Donald K. Cobb Assistant Vice President, Nuclear Generation

Fermi 2 6400 North Dixie Hwy., Newport, MI 48166 Tel: 734.586.5201 Fax: 734.586.4172

DTE Energy



10 CFR 50.55a

August 2, 2006 NRC-06-0054

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

Reference: Fermi 2

NRC Docket No. 50-341 NRC License No. NPF-43

Subject: <u>Inservice Inspection Summary Report</u>

Enclosed is the Summary Report of the 2006 Inservice Inspection (ISI) activities performed at Detroit Edison Company's Fermi 2 Nuclear Power Plant. This report represents a summary of the ISI activities for the Second Ten-Year Inspection Interval beginning February 17, 2000 through the Eleventh Refueling Outage, which was completed on May 5, 2006.

This report is being submitted in accordance with ASME Section XI, 1989 Edition, paragraph IWA-6230, for IWB, IWC, IWD, and IWF inspections, and the 1992 Edition, including the 1992 Addenda, for IWE inspections.

Should you have any questions or require additional information, please contact Mr. Ronald W. Gaston, Manager - Nuclear Licensing, at (734) 586-5197.

The

Enclosure

cc: D. H. Jaffe

C. A. Lipa

NRC Resident Office

Regional Administrator, Region III

M. Wilson - ANII

R. J. Aben Jr. - Chief Inspector

Michigan Department of Labor & Economic Growth Bureau of Construction Codes and Fire Safety - Boiler Division RMT

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1.	Owner	Detroit Edisc	n Co., 2	2000 2nd A [,]	ve D	etroit, MI 48226	
	.			ress of Own			
2.	Plant	Fermi-2 Nucl	ear Poy	wer Plant, 64	400 N	I. Dixie Hwy., Newport MI 48	3166
		(Name a	nd Add	iress of Plan	t)		
3.	Plant Uni	t_2_ 4	. Owr	ner Certifica	te of	Authorization (if required)	N/A
5.	Commerc	ial Service Da	ite <u>01</u> -	23-88	6.	National Board Number for	Unit <u>N/A</u>
7. 0	Component	ts Inspected <u>Sc</u>	ee Prog	ram Table it	n Sec	ion 7.0 and 8.0 of attached Su	ımmary Report

Component Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
_RPV	Combustion Engineering	CE-67211	M345962M	21085
Class 1, 2, & 3 Components (1)	Wisner & Becker Townsend & Bottom	Various	M345962M	N/A
Associated Supports	Chicago Bridge & Iron	Various	M345962M	N/A
	Reactor Controls Inc.	Various	M345962M	N/A
	Walbridge Aldinger Co.	Various	M345962M	N/A
Containment Vessel	Chicago Bridge and Iron	C-4512	N/A	N/A

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.

(1) Certificate of Accreditation No. OWN-159 for N-3 Data Report.

FORM NIS-1 (back)

- 8. Examination Dates <u>12/04/04</u> to <u>05/05/06</u>
- 9. Inspection Interval from <u>02/17/00</u> to <u>02/17/10</u>
- 10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. (A listing of all required examinations and those completed to date for Interval 2, Period 3, Refuel Outage Eleven (RF-11), is included in the ISI Summary Report of the 2006 Inservice Inspection, Section 7.
- 11. Abstract of Conditions Noted (included as Section 5 with IWE in Section 8 of Summary Report).
- 12. Abstract of Corrective Measures Recommended and Taken (included as Section 5 and 8 of Summary Report).

We hereby certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.					
Date <u>fuly 24</u> 2006 Signed	Detroit Edison Co.	By CHEBrath			
	Owner	Lead ISI Engineer			

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

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province Michigan of and employed by HSB CT of One State Street, Hartford, Conn 06102, have inspected the components described in this Owners Data Report during the period of 12/4/04 to 08-0/-06 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data 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.

Date August 1 2006	
Signed Marsher Commission Inspector's Signature	ons MT610
Inspector's Signature	State Province

ISI SUMMARY REPORT OF THE 2006 INSERVICE INSPECTION Refueling Outage RF-11

at

Fermi 2 Nuclear Power Plant 6400 N. Dixie Highway Newport, MI 48166

Detroit Edison Company 2000 2nd Avenue Detroit, MI 48226

Commercial Service Date: January 23, 1988 NB No. 21085 (RPV)

Michigan Boiler Serial Number M345962M

To:

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

Prepared by:

Marc A. Brooks

Lead ISI Engineer, NDE Program Level III

Reviewed by:

Richard M. Hambleton

Lead ISI Engineer, RVIM Program Level III

Approved by:

Brian O'Donnell

Manager, Performance Engineering

TABLE OF CONTENTS

Section	Description	Page(s)
1	INTRODUCTION	1 - 7
2	SUMMARY OF ASME CLASS 1 & 2 AND AUGMENTED EXAMINATIONS	8 - 42
3	SUMMARY OF REACTOR INTERNAL EXAMINATIONS	43 - 52
4	SUMMARY OF COMPONENT SUPPORT EXAMINATIONS	53 - 56
5	ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE ACTIONS TAKEN 5.1 REFUEL-11	57 - 74
	5.2 REFUEL-10	•
	5.3 REFUEL-09	
	5.4 REFUEL-08	
	5.5 REFUEL-07	
	5.6 REFUEL-06	
	5.7 REFUEL-05	
	5.8 REFUEL-04	
	5.9 REFUEL-03	
	5.10 REFUEL-02	
	5.11 REFUEL-01	
6	PROGRAM STATUS, ASME SECTION XI CREDIT - IWB, IWC, & IWF	75 - 104
7	UPDATED PROGRAM TABLES	105 - 117
	ENCLOSED PROGRAM TABLES	
	TABLE A – (33 pages)	
	TABLE B – (9 pages)	
8	SUMMARY OF CONTAINMENT INSPECTIONS (IWE)	118 - 131
	ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE ACTIONS TAKEN	
	ENCLOSED PROGRAM TABLES (23 pages)	
9	SECTION XI REPAIR/REPLACEMENT NIS-2 FORMS INDEX	132 - 135
	(Forms Attached – Note NIS-2 forms are double sided)	

SECTION 1

INTRODUCTION

1.0 INTRODUCTION

1.1 This report represents a summary of the Inservice Inspection (ISI) activities performed at Detroit Edison Company's Fermi 2 Nuclear Power Plant for the Second Ten-year Inspection Interval beginning February 17, 2000.

Fermi 2 - Program B (ASME Section XI, IWA-2420):

First Inspection Interval (1980-W'81 addenda) (01/23/88 - 02/16/00)*

1	. First Inspection Period	(01/23/88 - 06/10/91)
	a. First Refueling Outage	(09/03/89 - 12/16/89)
	b. Second Refueling Outage	(03/30/91 - 06/10/91)
2	. Second Inspection Period	(06/11/91 - 01/03/95)
	a. Third Refueling Outage	(09/12/92 - 11/07/92)
	b. Fourth Refueling Outage	(04/12/94 - 01/03/95)*
3.	. Third Inspection Period	(01/03/95 - 12/31/98)*
	a. Fifth Refueling Outage	(09/27/96 - 01/03/97)
	b. Sixth Refueling Outage	(09/07/98 - 10/29/98)

Second Inspection Interval (1989 Edition) (02/17/00 - 02/17/10)*

1. First Inspection Period	(02/17/00 - 03/27/03)
a. Seventh Refueling Outage	(04/01/00 - 05/23/00)
b. Eighth Refueling Outage	(10/22/01 - 11/30/01)
2. Second Inspection Period	(03/28/03 - 10/17/05)
a. Ninth Refueling Outage	(03/28/03 - 05/10/03)
b. Tenth Refueling Outage	(11/06/04 - 12/03/04)
3. Third Inspection Period	(10/18/05 - end of interval)
a. Eleventh Refueling Outage	(03/25/06 - 05/05/06)

* Fermi 2 was in an extended outage that began on 12/25/93 following a Turbine/Generator failure and ended with the closing of the output breaker on 01/18/95. Because of the extended shutdown, the first inspection interval for Fermi 2 was extended by one additional year to 2/16/2000 as provided for in IWA-2430. The second inspection interval may be shortened by one year to maintain the interval pattern as required in IWA-2430(d).

- 1.2 Examinations were performed to satisfy the requirements (or portions thereof) of the following, as applicable:
 - American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Division 1, "Rules for Inservice Inspection of Nuclear Power Plant Components," Inspection Program B as listed in the following Table A and Section 6 of this report.
 - NUREG-0313, Revision 2, Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping.
 - BWRVIP-75, Technical Basis for Revision of NRC Generic Letter 88-01 Inspection Schedules.
 - Fermi 2 Technical Requirements Manual TR 5.1.1, Augmented Inservice Inspection Program for Snubbers.
 - Augmented Inspection of selected components in accordance with the requirements as listed in the following Table A and Section 6 of this report.
 - BWROG NUREG-0619 Alternate Feedwater Nozzle Inspection Requirements, GE-NE-523-22-0292.

TABLE A

REQUIREMENT	DESCRIPTION	EXAM METHOD
	VESSELS	
Sect. XI, 1989 Edition Appendix VIII, 1995 Edition, 1996 Addenda for UT as applicable	Pressure Vessel (B-A, B-D, B-H, C-A, C-B)	Surface and/or Automated Volumetric or Manual Volumetric
	Reactor Vessel Interior and welded attachments or core support structures (B-N-1, B-N-2)	Visual Examination
	Integral attachments for vessels (B-H, C-C)	Surface and/or Volumetric
	Pressure retaining bolting >2" diameter (B-G-1, C-D)	Surface and/or Volumetric
	Pressure retaining welds in CRD housing (B-O)	Surface and/or Volumetric
Sect. XI, 1992 Edition, 92 Addenda	Containment Inspection (IWE)	Visual
	<u>PIPING</u>	
Sect. XI, 1989 Edition Appendix VIII, 1995 Edition, 1996 Addenda for UT as applicable	Pressure retaining Piping Welds (B-F, B-J, C-F)	Surface and/or Manual Volumetric or Automated Volumetric
	Integral attachment for piping pumps and valves (B-K-1, C-C, Code Case N-509)	Surface and/or Volumetric
	<u>OTHER</u>	
1989 Edition	Pressure retaining partial penetration welds (B-E)	Visual Examination
	Pressure retaining bolting <2" diameter (B-G-2)	Visual Examination
	Pressure retaining bolting >2" diameter (B-G-1)	Visual Examination and /or Volumetric
	Pressure boundary component supports (F-A, Code Case N491-1)	Visual Examination
•	Pump and Valve Internal Surfaces (B-L-2, B-M-2)	Visual Examination
	Detroit Edison Co., 2000 2nd Ave., Detroit, MI Fermi-2 Nuclear Power Plant, 6400 N. Dixie Highway, Ne	

TABLE A (continued)

REQUIREMENT	DESCRIPTION	EXAM METHOD
1989 Edition	PRESSURE TEST Interval 2 Pressure Testing (B-P, C-H, and D-B, Code Case N-416-1, Code Case N-498-1)	Visual Examination
	AUGMENTED	
NUREG-0313, Rev. 2 and BWRVIP- 75	Pressure retaining piping welds (B-F, B-J) IGSCC in BWR Austenitic Stainless Steel Piping	Manual Volumetric and/or Automated Volumetric
	Pressure retaining piping welds (Nonclassed)	Manual Volumetric
BWROG NUREG-0619 Alternative Feedwater Nozzle Inspections	Feedwater Nozzle Inner Blend Radii (GE-NE-523-A71-594)	Manual or Automated Volumetric - from outside surface
Fermi 2 Technical Requirements Manual TR 5.1.1	Safety Related Snubbers	Visual Examination
	Sampling of Safety Related Snubbers	Functional Testing
IE Notice 93-079	Core Shroud	Visual Examination
Generic Letter 94-03	Core Shroud Welds	Visual Examination
IEB 80-13	Core Spray and Spargers	Visual Examination
	Vendor Recommendations	
SIL No. 459	Byron Jackson Recirculation Pump Shaft Cracking	Visual Examination
SIL No. 409	Incore Dry Tube Cracks	Remote Visual Examination
RICSIL No. 073	Incore Dry Tube Cracks	Remote Visual Examination
SIL No. 420	Jet Pump Sensing Lines and Support Brackets	Remote Visual Examination
SIL No. 433	Shroud Head Bolts	Remote Visual Examination

TABLE A (continued)

REQUIREMENT	DESCRIPTION	EXAM METHOD
	AUGMENTED (continued)	
SIL No. 462	Access Hole Cover Cracking	Remote Visual Examination
SIL No. 465	Jet Pump Inlet Mixer	Remote Visual Examination
SIL No. 474	Steam Dryer Channel Cracking	Remote Visual Examination
SIL No. 551	Jet Pump Riser Bracket	Remote Visual Examination
SIL No. 554	Top Guide Beams	Remote Visual Examination
SIL No. 559	Top Guide Inspections	Remote Visual Examination
SIL No. 574	Jet Pump Adjusting Screw Tack Welds	Remote Visual Examination
SIL No. 588, Rev. 1	Top Guide and Core Plate Cracking	Remote Visual Examination
SIL No. 629	Inlet Mixer Wedge Damage in BWR Jet Pump Assemblies	Remote Visual Examination
SIL No. 644, Rev. 0, Supplement 1 and SIL No. 644, Rev.1	BWR Steam Dryer Integrity	Remote Visual Inspection
BWRVIP-03 Reactor Vessel and Internal Examination Guidelines	Reactor Vessel Internals Components	Remote Visual Examination, Ultrasonic and Eddy Current
BWRVIP-18-A Core Spray Inspection and Evaluation (I&E) Guidelines	Core Spray Internals Piping and Spargers	Remote Visual Examination
BWRVIP-25 Core Plate I&E Guidelines	Core Plate Components	Remote Visual Examination
BWRVIP-26-A Top Guide I&E Guidelines	Top Guide Components	Remote Visual Examination
BWRVIP-27-A BWR Standby Liquid Control System / Core Plate Differential Pressure I&E Guidelines	Core Differential Pressure and SLC Line Dissimilar Metal Nozzle Welds	Direct Visual Bare Metal VT-2

TABLE A (continued)

REQUIREMENT	DESCRIPTION	EXAM METHOD
	AUGMENTED (continued)	
BWRVIP-38 Shroud Support I&E Guidelines	Shroud Support Components	Remote Visual Examination
BWRVIP-41, Rev. 1 Jet Pump Assembly I&E Guidelines	Jet Pump Components	Remote Visual Examination Automated Ultrasonic for Diffuser Adapter Welds
BWRVIP-47-A BWR Lower Plenum I&E Guidelines	Incore Guide/Dry Tubes	Remote Visual Examination
BWVRIP-48-A Vessel ID Attachment Weld I&E Guidelines	Vessel Internal Attachments	Remote Visual Examination
BWRVIP-49-A Instrument Penetration I&E Guidelines	Instrument Penetrations	Remote Visual Examination
BWRVIP-104 Evaluation and Recommendation To Address Shroud Support Cracking in BWRs	Shroud Support	Remote Visual and Volumetric
BWRVIP-139 Steam Dryer Inspection and Flaw Evaluation Guidelines	Steam Dryer	Remote Visual Examination
BWRVIP-76 BWR Core Shroud Inspection and Flaw Evaluation Guidelines	Core Shroud	Remote Methods as in BWRVIP-03

SECTION 2

SUMMARY OF ASME CLASS 1 & 2 AND AUGMENTED EXAMINATIONS

2.1 Interval 2, Period 3 RF11 Examinations

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/EI
-A Reactor Vessel	Reactor Vessel Shell Welds									
-308A	Longitudinal Shell Weld	5360-5	UT	25/26	D-70389	4/8/06	4/14/06	4/14/06	06-0409	RPV Internal
-308B	Longitudinal Shell Weld	5360-5	UT	25/26	D-70389	4/7/06	4/14/06	4/14/06	06-0409	RPV Internal
-308C	Longitudinal Shell Weld	5360-5	UT	25/26	D-70389	4/5/06	4/14/06	4/14/06	06-0409	RPV Internal
-308D	Longitudinal Shell Weld	5360-5	UT	25/26	D-70389	4/6/06	4/14/06	4/14/06	06-0409	RPV Internal
3-308	Shell to Flange from Shell	5360-5	UT	25/26	D-70389	4/2/06	4/14/06	4/14/06	06-0409	RPV Internal
319	Closure Head Circumferential	5360-5	UT	6	2667-58- 1 2667-59-	4/10/06	4/12/06	4/13/06	RF-11-77	Refuel Floor
I-306H	Bottom Head Meridional	5360-5	UT	6	1	4/11/06	4/13/06	4/13/06	RF-11-78	Annulus,260,605'
319-D	Closure Head Meridional	5360-5	UT	6	2667-58- 1 2667-58-	4/3/06	4/12/06	4/13/06	RF-11-73	Refuel Floor
319E	Closure Head Meridional	5360-5	UT	6	1	4/3/06	4/12/06	4/13/06	RF-11-72	Refuel Floor
D Reactor Vessel 318A 318B D Reactor Vessel	Nozzie to Vessel Welds RPV Head Nozzie to Shell RPV Head Nozzie to Shell Nozzie Inner Bore Region	5361-5 5361-5	UT UT	6 6	2667-58- 1 2667-58- 1	4/8/06 4/8/06	4/12/06 4/13/06	4/13/06 4/13/06	RF-11-75 RF-11-76	Refuel Floor Refuel Floor
318A IRS	RPV Nozzle Inside Radius	5361-5	VT-1	15	N/A	4/7/06	4/12/06	4/13/06	RF-11-80	DW
318B IRS -F Class 1-Piping	RPV Nozzle Inside Radius RIISI Welds	5361-5	VT-1	15	N/A	4/7/06	4/12/06	4/13/06	RF-11-80	DW
W-E11-2327-6WC -G-1 Bolting	RHR - 24" Pipe to Pipe (DM/IGSCC) Greater Than 2"	2327-5	UT	3	SS-8- FER CS-07- FER	4/11/06	4/13/06	4/13/06	RF-11-01	DW, 95, 600'
26-01 (23-45)	RPV Closure Studs > 2"	5362-5	UT	5	RPV Stud Cal.	3/31/06	4/2/06	4/4/06	RF-11-02	Refuel Floor
26-02 (23-45))	RPV Head Nuts > 2"	5362-5	VT-1	16	N/A	4/2/06	4/7/06	4/10/06	RF-11-03	Refuel Floor
26-03 (23-45)	RPV Washers & Bushings	5362-5	VT-1	16	N/A	4/4/06	4/7/06	4/12/06	RF-11-04	Refuel Floor
					CSCL-					

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
RRC Studs (1 through							•		• • • • • • • • • • • • • • • • • • • •	
6) RRC Washers Set (1-	Pump B Studs Pump B	5365-5	UT	5	B31-Stud	4/5/06	4/12/06	4/12/06	RF-11-05	DW, 135, 579
6)	Nuts/Bush/Washers	5365-5	VT-1	16	N/A	4/5/06	4/12/06	4/12/06	RF-11-05	DW, 135, 579
-G-2 Bolting	2" and Less									
21-F013N-VBB	SRV Body/Bonnet Bolting	5352-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-08	DW, 47, 612'
21-F022A-VBB	MS Valve Bonnet Bolting	5352-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-09	DW, 5, 590'
21-F028C-VBB	MS Bonnet Bolting	5354-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-10	RB1-ST,F12,589
21-F032B-VBB	FW Bonnet Bolting	3536-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-11	RB1-ST,F12,593
21-F076A-VBB	FW Bonnet Bolting	3537-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-12	RB1-ST,F12,593
21-F076B-VBB	FW Bonnet Bolting Recirc. Valve Bonnet	3536-5	VT-1	16	NA	4/4/06	4/10/06	4/10/06	RF-11-13	RB1-ST,F12,593
31-F023B-VBB	Bolting Recirc. Valve Bonnet	5359-5	VT-1	16	NA	4/4/06	4/7/06	4/12/06	RF-11-14	DW, 145, 574'
31-F031B-VBB	Bolting	5359-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-15	DW, 110, 578'
11-F015B-VBB	RHR Valve Bonnet Bolting RHR Valve Bonnet	2327-5	VT-1	16	NA	4/8/06	4/12/06	4/12/06	RF-11-16	RB1, B12, 594'
11-F608-VBB	Bolting HPCI Valve Bonnet	2299-5	VT-1	16	NA					DW, 153, 608'
41-F002-VBB	Bolting RCIC Valve Bonnet	2297-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-18	DW, 0, 586'
51-F013-VBB	Bolting	3536-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-19	RB1,G12, 586'
BC-B21-5352-01N	SRV "N" Flange Bolting RWCU Valve Bonnet	5352-5	VT-1	16	NA	4/4/06	4/7/06	4/10/06	RF-11-20	DW, 47, 612'
33-F106-VBB	Bolting	5351-5	VT-1	16	NA	4/4/06	4/12/06	4/13/06	RF-11-21	DW,140, 572
pare Flange (0Deg) pare Flange	RPV Bolted Connection	5361-5	VT-1	15	NA	4/8/06	4/13/06	4/23/06	RF-11-82	RPV Head
80Deg) strumentation	RPV Bolted Connection	5361-5	VT-1	15	NA	4/8/06	4/13/06	4/25/06	RF-11-82	RPV Head
ozzle -J Class 1 Piping	RPV Bolted Connection RIISI Welds	5361-5	VT-1	15	NA	4/10/06	4/13/06	4/13/06	RF-11-83	RPV Head
									•	
W-E11-2327-0W6	RHR - 24" Valve to Pipe	2327-5	UT	3	CS-07- FER	4/11/06	4/13/06	4/13/06	RF-11-24	DW, 97, 600'
W-E11-2327-6W0 W-G33-3096-6WF5	RHR - 24" Pipe to Tee (IGSCC)	2327-5	UT	4 & 22	SS-08- FER	4/11/06	4/13/06	4/13/06	RF-11-25	DW, 93, 600'
500 0000 0111 0	RWCU - 4" Pipe to Pipe	3096-5	UT	3	CS-15-	4/4/06	4/7/06	4/8/06	RF-11-26	DW, 232, 591'
W-N21-2336-16W19	FW -12" Reducer to Pipe	3537-5	UT	3	FER	4/6/06	4/12/06	4/13/06	RF-11-27	DW,115, 608'
W-RD-2-A11	Recirc 12" SWOL to Pipe (IGSCC, CRC)	5356-5	UT	22 & 28	SS-17- FER	4/8/06	4/13/06	4/13/06	RF-11-28	DW, 240, 603'

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CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
3-J Piping Contd.	RIISI Welds									
W-RD-2-B1-W1	Recirc 4" SWOL to Cap (IGSCC)	5359-5	UT	4 & 22	SS-25- FER	4/6/06	4/12/06	4/12/06	RF-11-29	DW, 130, 578'
SW-G33-3096-5WD	RWCU - 4" Pipe to Tee	3096-5	UT	3	CS-24- FER	4/3/06	4/7/06	4/8/06	RF-11-30	DW, 229,591'
SW-G33-3096-5WH	RWCU - 6" Tee to Pipe	3096-5	UΤ	3	CS-22- FER	4/4/06	4/7/06	4/8/06	RF-11-31	DW, 229,591'
SW-RD-2-A3-W7	Recirc - 12" Cross to Pipe (IGSCC)	5356-5	UT	4 & 22	SS-10- FER	4/6/06	4/12/06	4/13/06	RF-11-32	DW, 270, 603'
SW-RD-2-A4-W2	Recirc - 12" Elbow to Pipe (IGSCC)	5356-5	UT	4 & 22	SS-17- FER	4/6/06	4/12/06	4/12/06	RF-11-33	DW, 210, 615'
SW-RS-2-B1-W1	Recirc - 28" Elbow to Pipe (IGSCC)	5359-5	UT	4 & 22	SS-03- FER	4/8/06	4/12/06	4/13/06	RF-11-34	DW, 180, 613'
SW-RS-2-A3-W4	Recirc - 4" SWOL to Pipe	5357-5	PT/UT	1 & 4	SS-25- FER SS-25-	4/3/06	4/12/06	4/13/06	RF-11-68	DW, 335, 575'
SW-RS-2-A3-W5	Recirc - 4" Pipe to Flange	5357-5	PT/UT	1 & 4	FER SS-25-	4/1/06	4/2/06	4/7/06	RF-11-69	DW, 335, 575'
SW-RS-2-B3-W4	Recirc - 4" SWOL to Pipe	5359-5	PT/UT	1 & 4	FER SS-25-	3/29/06	3/29/06	3/29/06	RF-11-70	DW, 145, 575'
SW-RS-2-B3-W5 B-N-2 Vessel Interior	Recirc - 4" Pipe to Flange Interior Attachment Weld	5359-5	PT/UT	1 & 4	FER	3/29/06	3/29/06	3/29/06	RF-11-71	DW, 145, 575'
Shroud Support Welds B-O Peripheral CRD	H-9 Shroud Support to Vessel Weld (17% of length min req. ~ 12') Housing Welds	R1-52	UT/√T -3	15/23	NA	4/7/06	4/12/06	4/13/06	RF-11-81	RPV Internal
CRDH-X02-Y35-W1	CRD Housing Tube to Flange CRD Housing Tube to Tube	5363-5	РТ	1	NA	4/8/06	4/12/06	4/12/06	RF-11-35	DW-UV,
CRDH-X02-Y35-W2	Tube									
C-A Pressure Vessel Welds		5363-5	РΤ	1	NA	4/8/06	4/12/06	4/12/06	RF-11-36	DW-UV,

	DESCRIPTION	ISO	LXaiiis	Procedure	CAL STD	COMP	L III	ANII	Report	Loc/Az/El
					CS-80-					
W-E11-D2-HX-05	RHR HX Circ. Head Weld	5370-5	UT	27	FER	4/10/06	4/12/06	4/13/06	RF-11-37	RB2, B9, 629'
C-B Nozzle Welds	Nozzle to Shell									•
DW E14 D2 UV 40	RHR HX Nozzie to Shell	5370-5	UT	27	CS-80- FER	4/10/06	4/11/06	4/13/06	RF-11-38	RB2, B9, 619'
SW-E11-D2-HX-10 SW-E11-D2-HX-10	KITK ITA 1902ZIE IO SITELI	3370-3	MT	2	FER	4/10/06	4/11/06	4/13/06	RF-11-38	ND2, D3, 013
SW-E11-D2-HX-10-			171.1	2	CS-81-	4/10/00	4/11/00	4/13/00	KI-11-50	
RS	RHR HX Nozzle to Shell	5370-5	UT	24	FER	4/11/06	4/13/06	4/13/06	RF-11-39	RB2, B9, 619'
C-C Integral Attachment	Lugs & Attachment Welds									
Allaciment	RHR Lugs (90 deg - 270									
SW-E11-D2-HXS-17	deg)	5370-5	MT	2	NA	4/18/06	4/15/06	4/24/06	RF-11-40	RB2, B9, 623'
				_						
SW-E11-D2-HXS-18	RHR Lugs	5370-5	MT	2	NA	4/18/06	4/15/06	4/24/06	RF-11-40	RB2, B9,
SW-E11-D2-HXS-19	RHR Lugs	5370-5	MT	2	NA	4/18/06	4/15/06	4/24/06	RF-11-40	RB2, B9,
SW-E11-D2-HXS-20	RHR Lugs	5370-5	MT	2	NA	4/18/06	4/15/06	4/24/06	RF-11-40	RB2, B9,
SW-E11-D2-HXS-21	RHR Lugs	5370-5	MT	2	NA	4/18/06	4/15/06	4/24/06	RF-11-40	RB2, B9,
SW-E11-D2-HXS-22	RHR Lugs	5370-5	MT	2	NA	4/18/06	4/15/06	4/24/06	RF-11-40	RB2, B9,
SW-E11-D2-HXS-23	RHR Lugs	5370-5	MT	2	NA	4/18/06	4/15/06	4/24/06	RF-11-40	RB2, B9,
SW-E11-D2-HXS-24	RHR Lugs	5370-5	MT	2	NA	4/18/06	4/15/06	4/24/06	RF-11-40	RB2, B9,
C11-50-2113-G262A	SDV Lugs	5375-5	MT	2	NA	3/30/06	4/2/06	4/4/06	RF-11-41	RB1, C10, 589'
C11-50-2113-G262B	SDV Lugs	5375-5	МТ	2	NA	3/30/06	4/2/06	4/4/06	RF-11-41	RB1, C10, 589'
C11-50-2113-G262C	SDV Lugs	5375-5	MT	2	NA	3/30/06	4/2/06	4/4/06	RF-11-41	RB1, C10, 589'
C11-50-2113-G262D	SDV Lugs	5375-5	MT	2	NA	3/30/06	4/2/06	4/4/06	RF-11-41	RB1, C10, 589'
C11-50-2113-G262E	SDV Lugs	5375-5	MT	2	NA	3/30/06	4/2/06	4/4/06	RF-11-41	RB1, C10, 589'
C11-50-2113-G262F	SDV Lugs	5375-5	MT	2	NA	3/30/06	4/2/06	4/4/06	RF-11-41	RB1, C10, 589'
C11-50-2113-G262G	SDV Lugs	5375-5	MT	2	NA	3/30/06	4/2/06	4/4/06	RF-11-41	RB1, C10, 589'
C11-50-2113-G262H	SDV Lugs	5375-5	MT	2	NA	3/30/06	4/2/06	4/4/06	RF-11-41	RB1, C10, 589'
C-F-1 Augmented	NRC Commitment									,
FW-C41-2979-50S51 FW-C41-3361- 1WF25	SBLC - 2" Elbow to Pipe	2979-5	PT	1	NA	3/27/06	4/2/06	4/4/06	RF-11-42	RB2, C10, 632'
	SBLC - 3" Pipe to Tee	3361-5	PT	1	NA	3/27/06	4/2/06	4/4/06	RF-11-43	RB3, E10, 659'
FW-C41-5058-65S66	SBLC - 2" Valve to Pipe	5374-5	PT	1	NA	3/27/06	4/2/06	4/4/06	RF-11-44	RB3, F10, 662'
C-F-2 Piping	Circumferential Weld	3374-3	r t	•	INA	3/2/100	4/2/00	4/4/00	1/1-11-44	ND3, F10, 002
1474 F. F. H. 11414151	Circumerential Weld									

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	L 111	ANII	Report	Loc/Az/El
					CS-42-					
FW-E11-3146-0W1			UT	3	FER	4/1/06	4/12/06	4/12/06	RF-11-45	
FW-E11-3151-10W0	RHR - 24" Elbow to Valve	3151-5	MT	2	CS-09-	4/11/06	4/13/06	4/13/06	RF-11-46	RB1, B12, 594'
FW-E11-3151-10W0			UT	3	FER	4/11/06	4/13/06	4/13/06	RF-11-46	
FW-E11-3160-0W2	RHR - 18" Valve to Elbow	3160-5	VT-1	17		4/1/06	4/2/06	4/7/06	RF-11-47	Tor, B13, 575'
FW-E11-4612-9W0	RHR - 8" Exp to WOL HPCI - 16" Red El to	4612-5	VT-1	17		4/1/06	4/12/06	4/12/06	RF-11-48	Tor, C13, 574'
FW-E41-3163-8W0	Pump	3163-5	MT	2		3/30/06	4/2/06	4/4/06	RF-11-49	HPCI, H9, 546'
FW-E41-3163-8W0			UT	3	Alt. 1	3/30/06	4/2/06	4/4/06	RF-11-49	
FW-E41-3167-9W0	HPCI - 14" Pipe to Valve	3167-5	MT	2		4/7/06	4/12/06	4/13/06	RF-11-50	RB1, G12, 587'
FW-E41-3167-9W0			UT	3	Alt. 1	4/7/06	4/12/06	4/13/06	RF-11-50	
SW-C11-2113-303-A	SDV - 12" Elbow to Pipe	5372-5	MT	2		3/31/06	4/2/06	4/7/06	RF-11-51	RB1, B13, 597'
SW-C11-2113-303-A			UT	3	CS-38	3/31/06	4/2/06	4/7/06	RF-11-51	
SW-E11-3158-4WD	RHR - 20" Elbow to Pipe	3158-5	MT	2		3/31/06	4/12/06	4/12/06	RF-11-52	RB2, C17, 631'
SW-E11-3158-4WD			UT	3	CS-42- FER	3/31/06	4/12/06	4/12/06	RF-11-52	
SW-E11-3158-8WG	RHR - 20" Pipe to Pipe	3158-5	MT	2		4/11/06	4/13/06	4/13/06	RF-11-53	RB2, C9, 631'
SW-E11-3158-8WG			UT	3	CS-42- FER	4/11/06	4/13/06	4/13/06	RF-11-53	
SW-E11-3177-6WD	RHR - 20" Elbow to Pipe	3177-5	MT	2	I LIX	3/30/06	4/2/06	4/4/06	RF-11-53	RB-SB,B10,544'
5W-L71-5117-6115	Tant 20 Libow to 1 ipo	0177-0	141.1		CS-42-	3/30/00	7/2/00	4/4/00	111-04	KB-3B ₁ B10 ₁ 344
SW-E11-3177-6WD			UT	3	FER	3/30/06	4/2/06	4/4/06	RF-11-54	
SW-E21-3147-15WF	CS - 14" Pipe to Elbow	3147-5	MT	2		3/27/06	4/2/06	4/10/06	RF-11-55	RB1, E11, 598'
SW-E21-3147-15WF			UT	3	Alt. 1	3/27/06	4/2/06	4/10/06	RF-11-55	
SW-E21-3149-6WL	CS-16" Elbow to Pipe	3149-5	MT	2		3/31/06	4/2/06	4/6/06	RF-11-56	RB-SB,F10,550°
SW-E21-3149-6WL			UT	3	Alt. 1	3/31/06	4/2/06	4/6/06	RF-11-56	
SW-T48-04-2095- 5WD SW-T48-04-2095-	CGC - 6" Elbow to Pipe	2095-5	MT	2		3/27/06	4/2/06	4/4/06	RF-11-57	RB2, B9, 629'
WSW3 SW-T48-04-2097-	CGC - Tee to Red. El	2095-5	MT	2		3/30/06	4/2/06	4/4/06	RF-11-58	
20WD	CGC - 8" Pipe to Tee	3258-5	MT	2		3/30/06	4/2/06	4/4/06	RF-11-59	RB2, B9, 619'
C-F-2 Piping	Branch Connections CS-14" WOL to Pipe									-
SW-E21-3144-5WE	GL 88-01 Category D	3144-5	MT Vol.	2		3/29/06	3/29/06	3/29/06	RF-11-60	RB2, B9, 619'
FW-N20-3105-0W21	FW - 20" Safe End to Pipe	3105-1	UT	3	SSCL-88	4/11/06	4/13/06	4/13/06	RF-11-62	TB2, P11, 625'

RF11 EXAMS										
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	L III	ANII	Report	Loc/Az/El
SW-N20-03-B009- BWSE	FW - 20" Nozzle to Safe End	3105-1	UT	3	SSCL-88	4/11/06	4/13/06	4/13/06	RF-11-63	TB2, P11, 625'
FW-N21-3109-29W0	FW - 24" Safe End to Pipe	3109-1	UT	3	SSCL-87	4/10/06	4/12/06	4/13/06	RF-11-64	TB3, P10, 650'
SW-N21-01-B001- AWSE	FW - 24" Nozzle to Safe End	3109-1	UT	3	SSCL-87	4/10/06	4/12/06	4/13/06	RF-11-65	TB3, P10, 650'
Procedure No.	Cross Reference	Code	Method			Pro	ocedure No.	•	Cross Reference Code	Method
39.NDE.001	1		PT			43.	.000.014		16	VT-1 Bolting
39.NDE.002	2		MT			43.	.000.019		17	Primary Cont
PDI-UT-1	3		PDI CS	•		43.	.000.013		18	Snubbers
PDI-UT-2	4		PDI SS			39.	NDE.015		19	Longseams
PDI-UT-5	5		PDI Bolting	1		GE	-UT-309		20	Inner Radius Sizing
GE-UT-300	6		PDI Manua	I RPV		GE	-UT-311		21	Manual Inner Radius
GE-UT-704	7		GERIS			ISI	Prog. Part	E. Att. 1	22	RIISI Coverage
GE-UT-705	8		GERIS			GE	-UT-319		23	H-9 Manual UT
GE-UT-308	9		Threads in	Flange		GE	-UT-301		24	Vessel UT < 2* T
GE-UT-209	10		Auto N-SE			ISV	wT-PDI-1		25	AIRIS Auto
GE-UT-245	11		Auto CRC	UT		ISV	wT-PDI-2		26	AIRIS Sizing
GE-UT-504	12		JPB			GE	E-UT-321		27	RHR Vessel IR UT
PDI-UT-10	13		Manual DM	1		GE	E-UT-105		28	Non-PDI / CRC
43.000.03/04	14		VT-3 Snub	bers & Supp	orts	GE	E-UT-605		29	Straight Beam UT
43.000.017	15		IVVI						•	

