



**DUKE POWER**

May 5, 1997

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Subject: Duke Power Company  
Catawba Nuclear Station, Unit 1  
Docket No. 50-413

Request for Additional Information (RAI)  
Request for Relief from 1989 edition of ASME Boiler  
and Pressure Vessel Code, Section XI.  
Serial No. 96-04  
TAC No. M97465

Re: Letter from NRC to William R. McCollum dated March 7,  
1997, Request for Additional Information

The following response is provided to address the questions  
submitted by the subject RAI. Each question is restated below  
with the response following.

- A. Based on the initial review of the licensee's submittal,  
the staff has concluded that either (a) the appropriate  
paragraph of the regulations has not been cited, or (b)  
the regulatory basis has not been adequately supported.  
Request for Relief 96-04 was submitted pursuant to  
10CFR50.55a(a) (3) (ii), but no burden or undue hardship  
has been presented. This request should be reviewed for  
the correct paragraph of the regulations to ensure that  
the request is evaluated in accordance with the  
appropriate criteria, as discussed below.

The regulations provide that a licensee may propose an  
alternative to the Code of Federal Regulations or the code  
requirements in accordance with 10 CFR 50.55a (a) (3) (i)  
or 10 CFR 50.55a (a) (3) (ii). Under 10 CFR 50.55(a) (3)  
(i), the proposed alternative must be shown to provide an  
acceptable level of quality, i.e., essentially, be  
equivalent to the original requirement in terms of quality

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and safety. Under 10 CFR 50.55a (a) (3)(ii), the licensee must show that compliance with the original requirement results in a hardship or unusual difficulty without a compensating increase in the level of quality and safety. Examples of hardship and / or unusual difficulty include, but not limited to, excessive radiation exposure, disassembly of components solely to provide access for examination, and development of sophisticated tooling that would result in only minimal increase in examination coverage.

A licensee may also submit a request for relief from ASME requirements. In accordance with 10 CFR 50.55a (g) (5) (iii), if a licensee determines that conformance with certain Code requirements is impractical for its facility, the licensee shall notify the Commission and submit, as specified in Section 50.4, information to support that determination. When a licensee determines that an inservice inspection requirement is impractical, e.g., the examination is limited by physical restrictions and the component would have to be redesigned or replaced to enable inspection, the licensee should cite 10 CFR 50.55a (g) (5) (iii). The NRC may, giving due consideration to the burden placed on the licensee, impose an alternative examination requirement.

**Response:**

Request for Relief 96-04 was submitted on December 12, 1996 pursuant to 10CFR50.55a (a)(3)(ii). This was in error and should have been submitted under 10CFR50.55a (g)(5)(iii). 100% coverage of the subject welds was impractical because of single-sided access, due to pipe-to-valve configuration and austenitic weld metal.

B. Section XI, Appendix III, Paragraph III-4420, Reflectors Parallel to the Weld Seam, requires examination coverage in two beam path directions to detect reflectors parallel to the weld seam. This can be accomplished by either scanning from two sides of the weld, or by using a sufficiently long beam path to provide two-directional coverage from one side of the weld. The requirement for two-directional axial scan coverage should also be reflected in the coverage calculations. However, the coverage calculations provided

with the licensee's submittal only include scan coverage in one axial direction (with two angles) and it appears that the second axial direction was not included in the calculation. As a result, the calculated coverage may be overstated. Provide a discussion regarding the examinations performed in the axial direction(s) and how the coverage was calculated.

**Response:**

Reference to Appendix III in Parts III, IV, and VI of Request for Relief 96-04, dated December 12, 1996 was an error. Attachment 1 to this letter is Revision 1 to Request for Relief 96-04, denoting the corrected reference of ASME Section XI.

- C. The Code requires both surface and volumetric examination of the subject Class 1 circumferential welds. Confirm that the surface examination was performed to the extent required by the Code.

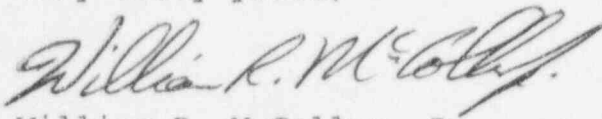
**Response:**

Data sheets for the surface examinations of the subject circumferential welds (Item Numbers B09.011.163A and B09.011.164A) are included as Attachments 2 and 3 to this letter. The data sheets confirm the surface examinations were performed to the extent required by the code.

