INSERVICE INSPECTION REPORT

UNIT 2 CATAWBA 1997 REFUELING OUTAGE 8

Location: 4800 Concord Road, York, South Carolina 29745

NRC Docket No. 50-414

National Board No. 173

Commercial Service Date: August 19, 1986

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

Revision 1

Prepared By: D. L. Hogge, Jr. Date 4/15/98

Reviewed By: J. E. Kenny Date 4/15/98

Approved By: Jon Barbour Date 4/22/98

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Controlled X Uncontrolled _____

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2.0 Summary of Inservice Inspections

The information shown below provides an abstract of ASME Section XI Class 1, Class 2, and Augmented Items scheduled and examined during Outage 8 at Catawba Nuclear Station, Unit 2.

2.1 Class 1 Inspection

Examination Category B-A Pressure Retaining Welds in Reactor Vessel

Item Number	Description	Total Examined During Outage
B01.010	***Shell Welds***	
B01.011	Circumferential	0
B01.012	Longitudinal	0
B01.020	***Head Welds***	
B01.021	Circumferential	1
B01.022	Meridional	4
B01.030	Shell to Flange Welds	0
B01.040	Head to Flange Welds	1
B01.050	***Repair Welds***	
B01.051	Beltline Region	NA
TOTALS		6

Examination Category B-B Pressure Retaining Welds in Vessels Other than Reactor Vessels

Item Number	Description	Total Examined During Outage
	Pressurizer	
B02.010	***Shell to Head Welds***	
B02.011	Circumferential	0
B02.012	Longitudinal	0
B02.020	***Head Welds***	
B02.021	Circumferential	NA
B02.022	Meridional	NA
	Steam Generators (Primary Side)	
B02.030	***Head Welds***	
B02.031	Circumferential	NA
B02.032	Meridional	NA
B02.040	Tubesheet to Head Weld	0
	Heat Exchangers (Primary Side) -- Head	
B02.050	***Head Welds***	
B02.051	Circumferential	NA
B02.052	Meridional	NA
	Heat Exchangers (Primary Side) -- Shell	
B02.060	Tubesheet to Head Welds	NA
B02.070	Longitudinal Welds	NA
B02.080	Tubesheet to Shell Welds	NA
TOTALS		0

Examination Category B-D Full Penetration Welds of Nozzles in Vessels Inspection Program B

Item Number	*Description*	*Total Examined During Outage*
	Reactor Vessel	
B03.090	Nozzle-to-Vessel Welds	0
B03.100	Nozzle Inside Radius Section	0
	Pressurizer	
B03.110	Nozzle-to-Vessel Welds	0
B03.120	Nozzle Inside Radius Section	0
	Steam Generators (Primary Side)	
B03.130	Nozzle-to-Vessel Welds	NA
B03.140	Nozzle Inside Radius Section	0
	Heat Exchangers (Primary Side)	
B03.150	Nozzle-to-Vessel Welds	NA
B03.160	Nozzle Inside Radius Section	NA
TOTALS		0

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

REFERENCE SECTION 11.0 OF THIS REPORT

Examination Category B-F Pressure Retaining Dissimilar Metal Welds

Item Number	Description	Total Examined During Outage
	Reactor Vessel	
B05.010	Nominal Pipe Size 4" or Larger Nozzle-to-Safe End Butt Welds	4
B05.020	Nominal Pipe Size Less Than 4" Nozzle-to-Safe End Butt Welds	NA
B05.030	Nozzle-to-Safe End Socket Welds	NA
	Pressurizer	
B05.040	Nominal Pipe Size 4" or Larger Nozzle-to-Safe End Butt Welds	0
B05.050	Nominal Pipe Size Less Than 4" Nozzle-to-Safe End Butt Welds	NA
B05.060	Nozzle-to-Safe End Socket Welds	NA
	Steam Generator	
B05.070	Nominal Pipe Size 4" or Larger Nozzle-to-Safe End Butt Welds	0
B05.080	Nominal Pipe Size Less Than 4" Nozzle-to-Safe End Butt Welds	NA
B05.090	Nozzle-to-Safe End Socket Welds	NA
	Heat Exchangers	
B05.100	Nominal Pipe Size 4" or Larger Nozzle-to-Safe End Butt Welds	NA
B05.110	Nominal Pipe Size Less Than 4" Nozzle-to-Safe End Butt Welds	NA
B05.120	Nozzle-to-Safe End Socket Welds	NA