2.2 Interval 2, Period 2, RF10 Examinations

F10 EXAMS	And the second s	, againg an angus a same of the ST of			agentia paragrama and c			A Commence of the commence of		
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
-A Reactor Vessel	RPV Shell Welds									
3-308A	Shell Longitudinal Weld	5360-5	UT	7	2667-62	11/21/04	11/26/04	11/27/04	RF-10-09	DW,84,620'
5-308B	Ind. 124 Successive Exam	5360-5	UT	7	2667-62	11/12/04	11/19/04	11/20/04	RF-10-10	DW,172,620'
307B	Shell Longitudinal Weld	5360-5	UT	7	2667-60	11/20/04	11/27/04	11/27/04	RF-10-12	DW,104,610'
308A	Shell Longitudinal Weld	5360-5	UT	7	2667-60	11/20/04	11/27/04	11/27/04	RF-10-13	DW,60,646'
-319E	Closure Head Meridional	5360-5	UT	6	2667-58	11/8/04	11/24/04	11/24/04	RF-10-04	Refuel Floor
-319F	Closure Head Meridional	5360-5	UT	6	2667-58	11/10/04	11/24/04	11/24/04	RF-10-05	Refuel Floor
-306B	Bottom Head Meridional	5360-5	UT	6	2667-59	11/17/04	11/22/04	11/27/04	RF-10-02	DWUV,40,604
306C	Bottom Head Meridional	5360-5	UT	6	2667-59	11/16/04	11/24/04	11/27/04	RF-10-03	DWUV,77,604
-319	Head-to-Flange Weld	5360-5	UT	6	2667-58	11/14/04	11/26/04	11/27/04	RF-10-16	Refuel Floor
-319	Head-to-Flange Weld	5360-5	МТ	2	N/A	11/17/04	11/26/04	11/27/04	RF-10-16	Refuel Floor
-306	Circumferential Bottom Head	5360-5	UT	6	2667-59	11/17/04	11/24/04	11/27/04	RF-10-17	DWUV,604'
-D Reactor Vessel	Nozzle to Vessel Welds									
3-314C	Recirc Inlet Nozzle	5361-5	UT	8	2667-60	11/22/04	11/25/04	11/27/04	RF-10-07	DW,90,615'
9-314A	Jet Pump Inst. Nozzle	5361-5	UT	6 & 21	2667-60	11/20/04	11/24/04	11/27/04	RF-10-11	DW,97,615'
4-316 A	C.S. Nozzle	5361-5	UT	8	2667-62	11/24/04	11/25/04	11/27/04	RF-10-08	DW,120,641'
-318	Head Vent Nozzle	5361-5	UT	6 & 21	2667-58	11/15/04	11/24/04	11/27/04	RF-10-14	Refuel Floor
-D Reactor Vessel	Nozzle Inner Bore Region									
3-314C IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wire	*Complete VT's Unde 110904032	r Job		Invess,9	0,
9-314A IRS	Jet Pump Inst. Nozzle	5361-5	VT	15-Jan	1-mil wire	110904032	*	•	IVVI	Invess,97

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	The state of the s	COMP	LIII	ANII	Report	Loc/Az/El
-318 IRS	Head Vent Nozzle	5361-5	VT-1	15	VT-1 Comparator	*	*	*	IVVI	Refuel Floor
-F Class 1-Piping	RIISI Welds									
I-5A	CS Noz to SE (IGSCC,CC)	3053-5	UT	10 & 22	CS44/IN45	11/12/04	11/21/04	11/23/04	RF-10-55	DW,120,641'
W-E21-3053-4W0X	CS Safe-End to Ext. (IGSCC)3053-5	3053-5	UT	10 & 22	CS44/IN45	11/11/04	11/22/04	11/27/04	RF-10-61	DW,120,641'
01-304-E	RRI Noz to SE (IGSCC)	5358-5	UT	10 & 22	SS- 56/CSCL-54	11/14/04	11/19	11/24/04	RF-10-01	DW,150,615'
-J Class 1-Piping	RIISI Welds									
W-PS-2-C3	Main Steam- Loop C 26" Pipe to Elbow	5354-5	UT	3	CS-5	11/12/04	11/14/04	11/16/04	RF-10-50	DW,260,212'
W-PS-2-C3-A	Main Steam- Loop C 26" Elbow to Pipe	5354-5	UT	3	CS-5	11/11/04	11/14/04	11/18/04	RF-10-78	DW,260,608'
W-PS-2-C3-C	Main Steam- Loop C 8" Sweepolet to Pipe	5354-5	UT	3	CS-20	11/10/04	11/19/04	11/21/04	RF-10-79	DW,282,609'
W-PS-2-C3-D	Main Steam- Loop C 8" Pipe to Flange	5354-5	UT	3	CS-20	11/9/04	11/13/04	11/20/04	RF-10-80	DW,282,610'
W-G33-3096-8W9	RWCU 6" Pipe to Tee	5351-5	UT	3	CS-22	11/8/04	11/13/04	11/27/04	RF-10-44	DW,240,572'
W-G33-3096-8W11	RWCU 6" Pipe to Tee	5351-5	UT	3	CS-22	11/8/04	11/13/04	11/16/04	RF-10-43	DW,250,572'
W-G33-3096-9WF1	RWCU 6" Elbow to Pipe	5351-5	UT	3	CS-22	11/9/04	11/14/04	11/27/04	RF-10-45	DW,140,572'
SW-N21-2336-13WC	Feedwater 20" Elbow to Tee	3537-5	UT	3	CS-11	11/12/04	11/13/04	11/27/04	RF-10-70	DW,25,608
W-N21-2336-13W14	Feedwater 12" Tee to Elbow	3537-5	UT	3	CS-15	11/12/04	11/14/04	11/27/04	RF-10-48	DW,30,611'
W-N21-2336-14WF1	Feedwater 12" Pipe to Elbow	3537-5	UT	3	CS-15	11/11/04	11/17/04	11/18/04	RF-10-49	DW,30,614
SW-N21-2336-13WE	Feedwater 20" Tee to Pipe	3537-5	UT	3	CS-11	11/16/04	11/20/04	11/21/04	RF-10-71	DW,35,608

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
FW-RD-2-B19	Reactor Recirc - 12" Pipe to Safe-end (IGSCC, CRC)	5358-5	UT	11 & 22	SS-17	11/11/04	11/23/04	11/24/04	RF-10-51	DW,150,615
3-G-1 Bolting	Greater Than 2"									
26-01 (Closure Studs)	1/3 of locations (1-22)	5362-5	UT	5	RPV Stud Cal	11/7/04	11/13/04	11/16	RF-10-15	Refuel Floor
Base Scope										
3-G-2 Bolting	2" and Less									
RRC Pump A Seal Bolts	Main RR Pump Scal Bolting	5365-5	VT-1	16	N/A	11/10/04	11/13/04	11/27/04	RF-10-60	DW,315,580'
321-F028A-VBB	MS Valve Bonnet Bolting	5352-5	VT-1	16	N/A	11/10/04	11/13/04	11/27/04	RF-10-23	Stm,5,589'
FBC-B21-5353-01F	SRV Flange Bolting	5353-5	VT-1	16	N/A	11/9/04	11/13/04	11/27/04	RF-10-31	DW,78,612'
321-F013F-VBB	SRV Body to Bonnet Bolting	5353-5	VT-I	16	N/A	11/9/04	11/13/04	11/27/04	RF-10-21	DW,78,612'
FBC-B21-5353-01C	SRV Flange Bolting	5353-5	VT-1	16	N/A	11/9/04	11/13/04	11/27/04	RF-10-30	DW,46,612'
321-F013C-VBB	SRV Body to Bonnet Bolting	5353-5	VT-I	16	N/A	11/9/04	11/13/04	11/27/04	RF-10-19	DW,46,612'
BC-B21-5354-01E	SRV Flange Bolting	5354-5	VT-1	16	N/A	11/11/04	11/13/04	11/24/04	RF-10-32	DW,290,612
321-F013E-VBB	SRV Body to Bonnet Bolting	5353-5	VT-1	16	N/A	11/11/04	11/13/04	11/27/04	RF-10-20	DW,290,612
321-F022C-VBB	MS Valve Bonnet Bolting	5354-5	VT-I	16	N/A	11/12/04	11/17/04	11/24/04	RF-10-22	DW,343,590'
E11-F060B-VBB	RHR Valve Bonnet Bolting	2327-5	VT-I	16	N/A	11/13/04	11/17/04	11/24/04	RF-10-28	DW,90,600'
E41-F006-VBB	HPCI Valve Bonnet Bolting	3537-5	VT-1	16	N/A	11/10/04	11/13/04	11/24/04	RF-10-29	STM,G12,587'
G33-F100-VBB	RWCU Valve Bonnet Bolting	5351-5	VT-1	16	N/A	11/14/04	11/17/04	11/27/04	RF-10-53	DW,320,572'
G33-F220-VBB	RWCU Valve Bonnet Bolting	3536-5	VT-1	16	N/A	11/15/04	11/17/04	11/27/04	RF-10-54	STM,F12,586
B-G-2 Emergent	2" and Less									
CRD Flange Bolts	When Disassembled	N/A	VT-1	16	N/A	11/18/04	11/25/04	11/27/04	RF-10-25	DW,UV
CRD Bolting	New Bolting	N/A	VT-1	16	N/A	11/4/04	11/5/04	11/24/04	RF-10-24	As requested
3-H Integral Attachments	RPV Attachment Welds									
3-319-C	Top Head Lifting Lug	5360-5	MT	2	N/A	11/8/04	11/13/04	11/27/04	RF-10-18	Refuel Floor
B-K Integral Attachments Piping Attachment Welds	RPV Attachment Welds									
SW-N21-2336-20WB	Feedwater Loop B	3537-5	MT	2	N/A	11/13/04	11/17/04	11/27/04	RF-10-72	DW,150,613'
SW-N21-2336-20WC	Feedwater Loop B	3537-5	MT	2	N/A	11/13/04	11/17/04	11/27/04	RF-10-73	DW,150,613'

RF10 EXAMS				(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)						
CAL SHT	DATA SHT	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
SW-N21-2336-20WD	Feedwater Loop B	3537-5	MT	2	N/A	11/13/04	11/17/04	11/27/04	RF-10-74	DW,150,613'
SW-N21-2336-20WE	Feedwater Loop B	3537-5	MT	. 2	N/A	11/13/04	11/17/04	11/27/04	RF-10-75	DW,150,613'
B-N-1 Vessel Interior Sample Holders	RPV Attachment Welds Vessel Interior		VT-3	15	N/A	*Completed	l Invessel VT	's Under Job 11	09040328	
B-N-2 Vessel Interior Surveillance Specimen E	Interior Attachment Weld Bracket		VT-1	15	N/A	*Completed	l Invessel VT	's Under Job 11	09040328	
B-O Peripheral CRD	Housing Welds									
CRDH-/X02-Y31-W1	CRD Housing Tube to Flange	5363-5	PT	1	N/A	11/13/04	11/17/04	11/27/04	RF-10-26	DW, UV
CRDH-/X02-Y31-W2	CRD Housing Tube to Tube	5363-5	PT	1	N/A	11/12/04	11/19/04	11/23/04	RF-10-27	

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
-C Integral ttachment	Lug Attachment Welds									
SFW-E41-3167-1WE	HPCI 14" Pipe Lug	3167-5	MT	2	N/A	11/5/04	11/14/04	11/17/04	RF-10-56	HPCI, G10,546'
SFW-E41-3167-1WF	HPCI 14" Pipe Lug	3167-5	MT	2	N/A	11/5/04	11/14/04	11/17/04	RF-10-57	
SFW-E41-3167-1WG	HPCI 14" Pipe Lug	3167-5	MT	2	N/A	11/5/04	11/14/04	11/17/04	RF-10-58	
SFW-E41-3167-1WII	HPCI 14" Pipe Lug	3167-5	MT	2	N/A	11/5/04	11/14/04	11/17/04	RF-10-59	
F-1 Augmented	NRC Commitment									
W-C41-2979-L	SLC 2" Pipe to Elbow	2979-5	PT	1	N/A	11/2/04	11/19/04	11/27/04	RF-10-34	RB2,D11,635'
W-C41-2979-11S12	SLC 2" Pipe to Elbow	2979-5	PT	1	N/A	11/2/04	11/19/04	11/27/04	RF-10-33	RB2, C11,630'
-F-2 Piping	Circumferential Weld									
W-E11-3146-6WE	RHR 24" Pipe to Tee	3146-5	MT	2	N/A	11/14/04	11/21/04	11/22/04	RF-10-63	Tor,B12,575'
W-E11-3146-6WE		3146-5	UT	3	CS-42	11/14/04	11/21/04	11/22/04	RF-10-63	
W-E11-3151-7W11	RHR 20" Tee to Pipe	3151-5	MT	2	N/A	11/11/04	11/19/04	11/27/04	RF-10-35	Tor,B12,575'
W-E11-3151-7W11		3151-5	UT	3	CS-42	11/12/04	11/19/04	11/27/04	RF-10-35	
W-E11-3161-4WB	RHR 18" Elbow to Pipe	3161-5	VT-1	17	N/A	11/2/04	11/13/04	11/17/04	RF-10-64	Tor,B11,575'
W-G41-3669-3WB	RHR-FPC 8" Elbow to Pipe	3669-5	MT	2	N/A	11/3/04	11/14/04	11/17/04	RF-10-67	RB1,B11,585'
W-E11-4612-4W5	RHR 6" Pipe to Elbow	4612-5	VT-1	17	N/A	11/1/04	11/13/04	11/27/04	RF-10-36	RB1,B17,585'
W-E11-4612-7W8	RHR 6" Elbow to Pipe	4612-5	VT-1	17	N/A	11/1/04	11/13/04	11/27/04	RF-10-37	Tor,B15,574'
W-E11-4612-8WF3	RHR 6" Elbow to Pipe	4612-5	VT-1	17	N/A	11/1/04	11/13/04	11/18/04	RF-10-38	Tor,B15,574'
W-E21-3144-0W4	CS 12" Pipe to Valve	3144-5	MT	2	N/A	11/14/04	11/21/04	11/23/04	RF-10-39	RBSB,F16,540'
W-E21-3144-0W4		3144-5	UT	3	PDI-Alt- CS-I	11/14/04	11/21/04	11/23/04	RF-10-39	
W-E21-3145-11WO	CS 10" Pipe to Weldolet	3145-5	MT	2	N/A	11/3/04	11/19/04	11/21/04	RF-10-40	NE Quad,578'
W-E21-3147-15WG	CS 14" Elbow to Pipe	3147-5	MT	2	N/A	11/4/04	11/13/04	11/20/04	RF-10-65	RB1,D11,601'
W-E21-3147-15WG		3147-5	UT	3	PDI-Alt- CS-1	11/5/04	11/13/04	11/20/04	RF-10-65	
W-E41-3162-1WU	HPCI 20" Pipe to Elbow	3162-5	MT	2	N/A	11/15/04	11/23/04	11/27/04	RF-10-66	HPCI, G10,548'
W-E41-3162-1WU		3162-5	UT	3	PDI-Alt- CS-1	11/15/04	11/23/04	11/27/04	RF-10-66	
W-E41-3162-1W2	HPCI 20" Elbow to Pipe	3162-5	MT	2	N/A	11/15/04	11/19/04	11/21/04	RF-10-41	HPCI,G10,550'

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
FW-E41-3162-1W2		3162-5	UT	3	PDI-Alt- CS-1	11/15/04	11/19/04	11/21/04	RF-10-41	HPCI Rm
SW-E41-3162-2WC	HPCI 20" Elbow to Pipe	3162-5	MT	2	N/A	11/23/04	11/23/04	11/24/04	RF-10-96	HPCI Rm
SW-E41-3162-2WC		3162-5	UT	3	PDI-Alt- CS-1	11/23/04	11/23/04	11/24/04	RF-10-96	
FW-E41-3172-0W1	HPCI 10" Valve to Pipe	3172-5	MT	2	N/A	11/17/04	11/20/04	11/21/04	RF-10-42	Stm,E12,586'
FW-E41-3172-0W1		3172-5	UT	3	. CS-18	11/17/04	11/20/04	11/21/04	RF-10-42	
SW-N30-3258-1WJ	MS 26" Pipe to 24" Reducer	3258-5	MT	2	N/A	11/17/04	11/21/04	11/27/04	RF-10-76	Stm,F11,589'
SW-N30-3258-1WJ		3258-5	UT	3	CS-5	11/17/04	11/21/04	11/27/04	RF-10-76	
FW-T48-04-2095-7W8	CGC 6" Elbow to Pipe	2095-5	MT	2	N/A	11/3/04	11/14/04	11/17/04	RF-10-52	RB2,A12, 625'
SW-T48-04-2097-18WC	CGC 8" Expander to Pipe	2097-5	MT	2	N/A	11/5/04	11/14/04	11/17/04	RF-10-81	RB1,C13,587'
SW-N30-3258-1WJLU	Intersecting Long Seam Weld	3258-5	MT/UT	2, 3		11/17/04	11/21/04	11/27/04	RF-10-77	Stm,F11,589'
C-F-2 Piping	Branch Connections									
SW-E11-3146-5WM	RHR 24" Pipe to 12" Weldolet	3146-5	MT	2	N/A	11/18/04	11/21/04	11/22/04	RF-10-62	Tor, B13 ,575'

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
ANSI B31.1	GL 88-01 Category D		Vol.						•	
FW-N20-3107-0W1	FWH 5N Upper Safe-end to E	3107-1	UT	4	SSCL-88	11/19/04	11/22/04	11/23/04	RF-10-47	TB2,R12,624'
SW-N20-03-B013- BWSE	FWH 5N Upper Nozz to Safe- end	3107-1	UT	4	SSCL-88	11/19/04	11/22/04	11/22/04	RF-10-69	TB2,R12,624'
W-N20-3105-24W0	FWH 5N Lower Safe-end to E	1 3105-1	UT	4	SSCL-88	11/19/04	11/22/04	11/22/04	RF-10-46	TB2,R12,615'
SW-N20-03-B013- AWSE	FWH 5N Lower Nozz to Safe end	- 3105-1	UT	4	SSCL-88	11/19/04	11/22/04	11/22/04	RF-10-68	TB2,R12,615'
Procedure		Refer	ence Code		Method					
39.NDE.001			1		PT			Li	quid Penetrant	
39.NDE.002			2		MT			Ma	gnetic Particle	
PDI-UT-1			3		PDI CS				Ferritic Pipe UT	
PDI-UT-2			4		PDI SS				Austenitic Pipe UT	
PDI-UT-5			5		PDI Boltin	ıg			OI Bolting UT	
GE-UT-300			6		PDI Manu	al RPV			Vess. Assy Welds	
GE-UT-704			7		GERIS			GERIS V	ess. Welds	
GE-UT-705			8		GERIS			GER	RIS Nozz. Welds	
GE-UT-308			9		Flange The	reads		Flan	ge Ligaments UT	
GE-UT-209			10		Auto N-SI	3		Autom	ated DM Weld UT	
GE-UT-245			11		Auto CRC	UT		Automa	ated CRC Weld UT	
GE-UT-504			12		JPB				JPB	
PDI-UT-10			13		Manual D	М]	PDI DM UT	
43.000.03/04			14		VT-3 Snul	bbers & Supp	orts	Snul	ber/Hanger Vis.	
43.000.017			15		IVVI				IVVI	
43.000.014			16		VT-1 Bolt	ing		E	olting Visual	
43.000.019			17		Primary C	ont		Con	tainment Visual	
43.000.013			18		Snubbers			Snul	ber Service Life	
39.NDE.015			19		Longscam	s			Generic UT	
GE-UT-309			20		Inner Radi	ius Sizing		GERI	IS Nozz/IR Sizing	
GE-UT-311			21		Manual In	ner Radius		M	an. Noz/IR UT	
ISI Prog. Part E.	Att. 1		22		RIISI Cove	erage				

2.3 Interval 2, Period 2, RF09 Examinations

RF09 EXAMS		anara manara arang Sa ang manan								
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
B-A Reactor Vessel	Shell & Head Welds									
1-306J	Bottom Head Meridional	5360-5	UT	6	2667-59	4/6	4/8	4/16	RF-09-01	Bio, 300,604'
1-319D	Closure Head Meridional	5360-5	UT	6 .	2667-58	3/31	4/2	4/11	RF-09-02	Refuel Floor
15-308B	Shell Longitudinal Weld	5360-5	UT	7	2667-62	4/4	4/10	4/15	RF-09-05	DW,172,620'
2-307C	Shell Longitudinal Weld	5360-5	UT	7	2667-60	4/4	4/7	4/14	RF-09-08	DW,218,610'
2-308B	Shell Longitudinal Weld	5360-5	UT	7	2667-60	4/5	4/9	4/14	RF-09-09	DW,180,646'
4-319	Closure Head Circ Weld	5360-5	TU	6	2667-58	4/9	4/10	4/16	RF-09-13	Refuel Floor
2-307A	Shell Longitudinal Weld	5360-5	UT	7	2667-60	4/8	4/12	4/14	RF-09-106	DW,340,610'
B-D Reactor Vessel	Nozzle to Vessel Welds									
13-314E	Recirc Inlet Nozzle	5361-5	UT	8	2667-60	4/6	4/11	4/14	RF-09-03	DW,150,615'
13-314F	Recirc Inlet Nozzle	5361-5	UT	8	2667-60	4/7	4/10	4/14	RF-09-04	DW,210,615' Auto UT
15-315	CRD Return Nozzle	5361-5	UT	6 & 20	2667-60	4/8	4/9	4/14	RF-09-06	DW,145,638'
4-316C	Feedwater Nozzle	5361-5	UT	8	2667-60	4/7	4/11	4/14	RF-09-12	DW,150,642'
B-D Reactor Vessel	Nozzle Inner Bore Region									
13-314D IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wire	*4/16	*4/27	*5/13	N/A	Invess,120,
13-314E IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wire	*4/18	*4/27	*5/13	N/A	Invess,150

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
3-314F IRS	Recirc Inlet Nozzle	5361-5 .	VT	15	1-mil wire	*4/18	*4/27	*5/13	N/A	Invess,210
3-314G IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wire	*4/16	*4/27	*5/13	N/A	Invess,240
3-314K IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wire	*4/16	*4/27	5/13*	N/A	Invess,330
-F Class 1-Piping	RIISI Welds									
1-9	CRD Return Cap (IGSCC)	5361-5	UT	13	CS-48, INC-49	4/8	4/14	4/16	RF-09-47	DW,145,638'
-303G	RRI Noz to SE (IGSCC)	5356-5	UT	10	SS- 56/CSCL- 54	4/2	4/5	4/11	RF-09-07	DW,240,615'
-J Class 1-Piping	RIISI Welds		Vol.							
W-RD-2-A16	B31 12" SE-P (IGSCC,CRC)	5356-5	UT	10	SS-17	4/3	4/5	4/14	RF-09-44	DW,240,615
W-RS-2-A2-W1	B31 28" Pipe-El (IGSCC)	5357-5	UT	4	SS-3	4/4	4/4	4/13	RF-09-69	DW,0,578'
W-E11-2299-2WF3	RHR 20" Tee-Pipe	2299-5	UT	3	CS-12	4/5	4/5	4/13	RF-09-29	DW,175,597
W-E21-3053-3WN	Core Spray 12" El-Pipe	3053-5	UT	3	CS-15	4/8	4/10	4/15	RF-09-57	DW,120,637'
W-E21-3053-3WP	Core Spray 12" Pipe-El	3053-5	UT	3	CS-15	4/8	4/10	4/15	RF-09-58	DW,120,636'
W-E51-2192-1W2	RCIC 6" El-Pipe	2192-5	UT	3	CS-22	4/8	4/10	4/16	RF-09-40	DW,42,598'
W-E51-2192-2W3	RCIC 6" Pipe-E.	2192-5	UT	3	CS-22	4/11	4/12	4/15	RF-09-60	DW,355,598'
SW-N21-2336-1WD	RCIC 20" Sweep-Pipe	3536-5	UT	3	CS-12	4/2	4/3	4/16	RF-09-63	Stm,10,586'
W-N21-2336-1WU	RCIC 20" Pipe-Tee	3536-5	UT	3	CS-12	4/2	4/3	4/6	RF-09-65	Stm,10,590'
W-N21-2336-1WL	FW (TASCS) 20" Tee-Pipe	3536-5	UT	3	CS-12	4/3	4/3	4/12	RF-09-64	Stm,10,594'
W-N21-2336-3WC	RCIC 20" El-Tee	3536-5	UT	3	CS-12	4/5	4/6	4/13	RF-09-66	DW,330,608'
W-N21-2336-3W4	RCIC 12" Tee-El	3536-5	UT	3	CS-15	4/5	4/6	4/14	RF-09-43	DW,330,608'

RF09 EXAMS	پورچینست و در زخیان شد کمیان و شد چین ۱۳۰۶ - این این این این در این در ۱۳۰۶ - این در در ای									
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
B-G-1 Bolting	Greater Than 2"									
326-02 (Closure Nuts)	1/3 of locations (1-22)	5362-5	MT	2	N/A	4/5	4/5	4/13	RF-09-10	Refuel Floor
Threads in Flange	1/3 of locations (1-22)	5362-5	UT	9	RPV & CSCL-52	3/31	4/2	4/4	RF-09-70	RPV Cavity
326-03 (Closure Washer	s) 1/3 of locations (1-22)	5362-5	VT-1	16	N/A	4/5	4/5	4/14	RF-09-11	Refuel Floor
Base Scope B-G-2 Bolting	2" and Less									
FBC-E41-2297-01		2297-5	VT-1	16	N/A	4/5	4/10	4/17	RF-09-25	DW,51,595'
B31-F023A-VBB		5357-5	VT-1	16	N/A	4/3	4/4	4/17	RF-09-17	DW,342,574'
B31-F031A-VBB		5357-5	VT-1	16	N/A	4/3	4/4	4/17	RF-09-18	DW,290,578
E11-F067-VBB		2299-5	VT-1	16	N/A	4/5	4/10	4/17	RF-09-21	DW,163,595'
E11-F009-VBB		2299-5	VT-1	16	N/A	4/5	4/10	4/17	RF-09-20	DW,163,600'
E21-F005A-VBB		3052-5	VT-1	16	N/A	3/29	3/29	4/17	RF-09-22	RB2,C13,633
E21-F005B-VBB		3053-5	VT-1	16	N/A	3/29	3/29	4/17	RF-09-23	RB2,C11,632
E51-F007-VBB		2192-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-24	DW,360,583'
G33-F004-VBB		3096-5	VT-1	16	N/A	4/10	4/11	4/17	RF-09-46	RB2,C13,624
B21-F032A-VBB		3537-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-16	Stm,350,594'

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
B21-F010B-VBB		3536-5	VT-1	16	N/A	4/14	4/16	4/17	RF-09-14	DW,10,603'
B21-F011B-VBB		3536-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-15	DW,10,594
Initial Sample Expansion										
B-G-2 Bolting	2" and Less									
E11-F015B-VBB		2327-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-89	
E21-F006A-VBB		3052-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-95	
E21-F006B-VBB		3053-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-96	
E21-F007A-VBB		3052-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-97	
E21-F007B-VBB		3053-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-98	
E41-F002-VBB		2297-5	VT-I	16	N/A	4/8	4/10	4/17	RF-09-79	
E41-F003-VBB		2297-5	VT-1	16	N/A	4/8	4/10	4/17	RF-09-78	
E41-F006-VBB		3537-5	VT-1	16	N/A	4/8	4/10	4/17	RF-09-77	
E51-F008-VBB		2192-5	VT-1	16	N/A	4/8	4/10	4/17	RF-09-75	
E51-F013-VBB		3536-5	VT-1	16	N/A	4/8	4/10	4/17	RF-09-76	
G33-F001-VBB		3096-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-99	
G33-F101-VBB		3096-5	VT-1	16	N/A	4/9	4/10	4/17	RF-09-101	
G33-F121-VBB		3536-5	VT-i	16	N/A	4/8	4/10	4/17	RF-09-74	
G33-F220-VBB		3536-5	VT-1	16	N/A	4/8	4/10	4/17	RF-09-73	

RF09 EXAMS				and the section of	Average Assert Assert	Capting Ballagan, an opposition and season				
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
Second Sample Expansion										
B-G-2 Bolting	2" and Less									
B21-F010A-VBB		3537-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-80	
B21-F010B-VBB		3536-5	VT-1	16	N/A	4/14	4/15	4/17	RF-09-81	•
B21-F011A-VBB		3537-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-82	
B21-F032A-VBB		3537-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-83	
B21-F032B-VBB		3536-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-84	
B21-F076A-VBB		3537-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-85	
B21-F076B-VBB		3536-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-86	
E11-F008-VBB		2299-5	VT-1	16	N/A	4/14	4/15	4/17	RF-09-87	
E11-F015A-VBB		2298-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-88	
E11-F050A-VBB		2298-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-90	
E11-F050B-VBB		2327-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-91	
E11-F060A-VBB		2298-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-92	
E11-F060B-VBB		2327-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-93	
E11-F608-VBB		2299-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-94	
G33-F100-VBB		5351-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-100	
G33-F102-VBB		5351-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-102	
G33-F106-VBB		5351-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-103	
G33-F120-VBB		3536-5	VT-1	16	N/A	4/11	4/12	4/17	RF-09-104	

RF09 EXAMS			, establication			The second secon		CONTROL OF THE PARTY OF THE PAR		
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	СОМР	LIII	ANII	Report	Loc/Az/El
B-G-2 Bolting	2" and Less									Loc/Az/El
CRD Flange Bolts	4219 (1) 3431 (2)	5363-5	VT-1	16	N/A	4/9	4/12	4/17	RF-09-105	
CRD Bolting	New CRD Bolting 1-184	N/A	VT-1	16	N/A	3/27	3/28	4/16	RF-09-72	Drywell, Undervessel
В-Р	Pressure Retaining Boundary	M-4536	VT-2	43.000.005	N/A	4/30	4/30	4/30	03-022	
										Various

RF09	EXA	MS	ì

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
C-C Vessel	Intregal Attachment									
SW-E11-D2-HXS-13	RHR HX B	5370-5	MT	2	N/A	4/12	4/14	4/15	RF-09-53	RB2,B9,625'
SW-E11-D2-HXS-14	RHR HX B	5370-5	MT	2	N/A	4/12	4/14	4/15	RF-09-54	
SW-E11-D2-HXS-15	RHR HX B	5370-5	MT	2	N/A	4/12	4/14	4/16	RF-09-55	
SW-E11-D2-HXS-16	RHR HX B	5370-5	MT	2	N/A	4/12	4/14	4/16	RF-09-56	
C-F-1 Augmented	NRC Commitment		Vol.							
FW-C41-2979-63S64	SLC weld 2" El -Pipe	2979-5	PT	1	N/A	3/24	3/26	4/4	RF-09-26	RB3, 652,E11
FW-C41-2979-64S65	SLC weld 2" Pipe-El	2979-5	PT	1	N/A	3/24	3/26	4/4	RF-09-27	RB3, 652,E11
FW-C41-5058-54S55	SLC weld 2"Pipe-Reducer	5374-5	PT	1	N/A	3/24	3/26	4/4	RF-09-28	RB3,F10,661
C-F-2	Circumferential Weld		Vol.							
SW-C11-2113-172-A	CRD SDV ' Pipe-Tee	5375-5	MT	2	N/A	3/29	4/1	4/6	RF-09-48	RB1,C10,597
SW-C11-2113-172-A		5375-5	UT	3	CS-20	3/29	4/1	4/6	RF-09-48	
SW-E11-3035-7WB	RHR 6" El-Pipe	3035-5	MT	2	N/A	3/29	3/30	4/4	RF-09-49	Tor,180,578
FW-E11-3151-3WF2	RHR 24" Tee-El	3151-5	MT	2	N/A	4/12	4/14	4/16	RF-09-30	HxRm,C10,605'
FW-E11-3151-3WF2		3151-5	UT	3	CS-43	4/12	4/14	4/16	RF-09-30	
SW-E11-3154-4WC	RHR 24" El-Tee	3154-5	MT	2	N/A	3/30	3/30	4/6	RF-09-50	Tor,C17,543'
SW-E11-3154-4WC		3154-5	UT	3	PDI-Alt-CS1	3/30	4/2	4/6	RF-09-50	
FW-E11-3154-13WO	RHR 24" Pipe-Pump	3154-5	MT	2	N/A	3/31	4/2	4/13	RF-09-31	RBSB,A15,541'
FW-E11-3154-13WO		3154-5	UT	3	PDI-Alt-CS1	4/1	4/2	4/13	RF-09-31	
FW-E11-3158-1W2	RHR 24" Pipe-El	3158-5	MT	2	N/A	3/30	3/30	4/6	RF-09-32	HxRm,C17,593'
FW-E11-3158-1W2		3158-5	UT	3	CS-43	3/31	3/31	4/6	RF-09-32	
FW-E11-3158-9WF2	RHR 20" Pipe-El	3158-5	MT	2	N/A	3/30	4/1	4/14	RF-09-33	HxRm,B17,635'
FW-E11-3158-9WF2		3158-5	UT	3	CS-42	3/31	4/1	4/14	RF-09-33	
SW-E11-3177-9WE	RHR 20"El-Pipe	3177-5	MT	2	N/A	4/3	4/4	4/6	RF-09-52	Tor,B10,570'
SW-E11-3177-9WE		3177-5	UT	3	CS-42	4/3	4/4	4/6	RF-09-52	
FW-E21-3148-7W0	Core Spray 12" Red-Pump	3148-5	MT	2	N/A	3/31	4/2	4/14	RF-09-34	RBSB,G17,541'
FW-E21-3148-7W0		3148-5	UT	3	PDI-Alt-CS1	4/1	4/2	4/14	RF-09-34	
FW-E41-3162-11WF1	HPCI 16" Pipe-Tee	3162-5	VT-1	17	N/A	3/25	3/28	4/4	RF-09-35	Tor,G11,564'
FW-E41-3162-11WF1	HPCI 16" Tee-Reducer	3162-5	VT-1	17	N/A	3/25	3/28	4/4	RF-09-36	Tor,G11,564'

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CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure		COMP	LIII	ANII	Report	Loc/Az/El
FW-E41-3162-11WF5	HPCI 10" Reducer-Reducer	3162-5	VT-1	17	N/A	3/25	3/28	4/4	RF-09-37	Tor,G11,564'
FW-E41-3167-OW1	HPCI 10" Pump-Pipe	3167-5	MT	2	N/A	3/26	3/28	4/11	RF-09-38	HPCI Skid, 546'
FW-E41-3167-OW1		3167-5	UT	3	CS-50	3/26	3/28	4/11	RF-09-38	
FW-E41-3169-2W0	HPCI 10" Pipe-Valve	3169-5	MT	2	N/A	3/26	3/29	4/14	RF-09-39	CRD,G11,569'
FW-E41-3169-2W0		3169-5	UT	3	CS-36	3/27	3/29	4/14	RF-09-39	
SW-E41-5373-GW3	HPCI 12"El-Pipe	5373-5	MT	2	N/A	3/27	3/30	4/12	RF-09-59	HPCI Skid, 546'
SW-E41-5373-GW3		5373-5	UT	3	PDI-Alt-CS1	3/27	3/30	4/12	RF-09-59	
SW-N30-3258-7WK	Main Steam 26" Pipe-RedEl	3258-5	MT	2	N/A	4/6	4/10	4/13	RF-09-67	Stm,F12,589'
SW-N30-3258-7WK		3258-5	UT	3	CS-5	4/6	4/10	4/13	RF-09-67	
SW-N30-3258-7WKLU	Main Steam 26" Long Seam	3258-5	MT	2	N/A	4/6	4/10	4/15	RF-09-68	Stm,F12,589'
SW-N30-3258-7WKLU		3258-5	UT	3	CS-5	4/6	4/10	4/15	RF-09-68	
C-F-2	Branch Connections									
SW-E11-3160-1WD	RHR 18" Weldolet	3160-5	MT	2	N/A	3/29	3/30	4/4	RF-09-51	Tor,B15,578'

RF09 EXAMS							-			
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
ANSI B31.1	GL 88-01 Category D									
FW-N20-3105-0W23	20" El-SE Htr 4N, Upper Nozz	3105-1	PT/UT	1/13	SSCL-88	4/16	4/18	N/A	RF-09-41	TB2,P12,624'
SW-N20-03-B011-BWSE	20" Nozz-SE 4N, Upper Nozz	3105-1	PT/UT	1 / 13	SSCL-88	4/16	4/18	N/A	RF-09-62	TB2,P12,624'
FW-N20-3105-22WO	20" El-SE Htr 4N, Lower Nozz	3105-1	PT/UT	1 / 13	SSCL-88	4/15	4/18	N/A	RF-09-42	TB2,P12,615'
SW-N20-03-B011-AWSE	20" Nozz-SE 4N, Lower Nozz	3105-1	PT/UT	1/13	SSCL-88	4/15	4/18	N/A	RF-09-61	TB2,P12,615'

Procedure	Reference Code
39.NDE.001	1
39.NDE.002	2
PDI-UT-1	3
PDI-UT-2	4
PDI-UT-5	5
GE-UT-300	6
GE-UT-704	7
GE-UT-705	8
GE-UT-308	9
GE-UT-209	10
GE-UT-236	11
GE-UT-504	12
PDI-UT-10	13
43.000.03/04	14
43.000.017	15
43.000.014	16
43.000.019	17
43.000.013	18
GE-UT-309	19
GE-UT-311	20

