Meas. 4 60.4°

INSTRUMENT SETTINGS

Gain: 59/53*

Range: 10.0

MTVEL: 225.6

Delay: 12.0

Pulser: DUAL

Reject: OFF

Freq: 1-5

Zero: 11.66

Display: FULL

PRF: FULL HIGH

CALIBRATION

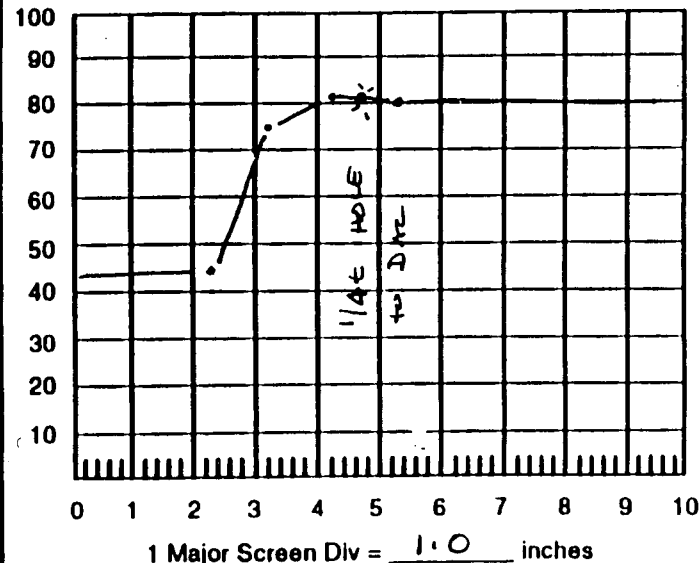
Reflector Type	Amplitude %FSH	Metal Path Inches
<u>NEAR SURFACE</u>		
<u>2 1/8 node</u>	<u>44%</u>	<u>2.3</u>
<u>3 1/8 node</u>	<u>75%</u>	<u>3.3</u>
<u>4 1/8 node</u>	<u>82%</u>	<u>4.3</u>
<u>5 1/8 node</u>	<u>80%</u>	<u>5.3</u>
<u>other 1/4 t</u>	<u>80</u>	<u>4.6</u>

Cal Direction: axial ☒ circ. ☒

Wave Mode: Long. ☒ shear ☐ surf. ☐

Remarks: * 1/4 t HOLE TO DAC

METHOD



CABLES

RG58 ☐RG174 ☒Length: 6'

Initial Cal Time

0820

Cal Checks

Time	Initials
<u>1207</u>	<u>JWS</u>
<u>1110</u>	<u>JWS</u>
<u>1222</u>	<u>JWS</u>
<u>FINN</u>	

Jack: T ☒ R ☐Item No: B02.040.001Reviewer: [Signature]Level: IIDate: 5/1/96Authorized Inspector [Signature]Date: 5/1/96

DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

Exam Start: 0930

Form NDE-002A

Exam Finish: 2230

Revision 4

Station: O'Connell Nuc.

Unit: II

Component/Weld ID: 2 SGA-WG58-1

Date: 4-29-96

Weld Length (in.): 424"

Surface Condition: AS GROUND

W
Lo: AXIS

Surface Temperature: 68 ° F

Pyrometer S/N: MCNDE 27022

Examiner:

De Hauser / Day & Bell II/III
B. Dale Galt Level: I

Scans:

45 ☒ 57.5 dB 70 ☒ 76.5 dB

45T ☒ 57.5 dB 70T ☒ NA dB

60 ☒ 63.5 dB 0° ☒ 28.5 dB

60T ☒ 63.5 dB 60° ☒ 67 dB

Other: 35° 50.5 dB

Cal Due: 961003

Configuration: CIRC WELD

1 Flow 2
HEAD to TUBE SHT

Scan Surface: OD

Applies to NDE-680 only

Skew Angle: N/A

Procedure: NDE 620 Rev: 3

FC:
(NDE 640)
95-18 & 95-19
(NDE-620)
96-02

Calibration Sheet No: 9602089

9602090 9602091 9602092

9602093 9602094

IND #	Max % Rel	Mp Max	W Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps
					20% dac HMA	20% dac HMA	20% dac HMA	20% dac HMA	20% dac HMA	20% dac HMA				
					50% dac	50% dac	50% dac	50% dac	50% dac	50% dac				
					100% dac	100% dac	100% dac	100% dac	100% dac	100% dac				
/	0°	No	RECORDABLE INDICATIONS (UPPER HEAD SIDE ONLY)											
/	70°	No	RECORDABLE INDICATIONS											
1	60°	125	8.95	7.0	92	0	140"	6.45	8.39	*	2	1	AX	No
2	45°	112	6.07	8.6	91.5	84	140.7	8.3	5.89	9.0	6.31	2	1	AX No

* DUE TO BREAK ON HEAD W12 & MP2 MEASUREMENTS WERE NOT OBTAINED.

Remarks: W MEASUREMENTS TAKEN FROM START OF TAPER. THEREFORE SUBTRACT 2.5" FOR ALL "W" MEASUREMENTS.

Limitations: (see NDE-UT-4) ☒

90% or greater coverage obtained: yes ☐ no ☒

Sheet 1 of 36

Reviewed By:

[Signature]

Level:

II

Date:

5/1/96

Authorized Inspector

[Signature]

Date

5-1-96

Item No:

B02-040.001

DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

(continuation)

Form NDE-UT-2B


Revision 3

Station: OCONEE

Unit: II

Component/Weld ID: 2 - SGA - WIG 58-1

Date: 4/29/96

IND #		Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps
DO NOT IN THIS			WRITE SPACE			20% <u>dac</u>	20% <u>dac</u>	20% <u>dac</u>	20% <u>dac</u>	20% <u>dac</u>	20% <u>dac</u>	DO IN THIS	NOT THIS	WRITE SPACE	
						HMA	HMA	<u>HMA</u>	<u>HMA</u>	<u>HMA</u>	<u>HMA</u>				
						50% <u>dac</u>	50% <u>dac</u>	50% <u>dac</u>	50% <u>dac</u>	50% <u>dac</u>	50% <u>dac</u>				
						100% <u>dac</u>	100% <u>dac</u>	100% <u>dac</u>	100% <u>dac</u>	100% <u>dac</u>	100% <u>dac</u>				
2	45°	50%				84.9	140.7	9.45	5.1	10.0	5.5	2	1	AX	NO
						85.8		9.6	5.11	10.1	5.48				
						86.7		9.6	5.0	10.0	5.4				
						87.6		9.2	4.8	9.6	5.2				
						88.5		9.3	4.85	9.6	5.17				
						89.4		9.3	4.7	9.6	4.99				
						90.3		8.3	3.89	8.6	4.2				
						91.2		8.2	5.4	8.6	5.9				
↓	↓	↓				92.1	↓	8.3	5.8	8.7	6.2	↓	↓	↓	↓

Examiner: McHouser

Level: II

Examiner: Gay/Moss

Level: II

Remarks: MEASUREMENTS ARE TAKEN FROM START OF TAPER INSTEAD OF CENTER LINE OF WELD
THEREFORE SUBTRACT 2.5" FROM ALL "W" DIMENSIONS FOR CORRECT MEASUREMENTS

Sheet 2 of 36

Reviewed By: [Signature]

Level: II

Date: 5/1/96

Authorized Inspector [Signature]

Date: 5-1-96

Item No: 302.040.001


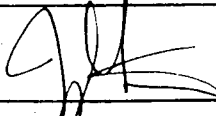
DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

(continuation)

Form NDE-UT-2B

Revision 3

Station: <u>OCONEE</u>						Unit: <u>II</u>		Component/Weld ID: <u>Z - SGA - WG 58-1</u>						Date: <u>4/29/96</u>					
IND #		Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps				
DO NOT IN THIS			WRITE SPACE			<u>20%dac</u>	<u>20%dac</u>	<u>20%dac</u>	<u>20%dac</u>	<u>20%dac</u>	<u>20%dac</u>	DO IN	NOT THIS WRITE SPACE						
						HMA	HMA	<u>HMA</u>	<u>HMA</u>	<u>HMA</u>	<u>HMA</u>								
						50%dac	50%dac	50%dac	50%dac	50%dac	50%dac								
						100%dac	100%dac	100%dac	100%dac	100%dac	100%dac								
<u>2</u>	<u>45°</u>	<u>50%</u>				<u>93.0</u>	<u>140.7</u>	<u>8.3</u>	<u>5.8</u>	<u>8.7</u>	<u>6.2</u>	<u>2</u>	<u>1</u>	<u>AX</u>	<u>NO</u>				
						<u>93.9</u>		<u>7.7</u>	<u>5.0</u>	<u>8.2</u>	<u>5.3</u>								
						<u>94.8</u>		<u>7.7</u>	<u>4.7</u>	<u>8.35</u>	<u>4.9</u>								
						<u>95.7</u>		<u>7.6</u>	<u>3.5</u>	<u>8.0</u>	<u>4.6</u>								
						<u>96.6</u>		<u>7.8</u>	<u>4.2</u>	<u>8.45</u>	<u>4.7</u>								
						<u>97.5</u>		<u>7.9</u>	<u>4.1</u>	<u>8.5</u>	<u>4.68</u>								
						<u>98.4</u>		<u>8.3</u>	<u>4.6</u>	<u>8.8</u>	<u>5.1</u>								
						<u>99.3</u>		<u>7.5</u>	<u>4.3</u>	<u>8.0</u>	<u>4.6</u>								
						<u>100.2</u>		<u>8.1</u>	<u>4.2</u>	<u>8.5</u>	<u>4.7</u>								
Examiner: <u>DEHouser</u>						Level: <u>II</u>						Examiner: <u>Dan Moss</u>						Level: <u>B</u>	
Remarks: <u>MEASUREMENTS ARE TAKEN FROM START OF TAPER INSTEAD OF CENTERLINE OF THE WELD</u>															Sheet <u>3</u> of <u>36</u>				
Reviewed By: 						Level: <u>II</u>		Date: <u>5/1/96</u>		Authorized Inspector: <u>YINCE</u>				Date: <u>5-1-96</u>		Item No: <u>B02.040.001</u>			

DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

(continuation)

Form NDE-UT-2B

Revision 3

Station: OCONEE

Unit: II

Component/Weld ID: 2 - SGA - WG 58 - 1

Date: 4/29/96

IND #	Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps
DO NOT WRITE IN THIS SPACE					20%dac HMA 50%dac 100%dac	20%dac HMA 50%dac 100%dac	20%dac HMA 50%dac 100%dac	20%dac HMA 50%dac 100%dac	20%dac HMA 50%dac 100%dac	20%dac HMA 50%dac 100%dac	DO NOT WRITE IN THIS SPACE			
2	45°	50%			101.1	140.7	8.2	5.0	8.7	5.4				
					102.0		8.2	5.0	8.75	5.4				
					102.9		8.2	5.7	8.8	6.2				
					103.8		8.2	5.7	8.7	6.1				
					104.7		8.15	5.78	8.6	6.2				
					105.6		8.20	5.7	8.8	6.15				
					106.5		8.15	5.65	8.7	6.2				
					107.4		8.3	5.9	8.8	6.3				
✓	✓	✓			108.3	✓	8.6	4.3	9.0	5.2	✓	✓	✓	✓

Examiner: DE Houser

Level: II

Examiner: Gary Moss

Level: II

Remarks: MEASUREMENTS ARE TAKEN FROM START OF TAPER INSTEAD OF CENTERLINE OF THE WELD THEREFORE SUBTRACT 2.5" FROM ALL "W" DIMENSIONS FOR CORRECT MEASUREMENTS

Sheet 4 of 36

Reviewed By:

Level:

Date:

Authorized Inspector

Date

Item No:

II

5/1/96

MSI

5-1-96

B02.040.001

DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

(continuation)

Form NDE-UT-2B

Revision 3

Station: <i>OCONEE</i>						Unit: <i>II</i>		Component/Weld ID: <i>2 - SGA - WG 58-1</i>						Date: <i>4/29/96</i>		
IND #		Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps	
DO NOT IN THIS			WRITE SPACE			20% <i>dac</i> HMA 50% <i>dac</i> 100% <i>dac</i>	20% <i>dac</i> HMA 50% <i>dac</i> 100% <i>dac</i>	20% <i>dac</i> HMA 50% <i>dac</i> 100% <i>dac</i>	20% <i>dac</i> HMA 50% <i>dac</i> 100% <i>dac</i>	20% <i>dac</i> HMA 50% <i>dac</i> 100% <i>dac</i>	20% <i>dac</i> HMA 50% <i>dac</i> 100% <i>dac</i>	DO IN	NOT THIS	WRITE SPACE		
2	45°	50%				109.2	140.7	9.5	4.88	10.0	5.16	2	1	dx	alc	
						110.1		8.8	4.88	9.25	5.2					
						111.0		9.0	5.15	9.5	5.35					
						111.9		8.8	4.5	9.0	4.6					
						112.8		8.6	4.7	9.0	5.2					
						113.7		8.9	5.3	9.3	5.5					
						114.6		7.8	3.6	8.4	3.9					
						115.5		8.2	4.3	9.2	4.9					
						116.4		8.2	5.2	8.8	6.0					
Examiner: <i>DE HOUWER</i>						Level: <i>II</i>			Examiner: <i>Day/Moss</i>						Level: <i>II</i>	
Remarks: <i>MEASUREMENTS ARE TAKEN FROM START OF TAPER INSTEAD OF CENTERLINE OF THE WELD THEREFORE SUBTRACT 2.5" FROM ALL "W" DIMENSIONS FOR CORRECT MEASUREMENTS</i>																
Reviewed By: <i>[Signature]</i>						Level: <i>II</i>			Authorized Inspector: <i>[Signature]</i>						Date: <i>5-1-96</i>	
Item No: <i>B02.040.001</i>																

Sheet *5* of *36*

DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS (continuation)

Form NDE-UT-2B

Revision 3

Station: <u>OCONEE</u>					Unit: <u>II</u>		Component/Weld ID: <u>2 - SGA - WG 58-1</u>						Date: <u>4/24/96</u>		
IND #		Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps
DO NOT WRITE IN THIS SPACE						20% <u>dac</u> HMA 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> HMA 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>		DO NOT WRITE IN THIS SPACE		
2	45°	50%				117.3	140.7	8.8	4.4	9.3	4.7	2	1	AX	NC
						118.2		7.6	5.9	8.8	6.6				
						119.1		6.7	4.9	7.8	5.2				
						120.0		7.2	4.4	7.8	4.6				
						120.9		7.8	4.3	8.6	4.7				
						121.8		7.13	5.3	8.0	5.4				
						122.7		7.0	5.1	7.7	5.5				
						123.6		7.5	4.9	8.3	5.5				
						124.5		7.6	4.4	8.2	4.8				

Examiner: <u>DeHouwer</u>		Level: <u>II</u>		Examiner: <u>Daryl Moss</u>		Level: <u>II</u>	
Remarks: MEASUREMENTS ARE TAKEN FROM START OF TAPER INSTEAD OF CENTERLINE OF THE WELD THEREFORE SUBTRACT 2.5" FROM ALL "W" DIMENSIONS FOR CORRECT MEASUREMENTS						Sheet <u>6</u> of <u>36</u>	
Reviewed By: <u>[Signature]</u>		Level: <u>II</u>		Date: <u>5/1/96</u>		Authorized Inspector: <u>[Signature]</u> Date: <u>5-1-96</u>	
						Item No: <u>B02.040.001</u>	

DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

(continuation)