Examination Category B-F (Continued)

Item Number	Description	Total Examined During Outage
	Piping	
B05.130	Nominal Pipe Size 4" or Larger Dissimilar Metal Butt Welds	4
B05.140	Nominal Pipe Size Less Than 4" Dissimilar Metal Butt Welds	NA
B05.150	Dissimilar Metal Socket Welds	NA
TOTALS		8

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

Item Number	Description	Total Examined During Outage
	Reactor Vessel	
B06.010	Closure Head Nuts	18
B06.020	Closure Studs (in place)	0
B06.030	Closure Studs (when removed)	18
B06.040	Threads in Flange	18
B06.050	Closure Washers, Bushings	18
	Pressurizer	
B06.060	Bolts and Studs	NA
B06.070	Flange Surface (when connection disassembled)	NA
B06.080	Nuts, Bushings and Washers	NA
	Steam Generators	
B06.090	Bolts and Studs	NA
B06.100	Flange Surface (when connection disassembled)	NA
B06.110	Nuts, Bushings and Washers	NA
	Heat Exchangers	
B06.120	Bolts and Studs	NA
B06.130	Flange Surface (when connection disassembled)	NA
B06.140	Nuts, Bushings and Washers	NA
	Piping	
B06.150	Bolts and Studs	NA
B06.160	Flange Surface (when connection disassembled)	NA
B06.170	Nuts, Bushings and Washers	NA

Examination Category B-G-1 (Continued)

Item Number	Description	Total Examined During Outage
	Pumps	
B06.180	Bolts and Studs	0
B06.190	Flange Surface (when connection disassembled)	0
B06.200	Nuts , Bushings and Washers	NA
	Valves	
B06.210	Bolts and Studs	NA
B06.220	Flange Surface (when connection disassembled)	NA
B06.230	Nuts, Bushings and Washers	NA
TOTALS		72

Examination Category B-G-2 — Pressure Retaining Bolting, 2" and Less in Diameter

Item Number	Description	Total Examined During Outage
	Reactor Vessel	
B07.010	Bolts, Studs and Nuts	NA
	Pressurizer	
B07.020	Bolts, Studs and Nuts	0
	Steam Generators	
B07.030	Bolts, Studs and Nuts	0
	Heat Exchangers	
B07.040	Bolts, Studs and Nuts	NA
	Piping	
B07.050	Bolts, Studs and Nuts	0
	Pumps	
B07.060	Bolts, Studs and Nuts	0
	Valves	
B07.070	Bolts, Studs and Nuts	0
	CRD Housing	
B07.080	Bolts, Studs and Nuts in CRD Housing (when disassembled)	0
TOTALS		0

Examination Category B-H Integral Attachments for Vessels

Item Number	Description	Total Examined During Outage
	Reactor Vessel	
B08.010	Integrally Welded Attachments	0
	Pressurizer	
B08.020	Integrally Welded Attachments	0
	Steam Generators	
B08.030	Integrally Welded Attachments	NA
	Heat Exchangers	
B08.040	Integrally Welded Attachments	NA
TOTALS		0

Examination Category B-J Pressure Retaining Welds in Piping

Item Number	Description	Total Examined During Outage
B09.010	**Nominal Pipe Size 4" or Larger**	
B09.011	Circumferential Welds	11
B09.012	Longitudinal Welds[1]	0
B09.020	**Nominal Pipe Size Less than 4"**	
B09.021	Circumferential Welds	0
B09.022	Longitudinal Welds	NA

[1] Longitudinal Welds that intersect circumferential welds are examined as required by ASME Section XI, Table IWB-2500-1, Category B-J. However, for reporting purposes, the totals as shown in Section 3.0 of this report do not include the number of longitudinal welds examined during this outage.