2.4 Interval 2, Period 1, RF08 Examinations

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
B-A Reactor Vessel	Shell Welds		Vol.							
1-308A		5360-5	UT	8	2667-62-1	15-Nov	17-Nov	19-Nov	R8-96	DW,52,552
1-308B		5360-5	UT	8	2667-62-1	15-Nov	17-Nov	19-Nov	R8-97	DW,142,552
15-308C		5360-5	UT	8	2667-62-1	14-Nov	17-Nov	19-Nov	R8-98	DW,262,244
2-307A	•	5360-5	UT	8	2667-60-1	12-Nov	17-Jan	19-Nov	R8-99	DW,339,122
B-A Reactor Vessel	Circ Head Welds		Vol.							
4-319	2-319C to 2-319E 40%	5360-5	UT	6	2667-58-1	1-Nov	5-Nov	17-Nov	R8-47	Refuel Floor
6-306	180 deg. to 360 deg.	5360-5	UT	6	2667-59-1	5-Nov	7-Nov	15-Nov	R8-57	Refuel Floor
2-319A	Top Head	5360-5	UT	6	2667-58-1	31-Oct	6-Nov	17-Nov	R8-44	Refuel Floor
2-319B	Top Head	5360-5	UT	6	2667-58-1	31-Oct	6-Nov	17-Nov	R8-45	Refuel Floor
2-319C	Top Head	5360-5	UT	6	2667-58-1	2-Nov	6-Nov	17-Nov	R8-46	Refuel Floor
1-319B	Top Head	5360-5	UT	6	2667-58-1	30-Oct	5-Nov	17-Nov	R8-42	Refuel Floor
1-31911	Top Head	5360-5	UT	6	2667-58-1	30-Oct	5-Nov	17-Nov	R8-43	Refuel Floor
1-306A	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	17-Nov	R8-60	Bio, 0deg
1-306D	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	18-Nov	R8-61	Bio, 120deg
1-306E	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	18-Nov	R8-62	Bio, 144 deg
1-306G	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	18-Nov	R8-63	Bio, 225deg
1-306K	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	18-Nov	R8-64	Bio, 335deg

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII		Report	Loc/Az/El
B-A Reactor Vessel	Shell to Flange Welds		Vol.								
13-308	Partial from shell side	5360-5	UT	7	2667-62-1	13-Nov	16-Nov	16-Nov	R8-95		DW, 723"
3-308	Partial from flange	5360-5	UT	9	CSC1-52- FER	28-Oct	30-Oct	17-Nov	R8-12		Vessel Cav.
B-A Reactor Vessel	Head to Flange		Vol. / Surf.								
3-319	1/3 of weld length	5360-5	UT	7	2667-58-1	1-Nov	6-Nov	17-Nov	R8-41		Refuel Floor
3-319	1/3 of weld length	5360-5	MT	2	N/A	30-Oct	6-Nov	17-Nov	R8-41		Refuel Floor
B-D Reactor Vessel	Nozzle to Vessel Welds		Vol.								
3-316A	Main Steam Nozzle	5361-5	UT	7	2667-62-1	8-Nov	9-Nov	19-Nov	R8-76		DW,71,655
3-316-B	Main Steam Nozzle	5361-5	UT	7	2667-62-1	8-Nov	9-Nov	19-Nov	R8-77		DW,109,655
-316A	Feedwater Nozzle	5361-5	UT	7	2667-62-1	8-Nov	9-Nov	19-Nov	R8-75		DW,30,642
I-316B	Feedwater Nozzle	5361-5	UT	7	2667-62-1	7-Nov	8-Nov	18-Nov	R8-65		DW,90,642
l-316D	Feedwater Nozzle	5361-5	UT	7	2667-62-1	8-Nov	10-Nov	18-Nov	R8-78		DW,210,642
4-316B	Core Spray Nozzle	5361-5	UT	7	2667-62-1	7-Nov	8-Nov	18-Nov	R8-66		DW,240,641
13-314A	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	5-Nov	7-Nov	17-Nov	R8-53		DW,30,615
13-314B	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	5-Nov	7-Nov	17-Nov	R8-59		DW,60,615
13-314D	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	6-Nov	7-Nov	17-Nov	R8-58		DW,120,615
13-314G	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	4-Nov	7-Nov	17-Nov	R8-51		DW,240,615
13-314K	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	5-Nov	7-Nov	17-Nov	R8-54		DW, 330,615
5-314A	Recirc Suction Nozzle	5361-5	UT	7	2667-60-1	12-Nov	14-Nov	15-Nov	R8-93		DW, 0,614
19-314B	JPI Nozzle	5361-5	UT	7	2667-60-1	9-Nov	10-Nov	17-Nov	R8-82		DW,280,612
B-D Reactor Vessel	Nozzle Inside Radius		Vol.								Same as Nozzle to vessel above
8-316A		5361-5	UT / VT	13 or 15	N/A	IVVI	18-Nov	30-Nov	01-034		DW,71,655
3-316-B		5361-5	UT/VT	13 or 15	N/A	IVVI	18-Nov	30-Nov	01-034		DW,109,655
1-316A		5361-5	UT	11	N/A	8-Nov	13-Nov	17-Nov		R8-86	DW,30,642
1-316B		5361-5	UT	11	N/A	8-Nov	13-Nov	17-Nov		R8-87	DW,90,642

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
4-316B		5361-5	UT/VT	13 or 15	N/A	1-Nov	13-Nov	30-Nov	01-034	DW,240,641
5-315		5361-5	UT / VT	13 or 15	N/A	1-Nov	13-Nov	30-Nov	01-034	DW,150,638
3-314A		5361-5	UT / VT	13 or 15	N/A	1-Nov	18-Nov	30-Nov	01-034	DW,30,615
3-314B		5361-5	UT / VT	13 or 15	N/A	1-Nov	18-Nov	30-Nov	01-034	DW,60,615
-314D		5361-5	UT / VT	13 or 15	N/A	N/A	N/A	N/A	N/A	DW,120,615
-314G		5361-5	UT / VT	13 or 15	N/A	N/A	N/A	N/A	N/A	DW,240,615
-314K		5361-5	UT / VT	13 or 15	N/A	N/A	N/A	N/A	N/A	DW, 330,615
314A		5361-5	UT/VT	13 or 15	N/A	1-Nov	18-Nov	30-Nov	01-034	DW, 0,614
-314B		5361-5	UT / VT	13 or 15	N/A	1-Nov	18-Nov	30-Nov	01-034	DW,280,612
D Reactor Vessel	Nozzle Inner Bore Region		Vol.							
B16A IBR	FW Nzz Inner Bore Region	5361-5	UT	11	70287	8-Nov	13-Nov	17-Nov	R8-86	DW,30,642
316B IBR	FW Nzz Inner Bore Region	5361-5	UT	11	70287	8-Nov	13-Nov	17-Nov	R8-87	DW,90,642
16D IBR F & B-J Class 1 Piping	FW Nzz Inner Bore Region RIISI Welds	5361-5	UT	11	70287	7-Nov	13-Nov	17-Nov	R8-88	DW,210,642
В	12" CS SE to Nzz (DM)	3052-5	UT	12	CS-44/IN-45	6-Nov	16-Nov	19-Nov	R8-79	DW,240,641
V-E21-3052-4W0X	10" CS Pipe to SE (DM)	3052-5	UT	12	CS-18/IN-45	7-Nov	16-Nov	19-Nov	R8-71	DW,240,641
V-RD-2-A9	28" Tee to Cross	5357-5	UT	4	SS-30	3-Nov	5-Nov		R8-49	DW,270,613
V-E11-2298-6W0	24" Pipe to Tee	2298-5	UT	4	SS-8	2-Nov	2-Nov	17-Nov	R8-39	DW,270,600
V-E11-2298-6WC	24" Pipe to Pipe (DM)	2298-5	UT	3/4	CS-7/SS-8	2-Nov	2-Nov	16-Nov	R8-38	DW,270,600
/-G33-3096-10WF3	4' Sweepolet to Tee	5351-5	UT	4	SS-23	2-Nov	8-Nov	17-Nov	R8-40	DW,140,573
16A	Main Steam Nzz to SE	5352-5	UT	3	CS-5	8-Nov	8-Nov	19-Nov	R8-74	DW,72,655
/-PS-2-A1-A	26" Pipe to Elbow	5352-5	UT	3	CS-5	8-Nov	8-Nov	17-Nov	R8-72	DW,72,655
7-PS-2-A1-B	26" Elbow to Pipe	5352-5	UT	3	CS-5	8-Nov	8-Nov	17-Nov	R8-73	DW,72,653
/-PS-2-C3-J	8" Sweepolet to Pipe	5354-5	UT	3	CS-20	12-Nov	13-Nov	17-Nov	R8-91	DW,314,609

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CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	СОМР	LIII	ANII	Report	Loc/Az/El
SW-PS-2-C3-K	8" Pipe to Flange	5354-5	UT	3	CS-20	12-Nov	13-Nov	17-Nov	R8-92	DW,314,609
SW-RD-2-B8-W1	12" Pipe to Elbow	5358-5	UT	4	SS-17	1-Nov	2-Nov	16-Nov	R8-35	DW,90,613
SW-RD-2-B8-W2	12" Elbow to Pipe	5358-1	UT	4	SS-17	30-Oct	2-Nov	16-Nov	R8-15	DW,90,615
FW-E11-2327-0W1	24" Valve to Pipe	2327-5	UT	3	CS-9	3-Nov	4-Nov	17-Nov	R8-48	RB1,B12,594
FW-E41-2297-2W3	10" Pipe to Elbow	2297-5	UT	3	CS-22	2-Nov	3-Nov	16-Nov	R8-37	DW,0,586
FW-E41-2297-0W4	10" Fluted head to pipe	2297-5	UT	3	CS-18	2-Nov	2-Nov	11-Nov	R8-36	Stm,F12,586
B-F & B-J Class 1 Piping	RIISI Welds									
3-316A	FW 14" SE to Noz	3537-5	UT	3	CS-46	7-Nov	8-Nov	19-Nov	R8-69	DW,30,642
N4A	SE Ext. to SE	3537-5	UT	3	CS-46	7-Nov	8-Nov	19-Nov	R8-70	DW,30,642
FW-N21-2336-15W0	12" Pipe to SE	3537-5	UT	3	CS-15	7-Nov	8-Nov	17-Nov	R8-68	DW,30,642
SW-N21-2336-15WP	12" Pipe to Elbow	3537-5	UT	3	CS-15	7-Nov	8-Nov	18-Nov	R8-67	DW,30,641
B-G-1 Bolting	Greater Than 2"									
RPV Closure Nuts	1/3 of locations	5362-5	MT	2	N/A	10-Nov	12-Nov	17-Nov	R8-83	Refuel Floor
RPV Closure Studs	1/3 of locations in place 48-51		UT	5	RPV Stud	28-Oct 4-Nov.	5-Nov	11-Nov 17-Nov	R8-10 R8-50	RPV Cavity
RPV Closure Studs	48-51 removed		MT	2	N/A	10-Nov	12-Nov	17-Nov	R8-50	Refuel Floor
Threads in Flange	1/3 of locations		UT	10	CSCL-52	29-Oct	30-Oct	16-Nov	R8-11	RPV Cavity
RPV Closure Washers/Bushings	1/3 of locations		VT-I	16	N/A	10-Nov	12-Nov	17-Nov	R8-84	Refuel Floor
Recirc Pump Studs	Pump A 1-16	5365-5	VT-1	16	N/A	10-Nov	17-Nov	27-Nov		DW,315,579
Recirc Pump Studs	Pump A 1-16		UT	5	B31 Stud	10-Nov	12-Nov	19-Nov	R8-85	DW,315,579
Recirc Pump nuts, bushings, and washers	Pump A 1-16		VT-1	16	N/A	10-Nov	17-Nov	27-Nov		DW,315,579
RPV Spare Flange	0 deg.	5361-5	VT-1	16	N/A	10-Nov	17-Nov	27-Nov		Refuel Floor
RPV Spare Flange	180 deg.		VT-1	16	N/A	10-Nov	17-Nov	27-Nov		Refuel Floor
B-G-2 Bolting	2" and Less						·			
FBC-E51-2192-01	FE Flange	2192-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov		DW,360,594
FBC-B21-5352-01L	SRV Flange	5352-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov		DW,360,594
B21-F013L-VBB	SRV Bonnet	5352-5	VT-I	16	N/A	1-Nov	17-Nov	27-Nov		DW,39,613

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
G-2 Bolting	2" and Less								01-035D	
C-B21-5353-01K	SRV Flange	5353-5	VT-1	16	N/A	1-Nov	17-Nov	27 Nov	01-035E	DW,39,613
1-F013K-VBB	SRV Bonnet	5353-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	01-035F	DW,70,613
C-B21-5353-01G	SRV Flange	5353-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	01-035G	DW,70,613
1-F013G-VBB	SRV Bonnet	5353-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	01-035H	DW,38,613
1-F028B-VBB	B Line Outboard MSIV	5353-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	01-0351	DW,38,613
C-B21-5354-01B	SRV Flange	5354-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	01-035J	DW,298,613
1-F013B-VBB	SRV Bonnet	5354-5	VT-I	16	N/A	1-Nov	17-Nov	27-Nov	01-035K	DW,298,613
I-F028D-VBB	D Line Outboard MSIV	5353-5	VT-1	16	N/A	31-Oct	17-Nov	27-Nov	01-035L	Stm,F12,599
-F006A-VBB	CS Inbd Check	3052-5	VT-1	16	N/A	9-Nov	17-Nov	27-Nov	01-035M	DW,210,627
1-F003-VBB	HPCI Otbd ISO Valve	2297-5	VT-1	16	N/A	31-Oct	17-Nov	27-Nov	01-035N	Stm,F12,587
3-F001-VBB	RWCU Inbd Iso	3096-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	01-035O	DW,229,603
3-F120-VBB	RWCU to FW Ck	3536-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	01-035P	Stm,F12,587
I-F011A-VBB	FW A Manual Iso	3537-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	01-035D	DW,350,603
I RPV Integral										
06/4-309 Skirt Weld	10 percent of length	5360-5	MT	2	N/A	4-Nov	6-Nov	19-Nov	R8-52	Bio Annulus
06/4-309 Skirt Weld	10 percent of length	5360-5	UT	7		4-Nov	6-Nov	19-Nov	R8-52	Bio Annulus
324A Stabilizer	Stabilizer Lug Weld	5360-5	MT	2	N/A	13-Nov	14-Nov	16-Nov	R8-94	DW,0,647

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	СОМР	LIII	ANII	Report	Loc/Az/El
3-O CRD Housing Welds										
CRDH-X02-Y27-WI	Peripheral Housing Weld		PT	1	N/A	9-Nov	10-Nov	18-Nov	R8-80	DWUV .
RDH-X02-Y27-W2	Peripheral Housing Weld		PT	1	N/A	9-Nov	10-Nov	18-Nov	R8-81	DWUV
-A Vessel	Shell Welds		Vol.							
W-E11-D2-HX-11	Shell to Flange	5370-5	UT	14	CS-80	30-Oct	2-Nov	16-Nov	R8-34	RB1,B9,
-B Vessel	Nozzle to Shell Welds		Vol./							
W-E11-D2-HX-01	Inlet Nozzle to Head	5370-5	Surf. UT	14	CS-80	30-Oct	1-Nov	16-Nov	R8-13	RB1,B9,
W-E11-D2-HX-01	Inlet Nozzle to Head	5370-5	МТ	2		29-Oct	1-Nov	16-Nov	R8-13	RB1,B9,
-B Vessel	Inside Radius		Vol.							, ,
W-E11-D2-HX-01 IRS	Inlet Nozzle to Head		UT	13	CS-81	30-Oct	1-Nov	15-Nov	R8-30	RB1,B9,
-C Vessel	Integral Attachment		Surf.							,,
W-E11-D2-HXS-05	Upper Shell Stiffener Weld		мт	2		31-Oct	1-Nov	16-Nov	R8-20	RB1,B9,
W-E11-D2-HXS-06	Lower Shell Stiffener Weld		MT	2		31-Oct	1-Nov	16-Nov	R8-19	RB1,B9,
W-E11-D2-HXS-07	Support Ring		MT	2		31-Oct	1-Nov	16-Nov	R8-21	RB1,B9,
W-E11-D2-HXS-09	Stiffener Plate		MT	2		31-Oct	1-Nov	16-Nov	R8-22	RB1,B9,
W-E11-D2-HXS-10	Stiffener Plate		MT	2		31-Oct	1-Nov	16-Nov	R8-23	RB1,B9,
W-E11-D2-HXS-11	Stiffener Plate		MT	2		31-Oct	1-Nov	16-Nov	R8-24	RB1,B9,
W-E11-D2-HXS-12	Stiffener Plate		MT	2		31-Oct	1-Nov	16-Nov	R8-25	RB1,B9,
W-E11-D2-HXS-21	Stiffener Plate		MT	2		31-Oct	1-Nov	16-Nov	R8-26	RB1,B9,
W-E11-D2-HXS-22	Stiffener Plate		MT	2		31-Oct	1-Nov	16-Nov	R8-27	RB1,B9,
W-E11-D2-HXS-23	Stiffener Plate		МТ	2		31-Oct	1-Nov	16-Nov	R8-28	RB1,B9,
V-E11-D2-HXS-24	Stiffener Plate		MT	2		31-Oct	1-Nov	16-Nov	R8-29	RB1,B9,
-F-1 Piping	Circumferential Welds		Surf.							
W-C41-2979-72S73	2" Elbow to Pipe	2979-5	PT	1		22-Oct	26-Oct	16-Nov	R8-02	RB4,668
W-C41-2979-2S3	2" Elbow to Reducer	2979-5	PT	1		31-Oct	1-Nov	11-Nov	R8-33	RB2,C12,633
W-C41-2979-1S2	2" Reducer to Pipe		PT	1		31-Oct	1-Nov	11-Nov	R8-32	RB2,C12,633

RF08 EXAMS	and the second s	Committee again angula casa	A SAN CANAL CONTRACTOR					TO SECURITY OF THE PROPERTY OF	and the high first course program and an entire in page 19 years. The first course is a first course program and the second of	The major data or prime and a state of the control
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/Ei
C-F-2 Piping	Circumferential Welds									
FW-E11-3146-5W0	18" Elbow to Valve	3146-5	MT	2		25-Oct	29-Oct	16-Nov	R8-03	Tor,B13,579
FW-E11-3146-5W0		3146-5	UT	3	CS-40	25-Oct	29-Oct	16-Nov	R8-03	***************************************
SW-E11-3153-13WD	24" Pipe to Elbow	3153-5	MT	2		24-Oct	29-Oct	16-Nov	R8-07	SW Quad,543Y
W-E11-3153-13WD	.375" Std.	3153-5	UT	3 .	PDI1-Alt	25-Oct	29-Oct	16-Nov	R8-07	2 · · · Quad,5 · 5 · 1
W-E11-3159-0W1	12" Wol to Pipe	3159-5	MT	2		26-Oct	31-Oct	16-Nov	R8-09	Tor, B13,575
W-E11-3159-0W1	.406 Schd. 40	3159-5	UT	3	PDI1-Alt	26-Oct	31-Oct	16-Nov	R8-09	101, 010,075
W-E21-3145-9WD	10" Elbow to Pipe	3145-5	VT-1	17		31-Oct	31-Oct	16-Nov	R8-16	Tor,320,577
W-E21-3147-5WJ	14" Pipe to Elbow	3147-5	MT	2		23-Oct	29-Oct	16-Nov	R8-04	SE Quad,549Y
W-E21-3147-5WJ	.438 Schd. 40	3147-5	UT	3	PDII-Alt	24-Oct	29-Oct	16-Nov	R8-04	{,5 // 1
W-E21-3147-19WB	12" Elbow to Pipe	3147-5	MT	2		23-Oct		16-Nov	R8-05	RB2,"C11,628
W-E21-3147-19WB		3147-5	UT	3	CS-15	27-Oct	29-Oct	16-Nov	R8-05	1102, 011,020
W-E21-3148-5WD	20" Pipe to WOL	3148-5	MT	2		26-Oct	27-Oct	11-Nov	R8-06	NE Quad,541
W-E41-3162-11W0 & LD	24" Elbow to Pipe	3162-5	VT-1	17		29-Oct	31-Oct	16-Nov	R8-18	Tor,G11,560
W-E41-3162-11WC	24" Elbow to Reducer	3162-5	VT-1	17		29-Oct	31-Oct	16-Nov	R8-17	Tor,G11,560
W-N30-3259-4W0	24" Pipe to Valve	3259-5	MT	2	•	31-Oct	1-Nov	16-Nov	R8-31	TB,L12,632
W-N30-3259-4W0		3259-5	UT	3	CS-9	31-Oct	1-Nov	16-Nov	R8-31	15,512,052
W-T48-04-2095-19W0	8" Pipe to Tee	2095-5	MT	2		19-Oct	22-Oct	11-Nov	R8-01	RB1,B13,594
W-E11-3151-8WD	24" Pipe to Weldolet	3151-5	MT	2		26-Oct	27-Oct	16-Nov	R8-08	Tor,B12,575
W-N30-3258-13WB	26" Pipe to Sweepolet	3258-5	MT	2		29-Oct	30-Oct	16-Nov	R8-14	Stm,F12,598
NSI B31.1	GL 88-01 Category D									, ,
W-N21-3109-18W0		3109-1	UT	3/4	CS-86/SSCL- 87	5-Nov	7-Nov	17-Nov	R8-56	TB3,P5,645
W-N21-01-B002-AWSE		3109-1	UT	3/4	CS-86/SSCL- 87	5-Nov	7-Nov	17-Nov	R8-55	TB3,P5,645
W-N20-3105-0W13		3105-1	UT	3/4	CS-11/SSCL-	10-Nov	14-Nov	15-Nov	R8-89	TB2,P4,623
SW-N20-03-B010-BWSE		3105-1	UT	3/4	CS-11/SSCL-	10-Nov	14-Nov	15-Nov	R8-90	TB2,P4,623

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Procedure	Reference Code	Procedure	Reference Code	
39.NDE.001	1	ISI-UT-55	10	
39.NDE.002	2	GFRM2-ISI-246	11	
PDI-UT-1	.3	UNIXDETC	12	
PDI-UT-2	4	ISI-UT-211	13	
PDI-UT-5	5	ISI-UT-215	14	
PDI-UT-6	6	43.000.017	15	
ISI-UT-210	7	43.000.014	16	
I/UX-PDI-254	8	43.000.019	17	
GFRM2-ISI-54	9			

2.5 Interval 2, Period 1, RF07 Examinations

CATICOAD ID	DECORPTION.		<u> </u>		ânda de la Probate					administrativas para para para para para para para pa
CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
B-D Reactor Vessel	Nozzle Inner Radius and Bore Region									
4-31C IRS	(NUREG-0619) Inner Radius	5361-5	UT	6	70287	4/17/00	4/18/00	4/20/00	R7-01	DW, 150, 642'
4-316E IRS	(NUREG-0619) Inner Radius	5361-5	UT	6	70287	4/13/00	4/18/00	4/20/00	R7-02	DW, 270, 642'
4-316F IRS	(NUREG-0619) Inner Radius	5361-5	UT	6	70287	4/17/00	4/18/00	4/20/00	R7-03	DW, 330, 642'
4-316C IBR	FW Nozz Inner Bore Region	5361-5	UT	6	70287	4/16/00	4/18/00	4/20/00	R7-01	DW, 150, 642'
4-316E IBR	FW Nozz Inner Bore Region	5361-5	UT	6	70287	4/13/00	4/18/00	4/20/00	R7-02	DW, 270, 642'
4-316F IBR	FW Nozz Inner Bore Region	5361-5	UT	6	70287	4/16/00	4/18/00	4/20/00	R7-03	DW, 330, 642'
B-F RPV Piping	RPV Nozzle to Safe End									
N5B	Dissimilar Metal Nozz-SE	3052-5	UT	5	FER-44,45	4/12/00	4/18/00	4/20/00	R7-04	DW, 240, 641'
N5B	Core Spray	3052-5	PT	1	N/A	4/11/00	4/18/00	4/20/00	R7-04	. ,
2-30311	Dissimilar Metal Nozz-SE	5356-5	UT	5	FER-54,56	4/10/00	4/18/00	4/20/00	R7-05	DW, 270, 615'
2-303H	Recirc Inlet	5356-5	PT	1	N/A	4/5/00	4/18/00	4/20/00	R7-05	•
4-303A	Dissimilar Metal Nozz-SE	5357-5	UT	5	FER-55,57	4/12/00	4/18/00	4/20/00	R7-06	DW, 0, 614'
4-303A	Recirc Suction	5357-5	PT	1	N/A	4/7/00	4/18/00	4/20/00	R7-06	, ,
102-304A	Dissimilar Metal Nozz-SE	5361-5	UT	4	FER47, Alt.1	4/13/00	4/18/00	4/20/00	R7-07	DW, 110, 612'
102-304A	Jet Pump Instrumentation	5361-5	PT	1	N/A	4/13/00	4/18/00	4/20/00	R7-07	
5-315	Dissimilar Metal Nozz-SE	5361-5	UT	4	FER28	4/14/00	4/14/00	4/18/00	R7-08	DW, 180, 608'
5-315	Core DP and Liquid Control	R1-91	PT	1	N/A	4/14/00	4/14/00	4/18/00	R7-08	• •
B-K-1 Integral Attachment	Piping, Pumps, Valves									
SW-PS-2-A2-AA1	Pipe Lug Class 1	5352-5	MT	2	N/A	4/13/00	4/13/00	4/18/00	R7-09	DW, 72, 638'
SW-PS-2-A2-AA2	Pipe Lug Class 1	5352-5	MT	2	N/A	4/13/00	4/13/00	4/18/00	R7-10	
SW-PS-2-A2-AA3	Pipe Lug Class 1	5352-5	МТ	2	N/A	4/13/00	4/13/00	4/18/00	R7-11	
SW-PS-2-A2-AA4 C-C Integral Attachments	Pipe Lug Class 1 Piping, Pumps, Valves	5352-5	MT	2	N/A	4/13/00	4/13/00	4/19/00	R7-12	
PSFW-E21-3147-301	Class 2 Stanchion to pipe	3147-5	MT	2	N/A	3/30/00	3/31/00	4/11/00	R7-13	RB, SB, G10

CAT/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	Report	Loc/Az/El
-F-1 and C-F-2 Pressure etaining Welds	Class 2 Piping Welds								-	
W-C41-2979-P	2" pipe to coupling	2979-5	PT	1	N/A	3/30/00	4/3/00	4/11/00	R7-15	RB3, 646'
W-C41-3361-02W1	3" valve to pipe	3361-5	PT	1	N/A	3/31/00	4/3/00	4/11/00	R7-16	RB4, SLC Mezz, E10
W-E11-3146-6W10	20" tee to elbow	3146-5	MT	2	N/A	4/6/00	4/8/00	4/20/00	R7-17	Torus Rm, C13, 574'
FW-E11-3146-6W10	20" tee to elbow	3146-5	UT	3	FER-41	4/8/00	4/8/00	4/20/00	R7-17	
W-E11-3146-6WH	24" tee to pipe	3146-5	MT	2	N/A	4/3/00	4/18/00	4/20/00	R7-18	Torus Rm, B13, 575
W-E11-3146-6WH	24" tee to pipe	3146-5	UT	3	FER-43	4/4/00	4/18/00	4/20/00	R7-18	
W-E11-3158-10WF4	20" pipe to nozzle	3158-5	МТ	2	N/A	4/14/00	4/18/00	4/20/00	R7-19	RB2, B9, 629'
W-E11-3158-10WF4	20" pipe to nozzle	3158-5	UT	3	FER-42	4/14/00	4/18/00	4/20/00	R7-19	
W-N-30-3258-19WJ	26" pipe to reducer	3258-5	МТ	2	N/A	4/7/00	4/14/00	4/19/00	R7-20	RB1, Stm Tunnel, G13
W-N-30-3258-19WJ	26" pipe to reducer	3258-5	UT	3	FER-5	8-Apr	4/14/00	4/19/00	R7-20	,,
W-N-30-3258-19WJLU	intersecting long seam weld	3258-5	MT	2	N/A	4/7/00	4/14/00	4/19/00	R7-20	
W-N-30-3258-19WJLU	intersecting long seam weld	3258-5	UT	3	FER-5	4/8/00	4/14/00	4/19/00	R7-20	
W-E11-3035-5WE	6" tee to reducer	3035-5	MT	2	N/A	4/8/00	4/17/00	4/19/00	R7-21	RB2, B12, 621'
W-E11-3157-0W6	16" pump to expander	3157-5	MT	2	N/A	3/31/00	4/18/00	4/20/00	R7-21 R7-22	RBSB, B17, 541'
W-E11-3157-0W6	16" pump to expander	3157-5	UT	3	FER-40	3/31/00	4/18/00	4/20/00	R7-22 R7-22	NDOD, D17, 341
W-E21-3144-0W1	12" pump to expander	3144-5	MT	2	N/A	3/30/00	4/3/00	4/11/00	R7-23	RBSB, A15, 541'
W-E21-3147-16W17	12" elbow to pipe	3147-5	MT	2	N/A	4/3/00	4/18/00	4/20/00		RB2, C11, 628'
W-E21-3147-16W17	12" elbow to pipe	3147-5	UT	3	PDI -1 Alt.	4/6/00	4/18/00	4/20/00	R7-24 R7-24	KD2, C11, 028
W-E21-3149-4WD	20" pipe to tee	3149-5	MT	2	N/A	4/1/00	4/18/00	4/20/00	R7-25	RBSB, G10, 541
W-E21-3149-4WD	20" pipe to tee	3149-5	UT	3	PDI -1 Alt.	4/1/00	4/18/00	4/20/00	R7-25	11555, 510, 511
W-E41-3163-7W0	16" pipe to valve	3163-5	MT	2	N/A	4/8/00	4/14/00	4/20/00	R7-26	RBSB, G11, 541'
W-E41-3163-7W0	16" pipe to valve	3163-5	UT	3	FER-85	4/10/00	4/14/00	4/20/00	R7-26	
W-T48-04-2095-11W12	6" pipe to elbow	2095-5	MT	2	N/A	3/30/00	4/3/00	4/11/00	R7-27	RB2, A15, 622'
W-T48-04-2097-8W9	6" elbow to pipe	2097-5	MT	2	N/A	3/30/00	4/3/00	4/10/00	R7-28	RB2, B11, 627'
W-T48-04-2097-21WB	8" elbow to pipe	2097-5	VT-1	7	N/A	4/5/00	4/6/00	4/10/00	R7-29	RB2, B15, 578'
W-T48-04-2097-20W21	8" pipe to tee	2097-5	MT	2	N/A	4/8/00	4/16/00	4/18/00	R7-30	RB2, B15, 578'
W-T48-04-2097-25WF W-E11-3146-5WC	10" elbow to elbow 24" pipe to weldolet	2097-5	VT-1	7	N/A	4/5/00	4/6/00	4/10/00	R7-31	Torus Rm, X218, 558
NSI B31.1	GL 88-01 Category D	3146-5	MT	2	N/A	4/3/00	4/3600	4/11/00	R7-32	Torus Rm. B13, 575'
W-N20-3107-0W17	20" safe end to pipe (dm)	3107-1	UT	3,4	FER-11, 88	4/10/00	4/18/00	4/21/00	D7 22	TB2, R12, 625'
W-N20-03-B014-BWSE	20" nozzle to safe end (dm)	3107-1	UT	3,4	FER-11, 88	4/10/00	4/18/00	4/21/00	R7-33 R7-34	102, K12, 023
W-N20-3105-16W0	20" elbow to safe end (dm)	3105-1	UT	3,4	FER-11, 88	4/6/00	4/18/00	4/19/00	R7-35	TB2, R3, 615'
W-N20-03-B014-AWSE	20" safe end to nozzle (dm)	3105-1	UT	3,4	FER-11, 88	4/6/00	4/18/00	4/20/00	R7-36	122, 10, 013

RF07 EXAMS			
Procedure	Reference Code	Procedure	Reference Code
39.NDE.001	1	UNIXDETC	5
39.NDE.002	2	Fermi-800-1/2	6
PDI-UT-1	3	43.000.019	7
PDI-UT-2	4	43,000,004	8

SECTION 3

SUMMARY OF REACTOR INTERNAL EXAMINATIONS

3.0 SUMMARY OF REACTOR INTERNAL EXAMINATIONS

Code Category B-N-1 and B-N-2 Inspections Interval 2, Period 3, RF11

Components	Technique	Requirement	Results / Remarks
Brackets			
Core Spray			
Piping / Welds	EVT-1	BWRVIP-18	NRI (Note 1)
Spargers	EVT-1 / VT-1	BWRVIP-18	NRI (Note 1)
Jet Pump			
Riser Brace (Jet Pump No.1/2)	EVT-1 / VT-1	ASME/BWRVIP-41	NRI
Risers (Jet Pump Nos. 1/2, 7/8, 9/10)	EVT-1	BWRVIP-41	RI (Note 2)
Assemblies (Jet Pump No.5)	EVT-1	BWRVIP-41	NRI (Note 4)
Diffusers/Adapter welds	UT / VT-3	BWRVIP-41	NRI (Note 4)
(Jet Pump Nos. 11, 12, 13, 14, 15, 18)			,
Restrainer Bracket Assemblies (Jet Pump Nos. 1-20)	EVT-1 / VT-1/3	SIL 574 / SIL 629	RI (Note 5)
Sensing Lines (Jet Pump Nos. 6,7,16,17)	VT-3	SIL 420	NRI
Nozzle Inner Radius Surfaces	VT-1	Relief Request RR-A31 and RR-A31	NRI (Note 6)
Top Guide / Core Plate			
2 locations Top Guide	VT-1	SIL 554 / BWRVIP-26	NRI
Shroud			
Shroud Support	EVT-1/UT	BWRVIP-38/104	NRI (Note 3)
Gussets	EVT-1	BWRVIP-38	NRI (Note 3)
Steam Dryer			
Assembly 50%	VT-1/VT-3	SIL 474/SIL 644, Rev. 1 BWRVIP-139	RI (Note 7)
Steam Separator			
Assembly 30%	VT-3	N/A	NRI
Shroud Head Bolts 50%	VT-3	SIL 433	NRI

Notes:

- (1) Examined accessible areas of all selected piping welds and components to the extent possible per BWRVIP-18A requirements. Sampling inspections were also performed on sparger welds.
- (2) Reinspected indication adjacent to RS-1 weld (1.75") on Jet Pump Nos. 7 and 8 identified during RF06 (10/98), and no change in length observed. Therefore, no repair is required.

- (3) Examined H-8 and H-9 welds (EVT-1) at 0° and 180° as well as between various Jet Pumps. Percent coverage on H8 was 24% and H9 was 30%. Examined accessible areas of gussets 5, 6, 7, 8, 9, 10, 18, and 20 to EVT-1 requirements. Performed a UT examination of the H9 weld from the vessel OD surface obtaining 19.6% coverage.
- (4) All assembly welds visually inspected except for welds AD-1, AD-2 and DF-3, which are inaccessible for EVT-1 inspection. UT examination was performed on 6 Jet Pumps (17 welds) using specially designed tooling. No indications of service induced cracking were detected.
- (5) Wedge wear was identified on the main wedge for Jet Pump No. 2. As a result, all 20 wedges were inspected and additional inspections were performed on the Jet Pump No. 1/2 riser attachment welds. Auxiliary spring wedges were installed on Jet Pumps No. 1 and 2 and a slip joint clamp was installed on Jet Pump No. 2 (reference EDP 34174 and CARD 06-22334).
- (6) Inspected accessible areas of the RPV head spare nozzles (2) inside radius areas within limits of design and geometry.
- (7) No changes noted in previous indications. Inspection requirements were changed to "best effort VT-1" per SIL 644, Rev. 1 and BWRVIP-139. Indications noted at the base of several vertical welds during RF10 were re-inspected and no changes were noted.