Form NDE-UT-2B

Revision 3

Station: <u>OCONEE</u>					Unit: <u>II</u>		Component/Weld ID: <u>2-SGA-WG 58-1</u>						Date: <u>4/29/96</u>		
IND #	Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps	
DO NOT WRITE IN THIS SPACE					20% <u>dac</u> HMA 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> HMA 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	DO NOT WRITE IN THIS SPACE			
2	45°	50%			125.4	140.7	7.0	4.4	7.6	4.8	2	1	AX	NO	
					126.3		7.2	4.5	7.85	4.9					
					127.2		6.9	4.1	7.9	5.1					
					128.1		6.8	4.7	7.5	4.9					
					129.0		6.8	4.4	7.4	4.8					
					129.9		6.5	4.0	7.0	4.4					
					130.8		7.2	5.0	7.7	5.4					
					131.7		7.1	5.3	7.7	5.8					
					132.6		8.2	4.9	8.7	5.2					
Examiner: <u>DE Houser</u>					Level: <u>II</u>			Examiner: <u>Mary Moss</u>					Level: <u>II</u>		
Remarks: <u>MEASUREMENTS ARE TAKEN FROM START OF TAPER INSTEAD OF CENTERLINE OF THE WELD THEREFORE SUBTRACT 2.5" FROM ALL "W" DIMENSIONS FOR CORRECT MEASUREMENTS</u>												Sheet <u>7</u> of <u>36</u>			
Reviewed By: <u>[Signature]</u>					Level: <u>II</u>		Date: <u>5/1/96</u>		Authorized Inspector: <u>[Signature]</u>			Date: <u>5-1-96</u>		Item No: <u>B02.040.001</u>	

DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

(continuation)

Form NDE-UT-2B

Revision 3

Station: <i>OCONEE</i>						Unit: <i>II</i>		Component/Weld ID: <i>2-SGA-WIG 58-1</i>						Date: <i>4/29/96</i>		
IND #		Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps	
DO NOT WRITE IN THIS SPACE						20% <u>dac</u> HMA 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> HMA 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	20% <u>dac</u> <u>HMA</u> 50% <u>dac</u> 100% <u>dac</u>	DO NOT WRITE IN THIS SPACE				
<i>2</i>	<i>45°</i>	<i>50%</i>				<i>133.5</i>	<i>140.7</i>	<i>8.2</i>	<i>4.9</i>	<i>8.7</i>	<i>5.3</i>	<i>2</i>	<i>1</i>	<i>Δx</i>	<i>dc</i>	
						<i>134.4</i>		<i>8.4</i>	<i>4.6</i>	<i>9.7</i>	<i>5.5</i>					
						<i>135.3</i>		<i>7.5</i>	<i>5.8</i>	<i>8.3</i>	<i>6.4</i>					
						<i>136.2</i>		<i>4.9</i>	<i>9.2</i>	<i>5.2</i>	<i>10.0</i>					
						<i>137.1</i>		<i>9.0</i>	<i>4.2</i>	<i>9.5</i>	<i>4.5</i>					
						<i>138.0</i>		<i>6.7</i>	<i>4.9</i>	<i>7.3</i>	<i>5.2</i>					
						<i>138.9</i>		<i>6.7</i>	<i>3.9</i>	<i>7.2</i>	<i>4.3</i>					
						<i>139.8</i>		<i>7.2</i>	<i>5.1</i>	<i>7.7</i>	<i>5.5</i>					
						<i>140.7</i>		<i>7.2</i>	<i>5.0</i>	<i>7.6</i>	<i>5.4</i>					
Examiner: <i>DeHouser</i>						Level: <i>II</i>			Examiner: <i>May/Mon</i>			Level: <i>II</i>				
Remarks: <i>MEASUREMENTS ARE TAKEN FROM START OF TAPER INSTEAD OF CENTERLINE OF THE WELD THEREFORE SUBTRACT 2.5" FROM ALL "W" DIMENSIONS FOR CORRECT MEASUREMENTS</i>																
Reviewed By: <i>[Signature]</i>						Level: <i>II</i>		Date: <i>5/1/96</i>		Authorized Inspector: <i>[Signature]</i>		Date: <i>5-1-96</i>		Item No: <i>302.040.001</i>		

Sheet *8* of *36*

DUKE POWER COMPANY


ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

(continuation)

Form NDE-UT-2B

Revision 3

Station: Ocone WUC Unit: II Component/Weld ID: 2 SGA-WG 58-1 Date: 4-29-96

IND #		Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps
DO NOT WRITE IN THIS SPACE			WRITE SPACE			20%dac	20%dac	20%dac	20%dac	20%dac	20%dac	DO NOT WRITE IN THIS SPACE			
						HMA	HMA	HMA	HMA	HMA	HMA				
						50%dac	50%dac	50%dac	50%dac	50%dac	50%dac				
						100%dac	100%dac	100%dac	100%dac	100%dac	100%dac				
3	45	32	11.5	9.2	148.9	148.5	149.3	11.2	9.0	11.9	9.46	2	1	AX	No
/	45/60	No	OTHER RECORDABLE INDICATIONS			IN AXIAL DIR.									
/	45/60	No	RECORDABLE INDICATIONS IN			CIRC DIRECTION.									
4	60 RL	25	2.2	4.8	104.2	104.0	104.5	2.0*	4.5	2.35*	4.9	2	1	AX	No
/	60 RL	No	OTHER RECORDABLE INDICATIONS IN			AXIAL DIRECTION.									
/	60 RL	No	RECORDABLE INDICATIONS IN			CIRC DIRECTION.									
5	35	31	8.7	4.5	86.0	85.9	86.1	8.6	4.42	8.8	4.58	2	1	AX	No
6	35	25	7.0	3.85	97.9	97.6	98.1	6.85	3.8	7.2	3.95	2	1	AX	No
7	35	22	7.0	5.1	102.5	102.4	102.8	6.85	5.0	7.3	5.15	2	1	AX	No

Examiner: DeHouwer James W. Steen Level: II III Examiner: Jay A. Bilb Level: III
Sam Mos B. Galt Gally I James A. Paul I

Remarks: * THESE W READING WERE TAKEN FROM E OF WELD. ALL OTHERS WERE TAKEN AT THE START OF TAPE 2. THEREFORE SUBTRACT 2.5" FROM ALL OTHER W READINGS. Sheet 9 of 36

Reviewed By:  Level: II Date: 5/1/96 Authorized Inspector: Y. K. C. Date: 5-1-96 Item No: B02.040.001

DUKE POWER COMPANY

ULTRASONIC EXAMINATION DATA SHEET FOR PLANAR REFLECTORS

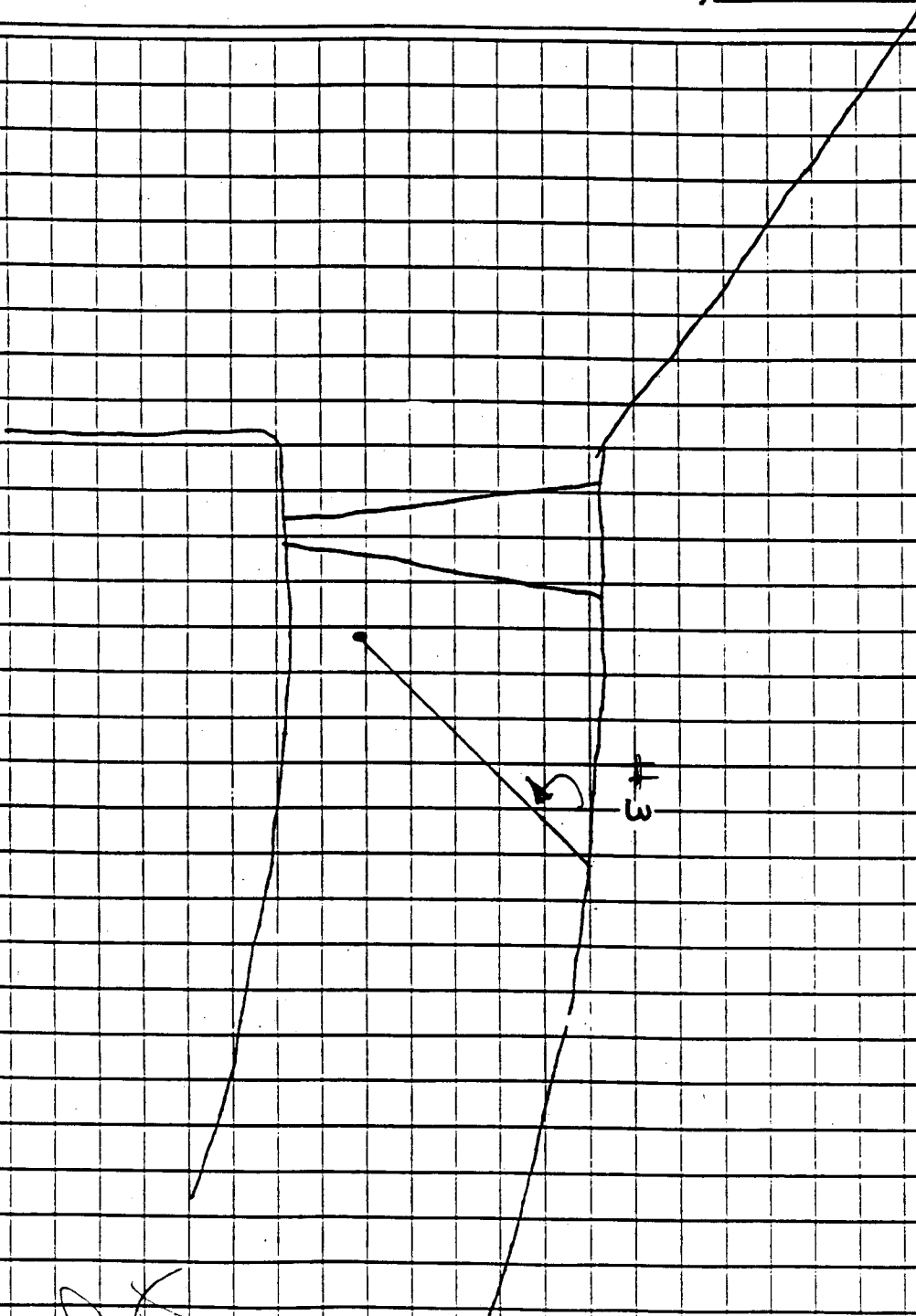
(continuation)

Form NDE-UT-2B

Revision 3

Station: <u>Oconee Nuc.</u>						Unit: <u>II</u>		Component/Weld ID: <u>2-SGA-WG 58-1</u>					Date: <u>4-29-96</u>		
IND #	Max % Ref	W Max	Mp Max	L Max	L1	L2	W1	Mp1	W2	Mp2	Beam Dir	Exam surf.	Scan	Damps	
DO NOT WRITE IN THIS SPACE					20%dac	20%dac	20%dac	20%dac	20%dac	20%dac	DO NOT WRITE IN THIS SPACE				
					HMA	HMA	HMA	HMA	HMA	HMA					
					50%dac	50%dac	50%dac	50%dac	50%dac	50%dac					
					100%dac	100%dac	100%dac	100%dac	100%dac	100%dac					
8	35	25	7.0	5.05	104.85	104.8	105.6	6.85	4.95	7.3	5.15	2	1	AX	No
9	35	56	7.0	4.05	123.9	123.5	124.5	6.8	3.9	7.2	4.20	2	1	AX	No
10	35	28	7.0	3.95	127.8	127.4	128.05	6.8	3.65	7.2	4.20	2	1	AX	No
INDICATIONS 5 - 10 ARE FOR SUPPLEMENTAL DATA ONLY FOR INDICATION															
#2, 45°.															
/ 35° NO RECORDABLE INDICATIONS (FOR TYPE SHEET SIDE ONLY ACTING AS A "0°" SCAN)															
Examiner: <u>DeHaver</u>							Level: <u>II</u>		Examiner: <u>Doug S. Bell</u>				Level: <u>III</u>		
Remarks: <u>all W1 MEASUREMENTS TAKEN FROM START OF TAPER. THEREFORE SUBTRACT 2.5" FROM all W1 MEASUREMENTS.</u>												Sheet <u>10</u> of <u>36</u>			
Reviewed By: <u>[Signature]</u>			Level: <u>II</u>		Date: <u>5/1/96</u>		Authorized Inspector: <u>[Signature]</u>			Date: <u>5-1-96</u>		Item No: <u>B02.040.001</u>			

Station _____ Unit _____ Rev. _____ File No. _____ Sheet _____ Of _____
 Subject _____
 By _____ Date _____
 Prob No. _____ Checked By _____ Date _____



Item # B02.040.001
 Component # 2-S GA-UG58-1
 450 Indication # 3

[Handwritten signature]
 II

Station _____ Unit _____ Rev. _____ File No. _____ Sheet _____ Of _____
 Subject _____

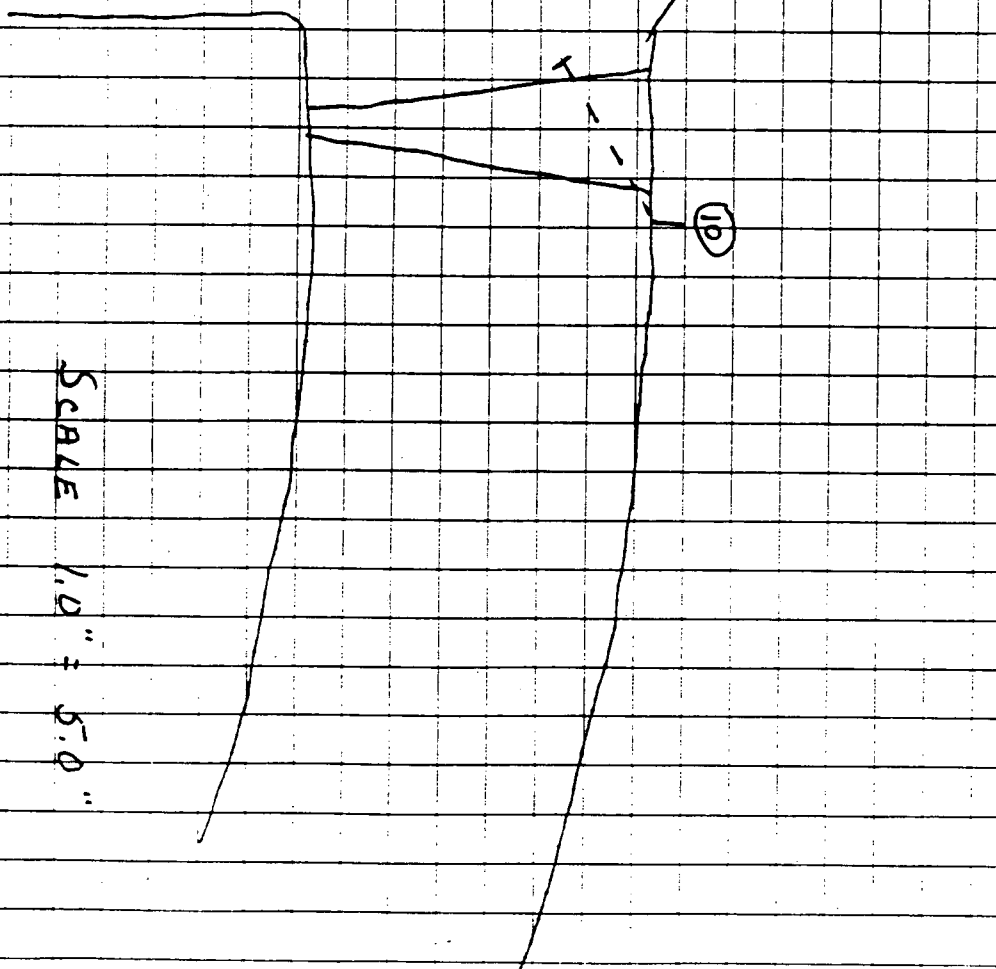
By _____ Date _____

Prob No. _____ Checked By _____ Date _____

ITEM # 1302.040.001
 COMPONENT # 2 SGA-4658 I.
 450 Indication # 2
 60° Indication # 1

[Signature]
 II

Station Oconee Unit 2 Rev. _____ File No. _____ Sheet _____ Of _____
 Subject Upper Head To Tube Sheet
 By Greg L. Bill Date 4-29-96
 Prob No. _____ Checked By [Signature] Date 5/1/96



SCALE 1.0" = 5.0"

BDZ.040.001
 Z54A-10658-1
 PAGE OF

DUKE POWER COMPANY

Form NDE-UT-8

ULTRASONIC INDICATION RESOLUTION SHEET

Revision 1

Acceptance Standard: ASME SECT XI 114B-3510

NOTE: INDICATION #1 IS THE SAME INDICATION AS IS #2. NO TWD'S WERE OBTAINED DUE TO PART GEOMETRY, WHERE THE HEAD & FLAT SURFACE MEET.