As requested, a copy of this response is being sent to INEL Research Center.

Should there be any questions concerning this request, please call D. Tower at (803) 831-3419.

Very truly yours,



William R. McCollum, Jr.

Attachments

Document Control Desk  
Page 4  
May 5, 1997

XC:

L. A. Reyes      Regional Administrator, Region II

R.J. Freudenberger, Senior Resident Inspector  
Catawba Nuclear Station

P.S. Tam, Senior Project Manager  
ONRR

Michael T. Anderson  
INEL Research Center  
2151 North Boulevard  
P.O. Box 1625  
Idaho Falls, Idaho 83415-2209

ATTACHMENT 1  
RELIEF REQUEST 96-04  
REVISION 1

## DUKE POWER COMPANY

STATION: CATAWBA NUCLEAR STATION UNIT 1  
10-YEAR INTERVAL REQUEST FOR RELIEF NO. 96-04 Revision 1

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

ASME Section XI Code Class: 1  
Examination Category: B-J  
Circumferential Piping Welds - Safety Injection System

<u>Weld Number</u>	<u>Item Number</u>
1NI148-10	B09.011.163
1NI148-11	B09.011.164

### II. Code Requirement:

ASME Section XI, 1989 Edition, Examination Category B-J Pressure Retaining Welds In Piping, Table IWB-2500-1, Figure Number IWB-2500-8. Item Number B09.011 requires a volumetric examination of essentially 100% of the weld length and adjacent base material for all piping welds. Duke Power Company, with NRC approval, has adopted Code Case N-460 which defines "essentially 100%" as greater than 90% coverage.

### III. Code Requirement from which Relief is Requested:

Relief is requested for the above identified Class 1 Circumferential Piping Welds from meeting the coverage requirements as defined in ASME Section XI, Figure IWB-2500-8, Examination Volume C-D-E-F.



#### **IV. Basis for Relief:**

During the ultrasonic examination of the welds shown in Attachment 1, coverage of the required examination volume as modified by Code Case N-460 could not be obtained. Causes of these limitations are single sided access due to pipe-to-valve configuration and austenitic weld metal. Where possible, a combination of angles and wave modes were used to maximize the coverage obtained. The weld and base metal at the component inside surface was covered from at least one direction with a minimum of one angle. The examinations were performed in accordance with ASME Section XI, Appendix I and Appendix VIII, 1992 Edition with the 1993 Addenda as allowed by Request for Relief 95-GO-003, dated September 12, 1995.

#### **V. Alternate Examinations or Testing:**

No additional examinations are planned during the current interval for Weld ID Numbers 1NI148-10 and 1NI148-11. The use of radiography as an alternate volumetric examination method for Weld ID Numbers 1NI148-10 and 1NI148-11 is not feasible due to component thickness, geometric configurations, and restrictions from physical barriers which prohibit access for the placement of source, image quality indicators, film, etc. Duke Power Company will continue to use Appendix VIII qualified ultrasonic examination procedures for detection of far side flaws, when examining the austenitic weld metal.

#### **VI. Justification for the Granting of Relief:**

Although the examination volume requirements as defined in ASME Section XI, Figure IWB-2500-8, Examination Volume C-D-E-F could not be met, the amount of coverage obtained for these examinations provides an acceptable level of quality and integrity. The inside surface of the pipe, within the required examination volume, received 100% coverage in the axial direction. If a surface connected circumferential flaw had been present, it would have been detected. For results of examinations, reference Attachment 2, pages 6 of 9 and 9 of 9. The welds in question connect the first and second check valves off the reactor coolant system and are one of the four paths for ECCS injection. In the unlikely event of their failure fluid would leak from the Cold Leg Accumulator (CLA) to the containment building floor. A drop in level from an accumulator with a corresponding increase in sump inputs would occur. An eventual alarm in the control room for CLA level would require action per Technical