Code Category B-N-1 and B-N-2 Inspections Interval 2, Period 2, RF10

Components	Technique	Requirement	Results / Remarks
Brackets			
Feedwater Spargers (3)	VT-3 /EVT-1	ASME/BWRVIP-48	NRI
Core Spray Piping (3)	VT-3/EVT-1	ASME/BWRVIP-48	NRI
Guide Rod Bracket (1)	VT-3/EVT-1	ASME/BWRVIP-48	NRI
Steam Dryer Support (4)	VT-3/EVT-1	ASME/BWRVIP-48	NRI
Steam Dryer Hold Down (4)	VT-3/VT-1	ASME/BWRVIP-48	NRI
Surveillance Holder (1)	VT-1/EVT-1	ASME/BWRVIP-48	NRI
Feedwater			
Spargers (3)	VT-3	NUREG-0619	NRI
Nozzles (3)	VT-3	NUREG-0619	NRI
Core Spray			
Piping / Welds	EVT-1	BWRVIP-18	NRI (Note 1)
Spargers	EVT-1 / VT-1	BWRVIP-18	NRI (Note 1)
Jet Pump			
Riser Brace	EVT-1 / VT-1	ASME/BWRVIP-41	NRI
(Jet Pump No.5/6)			
Risers (Jet Pump Nos. 5/6 and 7/8)	EVT-1	BWRVIP-41	RI (Note 2)
Assemblies (Jet Pump No.5)	EVT-1	BWRVIP-41	NRI (Note 4)
Diffusers/Adapter welds	EVT-1 / VT-3	BWRVIP-41	NRI (Note 4)
(Jet Pump Nos. 5,6,8,11,16,17,19) Restrainer Bracket Assemblies	EVT-1 / VT-1/3	SIL 574 / SIL 629	RI (Note 6)

(Jet Pump Nos. 5 and 15) Sensing Lines (Jet Pump Nos. 5,6,7,16,17)	VT-3	SIL 420	NRI
Nozzle Inner Radius Surfaces	VT-1	Relief Request RR-A31 and RR-A31	NRI (Note 5)
Top Guide / Core Plate 2 locations Top Guide	VT-1	SIL 554 / BWRVIP-26	NRI
Shroud Shroud Support Gussets	EVT-1 VT-1	BWRVIP-07 / 38 BWRVIP-07 / 38	NRI (Note 3) NRI (Note 3)
Steam Dryer Assembly 50%	VT-1/VT-3	SIL 474/SIL 644, Rev. 1	RI (Note 7)
Steam Separator Assembly 30% Shroud Head Bolts 50%	VT-3 VT-3	N/A SIL 433	NRI NRI

Notes:

- (1) Examined accessible areas of all selected piping welds and components to the extent possible per BWRVIP-18 requirements. Sampling inspections were also performed on sparger welds.
- (2) Reinspected indication adjacent to RS-1 weld (1.75") on Jet Pump Nos. 7 and 8 identified during RF06 (10/98), and no change in length observed. Therefore, no repair is required.
- (7) Examined H-8 and H-9 welds adjacent to Jet Pump No.5. Examined accessible areas of gussets 7 and 8 to VT-1 requirements.
- (8) All assembly welds visually inspected except for welds DF-3, AD-1 and AD-2, which are inaccessible for EVT-1 inspection. An access study was performed in preparation for a UT examination in the future.
- (9) Inspected accessible areas of the following nozzle inside radius areas within limits of design and geometry: Jet Pump Instrumentation (1), Reactor Recirculation inlet (1), RPV head instrumentation.
- (6) Reinspected auxiliary spring wedge installed in RF09 as a permanent repair. No changes were noted. Identified small gap on restrainer screw for Jet Pump No.5 that does not impact operability.
- (7) No changes noted in previous indications. Inspection requirements were changed to "best effort VT-1" per SIL 644, Rev. 1. Indication noted at the base of several vertical welds not previously inspected. Evaluated as acceptable for at least one cycle of operation without repair.

Code Category B-N-1 and B-N-2 Inspections Interval 2, Period 2, RF09

Components	Technique	Requirement	Results / Remarks
Brackets			
Feedwater Spargers (3)	VT-3 EVT-1	BWRVIP-48	NRI
Core Spray Piping (4)	EVT-1	BWRVIP-48	RI (PB-015 Wear)
Feedwater			
Spargers (3)	VT-3	NUREG-0619	NRI
Nozzles (3)	VT-3	NUREG-0619	NRI
Core Spray			
Piping / Welds	EVT-1	BWRVIP-18	NRI (Note 1)
Spargers	EVT-1 / VT-1	BWRVIP-18	NRI (Note 1)
Jet Pump			
Riser Brace (Jet Pump Nos. 3 and 4)	EVT-1 / VT-1	ASME/BWRVIP-41	NRI
Risers (Jet Pump Nos. 3, 4, 7)	EVT-1	BWRVIP-41	RI (Note 2)
Assemblies (Jet Pump Nos. 3 and 4)	EVT-1	BWRVIP-41	NRI (Note 4)
Restrainer Bracket	EVT-1 / VT-1/3	SIL 574 / SIL 629	
Assemblies (Jet Pump Nos. 1 through 20)			RI (Note 6)
Sensing Lines (Jet Pump Nos. 3 and 4)	VT-3	SIL 420	NRI
Nozzle Inner Radius Surfaces	VT-1	Relief Request RR-A31 and RR-A31	NRI (Note 5)
Top Guide / Core Plate			
6 locations Top Guide	VT-1	SIL 554 / BWRVIP-26	NRI
Shroud			
Shroud Support	EVT-1	BWRVIP-07 / 38	NRI (Note 3)
Gussets	EVT-1	BWRVIP-07 / 38	NRI (Note 3)
Steam Dryer			
Assembly 30%	VT-3	SIL 474	No change in indications noted
Steam Separator			
Assembly 30%	VT-3	N/A	NRI
Shroud Head Bolts 50%	VT-3	SIL 433	NRI

Notes:

- (1) Examined accessible areas of all selected piping welds and components to the extent possible per BWRVIP-18 requirements. Sampling inspections were also performed on sparger welds.
- (2) Reinspected indication adjacent to RS-1 weld (1.75") on Jet Pump Nos. 7 and 8 identified during RF06 (10/98), and no change in length observed.
- (3) Examined H-8 and H-9 between Jet Pump Nos. 3 and 4. Examined accessible areas of gussets 2 and 15.
- (4) All assembly welds visually inspected except for welds DF-3, AD-1 and AD-2, which are inaccessible for VT inspection. UT technique not available.
- (5) Inspected accessible areas of the following nozzle inside radius areas within limits of design and geometry: Reactor Recirculation outlet (1), Reactor Recirculation inlet (5).
- (6) Second cracked tack weld discovered on restrainer screw for Jet Pump No.15. Crimped screw and installed auxiliary spring wedge as a permanent repair.

Code Category B-N-1 and B-N-2 Inspections Interval 2, Period 1, RF08

Components	Technique	Requirement	Results / Remarks
Brackets			
Steam Dryer Support (4)	EVT-1	BWRVIP-48	NRI
Feedwater Spargers (6)	EVT-1	BWRVIP-48	NRI
Guide Rod Bracket 0° & 180°	EVT-1 / VT-3	BWRVIP-48	NRI
Core Spray Piping (4)	EVT-1	BWRVIP-48	NRI
Feedwater			
Spargers (3)	VT-3	NUREG-0619	NRI
Nozzles (3)	VT-3	NUREG-0619	NRI
Core Spray			
Piping / Welds	EVT-1	BWRVIP-18	NRI (Note 1)
Spargers	EVT-1 / VT-1	BWRVIP-18	NRI (Note 1)
Jet Pump			
Risers (Jet Pump Nos. 7 and 8)	EVT-1	BWRVIP-41	RI (Note 2)
Risers (Jet Pump Nos. 1 and	EVT-1	BWRVIP-41	NRI
2) Assemblies (Jet Pump Nos. 1	EVT-1	BWRVIP-41	NRI (Note 4)
and 2) Restrainer Bracket	EVT-1 / VT-1/3	SIL 574 / SIL 629	
Assemblies (Jet Pump Nos. 1 through 20)			NRI
Sensing Lines	VT-3	SIL 420	NRI
Dry Tubes			
4-SRM	VT-1	SIL 409 /	NRI
8-IRM	VT-1	RICSIL-073	NRI
Top Guide / Core Plate	17T 1	CH FEA / DUDUM AC) TO I
8 locations Top Guide	VT-1	SIL 554 / BWRVIP-26	NRI NDI OLI (C)
Core Plate Bolts (4 locations)	VT-1	SIL 588 / BWRVIP-25	NRI (Note 6)
Shroud			
Shroud Support	EVT-1	BWRVIP-07 / 38	NRI (Note 3)
Gussets	EVT-1	BWRVIP-07/38	NRI (Note 3)
Steam Dryer			
Assembly 30%	VT-3	SIL 474	No change in indications noted
Steam Separator			
Assembly 30%	VT-3	N/A	NRI
Shroud Head Bolts 50%	VT-3	SIL 433	NRI

Components	Technique	Requirement	Results / Remarks
Nozzle Inside Radius Sections	VT-1 (1 mil wire)	RR-A31 and RR-A32	NRI (Note 5)
RPV Seal Surface		N/A	
Head Flange	VT-1		NRI
Vessel Flange	VT-1		NRI
O-Rings	VT-1 (Direct)		NRI
Vessel Cladding	VT-3		NRI
Control Rod Guide Tubes (10)	EVT-1/VT-3	BWRVIP-47	NRI
Surveillance Specimen Bracket / Lugs	EVT-1 / VT-3	BWRVIP-48	NRI

Notes:

- (1) Examined accessible areas of all welds and components to the extent possible. BWRVIP baseline inspections were completed during RF06 and RF07. Sampling inspections were performed on the spargers.
- (2) Reinspected indication adjacent to RS-1 weld (1.75") identified during RF06 (10/98), and no change in length observed.
- (3) Examined approximately 22% of H-8 and H-9 at 0° and 180° and between Jet Pump Nos. 2 and 3. Examined accessible areas of gussets 1, 2, 3, 11, 12, and 22.
- (4) All assembly welds visually inspected except for welds DF-3, AD-1 and AD-2, which are inaccessible for VT inspection. UT Technique not available.
- (5) Inspected accessible areas of the following nozzle inside radius areas within limits of design and geometry: Main Steam (2), Core Spray (1), CRD Hydraulic Return (1) and Reactor Recirculation (3).
- (6) Inspected top of bolts at four azimuth locations only.

Code Category B-N-1 and B-N-2 Inspections Interval 2, Period 1, RF07

Components	Technique	Requirement	Results / Remarks
Brackets			
Steam Dryer Support (4)	EVT-1	BWRVIP-48	NRI
Feedwater Spargers (6)	EVT-1	BWRVIP-48	NRI
Guide Rod Bracket at 180°	EVT-1 / VT-3	BWRVIP-48	NRI
Core Spray Piping (4)	EVT-1	BWRVIP-48	NRI
Feedwater			
Spargers	VT-3	NUREG-0619	NRI
Nozzles	EVT-1	NUREG-0619	NRI
Core Spray			
Piping / Welds	EVT-1	BWRVIP-18	NRI (Note 1)
Spargers	EVT-1	BWRVIP-18	NRI
Jet Pump			
Risers (Jet Pump Nos. 7 and 8)	EVT-1	BWRVIP-41	RI (Note 2)
Risers (Jet Pump Nos. 11 through 20)	EVT-1	BWRVIP-41	NRI
Assemblies (Jet Pump Nos. 11 through 20)	EVT-1	BWRVIP-41	NRI (Note 4)
Set Screw Tack Welds	EVT-1	SIL 574	NRI
Sensing Lines	VT-3	SIL 420	NRI
Dry Tubes			
4-SRM	VT-1	SIL 409 /	NRI
8-IRM	VT-1	RICSIL-073	NRI
Top Guide / Core Plate			
8 locations Top Guide	VT-1	SIL 554	NRI
Core Plate Bolts (4 locations)	VT-1	SIL 588 R1	NRI
Shroud			•
H2 Indication	EVT-1	BWRVIP-07	No change in indication
Shroud Support	EVT-1	BWRVIP-07	NRI (Note 3)
Gussets	EVT-1	BWRVIP-07	NRI (Note 3)
Steam Dryer			
Assembly 30%	VT-3	SIL 474	No change
Previous Indications	VT-3/UT		Indications have shallow depth as expected
Steam Separator			
Assembly 30%	VT-3	N/A	NRI
Shroud Head Bolts 50%	VT-3	SIL 433	NRI

Components	Technique	Requirement	Results / Remarks
Control Rod Blade O2-39	EVT-1	CARD 98-17816	Relook of previous indication – no significant changes.
RPV Seal Surface		N/A	
Head Flange	VT-1		NRI
Vessel Flange	VT-1		NRI
O-Rings	VT-1 (Direct)		NRI
Vessel Cladding	VT-3		NRI
Control Rod Guide Rods	EVT-1/VT-3	BWRVIP-47	NRI

Notes:

- (1) Examined accessible areas of all welds except P-1, which was inaccessible.
- (2) Reinspected indication adjacent to RS-1 weld (1.75") identified during RF06 (10/98), and no change in length observed.
- (3) Examined H-8 and H-9 at 0° and 180° only. Examined accessible areas of gussets between Jet Pump Nos. 11 through 20.
- (4) All assembly welds visually inspected expect for welds DF-3, AD-1 and AD-2, which are inaccessible for VT inspection. UT Technique not available.

SECTION 4

SUMMARY OF COMPONENT SUPPORT EXAMINATIONS

4.0 SUMMARY OF COMPONENT SUPPORT EXAMINATIONS

VT-3 examinations were performed on various system and component supports. Functional Testing for ASME Section XI, Article IWF-5000 snubbers was performed in accordance with EF-2 Technical Requirements Manual for functional testing of snubbers (Ref. Paragraph 5.1).

4.1 ASME SECTION XI - IWF (Class 1 and 2) Credit for Component Supports for Interval 2, Period 3, Refuel-11.

CLASS	COMPONENT SUPPORTS
1	12
2	18
3	13
Other	

In addition to the component support inspections, 348 snubbers were visually inspected to the requirements of the Technical Requirements Manual TR 5.1.1 and ASME Section XI using Level I, II and III, VT-3 certified inspectors.

4.2 Technical Requirements Examinations

4.2.1 Refuel-11 Examinations

- 1. VT-3 examinations were performed on all safety related and non-safety related snubbers selected for functional testing per Technical Requirements Manual TR 5.1.1. Total examined was 348.
- 2. A total of 113 safety related snubbers were functionally tested per the Technical Requirements Manual. 66 snubbers were initially selected at random and functionally tested. 6 snubbers that failed in RF10 were tested in RF11. Due to testing failures, 41 additional snubbers were functionally tested as required by the Technical Requirements Manual.
- 3. Service life changeout was performed on 75 snubbers.

4.2.2 Refuel-10 Examinations

- 1. VT-3 examinations were performed on all safety related and non-safety related snubbers selected for functional testing per Technical Requirements Manual TR 5.1.1. Total examined was 545.
- 2. A total of 122 safety related snubbers were functionally tested per the Technical Requirements Manual. 66 snubbers were initially selected at random and

functionally tested. 8 snubbers that failed in RF09 were tested in RF10. Due to testing failures, 48 additional snubbers were functionally tested as required by the Technical Requirements Manual.

3. Seal Life Changeout was performed on 47 snubbers.

4.2.3 Refuel-09 Examinations

- 1. VT-3 examinations were performed on all safety related and non-safety related snubbers selected for functional testing per Technical Requirements Manual TR 5.1.1. Total examined was 198.
- 2. A total of 149 safety related snubbers were functionally tested per the Technical Requirements Manual. 66 snubbers were initially selected at random and functionally tested. Due to testing failures, 83 additional snubbers were functionally tested as required by the Technical Requirements Manual.
- 3. Seal Life Changeout was performed on 24 snubbers.

4.2.4 Refuel-08 Examinations

- 1. VT-3 examinations were performed on all safety related and non-safety related snubbers per Technical Requirements Manual TR 5.1.1. Total examined was 699.
- 2. A total of 66 safety related snubbers per the Technical Requirements Manual were initially selected at random and functionally tested. No snubbers failed functional testing.
- 3. Seal Life Changeout was performed on 31 Snubbers.

4.2.5 Refuel-07 Examinations

- 1. VT-3 examinations were performed on all safety related and non-safety related snubbers selected for functional testing per Technical Requirements Manual TR 5.1.1. Total examined was 223.
- 2. A total of 66 safety related snubbers per the Technical Requirements Manual. Snubbers were initially selected at random and functionally tested. One additional snubber that failed functional testing during RF06 was also functionally tested as required by the Technical Requirements Manual.
- 3. Seal Life Changeout was performed on 27 snubbers.
- 4. An additional 124 pre-service examinations were completed, resulting from the installation of additional supports due to a plant modification.

4.2.6 Pre-service Examinations

A preservice visual examination was performed for Technical Requirements Manual Snubbers and ASME Section XI supports, which were modified, replaced, added, or repaired during refueling outages RF07, RF08, RF09, RF10 and RF11 (includes seal life changeout).

SECTION 5

ABSTRACT OF CONDITIONS NOTED

AND CORRECTIVE ACTIONS TAKEN

5.0 ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE ACTIONS TAKEN

5.1 Refuel-11

The results of the inservice inspections performed indicate that vessels, piping, and components included in the Fermi ISI-NDE Program are in good structural condition and can support safe and reliable operation during the next operating cycle.

5.1.1 Reactor Pressure Vessel (RPV) Internals

During RF11, inspections were conducted on numerous reactor vessel components using the recommended inspection methods and techniques contained in ASME Section XI, various Boiling Water Reactor Vessel Internals Project (BWRVIP) inspection and examination guidelines, as well as selected augmented inspections identified in Section 3. The intent is to perform the highest quality inspections on all reactor pressure vessel (RPV) components including some BWRVIP guidelines that have not yet been formally approved by the NRC. This proactive approach will assure the continued structural integrity of RPV components. A detailed listing of inspections is provided in Section 3.

During inspection of the source range monitor (SRM) and intermediate range monitor (IRM) Dry Tubes in RF10, it was noted that 8 of the 12 Dry Tubes had linear crack-like indications in the collar region above the pressure boundary. During RF11, all 12 Dry Tubes were replaced. A direct visual inspection was performed on each Dry Tube prior to replacement and proper engagement was verified after installation.

Inspections were completed on accessible welds on several welds on the Jet Pumps, primarily on Jet Pump No. 9/10 to comply with the BWRVIP-41 re-inspection recommendations. Reinspection was performed on the main wedge on Jet Pumps No. 1 through 5, and No. 16 through 20. Wear was identified on the restrainer bracket on Jet Pump No. 2 and inspection scope was expanded to include all wedges and additional locations on Jet Pumps No. 1 and 2 that share a common riser pipe. Condition Assessment Resolution Document (CARD) 06-22334 was initiated and this condition was evaluated and auxiliary spring wedges were installed on Jet Pumps No. 1 and 2, and a slip joint clamp was installed on Jet Pump No. 2.

During RF06, a crack of approximately 1 ¾ inch long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pump Nos. 7 and 8 at 120° AZ. This indication was evaluated and found acceptable for continued operation without repair. This indication was reinspected during RF07, RF08, RF09, RF10, and again in RF11, and there continues to be no observable change in length or width. This indication is within the allowable flaw acceptance tolerance for this location and repair is not necessary. Reinspection of this indication will again be performed during RF12. This crack is similar to indications identified in at least 5 other BWR plants.

Inspections of the Steam Dryer were performed, which included VT-1 inspections, following the recommendations contained in SIL 644, Rev. 1, and BWRVIP-139. Based on these new inspection requirements, several new indications were identified on the Steam Dryer. These indications were evaluated and documented in CARD 06-21741. The Steam Dryer is acceptable for continued operation. Selected indications and conditions identified during previous outages were again reinspected during RF11 and no observable changes were noted.

The RPV internals are in very good condition. There is no service related degradation that should impact plant performance during the next operating cycle. Internal inspections are achieving their goal of detecting and monitoring degradation, and effecting prudent repairs/replacement to maintain the plant in a safe and reliable manner.

5.1.2 RPV External Volumetric and ASME Piping Weld Examinations

Automated ultrasonic examinations were performed on the upper RPV shell course welds including the shell to flange weld and four longitudinal seam welds. The exams were performed from the inside surface using ASME Section XI, Appendix VIII/PDI qualified procedures. The examination technique substantially increased the coverage obtained on the shell to flange weld from OD surface and flange face. The vertical welds were covered for essentially 100% of the weld length. Reliance on manual pickups to obtain greater than 90% coverage due to limitations caused by the RPV cavity bellows, stabilizer brackets and behind the bio-shield is no longer necessary. No indications exceeding the criteria of IWB-3510 were detected.

During RF11, Detroit Edison performed ultrasonic examinations of ASME Class 1 piping welds using degradation mechanism specific exam volumes and methods where applicable in accordance with the Risk Informed Inservice Inspection Program. Four additional welds were selected on the reactor recirculation system due to industry operating experience (reference CARD 05-22440). All other examinations were performed as required by ASME Section XI, 1989. Ultrasonic examination procedures and personnel were qualified in accordance with ASME Section XI, Appendix VIII and the Utility Performance Demonstration Initiative. No service induced piping weld defects were detected.

No service related degradation was noted during RF11 nondestructive examination (NDE). The RPV and piping systems are in satisfactory condition to support future safe operation of the plant.

5.1.3 Component Supports

Three hangers were found with discrepancies between the installed condition and the configuration document. It was determined that this condition did not affect the component's operability and was not reportable. No additional supports were inspected as a result of this observation.

Snubber functional testing found four mechanical snubbers that did not meet its acceptance criteria. Three of the failures were due to grease degradation. The other failure was due to improper rebuild in 1996. All snubbers were replaced with rebuilt and tested snubbers. Evaluation of the failed snubbers found no adverse effects on their associated piping. All required sample expansions were completed to meet the requirements of the Technical Requirements Manual TR 5.1.1. Reference the following CARDs: 06-22020, 06-22183, 06-22108 and 06-22363.

5.2 Refuel-10

The results of the inservice inspections performed indicate that vessels, piping, and components included in the Fermi ISI-NDE Program are in good structural condition and can support safe and reliable operation during the next operating cycle.

5.2.1 RPV Internals

During RF10, inspections were conducted on numerous reactor vessel components using the recommended inspection methods and techniques contained in ASME Section XI, various Boiling Water Reactor Vessel Internals Project (BWRVIP) inspection and examination guidelines, as well as selected augmented inspections identified in Section 3. The intent is to perform the highest quality inspections on all reactor pressure vessel (RPV) components including some BWRVIP guidelines that have not yet been formally approved by the NRC. This proactive approach will assure the continued structural integrity of RPV components. A detailed listing of inspections is provided in Section 3.

During inspection of the source range monitor (SRM) and intermediate range monitor (IRM) Dry Tubes, it was noted that 8 of the 12 Dry Tubes had linear crack-like indications in the collar region above the pressure boundary. A condition assessment resolution document (CARD) 04-25703 was initiated and evaluated, and no replacements were required during the outage. Replacement of selected Dry Tubes will be performed during future outages.

Inspections were completed on accessible welds on several welds on the Jet Pumps, primarily on Jet Pump No.5 to comply with the BWRVIP-41 reinspection recommendations. Reinspection was performed on the auxiliary spring wedge installed on Jet Pump No.15 and this revealed that the repair was effective. A slight gap was identified at a restrainer screw for Jet Pump No.5; however, no main wedge wear was present. This condition was evaluated in CARD 04-25917 and does not have any impact on plant operation.

During RF06, a crack of approximately 1 ¾ inch long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pump Nos. 7 and 8 at 120° AZ. This indication was evaluated and found acceptable for continued operation without repair. This indication was reinspected during RF07, RF08, RF09 and again in RF10, and there continues to be no observable change in length or width. This indication is within the allowable flaw acceptance tolerance for this location and repair is not necessary. Reinspection of this indication will again be performed during RF11. This crack is similar to indications identified in at least 5 other BWR plants.

Inspections of the Steam Dryer were performed, which included VT-1 inspections, following the recommendations contained in SIL 644, Supplement 1, and SIL 644, Rev. 1. Based on these new inspection requirements, several new indications were identified on the Steam Dryer. These indications were evaluated and documented in CARD 04-25416. The Steam Dryer is acceptable for continued operation and several indications will be reinspected during RF11. Selected indications and conditions identified during previous outages were again reinspected during RF10 and no observable changes were noted.

The RPV internals are in very good condition. There is no service related degradation that should impact plant performance during the next operating cycle. Internal inspections are achieving their goal of detecting and monitoring degradation, and effecting prudent repairs/replacement to maintain the plant in a safe and reliable manner.

5.2.2 RPV External Volumetric and ASME Piping Weld Examinations

RPV weld ultrasonic examinations using ASME Section XI, Appendix VIII/PDI procedures continue to be performed for the first time on scheduled weld locations. These more sensitive examinations identify a significantly larger number of manufacturing flaws than reported during amplitude based examinations performed prior to RF09. A reexamination of a large slag indication/combination in weld 15-308B, which was discovered during RF09, confirmed that there has been no change. The fracture mechanics evaluation performed as part of CARD 03-

16383 determined that the flaw would not present a structural or leakage problem during the remaining service-life of the RPV with a projected 20 percent power uprate, including a 20-year life extension. Another similar RPV Shell Weld (15-308A) was also examined. The remote inspection system recorded 66 relevant weld indications. Two of the flaws had a measurable through wall dimension and were typical of those expected in welds fabricated with the sub-vert welding process. One of the flaws was accepted based on the criteria of IWB-3510 and the other was accepted based on the flaw handbook developed for Fermi in accordance with IWB-3600.

During RF10, Detroit Edison continued to implement a Risk Informed Inservice Inspection Program for ASME Class 1 piping welds using degradation mechanism specific exam volumes and methods where applicable. All other welds were examined as required in ASME Section XI. Ultrasonic examination techniques qualified in accordance with ASME Section XI, Appendix VIII and the Utility Performance Demonstration Initiative were used. No service induced piping weld defects were detected.

One ASME Class 2 piping weld that in the previous inspection interval only required a surface examination based on the nominal material thickness, now also requires a volumetric exam under the updated Code requirements. The weld was found to have an ultrasonic exam scanning limitation. The limitation was due to welded support lugs and a Code Plate that prevented obtaining greater than 90 percent coverage (CARD 04-25787). Therefore, another weld on the same line was selected. That weld had not been examined since construction. The initial surface exam detected a manufacturing processing flaw that would have been permitted by the material specification. The flaw was removed with a sanding disc and the required examinations were completed satisfactorily (CARD 04-25870).

No service related degradation was noted during RF10 nondestructive examination (NDE). The RPV and piping systems are in satisfactory condition to support future safe operation of the plant.

CARD 04-20518 was initiated well before RF10 based on Performance Engineering review of industry operating experience (OE) 17638 that identified a potential problem with pressurization of the entire Class 1 boundary during a 10-year interval hydrostatic test. The OE was determined to be applicable to Fermi, and impacted the RF06 pressure test. The Operations test lineup procedure, 24.137.21, was revised and the test was completed as required during RF10.

5.2.3 Component Supports

One hanger was found with a discrepancy between the installed condition and the configuration document. It was determined that this condition did not affect the component's operability and was not reportable. No additional supports were inspected as a result of this observation.

Snubber functional testing found six mechanical snubbers that did not meet its acceptance criteria. Four of the failures were due to grease degradation. The other two failures were due to overload. All snubbers were replaced with rebuilt and tested snubbers. Evaluation of the failed snubbers found no adverse effects on their associated piping. All required sample expansions were completed to meet the requirements of the Technical Requirements Manual TR 5.1.1. Reference the following CARDs: 04-25816, 04-25845, 04-25663, 04-25662, 04-25612, and 04-25275.

5.3 Refuel-09

The results of the inservice inspections performed indicate that vessels, piping, and components included in the Fermi ISI-NDE Program are in good structural condition and can support safe and reliable operation during the next operating cycle.

5.3.1 RPV Internals

During RF09, inspections were conducted on numerous reactor vessel components using the recommended inspection methods and techniques contained in various Boiling Water Reactor Vessel Internals Project (BWRVIP) inspection and examination guidelines as well as selected augmented inspections identified in Section 3. The intent is to perform the highest quality inspections on all RPV components including some BWRVIP guidelines that have not yet been formally approved by the NRC. This proactive approach will assure the continued structural integrity of RPV components. A detailed listing of inspections is provided in Section 3.

During vessel flange inspection after disassembly and prior to flood up, it was noted that a nail had been compressed between the flanges near stud No. 54. The nail was removed leaving a depression outside of the sealing surface. A condition assessment resolution document (CARD) 03-10364 was initiated, and no repairs were required. Additionally, after O-ring removal and prior to cleaning, the grooves were inspected and heavy silver deposits were noted to have been transferred from the O-ring. The deposits were flaky in nature and were removed with scotch brite pads followed by light stoning (CARD 03-14819).

Inspections were completed on all accessible welds on two complete Jet Pump Risers and Assemblies (Nos. 3 and 4) to comply with the BWRVIP-41 reinspection recommendations. Reinspection of a previously cracked restrainer set-screw on Jet Pump No.15 revealed a second cracked tack weld (CARD 03-16929). All 20 Jet Pumps restrainer assemblies were reinspected as recommended by SIL No. 629, including the wedge, restrainer screw contact, as well as the 80 restrainer screw tack welds. No additional cracked welds were found. The set-screw on Jet Pump No.15 was staked to prevent backing out and an auxiliary spring wedge was installed per engineering design package (EDP) 32499.

During RF06, a crack of approximately 1 ¾ inches long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pump Nos. 7 and 8 at 120° AZ. This indication was evaluated and found acceptable for continued operation without repair. This indication was reinspected during RF07, RF08, and RF09, and there continues to be no observable change in length or width. This indication is within the allowable flaw acceptance tolerance for this location and repair is not necessary. Reinspection of this indication will again be performed during RF10. This crack is similar to indications identified in at least 5 other BWR plants.

Indications and conditions identified during previous outages were reinspected during RF09. One additional tie rod on the steam dryer was found to have a cracked tack weld (TR-E-6) similar to those noted previously. There is little or no concern that this nut, or any others, will back out during the current cycle with the remaining sound welds. No other changes were noted.

The RPV internals are in very good condition. There is no service related degradation that should impact plant performance during the next operating cycle. Internal inspections are achieving their goal of detecting and monitoring degradation and effecting prudent repairs/replacement to maintain the plant in a safe and reliable manner.

5.3.2 RPV External Volumetric and ASME Piping Weld Examinations

During RF09, Detroit Edison implemented a Risk Informed Inservice Inspection Program for ASME Class 1 piping welds. No piping weld defects were detected.

New utility performance demonstration initiative requirements (ASME Section XI, Appendix VIII, Supplement 10) were also implemented for two dissimilar metal weld inspections. No indications of service related degradation were detected.

RPV weld ultrasonic examinations using ASME Section XI, Appendix VIII/PDI procedures continue to be performed for the first time on scheduled weld locations. These more sensitive examinations identify a significantly larger number of manufacturing flaws than reported during previous amplitude based examinations. These more sensitive inspections detected 4 indications/combinations that would have been unacceptable per IWB-3510. These pre-existing welding flaws were confirmed by review of the construction radiographs and the pre-service UT data. One large slag indication/combination was detected in lower intermediate shell course weld 15-308B and was accepted in accordance with IWB-3112 (b). However, due to its significant size, a fracture mechanics evaluation was performed as specified in CARD 03-16383 to verify the flaw will not present a structural or leakage problem during the remaining service-life of the RPV with a projected 20 percent power uprate, and including a 20-year life extension. INPO OE16421 was issued to notify other licensees.

During the performance of Category B-G-2 bolting inspections, loose nuts were detected on valve bolting at E11-F009-VBB and CARD 03-16366 was initiated. Investigation determined that the loose bolting was related to torquing practices for pressure seal bonnet bolting. An initial sample expansion was made and additional loose bolting was detected. The sample was extended to cover all pressure seal style bonnet bolting. Additional CARDs (03-16370, 03-16371, and 03-16372) were initiated for loose bolting during the expanded sample examinations of E11-F060B-VBB, B21-F011B-VBB, and E11-F008-VBB. Work requests (000Z031279, 000Z031430, 000Z031420, and 000Z0231490) were initiated to re-torque the pressure seal bonnet bolting with system pressure under the bonnets.

No service related degradation was noted during RF09 NDE. The RPV and piping systems are in satisfactory condition to support future safe operation of the plant.

5.3.3 Component Supports

Several hangers were found with discrepancies between the installed condition and their configuration documents. It was determined that these conditions did not affect the components' operability and were not reportable. No additional supports were inspected as a result of these observations.

Snubber functional testing found eight mechanical snubbers that did not meet its acceptance criteria. Five of the failures were due to grease degradation. The other three failures were due to overload. All snubbers were replaced with rebuilt and tested snubbers. Evaluation of the failed snubbers found no adverse effects on their associated piping. All required sample expansions were completed to meet the requirements of the Technical Requirements Manual TR 5.1.1. Reference the following CARDs: 03-16111, 03-16112, 03-16921, 03-16933, 03-16934, 03-16935, and 03-16927.

5.4 Refuel-08

The results of the inservice inspections performed indicate that vessels, piping, and components included in the Fermi ISI-NDE Program are in good structural condition and can support safe and reliable operation during the next operating cycle.

5.4.1 RPV Internals

During RF08, inspections were conducted on numerous reactor vessel components utilizing the recommended inspection methods and techniques contained in various Boiling Water Reactor Vessel Internals Project (BWRVIP) inspection and examination guidelines as well as selected augmented inspections identified in Section 3. The intent was to perform the highest quality visual inspections on all RPV components utilizing some BWRVIP guidelines that have not yet been formally approved by the NRC. This proactive approach will assure the continued structural integrity of RPV components. A detailed listing of inspections is provided in Section 3.

Inspections were completed on all accessible welds on two complete Jet Pump Risers and Assemblies (Nos. 1 and 2) to comply with the BWRVIP-41 reinspection recommendations. These inspection points included welds previously inspected and no recordable indications were identified.

Baseline inspections had been previously completed for all Jet Pump assembly welds (Nos. 1 through 20) during RF06 and RF07, with the exception of welds DF-3, AD-1 and AD-2. Inspection of these locations will be conducted during future outages when a technique is developed and qualified.

During RF06, a crack of approximately 1 ¾ inches long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pump Nos. 7 and 8 at 120° AZ. This indication was evaluated and found acceptable for continued operation without repair. This indication was reinspected during RF07 and again in RF08, and there continues to be no observable change in length or width. This indication is within the allowable flaw acceptance tolerance for this location and repair is not necessary. Reinspection of this indication will again be performed during RF09. This crack is similar to indications identified in at least 5 other BWR plants.

Because of recent industry findings, all 20 Jet Pumps restrainer assemblies were inspected as recommended by SIL No. 629, including the wedge, restrainer screw contact, as well as the 80 restrainer screw tack welds. The conditions on Jet Pump No.15 were again unchanged, and it still appears to have only one of 2 tack welds cracked. No additional cracked welds were found, therefore, no repairs were required this outage. In addition, there was no wedge damage identified and full contact (no gaps) was verified on all restrainer screws on all Jet Pumps.

Extensive visual inspections of Core Spray internal piping and spargers were performed per BWRVIP-18 guidelines for reinspection. No indications of cracking were identified. All accessible areas of the welds were inspected and no recordable indications were identified.

Inspections were performed on selected integral attachments per the guidelines of BWRVIP-48 and on approximately 22 percent of the Shroud Support Ring as well as several Gussets per the guidelines of BWRVIP-38. In addition, visual inspections were performed on several nozzle

inner radius sections per Relief Request RR-A31 and A32. No recordable indications were identified on any of these inspections.

Two new indications were identified on the steam dryer assembly welds in areas not previously inspected. The indications were identical to those previously reported. These indications were evaluated and no repairs were required during RF08. Visual and ultrasonic inspections will continue to be performed during future outages.

Indications and conditions identified during previous outages were reinspected during RF08. The reinspection included the following items with no further degradation identified:

- Steam Dryer tie rod nut to washer tack welds cracks and support ring.
- RPV internal surfaces "Bathtub Ring".
- SRM / IRM Dry Tubes.

No adverse changes in existing indications were noted. The RPV internals are in very good condition. There is no service related degradation that should impact plant performance during the next operating cycle. Internal inspections are achieving their goal of detecting and monitoring degradation and effecting prudent repairs/replacement to maintain the plant in a safe and reliable manner.

5.4.2 RPV External Volumetric and ASME Piping Weld Examinations

During RF08, Detroit Edison implemented a Risk Informed Inservice Inspection Program for ASME Class 1 piping welds. No piping weld defects were detected.

New utility performance demonstration initiative requirements (ASME Section XI, Appendix VIII, Supplements 4 and 6) were also implemented for RPV weld inspection. These more sensitive inspections detected existing fabrication flaws that were confirmed by review of construction radiographs.

During the performance of Class 2 weld inspections, one service related defect was detected at a stiffener plate weld adjacent to a vessel support ring on the Division 2 RHR heat exchanger. The defect appeared to have originated from a pre-existing construction flaw in the stiffener plate weld tie-in at the support ring weld and propagated into the base material in the heat affected zone of the stiffener plate. The inspection sample was expanded to include all of the stiffener plate welds at that location. No additional indications were detected. The defect was documented on CARD 01-20653, and the defect was ground out and repaired by welding. The repaired area was then reinspected to verify defect removal.

No other service related conditions were noted during RF08 inspections.

5.4.3 Component Supports

Several hangers were found with discrepancies between the installed condition and their configuration documents. It was determined that these conditions did not affect the components' operability and were not reportable. No additional supports were inspected as a result of these observations.

Hanger P45-3353-G14, which was not in the sample scope, was found by plant personnel to be pulled from the wall. A new baseplate was mounted and the strut returned to design settings. An inspection scope expansion was initiated and all other supports on the P45-3353 line were

inspected. One minor discrepancy (loose jamb nut) was found and corrected. It was determined that this did not impact component operability.

5.5 Refuel-07

Nondestructive examinations have verified that RPV and internals piping systems and supports are in good structural condition and can support safe and reliable operation during this operating cycle.