INDICATION #2 IS A SUBSURFACE PLANAR REFLECTOR. $l = .56"$ $a = .4$ $a/l = 0.00$
INDICATION #2. $a/t = 4.7\%$ MAX ALLOWABLE FOR ASPECT RATIO OF 0.00 IS 2% \therefore FLOW IS REJECTABLE

INDICATION #2 BECAME RECORDABLE WITH THE CHANGE IN RECORDING CRITERIA STARTING WITH THE 1989 SECTION XI. EXAMINATION PERFORMED DURING THIS OUTAGE

WERE 2.5 TIMES MORE SENSITIVE THAN BEFORE.

INDICATION #3 IS A SUBSURFACE PLANAR REFLECTOR $l = .8"$ $a = .23$ $a/l = .28$, $a/t = 2.7\%$.
BY USING LINEAR INTERPOLATION THE MAX ALLOWABLE IS 4.2% \therefore ACCEPTABLE.

INDICATION #4 IS A SUBSURFACE PLANAR REFLECTOR $l = .50$ $a = .10$ $a/l = .20$ $a/t = 1.1\%$
THE MAX ALLOWABLE IS 3.3% \therefore ACCEPTABLE.

Acceptable Indications: # 3 # 4

Rejectable Indications: # 2

These indications have been compared with previous ultrasonic data

☒ yes☐ No previous data available

Examiner

Level:

III

Date:

5-1-96

Sheet 14 of 36

Reviewer:

Level:

II

Date:

5/1/96

Authorized Inspector:

Date:

5/1/96

B02.040.001

DUKE POWER COMPANY

ISI LIMITATION REPORT

FORM NDE- UT-4

Revision 1

Component/Weld ID: 25GA-WG58-1 Item No: 302.040.001

remarks:

☒ NO SCAN SURFACE BEAM DIRECTION
☐ LIMITED SCAN ☒ 1 ☐ 2 ☐ 1 ☒ 2 ☐ cw ☐ ccw
 FROM L 4/3" to L 19" INCHES FROM WO 19.5" to BEYOND
 ANGLE: ☐ 0 ☐ 45 ☒ 60 other FROM DEG to DEG

DUE TO MANWAY, TOTAL
LENGTH 31".

☒ NO SCAN SURFACE BEAM DIRECTION
☐ LIMITED SCAN ☐ 1 ☒ 2 ☒ 1 ☐ 2 ☐ cw ☐ ccw
 FROM L 39.2" to L 41.5" INCHES FROM WO 8.5" to 11.5"
 ANGLE: ☐ 0 ☐ 45 ☐ 60 other 70° ON TAPER FROM DEG to DEG

DUE TO VENT CONNECTION
NO SCAN WAS PERFORMED
PAST 8.5"

☐ NO SCAN SURFACE BEAM DIRECTION
☒ LIMITED SCAN ☐ 1 ☒ 2 ☒ 1 ☐ 2 ☒ cw ☒ ccw
 FROM L to L INCHES FROM WO .75" to 2.0"
 ANGLE: ☒ 0 ☐ 45 ☐ 60 other FROM 0 DEG to 360 DEG

DUE TO TAPER A 35° WAS
USED TO PRODUCE A 0° IN PART

☒ NO SCAN SURFACE BEAM DIRECTION
☐ LIMITED SCAN ☐ 1 ☒ 2 ☒ 1 ☐ 2 ☒ cw ☒ ccw
 FROM L to L INCHES FROM WO to
 ANGLE: ☐ 0 ☒ 45 ☒ 60 other FROM 0 DEG to 360 DEG

A 70° WAS USED ON TAPER,
A 45° & 60° WAS NOT USED ON
TAPER. THE RULE THAT WOULD
BE PRODUCED IN PART WOULD
BE 35° OR LESS

Sketch(s) attached

☒ yes

☐ no

Prepared By: Jamson P. [Signature]

Level: II

Date: 4.24.81

Sheet 15 of 36

Reviewed By: [Signature]

Date: 5/1/86

Authorized Inspector: [Signature]

Date: 7-1-86

Station OCONEE Unit 2 Rev. 1

Subject UPPER HEAD TO TUBE SHEET

Job No. B02.040.001

Checked by [Signature]

4-24-96

5/1/96

20
17
20

to DETERMINING AGGREGATE COVERAGE

	VE	VR
SUBTOTALS: BASE	125424.97	172975.04
WELD	33024.88	39533.76
NEAR SURFCE	25181.3	44333.44
TOTAL	183631.1	256842.24

$$\begin{aligned}
 \text{AGG. \%} &= 183631.1 / 256842.24 \times 100\% \\
 &= 71.5\%
 \end{aligned}$$

DUKE POWER COMPANY						NDE-91-1	
Limited Examination Coverage Worksheet						Revision 0	
Examination Volume/Area Defined							
Base Metal <input checked="" type="checkbox"/>		Weld <input type="checkbox"/>		Near Surface <input type="checkbox"/>		Bolting <input type="checkbox"/>	
						Inner Radius <input type="checkbox"/>	
Area Calculation				Volume Calculation			
58.28				$58.28 \times 424 = V_R = 24,710.7$			
Coverage Calculations							
Scan #	Angle	Beam Direction	Area Examined (sq.in.)	Length Examined (in)	Volume Examined (cu.in.)	Volume Required (cu.in.)	Percent Coverage
1	0°	n/a	49.15	424	20839.6	24,710.7	
(350 on Taper)							
2	45/60	1	40.83	424	17311.92		
(70 on Taper)							
					- VENT CORR. 7466		
					17237.26		
3	45/60	2	56.09	424	23782.16		
					271.25		
					23510.91		
4	45	CW	37.64	424	15959.3		
5	45	CCW	37.64	424	15959.3		
6	60	CW	37.64	424	15959.3		
7	60	CCW	37.64	424	15959.3		
Sub total					125424.97	24710.7 x 7 = 172975.04	
Pg. 2 of 4720 subs							
					Item No: B02.040.001		
Prepared BY: <i>JW Setzer</i>				Level: <i>IR</i>		Date: 4-24-96	
Reviewed By: <i>[Signature]</i>				Level: <i>II</i>		Date: 5/1/96	

DUKE POWER COMPANY Limited Examination Coverage Worksheet	NDE-91-1
	Revision 0

Examination Volume/Area Defined	
Base Metal <input type="checkbox"/>	Weld <input checked="" type="checkbox"/> Near Surface <input type="checkbox"/> Bolting <input type="checkbox"/> Inner Radius <input type="checkbox"/>
Area Calculation	Volume Calculation
$\frac{6.375}{2} \times (2.5 + .75) =$ 10.36 sq. in.	$10.36 \text{ sq. in.} \times 424 =$ 4392.64 cu. in.

Coverage Calculations							
Scan #	Angle	Beam Direction	Area Examined (sq.in.)	Length Examined (in)	Volume Examined (cu.in.)	Volume Required (cu.in.)	Percent Coverage
—	0°	—	10.36	424	4392.64	4392.64	
1	45	2	10.36	424	4392.64	4392.64	
2	35	1	5.42	424	2298.08		
	(70° ON TAPER)				VENT CONN. - 4.32		
					2293.76	4392.64	
1	60	2	10.36	424	4392.64		
					MANWAY - 17.36		
					4375.28	4392.64	
2	60	1	0	424	0	4392.64	
CW	45	CCW	10.36	424	4392.64	4392.64	
CCW	45	CW	10.36	424	4392.64	4392.64	
CW	60	CCW	10.36	424	4392.64	4392.64	
CCW	60	CW	10.36	424	4392.64	4392.64	
						33024.88 ÷ 39533.76 × 100 =	83.54%

Page 3 of 720

Item No: B02 040.001

Prepared BY: <i>[Signature]</i>	Level: III	Date: 4.24.95
Reviewed By: <i>[Signature]</i>	Level: II	Date: 5/1/95

DUKE POWER COMPANY
Limited Examination Coverage Worksheet

NDE-91-1

Revision 0

Examination Volume/Area Defined

Base Metal ☐ Weld ☐ Near Surface ☒ Bolting ☐ Inner Radius ☐

Area Calculation

26.14

Volume Calculation

$$26.14 \times 424 = 11083.36 = VR$$

Coverage Calculations

Scan #	Angle	Beam Direction	Area Examined (sq.in.)	Length Examined (in)	Volume Examined (cu.in.)	Volume Required (cu.in.)	Percent Coverage
1	60	1/2	17.56	424	7445.4	11083.36	
2	60	2/1	10.33	424	4379.9	}	
CW	60	CW	15.75	424	6678		
CCW	60	CCW	15.75	424	6678	11083.36	
Sub total				25181.3	44333.44		

△ 60 RL WAS USED IN PLACE OF A 70° & NO OSCILLATION FOR CIRC SCAN.

Page 4 of 1720
JWS

Item No: B02-040.001

Prepared BY: JWS Subject

Level: III

Date: 4-24-85

Reviewed By: [Signature]

Level: II

Date: 5/1/86

Station CRONE Unit 2 Rev. _____ File No. _____ Sheet 5 of 20
 Subject UPPER HEAD TO TUBE SHEET
 ITEM # BOZ. 040.001 By JW Setty III Date 4.24.95
 Prob No. 25GA-WG58-1 Checked By [Signature] Date 5/1/96

SUMMARY OF LOSS DUE TO LIMITATIONS

TAPER: No 45° & 60° SCANS WERE DONE, A 70° WAS USED TO PRODUCE A 35° INTO PART. A 35° WEDGE WAS USED TO PRODUCE A 0° INTO PART. NO NEAR SURFACE EXAM WAS DONE ON TAPER.

VENT CONNECTION:

35° (70° ON TAPER) SURFACE 2 TO 1
 BASE METAL 32.46 sq. in.
 LENGTH 2.3 in.
74.658 = 74.66 cu. in.

WELD METAL 1.88 sq. in.
 LENGTH 2.3 in.
4.324 = 4.32 cu. in.

SUPPORT PADS: No ADDITIONAL LOSS

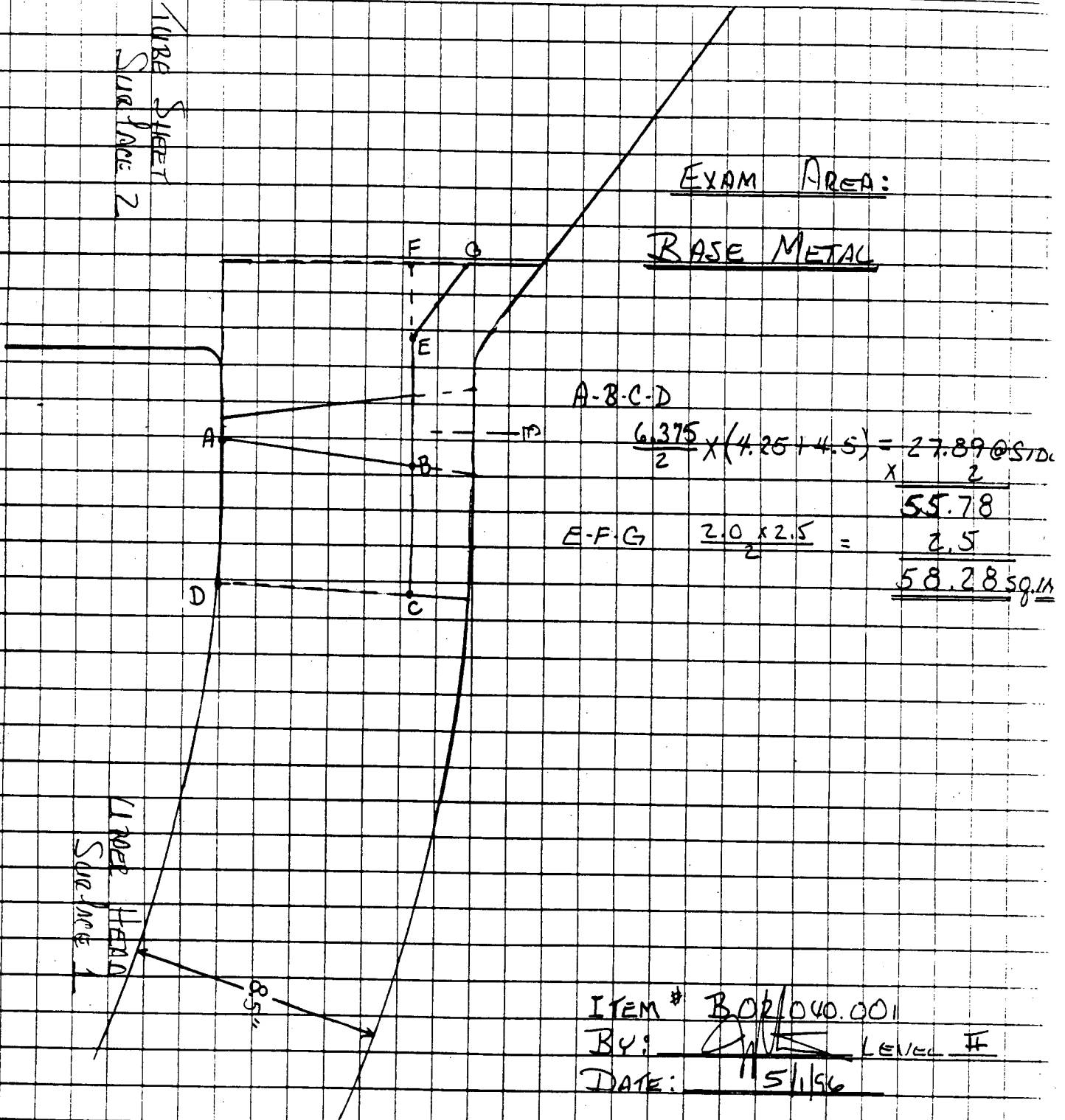
MANWAY:

60° (SURFACE 1 TO 2)
 BASE METAL 8.75 sq. in.
 LENGTH 31"
271.25 cu. in.

WELD METAL .56 sq. in.
 LENGTH 31"
17.36 cu. in.

WELD LENGTH = 424 in.