Examination Category B-J (Continued)

Item Number	Description	Total Examined During Outage
B09.030	**Branch Pipe Connection Welds**	
B09.031	Nominal Pipe Size 4" or Larger	0
B09.032	Less than Nominal Pipe Size 4"	3
B09.040	Socket Welds	11
TOTALS		25

Examination Category B-K-1 Integral Attachments for Piping, Pumps and Valves

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

Examination Category **B-L-1, B-M-1** **Pressure Retaining Welds in Pump Casings and Valve Bodies**

B-L-2, B-M-2 **Pump Casings and Valve Bodies**

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

Examination Category **B-N-1** **Interior of Reactor Vessel**

B-N-2 **Integrally Welded Core Support Structures and Interior Attachments to Reactor Vessels**

B-N-3 **Removable Core Support Structures**

Item Number	*Description*	*Total Examined During Outage*
	Reactor Vessel	
B13.010	Vessel Interior (B-N-1)	1
	Reactor Vessel (PWR)	
B13.050	Interior Attachments Within the Beltline Region (B-N-2)	NA
B13.060	Interior Attachments Beyond Beltline Region (B-N-2)	0
B13.070	Core Support Structure (B-N-3)	0
TOTALS		1

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

Item Number	*Description*	*Total Examined During Outage*
	Reactor Vessel	
B14.010	Welds in CRD Housing	0
TOTALS		0

Examination Category B-P **All Pressure Retaining Components**

REFERENCE SECTION 11.0 OF THIS REPORT

Examination Category B-Q Steam Generator Tubing

Item Number	*Description*	*Total Examined During Outage*
B16.010	Steam Generator Tubing in Straight Tube Design	NA
B16.020	Steam Generator Tubing in U-Tube Design [2]	NA
TOTALS		NA

Examination Category F-A Class 1 Component Supports (Code Case N-491)

Item Number	*Description*	*Total Examined During Outage*
F01.010	Class 1 Piping Supports (One-Directional)	2
F01.011	Class 1 Piping Supports (Multi-Directional)	2
F01.012	Class 1 Piping Supports (Thermal Movement)	3
F01.040	Class 1 Supports other than Piping	2
F01.050	Class 1 Snubbers[3]	NA
TOTALS		9

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

[3] See Request for Relief 96-01 in Section 9.0 of this report.

2.2 Class 2 Inspections

Examination Category C-A Pressure Retaining Welds in Pressure Vessels

Item Number	*Description*	*Total Examined During Outage*
C01.010	Shell Circumferential Welds	1
C01.020	Head Circumferential Welds	0
C01.030	Tubesheet to Shell Weld	0
TOTALS		1

Examination Category C-B Pressure Retaining Nozzle Welds in Vessels

Item Number	*Description*	*Total Examined During Outage*
C02.010	**Nozzles in Vessels ≤ 1/2" Nominal Thickness**	
C02.011	Nozzle to Shell (or Head) Weld	0
C02.020	**Nozzles Without Reinforcing Plate in Vessels >1/2" Nominal Thickness**	
C02.021	Nozzle to Shell (or Head) Weld	0
C02.022	Nozzle Inside Radius Section	0

Examination Category C-B (Continued)

C02.030	**Nozzles With Reinforcing Plate in Vessels >1/2" Nominal Thickness**	
C02.031	Reinforcing Plate Welds to Nozzle and Vessel	NA
C02.032	Nozzle to Shell (or Head) Welds when Inside of Vessel is Accessible	NA
C02.033	Nozzle to Shell (or Head) Welds when Inside of Vessel is Inaccessible	NA
TOTALS		0