5.5.1 RPV Internals

During RF07, inspections were conducted on numerous reactor vessel components utilizing the recommended inspection methods and techniques contained in various Boiling Water Reactor Vessel Internals Project (BWRVIP) inspection and examination guidelines as well as the augmented inspections identified in Section 3. While it is true that many of the guidelines are not yet approved by the NRC, the intent was to perform the highest quality visual inspections on RPV components. This proactive approach will assure the structural integrity of RPV components.

Inspections were initially scheduled for 50 percent of the Jet Pump risers and assemblies (Nos. 11 through 20) to comply with BWRVIP-41 inspection recommendations. These inspection points included welds not previously inspected. During RF06, a crack of approximately 1 ¾ inches long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pump Nos. 7 and 8 at 120 AZ. This indication was evaluated and found acceptable for continued operation without repair. This indication was reinspected during RF07 and there was no observable change in length or width. This indication is within the allowable flaw acceptance tolerance for this location and repair is not necessary. Reinspection of this indication will again be performed during RF08. This crack is similar to indications identified in at least 5 other BWR plants.

All accessible welds and locations on Jet Pump assemblies Nos. 11 through 20 were inspected and no recordable indications were identified. A baseline inspection has been completed for all Jet Pump welds (Nos. 1 through 20) with the exception of welds DF-3, AD-1 and AD-2. Inspection of these locations will be conducted during future outages when a technique is developed and qualified. Reinspections on 1 of the 20 original control rod blades (02-39) identified very little change from the cracking on the sheath area near the handle on blade identified in RF06. These indications were evaluated and are not detrimental to the operation of the control blade. While not a code inspection, several blades were periodically inspected as recommended by General Electric, following the chemistry transient in 1993.

No new indications were identified on the steam dryer assembly welds in areas not previously inspected. Both ISI and General Electric previously evaluated the indications. No repairs were required during RF07. In addition, selected linear indications on the steam dryer support ring were ultrasonically inspected to determine the depth. The indications are shallow, less than ½ inch in depth, and pose no threat to the integrity of the steam dryer assembly. Visual and ultrasonic inspections will be performed during future outages.

Indications and conditions identified during previous outages were reinspected during RF06. The reinspection included the following items with no further degradation identified:

- Core Shroud ID linear indication above the H2 weld.
- Steam Dryer tie rod nut to washer tack welds cracks and support ring.

- RPV internal surfaces "Bathtub Ring".
- SRM / IRM Dry Tubes.

The Jet Pump restrainer screws were again inspected (80 tack welds). The conditions were unchanged this outage on Jet Pump No.15, which had one of 2 tack welds cracked. No additional cracked welds were found. The condition identified previously did not require repair this outage.

Extensive inspection of Core Spray internal piping and spargers were performed per BWRVIP-18 Guidelines. No indications of cracking were identified. All accessible areas of welds were inspected with the exception of the P-1 weld, which is inaccessible for inspection.

No adverse changes in existing indications were noted. The RPV internals are in very good condition to date. There is no service related degradation that should impact plant performance during the next operating cycle. Internal inspections are achieving their goal of detecting and monitoring degradation and effecting prudent repairs/replacement to maintain the plant in a safe and reliable manner.

5.5.2 RPV External Volumetric and ASME Piping Weld Examinations

No service related defects were detected by nondestructive examinations performed during RF07.

5.5.3 Component Supports

Hanger E11-3184-G18 was found to have a loose jamb nut on the main strut and was tightened. It was determined that this condition did affect component 's operability.

Hangers N30-3258-G02, G03, G08, G10, G11, G12, G14, G15, G16, N30-3259-G06, G07 and G08 were found with notches worn on the threaded rod at the top of the support. This condition was evaluated and it was determined that this did not impact component's operability. Hangers N30-3258-G07 and G08 the notches were blended to remove sharp edges.

Hangers N30-3258-G04 and G15 were found to be slightly outside their cold setting. It was determined that this condition did not impact component's operability. The hangers were reset to their cold position.

These conditions were not reportable.

5.6 Refuel-06

5.6.1 RPV Internals

During RF06, inspections were conducted on numerous reactor vessel components utilizing the recommended inspection methods and techniques contained in various Boiling Water Reactor Vessel Internals Project (BWRVIP) inspection and examination guidelines. While it is true that many of the guidelines are not yet approved by the NRC, the intent was to perform the highest quality visual inspections on RPV components. This proactive approach will assure the structural integrity of RPV components.

Inspections were initially scheduled for 50 percent of the Jet Pump risers and assemblies to comply with BWRVIP inspection recommendations. These inspection points included welds not previously inspected on the risers. A crack of approximately 1 ¾ inches long was identified on

the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pump Nos. 7 and 8 at 120° AZ. This indication was evaluated and found acceptable for continued operation without repair. Reinspection of this indication will be performed during RF07. This crack is similar to indications identified in at least 5 other BWR plants within the last year.

Inspections of 2 of the 20 original control rod blades identified cracking on the sheath area near the handle on blade 02-39. These indications were evaluated and are not detrimental to the operation of the control blade. However, Reactor Engineering is evaluating future inspection requirements for the additional old style blades. While not a code inspection, these blades are periodically inspected as recommended by General Electric, following the chemistry transient in 1993.

Several new indications were identified on the steam dryer assembly on welds or areas not previously inspected. These indications are similar to other previously reported indications on the dryer. Both ISI and General Electric evaluated the indications. No repairs were required during RF06; however, recommendations were made to reinspect the non-safety related dryer assembly, both visually and ultrasonically in future outages.

Indications and conditions identified during previous outages were reinspected during RF06. The reinspection included the following items with no further degradation identified:

- Core Shroud ID linear indication above the H2 weld.
- Steam Dryer tie rod nut to washer tack welds cracks and support ring.
- Shroud head bolt No.9 was replaced because it would not latch.
- RPV internal surfaces "Bathtub Ring".

The Jet Pump restrainer screws were again inspected (80 tack welds). The conditions were unchanged this outage on Jet Pump No.15, which had one of 2 tack welds cracked. No additional cracked welds were found. The condition identified previously did not require repair this outage.

Extensive inspection of Core Spray internal piping and spargers were performed per BWRVIP-18 to address recent industry occurrences of cracking. No indications of cracking were identified.

The Core Shroud was ultrasonically inspected as required by NRC commitment in accordance with the latest techniques and methods included in the BWRVIP inspection standards. Fermi 2 surpassed eight years of hot operating time and this resulted in required inspection of the H3, H4, H5, and H7 welds. Inspections were performed using focused phased array ultrasonic techniques. This inspection identified no evidence of intergranular stress corrosion cracking (IGSCC) in the welds and because of the extensive coverage obtained with the GE tooling, reinspection will not be required for 6 years.

No adverse changes in existing indications were noted. The RPV internals are in very good condition to date. There is no service related degradation that should impact plant performance during the next operating cycle. Internal inspections are achieving their goal of detecting and monitoring degradation and effecting prudent repairs/replacement to maintain the plant in a safe and reliable manner.

5.6.2 External Volumetric and ASME Piping Weld Examinations

No service related defects were detected by nondestructive examinations performed during RF06.

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV) Examinations were encountered with physical limitations that prevented complete code coverage from being achieved. Relief requests have been prepared or are being revised to address all limitations encountered during the First Inspection Interval.

NDE examinations have verified that ASME piping systems are in good structural condition and can support safe and reliable operation during the next operating cycle.

5.6.3 Component Supports

Eight component supports were discovered with minor service related discrepancies from the RF06 inspection population of 138 component supports. Structural integrity evaluations were performed which concluded all component supports satisfied operability requirements. Therefore, no reportable conditions exist.

5.7 Refuel-05

5.7.1 RPV Internals

During RF05, two new concerns were identified and evaluated. Nine of the twelve SRM / IRM dry tubes were found not to be fully engaged in the top guide, but are sufficiently engaged to remain functional.

One of the two tack welds on a Jet Pump restrainer screw were found to be cracked. As a result, all 80 restrainer screw tack welds were inspected. No additional cracked welds were found. This condition did not require repair during this outage.

Extensive inspection of Core Spray internal piping and spargers was performed to address recent industry occurrences of cracking. No indications of cracking were identified.

Indications identified during previous outages were reinspected during RF05. The reinspection included the following items:

- Core Shroud ID linear indications above the H2 weld.
- Steam Dryer tie-rod nut to washer tack welds cracks.
- Steam dryer support ring.
- RPV internal surfaces at the "bathtub ring".

No adverse changes in existing indications were noted. The RPV internals are in very good condition to date. There is no service related degradation that should impact plant performance during the next operating cycle. Internals inspections are achieving their goal of detecting and monitoring degradation and effecting prudent repairs/replacements to maintain the plant in a safe and reliable manner.

Repairs or Replacements	Outage(s)	
Completed		
 Shroud Head Bolt replacement	RF04,	
	RF05	
Jet Pump Beam replacement	RF04	
Steam Dryer End Panel repair	RF03	
welding		

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV)

5.7.2 Reactor Pressure Vessel External/Volumetric and ASME Piping Weld Examinations

No service related defects were detected during nondestructive examinations performed during RF05. While it is still too early to draw any global conclusions about effectiveness of IGSCC mitigation treatments (IHSI and MSIP) performed at Fermi, preliminary indications are good. No IGSCC has been detected to date in any piping welds. Additionally, no evidence of fatigue cracking has been detected in any RPV, piping system, or support welds.

5.7.3 Component Supports

Several component supports were found with discrepancies between the existing field configuration versus as-built hanger sketch. Deviation Event Reports (DERs) were issued to perform structural integrity calculations. These evaluations determined that the existing field configurations did not affect the component operability; no reportable configurations were found. No additional component supports were examined as a result of these observations.

5.8 Refuel-04

5.8.1 RPV Internals

During inspection of the RPV Internals/Internal Components a number of indications were reported to Detroit Edison for review/disposition. The reported conditions are listed as follows:

Core Shroud - Extensive Visual Examination of the Core Shroud outside surface welds was performed following hydrolazing of each weld. The circumferential welds on the outside surface of the Core Shroud were visually examined (VT-1) to the maximum extent possible from the H-1 weld through the H-7 weld with no indications being found. The H-8 and H-9 shroud support welds were also examined (VT-3) but from a greater distance and at a greater camera angle. No indications were found.

Core Shroud Inside Surface - The inside surface of the Core Shroud was inspected to the maximum extent on the H-2 through H-4 welds (VT-1). No indications were found on the H-3 and H-4 welds on the inside surface of the shroud. Two small indications <1 inch long were found at the 125° azimuth just above the H-2 weld but not in the H-2 weld. These indications were in a general vertical direction, jagged in nature, and tight with no visible separation. These indications appear to be different from indications found at other BWR plants and most probably is a result of cold working during the fabrication process. These indications were evaluated against established flaw screening criteria and have no significant effect on the structural integrity of the shroud (DER 94-0221).

Corrosion Deposits/Biological Growth Deposits - Unusual surface conditions were identified during IVVI examinations on the unclad feedwater nozzles and also on the RPV cladding near the steam line nozzles 360° around the vessel. As a result, a sampling dive into the RPV was performed. A diver successfully completed the necessary corrosion product sampling, visual examinations, and exploratory examinations in the RPV. Corrosion deposit samples were removed from both the "C" feedwater nozzle unclad area (150°) and the cladding at approximately the same azimuth. Based on the results of the sampling, there was no evidence of micro biologically induced corrosion (MIC) in the vessel, although the samples did test positive for the presence of bacteria (DER 94-0204).

Additionally, the diver found (loose corrosion) on the feedwater nozzles. The deposits were easy to scrape off. There was no base metal attachment to the unclad surfaces. The corrosion deposits on the vessel cladding (360°) were found to be more tightly adhered than the deposits on the feedwater nozzles. However, the vessel cladding corrosion deposits have been looked at and have been confirmed that there had been no base metal attack.

No pits or degradation of the cladding were identified. A special hydrolazing nozzle was utilized to remove the corrosion deposits on both the feedwater nozzles and the vessel cladding. The hydrolyzing was 100 percent effective in cleaning the feedwater nozzles and approximately 75 percent effective in removing the deposits on the vessel cladding.

Steam Dryer - Tie Rod Nut/Washer Tack Welds - Many of the 48 tie rod end washers/nuts protrude above the unit end plate surface. Fifteen of the protruding tie rods had cracked tack welds; however, all but 4 of these had at least 2 intact tack welds at each location. The remaining 4 tie rod nut/washers, which had failed tack welds, did not represent a structural or functional concern. There is little or no concern that these four nuts will back out during the current cycle with the remaining sound welds. Repairs made during RF03 on the hood to end panel welds were reinspected and found to be in good condition (DER 94-0194).

Steam Dryer Support Ring - Two small indications were identified on the steam dryer support ring this outage. One indication was approximately 1/2 inch in length on the vertical face of the ring, and the other indication was 4 inches - 6 inches in length on the horizontal face of the support ring. Based on experience with support ring cracking on similar dryers, these indications were caused by IGSCC. The primary source of stress is residual fabrication stress. Based on experience from similar dryers of the same design with more severe cracking, this crack does not present a concern for the structural adequacy of the support ring (DER 94-0194).

Shroud Head Bolts - All Shroud Head Bolts were examined using Improved Ultrasonic Testing procedures. Crack-like indications were found in 16 of 48 bolts. The crack location was identical to those found at other BWR plants (i.e., at the collar crevice). The 16 cracked bolts were replaced with those of a new and more IGSCC crack resistant design. A 17th bolt was replaced since it had a slight bow that precluded reinstallation. The remaining old design bolts, which had no indications, were reviewed and found to be acceptable for the next operating cycle. These bolts were reinstalled returning the configuration to the original design of 48 bolts. A design review was performed, in part, to determine the structural significance of operating with indications in 16 shroud head bolts. This review determined that only 20 bolts are required to fulfill design requirements (DER 94-0210).

Jet Pump Hold Down Beams - As a precaution, Detroit Edison replaced all 20 Jet Pump hold down beams. This was done as a conservative measure based on recent industry experience with beam cracking and possible deleterious effects from the chemistry transient. Following replacement, Detroit Edison performed a baseline pre-service examination of the installed beams prior to plant start-up using the latest available technique for cracking detection. Of the 20 Jet Pump assemblies, 12 beam bolt assemblies were changed in situ, 7 required that the inlet mixer assembly be removed, and 2 mixer assemblies were removed to permit camera access to the RPV bottom head area. Each mixer that was removed had a camera inserted for RPV bottom area examination. No discrepancies were observed (DER 93-0643).

5.9 Refuel-03

5.9.1 RPV Internals

During inspection of the RPV Internals/Internal Components, two cracks were reported to Detroit Edison for review/disposition. The reported conditions are listed as follows:

Crack Number 1 was located in hood to end plate weld HE-B-1. The crack was approximately 50 inches long, with a maximum gap of 1/2 inch. The crack ran through the throat of the weld and was caused by high cycle fatigue. This crack is not uncommon to the industry, having occurred at other plants.

Crack Number 2 is located in the end plate of dryer bank "A" just above the weld to the end plate of the drain trough. The crack is in the weld heat affected zone (HAZ) between Tie Rods TR-A-7 and TR-A-8. The crack is caused by IGSCC.

Crack Number 1 was repaired by grinding out the existing failed weld and preparing the base metal edges for the new weld, clamping the crack closed, rewelding the hood to end plate joint, and welding a new reinforcing plate over the replaced/existing weld. With the exception of the original failed weld repair, this repair process was repeated at three (3) similar locations where the potential future weld failure was high. This was performed as a preventive measure to preclude future joint failure, higher personnel exposure, and higher future repair costs.

An evaluation was performed on Crack Number 2, and it was determined that this crack did not require repair as there is low probability that this crack will propagate into weld or base metal outside the HAZ. The crack will tend to grow at a slow rate, as the stresses at this crack location during dryer operation are low. Crack Number 2 will continue to be monitored during future outages.

These indications previously identified during inspections performed in RF01 and RF02 were again reinspected with no change in conditions noted. These areas in addition to the cracks identified and repairs performed during RF03 will be monitored during further inspection of the RPV internals as required by ASME Section XI, Table IWB-2500-1 (B13.10).

5.9.2 Component Supports

Several hangers were found with discrepancies between the installed condition and their configuration documents. Deviation Event Report (DER) 92-0573 was initiated for evaluation. It was determined that their nature was such that it did not affect the components operability and was not reportable. No additional supports were inspected as a result of these observations.

5.10 Refuel-02

5.10.1 RPV Internals

During inspection of the RPV Internals/Internal Components, an additional indication to the ones previously identified during RF01 was reported to Detroit Edison for review/disposition. The reported indications are listed as follows:

An apparent arc strike was noted on core spray internal piping at 310°. This was not recorded in the previous inspection.

This condition and those previously identified during RF01 were evaluated using prudent engineering practices and were determined not to be non-conforming to the original design requirement or detrimental to continued service.

No corrective action was taken to repair these indications. These areas will be monitored during future inspections of the RPV internals as required by ASME Section XI, Table IWB-2500-1 (B13.10).

5.10.2 Piping Welds

No service related defects were detected during the inspection of piping welds, 2 welds having rejectable indications were reported to Detroit Edison for review/disposition. The reported indications are listed as follows:

Weld SW-E11-3151-1WH had rejectable surface indications identified during the magnetic particle examination; DER 91-0262 was initiated for evaluation.

Weld SW-RD-2-B3-W5LU-B had rejectable surface indications identified during the liquid penetrant examination; DER 91-0234 was initiated for evaluation.

Both welds were subsequently blend ground to remove the indications and reexamined by both surface and volumetric techniques with acceptable results. The initial indications on both welds were most likely left over from construction. No additional welds were inspected as a result of these minor indications.

5.11 Refuel-01

5.11.1 RPV Internals

During inspection of the RPV Internals/Internal Components, several conditions were reported to Detroit Edison for review/disposition. The reported indications are listed as follows:

Tack weld on feedwater sparger bracket at 180° for attachment nut/pin was not visible.

Unusual surface conditions (arc strikes and pitting) were noted on Loop A Core Spray Piping at approximately 140°. Additional light scratches were noted on both Loop A and Loop B Core Spray Internal Piping.

Small arc strikes were noted on the Core Spray Internal piping/sparger brackets at 15° and 150°.

A small arc strike was noted on the Upper Core Spray Sparger (shroud area) at 145°.

The above conditions were evaluated using prudent engineering practices and were determined not to be non-conforming to the original design requirement or detrimental to continued service.

No corrective action was taken to repair these indications. These areas will be monitored during future inspections of the RPV internals as require by ASME Section XI, Table IWB-2500-1 (B13.10).

5.11.2 Component Supports

Hanger T48-2097-G21 was found to have insufficient clearances. Deviation Event Report (DER) 89-1315 was initiated for evaluation. It was determined that this was not reportable. The hanger was reworked to provide acceptable clearances as specified on the hanger sketch. Additional adjacent supports were visually inspected with no discrepancies identified.

SECTION 6

PROGRAM STATUS, ASME SECTION XI CREDIT – IWB, IWC & IWF

6.0 PROGRAM STATUS, ASME SECTION XI CREDIT - IWB, IWC, & IWF

Interval 2, Period 3, Refuel-11 (Excludes Pressure Testing)

6.1 CATEGORY B-A

6.1.1	CATEGORY:	B-A	Pressure Retaining Welds in Reactor Vessel			
	ITEM NO:	B1.11	Shell Welds-Circ	cumferential		
	System	Total	Total	Examined	Examined	
		Comp.	Requiring	То	To Date	
			Examination	Date	(%)	

4

NOTE:

RPV

TOTALS:

(1) Relief Request RR-A25 was written to alleviate the need for examination of these welds beyond the overlap zone of the intersecting longitudinal seam.

0

0

0%

6.1.2	CATEGORY: ITEM NO:	B-A B1.12	Pressure Retaining Welds in Re Shell Welds - Longitudinal		actor Vessel
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RPV	14	14	12	85.7%
	TOTALS:	14	14	12	85.7%

6.1.3	CATEGORY: ITEM NO:	B-A B1.21	Pressure Retainin Head Welds - Cir	etor Vessel	
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RPV Closure Head	2	2	2	100%
	RPV Bottom Head	2	1 (1)	. 1	100%

NOTE:

TOTALS

(1) Some of these examinations are subject to limitations as identified in ISI/NDE Program Plan, Table A. Relief Request RR-A1 documents these limitations.

3(1)

3

19

100%

82.6%

6.1.4	CATEGORY: ITEM NO:	B-A B1.22	Pressure Retaining Head Welds - Meri		elds in Reactor Vessel nal	
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	
	RPV Closure Head	13	13	10	76.9%	
	RPV	17	10(1)	9	90.0%	

30

NOTE:

Bottom Head

TOTALS:

(1) Some of these examinations are subject to limitations or are inaccessible as identified in ISI/NDE Program Table A. Relief Request RR-A1 documents these limitations.

23 (1)

B-A Pressure Retaining Welds in Reactor Vessel 6.1.5 CATEGORY: ITEM NO: B1.30 Shell-To-Flange System Total Total Examined Examined To Date Requiring To Comp. Examination (%)(1)Date 1 100% **RPV** 1 1

1

NOTE:

TOTALS:

(1) The examination of shell-to-flange welds may be performed during the first and third inspection periods in conjunction with the nozzle examinations of Exam. Cat. B-D (Program B). At least 50% of shell-to-flange welds shall be examined by the end of the first inspection period, and the remainder by the end of the third inspection period. (Ref. IWB-2500-1, Category B-A, Footnote (4)).

1

1

100%

6.1.6	CATEGORY: ITEM NO:	B-A B1.40	Pressure Retaining Welds in Reactor Vessel Head-To-Flange		
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RPV	1	1	.66	66.6%
	TOTALS:	1	1	.66	66.6%

CATEGORY B-A TOTALS

Item No.	Total Requiring Examination (3)	Examined To Date (2)	Minimum Required (%) (1)	Maximum Allowed (%) (2)
B1.11	4	N/A (4)	N/A	N/A
B1.12	14	12 (85.7%)	N/A	N/A
B1.21	3	3 (100%)	N/A	N/A
B1.22	23	19 (82.6%)	N/A	N/A
B1.30	1	1 (100%)	50% (5)	N/A
B1.40	1	.66 (66.6%)	N/A	N/A
TOTALS:	46	35.66 (77.5%)	N/A	100%

- (1) Table IWB-2500-1 allows deferral to the end of the inspection interval.
- (2) Exam percentage requirements are based on category totals, not item totals. Item percentages are provided for information only.
- (3) Some of these examinations are subject to limitations or are inaccessible as identified in ISI/NDE Program Plan A Table. Relief Request RR-A1 documents these limitations.
- (4) Category B1.11 circumferential welds are only partially examined at the intersection of the Category B1.12 longitudinal welds in accordance with RR-A25 (BWRVIP-05) and are not individually tracked.
- (5) At least 50% of the shell to flange weld (item B1.30) shall be examined by the end of the first inspection period, and the remainder by the end of the third period.

6.2 CATEGORY B-D

6.2.1 **CATEGORY:** B-D Full Penetration Welds of Nozzles in Vessels ITEM NO: B3.90 Nozzle-To-Vessel Welds System Total Total Examined Examined To Date Comp. Requiring To Examination Date (%)(1)**RPV** 30 30 23 76.7% **TOTALS:** 30 30 23 76.7%

NOTE:

(1) At least 25% but not more than 50% (credited) of the nozzles shall be examined by the end of the first inspection period and the remainder by the end of the inspection interval (Ref. Table IWB-2500-1, Category B-D, Footnote (2).

6.2.2	CATEGORY: ITEM NO:	B-D B3.100	Full Penetration Nozzle Inside Ra			
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%) (1)	
	RPV	30	30	23	76.7%	
	TOTALS:	30	30	23	76.7%	

NOTE:

(1) At least 25% but not more than 50% (credited) of the nozzles shall be examined by the end of the first inspection period and the remainder by the end of the inspection interval (Ref. Table IWB-2500-1, Category B-D, Footnote (2)).

CATEGORY B-D TOTALS

Item No.	Total Requiring Examination	Examined to Date	Minimum Required (%) (1)	Maximum Allowed (%) (1)
B3.90	30	23 (76.7%)	25%	N/A
B3.100	30	23 (76.7%)	25%	N/A
TOTALS:	60	46 (76.7%)	25%	N/A

NOTE:

(1) At least 25% but not more than 50% (credited) of the nozzles shall be examined by the end of the first inspection period and the remainder by the end of the inspection interval (Ref. Table IWB-2500-1, Category B-D, Footnote (2)).

6.3 CATEGORY B-F

6.3.1 CATEGORY: B-F Pressure Retaining Dissimilar Metal Welds
ITEM NO: B5.10 RPV Nozzle to Safe End Butt Welds ≥ 4" Dia.

System Total Total Examined Examined Comp Requiring To To Date

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RRS	12	4	2	50%
CS	2	2	2	100%
RPV	3	2	1	50%
TOTALS:	17	8	5	62.5%

6.3.2 CATEGORY: B-F Pressure Retaining Dissimilar Metal Welds
ITEM NO: B5.20 RPV Nozzle to Safe End Butt Welds ≤ 4" Dia.

System Total Total Examined Examined Requiring To To Date Comp. Examination Date (%) SLC 1 100% TOTALS: 1 1 100% 1

6.3.3 CATEGORY: B-F Pressure Retaining Dissimilar Metal Welds
ITEM NO: B5.130 Piping Butt Welds ≥ 4" Dia.

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RHR	3	2	2	100%
CS	2	2	2	100%
RWCU	2	0	0	0%
TOTALS:	7	4	4	100%

CATEGORY B-F TOTALS

Item No.	Total Requiring Examination	Examined to Date	Minimum Required (%)	Maximum Allowed (%)
B5.10	8	5 (62.5%)	(2)	(2)
B5.20	1(3)	1 (100%)	N/A	N/A
B5.130	4	4 (100%)	(2)	(2)
TOTALS:	12 (1)	9 (75%)	50%	100%

- (1) Risk Informed Inservice Inspection (RIISI) Program sample size.
- (2) Exam percentage requirements are based on Category totals, not item totals. Item percentages are supplied for information only.
- (3) The item listed under B5.20 is a GE SIL No. 571 recommended exam and is not counted for the purposes of Code inspection percentages.

6.4 CATEGORY B-G-1

6.4.1	CATEGORY: ITEM NO:	B-G-1 B6.10	Pressure Retaining Bolting Greater the Closure Head Nuts		ter than 2" in Dia.
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RPV	68	68	68	100%
	TOTALS:	68	68	68	100%

6.4.2 **CATEGORY:** B-G-1 Pressure Retaining Bolting Greater than 2" in Dia. Closure Studs in Place ITEM NO: B6.20 Total Total Examined Examined System Comp. Requiring To To Date Examination Date (%) **RPV** 68 64 (1) 64 100% TOTALS: 68 64 (1) 64 100%

NOTE:

(1) Inspections are performed in conjunction with Item No. B6.30. Four (4) studs are removed at each Reactor Refueling Outage.

6.4.3	CATEGORY: ITEM NO:	B-G-1 B6.30		-	g Bolting Greater than 2" in Dia ds when removed	
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	
	RPV	68	4 (1)	4	100%	
	TOTALS:	68	4 (1)	4	100%	

NOTE:

(1) Inspections are performed in conjunction with Item No. B6.20. Four (4) studs are removed at each Reactor Refuel.

6.4.4	CATEGORY: ITEM NO:	B-G-1 B6.40	Pressure Retaining Bolting Greater than 2" in Dia. Reactor Vessel Threads in Flange			
	System	Total	Total	Examined	Examined	
		Comp.	Requiring Examination	To Date	To Date (%)	
	RPV	68	68	68	100%	
	TOTALS:	68	68	68	100%	

6.4.5 CATEGORY:

ITEM NO:

B-G-1 B6.50 Pressure Retaining Bolting Greater than 2" in Dia. Reactor Vessel Closure Washers, Bushings

(When Removed)

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	Washers 68	68	68	100%
	Bushings 68	68 (1)	0	0%
TOTALS:	136	72 (1)	68	94.4%

NOTE:

(1) Inspection of bushings is only required for connections that are disassembled. Studs 48-51 are removed to facilitate fuel movement.

6.4.6	CATEGORY: ITEM NO:			Pressure Retaining Bolting Greater than 2" in Dia Pumps, Bolts and Studs		
	System	Total Comp.	Total Requiring	Examined To	Examined To Date	
			Examination	Date	(%)	
	RRS	32	32	32	100%	
	TOTALS:	32	32	32	100%	

6.4.7	CATEGORY: ITEM NO:	B-G-1 B6.200	Pressure Retaini Pumps, Nuts, Bu	•	ter than 2" in Dia. thers (1)
	System	Total Comp.	Total Requiring Examination	Examined To Date (1)	Examined To Date (%)
	DDC	22	22	22	1000/

32

NOTE:

TOTALS:

(1) Inspections are performed in conjunction with Stud UT inspection per item B6.180.

32

100%

32

CATEGORY B-G-1 TOTALS

Item No.	Total Requiring Examination	Examined To Date	Minimum Required (%)	Maximum Allowed (%)
B6.10	68	68 (100%)	(1)	(1)
B6.20	64	64 (100%)	(1)	(1)
B6.30	4	4 (100%)	(1)	(1)
B6.40	68	68 (100%)	(1)	(1)
B6.50	72 (2)	45 (33.1%)	(1)	(1)
B6.180	32	16 (50%)	(1)	(1)
B6.200	32	16 (50%)	(1)	(1)
TOTALS:	340	264 (77.6%)	50%	100%

- (1) Exam percentage requirement are based on Category totals, not item totals. Item percentages are shown for information only.
- (2) Inspection of bushings is only required for connections that are disassembled.

6.5 CATEGORY B-G-2

6.5.1 CATEGORY:

B-G-2

Pressure Retaining Bolting 2" and smaller in Dia.

ITEM NO:

B7.10

Reactor Vessel-Bolts, Studs and Nuts

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	3	3 (1)	3	100%
TOTALS	3	3 (1)	3	100%

NOTE:

(1) Represents Flanged/Bolted Connections-All bolts, studs and nuts were examined for each flanged connection examined.

6.5.2 CATEGORY:

B-G-2

Pressure Retaining Bolting 2" and smaller in Dia.

ITEM NO:

B7.50

Piping-Bolts, Studs and Nuts

System	Total Comp.	Total Requiring Examination	Examined To	Examined To Date
HPCI	2	2 (1)	Date 2	(%) 100%
& RCIC TOTALS:	2	2(1)	2	100%

NOTE:

(1) Represents Flanged/Bolted Connections-All bolts, studs and nuts were examined for each flanged connection examined.

Pressure Retaining Bolting 2" and smaller in Dia. 6.5.3 **CATEGORY:** B-G-2 B7.60 Pump Bolts, Studs and Nuts, and Seal Bolting ITEM NO: Examined Examined System Total Total Comp. Requiring To To Date Examination Date (%) **RRC** 2 2(1)1 50% 50% **TOTALS:** 2 2(1) 1

NOTE:

(1) Represents flanged/bolted connections-all bolts, studs and nuts are examined for each connection examined.

6.5.4	CATEGORY: ITEM NO:	B-G-2 B7.70	•		ing Bolting 2" and smaller in Dia. tuds and Nuts	
	System	Total Comp.	Total Requiring Examination (1)	Examined To Date (2)	Examined To Date (%)	
	MS	38	38	30	78.9%	
	RRS	4	4	4	100%	
	RHR	10	10	8	80%	
	CS	6	6	4	66.6%	
	HPCI	3	3	3	100%	
	RCIC	3	3	3	100%	
	RWCU	9	9	6	66.7%	
	FW	8	8	7	87.5%	
	TOTALS:	81	81	65	80.2%	

- (1) Represents flanged/bolted connections-all bolts, studs and nuts were examined for each flanged connection examined.
- (2) All replacement bolting material utilized was visually inspected.

6.5.5 CATEGORY:

B-G-2

Pressure Retaining Bolting 2" and smaller in Dia.

ITEM NO:

B7.80

CRD Housings-Bolts, Studs and Nuts

System	Total Comp.	Total Requiring	Examined To	Examined To Date
		Examination	Date	(%)
CRD	185	185 (1)	89 sets*	48.1%
TOTALS:	185	185 (1)	89 sets*	48.1%

^{*100%} of disassembled flange bolting.

NOTE:

(1) Inspections are only required when CRD Housing Flanges are disassembled (Ref. Table IWB-2500-1, Category B-G-2).

CATEGORY B-G-2 TOTALS

Item No.	Total Requiring Examination	Examined To Date (2)	Minimum Required (%)	Maximum Allowed (%)
B7.10	3	3 (100%)	(1)	(1)
B7.50	2	2 (100%)	(1)	(1)
B7.60	2	1 (50%)	(1)	(1)
B7.70	81	65 (80.2%)	(1)	(1)
B7.80	185 (2)	89 (48.1%)	(1)	(1)
TOTALS:	88	71 (80.7%)	50%	100%

- (1) Exam percentage requirements are based on category totals not item totals. Item packages are supplied for information only.
- (2) Inspections are only required when CRD housing flanges are disassembled, therefore they are not counted in the Code percentage totals.

6.6 CATEGORY B-H

6.6.1 CATEGORY:

B-H

Integral Attachments for Vessels

ITEM NO:

B8.10

Reactor Vessel-Integrally Welded Attachments

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	1	1	1	100%
Support Skirt				
Stabilizer	8	1	1	100%
Bracket Welds				
Top Head	4	4	1	25%
Lifting Lugs				
TOTALS:	13	6	3	50%

6.7 CATEGORY B-J

6.7.1 CATEGORY:

B-J

Pressure Retaining Welds in Piping

ITEM NO:

B9.11

Circumferential Welds ≥ 4" Dia.

System	Total Comp.	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)
MS	113	11	9	81.8%
RRS	109	15	11	73.3%
RHR	71	5	5	100%
CS	42	3	0	0%
HPCI	14	2	2	100%
RCIC	16	2	2	100%
RWCU	70	7	7	100%
FW	123	18	12	66.7%
RPV	5	0	0	N/A
TOTALS:	563	63	48	76.2%

NOTE:

(1) Risk Informed Inservice Inspection (RIISI) Program sample size.

CATEGORY B-J TOTALS

Item No.	Total	Examined To	Minimum	Maximum
	Requiring	Date	Required	Allowed
	Examination		(%)	(%)
_	(1)		(1)	(1)
B9.11	63	48 (76.2%)	50%	100%

NOTE:

(1) Fermi Risk Informed Inservice Inspection Program sample size.

6.8 CATEGORY B-K-1

6.8.1 CATEGORY: B-K-1 Integral Attachments for Piping Pumps and Valves

ITEM NO: B10.10/B10.20 Piping-Integrally Welded Attachments

System	Total Comp. (1)	Total Requiring Examination (2)	Examined To Date	Examined To Date (%) (3)
All Class 1 Piping B10.10	13	2 locations (8 welds)	2 locations (8 welds)	100%
Pumps B10.20	3	1	0	0%
TOTALS:	16	3	2	66.6%

- (1) Total component supports with integral attachments selected for examination per Code Case N-491-1.
- (2) Total examinations required for integral attachments per Code Case N-509.
- (3) One location examined each period.

6.9 CATEGORY B-M-2

6.9.1

CATEGORY: B-M-2 Valve Bodies Valve Body, exceeding 4" Nominal Pipe Size ITEM NO: B12.50 System Total Total Examined Examined Requiring To To Date Comp. Examination Date (1) (%) 7 MS 23 23 30.4% **RRS** 4 1 25% 4 RHR 10 10 3 30% CS 6 2 33.3% 6 33.3% **HPCI** 3 3 1 0% **RCIC** 1 0 1 0% **RWCU** 5 5 0 8 75% FW 8 6 TOTALS: 60 60 20 (1)

NOTE:

(1) Per ASME Section XI IWB-2500-1, Table B-M-2 table note, the examinations are limited to one valve within each group of valves that are of the same constructional design and perform similar functions in the system. VT-3 inspections are performed on all Class 1 valves during disassembly for maintenance. Therefore, percentages are not applicable.

6.10 CATEGORY B-O

6.10.1 CATEGORY:

B-O

Pressure Retaining Welds in Control Rod Housings

ITEM NO:

B14.10(2)

Reactor Vessel-Welds in CRD Housings

System	Total Comp.	Total Requiring	Examined To	Examined To Date	Minimum Required	Maximum Allowed
		Examination	Date	(%)	(%)	(%)
RPV	40	8 (1)	6	75%	50%	100%
TOTALS:	40	8 (1)	6	75%	50%	100% (3)

NOTES:

- (1) 10% of peripheral housings (2 welds per housing).
- (2) B14.10 is the only Item for this Category.
- (3) Examinations evenly spaced during each period of the inspection interval.