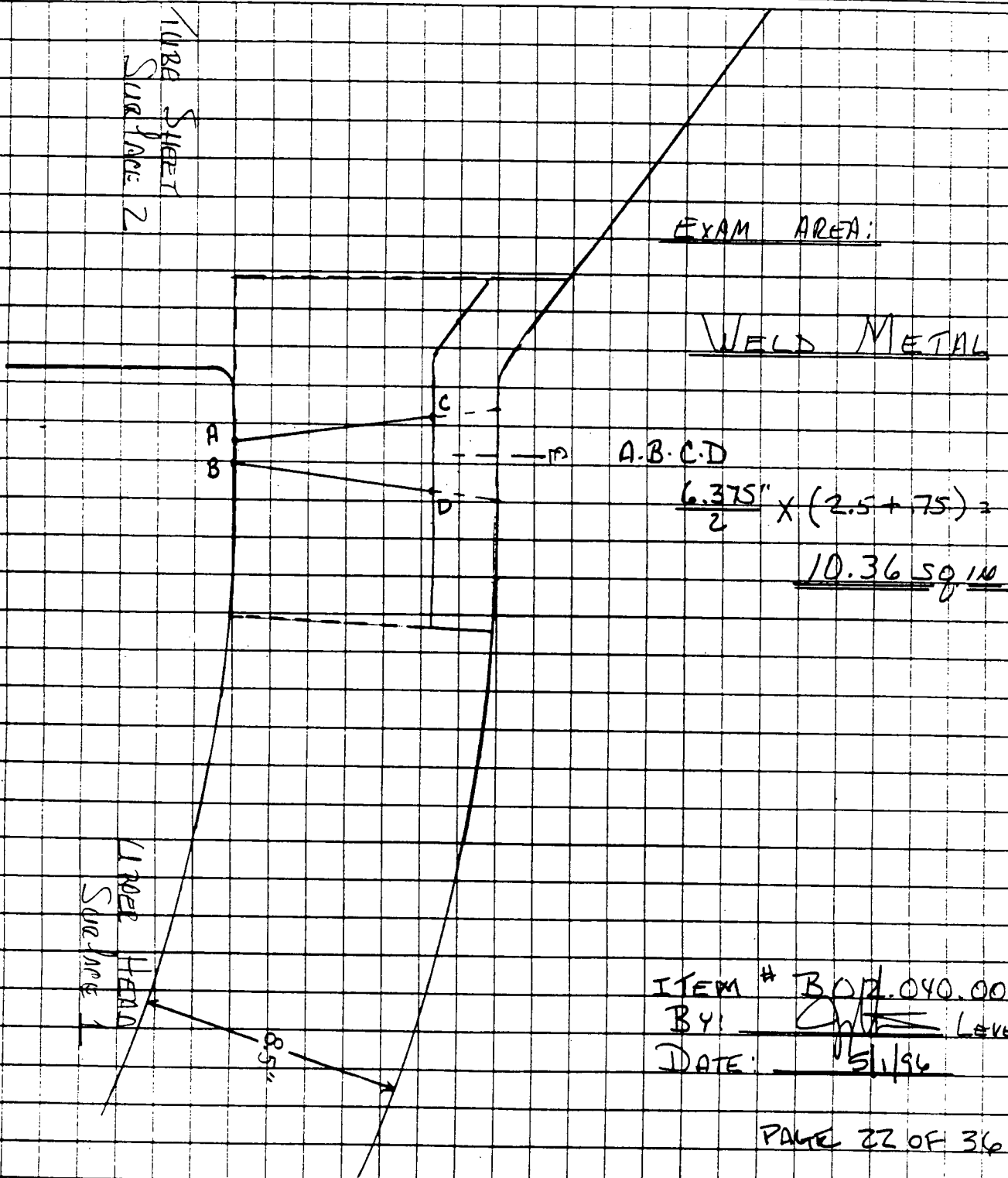
Station DONEE Unit 2 Rev. _____ File No. _____ Sheet 6 of 2
 Subject UPPER HEAD TO TURE SHEET
 By JWS/15/8 III Date 4-24-96
 Prob No. 2 SGA-WG 58-1 Checked By _____ Date _____



SCALE 1.0" = 5.0"

PAGE 21 OF 36

Station DOONEE Unit 2 Rev. _____ File No. _____ Sheet 7 of 20
 Subject UPPER HEAD TO TUBE SHEET
 By John S. Taylor IV Date 4-24-86
 Prob No. 2 SGA-WG58-1 Checked By _____ Date _____

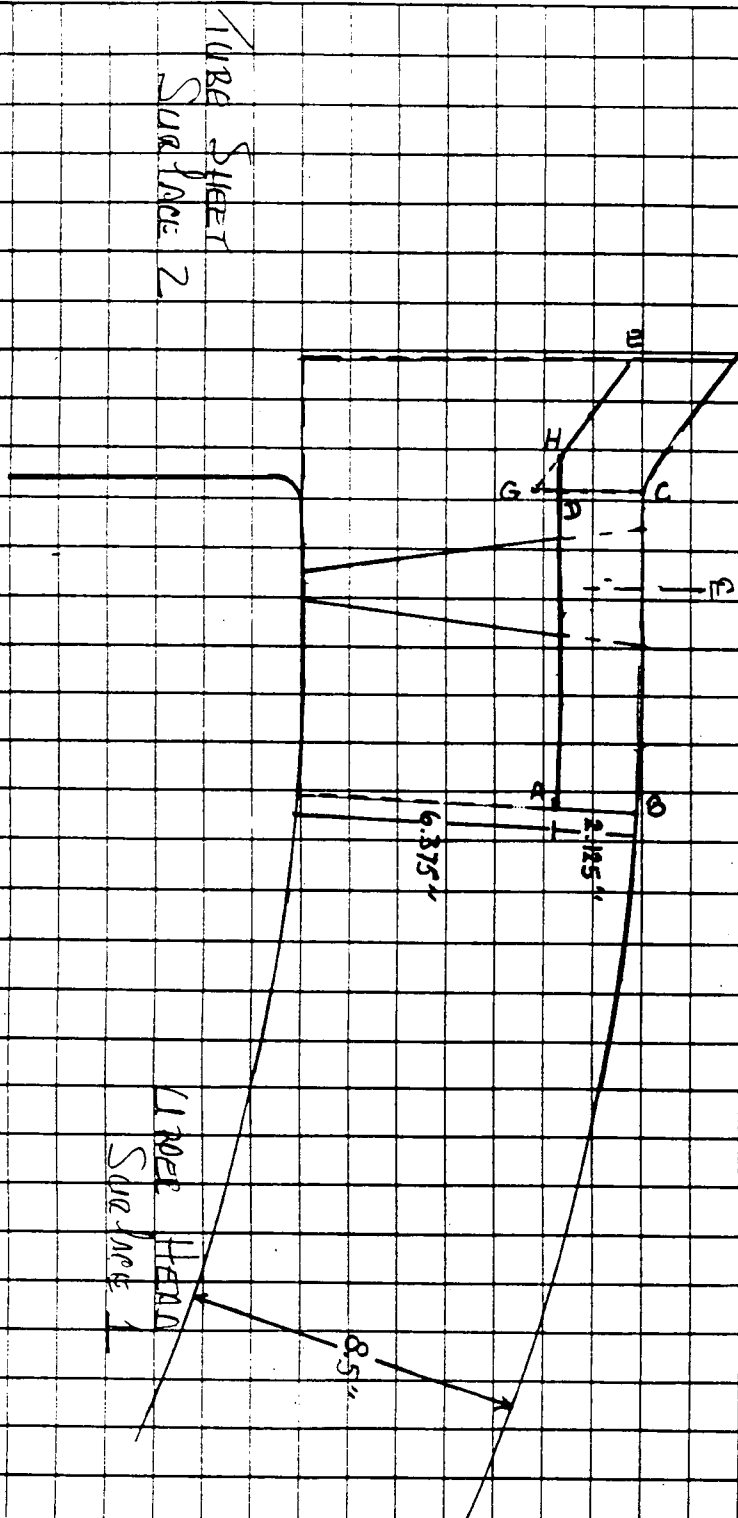


ITEM # BOD.040.001
 BY: [Signature] LEVEL II
 DATE: 5/1/86

PAGE 22 OF 36

SCALE 1.0" = 5.0"

Station DCNFE Unit 2 Rev. File No. Sheet 8 of 17
 Subject UPPER HEAD TO TURE SHEET
 By J. S. J. III Date 4.24.95
 Prob No. 2 SGA-WG 58-1 Checked By Date



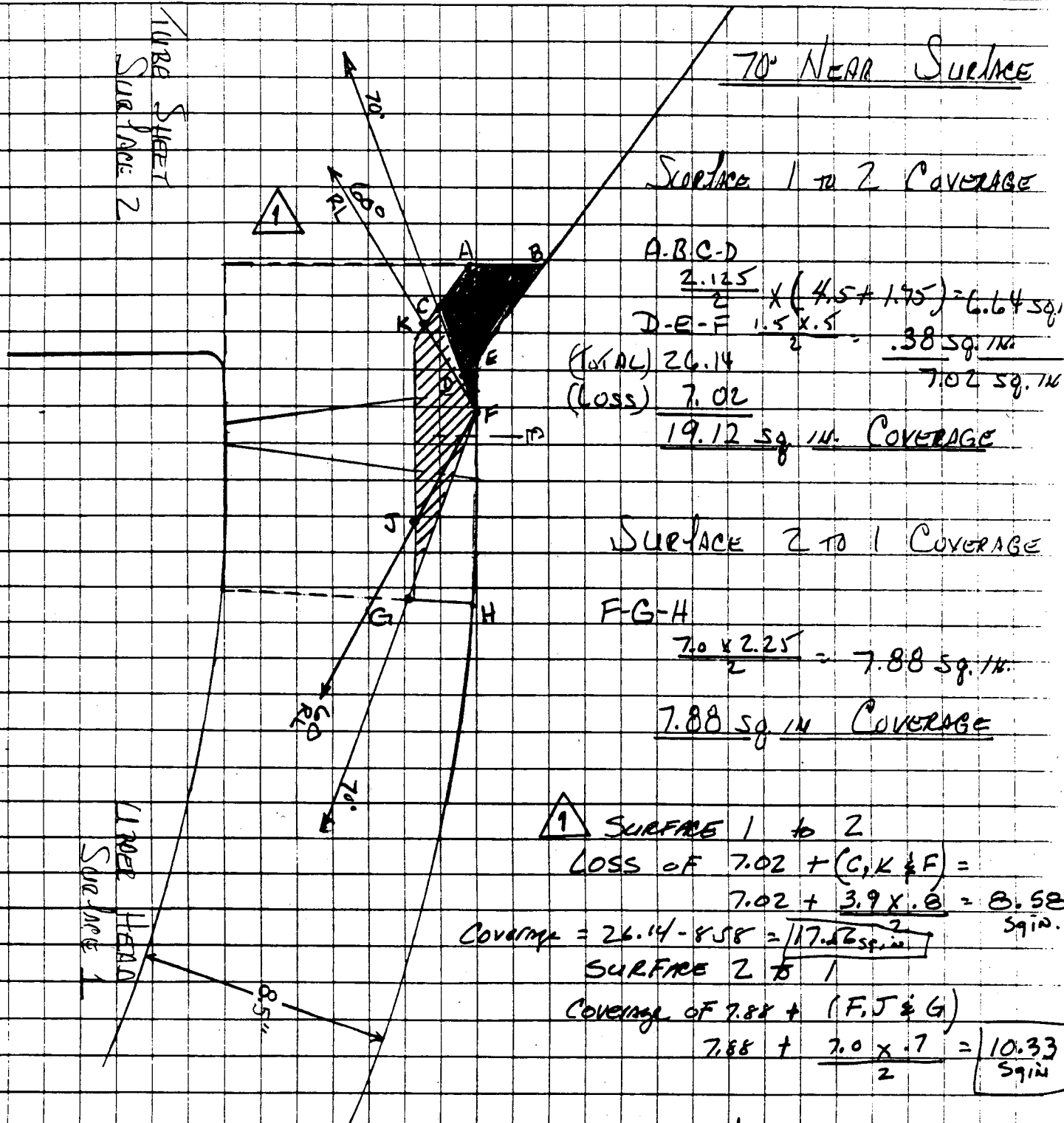
EXAMINATION AREAS:
 NEAR SURFACE:
 A-B-C-D C-D-E-F D-G:
 $2.125" \times 8.125" + (4.0' \times 2.125" - \frac{1.0 \times 7.5}{2})$
26.14 SQ. IN.

ITEM # B02.040.001
 BY: Level II
 DATE: 5/1/96

SCALE 1.0" = 5.0"

PAGE 23 OF 36

Station DOONEE Unit 2 Rev. File No. Sheet 8 Jul 97
 Subject UPPER HEAD TO TUBE SHEET 9 20
 By JWS/sgs Date 4.24.98
 Prob No. 2 SGA-WG 58-1 Checked By Date

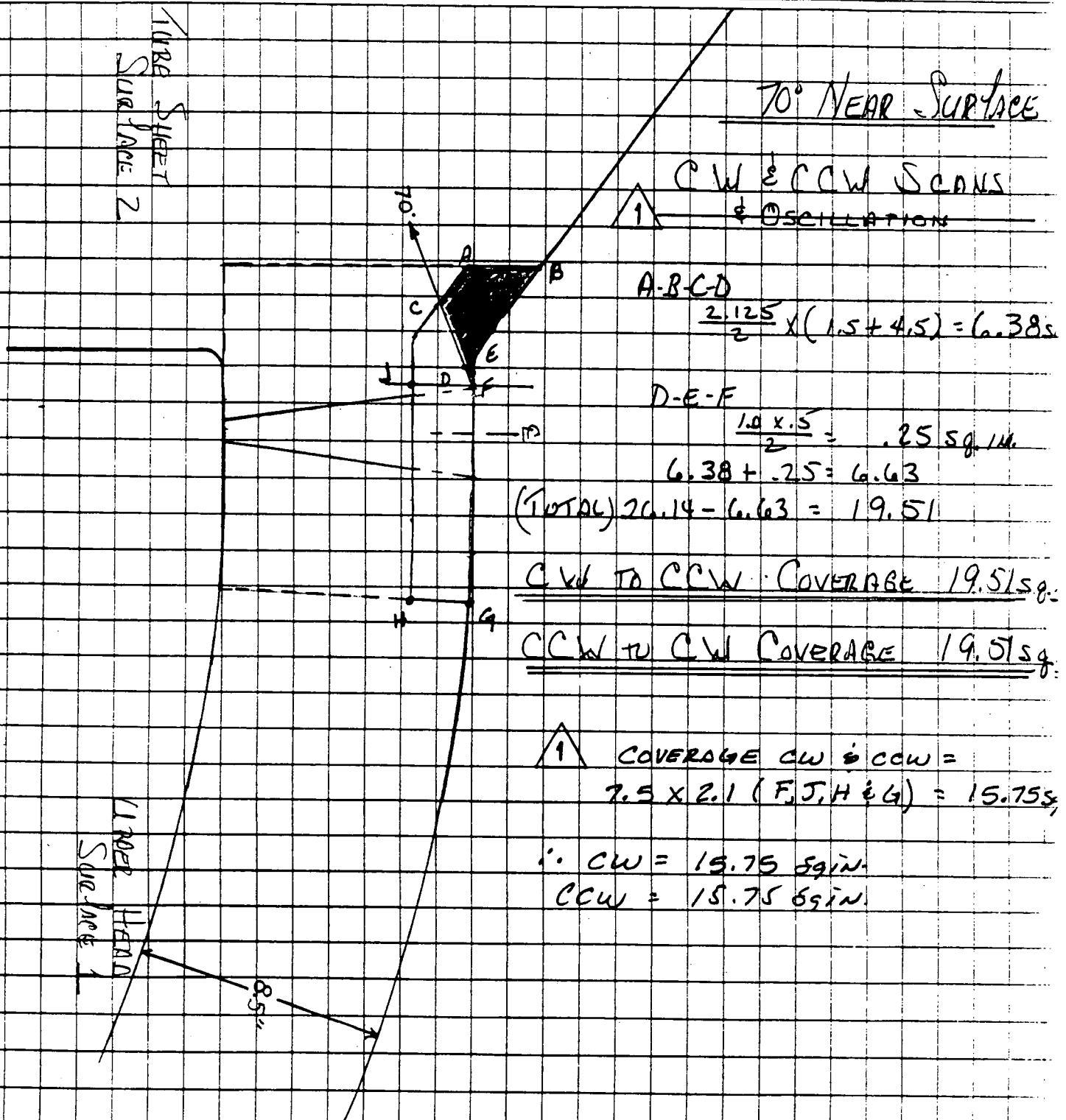


SCALE 1.0" = 5.0"

- ☐ - 100% COVERAGE
- ☒ - LESS THAN 10.1% COVERAGE
- ☐ - NO COVERAGE

ITEM# B02.040.001
 BY: LEVEL #
 DATE: 5/1/98

Station UNCONF Unit 2 Rev. _____ File No. _____ Sheet 10 of 17
Subject UPPER HEAD TO TURE SHEET 10 20
By JW O'Leary III Date 4-24-88
Prob No. 2 SGA-WG58-1 Checked By _____ Date _____



SCALE 1.0' = 5.0'

☐ - 100% COVERAGE
☒ - LESS THAN 100% COVERAGE
☐ - NO COVERAGE

ITEM# B02.040.001

By: Chad Level: #

DATE: 11/5/54

Station CONCRETE Unit 2 Rev. III File No. 608 Sheet 8 of 17
 Subject PIPEL HEAD TO TUBE SHEET 11 20
 By JW 6/20/86 Date 4-24-86
 Prob No. 2 SGA-WG 58.1 Checked By _____ Date _____

TUBE SHEET
SURFACE 2

0° (35° ON TAPER)

BASE METAL:

A-B-C-D

$$\frac{6.375}{2} \times (4.25 + 1.5) = 27.89 \text{ sq. in.}$$

E-F-G-H

$$\frac{6.375}{2} \times (1.5 + 1.5) = 6.375 = 6.38 \text{ sq. in.}$$

I-J-K-L

$$\frac{2.0}{2} \times (6.375 + 8.5) = 14.875 = 14.88$$

COVERAGE 49.15 sq. in.