Specification 3 / 4. 5. 1. The limit on unidentified leakage is 1 gpm from sump input and is monitored by OAC point alarms. The Technical Specification 3 / 4. 6. 2 would be enforced if the unidentified leakage went above 1 gpm. These alarms would indicate a problem and allow adequate response time before the current margin in injection flow (Actual to test acceptance criteria) indicated by the ECCS flow balance testing is surpassed. Based on these evaluations, it is Duke Power Company's opinion that the limited coverage will not endanger the health and safety of the general public. Duke Power Company will perform UT examinations to the extent practical using procedures and personnel qualified in accordance with ASME Section XI, Appendix VIII, 1992 Edition with 1993 Addenda.



## VII. Implementation Schedule:

These examinations will continue to be scheduled in accordance with the requirements of ASME Section XI for future Inspection Intervals at Catawba Nuclear Station, Unit 1.

Evaluated By:

A. J. Hogge Jr

Date

5/1/97

NDE Level III Review By:

James J. McQuillen

Date

5/1/97

Reviewed By:

Go Barbour

Date

5/1/97

Attachment 1 Description Table

Attachment 2 UT Examination Data

**ASME Class 1 Inservice Inspection Request For Relief No. 96-04**  
**For Catawba Unit 1 Based On ASME Section XI - 1989 Code**

**Attachment 1**  
**Page 1 of 1**

Item No.	Exam Category /Figure No.	System Or Component	Area To Be Examined	Reason For Request	Licensee Proposed Alternate Examination
B09.011.163	B-J IWB-2500-8	(NI) Safety Injection System	Class 1 Circumferential Piping Weld	Limited scan due to geometric configuration. Actual coverage obtained = 59.85%	None
B09.011.164	B-J IWB-2500-8	(NI) Safety Injection System	Class 1 Circumferential Piping Weld	Limited scan due to geometric configuration. Actual coverage obtained = 61.00%	None

DUKE POWER COMPANY										FORM NDE-UT-1G	
ULTRASONIC CALIBRATION/EXAMINATION RECORD FOR NDT-136 INSTRUMENTS										REVISION 5	
Station: Catawba			Unit: 1		Date: 6/18/96		Sheet Number: 9601018				
Procedure: NDE-600			Rev: 7		FC: N/A		Couplant: ULTRAGEL II		Batch Number: 093001		
Examiner: Jay A. Eaton			Level: II		Manufacturer: STAVELEY			Pyrometer S/N: MCNDE 27025			
Examiner: B. Dale Jolly			Level: I		Serial No: 975K			Cal Due: 10/3/96			
REFERENCE BLOCK					SIMULATOR BLOCK						
ID: ROMPAS					Search Unit # 1 ID: A09319 Reflector Type: RADIUS				Search Unit # 2 ID: A09319 Reflector Type: RADIUS		
S/N: A09319 Material: SS					Metal Path: 1"				Metal Path: 1"		
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Length: 6 FT		Freq: 2.25 Mhz			Velocity: 0.125		Freq: 2.25 Mhz			Velocity: 0.124	
Initial Cal Time		Manuf: KBA			Units: IN		Manuf: KBA			Units: IN	
s.u.#1 1406 s.u.#2 1350		Ser no: 42967			Display: FILT1		Ser no: 43072			Display: FILT1	
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		Wedge: MSW-QC			Reject: OFF		Wedge: MSW-QC			Reject: OFF	
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Reviewer: Larry Mauldin		Level: II		Date: 6/19/96		Authorized Inspector: Robert McMillan				Date: 6-26-96	

DUKE POWER COMPANY										FORM NDE-UT-1G																								
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Reviewer: <i>Lauri Mauldin</i>	Level: <i>III</i>	Date: 6-19-96	Authorized Inspector: <i>Robert M. Hall</i>	Date: 6-26-96
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*gk*  
6/18/96



DUKE POWER COMPANY ISI LIMITATION REPORT				FORM NDE-UT-4	
				Revision 1	
Componen: Weld ID: 1N148-10		Item No: B09.011.163		Remarks:	
<input checked="" type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN FROM L _____ to L _____ INCHES FROM WO _____ C/L _____ to _____ 0.7"		SURFACE <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 BEAM DIRECTION <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> cw <input type="checkbox"/> ccw FROM _____ 0 DEG to _____ 360 DEG		< WELD TAPER	
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Prepared By: Jay Eaton		Level: II		Date: 6/18/96	
Reviewed By: Larry Mauldin		Date: 6/19/96		Sketch(s) attached <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Authorized Inspector: <i>[Signature]</i>	
				Sheet <u>1</u> of <u>3</u> Date: 7-24-96	

*[Signature]*  
 7/24/96

**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**

.42" X 1.85" = .777 sq. in. = .78 sq.in.