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

Item Number	*Description*	*Total Examined During Outage*
	Pressure Vessels	
C03.010	Integral Welded Attachments	0
	Piping	
C03.020	Integrally Welded Attachments	13
	Pumps	
C03.030	Integrally Welded Attachments	0
	Valves	
C03.040	Integrally Welded Attachments	NA
TOTALS		13

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

Item Number	*Description*	*Total Examined During Outage*
	Pressure Vessels	
C04.010	Bolts and Studs	NA
	Piping	
C04.020	Bolts and Studs	NA
	Pumps	
C04.030	Bolts and Studs	NA
	Valves	
C04.040	Bolts and Studs	NA
TOTALS		NA

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

Item Number	*Description*	*Total Examined During Outage*
C05.010	**Piping Welds ≥ 3/8" Nominal Wall Thickness for Piping > Nominal Pipe Size 4"**	
C05.011	Circumferential Weld	15
C05.012	Longitudinal Weld[4]	13

Examination Category C-F-1 (Continued)

Item Number	*Description*	*Total Examined During Outage*
C05.020	**Piping Welds > 1/5" Nominal Wall Thickness for Piping ≥ Nominal Pipe Size 2" and ≤ Nominal Pipe Size 4"**	
C05.021	Circumferential Weld	11
C05.022	Longitudinal Weld[4]	3
C05.030	Socket Welds	4
C05.040	Pipe Branch Connections of Branch Piping ≥ Nominal Pipe Size 2"	
C05.041	Circumferential Weld	1
C05.042	Longitudinal Weld[4]	0
TOTALS		31

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

Item Number	*Description*	*Total Examined During Outage*
C05.050	**Piping Welds ≥ 3/8" Nominal Wall Thickness for Piping > Nominal Pipe Size 4"**	
C05.051	Circumferential Weld	3
C05.052	Longitudinal Weld[5]	0

[4] Longitudinal Welds that intersect circumferential welds are examined as required by ASME Section XI, Table IWC-2500-1, Category C-F-1. However, for reporting purposes, the totals as shown in Section 3.0 of this report do not include the number of longitudinal welds examined during this outage.

[5] Longitudinal Welds that intersect circumferential welds are examined as required by ASME Section XI, Table IWC-2500-1, Category C-F-2. However, for reporting purposes, the totals as shown in Section 3.0 of this report do not include the number of longitudinal welds examined during this outage.

Examination Category C-F-2 (Continued)

Item Number	Description	Total Examined During Outage
C05.060	**Piping Welds > 1/5" Nominal Wall Thickness for Piping ≥ Nominal Pipe Size 2" and ≤ Nominal Pipe Size 4"**	
C05.061	Circumferential Weld	NA
C05.062	Longitudinal Weld	NA
C05.070	Socket Welds	NA
C05.080	**Pipe Branch Connections of Branch Piping ≥ Nominal Pipe Size 2"**	
C05.081	Circumferential Weld	0
C05.082	Longitudinal Weld	NA
TOTALS		3

Examination Category C-G Pressure Retaining Welds in Pumps and Valves

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

Examination Category C-H All Pressure Retaining Components

REFERENCE SECTION 11.0 OF THIS REPORT

Examination Category F-A Class 2 Component Supports (Code Case N-491)

Item Number	*Description*	*Total Examined During Outage*
F01.020	Class 2 Piping Supports (One Directional)	16
F01.021	Class 2 Piping Supports (Multi-Directional)	14
F01.022	Class 2 Piping Supports (Thermal Movement)	3
F01.040	Class 2 Supports other than Piping	0
F01.050	Class 2 Snubbers[6]	NA
TOTALS		33

[6] See Request for Request for Relief 96-01 in Section 9.0 of this report.

2.3 Augmented Inspection

Item Number	*Description*	*Total Examined During Outage*
G01.001	Reactor Coolant Pump Flywheels	2
G02.001	Postulated Pipe Failures Main Steam System	11
G03.001	Thermal Stress Piping (NRC Bulletin 88-08)	0
TOTALS		13

A detailed description of each examination listed in Section 2.1 through 2.3 are located in Section 4.0 of this report. Results of each examination are located in Section 5 of this report.