WELD METAL

C-D-E-H

$$\frac{6.375}{2} \times (2.5 + .75) = 10.36$$

COVERAGE 10.36 sq. in.

PIPEL HEAD
SURFACE 1

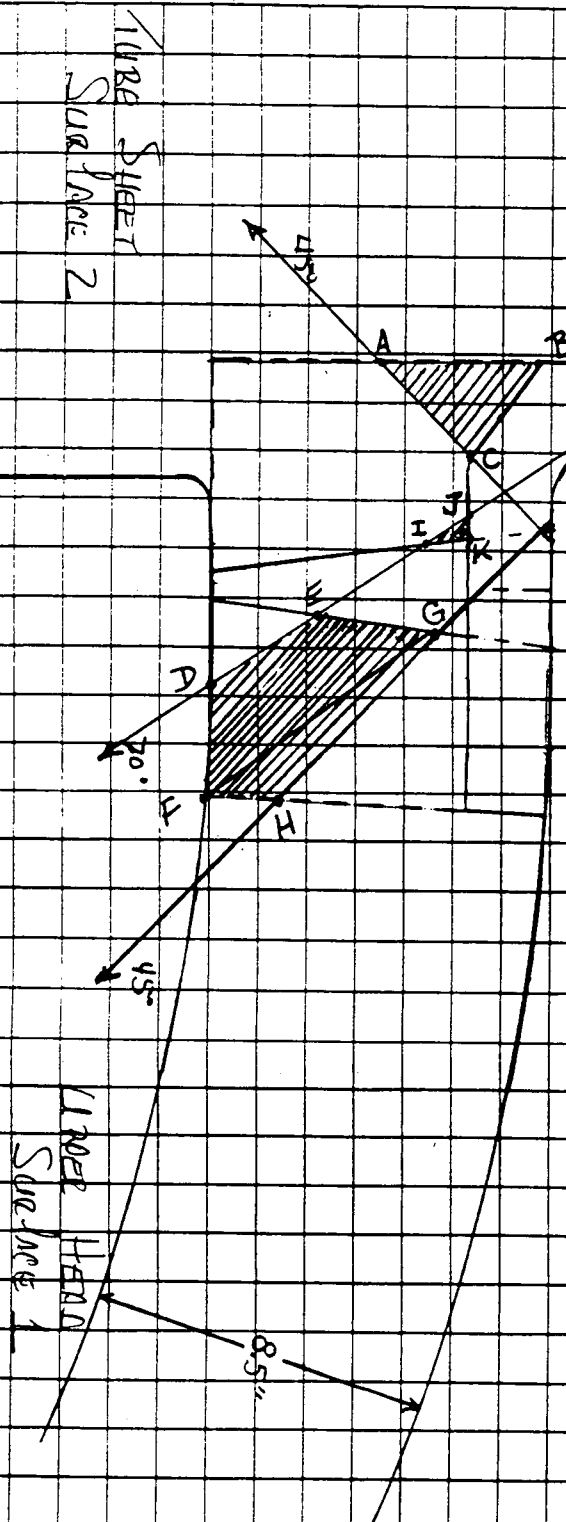
8.5"

SCALE 1.0' = 5.0"

- ☐ 100% COVERAGE
☒ LESS THAN 100% COVERAGE
☐ NO COVERAGE

ITEM # BOZ. 040.001
 BY: JW LEVEL II
 DATE: 5/1/86

Station DCONEE Unit 2 Rev. _____ File No. _____ Sheet 9 of 17
 Subject UPPER HEAD TO TURE SHEET 12 20
 By Justin T. II Date 4-20-90
 Prob No. 2 SGA-WG 58-1 Checked By _____ Date _____



BASE METAL
 $45^\circ (70^\circ \text{ TAPER} = 35^\circ)$

SURFACE 1 TO 2 COVERAGE

A-B-C $\frac{4.0 \times 2.25}{2} = 4.5 \text{ sq. in.}$

(TOTAL) $58.28 - 4.5 (\text{LOSS}) = \underline{53.78 \text{ sq. in.}}$

SURFACE 2 TO 1 COVERAGE

I-J-K $\frac{1.5 \times .5}{2} = .375 = .38 \text{ sq. in.}$

D-E-F-G $\frac{2.25}{2} \times (7.5 + 3.5) = 12.38 \text{ sq. in.}$

F-G-H $\frac{7.5 \times 1.25}{2} = 4.69 \text{ sq. in.}$

(TOTAL) $58.28 - 17.45 (\text{LOSS}) = \underline{40.83 \text{ sq. in.}}$

SCALE 1.0" = 5.0"

- ☐ 100% COVERAGE
- ☒ LESS THAN 100% COVERAGE
- ☐ NO COVERAGE

ITEM # B02040.001

By: [Signature] LEVEL II

DATE: 5/1/94

Station DCONEE Unit 2 Rev. File No. Sheet 10 of 17
 Subject UPPER HEAD TO TUBE SHEET 13 20
 By JW Stryker III Date 4-24-95
 Prob No. 2 SGA-WG58-1 Checked By Date

TUBE SHEET
SURFACE 2

WELD METAL
45° (70°-TAPER = 35°)

SURFACE 1 TO 2 COVERAGE

100% COVERAGE = 10.36 sq. in.

SURFACE 2 TO 1 COVERAGE

A-B-C $\frac{5.75 \times .75}{2} = 2.16 \text{ sq. in.}$

B-C-D $\frac{5.75 \times 1.0}{2} = 2.88 \text{ sq. in.}$

E-F-G $\frac{1.0 \times .75}{2} = .38 \text{ sq. in.}$

5.42 sq. in.

UPPER HEAD
SURFACE 1

SCALE 1.0" = 5.0"

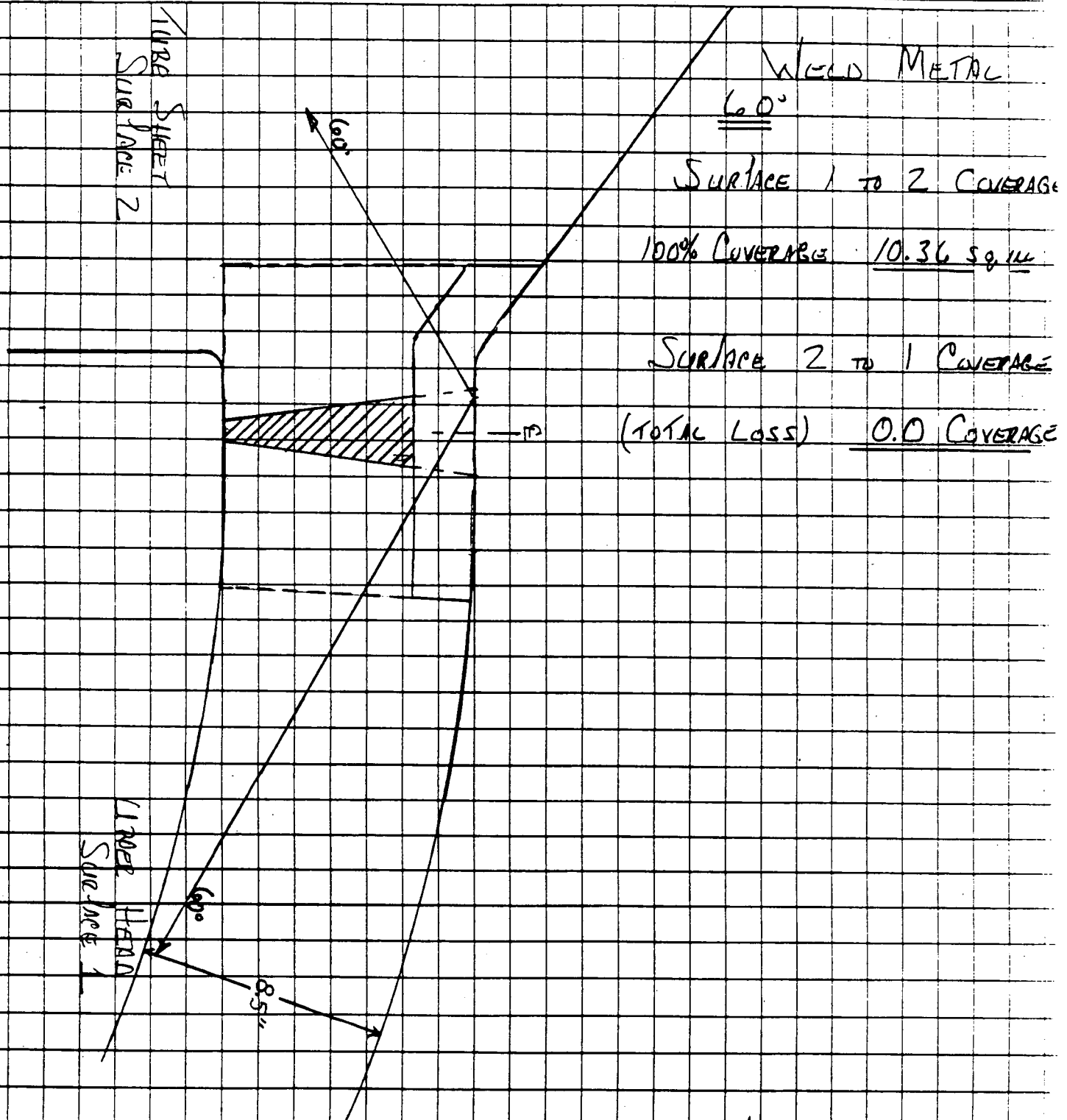
- ☐ - 100% COVERAGE
- ☒ - LESS THAN 100% COVERAGE
- ☐ - NO COVERAGE

ITEM# B02.040.001

BY: JW Stryker III LEVEL II

DATE: 5/1/96

Station CONFE Unit 2 Rev. _____ File No. _____ Sheet 11 of 17
Subject UPPER HEAD TO TURE SHEET 14 20
By JW Sigsbee Date 4-24-95
Prob No. 2 SGA-WG58-1 Checked By _____ Date _____



SCALE 1.0" = 5.0"

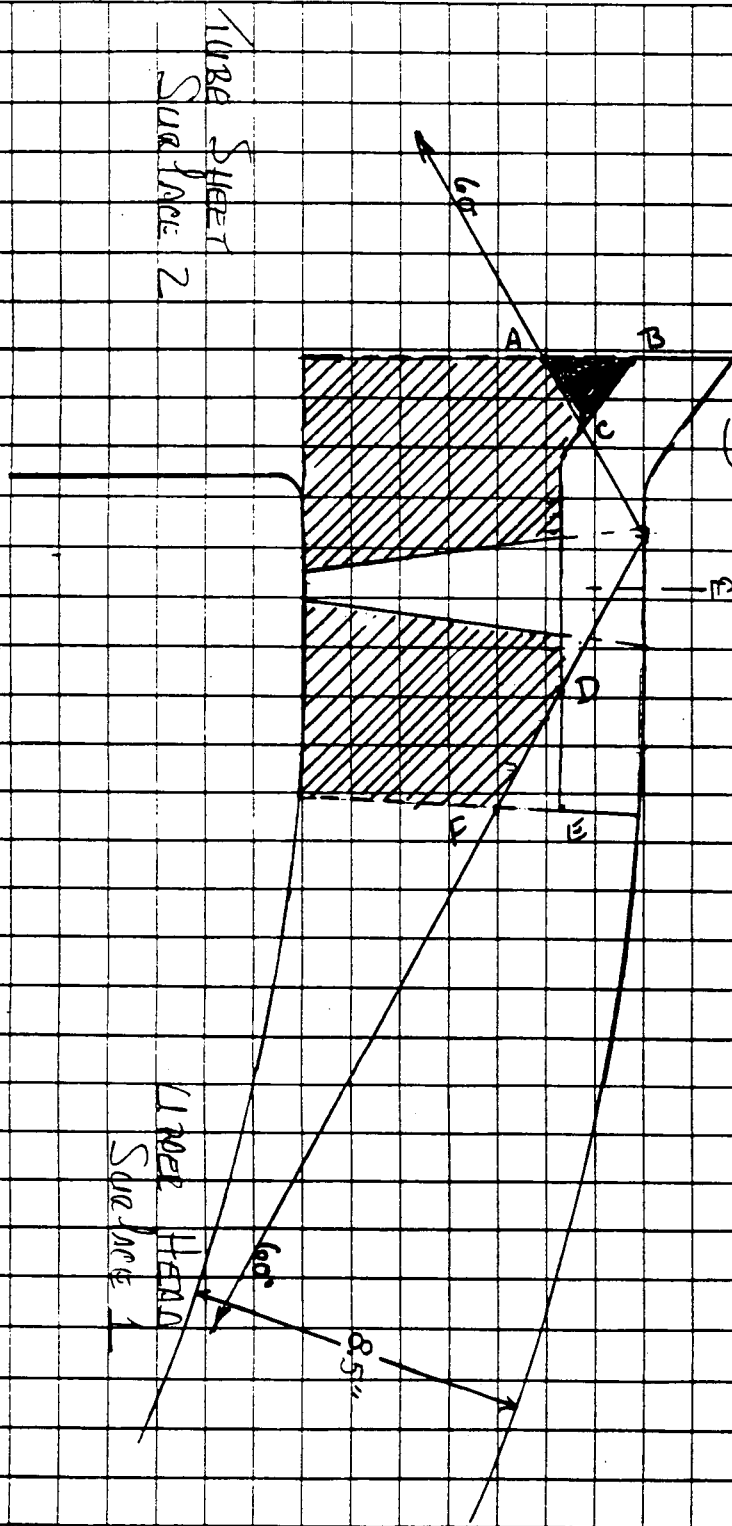
- ☐ - 100% COVERAGE
☒ - LESS THAN 100% COVERAGE
☐ - NO COVERAGE

ITEM# B02.040.001

By: Dnk Level: 4

DATE: 5/1/50

Station DCONEE Unit 2 Rev. _____ File No. _____ Sheet 12 of 17
 Subject UPPER HEAD TO TURE SHEET 15 20
 By JW Steyer III Date 4.24.96
 Prob No. 2 SGA-WG 58-1 Checked By _____ Date _____



BASE METAL
60°
 SURFACE 1 TO 2 COVERAGE
 A-B-C $\frac{2.5 \times 1.75}{2} = 2.19 \text{ sq. in.}$
 (TOTAL) $58.28 - 2.19 = 56.09 \text{ sq. in.}$
COVERAGE = 56.09 sq. in.