**Volume Calculation**

.78 sq. in. X 34.4" = 26.83 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
Axial	45/60L	2	.72	34.4	24.77	26.83	92.32
Circ.	45	CW	.34	34.4	11.7	26.83	43.61
Circ.	45	CCW	.34	34.4	11.7	26.83	43.61

$$48.17 \div 80.49 \times 100 = \underline{59.85\%}$$

Item No: B09.011.163

Prepared By: Jay Eaton

Level: II

Date: 7/22/96

Reviewed By: Larry Mauldin

Level: III

Date: 7/22/96

*Joe*  
10/28/96

REQUEST FOR RELIEF 96-04  
ATTACHMENT 2 PG 5 OF 9

CH-0



# DUKE POWER COMPANY UT PROFILE/PLOT SHEET

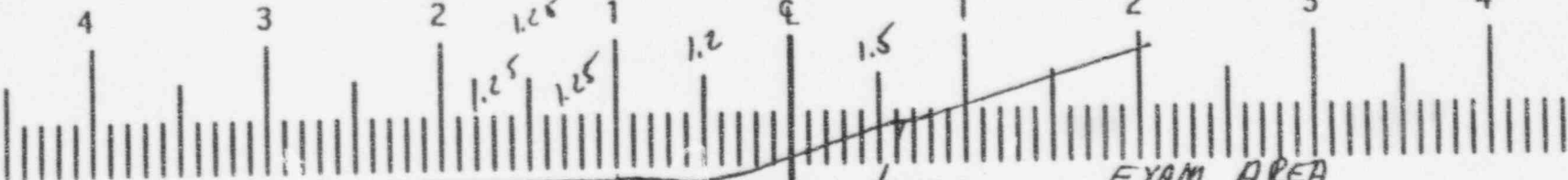
NDE-UT-5

Revision 1

EXAMINATION SURFACE 1

EXAMINATION SURFACE 2

WELD



■ - No COVERAGE

▨ - COVERED BY 60° L AX - NOT COVERED BY 45° C

□ - 100% COVERAGE

EXAM AREA  
.42" X 1.85" = .777 = .78 sq. in.

45°/60° L AXIAL:

A-B-C  $\frac{.45 \times .25}{2} = .0562 = .06 \text{ sq. in.}$

.78 - .06 = .72 sq. in. COVERAGE

45° CIR.  
D-E-F-G

A =  $\frac{.42}{2} (.7 + .9) = .31 \text{ sq. in.}$

.34 sq. in. COVERAGE

Component ID/Weld No. 1 N.I 148-10

Remarks:

Examiner:

Reviewed By:

Authorized Inspector:

Item No: B09.011.163

Level: II

Date: 7/22/96

Level: III

Date: 7-22-96

Date: 7-24-96

270

Profile taken  
at: 0°

90

180 Sheet 3 of 3

REQUEST FOR RELIEF 96-04

ATTACHMENT 2 PG 7 OF 9

DUKE POWER COMPANY ISI LIMITATION REPORT			FORM NDE-UT-4
			Revision 1
Component/Weld ID: 1NI148-11		Item No: B09.011.164	Remarks:
<input checked="" type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN SURFACE <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 BEAM DIRECTION <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> cw <input type="checkbox"/> ccw FROM L _____ to L _____ INCHES FROM WO _____ C/L _____ to _____ 0.7" ANGLE: <input type="checkbox"/> 0 <input type="checkbox"/> 45 <input checked="" type="checkbox"/> 60 <input checked="" type="checkbox"/> Other 60°L FROM 0 DEG to 360 DEG		< WELD TAPER	
<input checked="" type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN SURFACE <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 BEAM DIRECTION <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> cw <input type="checkbox"/> ccw FROM L _____ to L _____ INCHES FROM WO _____ C/L _____ to BEYOND ANGLE: <input type="checkbox"/> 0 <input type="checkbox"/> 45 <input checked="" type="checkbox"/> 60 <input checked="" type="checkbox"/> Other 60°L FROM 0 DEG to 360 DEG		< VALVE CONFIGURATION	
<input type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN SURFACE <input type="checkbox"/> 1 <input type="checkbox"/> 2 BEAM DIRECTION <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> cw <input type="checkbox"/> ccw FROM L _____ to L _____ INCHES FROM WO _____ to _____ ANGLE: <input type="checkbox"/> 0 <input type="checkbox"/> 45 <input type="checkbox"/> 60 <input type="checkbox"/> Other _____ FROM _____ DEG to _____ DEG			
<input type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN SURFACE <input type="checkbox"/> 1 <input type="checkbox"/> 2 BEAM DIRECTION <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> cw <input type="checkbox"/> ccw FROM L _____ to L _____ INCHES FROM WO _____ to _____ ANGLE: <input type="checkbox"/> 0 <input type="checkbox"/> 45 <input type="checkbox"/> 60 <input type="checkbox"/> Other _____ FROM _____ DEG to _____ DEG			
Prepared By: Jay Eaton		Level: II	Date: 6/18/96
Reviewed By: Larry Mauldin		Date: 6/19/96	Authorized Inspector: <i>[Signature]</i>
Sketch(s) attached <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		Sheet 1 of 3	
		Date: 7-24-96	

*[Handwritten signature]*  
7/24/96

REQUEST FOR RELIEF 96-04

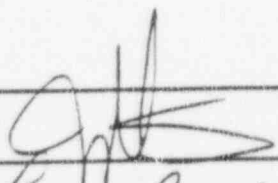
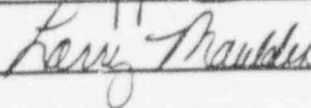
ATTACHMENT 2 Pg 8 of 9

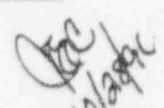
<b>DUKE POWER COMPANY</b> Limited Examination Coverage Worksheet						NDE-91-1	
						Revision 0	
<b>Examination Volume/Area Defined</b>							
<input checked="" type="checkbox"/> Base Metal <input checked="" type="checkbox"/> Weld <input type="checkbox"/> Near Surface <input type="checkbox"/> Bolting <input type="checkbox"/> Inner Radius							
Area Calculation				Volume Calculation			
.33" X 1.6" = .528 sq. in. = .53 sq.in.				.53 sq. in. X 34.4" = 18.23 cu.in.			
<b>Coverage Calculations</b>							
Scan #	Angle	Beam Direction	Area Examined (sq.in.)	Length Examined (in.)	Volume Examined (cu.in.)	Volume Required (cu.in.)	Percent Coverage

Axial	45/60L	1	.45	34.4	15.48	18.23	84.91
Circ.	45	CW	.26	34.4	8.94	18.23	49.04
Circ.	45	CCW	.26	34.4	8.94	18.23	49.04

$33.36 \div 54.69 \times 100 = 61\%$

102

		Item No:	B09 011.164
Prepared By: Jay Eaton		Level: II	Date: 7/22/96
Reviewed By: Larry Mauldin		Level: III	Date: 7/22/96