3.0 Second Ten Year Interval Inspection Status

The completion status of inspections required 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 Table IWC-2500-1 for Class 2 Inspections. Augmented inspections are also included.

Class 1 Inspections

Examination Category	Description	Inspections Required	Inspections Completed	Percentage Completed	Deferral Allowed
B-A	Pressure Retaining Welds in Reactor Vessel	24	6	25%	Yes
B-B	Pressure Retaining Welds in Vessels Other than Reactor Vessel	5	0	0%	No
B-D	Full Penetration Welds of Nozzles in Vessels Inspection Program B	36	0	0%	Partial
B-E	Pressure Retaining Partial Penetration Welds in Vessels	REFERENCE SECTION 11.0 OF THIS REPORT			
B-F	Pressure Retaining Dissimilar Metal Welds	46	8	17.39%	No
B-G-1	Pressure Retaining Bolting Greater than 2 Inch Diameter	224	72	32.14%	No
B-G-2	Pressure Retaining Bolting 2 Inches and Less in Diameter	29	0	0%	No

Class 1 Inspections (Continued)

Examination Category	Description	Inspections Required	Inspections Completed	Percentage Completed	[7]Deferral Allowed
B-H	Integral Attachment for Vessels	8	0	0%	No
B-J	Pressure Retaining Welds in Piping	222	25	11.26%	No
B-K-1	Integral Attachments for Piping, Pumps and Valves	N/A	N/A	N/A	No
B-L-1	Pressure Retaining Welds in Pump Casings	N/A	N/A	N/A	N/A
B-L-2	Pump Casings	1	0	0%	Yes
B-M-1	Pressure Retaining Welds in Valve Bodies	2	0	0%	Yes
B-M-2	Valve Bodies	7	2	28.57%	Yes
B-N-1	Interior of Reactor Vessel	3	1	33.33%	No
B-N-2	Integrally Welded Core Support Structures and Interior Attachments to Reactor Vessels	2	0	0%	Yes
B-N-3	Removable Core Support Structures	1	0	0%	Yes
B-O	Pressure Retaining Welds in Control Rod Housings	3	0	0%	Yes
B-P	All Pressure Retaining Components	REFERENCE SECTION 11.0 OF THIS REPORT			
B-Q	Steam Generator Tubing[8]	N/A	N/A	N/A	N/A
F-A	Class 1 Component Supports F01.010, F01.011, F01.012 & F01.040 (Code Case N-491)	66	9	13.64%	No

[7] Deferral of inspection to the end of the interval as allowed by ASME Section XI Table IWB-2500-1.

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

Class 2 Inspections

Examination Category	*Description*	*Inspections Required*	*Inspections Completed*	*Percentage Completed*	*[9]Deferral Allowed*
C-A	Pressure Retaining Welds in Pressure Vessels	29	1	3.45%	No
C-B	Pressure Retaining Nozzle Welds in Vessels	12	0	0%	No
C-C	Integral Attachments for Vessels, Piping, Pumps and Valves	68	13	19.12%	No
C-D	Pressure Retaining Bolting Greater Than 2 Inches in Diameter	N/A	N/A	N/A	N/A
C-F-1	Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping	278	25	9%	No
C-F-2	Pressure Retaining Welds in Carbon or Low Alloy Steel Piping	46	3	6.52%	No
C-G	Pressure Retaining Welds in Pumps and Valves	20	1	5%	No
C-H	All Pressure Retaining Components	REFERENCE SECTION 11.0 OF THIS REPORT			
F-A	Class 2 Component Supports F01.020, F01.021, F01.022 & F01.040 (Code Case N-491)	222	33	14.86%	No

[9] Deferral of inspection to the end of interval as allowed by ASME Section XI Table IWC-2500-1.