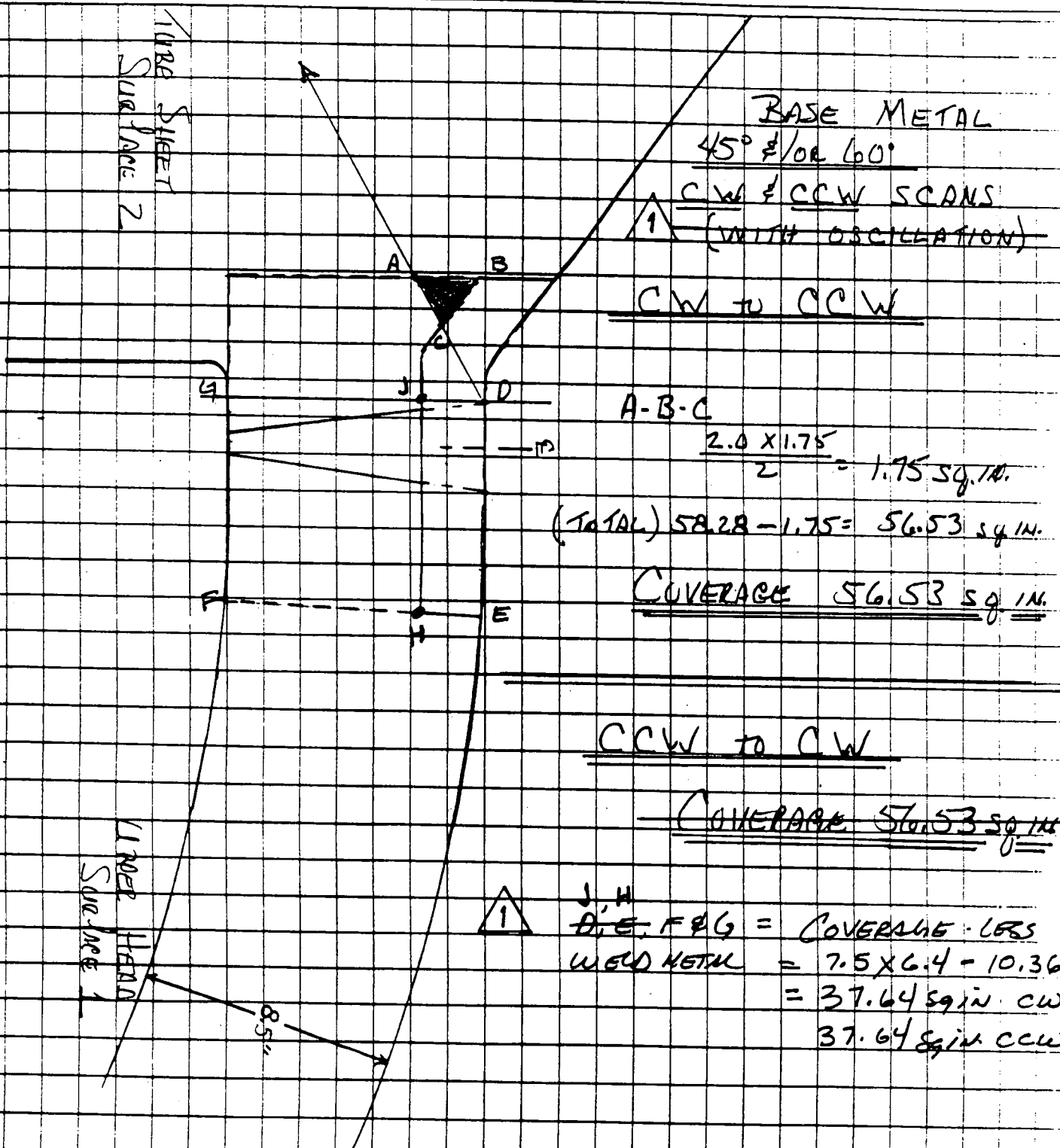
SURFACE 2 TO 1 COVERAGE
 D-E-F $\frac{3.5 \times 1.5}{2} = 2.63 \text{ sq. in.}$
COVERAGE = 2.63 sq. in.

SCALE 1.0" = 5.0"

- ☐ - 100% COVERAGE
- ☒ - LESS THAN 100% COVERAGE
- ☐ - NO COVERAGE

ITEM# BQZ.040.001
 BY: DATE LEVEL II
 DATE: 5/1/96

Station CONEE Unit 2 Rev. File No. Sheet 13 of 17
 Subject UPPER HEAD TO TUBE SHEET 1C 20
 By JW STEIN III Date 4-24-96
 Prob No. 2 SGA-WG58-1 Checked By Date



SCALE 1.0" = 5.0"

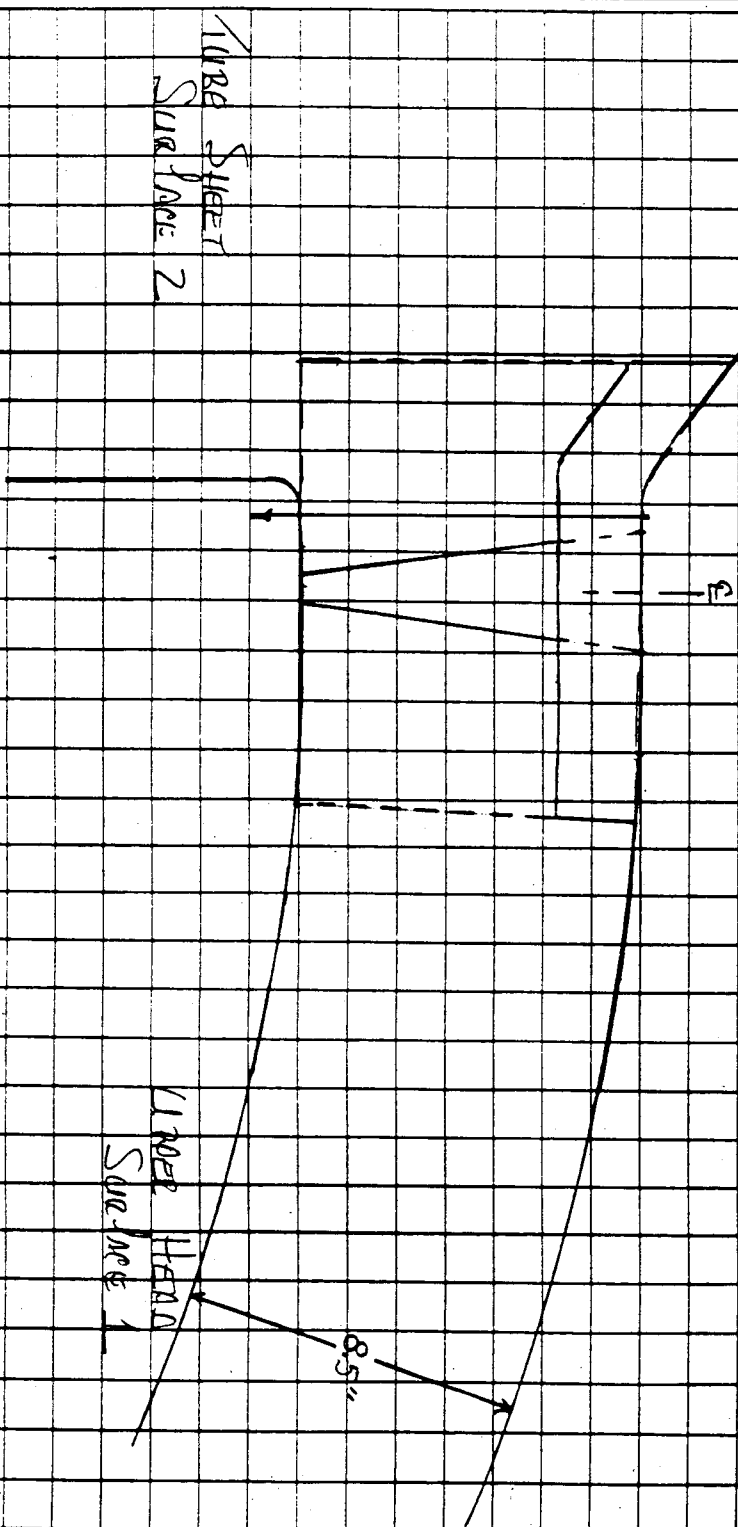
- ☐ - 100% COVERAGE
- ☒ - LESS THAN 10.0% COVERAGE
- ☐ - NO COVERAGE

ITEM# BOB.040.001

BY: LEVEL II

DATE: 5/1/96

Station DOONEE Unit 2 Rev. _____ File No. _____ Sheet 17 of 20
 Subject UPPER HEAD TO TUBE SHEET
 By JUSTICE III Date 4-24-9
 Prob No. 2 SGA-WG58-1 Checked By _____ Date _____



WELD METAL
45°
 CW to CCW 100% 10.36 sq. in.
 CCW to CW 100% 10.36 sq. in.
60°
 CW to CCW 100% 10.36 sq. in.
 CCW to CW 100% 10.36 sq. in.

SCALE 1.0' = 5.0"

- ☐ - 100% COVERAGE
- ☒ - LESS THAN 100% COVERAGE
- ☐ - NO COVERAGE

ITEM# BQZ.040.001

By: [Signature] Level: II

DATE: 5/1/96

Station CONNIE Unit 2 Rev. File No. Sheet 15 of 15
 Subject UPPER HEAD TO TUBE SHEET 18 20
 By JWS II Date 4-24-75
 Prob No. 2 SGA-WG58-1 Checked By Date

TUBE SHEET
SURFACE 2

60°
SURFACE 1 TO 2
LIMITATION DUE
TO MAINWAY

BASE METAL LOSS:

A-B-C

$$\frac{2.5 \times 5.0}{2} = 6.25 \text{ sq. in.}$$

$$B-C-D \quad \frac{5.5 \times .75}{2} = 2.06 \text{ sq. in.}$$

$$E-F-G \quad \frac{1.75 \times .5}{2} = .44 \text{ sq. in.}$$

$$8.75 \text{ sq. in.}$$

WELD METAL LOSS:

$$C-D-E-F \quad \frac{.75}{2} \times (.5 + 1.0) = .56 \text{ sq. in.}$$

THIS LIMITATION WAS 31" LONG

UPPER HEAD
SURFACE 1

SCALE 1.0" = 5.0"

- ☐ - 100% COVERAGE
- ☒ - LESS THAN 100% COVERAGE
- ☐ - NO COVERAGE

ITEM # BOR. 040.001
 BY: JWS II LEVEL II
 DATE: 5/1/86

QA-516

Revision 2

Inservice Inspection Evaluation Report

A	PLANT OCONEE	UNIT 2	ITEM NUMBER B02.040.001	ID NUMBER 2-SGA-WG58-1	SERIAL NUMBER ONS-96-001
	EXAMINATION METHOD UT	PROCEDURE NDE 620/NDE 640	INDICATIONS REQUIRING EVALUATION SEE ATTACHED INSPECTION RECORD		
	DESCRIPTION OF ITEM STEAM GENERATOR 2A UPPER HEAD TO TUBESHEET		DATE INSPECTED 4/29/96	EVALUATION NEEDED BY DATE ASAP	
	COMMENTS				
	ORIGINATED BY <u>RH Rouse</u> DATE <u>5/1/96</u>				
B	ACCEPTANCE STANDARDS USED				
	COMMENTS <u>SEE ATTACHED COPY</u>				
	<input type="checkbox"/> ACCEPTABLE INDICATIONS				
	<input type="checkbox"/> REJECTABLE INDICATIONS				
	EVALUATED BY _____ DATE _____				
C	DISPOSITION: <u>ITEM NO. B02.040.002 WAS ADDED TO THE ISI PLAN AS REQUIRED BY ASME SECTION XI, ARTICLE 2000, PARAG</u>				
	ADDITIONAL INSPECTIONS REQUIRED: PLAN ADDENDA NO. <u>ONS2-023</u>				
	SURVEILLANCE INSPECTIONS REQUIRED: PLAN ADDENDA NO. <u>ONS2-024</u>				
	DISPOSITION BY <u>RH Rouse</u> PIP SERIAL NO. <u>2-096-0917</u>				
	DATE <u>5/1/96</u>				

QA-516

TO

00000000

P.02

QA-516					Revision 2	
Inservice Inspection Evaluation Report						
PLANT	UNIT	ITEM NUMBER	ID NUMBER	SERIAL NUMBER		
OCONEE	2	B02.040.001	2-SGA-WG58-1	ONS-96-001		
EXAMINATION METHOD		PROCEDURE	INDICATIONS REQUIRING EVALUATION			
UT		NDE 620/NDE 640	SEE ATTACHED INSPECTION RECORD			
DESCRIPTION OF ITEM		DATE INSPECTED	EVALUATION NEEDED BY DATE			
STEAM GENERATOR 2A UPPER HEAD TO THRESHOLD		4/29/96	ASAP			
COMMENTS						
A						
ORIGINATED BY <u>R. R. Rouse</u> DATE <u>5/1/96</u>						
ACCEPTANCE STANDARDS USED						
COMMENTS ASME SECTION XI TABLE IWB-3510-1. INDICATION 45-1 IS A SURFACE FLAW WITH THE FOLLOWING MEASURED DIMENSIONS $L = 56"$ $a = 0.4"$ $a/L = 0.007$ $b = 4.79%$ THE MAXIMUM ALLOWABLE a/L FOR AN ASPECT RATIO OF 0.00 is 2%.						
B						
<input type="checkbox"/> ACCEPTABLE INDICATIONS						
<input checked="" type="checkbox"/> REJECTABLE INDICATIONS <u>45-1</u>						
EVALUATED BY <u>James J. McJannet</u> DATE <u>5/1/96</u>						
DISPOSITION: ITEM NO. B02.040.002 WAS ADDED TO THE ISI PLAN AS REQUIRED BY ASME SECTION XI, ARTICLE 2.10.1. PARAG.						
C						
ADDITIONAL INSPECTIONS REQUIRED: PLAN ADDENDA NO. <u>ONS2-023</u>						
SURVEILLANCE INSPECTIONS REQUIRED: PLAN ADDENDA NO. <u>ONS2-024</u>						
DISPOSITION BY _____						
PIP SERIAL NO. <u>2-096-0917</u>						
DATE _____						

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-10-96

Sheet 2 of 3

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95020436
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # 2975

4. Identification of System HP Class 1

5. (a) Applicable Construction Code ANSI B31.7 19 69 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	ZHP-126	VELAN INC.	962044-3	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B	ZHP-126	NO INFORMATION AVAILABLE				NA	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	ZHP-486	ANCHOR DARLING	EZ 496-1-4	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
D	ZHP-127	VELAN INC.	962044-1	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
E	ZHP-127	NO INFORMATION AVAILABLE				NA	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
F	ZHP-487	ANCHOR DARLING	EZ 496-1-2	NA		NA	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work

Replaced VLV's 2HP-126, 127, 152, 153
Added VLV's 2HP-486, 487, 488, 489

8. Test Conducted:

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks

Tested per ASME Code Case 1416-1

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair or replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed

EB Lawson Tech. Spec

Date 5-15, 1996

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-9-96 to 5-31-96; 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.