6.11 CATEGORY C-A

6.11.1 CATEGORY:

C-A

Pressure Retaining Welds in Pressure Vessel

ITEM NO:

C1.10

Shell Circumferential Welds

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RHR	1	1	1	100%
TOTALS:	1	1	1	100%

6.11.2 CATEGORY: C-A ITEM NO: C1.20		Pressure Retaining Welds in Pressure Vessel Head Circumferential Welds			
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RHR	1	1	1	100%

CATEGORY C-A TOTALS

100%

Item No.	Total Requiring Examination	Examined To Date	Minimum Required (%)	Maximum Allowed (%)
C1.10	1	1 (100%)	N/A	N/A
C1.20	1	1 (100%)	N/A	N/A
TOTALS:	2	2 (100%)	N/A (1)	N/A (1)

NOTE:

TOTALS:

(1) Exams scheduled for the 1st and 3rd period.

6.12 CATEGORY C-B

6.12.1 CATEGORY:

C-B

Pressure Retaining Welds in Vessels

ITEM NO:

C2.21

Nozzle-To-Shell (or Head) Weld

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RHR	4	2	2	100%
TOTALS:	4	2	2	100%

6.12.2 CATEGORY:

С-В

Pressure Retaining Nozzle Welds in Vessels

ITEM NO:

C2.22

Nozzle Inside Radius Section

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RHR	4	2	2	100%
TOTALS:	4	2	2	100%

CATEGORY C-B TOTALS

Item No.	Total Requiring Examination	Examined To Date	Minimum Required (%)	Maximum Allowed (%)
C2.21	2	2(100%)	N/A	N/A
C2.22	2	2(100%)	N/A	N/A
TOTALS:	4	4(100%)	N/A (1)	N/A (1)

NOTE:

(1) Exams scheduled for the 1st and 3rd examination period.

6.13 CATEGORY C-C

6.13.1 CATEGORY:

C-C

Integral Attachments for Vessels, Piping, Pumps and Valves

ITEM NO:

C3.10

Pressure Vessels

System	Total Comp. (1)	Total Requiring Examination (2)	Examined To Date	Examined To Date (%)
RHR	5	1 (19 welds)	19 welds	100%
TOTALS:	5	1 (19 welds)	19 welds	100%

NOTES:

- (1) Total component supports with integral attachment welds selected for examination per Code Case N-491-1.
- (2) Total examinations required for integral attachment welds per Code Case N-509.

6.13.2 CATEGORY:

C-C

Integral Attachments for Vessels, Piping, Pumps and Valves

ITEM NO:

C3.20

Piping Integrally Welded Attachments

System	Total Comp. (1)	Total Requiring Examination (2)	Examined To Date	Examined To Date (%)
All Class 2	33	4	3	75%
Systems				
TOTALS:	33	4	3	75%

- (1) Total component supports with integral attachment welds selected for examination per Code Case N-491-1.
- (2) Total examinations required for integral attachment welds per Code Case N-509.

CATEGORY C-C TOTALS

Item No.	Total	Examined	Minimum	Maximum
	Requiring	То	Required	Allowed
	Examination	Date	(%)	(%)
C3.10	1	1 (100%)	N/A	N/A
C3.20	4	3 (75%)	N/A	N/A
TOTALS:	5	4 (80%)	50%	100%

6.14 **CATEGORY C-F**

6.14.1 CATEGORY:

C-F-1

Socket Welds (1)

ITEM NO:

N/A

NRC Augmented Commitment

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
SLC	131	16	13	81.2%
TOTALS:	131	16	13	81.2%

NOTE:

The Class 2 portion of the Standby Liquid Control System is < 4" NPS and is (1) exempt per ASME Section XI. Fermi is committed to examine 16 of 131 system welds during each inspection interval.

6.14.2 CATEGORY:

C-F-2

Pressure Retaining Welds in Carbon or Low Alloy Steel

ITEM NO:

C5.51 / C5.81 Piping Welds ≥ 3/8" in Normal Wall Thickness for

Piping ≥ 4"NPS

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
MS	74	6	5	83.3%
CRD	34	3	2	66.7%
RHR	464	34	27	79.4%
CGC	113	6	6	100%
HPCI	154	12	9	75%
CS	196	15	10	66.7%
Containment Piping (1)	279	23	17	73.9%
TOTALS:	1314	99	76	76.8%

NOTE:

(1) Containment piping includes augmented selections made in accordance with Relief Request RR-A26.

CATEGORY C-F TOTALS

Item No.	Total Requiring Examination (1)	Examined To Date	Minimum Required (%) (2)	Maximum Allowed (%) (2)
C-F-1 (Augmented)	16	13 (81.2%)	N/A	N/A
C-F-2 (C5.51 & C5.81)	99	76 (76.8%)	N/A	N/A
TOTALS:	115	89 (77.4%)	50%	100%

- (1) Includes Augmented Class 2 selections.
- (2) Exam percentage requirements are based on Category C-F totals, not item totals. Item percentages are supplied for information only.

6.15 CATEGORY F-A

6.15.1 CATEGORY:

F-A

Plate and Shell Type Supports

ITEM NO:

F1.10-F1.40

Section XI Class	System No.	System ID	Total Requiring Examination	Examined To Date	Examined To Date (%)
Class 1	B11	RPV	9	8	88.9%
	B21	Steam Supply	8	6	75%
	B31	Reactor Recirc	6	5	83.3%
	E11	RHR	3	3	100%
	E21	CS	3	2	66.7%
	E41	HPCI	1	0	0%
	E51	RCIC	1	1	100%
	G33	RWCU	4	4	100%
	N21	Feedwater	5	4	80%
_	C	LASS 1 TOTALS	40	33	82.5%
Class 2	B21	SRV	6	5	83.3%
	C11	CRD	4	4	100%
	E11	RHR	45	36	80%
	E21	CS	16	12	75%
	E41	HPCI	14	11	78.6%
	N30	MS	6	5	83.3%
	P11	Demin	1	1	100%
	T48	GCG	16	15	93.8%
	C	LASS 2 TOTALS	108	89	82.4%
Class 3	E11	RHRSW	14	11	78.6%
	G33	RWCU	1	1	100%
	P42	RBCCW	1	1	100%
	P44	EECW	33	25	75.8%
	P45	EESW	17	13	76.5%
	R30	DGSW	10	10	100%
-	CI	LASS 3 TOTALS	76	61	80.3%

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV)

CATEGORY F-A TOTALS

Item No.	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
F-A Class 1	40	33	82.5%	N/A	N/A
F-A Class 2	108	89	82.4%	N/A	N/A
F-A Class 3	76	61	80.3%	N/A	N/A
TOTALS:	224	183	81.7%	67%	100%

SECTION 7

UPDATED PROGRAM TABLES

7.1 PROGRAM TABLES

7.1.1 Inservice Inspection Program (Plan) Tables (NDE)

The accompanying table lists the components or areas that are to be examined during the interval as updated for this refueling outage. Listed in an order following the items presented in the ASME Section XI, Subsections IWB, IWC, and IWD, the tables contain the following information:

Code Class: is the ASME class as defined in accordance with the Code of Federal Regulations (10CFR50.55a), Regulatory Guide 1.26, and NUREG-0800.

Interval: refers to the 120 month inspection interval as identified in Section 1.0 of this document.

Page/Rev.: indicates the consecutive and total page numbers for the NDE program. Rev. or Revision indicates the revision of the individual page or entire document.

Code Category: is the Examination Category as defined by ASME Section XI, Subarticles IWB-2500, IWC-2500 or IWD-2500.

Item Number: lists the Item No. as defined by ASME Section XI, Subarticles IWB-2500, IWC-2500, or IWD-2500. Note: all Item Numbers are addressed even though they may not be applicable to Fermi 2.

Description and Unique Identification: repeats the generic descriptions listed in tables IWB-2500-1, IWC-2500-1 or IWD-2500-1. The components to be examined are then listed by system and/or specific identification.

Exam Method-Exam Method Selected: identifies the code required method of examination, i.e., Volumetric, Surface, or Visual. The specific examination selected is shown for the component, i.e., UT, PT, MT, or VT (see list of abbreviations for expanded definitions).

Relief Request: if applicable, indicates the request for relief applicable in accordance with 10CFR50.55a(g)(5)(iii).

Augmented Exam Method: indicates the examination was required to meet a regulatory or licensing commitment and its outage code when completed or scheduled.

Sel. Basis: shows the abbreviation for the basis for selection of a component for examination.

Period: marks the 40 month period within the 120 month interval when the examination is scheduled (3 periods per interval).

NOTE

A tentative schedule of specific examinations has been completed for the second 10 -year interval. All exams are scheduled for inspection in accordance with the rules of ASME Section - XI, IWA, IWB, IWC, IWD and IWF, and as augmented by specific commitments (i.e., NUREG-0313). Future revisions to this program (plan) shall be issued to reflect actual examinations to be performed during each refuel outage as well as all examinations completed during previous outages.

Remarks: are reserved for additional information to explain, amplify, or provide added details necessary to clarify the examination requirements.

7.1.1.1 Examination methods delineated in the following tables are intended to be representative of the ISI practice to be used or of preservice methods utilized. In either case, it should be recognized that either UT or RT is an acceptable volumetric exam and either PT or MT is an acceptable surface exam. Unique weld joint parameters may, of course, dictate more restrictive selection criteria (e.g., high background radiation will preclude RT, stainless materials will preclude MT, etc.). It is intended that the process which selects exam methods for inspections under this plan treat UT and RT as interchangeable and PT and MT as interchangeable with consideration given to past practice in light of the reproducibility of results.

7.1.1.2 List of Abbreviations

The following abbreviations are used:

Plant Identification System (PIS) - Codes for Plant Systems

B21	- PIS Number for the Nuclear Boiler System
B31	- PIS Number for the Reactor Recirculation System
C11	- PIS Number for the Control Rod Drive System
C41	- PIS Number for the Standby Liquid Control System
E11	- PIS Number for the Residual Heat Removal System
E21	- PIS Number for the Core Spray System
E41	- PIS Number for the High Pressure Coolant Injection System
E51	- PIS Number for the Reactor Core Isolation Cooling System
G33	- PIS Number for the Reactor Water Cleanup System
G41	- PIS Number for the Fuel Pool Cooling System
N21	- PIS Number for the Feedwater System
N30	- PIS Number for the Main Steam System
T48	- PIS Number for the Combustible Gas Control System

Acronyms Used to Identify Plant Systems

CGC - Combustible Gas Control CRD - Control Rod Drive CS - Core Spray FPC - Fuel Pool Cooling **HPCI** - High Pressure Coolant Injection - Reactor Core Isolation Cooling **RCIC** RHR - Residual Heat Removal - Reactor Recirculation RRC - Reactor Water Cleanup RWCU SDV - Scram Discharge Volume SLC - Standby Liquid Control

Nondestructive Examination Method Abbreviations

- Magnetic Particle Examination MT PT - Liquid Penetrant Examination UT - Ultrasonic Examination VT - Visual Examination VT-1 - Visual Examination per IWA-2211 VT-2 - Visual Examination per IWA-2212 VT-3 - Visual Examination per IWA-2213 - UT Mechanized UT Mech. UT Mech./Man.- UT Mechanized or Manual

Weld Selection Basis Abbreviations

HCU - High Cumulative Usage - High Stress HS MS - Moderate Stress R - Random selection of structural discontinuity weld TE - Terminal End - Augmented Α - Dissimilar Metal Weld DMRI - Risk Informed Methodology

Degradation Mechanisms

IGSCC - Intergranular Stress Corrosion Cracking
 CC - Crevice Corrosion
 TASCS - Thermal Fatigue Cracking

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV)

Plant Components and Weld Terminology Abbreviations

CRDH - Control Rod Drive Housing **EXPJT** - Pipe Expansion - Field Weld **FBC** HX- Heat Exchanger HXS - Heat Exchanger Shell IBR - Inner Bore Region (Nozzle) - Incore Instrumentation Housing IIH LD - Longitudinal Downstream (Seam Weld) LU - Longitudinal Upstream (Seam Weld) PAD - Integral Attachment Weld Directly onto the Pressure Boundary of the Pipe **PSFW** - Piping Support Field Weld - Primary Steam (Nuclear Steam Supply System) PS RD - Recirculation Discharge RS - Recirculation Suction SDV - Scram Discharge Volume SW - Shop Weld **TRUNION** - Hanger Support Welded Directly onto the Pressure Boundary

Generic Miscellaneous Abbreviations

VBB

BWR - Boiling Water Reactor CRC - Corrosion Resistant Cladding DWG - Drawing DM - Dissimilar Metal Weld EF2 - Enrico Fermi 2 in. - Inches N/A - Not Applicable NUREG - Nuclear Regulatory Guide - Pressurized Water Reactor PWR

of the Pipe

- Valve Body and Bonnet Housing

RR - Relief Request

RPV - Reactor Pressure Vessel

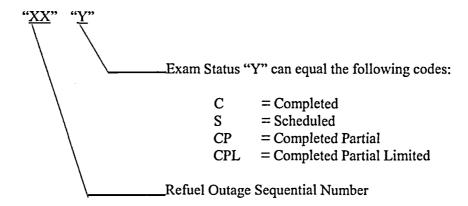
Component Support Abbreviations

Α - Anchor C - Constant Support G - Guide R - Rigid Support

SP - Spring Hanger

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV)

Outage Codes



Example: 07C = Seventh Refueling Outage, Completed Exam

08S = Eighth Refueling Outage, Scheduled Exam

08CP = Eighth Refueling Outage, Completed Exam, Partial

08CPL = Eighth Refueling Outage, Completed Exam, Partial
Limited

7.1.2 Inservice Inspection Program (Plan) Tables (Component Supports)

7.1.2.1 The accompanying tables list the component supports to be examined during the first inspection interval. The tables are divided into ISI Class -1,2, and 3 and start with Class -1. The tables contain the following information:

Code Class: is the ASME class as defined in accordance with the Code of Federal Regulations (10CFR50.55a), Regulatory Guide 1.26, and NUREG-0800.

Interval: refers to the 120 month inspection interval as identified in Section 1.0 of this document.

Page/Rev.: indicates the consecutive and total page numbers for the NDE program. Rev. or Revision indicates the revision of the individual page or entire document.

Code Category: is the Examination Category as defined by ASME Section XI, Subarticle IWF.

Item Number: NOT USED – because IWF category is the main selection determining factor for component supports, Item No. was not used to make hanger selections. The Item Number depicts inspection points and therefore, is more appropriately addressed in inspection procedures. The Item Numbers for each category was used to identify the type of visual examination(s) each component support will receive and this information is provided in the tables.

PIS No./System: identifies the Plant Identification System Number (PIS No.) and the System Title for each group of component supports to be examined.

Isometric/Multiple Loop: identifies the specific isometric drawing applicable to a particular group of component supports and the Multiple Loop identification No., if applicable.

Unique Identification: identifies the specific component support subject to examination.

Exam Method – Exam Method Selected: identifies the code required method of examination (i.e., visual) and the specific examination selected for each component shown (i.e., VT-1, VT-3).

Type: identifies the type of component support to be examined.

Relief Request: if applicable, indicates the request for relief applicable in accordance with 10CFR50.55a(g)(5)(iii).

Period: marks the 40 month period within the 120 month interval when the examination is scheduled (3 periods per interval).

Remarks: is reserved for additional information to explain, amplify, or provide added details necessary to clarify the examination requirements.

7.1.2.2 List of Abbreviations

For definitions of abbreviations used in the following tables, refer to Paragraph 10.1.2 of this document.

7.1.2.3 Inservice Inspection Program (Plan) Tables (NDE)

- Table A Class 1, 2, and 3 Welds and Components
- Table B Supports
- Table C Snubbers

7.1.3 NOTES

NOTE 1

Examination categories B-F and B-J contain duplicate examination requirements for dissimilar metal pressure retaining welds in piping. Category B-J does not have a separate item number for dissimilar metal (DM) welds. Because of this, all DM welds will be included in category B-F. This will aid in identifying those welds that may have additional augmented, regulatory, or PDI requirements applied to them.

NOTE 2

In response to Generic Letter (GL) 88-01 and NUREG-0313 Rev. 2, Detroit Edison had committed in NRC-88-0243, NRC-89-0297, and NRC-90-0103 to the inservice inspection requirements for austenitic stainless steel welds in accordance with the guidelines of Generic Letter 88-01. All applicable welds have been classified according to NUREG-0313 Rev. 2 requirements with the required percentages of welds being included in this program. The applicable category (GL 88-01) is identified in the remarks column. All inspections will be performed utilizing procedures and personnel qualified to current Utility PDI Guidelines. In correspondence letter NRC-01-0038, Detroit Edison had committed to use the NRC approved Generic Letter 88-01 alternative inspection schedule requirements of BWRVIP-75. Sample expansion will be as specified in the Fermi Risk Informed Inservice Inspection Program for Category A welds, and BWRVIP-75 for all other augmented weld selections. Methods and criteria for crack evaluation and repair shall be in conformance with IWB-3600 of Section XI of the 1989 Edition of ASME Boiler and Pressure Vessel Code. Detroit Edison requested that Non-Safety Related, Category D welds be removed from GL 88-01 scope per NRC-92-0090. The NRC response (TAC No. M84117, dated December 18,1992) modified the inspection interval such that inspection of the subject piping welds on a sampling basis of at least 10 percent of the weld population be performed during each refueling outage.

NOTE 3

Per the EF-2 UFSAR Subsection 4.5.1.2.7, Detroit Edison had agreed to ultrasonically inspect the RPV Jet Pump Hold Down Beams at each Reactor Refueling Outage until

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV) sufficient experience was gained to change the frequency of inspection. If a cracked beam were detected, it would be replaced prior to return to power operation. Due to the failure of a jet pump hold down beams at another plant, SIL No. 330, Supplements 1 and 2, and RICSIL No. 065 were issued. As a result, all jet pump hold down beams were replaced with beam assemblies that are less susceptible to IGSCC than the original assemblies during RF04. Subsequent UT and alternative inspections will be performed at future refueling outages based on industry experiences and the recommendations provided in IE Bulletin 80-07, NUREG/CR-3052, and the latest edition of BWRVIP-41. All beams were reinspected in RF09.

NOTE 4

ASME Section XI Category B-E requires inspection of the external surfaces of 25 percent nozzles among each group of penetrations of comparable size and function. Fermi practice is to perform a VT-2 examination inside the RPV bioshield annulus for RPV instrumentation nozzles, and of the bottom head penetrations through the skirt hatches, and under vessel during the system leakage test each refueling outage. If leakage is identified, further investigation will be made to identify the exact location.

NOTE 5

Component supports and the associated integrally welded attachments are selected for examination in accordance with Code Cases N-491-1 (Alternative Requirements for Selection and Examination of Component Supports) and N-509 (Alternative Rules for the Selection and Examination of Integrally Welded Attachments).

NOTE 6

Visual examination of snubbers covers only the snubber unit, except for those snubber supports selected in accordance with Code Case N-491-1. The balance of the support (integral and nonintegral attachments including lugs, bolting, pins, clamps, and support steel) will be visually examined in accordance with subsection IWF requirements.

NOTE 7

Per SIL No. 420, an inspection will be performed on the jet pump sensing lines and support brackets when convenient. This inspection will determine if the weld between the support brackets and the vertical run of the sensing line is intact. Additionally, the inspection should concentrate on the jet pumps closest to the recirculation outlet nozzles. Inspection will be performed on the Jet Pumps scheduled for inspections during the refueling outage.

NOTE 8

Per NRC Information Notice No. 90-30, all dissimilar metal welds containing Inconel 600 series base materials, Alloy 82 and 182 weld butter, and/or filler metal shall be examined following the guidelines of SIL No. 455. It is essential and required that all examinations be performed by the use of multiple refracted longitudinal waves (45° and 60° recommended) for crack detection and sizing in the Alloy 182 material and the low alloy material. All scanning of welds will be performed in both an axial and circumferential direction followed by a 45° shear wave if indications are identified using refracted longitudinal techniques. Examination of nozzle welds shall include the full thickness

volume and be extended into the area of Alloy 182 Weld Material Buttering. The purpose of this additional/supplemental examination is to assure that Alloy 182 Butter Cracking in the nozzle bore has not occurred and extended into the low alloy nozzle material. Beginning with RF09, ASME Section XI, Appendix 8, Supplement 10 requirements as implemented by the Utility Performance Demonstration Initiative are mandatory.

NOTE 9

Per SIL No. 433, Supplement 1, an Ultrasonic (UT) inspection of the entire shroud head bolt length was performed on the 48 shroud head bolts for evidence of cracking during RF04. All bolts have been replaced with a new design that is more resistant to cracking. Based on industry experience, additional inspections will be performed at subsequent refuel outages.

NOTE 10

During RF06, the Reactor Recirculation pumps were modified to the 4th generation design configuration. This configuration was designed to mitigate known causes of shaft and cover cracking and provides for ultrasonic inspection of the shaft without requiring complete pump disassembly and removal. This modification also included a change out of the rotating element to a welded impeller and added rotating baffle. In addition, the hydrostatic bearing was modified to a non-welded design. The need to completely disassemble is reduced by modification to the 4th generation configuration. The following augmented inspections will be performed if the pump is disassembled. Per SIL No. 415, a supplemental liquid penetrant or volumetric inspection of the suction splitters will be performed if visual inspections identify cracking of the suction splitters or attachment welds. Per RICSIL No. 038 and NRC Information Notice 89-20, inspections will be performed on the hydrostatic bearing and baffle plate. Inspection of the heater/cooler assembly should be performed if the pump is disassembled. Disassembly of the pump for inspections will be evaluated prior to each refuel outage based upon industry experience and hours of operation.

NOTE 11

Per SIL No. 474, a visual inspection will be performed on steam dryer drain channel welds during refueling outages. Portions of the steam dryer assembly, dryer banks, and welds will be visually inspected each refueling outage.

NOTE 12

Per IE Bulletin 80-13, and SIL No. 289, Revision 1, Supplement 2, a visual inspection is performed on the core spray internal piping each refueling outage. Inspection points include those identified in IE Bulletin 80-13, SIL No. 289, Revision 1, Supplement 2, and BWRVIP-18. The inspection plan will follow the inspection recommendations and frequency provided in BWRVIP-18 as detailed in the Performance Engineering Program (PEP) 16, Appendix III.

NOTE 13

Per SIL No. 462, inspection of the shroud support access hole cover was performed at the end of the first 10-year interval. Subsequent reinspections will be based on industry experience and the inspection technique applied (Reference PEP16, Appendix II).

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV)

NOTE 14

All inservice examinations of the Reactor Pressure Vessel welds will be performed using both manual and mechanical examination techniques and will most likely be performed from the outside of the vessel. Limitations encountered that affect the examination volume as prescribed by ASME Section XI will be documented in an examination report.

All previous examinations were conducted in accordance with the requirements of Regulatory Guide 1.150, Revision 1, to the extent practical (Reference NRC-87-0078). Beginning with RF08, ASME Section XI, Appendix VIII, Supplements 4 and 6, requirements for vessel welds were implemented as specified in 10CFR50.55a.

Indications, regardless of amplitude, will be recorded on tape during the mechanized examination for analysis. Similarly, signal responses will be scrutinized during the manual examination process and indications will be recorded for further analysis and resolution.

NOTE 15

Visual inspections for leakage required by ASME Section XI Code Categories B-P, C-H, and D-B are performed using site procedures. Test packages for all tests performed are developed utilizing the Inservice Inspection Classification Boundary Drawings listed on Table A-5-5.1 as the basis.

All components on the following systems are included in the Class 1 inspections: B21, B31, C41, E11, E21, E41, E51, G33, N21, and P34.

All components on the following systems are included in the Class 2 inspections: C11, C41, E11, E21, E41, G41, G51, N11, N30, P34, T4804, and T50.

All components on the following systems are included in the Class 3 inspections: E11, P42, P44, P45, and R30.

NOTE 16

Per RICSIL No. 059 and SIL No. 554, inspection of the top guide beams should be performed at grid locations where fuel and blade guides have been removed for other reasons. Inspection of selected grid locations will be performed during refueling outages. Additionally, ultrasonic inspection should be considered if cracking is found or as recommended by SIL No. 554.

NOTE 17

The extent of inspection and frequency for Jet Pump components and welds will follow the recommendations provided in BWRVIP-41. BWRVIP-41 replaced/modified the recommendations of SIL Nos. 551 and 574. Inspections will continue to be performed per the recommendations of SIL No. 574 on the adjusting screw tack welds in conjunction with the inspection of those Jet Pumps scheduled for inspection each refueling outage. Repairs, if required, will be performed in accordance with the recommendations of SIL No. 574 as appropriate. In addition, verification of contact will be performed on the restrainer screws and wedge assembly to the inlet mixer on Jet Pumps selected for

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV) inspection per the recommendations of RICSIL No. 078.

NOTE 18

Per recommendation of SIL No. 571, augmented inspection of this stainless steel nozzle should be performed after 15 years of operation. The inspection boundary for this weld shall be extended to include all stainless steel material accessible for ultrasonic examination. If linear surface indications are found, ultrasonic examination should be used to determine crack depth. Inspection frequency has been modified per BWRVIP-27 to a 10 -year reinspection period.

NOTE 19

Visual inspection of the core shroud and shroud welds will be performed in accordance with the recommendations contained in BWRVIP, "BWR Core Shroud Inspection and Flaw Evaluation Guideline," (BWRVIP-01) utilizing techniques detailed in BWRVIP, "Reactor Pressure Vessel and Internals Examination Guidelines," (BWRVIP-03). SIL No. 572, Revision 1 inspection recommendations have been superceded. Fermi 2 has committed to perform future inspections per the guidance of the BWRVIP. Visual inspections will be performed as an enhanced EVT-1 inspection with the capability to resolve a 1/2-mil wire on the inspection surface. The BWRVIP has imposed additional guidelines for inspection based on years of operation, materials, and conductivity. Based on the above, during RF06, a baseline inspection of the shroud welds (H-3, H-4, H-5, and H-7) was completed (approximately 90 percent volumetric coverage) utilizing an augmented ultrasonic phased array technique with no indication of service induced flaws. Future Core Shroud inspections will be performed in accordance with the BWRVIP guidelines in BWRVIP-07 and BWRVIP-76. Core shroud support inspections will follow BWRVIP-038 and BWRVIP-104 guidelines utilizing approved techniques. Evaluation of anomalies shall be in accordance with the BWR Core Shroud Evaluation Reports (BWRVIP-01 and GENE-523-A53-0494). Additional references include SIL No. 572, Rev. 1, RICSIL No. 054, Rev. 1, RICSIL No. 068, RICSIL No. 077, Information Notices 93-079 and 94-042, and Generic Letter (GL) 94-03. GL 94-03 required advanced notification to the NRC of the proposed plan for Core Shroud inspection, evaluation and/or repair. Additional detail is provided in PEP16, Appendix I.

NOTE 20

Additional augmented examinations were performed during RF04 and changes were made to the inspection schedule for selected nozzle welds following the Turbine Generator event and subsequent RPV chemistry transient for detection of IGSCC initiation.

NOTE 21

The new containment inspection requirements of ASME Section XI 1992 Edition, 1992 Addenda, in effect for the Second Ten-year inspection interval changed the way containment system piping (between the isolation valves) are classified for ISI. IWE-1220(d) specifies that containment system piping is exempt from IWE requirements; however, it shall be examined in accordance with the appropriate classification specified in the construction Design Specifications. This varies from the assumptions made during the first interval, when no IWE requirements were imposed. Relief Request RR-A26 documents Detroit Edison's proposed alternative examination requirements.

NOTE 22

Inspections in addition to those listed for Item Nos. B13.10, B13.20, B13.30, and B13.40 will be scheduled and performed as detailed in PEP16. Augmented inspection requirements for selected components and welds are detailed in PEP16 Appendices, including the implementation of various BWRVIP inspection recommendations.

ISI - NDE Program Rev. 5 Change 0 Page 1

INSERVICE INSPECTION NDE PROGRAM

TABLE A

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 2

Category / Iter	m Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec	ction P	eriod 3	Remarks
B-A									
B1.11	Circumferrential Shell	Weld							
1-313	,	UT	All B-A Welds	5360-5	RR-A25	N/A	N/A	N/A	Examined only at intersecting long seams
4-308A	,	UT	All B-A Welds	5360-5	RR-A25	N/A	N/A	N/A	Examined only at intersecting long seams
4-308B		UT	All B-A Welds	5360-5	RR-A25	N/A	N/A	N/A	Examined only at intersecting long seams
9-307		UT	All B-A Welds	5360-5	RR-A25	N/A	N/A	N/A	Examined only at intersecting long seams
B1.12	Longitudinal Shell Wel	d							
1-308A		UT	All B-A Welds	5360-5		08C			Note 14 Applies to all Category B-A Welds
1-308B		UT	All B-A Welds	5360-5		08C			
1-308C		UT	All B-A Welds	5360-5				11C	
1-308D		UT	All B-A Welds	5360-5				11C	
15-308A		UT	All B-A Welds	5360-5			10C		
15-308B		UT	All B-A Welds	5360-5			09C 10CP		CARD 03-16383, RF10 exam to size indication No. 124 only
15-308C		UT	All B-A Welds	5360-5		08C			
15-308D		UT	All B-A Welds	5360-5				12S	
2-307A		UT	All B-A Welds	5360-5		08C			
2-307B		UT	All B-A Welds	5360-5			10C		
2-307C		UT	All B-A Welds	5360-5			09C		
2-308A		UT	All B-A Welds	5360-5			10C		
2-308B		UT	All B-A Welds	5360-5			09C		
2-308C		UT	All B-A Welds	5360-5				12S	
B1.21	Circumferrential Head	Weld							
4-319		UT	All B-A Welds	5360-5		08CP	09C		08 - 2-319C to 2-319E 40% 9 - 2-319E to 2-319C 60%
5-306		UT .	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
5-319		UT	All B-A Welds	5360-5				11C	

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 3

Category / Ite	em Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction P	eriod 3	Remarks
B-A									
B1.21	Circumferrential He	ad Weld							
6-306		UT	All B-A Welds	5360-5		08CP	10CP		One sided exam 180-360 Deg, RF08, 0-180 Deg, RF10
B1.22	Meridional Head W	eld							
1-306A		UT	All B-A Welds	5360-5		08C			
1-306B		UT	All B-A Welds	5360-5			10C		
1-306C		UT	All B-A Welds	5360-5			10C		
1-306D		UT	All B-A Welds	5360-5		08C			
1-306E		UT	All B-A Welds	5360-5		08C			
1-306F		UT	All B-A Welds	5360-5				12S	
1-306G		UT	All B-A Welds	5360-5		08C			
1-306H		UT	All B-A Welds	5360-5				11C	
1-306Ј		UT	All B-A Welds	5360-5			09C		
1-306K		UT	All B-A Welds	5360-5		08C			
1-319A		UT	All B-A Welds	5360-5	RR-A1			12S	
1-319B		UT	All B-A Welds	5360-5		08C			
1-319C		UT	All B-A Welds	5360-5	RR-A1			12S	
1-319D		UT	All B-A Welds	5360-5			09C		
1-319E		UT	All B-A Welds	5360-5	RR-A1		10C		
1-319F		UT	All B-A Welds	5360-5			10C		
1-319G		UT	All B-A Welds	5360-5	RR-A1			12S	
1-319H		UT	All B-A Welds	5360-5		08C			
2-306A		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306B		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306C		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306D		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306E		UT	All B-A Welds	5360-5	RR-A1		•		Inaccessible Weld
2-306F		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306G		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 4

Category / Ite	m Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec 1	tion Po	eriod 3	Remarks
B-A									
B1.22	Meridional Head We	eld							
2-319A		UT	All B-A Welds	5360-5		08C .			
2-319B		UT	All B-A Welds	5360-5		08C			
2-319C		UT	All B-A Welds	5360-5		08C			
2-319D		UT	All B-A Welds	5360-5				11C	
2-319E		UT	All B-A Welds	5360-5				11C	
B1.30	Shell to Flange Weld								
13-308 (fro	m flange)	UT	All B-A Welds	5360-5	RR-A1	08CP		12SP	0-180 Deg, RF-08; 180-0 Deg, RF-12
13-308 (fro	m shell)	UT	All B-A Welds	5360-5	RR-A1	08CP		11C	~120 Deg, RF-08; Remainder at RF-12
B1.40	Head to Flange Weld	i							
3-319		UT/MT	All B-A Welds	5360-5		08CP	10CP	12SP	1/3 of weld each scheduled Inspection Period
B-D									
B3.100	RPV Nozzle Inside F	Radius Section	1						
13-314A II		VT	All BD-IRS	5361-5	RR-A32	08C			
13-314B II		VT	All BD-IRS	5361-5	RR-A32	08C			
13-314C II		VT	All BD-IRS	5361-5	RR-A32		10C		
13-314D II		VT	All BD-IRS	5361-5	RR-A32		09C		
13-314Е П		VT	All BD-IRS	5361-5	RR-A32		09C		
13-314F II	RS	VT	All BD-IRS	5361-5	RR-A32		09C		
13-314G I	RS	VT	All BD-IRS	5361-5	RR-A32		09C		
13-314H II	RS	VT	AII BD-IRS	5361-5	RR-A32			125	
13-314J IR	RS	VT	All BD-IRS	5361-5	RR-A32			12S	
13-314K I	RS	VT	All BD-IRS	5361-5	RR-A32		09C		
14-316А П	RS	VT	All BD-IRS	5361-5	RR-A32			12S	
14-316B II	RS	VT	All BD-IRS	5361-5	RR-A32	08C			
15-315 IR	S	VT	All BD-IRS	5361-5	RR-A31	08C			
19-314A I	RS	VT	All BD Nozzles	5361-5	RR-A32		10C		
19-314B I	RS	VT	All BD Nozzles	5361-5	RR-A32	08C			
2-318 IRS	3	VT	All BD Nozzles	5361-5	RR-A31		10C		

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 5

Category / Item	Exan Identification Requ		Isometric	Relief Request	Inspect 1	ion Po	eriod 3	Remarks
B-D								
B3.100	RPV Nozzle Inside Radius Se	ction						
4-316A IBR	UT	Α	5361-5		08CA			NUREG-0619/GE-NE-523-A71-594
4-316A IRS	UT	All BD-IRS	5361-5		08CA			NUREG-0619/GE-NE-523-A71-594
4-316B IBR	UT	Α	5361-5		08CA			NUREG-0619/GE-NE-523-A71-594
4-316B IRS	UT	All BD-IRS	5361-5		08CA			NUREG-0619/GE-NE-523-A71-594
4-316C IBR	UT	Α	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-316C IRS	UT	All BD-IRS	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-316D IBR	UT	Α	5361-5		08CA			NUREG-0619/GE-NE-523-A71-594
4-316D IRS	UT	All BD-IRS	5361-5		08CA			NUREG-0619/GE-NE-523-A71-594
4-316E IBR	UT	Α	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-316E IRS	UT	Ali BD-IRS	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-316F IBR	UT	A	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-316F IRS	UT	AII BD-IRS	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-318A IRS	VT	All BD Nozzles	5361-5	RR-A31			11C	
4-318B IRS	VT	All BD Nozzles	5361-5	RR-A31			11C	
5-314A IRS	VT	All BD-IRS	5361-5	RR-A31	08C			·
5-314B IRS	VT	All BD-IRS	5361-5	RR-A31			12S	
8-316A IRS	VT	All BD-IRS	5361-5	RR-A31	08C			
8-316B IRS	VT	All BD-IRS	5361-5	RR-A31	08C			
8-316C IRS	VT	All BD-IRS	5361-5	RR-A31			128	
8-316D IRS	VT	All BD-IRS	5361-5	RR-A31			12S	
B3.90	RPV Nozzle to Vessel Weld							
13-314A	UT	All B-D Nozzles	5361-5	RR-A6	08C			
13-314B	UT	All B-D Nozzles	5361-5	RR-A6	08C			
13-314C	UT	All B-D Nozzles	5361-5	RR-A6		10C		
13-314D	UT	All B-D Nozzles	5361-5	RR-A6	08C			
13-314E	UT	All B-D Nozzles	5361-5	RR-A6		09C		·
13-314F	UT	All B-D Nozzles	5361-5	RR-A6		09C		
13-314G	UT	All B-D Nozzles	5361-5	RR-A6	08C			

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 6

Category / Iter	n Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec	ction P	eriod 3	Remarks
B-D									
B3.90	RPV Nozzle to Vess	el Weld							
13-314H		UT	All B-D Nozzles	5361-5	RR-A6			12S	•
13-314Ј		UT	All B-D Nozzles	5361-5	RR-A6			12S	
13-314K		UT	All B-D Nozzles	5361-5	RR-A6	08C			
14-316A		UT	All B-D Nozzles	5361-5	RR-A6		10C		
14-316B		UT	All B-D Nozzles	5361-5	RR-A6	08C			
15-315		UT	All B-D Nozzles	5361-5	RR-A6		09C		
19-314A		UT	All B-D Nozzles	5361-5	RR-A6		10C		
19-314B		UT	All B-D Nozzles	5361-5	RR-A6	08C			
2-318		UT	All B-D Nozzles	5361-5	RR-A6		10C		
4-316A		UT	All B-D Nozzles	5361-5	RR-A6	08C			
4-316B		UT	All B-D Nozzles	5361-5	RR-A6	08C			
4-316C		UT	All B-D Nozzles	5361-5	RR-A6		09C		· ·
4-316D		UT	All B-D Nozzles	5361-5	RR-A6	08C			
4-316E		UT	All B-D Nozzles	5361-5	RR-A6			12S	·
4-316F		UT	All B-D Nozzles	5361-5	RR-A6			12S	
4-318A		UT	All B-D Nozzles	5361-5	RR-A6			11C	
4-318B		UT	All B-D Nozzles	5361-5	RR-A6			11C	
5-314A		UT	All B-D Nozzles	5361-5	RR-A6	08C			
5-314B		UT	All B-D Nozzles	5361-5	RR-A6			12S	
8-316A		UT	All B-D Nozzles	5361-5	RR-A6	08C			Note 14 Applies to all Category B-D Welds
8-316B		UT	All B-D Nozzles	5361-5	RR-A6	08C			
8-316C		UT	All B-D Nozzles	5361-5	RR-A6			12S	
8-316D		UT	All B-D Nozzles	5361-5	RR-A6			12S	
B-E									
B4.11	Partial Penetration	ı Vessel Nozzle	s						
17-315		VT-2		5361-5		07C/ 08C	09C/ 10C	11C/ 12S	