Augmented Inspections

Description	Percentage
Reactor Coolant Pump Flywheels	100% of requirements for EOC 8
Postulated Pipe Failures - Main Steam System	100% of requirements for EOC 8
Thermal Stress Piping (NRC Bulletin 88-08)	Not scheduled for EOC 8

6.0 Reportable Indications

Outage 8 had no reportable indications.

8.0 Corrective Action

No corrective action was required as a result of examinations performed during Outage 8.

9.0 Reference Documents

The following reference documents apply to the inservice inspection performed during Outage 8 at Catawba Nuclear Station, Unit 2.

- Duke Power Company Request for Relief Serial No. 96-01 Snubber Inspection Intervals for Catawba Unit 2
- NRC Letter; Herbert N. Berkow to Mr. William R. McCollum, Catawba Nuclear Station, Unit 2 - Second 10 Year Inservice Inspection Program, Relief Request Regarding Snubbers (TAC No. M95255 And M97982)
- Duke Power Company Request for Relief Serial No. 97-03 Limited Weld Inspection Coverage EOC 8
- PIP # 2-C97-2098 Ultrasonic Transducers

Catawba Nuclear Station
Problem Investigation Process - PIP
Problem Investigation Form

PIP Serial No:	**2-C97-2098**	**LER Serial No:**	
MSE Serial No:		**Other Report:**	**N/A**

I. Problem ID

Discovered Time/Date: 15:00 06/26/97 Occurred Time/Date:

Unit(s): 2

Status at Time Discovered	Unit 1	Unit 2
Mode	N/A	N/A
% Power		

Unit Status Remarks:

System(s) Affected: N/A Not Applicable to Any System

Affected Equipment

WMS Equipment ID No.	Comp. Code	Manufacturer

Location of Problem - Bldg: Column Line: Elev:

Location Remarks:

Method Used to Discover Problem:

Problem was discovered during data review by the ANII.

Brief Problem Description:

This PIP documents a problem with UT Inspections.
UT inspections were performed using search units other than those required by the NDE Program. Procedure NDE-600, revision 9, requires that only search units shown on Table 1 are to be used for examination. Contrary to this requirement, other search units were used by UT inspectors for the examinations. No Operability Concern was identified during initial screening by the Centralized Screening Team.

Detailed Problem Description:

Procedure NDE-600, revision 9, requires that only search units shown on Table 1 are to be used for examination. Contrary to this requirement, other search units were used by UT inspectors for the examinations.

(This is entered for Jim McArdle)

Originated By: EBM8304: MILLER JR, EUGENE B Team: EBM8304 Group: DSD Date: 06/26/97

Catawba Nuclear Station
Problem Investigation Process - PIP
Problem Investigation Form

PIP Serial No:	**2-C97-2098**	**LER Serial No:**	
MSE Serial No:		**Other Report:**	**N/A**

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

Industry Plants Affected (Y,N,U): U

Immediate Corrective Actions:

The transducers that were used for the examinations at CNS were demonstrated to the CNS ANII. All transducers were shown to be capable of detecting flaws in welded mock-ups. Based on the results of this demonstration, the UT exams performed at CNS are acceptable.

(This is entered for Jim McArdle)

Originated By: EBM8304: MILLER JR, EUGENE B Team: EBM8304 Group: DSD Date: 07/22/97

Problem Found While Working with Document No. :

Immediate Corrective Action Work Request / Work Order No. :

	Indiv	Team	Group	Date:
Problem Identified By:	EBM8304	EBM8304	DSD	06/26/97
Problem Entered By:	EBM8304	EBM8304	DSD	06/26/97

II. Screening

Is the Problem Significant? N Action Category: 3

OEP No: N/A

Other Report Nos: N/A

Event Codes: A1b Adherence\Failure to follow procedure\Technical

Screening Remarks:

Screened by the Centralized Screening Team on 6-30-97.