  
10/2/96

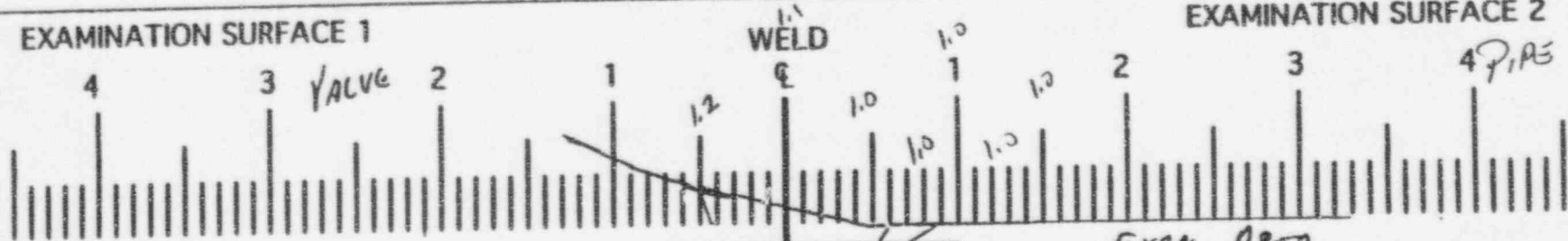
DUKE POWER COMPANY  
UT PROFILE/PLOT SHEET

NDE-UT-5

Revision 1

EXAMINATION SURFACE 1

EXAMINATION SURFACE 2



5 ☒ - No COVERAGE

1 ☒ - COVERED BY 60° AX. NOT COVERED BY 45°

☐ - 100% COVERAGE

1.5

2 45°/60° L AXIAL:  
A-B-C  $\frac{.5 \times .3}{2} = .075 = .08 \text{ sq. in.}$

2.5  $.53 - .08 = .45 \text{ sq. in. COVERAGE}$

3

EXAM AREA  
 $.33 \times 1.6 = .528 = .53 \text{ sq. in.}$

45° CIRC.  
D-E-F-G  
 $A = \frac{.33}{2} (.7" + .9") = .264$   
 $A = .26 \text{ sq. in.}$

Component ID/Weld No. 1NI148-11

: Remarks:

Examiner:

Reviewed By:

Authorized Inspector:

Item No: B09.011.164

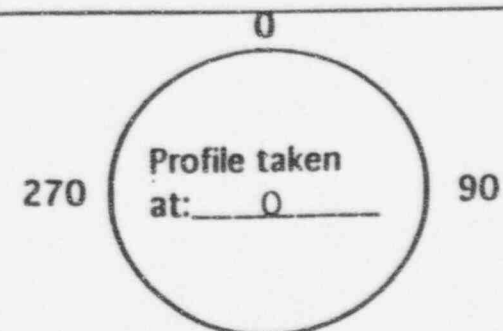
Level: II

Date: 7-22-96

Level: III

Date: 7-22-96

Date: 7-24-96



180 Sheet 3 of 3

*Handwritten signature and date 7/24/96*

**ATTACHMENT 2**

## NRC RAI LETTER

Form NDE-35A		Revision 3	
<b>DUKE POWER COMPANY</b>			
STATION <u>Catawba</u> UNIT <u>1</u>			
<b>LIQUID PENETRANT EXAMINATION REPORT</b>			
Weld/ID No. <u>1N148-10</u>		Material Type: <input checked="" type="checkbox"/> SS <input type="checkbox"/> CS <input type="checkbox"/> Inconel	
Diameter <u>10</u>	Schedule/Thickness <u>140/1</u>	<input checked="" type="checkbox"/> ISI <input type="checkbox"/> PSI <input type="checkbox"/> Other	
Procedure Rev. No. <u>16</u>		Field Change No.(s) <u>N/A</u>	
W/O No. <u>96014620-01</u>		SKETCH OF ITEM EXAMINED	
Surface Temperature <u>72°F</u>			
M&TE S/N: <u>MCNDE 27025</u>			
Penetrant Materials Category: A <input checked="" type="checkbox"/> A(SE) <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> A(SE) Approved _____			
Penetrant Materials Data: Batch Numbers Cleaner <u>94J01K</u> Penetrant <u>95E05K</u> Developer <u>95D07K</u> Emulsifier <u>N/A</u> Fluorescent <input type="checkbox"/> Nonfluorescent <input checked="" type="checkbox"/>			
Black Light Intensity Verified _____ Time _____ Date _____ Light Meter S/N: <u>N/A</u>		Acceptance Standard: A <input type="checkbox"/> D <input type="checkbox"/> G <input type="checkbox"/> K <input type="checkbox"/> Other: B <input type="checkbox"/> E <input type="checkbox"/> H <input type="checkbox"/> L <input type="checkbox"/> C <input type="checkbox"/> F <input checked="" type="checkbox"/> J <input type="checkbox"/> M <input type="checkbox"/>	
Ind. No.	Indication Type/Dimensions	Reference Documents	Recordable Reportable
NRI			