INSERVICE INSPECTION NDE PROGRAM TABLE A

FERMI 2 NUCLEAR POWER PLANT

ISI - NDE Program Rev. 5 Change 0 Page 7

Category / Iten	n Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe	ction P	eriod 3	Remarks
В-Е									
B4.11	Partial Penetration	Vessel Nozzles							
7-315		VT-2		5361-5		07C/ 08C	09C/ 10C	11C/ 12S	Each Refuel Outage - Note 4 applies to all B-E Items
B4.12	Partial Penetration	CRD Nozzles		•					
1-310-XY	_	VT-2		5363-5		07C/ 08C	09C/ 10C	11C/ 12S	25% Nozzles External Surfaces - Note 4
CRDH-YX	K_	VT-2		5363-5		07C/ 08C	09C/ 10C	11C/ 12S	
B4.13	Partial Penetration	Instrumentatio	on Nozzles						
2-315A		VT-2	•	5361-5		07C/ 08C	09C/ 10C	11C/ 12S	
2-315B		VT-2		5361-5		07C/ 08C	09C/ 10C	11C/ 12S	
2-315C		VT-2		5361-5		07C/ 08C	09C/ 10C	11C/ 12S	
2-315D		VT-2		5361-5		07C/ 08C	09C/ 10C	11C/ 12S	
2-315F		VT-2		5361-5		07C/ 08C	09C/ 10C	11C/ 12S	
IIH-XY_	(55)	VT-2		5363-5		07C/ 08C	09C/ 10C	11C 12S	
B-F									•
B5.10	Dissimilar Metal R	PV Nozzle to S	afe End Weld 4" NPS	and Large	r				
101-304E		UT	A, RI (IGSCC)	5358-5	RR-A30		10C		Notes 2 & 8 Cat. B
102-304A		UT	A (IGSCC)	5361-5		07C		12S	Notes 2 & 8 Cat. B
2-303G		UT	A, RI (IGSCC)	5356-5	RR-A30		09C		Notes 2 & 8 Cat. B
2-303H		UT	A, RI (IGSCC)	5356-5	RR-A30	07C		12S	Notes 2 & 8 Cat. B
4-303A		UT	A, RI (IGSCC)	5357-5	RR-A30	07C		12S	Notes 2 & 8 Cat. B
N5A		UT	A, (IGSCC, CC)	3053-5			10C		Notes 2 & 8 Cat. B
N5B		UT	A, RI (IGSCC, CC)	3052-5	RR-A30	08C			Notes 2 & 8 Cat. B
N-9		UT	A, RI (IGSCC)	5361-5	RR-A30		09C		Notes 2 & 8 Cat. B

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 8

Category / Item Identification	Exams 1 Required	Selection Basis	Isometric	Relief Request	Inspec	ction P	eriod 3	Remarks
B-F								
B5.130 Dissimilar M	etal Piping Butt Weld	I 4" NPS and Large	er					
SW-E11-2298-6WC	UT	A, RI (IGSCC)	2298-5	RR-A30	08C			Note 1 & 2, Category B
SW-E11-2327-6WC	UT	A (IGSCC)	2327-5				11C	Notes 1 & 2, Category B
SW-E21-3052-4WOX	UT	A, RI (IGSCC)	3052-5	RR-A30	08C			Notes 1, 2 & 8 Category B (IGSCC)
SW-E21-3053-4WOX	UT	A (IGSCC)	3053-5			10C		Notes 1, 2 & 8 Category B (IGSCC)
B5.20 Dissimilar M	letal RPV Nozzle to S	afe End Weld Less	Than 4" NPS					
5-315	PT	Α	R1-91		07C			Note 18
5-315	UT	A			07C			Note 18
B-G-1								
B6.10 RPV Closure	e Head Nuts Greater	Than 2"						
326-02, 1 through 68	VT	>2 dia."	5362-5		08CP	09CP	11CP	1/3 Each Period, Code Case N-627
B6.180 Pump Studs	Greater Than 2"							
RRC Pump A, Studs 1 thro	ugh 16 UT	>2 dia."	5365-5		08C			
RRC Pump B, Studs 1 thro	ugh 16 UT	>2 dia."	5365-5				11C	
B6.190 Pump Flang	e Surface, When Disa	ssembled						
RRC Pump A, Flange	VT-1	>2 dia."	5365-5					Perform if disassembled
RRC Pump B, Flange	VT-1	>2 dia."	5365-5					Perform if disassembled
B6.20 RPV Closur	e Studs Greater Than	a 2'', In-place					•	
326-01, 1 through 68	UT	>2 dia."	5362-5		08CP	10CP	11CP	1/3 Each Period
B6.200 Pump Nuts,	Bushings, and Wash	ers						
RRC Pump A Nuts, Bushir Washers Set 1 - 16	ngs & VT-1	>2 dia."	5365-5		08C			
RRC Pump B Nuts, Bushir Washers Set 1 - 16	ngs & VT-1	>2 dia."	5365-5				11C	
B6.30 RPV Closur	e Studs Greater Tha	n 2", When Remov	ed					
326-01, 1 through 68	MT	>2 dia."	5362-5		08C			48-51 Removed for refueling, RG 1.65 applies use ASME Section III Acceptance Criteria
B6.40 RPV, Threa	ids in Flange							
1 through 68	UT	>2 dia."	5362-5		08CP	09CP	11CP	1/3 Each Period

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 9

Category / Item Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ction F	Period 3	Remarks
B-G-1								
B6.50 RPV Closure Was	hers and Bush	ings						
326-03, Washers 1 through 68	VT-1	>2 dia."	5362-5		08CP	09CP	11CP	1/3 Each Period
Bushings 1 through 68	VT-1	>2 dia."	5362-5				128	Only required when studs are removed (48-51 removed with refueling shute)
B-G-2								
B7.10 RPV Bolts, Studs,	and Nuts 2" a	nd Less						
Instrumentation Nozzle	VT-1	< 2 dia."	5361-5				11C	
Spare Flange FBC-01 (180 Deg)	VT-1	< 2 dia."	5361-5				11C	
Spare Flange FBC-02 (0 Deg)	VT-1	< 2 dia."	5361-5				11C	
B7.50 Piping Bolts, Stud	s, and Nuts 2'	and Less						
FBC-E41-2297-01	VT-1	< 2 dia."	2297-5			09C		
FBC-E51-2192-01	VT-1	< 2 dia."	2192-5		08C			
B7.60 Pump Bolts, Stud	s, and Nuts 2''	and Less						
RRC Pump A Seal Bolting	VT-1	< 2 dia."	5365-5			10C		
RRC Pump B Seal Bolting	VT-1	< 2 dia."	5365-5				12S	
B7.70 Valve Bolts, Stud	s, and Nuts 2"	and Less						
B21-F010A-VBB	VT-1	< 2 dia."	3537-5				12S	
B21-F010B-VBB	VT-1	< 2 dia."	3536-5			09C		
B21-F011A-VBB	VT-1	< 2 dia."	3537-5		08C			
B21-F011B-VBB	VT-1	< 2 dia."	3536-5			09C		
B21-F013A-VBB	VT-1	< 2 dia."	5355-5		07C			
B21-F013B-VBB	VT-1	< 2 dia."	5354-5		08C			
B21-F013C-VBB	VT-1	< 2 dia."	5353-5			10C		
B21-F013D-VBB	VT-1	< 2 dia."	5353-5		07C			
B21-F013E-VBB	VT-1	< 2 dia."	5354-5			10C		
B21-F013F-VBB	VT-1	< 2 dia."	5353-5			10C		
B21-F013G-VBB	VT-1	< 2 dia."	5353-5		08C			•
B21-F013H-VBB	VT-1	< 2 dia."	5354-5				12S	
B21-F013J-VBB	VT-1	< 2 dia."	5354-5		07C			

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 10

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction Po	eriod 3	Remarks
B-G-2							_	
B7.70 Valve Bolts, Studs,	and Nuts 2" a	nd Less						
B21-F013K-VBB	VT-1	< 2 dia."	5353-5		08C			
B21-F013L-VBB	VT-1	< 2 dia."	5352-5		08C			
B21-F013M-VBB	VT-1	< 2 dia."	5352-5		07C			
B21-F013N-VBB	VT-1	< 2 dia."	5352-5				11C	
B21-F013P-VBB	VT-1	< 2 dia."	5355-5				12S	
B21-F013R-VBB	VT-1	< 2 dia."	5354-5				12S	
B21-F022A-VBB	VT-1	< 2 dia."	5352-5				11C	
B21-F022B-VBB	VT-1	< 2 dia."	5353-5				12S	
B21-F022C-VBB	VT-1	< 2 dia."	5354-5			10C		·
B21-F022D-VBB	VT-1	< 2 dia."	5355-5				12S	
B21-F028A-VBB	VT-1	< 2 dia."	5352-5			10C		
B21-F028B-VBB	VT-1	< 2 dia."	5353-5		08C			
B21-F028C-VBB	VT-1	< 2 dia."	5354-5				11C	
B21-F028D-VBB	VT-1	< 2 dia."	5355-5		08C			
B21-F032A-VBB	VT-1	< 2 dia."	3537-5			09C		
B21-F032B-VBB	VT-1	< 2 dia."	3536-5				11C	
B21-F076A-VBB	VT-1	< 2 dia."	3537-5				11C	
B21-F076B-VBB	VT-1	< 2 dia."	3536-5				11C	
B31-F023A-VBB	VT-1	< 2 dia."	5357-5			09C		
B31-F023B-VBB	VT-1	< 2 dia."	5359-5				11C	
B31-F031A-VBB	VT-1	< 2 dia."	5357-5			09C		
B31-F031B-VBB	VT-1	< 2 dia."	5359-5				11C	
E11-F008-VBB	VT-1	< 2 dia."	2299-5				12S	
E11-F009-VBB	VT-1	< 2 dia."	2299-5			09C		
E11-F015A-VBB	VT-1	< 2 dia."	2298-5		07C			
E11-F015B-VBB	VT-1	< 2 dia."	2327-5				11C	
E11-F050A-VBB	VT-1	< 2 dia."	2298-5		07C			
E11-F050B-VBB	VT-1	< 2 dia."	2327-5		07C			

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 11

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ection I	Period 3	Remarks
B-G-2	•							
B7.70 Valve Bolts, Studs	, and Nuts 2" a	and Less						
E11-F060A-VBB	VT-1	< 2 dia."	2298-5				12S	
E11-F060B-VBB	VT-1	< 2 dia."	2327-5			10C		
E11-F067-VBB	VT-1	< 2 dia."	2299-5			09C		
E11-F608-VBB	VT-1	< 2 dia."	2299-5				11C	
E21-F005A-VBB	VT-1	< 2 dia."	3052-5			09C		
E21-F005B-VBB	VT-1	< 2 dia."	3053-5			09C		
E21-F006A-VBB	VT-1	< 2 dia."	3052-5		08C			
E21-F006B-VBB	VT-1	< 2 dia."	3053-5		07C			
E21-F007A-VBB	VT-1	< 2 dia."	3052-5				12S	
E21-F007B-VBB	VT-1	< 2 dia."	3053-5				12S	
E41-F002-VBB	VT-1	< 2 dia."	2297-5				11C	
E41-F003-VBB	VT-1	< 2 dia."	2297-5		08C			
E41-F006-VBB	VT-1	< 2 dia."	3537-5			10C		
E51-F007-VBB	VT-1	< 2 dia."	2192-5			09C		
E51-F008-VBB	VT-1	< 2 dia."	2192-5		07C			
E51-F013-VBB	VT-1	< 2 dia."	3536-5				11C	
FBC-B21-5352-01L	VT-1	< 2 dia."	5352-5		08C			
FBC-B21-5352-01M	VT-1	< 2 dia."	5352-5		07C			
FBC-B21-5352-01N	VT-1	< 2 dia."	5352-5				11C	·
FBC-B21-5353-01C	VT-1	< 2 dia."	5353-5			10C		
FBC-B21-5353-01D	VT-1	< 2 dia."	5353-5		07C			
FBC-B21-5353-01F	VT-1	< 2 dia."	5353-5			10C		
FBC-B21-5353-01G	VT-1	< 2 dia."	5353-5		08C			
FBC-B21-5353-01K	VT-1	< 2 dia."	5353-5		08C			
FBC-B21-5354-01B	VT-1	< 2 dia."	5354-5		08C			
FBC-B21-5354-01E	VT-1	< 2 dia."	5354-5			10C		
FBC-B21-5354-01H	VT-1	< 2 dia."	5354-5				12S	
FBC-B21-5354-01J	VT-1	< 2 dia."	5354-5		07C			

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 12

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec 1	etion Po	eriod 3	Remarks
B-G-2								
B7.70 Valve Bolts, St	uds, and Nuts 2" a	nd Less						
FBC-B21-5354-01R	VT-1	< 2 dia."	5354-5				12S	
FBC-B21-5355-01A	VT-1	< 2 dia."	5355-5		07C			
FBC-B21-5355-01P	VT-1	< 2 dia."	5355-5				12S	
G33-F001-VBB	VT-1	< 2 dia."	3096-5		08C			
G33-F004-VBB	VT-1	< 2 dia."	3096-5			09C		
G33-F100-VBB	VT-1	< 2 dia."	5351-5			10C		
G33-F101-VBB	VT-1	< 2 dia."	3096-5				12S	
G33-F102-VBB	VT-1	< 2 dia."	5351-5				12S	
G33-F106-VBB	VT-1	< 2 dia."	5351-5				11C	
G33-F120-VBB	VT-1	< 2 dia."	3536-5		08C			
G33-F121-VBB	VT-1	< 2 dia."	3536-5		07C			
G33-F220-VBB	VT-1	< 2 dia."	3536-5			10C		
B7.80 CRD Bolts, St	uds, and Nuts 2" a	nd Less						
185 sets of Bolts, Studs and I	Nuts Visual VT-1	<2 dia."			08CP	09CP/ 10CP		When Disassembled (24 sets, 08), (23 sets, 09), (23 sets, 10)
В-Н								
B8.10 RPV Integral	Attachment Weld							
10-324A	MT	B-H Weld	5360-5		08C			Code Case N-509
3-306/4-309	MT	B-H Weld	5360-5		08CP			10% of Weld length
3-306/4-309	UT	B-H Weld	5360-5		08CP			10% of Weld length
8-319A	MT	B-H Weld	5360-5				128	Supplemental exam for weld 1-391A, RR-A1
8-319B	MT	B-H Weld	5360-5				12S	Supplemental exam for weld 1-391C, RR-A1
8-319C	MT	B-H Weld	5360-5			10C		Supplemental exam for weld 1-391E, RR-A1
8-319D	MT	B-H Weld	5360-5				128	Supplemental exam for weld 1-391G, RR-A1
B-J								
B9.11 Circumferent	ial Piping Weld 4"	NPS or Larger						
3-316A	UT	RI (TASCS, CC)	3537-5	RR-A30	08C			

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 13

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction Po	eriod 3	Remarks
B-J								
B9.11 Circumferential Pipin	g Weld 4" N	PS or Larger						
3-316D	UT	RI (TASCS, CC)	3536-5	RR-A30			12S	·
3-316E	UT	RI (TASCS, CC)	3536-5	RR-A30			12S	
7-316A	UT	RI	5352-5	RR-A30	08C			
FW-E11-2298-6W0	UT	A, (IGSCC)	2298-5		08C			Note 2, Category B
FW-E11-2299-2WF3	UT	RI	2299-5	RR-A30		09C		
FW-E11-2327-0W1	UT	RI	2327-5	RR-A30	08C			
FW-E11-2327-0W6	UT	RI	2327-5	RR-A30			11C	
FW-E11-2327-6W0	PT	A (IGSCC)	2327-5				11CL	Note 2 Category B
FW-E21-3052-4WF1	UT	RI	3052-5	RR-A30			12S	
FW-E41-2297-0W4	MT	RI	2297-5	RR-A30	08C			
FW-E41-2297-2W3	UT	RI	2297-5	RR-A30	08C			
FW-E51-2192-1W2	UT	RI	2192-5	RR-A30		09C		
FW-E51-2192-2W3	UT	RI	2192-5	RR-A30		09C		
FW-G33-3096-10WF3	UT	A, RI (IGSCC)	5351-5	RR-A30	08C			
FW-G33-3096-6WF5	UT	RI	3096-5	RR-A30			11C	
FW-G33-3096-8W11	UT	RI	5351-5	RR-A30		10C		
FW-G33-3096-8W9	UT	RI	5351-5	RR-A30		10C		
FW-G33-3096-9WF1	UT	RI	5351-5	RR-A30		10C		
FW-N21-2336-13W14	UT	RI	3537-5	RR-A30		10C		
FW-N21-2336-14WF1	UT	RI	3537-5	RR-A30		10C		
FW-N21-2336-15W0	UT	RI (TASCS)	3537-5	RR-A30	08C			•
FW-N21-2336-16W19	UT	RI	3537-5	RR-A30			11C	
FW-N21-2336-3W4	UT	RI	3536-5	RR-A30		09C		RCIC Selection
FW-PS-2-A6	UT	RI	5352-5	RR-A30			12S	
FW-PS-2-C3	UT	RI	5354-5	RR-A30		10C		
FW-RD-2-A11	UT	A (IGSCC)	5356-5	RR-A30			11CL	Note 2, Category B (CRC)
FW-RD-2-A16	UT	RI, A (IGSCC)	5356-5	RR-A30		09C		Note 2, Category B (CRC)
FW-RD-2-A17	UT	RI, A (IGSCC)	5356-5				128	Note 2, Category B(CRC)

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 14

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec	Inspection Period 1 2 3		Remarks
B-J								
B9.11 Circumferential Pi	ping Weld 4" l	NPS or Larger						
FW-RD-2-A1-W1	UT	RI, A (IGSCC)	5357-5	RR-A30			12S	Note No. 2, Cat. B
FW-RD-2-A9	UT	RI, A (IGSCC)	5357-5		08CA			Note 2, Category B
FW-RD-2-B19	UT	A, (IGSCC)	5358-5			10C		Note 2, Category B (CRC)
FW-RD-2-B1-W1	UT	RI, A(IGSCC)	5359-5	RR-A30			11C	Note 2, Category B UFSAR 5.2.3.2
FW-RS-2-A1	UT	A (IGSCC)	5357-5				12SA	Note No. 2, Cat. B
N4A	UT	RI (TASCS, CC)	3537-5	RR-A30	08C			
N4D	UT	RI (TASCS,CC)	3536-5	RR-A30			12S	
N4E	UT	RI (TASCS, CC)	3536-5	RR-A30			12S	
SW-E21-3053-3WN	UT	RI	3053-5	RR-A30		09C		
SW-E21-3053-3WP	UT	RI	3053-5	RR-A30		09C		
SW-G33-3096-5WD	UT	RI	3096-5	RR-A30			11C	
SW-G33-3096-5WH	UT	RI	3096-5	RR-A30			11C	
SW-N21-2335-1WD	UT	RI	3536-5	RR-A30		09C		RCIC Selection
SW-N21-2336-13WC	UT	RI	3537-5	RR-A30		10C		
SW-N21-2336-13WE	UT	RI	. 3537-5	RR-A30		10C		
SW-N21-2336-15WP	UT	RI (TASCS)	3537-5	RR-A30	08C			
SW-N21-2336-1WL	UT	RI (TASCS)	3536-5	RR-A30		09C		
SW-N21-2336-1WU	UT	RI	3536-5	RR-A30		09C		RCIC Selection
SW-N21-2336-3WC	UT	RI	3536-5	RR-A30		09C		RCIC Selection
SW-PS-2-A1-A	UT	RI	5352-5	RR-A30	08C			
SW-PS-2-A1-B	UT	RI	5352-5	RR-A30	08C			
SW-PS-2-A4-B	UT	RI	5352-5	RR-A30			12S	
SW-PS-2-C3-A	UT	RI	5354-5	RR-A30		10C		
SW-PS-2-C3-C	UT	RI	5354-5	RR-A30		10C		
SW-PS-2-C3-D	UT	RI	5354-5	RR-A30		10C		
SW-PS-2-C3-J	UT	RI	5354-5	RR-A30	08C			
SW-PS-2-C3-K	UT	RI	5354-5	RR-A30	08C			
SW-RD-2-A3-W7	UT	A (IGSCC)	5356-5	RR-A30			11CL	Note 2, Category B

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 15

Category / Item Identification	Exams Selection Basis Relief Inspection Period // Item Identification Required Isometric Request 1 2		eriod 3	Remarks				
B-J								
B9.11 Circumferential P	iping Weld 4'	' NPS or Larger						
SW-RD-2-A4-W2	UT	RI	5356-5	RR-A30			11C	Note 2, Category A
SW-RD-2-B4-W2	UT	RI, A	5358-5	RR-A30			12S	Note 2, Category A
SW-RD-2-B8-W1	UT	RI, A	5358-5	RR-A30	08C			Note 2, Category A
SW-RD-2-B8-W2	UT	RI, A	5358-5	RR-A30	08C			Note 2, Category A
SW-RS-2A1-W1	UT	RI, A (IGSCC)	5357-5	RR-A30			12S	Note No. 2, Cat. B
SW-RS-2-A2-W1	UT	A (IGSCC)	5357-5			09C		Note No. 2, Cat. B
SW-RS-2-B1-W1	UT	RI, A (IGSCC)	5359-5	RR-A30			11C	Note 2, Category B
B-K-1								
B10.10 Piping Integral At	tachment We	ld						
SW-N21-2336-20WB	MT	10% of IWF Selections	3537-5			10C		ISI Eval. 99-055; Code Case N-509
SW-N21-2336-20WC	MT	10% of IWF Selections	3537-5			10C		ISI Eval. 99-055; Code Case N-509
SW-N21-2336-20WD	MT	10% of IWF Selections	3537-5			10C		ISI Eval. 99-055; Code Case N-509
SW-N21-2336-20WE	MT	10% of IWF Selections	3537-5			10C		ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA1	MT	10% of IWF Selections	5352-5		07C			ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA2	MT	10% of IWF Selections	5352-5		07C			ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA3	MT	10% of IWF Selections	5352-5		07C			ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA4	MT	10% of IWF Selections	5352-5		07C			ISI Eval. 99-055; Code Case N-509
B10.20 Pump Integral At	tachment We	ld						
SW-B31-5365-Pump A-WA	PT	10% of IWF Selections	5365-5				125	ISI Eval. 99-055; Code Case N-509

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 16

Category / Item Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ection I	Period 3	Remarks
B-L-2								
B12.20 Pump Casing								
RRC Pump A	VT-3	Visual VT-3	5365-5					Only if Disassembled, Note 10
RRC Pump B	VT-3	Visual VT-3	5365-5					Only if Disassembled, Note 10
B-M-2								
B12.50 Valve Body								
B21F010A	VT-3	>4 NPS"	3537-5		08C	09C	11C	Only if Disassembled
B21F010B	VT-3	>4 NPS"	3536-5		07C	09C/ 10C		Only if Disassembled
B21F011A	VT-3	>4 NPS"	3537-5					Only if Disassembled
B21F011B	VT-3	>4 NPS"	3536-5					Only if Disassembled
B21F013A	VT-3	>4 NPS"	5355-5			10C		SRV's (B21F013A-R) are inspected, rebuilt, and functionally tested on a rotating basis. A portion of pilots and bodies are rotated each outage. Details of VT-3 inspections completed are contained in the Purchase Order records for each outage.
B21F013B	VT-3	>4 NPS"	5354-5			10C		Only if Disassembled
B21F013C	VT-3	>4 NPS"	5353-5		08C			Only if Disassembled
B21F013D	VT-3	>4 NPS"	5353-5				11C	Only if Disassembled
B21F013E	VT-3	>4 NPS"	5354-5			10C		Only if Disassembled
B21F013F	VT-3	>4 NPS"	5353-5		08C			Only if Disassembled
B21F013G	VT-3	>4 NPS"	5353-5			09C		Only if Disassembled
B21F013H	VT-3	>4 NPS"	5354-5			09C		Only if Disassembled
B21F013J	VT-3	>4 NPS"	5354-5				11C	Only if Disassembled
B21F013K	VT-3	>4 NPS"	5353-5		08C			Only if Disassembled
B21F013L	VT-3	>4 NPS"	5352-5			09C		Only if Disassembled
B21F013M	VT-3	>4 NPS"	5352-5				11C	Only if Disassembled
B21F013N	VT-3	>4 NPS"	5352-5		08C			Only if Disassembled
B21F013P	VT-3	>4 NPS"	5355-5			09C		Only if Disassembled
B21F013R	VT-3	>4 NPS"	5354-5			09C		Only if Disassembled

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 17

Category / Item	n Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe	ction P	eriod 3	Remarks
B-M-2									
B12.50	Valve Body								
B21F022A		VT-3	>4 NPS"	5352-5					Only if Disassembled
B21F022B		VT-3	>4 NPS"	5353-5					Only if Disassembled
B21F022C		VT-3	>4 NPS"	5354-5					Only if Disassembled
B21F022D		VT-3	>4 NPS"	5355-5		07C			Only if Disassembled
B21F028A		VT-3	>4 NPS"	5352-5					Only if Disassembled
B21F028B		VT-3	>4 NPS"	5353-5		07C			Only if Disassembled
B21F028C		VT-3	>4 NPS"	5354-5		07C			Only if Disassembled
B21F028D		VT-3	>4 NPS"	5355-5					Only if Disassembled
B21F032A		VT-3	>4 NPS"	3537-5		07C			Only if Disassembled
B21F032B		VT-3	>4 NPS"	3536-5		07C			Only if Disassembled
B21F076A		VT-3	>4 NPS"	3537-5		07C		11C	Only if Disassembled
B21F076B		VT-3	>4 NPS"	3536-5		07C	09C		Only if Disassembled
B31F023A		VT-3	>4 NPS"	5357-5					Only if Disassembled
B31F023B		VT-3	>4 NPS"	5359-5					Only if Disassembled
B31F031A		VT-3	>4 NPS"	5357-5		·		11C	Only if Disassembled
B31F031B		VT-3	>4 NPS"	5359-5					Only if Disassembled
E11F008		VT-3	>4 NPS"	2299-5					Only if Disassembled
E11F009		VT-3	>4 NPS"	2299-5					Only if Disassembled
E11F015A		VT-3	>4 NPS"	2298-5		07C			Only if Disassembled
E11F015B		VT-3	>4 NPS"	2327-5					Only if Disassembled
E11F050A		VT-3	>4 NPS"	2298-5		07C	09C		Only if Disassembled
E11F050B		VT-3	>4 NPS"	2327-5		07C	09C		Only if Disassembled
E11F060A		VT-3	>4 NPS"	2298-5					Only if Disassembled
E11F060B		VT-3	>4 NPS"	2327-5					Only if Disassembled
E11F067		VT-3	>4 NPS"	2299-5					Only if Disassembled
E11F608		VT-3	>4 NPS"	2299-5					Only if Disassembled
E21F005A		VT-3	>4 NPS"	3052-5					Only if Disassembled
E21F005B		VT-3	>4 NPS"	3053-5					Only if Disassembled

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 18

Category / Item	ı Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec	ction Pe	riod 3	Remarks
B-M-2									
B12.50	Valve Body								•
E21F006A		VT-3	>4 NPS"	3052-5		08C			Only if Disassembled
E21F006B		VT-3	>4 NPS"	3053-5		07C	09C		Only if Disassembled
E21F007A		VT-3	>4 NPS"	3052-5					Only if Disassembled
E21F007B		VT-3	>4 NPS"	3053-5					Only if Disassembled
E41F002		VT-3	>4 NPS"	2297-5					Only if Disassembled
E41F003		VT-3	>4 NPS"	2297-5					Only if Disassembled
E41F006		VT-3	>4 NPS"	5352-5			10C		Only if Disassembled
E51F013		VT-3	>4 NPS"	3536-5					Only if Disassembled
G33F001		VT-3	>4 NPS"	3096-5					Only if Disassembled
G33F004		VT-3	>4 NPS"	3096-5					Only if Disassembled
G33F100		VT-3	>4 NPS"	5351-5					Only if Disassembled
G33F102		VT-3	>4 NPS"	5351-5					Only if Disassembled
G33F106		VT-3	>4 NPS"	5351-5					Only if Disassembled
B-N-1									
B13.10	Reactor Vessel Inter techniques are utiliz				ote visual te	chnique:	s. Exam	s listed	are code required exams. More detailed
Access Hole	Cover	VT-1	Vessel Interior, A				09C	12S	Note No. 13
CDP and SL	C Line	VT-3	Vessel Interior						Only if Accessible
Control Rod	Drive Housings	VT-3	Vessel Interior						Only if Accessible
Core Shroud	I	VT-3	Vessel Interior			07CP/ 08CP			Note No. 19
Core Shroud	l	VT-1	Vessel Interior, A			07CP/ 08CP	,		Note No. 19
Core Shroud	i Welds	UT	Vessel Interior, A					12S	Note No. 19
Core Spray S Piping	Sparger and Interior	VT-3 / VT-1	Vessel Interior, A			07C/0 8CP	09CP/ 10CP	11CP /12SP	Note No. 12
Feedwater S	parger	VT-3	Vessel Interior				09CP/ 10CP	12SP	NUREG 0619 at least once every 4 Cycles
Flux Monito	or Housings	VT-3	Vessel Interior						Only if Accessible

INSERVICE INSPECTION NDE PROGRAM TABLE A

FERMI 2 NUCLEAR POWER PLANT

ISI - NDE Program Rev. 5 Change 0

Page 19

Category / Item	n Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec 1	ction P	eriod 3	Remarks
B-N-1									
B13.10	Reactor Vessel Inter techniques are utiliz				te visual tec	chniques	. Exan	ns listed	are code required exams. More detailed
Guide Rod I	Holders / Brackets	VT-3	Vessel Interior			07CP/ 08CP	10CP	12SP	
Instrumentat	tion Lines	VT-3	Vessel Interior, A			07CP/ 08CP			Note No. 7
Jet Pump Co	omponents	VT-3 / UT	Vessel Interior, A			07CP/ 08CP			Note No. 17
Jet Pump Ho	old Down Beams	VT-3	Vessel Interior			07CP/ 08CP			
Jet Pump Ho	old Down Beams	UT	Vessel Interior, A				09C		Note No. 3
Recirculation	on Inlet Nozzle	VT-3	Vessel Interior			08CP	09CP/ 10CP	12SP	•
Sample Hol	ders	VT-3	Vessel Interior			08CP	10CP	12SP	
Shroud Hea	d	VT-3	Vessel Interior					/ 11CP /12SP	
Shroud Hea	d Bolts	VT-3	Vessel Interior					/ 11CP /12SP	
Shroud Hea	d Bolts	UT	Vessel Interior, A						Note No. 9
Steam Drye Downs	er Assembly / Hold	VT-3	Vessel Interior				09CP/ 10CP	/ 12SP	Note No. 11
Steam Sepa	rator Assy.	VT-3	Vessel Interior				09CP 10CP	/ 11CP /12SP	
Top Guide		VT-3	Vessel Interior				09CP 10CP		Note No. 16
B-N-2									
B13.20	RPV Interior Weld required exams. M	ed Attachmen ore detailed te	ts Within Beltline Ro chniques are utilized	egion - Vesso d as per BWF	el Internals RVIP I&E G	are exan Juideline	nined u s (Note	sing ren	note visual techniques. Exams listed are code
Jet Pump R	Liser Brace Arms	VT-1	Vessel Interior, A	-		07CP	/ 09CP	/ 11CP /12SF	
Surveilland	e Specimen Bracket	VT-1	Attachment Weld			07CP 08CP	/ 10CP	12SP	

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 20

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec 1	tion Po	eriod 3	Remarks
B-N-2								
		s Beyond Beltline Reg Chniques are utilized						note visual techniques. Exams listed are code
Core Spray Piping Brackets	VT-3	Interior Attachment Beyond Beltline	_		07CP/ 08CP	09C/		
Feedwater Sparger Brackets	VT-3	Interior Attachment Beyond Beltline			07CP/ 08CP			
Shroud Support Welds	EVT-1/ UT	Interior Attachment Beyond Beltline				09CP/ 10CP	11CP	Note No. 19
Steam Dryer Support Lugs	VT-3	Interior Attachment Beyond Beltline			07CP/ 08CP	10C		
B13.40 Welded Core Suppo detailed techniques	ort Structure are utilized as	Vessel Internals are per BWRVIP I&E G	e examined u Guidelines (N	sing remote ote 22).	visual te	chniqu	es. Ex	ams listed are code required exams. More
Core Support Assy. & Bolts	VT-3 / UT	A			07CP/ 08CP		12SP	BWRVIP-25
Lower Core Shroud	VT-3	Core Support, A			07CP	09CP	12SP	Note No. 19
Peripheral Fuel Support	VT-3	A			07CP/ 08CP	09CP		
В-О							•	
B14.10 Welds in CRD Hou	sing							
CRDH-X02-Y27-W1	PT	10% Peripheral Housing Welds	5363-5		08C			
CRDH-X02-Y27-W2	PT	10% Peripheral Housing Welds	5363-5		08C			
CRDH-X02-Y31-W1	PT	10% Peripheral Housing Welds	5363-5			10C		
CRDH-X02-Y31-W2	PT	10% Peripheral Housing Welds	5363-5			10C		
CRDH-X02-Y35-W1	PT	10% Peripheral Housing Welds	5363-5				11C	
CRDH-X02-Y35-W2	PT	10% Peripheral Housing Welds	5363-5				11C	

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 21

FERMI 2 NUCLEAR POWER PLANT

Category / Item I	dentification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec 1	ction P	eriod 3	Remarks
В-О									
B14.10 V	Welds in CRD Hous	sing							
CRDH-X02-Y	39-W1	PT	10% Peripheral Housing Welds	5363-5				128	•
CRDH-X02-Y	39-W2	РТ	10% Peripheral Housing Welds	5363-5				128	
В-Р									
B15.X (Class 1 Pressure Re	taining Bound:	ary (Note 15)						
	, C41, E11, E21,	VT-2	Class1 Pressure Retaining Boundary					128	X Includes items - B15.11, B15.51, B15.61 and B15.71. Each Interval, Code Case N-498-1
B11, B21, B31 E41, E51, G33	I, C41, E11, E21, B, N21, P34	VT-2	Class1 Pressure Retaining Boundary			07C/ 08C	09C/ 10C	11C	X Includes items - B15.10, B15.50, B15.60 and B15.70. Each Refueling Outage; Note 15
C-A									
	Shell Circumferent	ial Weld							
SW-E11-D2-H		UT	Gross Structural Discontinuity	5370-5		08C			
C1.20	Head Circumferen	tial Weld	•						
SW-E11-D2-H	1X-05	UT	Gross Structural Discontinuity	5370-5				11C	
С-В									
C2.21	Nozzle to Shell (or	Head) Weld							
SW-E11-D2-F	•	ÚT	Shell - T >.5"	5370-5		08C			
SW-E11-D2-H	HX-01	MT	Shell - T >.5"	5370-5		08C			
SW-E11-D2-F	HX-10	МТ	Shell - T >.5"	5370-5				11C	
SW-E11-D2-F	HX-10	UT	Shell - T >.5"	5370-5				11C	
C2.22	Nozzle Inside Radi	us Section							
SW-E11-D2-H	HX-01 IRS	UT	Selected Nozzle			08C			
SW-E11-D2-F	HX-10 IRS	UT	Selected Nozzle					11C	
C-C									•

C3.10 Intregally Welded Attachment (Vessel)