MS Chapman
Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 5-31, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 3 *CRH*
3 of 3

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95020436-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # 22975

4. Identification of System HPI Class A

5. (a) Applicable Construction Code B31.7 1969 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>51A-0-1479A-H1A</u>	<u>DPL</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>S/R</u> <u>51A-0-1479A-H1A</u>	<u>DPL</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>51A-01479A-H13B</u>	<u>DPL</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D	<u>51A-0-1479A-H4B</u>	<u>DPL</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
E	<u>51A-0-1479A-H5B</u>	<u>DPL</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
F	<u>51A-0-1479A-H1B</u>	<u>DPL</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

HANGERS WERE MODIFIED TO FACILITATE THE

7. Description of Work MODIFICATION TO 2 1/2" HPI PIPING SYSTEM.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks Replaced hanger parts per sketches

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed _____

Owner or Owner's Designee, Title

Date 5/1, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-9-96 to 6-9-96; 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.

MRS Chapman
Inspector's Signature

Commissions _____

National Board, State, Providence and Endorsements

Date 6-3, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 2

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94073007-01

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

Repair Organization Job # _____

3b. ~~NSM~~ or MM # 6861

4. Identification of System OIA (ms) Class B

5. (a) Applicable Construction Code B31.1 19 67 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-OIA-0-1441-DE 060</u> <u>HYDR. SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIL</u>	<u>2839</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>HYDR. SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIL</u>	<u>6614</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>HYDR. SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIL</u>	<u>3604</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D	<u>HYDR. SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIL</u>	<u>2850</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work PERMANENTLY REMOVED HYDR. SNUBBERS, SEE PAGE 2 OF 2 FOR REPLACEMENT

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed _____

Owner or Owner's Designee, Title

Date 5/1, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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:

M.B. Chapman
Inspector's Signature

Commissions _____

NC914

National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 2 of 2

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94073007-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 6861

4. Identification of System OIA (ms) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	2 <u>2</u> -OIA-0444-DE060 HYDR. SNUBBER	LISEGA	61290/50	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	HYDR. SNUBBER	LISEGA	61297/01	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	HYDRA-SNUBBER	LISEGA	61290/54	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D	HYDRA-SNUBBER	LISEGA	61290/48	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work REPLACED EXISTING PACIFIC S. HYDRA. SNUBBERS WITH NEW LISEGA HYDRA. SNUBBERS.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/O/A/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed Wm C Clue Date 5/1, 19 96
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 of Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

M.B. Chapman
Inspector's Signature

Commissions NC914
National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1a. Date 5-23-96Sheet 1 of 1

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96004547-02
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RFS Class 2

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting ON EAST FLANGE TRANSFER Tube Cover

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Henson Date 5-23, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-21-96 to 5-28-96; 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.

MB Chapman
 Inspector's Signature

Commissions NC914
 National Board, State, Providence and Endorsements

Date 5-28, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-23-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96026995-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B.31.7 1969 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced hold down bolting CRDM 42

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Henson QA Specialist Date 5-23, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-28-96; 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.

MB Chapman Commissions NC914
 Inspector's Signature National Board, State, Providence and Endorsements

Date 5-28, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-23-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96026994-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced hold down bolts CRDM # 6

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Henson QA Specialist Date 5-23, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-28-96; 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.

M.B. Chapman
 Inspector's Signature

Commissions NB 914
 National Board, State, Providence and Endorsements

Date 5-28, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-23-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96029395-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B.31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced hold down bolting CRDM #68

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hansen QA Specialist Date 5-23, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-8-96 to 5-28-96; 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.

MB Chapman
 Inspector's Signature

Commissions NC914

National Board, State, Providence and Endorsements

Date 5-28, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-23-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96016657-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 96 Edition, 8-69 Addenda, N/A Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM #48 hold down bolts

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed C.R. Henson QA Specialist Date 5-23, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-28-96; 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.

M.B. Chapman
 Inspector's Signature

Commissions NC914
 National Board, State, Providence and Endorsements

Date 5-28, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-13-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95079605
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # _____

4. Identification of System ms Class 2

5. (a) Applicable Construction Code B31.1 1967 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Valve 2ms-24	Crane	Unknown	Unknown		N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced Body/Bonnet Nuts in valve 2MS-24

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed Atkins QC Specialist
 Owner or Owner's Designee, Title

Date 5-13, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-13-96; 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.

MBC Chapman
 Inspector's Signature

Commissions NC914
 National Board, State, Providence and Endorsements

Date 5-13, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/7/90

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3a. Work Order # 96009519-01
 Repair Organization Job # _____

3b. NSM or MM # N/A

4. Identification of System 50(RC) Class A

5. (a) Applicable Construction Code B31.7 1969 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>STR</u> <u>2-50-D-1480A-H11</u>	<u>DPC</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REPLACED EXISTING CYLINDER RESERVOIR BODY WITH

7. Description of Work NEW BODY.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/O/A/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed _____

Wm McClure
Owner or Owner's Designee, Title

Date _____

5/7, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-9-96 to 5-7-96; 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.

M.B. Chapman
Inspector's Signature

Commissions _____

NC914

National Board, State, Providence and Endorsements

Date 5-7, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-24-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94091974
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # —

4. Identification of System FDW Class 2

5. (a) Applicable Construction Code B31.1 1967 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	2FDW-346	Anchor Darling	ET106-3-3	1624	—	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced Body/Bonnet bolting in valve 2FDW - 346

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed Albert A Specialist Date 4-24, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-4-96 to 4-24-96; 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.

M.B. Chapman Commissions N2914
 Inspector's Signature National Board, State, Providence and Endorsements

Date 4-24, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-24-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95079604
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # _____

4. Identification of System MS Class 2

5. (a) Applicable Construction Code B31.1 1967 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	2ms-33	Crane	Unavailable	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced body/bonnet bolting in valve 2ms - 33

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed A. Hooper QC specialist Date 4-24, 1996
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-5-96 to 4-24-96; 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.

M.B. Chapman
 Inspector's Signature

Commissions NC914
 National Board, State, Providence and Endorsements

Date 4-24, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 2-15-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☐ 2 ☐ 3 ☒ Shared (specify Units 1, 2 + 3)

3a. Work Order # 96010209
 Repair Organization Job #

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # —

4. Identification of System PR Class 2

5. (a) Applicable Construction Code ANSI B31.7 1968 Edition, 6/68 Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	PIPING	DPC	NA	NA			<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work

FABRICATED SPOOL PIECE FOR HYDROGEN RECOMBINER.

8. Test Conducted:

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

Pressure 66 psigTest Temp. 59 °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**Certificate of Authorization No. **N/A**Expiration Date **N/A**

Signed

Q. S. MasonQA SpecDate 2-28, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 2-1-96 to 2-28-96; 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.

MB Chapman
Inspector's Signature

Commissions

N.C. 914

National Board, State, Providence and Endorsements

Date 2-28, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-8-95

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035988-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 1969 Edition, 8-69 Addenda, no Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	n/a	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle #25

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hanson QA SPECIALIST Date 6-12, 1995
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-8-95 to 6-16-95; 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.

M.B. Chapman
 Inspector's Signature

Commissions NC 914
 National Board, State, Providence and Endorsements

Date 6-16, 1995

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-31-95

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035980-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 1969 Edition, 8-69 Addenda, no Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>		<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>Bolting</u>	<u>GENERAL NUCLEAR</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>1993</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>Bolting</u>	<u>General Nuclear</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>1994</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CROM nozzle #61

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hansen QC Specialist Date 5-31, 19 95
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 Providence of NC and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-8-95 to 5-31-95; 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.

MBS Chapman Commissions NC914
Inspector's Signature National Board, State, Providence and Endorsements

Date 6-1, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-31-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95036001-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	N/A	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	General NUCLEAR	n/a	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle #58

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hanson QC Specialist Date 5-31, 19 95
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-6-95 to 5-31-95; 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.

M.B. Chapman
 Inspector's Signature

Commissions NC914

National Board, State, Providence and Endorsements

Date 6-1, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-31-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035989-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	General Nuclear	N/A	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	General Nuclear	N/A	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle # 26

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed CR. Hansen QA SPECIALIST Date 6-1, 1995
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-6-95 to 5-31-95; 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.

M.B. Chapman Commissions NC914
 Inspector's Signature National Board, State, Providence and Endorsements

Date 6-1, 1995

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-31-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035837-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>Bolting</u>	<u>GENERAL NUCLEAR</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>1992</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>Bolting</u>	<u>MVI</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>1991</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle #60

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Henson QA Specialist Date 5-31, 19 95
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-6-95 to 5-31-95; 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.

M.B. Chapman Commissions NC 914
 Inspector's Signature National Board, State, Providence and Endorsements

Date 6-1, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-14-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☒ 1 ☐ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035105-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # EC-8043

4. Identification of System FDW Class 2

5. (a) Applicable Construction Code B31.1 1967 Edition, 7-67 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	Vitco Nuclear	N/A	N/A	N/A	1989	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	A+G Engineering	N/A	N/A	N/A	1989	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting EDW nozzle # 1

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hansen QA Specialist Date 6-14, 19 95
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-4-95 to 6-14-95; 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.

M.B. Chapman
 Inspector's Signature

Commissions NC914
 National Board, State, Providence and Endorsements

Date 6-14, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-12-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☒ 1 ☐ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035112-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # EC-8044

4. Identification of System FDW Class 2

5. (a) Applicable Construction Code B31.1 1967 Edition, 7-67 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	VITCO NUCLEAR	N/A	N/A	N/A	1989	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	A & G ENGINEERING	n/a	n/a	n/a	1989	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting EDW nozzle #32

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed C.R. Hansen QA SPECIALIST Date 6-14, 19 95
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-9-95 to 6-16-95; 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.

M.B. Chapman Commissions NC 914
 Inspector's Signature National Board, State, Providence and Endorsements

Date 6-16, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-7-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035843-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, no Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	N/A	N/A	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	GENERAL NUCLEAR	N/A	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	GENERAL NUCLEAR	N/A	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle #56

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hanson QA Specialist Date 6-7, 19 95
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-8-95 to 6-16-95; 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.

M.B. Chapman
 Inspector's Signature

Commissions NC 914

National Board, State, Providence and Endorsements

Date 6-16-95, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-7-95

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035992-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 1969 Edition, 8-69 Addenda, no Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	n/a	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	General Nuclear	n/a	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	General Nuclear	n/a	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bulging CRDM nozzle #15

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hansen QA Specialist Date 6-7, 19 95
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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-4-95 to 6-16-95; 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.

M.B. Chapman
Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 6-16, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-8-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3a. Work Order # 950.35978-01
 Repair Organization Job # _____

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 1969 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	n/a	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced CRDM Nozzle #28 bolting

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hansen QA SPECIALIST Date 6-8, 19 95
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-8-95 to 6-16-95; 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.

MIS Chapman
 Inspector's Signature

Commissions NC 914

National Board, State, Providence and Endorsements

Date 6-16, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-8-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035999-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 1969 Edition, 8-69 Addenda, no Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	n/a	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	n/a	General Nuclear	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	n/a	General Nuclear	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle #38

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hansen QA Specialist Date 6-8, 19 95
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-8-95 to 6-16-95; 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.

MBC Chapman
 Inspector's Signature

Commissions N.C. 914

National Board, State, Providence and Endorsements

Date 6-16, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-8-95

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035977-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 1969 Edition, 6-69 Addenda, no Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	n/a	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle #19

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hanson QA Specialist Date 6-8, 19 95
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-9-95 to 6-16-95; 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.

MRS Chapman
 Inspector's Signature

Commissions NC914
 National Board, State, Providence and Endorsements

Date 6-16, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-21-96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96026998-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM #12

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Henson QA Specialist Date 5-21, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-21-96; 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.

M.B. Chapman
 Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 5-21, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-21-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☒ 1 ☐ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96016655-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced hold down bolting CRDM #23

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

Pressure	_____	psig	Test Temp.	_____	°F
Pressure	_____	psig	Test Temp.	_____	°F
Pressure	_____	psig	Test Temp.	_____	°F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR. Henson QA Specialist Date 5-21, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-21-96; 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.

M.B. Chapman Commissions NC914
 Inspector's Signature National Board, State, Providence and Endorsements
 Date 5-21, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-21-96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96029391-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolt/ins</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM # 41

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

Pressure	_____	psig	Test Temp.	_____	°F
Pressure	_____	psig	Test Temp.	_____	°F
Pressure	_____	psig	Test Temp.	_____	°F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hanson QA Specialist Date 5-21, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-21-96; 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.

M.B. Chapman Commissions NC914
 Inspector's Signature National Board, State, Providence and Endorsements

Date 5-21, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-21-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96027001-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # NA

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced hold down bolting CRDM #27

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed C.R. Hansen QA Specialist
 Owner or Owner's Designee, Title

Date 5-21, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-21-96; 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.

M.B. Chapman
 Inspector's Signature

Commissions NC914

National Board, State, Providence and Endorsements

Date 5-21, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-21-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96026997-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # NA

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM # 47

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed CR Hanson QA Specialist Date 5-21, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-21-96; 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.

MBC Chapman
 Inspector's Signature

Commissions NC 914
 National Board, State, Providence and Endorsements

Date 5-21, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-25-96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95077308
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # 2873

4. Identification of System MS Class 2

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	PIPING	D.P.C.	NA	NA		9/74	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Added instrumentation lines & reinforcing collars to main steam lines.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed A. S. Bluberg

Date 4/25, 19 96

Owner or Owner's Designee, Title GA SPEC.

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-1-96 to 4-25-96; 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.

M. B. Chapman
Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 4-25, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4/16/96
 Sheet 2 of 2

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95041567-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # mm 8087

4. Identification of System 54A BS Class B

5. (a) Applicable Construction Code B31.7 1969 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>HANGER</u> <u>2-54A-435B-DE14</u>	<u>DPC</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REMOVED ITEMS 4 & 7, ROD & NUTS, AND REPLACED WITH

7. Description of Work NEW MATERIAL.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed _____

W. McClure
Owner or Owner's Designee, Title

Date 4/16, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-9-96 to 5-2-96; 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.

WMB Chapman
Inspector's Signature

Commissions _____

NC 914
National Board, State, Providence and Endorsements

Date 5-2, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-12-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 2

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95041567
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MMA # 8087

4. Identification of System BS Class 2

5. (a) Applicable Construction Code ANSI B31.7 1969 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	VALVE ZBS-6	CHAPMAN/ CRANE	NO OTHER INFORMATION ON VLV.				<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	PIPING	D.P.C.	N/A	N/A		9/74	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	Texas Bolt	N/A	N/A			<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work DELETED VLV. ZBS-6 FROM SYS. AND REPLACED W/PIPE & FLANGE

8. Test Conducted: ☐ Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐ Exempt

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED SYS. LEAKAGE TEST AT SYS. TEMP. & PRESSURE
& NDE PER ASME CODE CASE N416-1 IN LIEU OF
HYDRO.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed ES Mason QA Tech Spec Date 5-2, 1996
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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-9-96 to 5-2-96; 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.

MB Chapman
Inspector's Signature

Commissions NC 914
National Board, State, Providence and Endorsements

Date 5-2, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1a. Date 5-21-96Sheet 1 of 1

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96016639-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # NA

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolt/ins</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced hold down bolting CROM # 63

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hanson QA Specialist Date 5-21, 19 96
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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-7-96 to 5-21-96; 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.