PIP S/N: <u>N/A</u>		Rejectable <input type="checkbox"/> Acceptable <input checked="" type="checkbox"/>	
Exam Limitations: <input type="checkbox"/> Yes _____ % Examined		<input checked="" type="checkbox"/> No (100% Examined)	
Comments:			
Examiner: Guy G. Bibb <i>Guy G. Bibb</i>		Level: <u>II</u>	Date: <u>6/18/96</u>
Examiner: Gary J. Moss <i>Gary J. Moss</i>		Level: <u>II</u>	Date: <u>6/18/96</u>
Reviewed By: Larry Mauldin <i>Larry Mauldin</i>		Level: <u>II</u>	Date: <u>6/18/96</u>
Final Review <i>Am Jiles</i>	Date <u>6/20/96</u>	ANII Review <i>Rex Mauldin</i>	Date <u>6/23/96</u>
		Item No. <u>B09.011.163A</u>	

*ROC*  
*10/20/96*

**ATTACHMENT 3**



Form NDE-35A		Revision 3		
<b>DUKE POWER COMPANY</b>				
STATION <u>Catawba</u> UNIT <u>1</u>				
<b>LIQUID PENETRANT EXAMINATION REPORT</b>				
Weld/ID No. <u>1NI148-11</u>		Material Type: <input checked="" type="checkbox"/> SS <input type="checkbox"/> CS <input type="checkbox"/> Inconel		
Diameter <u>10</u>	Schedule/Thickness <u>140/1</u>	<input checked="" type="checkbox"/> ISI <input type="checkbox"/> PSI <input type="checkbox"/> Other		
Procedure Rev. No. <u>16</u>		Field Change No.(s) <u>N/A</u>		
W/O No. <u>96014620-01</u>	SKETCH OF ITEM EXAMINED			
Surface Temperature <u>72°F</u>				
M&TE S/N: <u>MCNDE 27025</u>				
Penetrant Materials Category: A <input checked="" type="checkbox"/> A(SE) <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> A(SE) Approved _____				
Penetrant Materials Data: Batch Numbers Cleaner <u>94J01K</u> Penetrant <u>95E05K</u> Developer <u>95D07K</u> Emulsifier <u>N/A</u> Fluorescent <input type="checkbox"/> Nonfluorescent <input checked="" type="checkbox"/>				
Black Light Intensity Verified Time _____ Date _____ Light Meter S/N: <u>N/A</u>	Acceptance Standard: A <input type="checkbox"/> D <input type="checkbox"/> G <input type="checkbox"/> K <input type="checkbox"/> Other: B <input type="checkbox"/> E <input type="checkbox"/> H <input type="checkbox"/> L <input type="checkbox"/> C <input type="checkbox"/> F <input checked="" type="checkbox"/> J <input type="checkbox"/> M <input type="checkbox"/>			
Ind. No. _____	Indication Type/Dimensions _____	Reference Documents _____	Recordable _____	Reportable _____
NRI _____				

PIP S/N: <u>N/A</u>	Rejectable <input type="checkbox"/>	Acceptable <input checked="" type="checkbox"/>
Exam Limitations: <input type="checkbox"/> Yes _____ % Examined	<input checked="" type="checkbox"/> No (100% Examined)	
Comments:		
Examiner: Guy G. Bibb <i>Guy G. Bibb</i>	Level: <u>II</u>	Date: <u>6/18/96</u>
Examiner: Gary J. Moss <i>Gary J. Moss</i>	Level: <u>II</u>	Date: <u>6/18/96</u>
Reviewed By: Larry Mauldin <i>Larry Mauldin</i>	Level: <u>II</u>	Date: <u>6/18/96</u>
Final Review <i>Rm Jelen</i>	Date <u>6/21/96</u>	ANII Review <i>Rm Jelen</i>
	Date <u>6-23-96</u>	Item No. <u>B09.011.164A</u>

*19/30/96*