Originated By: JWG6081: GLENN, JOHN W Team: DPK7345 Group: SRG Date: 06/30/97

Responsible Group for Proposed Resolution(s):	DSD	ESSD/Diversif. Svcs
Responsible Group for Problem Evaluation:	DSD	ESSD/Diversif. Svcs
Responsible Group for Overall PIP approval:	DSD	ESSD/Diversif. Svcs

Catawba Nuclear Station
Problem Investigation Process - PIP
Problem Investigation Form

PIP Serial No: 2-C97-2098 **LER Serial No:**
MSE Serial No: **Other Report:** N/A

	Indiv	Team	Group	Date
Screened By:	JWG6081	DPK7345	SRG	06/30/97

III. Operability

Present Operability:

Responsible Group: Status:

Sys/Comp Operable?(Y,N,C,E) :

Required Mode:

Comments:

	Indiv	Team	Group	Date

No current Signatures for this section.

Past Operability:

Responsible Group: Status:

Sys/Comp Operable?(Y,N,C,E) :

Required Mode:

Comments:

	Indiv	Team	Group	Date

No current Signatures for this section.

IV. Reportability/Investigation

Responsible Group: Status:

Problem Reportable(Y,N,E):

Reportable Per:

Comments:

	Indiv	Team	Group	Date

No current Signatures for this section.

Catawba Nuclear Station
Problem Investigation Process - PIP
Problem Investigation Form

PIP Serial No:	**2-C97-2098**	**LER Serial No:**	
MSE Serial No:		**Other Report:**	**N/A**

Investigation Report:

Responsible Group: Act Date:

Investigator: Due Date:

Date Due to VP or Sta. Mgr:

Date Regulatory or Agency Rpt Due:

Date Investigation Report Approved:

NRC Cause Codes:

V. Problem Evaluation

Responsible Group: DSD Status: Closed

System(s) Affected: N/A Not Applicable to Any System

Affected Equipment

WMS Equipment ID No.	Comp. Code	Manufacturer

Event	Cause Cd	Cause Description	Primary	Causing Group(s)
A1b	B3h	Inappropriate emphasis of step/information	Yes	DSD

Problem Evaluation:

The UT technicians overlooked the requirement to use only the search units listed in Table 1. The review of the inspection data package by another technician did not identify the error. Procedure NDE-600 did not emphasize the use of Table 1 for search unit selection.

(This is entered for Jim McArdle)

Originated By: EBM8304: MILLER JR, EUGENE B Team: EBM8304 Group: DSD Date: 07/02/97

	Indiv	Team	Group	Date
Due Date:	07/26/97			
Accepted By:	EBM8304	EBM8304	DSD	06/30/97
Assigned To:	EBM8304	EBM8304	DSD	06/30/97
Ready For Approval:	EBM8304	EBM8304	DSD	07/02/97
Approval Assigned To:	EBM8304	EBM8304	DSD	07/02/97
Approved By:	EBM8304	EBM8304	DSD	07/02/97

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MSE Serial No:		**Other Report:**	**N/A**

VI. Proposed Resolution

Proposed Resolution From: Resp. Group: DSD Status: Closed OEDB Checked: No

Procedure NDE-600 should be revised to clarify the requirement that only search units shown in Table 1 be used for the examination.

The transducers used at CNS will be formally qualified at the EPRI NDE Center the week of September 8, 1997. A copy of this PIP, when completed, will be placed in the CNS ISI Report (hard copy).

(This is entered for Jim McArdle)

Originated By: EBM8304: MILLER JR, EUGENE B Team: EBM8304 Group: DSD Date: 07/02/97

Last Upda ted By: EBM8304: MILLER JR, EUGENE B Team: EBM8304 Group: DSD Date: 07/22/97

	Indiv	Team	Group	Date
Due Date:	07/26/97			
Accepted By:	EBM8304	EBM8304	DSD	06/30/97
Assigned To:	EBM8304	EBM8304	DSD	06/30/97
Approval Assigned To:	EBM8304	EBM8304	DSD	07/02/97
Ready For Approval:	EBM8304	EBM8304	DSD	07/22/97
Approved By:	EBM8304	EBM8304	DSD	07/22/97

VII. Corrective Actions

Seq. No: 1

Resp Group:	DSD	Status:	Closed
Orig Group:	DSD	Event Code:	A1b
Prop CAC:	A3	Cause Code:	B3h

Proposed Corrective Action:

Revise Procedure NDE-600 to clarify that only search units shown in Table 1 are to be used for the examination.