M.B. Chapman
Inspector's Signature

Commissions NC914
National Board, State, Providence and Endorsements

Date 5-21, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-15-96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95041414
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # 8086

4. Identification of System LP Class 2

5. (a) Applicable Construction Code ANSI B31.7 19 69 Edition, + Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>VLV.</u> <u>ZBS-5</u>	<u>NO INFORMATION ON</u>	<u>VLV.</u>			<u>NA</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>PIPING</u>	<u>D.P.C.</u>	<u>NA</u>	<u>NA</u>		<u>9/74</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	<u>Bolting</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work: DELETED ZBS-5 FROM SYS. & REPLACED WITH PIPE & FLANGES

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks: PERFORMED SYS. LEAKAGE TEST AT SYS. TEMP. & PRESS. & NDE PER ASME CODE CASE N416-1 IN LIEU OF HYDRO.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed OS Mason
Owner or Owner's Designee, Title

Date 5-2, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-9-96 to 5-2-96; 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.

MB Chapman
Inspector's Signature

Commissions NC914
National Board, State, Providence and Endorsements

Date 5-2, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-9-96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95064581
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # 8319

4. Identification of System HP Class 2

5. (a) Applicable Construction Code ANSI B31.7 1969 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>VLV.</u> <u>ZHP-410</u>	<u>CONTROL COMPONENTS INC.</u>	<u>658951-25</u>	<u>1513</u>		<u>1995</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B	<u>VLV.</u> <u>ZHP-410</u>	<u>WESTINGHOUSE</u>	<u>04002GM</u> <u>88FNE-0D000</u>	<u>W18313</u>		<u>1978</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work

REPLACED ZHP-410 W/ITEM NO. DMV-1023

8. Test Conducted:

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks

PERFORMED SYS. LEAKAGE TEST AT SYS. TEMP.
 & PRESSURE & NDE PER ASME CODE CASE
 N-416-1 IN LIEU OF HYDRO.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**Certificate of Authorization No. **N/A**Expiration Date **N/A**

Signed

J. B. Chapman Tech Spec

Date **5-8**, 19**96**

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-8-96; 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.

J. B. Chapman
 Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 5-8, 19**96**

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-23-96

Sheet 1 of 2

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95064576
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # 8315

4. Identification of System HP Class Z

5. (a) Applicable Construction Code ANSI B31.7 19 69 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	VLV. ZHP-Z6	CONTROLLED COMPONENTS INC.	658951-1-6	1513		1995	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B	VLV. ZHP-Z6	EDWARDS	NA	NA		NA	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	PIPING	D.P.C.	NA	NA		9/74	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work REPLACED ZHP-26 W/ITEM No. DMV-1022

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED SYS. LEAKAGE TEST AT SYS. TEMP.
+ PRESSURE + NDE PER ASME CODE CASE
N416-1 IN LIEU OF HYDRO.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed ES Mason Tech Spec Date 5-8, 1996
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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-8-96; 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.

MB Chapman
Inspector's Signature

Commissions NC914
National Board, State, Providence and Endorsements

Date 5-8, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96

Sheet 2 of 2

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95064576-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NBM~~ or MM # 8315

4. Identification of System 51A (HP) Class B

5. (a) Applicable Construction Code B31.7 19 69 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-51A-3-0-1439A-H46</u>	<u>DPC</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>S/R</u> <u>2-51A-3-0-1439A-SR139</u>	<u>DPC</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

COMPONENTS A & B WERE REMOVED TO FACILITATE VALVE

7. Description of Work WORK AND REPLACED BY WELDING.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed _____

W.D. McClure
Owner or Owner's Designee, Title

Date 5/1, 1996

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-8-96; 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.

M.B. Chapman
Inspector's Signature

Commissions

NC 914

National Board, State, Providence and Endorsements

Date 5-8, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/6/96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95078861

Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 7298

4. Identification of System 14B (LPSW) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-14B-0-479A-H18</u>	<u>DPC</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input checked="" type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

ADDED WELD TO FILLET WELD FOR ITEM #6 TO

7. Description of Work EXISTING.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed _____

W. McClure

Date 5/2, 1996

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-1-96 to 5-6-96; 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.

M.B. Chapman
Inspector's Signature

Commissions

NC 914

National Board, State, Providence and Endorsements

Date 5-6, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/94

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94073034-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 6867

4. Identification of System OIA (MS) Class B

5. (a) Applicable Construction Code B31.1 19 67 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-OIA-0-1441-R7</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>9944</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>S/R</u> <u>2-OIA-0-1441-R7</u> <u>SNUBBER</u>	<u>LISEGA</u>	<u>61279/100</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

52

Form NIS-2 (Back)

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

REMOVED EXISTING PSA SNUBBER AND REPLACED

7. Description of Work WITH NEW LISEGA SNUBBER.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/O/A/3018/0094

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed Wm. C. Clune
Owner or Owner's Designee, Title

Date 5/1, 1996

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

M.B. Chapman
Inspector's Signature

Commissions NC914
National Board, State, Providence and Endorsements

Date 5-1, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/94

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94073029-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 6865

4. Identification of System OIA (ms) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> 2-OIA-0-1441-R2-2 <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>4261</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>S/R</u> 2-OIA-0-1441-R2-2 <u>SNUBBER</u>	<u>LISEGA</u>	<u>61316/73</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REMOVED EXISTING PSA SNUBBER AND INSTALLED

7. Description of Work NEW LISEGA SNUBBER.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/O/A/3018/0094.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed _____

W. McClure
Owner or Owner's Designee, Title

Date 5/1, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

MB Chapman
Inspector's Signature

Commissions NC 914

National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96
 Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94073027-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 6864

4. Identification of System OIA (MS) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	^{SR} 2-OIA-0-1441-R2-1 MECH. SNUBBER	PACIFIC SCIENTIFIC	4408	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	^{SR} 2-OIA-0-1441-R2-1 MECH. SNUBBER	LISEGA	61316/74	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REMOVED EXISTING PACIFIC SCIENTIFIC MECH. SNUBBER

7. Description of Work AND REPLACED WITH NEW LISEGA MECH. SNUBBER.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/0/4/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed Wm McClure
Owner or Owner's Designee, Title

Date 5/1, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

MBS Chapman
Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94073032-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 6866

4. Identification of System OIA (MS) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-OIA-0-1441-R9-1</u> <u>SNUBBER</u>	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>3913</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>S/R</u> <u>2-OIA-0-1441-R9-1</u> <u>SNUBBER</u>	<u>LISEGA</u>	<u>61316/71</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work REMOVED EXISTING PSA SNUBBER AND REPLACED WITH NEW LISEGA SNUBBER.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/O/A/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed _____

W. McClure
Owner or Owner's Designee, Title

Date 5/1, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

W.B. Chapman
Inspector's Signature

Commissions NC914

National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5/1/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3a. Work Order # 94073024-01
 Repair Organization Job # _____

3b. ~~NSM~~ or MM # 6863

4. Identification of System OIA (MS) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> 2-OIA-0-1441- DE063 MECH. SNUBBER	<u>PACIFIC</u> <u>SCIENTIFIC</u>	<u>5113</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	<u>S/R</u> 2-OIA-0-1441- DE063 MECH. SNUBBER	<u>LISEGA</u>	<u>61278/96</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REPLACED EXISTING PSA MECH. SNUBBER WITH

7. Description of Work NEW LISEGA MECH. SNUBBER.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TESTING PER MP/04/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed Wm C. Clue
Owner or Owner's Designee, Title

Date 5/1, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

M.B. Chapman
Inspector's Signature

Commissions

NC914
National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4/30/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 94084864-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 6945

4. Identification of System 14B (LP5W) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	S/R 2-14B-1480C-H6537	DPC	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	S/R 2-14B-1480C-H6540	DPC	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	S/R 2-14B-1480C-H6540 ^{WTM}	DPC	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D	S/R 2-14B-1480B-H6542	DPC	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
E	S/R 2-14B-1480B-H6544	DPC	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
F	S/R 2-14B-1480B-H6545	DPC	N/A	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work INSTALLED NEW U-BOLTS ON ALL S/R'S LISTED.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed Wm McClure
 Owner or Owner's Designee, Title

Date 4/30, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-14-96 to 5-1-96; 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.

MB Chapman
 Inspector's Signature

Commissions NC 914
 National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4/30/96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96024274-01

Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 9030

4. Identification of System OIA (MS) Class B

5. (a) Applicable Construction Code B31.1 1967 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>S/R</u> <u>2-OIA-0-144-H3</u>	<u>DPC</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<input checked="" type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

INCREASED WELD SIZE FOR PIECE #8 TO EXISTING

7. Description of Work PLATE FROM 1/2" TO 3/4"

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

Pressure _____ psig Test Temp. _____ °F

Pressure _____ psig Test Temp. _____ °F

Pressure _____ psig Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed W. McClure Date 4/30, 19 96
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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-13-96 to 4-30-96; 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.

WMB Chapman Commissions NC 914
Inspector's Signature National Board, State, Providence and Endorsements

Date 4-30, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4/17/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96029691-02
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # 9058

4. Identification of System 51 (HP) Class B

5. (a) Applicable Construction Code B31.7 1969 Edition, — Addenda, — Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	SNUBBER ON S/R 2-51-1478A-H6/47	GRINNELL CORP	10589	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	SNUBBER ON S/R 2-51-1478A-H6/47	LISEGA	61296/38	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REMOVED EXISTING GRINNELL HYDRAULIC SNUBBER, SER. #10589,

7. Description of Work AND REPLACED WITH LISEGA HYDRAULIC SNUBBER, SER #61296/38.

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

Pressure _____ psig Test Temp. _____ °F
 Pressure _____ psig Test Temp. _____ °F
 Pressure _____ psig Test Temp. _____ °F

9. Remarks FUNCTIONAL VERIFICATION PER MP/O/A/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed

William T. McClure
 Owner or Owner's Designee, Title

Date

4/17, 19 96

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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-10-96 to 4-17-96; 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.

W.B. Chapman
 Inspector's Signature

Commissions

NC914

National Board, State, Providence and Endorsements

Date 4-17, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-8-95

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035995-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # n/a

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 1969 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	n/a	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1993	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C	Bolting	GENERAL NUCLEAR	n/a	n/a	n/a	1994	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle #39

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hansen QA Specialist Date 6-8, 1995
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 Providence of _____ and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period _____ 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.

Inspector's Signature _____

Commissions _____

National Board, State, Providence and Endorsements _____

Date _____, 19____

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 3/4/96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95082739-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System MS (OIA) Class B

5. (a) Applicable Construction Code B31.1 19 67 Edition, _____ Addenda, _____ Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	SNUBBER ON S/R 2-OIA-1-1-0-1401B- H43	GRINNELL CORP.	16817	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	SNUBBER ON S/R 2-OIA-1-1-0-1401B- H43	GRINNELL CORP.	18782	N/A	N/A	N/A	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

REMOVED SNUBBER SER. #16817 AND ROD EYE AND REPLACED WITH

7. Description of Work SNUBBER SER. #18782 AND NEW ROD EYE.

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks PERFORMED FUNCTIONAL TEST PER MP/0/A/3018/009A.

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed W. McChase Date 3/4, 19 96
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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 1-24-96 to 3-5-96; 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.

M. B. Chapman
Inspector's Signature

Commissions

NC 914

National Board, State, Providence and Endorsements

Date 3-5, 1996

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-1-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95068270
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # OE-8478

4. Identification of System RC Class 1

5. (a) Applicable Construction Code ASME III 1965 Edition, Summer 1967 Addenda, 1332-2, 3, 4, 1339-1 Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda 1336, 1359-1, 1338-3
1338-4 Alt 1

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>OSTG A</u>	<u>BABCOCK and</u> <u>WILCOX</u>	<u>620-0004-552</u>	<u>N-108</u>	<u>N/A</u>	<u>1970</u>	<input checked="" type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Plugged/Stabilized Tubes 2A OTSG

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed C.R. Hanson QA Specialist Date 5/1, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-1-96; 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.

MB Chapman Commissions NC 914
 Inspector's Signature National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 5-1-96

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

Sheet 1 of 1

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95068272
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. ~~NSM~~ or MM # OE-8479

4. Identification of System RC Class 1

5. (a) Applicable Construction Code ASME III 19 65 Edition, Summer 1967 Addenda, 1332-2, 3, 4, 1339-1, 1336 Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda 1359-1, 1338-3, 1338-4 A14.1

6. Identification of Components Repaired or Replaced and Replacement Components.

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>OSTG B</u>	<u>BABCOCK</u> <u>WILCOX</u>	<u>620-0004-55-1</u>	<u>N-107</u>	<u>NA</u>	<u>1970</u>	<input checked="" type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Plugged / STABILIZED TUBES 2 B OTSG

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

Pressure _____ psig Test Temp. _____ °F

Pressure _____ psig Test Temp. _____ °F

Pressure _____ psig Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR Hansen QA Specialist Date 5-1, 19 96
 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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-2-96 to 5-1-96; 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.

MB Chapman Commissions NC914
 Inspector's Signature National Board, State, Providence and Endorsements

Date 5-1, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 4-24-96

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 96027040
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # NA

4. Identification of System SF Class 2

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	<u>Bolting</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting in FLANGE downstream 2SF AC 0001

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

Pressure	_____	psig	Test Temp.	_____	°F
Pressure	_____	psig	Test Temp.	_____	°F
Pressure	_____	psig	Test Temp.	_____	°F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp **N/A**

Certificate of Authorization No. **N/A**

Expiration Date **N/A**

Signed CR. Hansen QA Specialist Date 4-24, 19 96
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 Providence of N. C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 4-11-96 to 4-24-96; 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.

M. B. Chapman
Inspector's Signature

Commissions NC 914

National Board, State, Providence and Endorsements

Date 4-24, 19 96

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS **As Required By The Provisions Of The ASME Code Section XI**

1. Owner **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**

1a. Date 6-20-95

Sheet 1 of 1

2. Plant **Oconee Nuclear Station**
 Address **P.O. Box 1439, Seneca, S.C. 29679**

2a. Unit ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units _____)

3a. Work Order # 95035979-01
 Repair Organization Job # _____

3. Work Performed By **Duke Power Company**
 Address **526 S. Church Street, Charlotte, NC 28201-1006**
 Type Code Symbol Stamp **N/A** Authorization No. **N/A** Expiration Date **N/A**

3b. NSM or MM # N/A

4. Identification of System RC Class 1

5. (a) Applicable Construction Code B31.7 19 69 Edition, 8-69 Addenda, NO Code Cases
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989, No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

	Column 1	Column 2	Column 3	Column 4	Column 5	Col. 6	Column 7	Column 8
	Name of Component	Name of Manufacturer	Manufacturer Serial Number	National Board Number	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (yes or no)
A	Bolting	n/a	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input checked="" type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
B	Bolting	General NUCLEAR	n/a	n/a	n/a	n/a	<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input checked="" type="checkbox"/> Replacement	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

Form NIS-2 (Back)

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

7. Description of Work Replaced bolting CRDM nozzle #4

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

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

Pressure _____ psig

Test Temp. _____ °F

9. Remarks _____

(Applicable Manufacturer's Data Records to be Attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this **repair or replacement** conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed CR Hansen QA SPECIALIST Date 6-20, 19 95
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 Providence of N.C. and employed by **HSBI and I Company of Hartford Connecticut** have inspected the components described in this Owner's Report during the period 5-8-95 to 6-20-95; 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.

W.B. Chapman
Inspector's Signature

Commissions NC914

National Board, State, Providence and Endorsements

Date 6-20, 19 95