(This is entered for Jim McArdle)

Originated By: EBM8304: MILLER JR, EUGENE B Team: EBM8304 Group: DSD Date: 07/02/97

	Indiv	Team	Group	Date
Ready For Approval:	EBM8304	EBM8304	DSD	07/02/97
Approval Assigned To:	EBM8304	EBM8304	DSD	07/02/97
Approved By:	EBM8304	EBM8304	DSD	07/02/97

PIP Serial No: 2-C97-2098 **LER Serial No:**
MSE Serial No: **Other Report:** N/A

General:

Outage: Mode:

Other Tracking Processes

Type	Number	Text

Actual Corrective Action: Actual CAC: A3 Status: Closed
Due Date: 11/20/97

Procedure NDE-600 has been revised (and issued) to clarify that only search units shown in Table 1 are to be used for the examination.

(This is entered for Wendy Cochran and Jim McArdle)

Originated By: EBM8304: MILLER JR, EUGENE B Team: EBM8304 Group: DSD Date: 11/19/97

	Indiv	Team	Group	Date
Accepted By:	EBM8304	EBM8304	DSD	07/08/97
Assigned To:	EBM8304	EBM8304	DSD	07/08/97
Due Date:	11/20/97			
Ready For Approval:	EBM8304	EBM8304	DSD	11/19/97
Approval Assigned To:	EBM8304	EBM8304	DSD	11/19/97
Approved By:	EBM8304	EBM8304	DSD	11/19/97

VIII. Final and Overall PIP Approval

Responsible Group: DSD Status: Closed

	Indiv	Team	Group	Date
Assigned To:			DSD	06/30/97
Approved By:	EBM8304	EBM8304	DSD	11/19/97

Closure Document Type Closure Document No

Supplemental Concurrences - These do not affect PIP closure.

Concurrences Associated with External Committments:

	Indiv	Team	Group	Date
Concurred By:				

PIP Serial No:	**2-C97-2098**	**LER Serial No:**	
MSE Serial No:		**Other Report:**	**N/A**

IX. Attachments

Generic Applicability

Generic Applicability Review Not Required for this PIP.

Environmental

No Environmental for this PIP.

Failure Prevention Investigation

Quality of CA: UN Quality of Cause: N2 Resp. Group: SRG Status: Closed

1) Event	Inapp. Action #
A1b	001

Description: UT inspectors used transducers that were not specified in NDE procedure.

Process:	PM	Process:	
Group:	ESM	Group:	
Sub-Group:		Sub-Group:	

O and P Failure Mode:	UN
HE Failure Mode:	UN
HE Type:	UN
Key Activity:	in

Associated Corrective Actions: None

Comments

	Indiv	Team	Group	Date
Assigned To:	GTF7700	DPK7345	SRG	09/25/97
Ready For Approval:	GTF7700	RLB0645	SRG	10/19/97
Approval Assigned To:	RLB0645	RLB0645	SRG	10/19/97
Approved By:	GTF7700	RLB0645	SRG	10/19/97

Remarks

No Remarks for this PIP

Maintenance Rule

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MSE Serial No:		**Other Report:**	**N/A**

No Maintenance Rule for this PIP

End of the Document for PIP No: 2-C97-2098
The status of this PIP is: Closed
The duration of this PIP was: 146 days

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 November 30, 1995 to May 2, 1997 is included in this section of the report. The individual work request documents are on file at Catawba Nuclear Station.