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 22

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction Pe	eriod 3	Remarks
C-C								
C3.10 Intregally Welded At	tachment (Ve	essel)						
SW-E11-D2-HXS-05	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-06	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-07	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-09	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-10	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-11	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-12	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-13	MT	10%	5370-5			09C		Code Case N-509
SW-E11-D2-HXS-14	MT	10%	5370-5			09C		Code Case N-509
SW-E11-D2-HXS-15	MT	10%	5370-5			09C		Code Case N-509
SW-E11-D2-HXS-16	MT	10%	5370-5			09C		Code Case N-509
SW-E11-D2-HXS-17	MT	10%	5370-5				11C	Code Case N-509
SW-E11-D2-HXS-18	MT	10%	5370-5				11C	Code Case N-509
SW-E11-D2-HXS-19	MT	10%	5370-5				11C	Code Case N-509
SW-E11-D2-HXS-20	MT	10%	5370-5				11C	Code Case N-509
SW-E11-D2-HXS-21	MT	10%	5370-5				11C	Code Case N-509
SW-E11-D2-HXS-22	MT	10%	5370-5				11C	Code Case N-509
SW-E11-D2-HXS-23	MT	10%	5370-5				11C	Code Case N-509
SW-E11-D2-HXS-24	MT	10%	5370-5				11C	Code Case N-509
C3.20 Intregally Welded A	ttachment (P	iping)						
C11-50-2113-G262A	MT	10%	<i>5375-5</i>				11C	Code Case N-509
C11-50-2113-G262B	MT	10%	5375-5				11C	Code Case N-509
C11-50-2113-G262C	MT	10%	5375-5				11C	Code Case N-509
C11-50-2113-G262D	MT	10%	5375-5				11C	Code Case N-509
C11-50-2113-G262E	MT	10%	5375-5				11C	Code Case N-509
C11-50-2113-G262F	MT	10%	5375-5				11C	Code Case N-509
C11-50-2113-G262G	MT	10%	5375-5				11C	Code Case N-509
C11-50-2113-G262H	MT	10%	5375-5				11C	Code Case N-509

INSERVICE INSPECTION NDE PROGRAM TABLE A

FERMI 2 NUCLEAR POWER PLANT

ISI - NDE Program Rev. 5 Change 0 Page 23

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe	ction P	eriod 3	Remarks		
C-C										
C3.20 Intregally Welded Att	tachment (P	iping)								
PSFW-E21-3147-301	MT	10%	3147-5		07C			Code Case N-509		
PSFW-E41-3167-IWE	MT	10%	3167-5			10C		Code Case N-509		
PSFW-E41-3167-IWF	MT	10%	3167-5			10C		Code Case N-509		
PSFW-E41-3167-IWG	MT	10%	3167-5			10C		Code Case N-509		
PSFW-E41-3167-IWH	MT	10%	3167-5			10C		Code Case N-509		
SW-E11-3151-4WE	MT	10%	3151-5				12S	Code Case N-509		
SW-E11-3151-4WF	MT	10%	3151-5				12S	Code Case N-509		
SW-E11-3151-4WG	MT	10%	3151-5				12S	Code Case N-509		
SW-E11-3151-4WH	MT	10%	3151-5				12S	Code Case N-509		
SW-E11-3151-4WJ	MT	10%	3151-5				128	Code Case N-509		
SW-E11-3151-4WK	MT	10%	3151-5				12S	Code Case N-509		
C-F-1	C-F-1									
Augmented NRC Commitment										
FW-C41-2979-11S12	PT	Α	2979-5			10C		EF2-53.873		
FW-C41-2979-17S18	PT	Α	2979-5				12S	EF2-53.873		
FW-C41-2979-1S2	PT	Α	2979-5		08C			EF2-53.873		
FW-C41-2979-2S3	PT	Α	2979-5		08C			EF2-53.873		
FW-C41-2979-50S51	PT	Α	2979-5				11C	EF2-53.873		
FW-C41-2979-63S64	PT	Α	2979-5			09C		EF2-53.873		
FW-C41-2979-64S65	PT	Α	2979-5			09C		EF2-53.873		
FW-C41-2979-72S73	PT	Α	2979-5		08C			EF2-53.873		
FW-C41-2979-81S82	PT	Α	2979-5				12S	EF2-53.873		
FW-C41-2979-L	PT	Α	2979-5			10C		EF2-53.873		
FW-C41-2979-P	PT	Α	2979-5		07C			EF2-53.873		
FW-C41-3361-02W1	PT	Α	3361-5		07C			EF2-53.873		
FW-C41-3361-1WF22	PT	Α	3361-5				12S	EF2-53.873		
FW-C41-3361-1WF25	PT	Α	3361-5				11C	EF2-53.873		
FW-C41-5058-54S55	PT	Α	5374-5			09C		EF2-53.873		

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 24

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec	tion Po	eriod 3	Remarks
C-F-1								
Augmented NRC Commitment							•	
FW-C41-5058-65S66	PT	A	5374-5				11C	EF2-53.873
C-F-2								
C5.51 Circumferential Weld	l							
FW-C11-2113-249-B	MT	R	5372-5				12S	
FW-C11-2113-249-B	UT	R	5372-5				128	
FW-E11-3146-5WO	MT	MS	3146-5		08C			
FW-E11-3146-5WO	UT	MS	3146-5		08C			
FW-E11-3146-6W10	UT	MS	3146-5		07C			
FW-E11-3146-6W10	MT	MS	3146-5		07C			
FW-E11-3146-OW1	UT	TE	3146-5				11C	
FW-E11-3146-OW1	MT	TE	3146-5				11C	
FW-E11-3151-10W0	UT	TE	3151-5				11C	
FW-E11-3151-10W0	MT	TE	3151-5				11C	
FW-E11-3151-3WF2	UT	MS	3151-5			09C		
FW-E11-3151-3WF2	MT	MS	3151-5			09C		
FW-E11-3151-7W11	UT	MS	3151-5			10C		
FW-E11-3151-7W11	MT	MS	3151-5			10C		
FW-E11-3154-13WO	UT	TE	3154-5			09C		
FW-E11-3154-13WO	MT	TE	3154-5			09C		
FW-E11-3154-4WO	MT	TE	3154-5				12S	
FW-E11-3154-4WO	UT	TE	3154-5				12S	
FW-E11-3157-OW6	MT	TE	3157-5		07C			
FW-E11-3157-OW6	UT	TE	3157-5		07C			
FW-E11-3158-10WF4	UT	TE	3158-5		07C			
FW-E11-3158-10WF4	MT	TE	3158-5		07C			
FW-E11-3158-1W2	UT	R	3158-5			09C		
FW-E11-3158-1W2	MT	R	3158-5			09C		
FW-E11-3158-9WF2	MT	R	3158-5			09C		

INSERVICE INSPECTION NDE PROGRAM TABLE A

FERMI 2 NUCLEAR POWER PLANT

ISI - NDE Program Rev. 5 Change 0 Page 25

Category / Item Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ection F	Period 3	Remarks
C-F-2								
C5.51 Circumferential V	Veld							•
FW-E11-3158-9WF2	UT	R	3158-5			09C		
FW-E11-3159-OW1	MT	HS	3159-5		08C			
FW-E11-3159-OW1	UT	HS	3159-5		08C			
FW-E11-3160-OW2	VT-1	R	3160-5	RR-A26			11C	Note 21
FW-E11-3161-4WF5	VT-1	R	3161-5	RR-A26			12S	Note 21
FW-E11-3164-4W5	MT	R	3164-5				12S	
FW-E11-3164-4W5	UT	R	3164-5				12S	
FW-E11-4611-1W2	VT-1	R	4611-5	RR-A26			12S	Note 21
FW-E11-4611-1WF2	VT-1	R	4611-5	RR-A26			128	Note 21
FW-E11-4612-3WF4	VT-1	R	4612-5	RR-A26			12S	Note 21
FW-E11-4612-4W5	VT-1	R	4612-5	RR-A26		10C		Note 21
FW-E11-4612-4WF1	VT-1	R	4612-5	RR-A26			12S	Note 21
FW-E11-4612-7W8	VT-1	R	4612-5	RR-A26		10C		Note 21
FW-E11-4612-8WF3	VT-1	R	4612-5	RR-A26		10C		Note 21
FW-E11-4612-9WO	VT-1	R	4612-5	RR-A26			11C	Note 21
FW-E21-3144-0W4	UT	TE	3144-5			10C		
FW-E21-3144-0W4	MT	TE	3144-5			10C		
FW-E21-3144-OW1	MT	TE	3144-5		07C			
FW-E21-3145-11WO	MT	R	3145-5			10C		
FW-E21-3147-16W17	MT	R	3147-5		07C			
FW-E21-3147-16W17	UT	R	3147-5		07C			
FW-E21-3148-0W8	UT	TE	3148-5				12S	•
FW-E21-3148-0W8	MT	TE	3148-5				12S	
FW-E21-3148-7W0	MT	TE	3148-5			09C		
FW-E21-3148-7W0	UT	TE	3148-5			09C		
FW-E41-3162-11WF1	VT-1	R	3162-5	RR-A26		09C		Note 21
FW-E41-3162-11WF4	VT-1	R	3162-5	RR-A26		09C		Note 21
FW-E41-3162-11WF5	VT-1	R	3162-5	RR-A26		09C		Note 21

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 26

Category / Item Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ection P	eriod 3	Remarks
C-F-2								
C5.51 Circumferential V	Veld							
FW-E41-3162-11WO	VT-1	R	3162-5	RR-A26	08C			Note 21
FW-E41-3162-1W2	UT	R	3162-5			10C		
FW-E41-3162-1W2	MT	R	3162-5			10C		
FW-E41-3162-9WF0	UT	TE	3162-5				12S	·
FW-E41-3162-9WF0	MT	TE	3162-5				12S	
FW-E41-3163-7W0	MT	TE	3163-5		07C			
FW-E41-3163-7W0	UT	TE	3163-5		07C			
FW-E41-3163-8W0	UT	TE	3163-5				11C	
FW-E41-3163-8W0	MT	TE	3163-5				11C	
FW-E41-3167-1W2	MT	R	3167-5				12S	
FW-E41-3167-1W2	UT	R	3167-5				12S	
FW-E41-3167-9WO	UT	TE	3167-5				11C	
FW-E41-3167-9WO	MT	TE	3167-5				11C	
FW-E41-3167-OW1	MT	TE	3167-5			09C		
FW-E41-3167-OW1	UT	TE	3167-5			09C		
FW-E41-3169-2W0	MT	R	3167-5			09C		
FW-E41-3169-2W0	UT	R	3169-5			09C		
FW-E41-3172-0W1	MT	TE	3172-5			10C		
FW-E41-3172-0W1	UT	TE	3172-5			10C		
FW-E41-3172-0W8	UT	R	3172-5				12S	
FW-E41-3172-0W8	MT	R	3172-5				125	
FW-G41-3669-0W9	MT	MS	3669-5				12S	
FW-N30-3259-4WO	MT	TE	3259-5		08C			
FW-N30-3259-4WO	UT	TE	3259-5	•	08C			
FW-T48-04-2095-11W12	MT	R	2095-5		07C			
FW-T48-04-2095-19WO	MT	MS	2095-5	RR-A26	08C			Note 21
FW-T48-04-2095-7W8	MT	R	2095-5			10C		
FW-T48-04-2097-20W21	MT	MS	2097-5	RR-A26	07C			Note 21

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 27

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ection I	Period 3	Remarks	
C-F-2									
C5.51 Circumferential We	ld								
FW-T48-04-2097-8W9	MT	R	2097-5		07C				
SW-C11-2113-172-A	MT	R	5375-5			09C			
SW-C11-2113-172-A	UT	R	5375-5			09C		•	
SW-C11-2113-303-A	MT	R	5372-5				11C		
SW-C11-2113-303-A	UT	R	5372-5				11C		
SW-E11-3035-5WE	MT	R	3035-5		07C				
SW-E11-3035-7WB	MT	R	3035-5			09C			
SW-E11-3146-6WE	MT	HS	3146-5			10C			
SW-E11-3146-6WE	UT	HS	3146-5			10C			
SW-E11-3146-6WH	UT	HS	3146-5		07C				
SW-E11-3146-6WH	MT	HS	3146-5		07C				
SW-E11-3153-13WD	MT	R	3153-5		08C				
SW-E11-3153-13WD	UT	R	3153-5		08C				
SW-E11-3154-4WC	MT	R	3154-5			09C			
SW-E11-3154-4WC	UT	R	3154-5			09C			
SW-E11-3157-1WB	MT	R	3157-5				12S	•	
SW-E11-3157-1WB	UT	R	3157-5				125		
SW-E11-3158-4WD	MT	R	3158-5				11C		
SW-E11-3158-4WD	UT	R	3158-5				11C		
SW-E11-3158-8WG	UT	R	3158-5				11C		
SW-E11-3158-8WG	MT	R	3158-5				11C		
SW-E11-3161-1WH	MT	R	3161-5				12S		
SW-E11-3161-4WB	VT-1	R	3161-5	RR-A26		10C		Note 21	
SW-E11-3161-4WK	VT-1	R	3161-5	RR-A26			12S	Note 21	
SW-E11-3177-6WD	UT	R	3177-5				11C		
SW-E11-3177-6WD	MT	R	3177-5				11C		
SW-E11-3177-9WE	UT	R	3177-5			09C			
SW-E11-3177-9WE	MT	R	3177-5			09C			

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 28

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe	ction Pe	eriod 3	Remarks
C-F-2								
C5.51 Circumferential Weld								
SW-E21-3145-9WD	VT-1	R	3145-5	RR-A26	08C			Note 21
SW-E21-3147-15WF	MT	R	3147-5				11C	
SW-E21-3147-15WF	UT	R	3147-5				11C	
SW-E21-3147-15WG	MT	R	3147-5			10C		
SW-E21-3147-15WG	UT	R	3147-5			10C		
SW-E21-3147-19WB	UT	R	3147-5		08C			
SW-E21-3147-19WB	MT	R	3147-5		08C			
SW-E21-3147-5WJ	UT	R	3147-5		08C			
SW-E21-3147-5WJ	MT	R	3147-5		08C			
SW-E21-3148-5WD	MT	R	3148-5		08C			
SW-E21-3149-4WD	UT	R	3149-5		07C			
SW-E21-3149-4WD	MT	R	3149-5		07C			
SW-E21-3149-6WC	MT	R	3149-5				12S	
SW-E21-3149-6WC	UT	R	3149-5				12S	
SW-E21-3149-6WL	MT	R	3149-5				11C	
SW-E21-3149-6WL	UT	R	3149-5				11C	
SW-E41-3162-11WC	VT-1	R	3162-5	RR-A26	08C			Note 21
SW-E41-3162-2WC	MT	R	3162-5			10C		Replaced SW-E41-3162-1WU
SW-E41-3162-2WC	UT	R	3162-5			10C		CARD 04-25787
SW-E41-5373-GW3	MT	R	5373-5			09C		
SW-E41-5373-GW3	UT	R	5373-5			09C		
SW-G41-3669-3WB	MT	R	3669-5			10C		
SW-N30-3258-13WJ	UT	MS	3258-5				125	
SW-N30-3258-13WJ	MT	MS	3258-5				12S	
SW-N30-3258-19WJ	UT	MS	3258-5		07C			
SW-N30-3258-19WJ	MT	MS	3258-5	•	07C			
SW-N30-3258-1WJ	MT	MS	3258-5			10C		
SW-N30-3258-1WJ	UT	MS	3258-5			10C		

ISI - NDE Program Rev. 5 Change 0 Page 29

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe	ction I	Period 3	Remarks
C-F-2								
C5.51 Circumferential Weld								
SW-N30-3258-7WK	UT	MS	3258-5			09C		
SW-N30-3258-7WK	MT	MS	3258-5			09C		
SW-T48-04-2095-5WD	MT	R	2095-5				11C	
SW-T48-04-2095-WSW3	MT	R	2095-5				11C	
SW-T48-04-2097-18WC	MT	R	2097-5			10C		
SW-T48-04-2097-20WD	MT	MS	3258-5	RR-A26			11C	Note 21
SW-T48-04-2097-21WB	VT-1	R	2097-5	RR-A26	07C			Note 21
SW-T48-04-2097-25WF	VT-1	R	2097-5	RR-A26	07C			Note 21
C5.52 Longituinal Weld								
SW-E41-3162-11WOLD	VT-1	R	3162-5	RR-A26	08C			Note 21
SW-N30-3258-13WJLU	MT		3258-5				12S	
SW-N30-3258-13WJLU	UT		3258-5				12S	
SW-N30-3258-19WJLU	UT		3258-5		07C			
SW-N30-3258-19WJLU	MT		3258-5		07C			
SW-N30-3258-1WJLU	MT		3258-5			10C		
SW-N30-3258-7WKLU	MT		3258-5			09C		
SW-N30-3258-7WKLU	UT		3258-5			09C		
C5.81 Branch Connection W	/eld							
FW-E11-3146-15FW01	MT	MS	3146-5				12S	
FW-E11-3157-4WF01	MT	R	3157-5				128	
SW-E11-3146-5WC	MT	MS	3146-5		07C			
SW-E11-3146-5WM	MT	HS	3146-5			10C		
SW-E11-3146-7WC	MT	HS	3146-5				12S	
SW-E11-3151-8WD	MT	HS	3151-5		08C			
SW-E11-3160-1WD	MT	HS	3160-5			09C		
SW-E21-3144-5WE	MT	R	3144-5				11C	
SW-N30-3258-13WB	MT	R	3258-5		08C			

INSERVICE INSPECTION NDE PROGRAM TABLE A

FERMI 2 NUCLEAR POWER PLANT

ISI - NDE Program Rev. 5 Change 0 Page 30

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ection P	eriod 3	Remarks
С-Н								
C.7X Class 2 Pressure Retai	ning Bound	ary (Note 15)						
B21 Main Steam	VT-2	Class 2 Boundary	5808-1 5808-2		08C	10C	125	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
E11 Residual Heat Removal System	VT-2	Class 2 Boundary	5813-1 5813-2 5813-3		08C	10C	12S	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
E21 Core Spray System	VT-2	Class 2 Boundary	5814		08C	10C	12S	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
E41 High Pressure Coolant Injection	VT-2	Class 2 Boundary	5815		08C	10C	128	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
G41 Fuel Pool Cooling & Cleanup System	VT-2	Class 2 Boundary	5819		08C	10C	125	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
G51 Torus Water Management System	VT-2	Class 2 Boundary	5820		08C	10C	125	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
N30 Main & Reheat Steam System	VT-2	Class 2 Boundary	5822		08C	10C	125	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
P34 Post Accident Sampling	VT-2	Class 2 Boundary, Code Case N-522	5824		08C	10C	12S	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
T48-04 Containment Atmosphere, Control System	VT-2	Class 2 Boundary, Code Case N-522	5830-1 5830-2		08C	10C	128	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
T50 Primary Containment Monitoring System	VT-2	Class 2 Boundary, Code Case N-522	5831		08C	10C	128	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
C7.X Class 2 Pressure Reta	ining Bound	lary (Note 15)						
B21 Main Steam	VT-2	Class 2 Boundary	5808-1 5808-2				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
C11 Control Rod Drive System	VT-2	Class 2 Boundary	5810-1		08C	10C	128	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
C11 Control Rod Drive System	VT-2	Class 2 Boundary	5810-1				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
C41 Standby liquid Control System	VT-2	Class 2 Boundary	5811				128	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
C41 Standby liquid Control System	VT-2	Class 2 Boundary	5811		08C	10C	12S	X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period

INSERVICE INSPECTION NDE PROGRAM TABLE A

FERMI 2 NUCLEAR POWER PLANT

ISI - NDE Program Rev. 5 Change 0 Page 31

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec	ction Perio	d 3	Remarks
С-Н								
C7.X Class 2 Pressure Retain	ining Bound	ary (Note 15)						
E11 Residual Heat Removal System	VT-2	Class 2 Boundary	5813-1 5813-2 5813-3			12	S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
E21 Core Spray System	VT-2	Class 2 Boundary	5814			12	S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
E41 High Pressure Coolant Injection	VT-2	Class 2 Boundary	5815	RR-A19		12	S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
G41 Fuel Pool Cooling & Cleanup System	VT-2	Class 2 Boundary	5819			12	2S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
G51 Torus Water Management System	VT-2	Class 2 Boundary	5820			12	2S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
N30 Main & Reheat Steam System	VT-2	Class 2 Boundary	5822			12	2S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
P34 Post Accident Sampling	VT-2	Class 2 Boundary	5824			12	2S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
T48-04 Containment Atmosphere, Control System	VT-2	Class 2 Boundary	5830-1 5830-2			12	2S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
T50 Primary Containment Monitoring System	VT-2	Class 2 Boundary	5831			12	2S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
D-B								
D2.10 Pressure Retaining C	components							
E11 Residual Heat RemovalSystem Functional Boundary	Visual, VT-2	System Function	Class 3 Systems		08C	10C 1	2S	Note 15 Perform Each Period; Code Case 498-1
P44 Emergency Equipment Cooling Water	Visual, VT-2	System Function	Class 3 Systems		08C	10C 1	2S	Note 15 Perform Each Period; Code Case 498-1
P45 Emergency Equipment Service Water	Visual, VT-2	System Function	Class 3 Systems		08C	10C 1	2S	Note 15 Perform Each Period; Code Case 498-1
R30 Emergency Diesel Generator & Service Water	Visual, VT-2	System Function	Class 3 Systems		08C	10C 1	2S	Note 15 Perform Each Period; Code Case 498-1
D2.20 Intregal Attachment	(Supports a	nd Restraints)						
E11-2179-G20	VT-1	10% Selection	2179-2		07C			Code Case N-509

INSERVICE INSPECTION NDE PROGRAM TABLE A

Rev. 5 Change 0 Page 32

ISI - NDE Program

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspect	ction 2	Period 3	Remarks
D-B								
D2.20 Intregal Attachment (Supports and	l Restraints)						
E11-2184-G12	VT-1	10% Selection	2184-2			10C		Code Case N-509
E11-3184-G08	VT-1	10% Selection	3184-2			09C		Code Case N-509
E11-3185-G40	VT-1	10% Selection	3185-2			09C		Code Case N-509
P44-3084-G10	VT-1	10% Selection	3084-2		07C			Code Case N-509
P44-3336-G01	VT-1	10% Selection	3336-2			09C		Code Case N-509
P44-3337-G13	VT-1	10% Selection	3337-2				12S	Code Case N-509
P44-3347-G14	VT-1	10% Selection	3347-2				12S	Code Case N-509
P44-3348-G12	VT-1	10% Selection	3348-2		07C			Code Case N-509
P44-3559-G12	VT-1	10% Selection	3559-2			10C		Code Case N-509
P45-2178-G09	VT-1	10% Selection	MN-2178			09C		Code Case N-509
P45-2204-G11	VT-1	10% Selection	2204-2				11C	Code Case N-509
P45-3352-G06	VT-1	10% Selection	3352-2		07C			Code Case N-509
P45-3353-G05	VT-1	10% Selection	3353-2			10C		Code Case N-509
P45-4626-G08	VT-1	10% Selection	4626-2				12S	Code Case N-509
P45-4627-G06	VT-1	10% Selection	4627-2				12S	Code Case N-509
R30-2176-G28	VT-1	10% Selection	MN-2176			10C		Code Case N-509
D2.40 Intregal Attachment	,							
P44-3048-G10 .	VT-1	10% Selection	3048-2		07C			Code Case N-509
N/A								
N/A ANSI B31.1 Augment	ted							
FW-N20-3105-22WO	UT	NUREG 0313	3105-1			09C		Note 2, Category D
FW-N20-3105-0W13	UT	NUREG 0313	3105-1		08C			Note 2, Category D
FW-N20-3105-0W15	UT	NUREG 0313	3105-1				12S	Note 2, Category D
FW-N20-3105-0W23	UT	NUREG 0313	3105-1			09C	!	Note 2, Category D
FW-N20-3105-14WO	UT	NUREG 0313	3105-1				12S	Note 2, Category D
FW-N20-3105-16W0	UT	NUREG 0313	3105-1		07C			Note 2, Category D
FW-N20-3105-24W0	UT	NUREG 0313	3105-1			10C	;	Note 2, Category D
FW-N20-3105-OW21	UT	NUREG 0313	3105-1				11C	Note 2, Category D

INSERVICE INSPECTION NDE PROGRAM TABLE A

ISI - NDE Program Rev. 5 Change 0 Page 33

Category / Item Identification	Exams Requir	Selection Basis	Isometric	Relief Request	Inspe 1	ection I	Period 3	Remarks
N/A				·				
N/A ANSI B31.1 Augr	nented							
FW-N20-3107-0W1	UT	NUREG 0313	3107-1			10C		Note 2, Category D
FW-N20-3107-0W17	UT	NUREG 0313	3107-1		07C			Note 2, Category D
FW-N21-3109-18W0	UT	NUREG 0313	3109-1		08C			Note 2, Category D
FW-N21-3109-29WO	UT	NUREG 0313	3109-1				11C	Note 2, Category D
SW-N20-03-B009-BWSE	UT	NUREG 0313	3105-1				11C	Note 2, Category D
SW-N20-03-B010-BWSE	UT	NUREG 0313	3105-1		08C			Note 2, Category D
SW-N20-03-B011-AWSE	UT	NUREG 0313	3105-1			09C		Note 2, Category D
SW-N20-03-B011-BWSE	UT	NUREG 0313	3105-1			09C		Note 2, Category D
SW-N20-03-B012-AWSE	UT	NUREG 0313	3105-1				12S	Note 2, Category D
SW-N20-03-B012-BWSE	UT	NUREG 0313	3105-1				12S	Note 2, Category D
SW-N20-03-B013-AWSE	UT	NUREG 0313	3105-1			10C		Note 2, Category D
SW-N20-03-B013-BWSE	UT	NUREG 0313	3107-1			10C		Note 2, Category D
SW-N20-03-B014-AWSE	UT	NUREG 0313	3105-1		07C			Note 2, Category D
SW-N20-03-B014-BWSE	UT	NUREG 0313	3107-1		07C			Note 2, Category D
SW-N21-01-B001-AWSE	UT	NUREG 0313	3109-1				11C	Note 2, Category D
SW-N21-01-B002-AWSE	UT	NUREG 0313	3109-1		08C			Note 2, Category D

ISI - NDE Program Rev. 5 Change 0 Page 1

INSERVICE INSPECTION NDE PROGRAM

TABLE B

ISI - NDE Program Rev. 5 Change 0 Page 2

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspect 1	ion Period 2 3	Remarks
1	B11-5360-Skirt	VT-3	A		08C		RPV Skirt & Bolting
1	B11-5360-STAB-A	VT-3	G			11C	RPV Stabilizer Supports
1	B11-5360-STAB-B	VT-3	G		08C		RPV Stabilizer Supports
1	B11-5360-STAB-C	VT-3	G			11C	RPV Stabilizer Supports
1	B11-5360-STAB-D	VT-3	G			11C	RPV Stabilizer Supports
1	B11-5360-STAB-E	VT-3	G			11C	RPV Stabilizer Supports
1	B11-5360-STAB-F	VT-3	G			128	RPV Stabilizer Supports
1	B11-5360-STAB-G	VT-3	G			11C	RPV Stabilizer Supports
1	B11-5360-STAB-H	VT-3	G			11C	RPV Stabilizer Supports
1	B21-2192-G02	VT-3	SP			128	
1	B21-2192-G13	VT-3	G			12S	
1	B21-2297-G14	VT-3	G		1	10C	
1	B21-5352-HA1	VT-3	SP		07C		
1	B21-5353-HB2	VT-3	SP		· 08C		
1	B21-5354-AC1	VT-3	Α			11C	
1	B21-5354-HC3	VT-3	SP		08C		
1	B21-5355-GD1	VT-3	G		07C		
1	B31-5356-HA4	VT-3	SP			128	
1	B31-5357-HA1	VT-3	SP			10C	
1	B31-5357-HA7	VT-3	С		08C		
1	B31-5358-HB3	VT-3	SP		07C		
1	В31-5359-НВ6	VT-3	C		•	10C	
1	В31-5359-НВ7	VT-3	C		(09C	
1	E11-2298-G01	VT-3	SP			11C	
1	E11-2299-G03	VT-3	SP	•		11C	
1	E11-2327-G03	VT-3	R		(09C	
1	E21-3052-G02	VT-3	SP		(09C	
1	E21-3053-G01	VT-3	SP		(09C	
1	E21-3053-G03	VT-3	R			12S	

ISI - NDE Program Rev. 5 Change 0 Page 3

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspe 1	ection 2	Period 3	Remarks
1	E41-2297-G05	VT-3	SP		-	_	12S	
1	E51-2192-G11	VT-3	SP		07C			
1	G33-3096-G01	VT-3	SP			10C		
1	G33-3096-G04	VT-3	SP		07C			
1	G33-3096-G10	VT-3	SP				11C	
1	G33-3096-G32	VT-3	G				11C	
1	N21-3536-G02	VT-3	SP			09C		
1	N21-3536-G03	VT-3	SP				12S	
1	N21-3536-G07	VT-3	SP				11C	
1	N21-3537-G04	VT-3	SP			10C		
1	N21-3537-G06	VT-3	SP			10C		
2	B21-2586-G02	VT-3	R				12S	Augmented exam - See ISI 99-056
2	B21-2587-G06	VT-3	SP				11C	Augmented exam - See ISI 99-056
2	B21-2590-G12	VT-3	SP			10C		Augmented exam - See ISI 99-056
2	B21-2592-G04	VT-3	R		07C			Augmented exam - See ISI 99-056
2	B21-2594-G06	VT-3	SP			09C		Augmented exam - See ISI 99-056
2	B21-4095-G06	VT-3	R		07C			Augmented exam - See ISI 99-056
2	C11-2113-G262	VT-3	G				11C	
2	C11-2113-G266	VT-3	R			09C		
2	C11-2113-G274	VT-3	G			09C		
2	C11-2113-G294	VT-3	G		07C			
2	E11-3035-G02	VT-3	R			10C		
2	E11-3035-G05	VT-3	SP			09C		
2	E11-3035-G19	VT-3	G			10C		
2	E11-3035-G24	VT-3	R				12S	
2	E11-3146-G30	VT-3	G				12S	
2	E11-3146-G32	VT-3	SP			09C	:	
2	E11-3146-G36	VT-3	R			10C		
2	E11-3151-G05	VT-3	SP				11C	

ISI - NDE Program Rev. 5 Change 0 Page 4

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspe 1	ection 2	Period 3	Remarks
2	E11-3151-G25A	VT-3	R		07C			
2	E11-3151-G29	VT-3	R			09C		
2 .	E11-3153-G10	VT-3	G		08C			
2	E11-3153-G12	VT-3	SP			09C		
2	E11-3153-G16	VT-3	R	•			· 12S	
2	E11-3154-G05	VT-3	SP			10C		
2	E11-3154-G09	VT-3	R		08C			
2	E11-3154-G22	VT-3	R				11C	
2	E11-3154-G28	VT-3	R			09C		
2	E11-3157-G04	VT-3	SP		07C			
2	E11-3157-G24	VT-3	R			09C		
2	E11-3157-G29	VT-3	R			10C		
2	E11-3158-G33	VT-3	R			09C		
2	E11-3158-G46	VT-3	R			09C		
2	E11-3158-G50	VT-3	SP				12S	
2	E11-3159-G06	VT-3	R		07C			
2	E11-3159-G09	VT-3	R				11C	
2	E11-3160-G01	VT-3	SP		08C			
2	E11-3160-G19	VT-3	G				12S	
2	E11-3161-G11	VT-3	R				12S	
2	E11-3161-G15	VT-3	R		08C			
2	E11-3164-G11	VT-3	G		07C			
2	E11-3164-G17A	VT-3	R				12S	
2	E11-3164-G21	VT-3	SP		08C			
2	E11-3177-G18	VT-3	R			10C		
2	E11-3177-G19	VT-3	R		08C		•	
2	E11-3177-G30	VT-3	G			10C		
2	E11-4611-G04	VT-3	SP				12S	
2	E11-4611-G09	VT-3	R				12S	

ISI - NDE Program Rev. 5 Change 0 Page 5

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspection 1 2		Remarks
2	E11-4611-G15	VT-3	R		08C		
2	E11-4612-G10	VT-3	R			11C	
2	E11-4612-G12	VT-3	G		08C		
2	E11-5370-G01	VT-3	G			11C	Div 2 RHR HTX Supports
2	E11-5370-G02	VT-3	G		08C		Div 2 RHR HTX Supports
2	E11-5370-G03	VT-3	G		090		Div 2 RHR HTX Supports
2	E11-5370-G04	VT-3	G			11C	Div 2 RHR HTX Supports
2	E11-5370-G05	VT-3	Α		08C		Div 2 RHR HTX Supports
2	E21-3144-G03	VT-3	SP		07C		
2	E21-3144-G06	VT-3	Α			11C	
2	E21-3144-G11	VT-3	R			12S	
2	E21-3144-G16	VT-3	R		08C		
2	E21-3144-G20	VT-3	R			11C	
2	E21-3145-G05	VT-3	SP			128	
2	E21-3147-G13	VT-3	R			12S	
2	E21-3147-G20	VT-3	G		090	C	
2	E21-3147-G35	VT-3	R		07C		
2	E21-3147-G39	VT-3	SP		100		
2	E21-3148-G29	VT-3	R		090	C	
2	E21-3148-G37	VT-3	SP		100	C .	
2	E21-3148-G48	· VT-3	R			128	
2	E21-3149-G05	VT-3	SP			11C	
2	E21-3149-G06	VT-3	R			11C	
2	E21-3150-G02	VT-3	R		07C		
2	E41-3162-G01	VT-3	SP		090	C	
2	E41-3162-G03	VT-3	R		090	C	
2	E41-3162-G13	VT-3	G			12S	
2	E41-3163-G01	VT-3	SP		08C		
2	E41-3163-G12	VT-3	R			12S	

ISI - NDE Program Rev. 5 Change 0 Page 6

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspe 1	ction 1	Period 3	Remarks
2	E41-3167-G01	VT-3	R		07C			
2	E41-3167-G13	VT-3	SP			10C		
2	E41-3167-G15	VT-3	R				12S	
2	E41-3169-G100	VT-3	G		08C			
2	E41-3169-G13	VT-3	SP			09C		
2	E41-3169-G17	VT-3	R			10C		
2	E41-3172-G01	VT-3	SP		07C			
2	E41-3172-G14	VT-3	R				11C	
2	E41-3172-G18	VT-3	G				11C	
2	N30-3258-G02	VT-3	С		07C			
2	N30-3258-G07	VT-3	С		07C			
2	N30-3258-G17(A-D)	VT-3	R			10C		
2	N30-3259-G02	VT-3	С		07C			
2	N30-3259-G25	VT-3	R			09C		
2	N30-3259-G73	VT-3	SP				12S	
2	P11-3566-G10	VT-3	SP		07C			
2	T48-2095-G01	VT-3	SP		08C			
2	T48-2095-G07B	VT-3	R				11C	
2	T48-2095-G10A	VT-3	R			10C		
2	T48-2095-G19	VT-3	G				11C	
2	T48-2095-G22	VT-3	R			09C		
2	T48-2095-G24A	VT-3	R			10C		
2	T48-2095-G25	VT-3	R		07C			
2	T48-2095-G26A	VT-3	R				12S	
2	T48-2097-G07	VT-3	R			10C		
2	T48-2097-G13B	VT-3	R		07C			
2	T48-2097-G17	VT-3	R				11C	
2	T48-2097-G19	VT-3	G				11C	
2	T48-2097-G21	VT-3	R		07C			

ISI - NDE Program Rev. 5 Change 0 Page 7

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspe 1	ection 2	Period 3	Remarks
	T48-2097-G22A	VT-3	R			09C		
2	T48-2097-G25A	VT-3	R		08C			
2	T48-2097-G34	VT-3	G			09C		
3	E11-2179-G20	VT-3	R		07C			
3	E11-2180-G14	VT-3	G				12S	
3	E11-2183-G07	VT-3	G			10C		
3	E11-2183-G15	VT-3	R		08C			
3	E11-2184-G12	VT-3	R			10C		
3	E11-2184-G22	VT-3	G		08C			
3	E11-3184-G04	VT-3	G				12S	
3	E11-3184-G08	VT-3	R			09C		
3	E11-3184-G10	VT-3	R				11C	
3	E11-3184-G18	VT-3	R		07C			
3	E11-3185-G40	VT-3	R			09C		
3	E11-3185-G53	VT-3	SP			09C		
3	E11-3185-G58	VT-3	SP				12S	
3	E11-3185-G60	VT-3	G			09C		
3	G33-3096-G09	VT-3	R			10C		
3	P42-3340-G06	VT-3	SP			09C		
3	P44-3047-G28	VT-3	G				11C	
3	P44-3048-G10	VT-3	SP		07C			
3	P44-3084-G10	VT-3	R		07C			
3	P44-3084-G15	VT-3	R			10C		
3	P44-3189-G38	VT-3	SP		08C			
3	P44-3189-G42	VT-3	R			10C		
3	P44-3189-G47	VT-3	R		07C			
3	P44-3336-G01	VT-3	Α			09C	l	
3	P44-3336-G15	VT-3	R				11C	
3	P44-3337-G13	VT-3	R				12S	

ISI - NDE Program Rev. 5 Change 0 Page 8

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspe 1	ection 2	Period 3	Remarks
3	P44-3337-G16	VT-3	R			10C		
3	P44-3345-G02	VT-3	G		08C			
3	P44-3345-G08	VT-3	R			09C		
3	P44-3346-G02	VT-3	G				11C	
3	P44-3346-G12	VT-3	R				12S	
3	P44-3347-G10	VT-3	R		07C			
3	P44-3347-G14	VT-3	R				12S	
3	P44-3348-G12	VT-3	Α		07C			
3	P44-3351-G28	VT-3	R		08C			
3	P44-3351-G41	VT-3	SP				12S	·
3	P44-3368-G31	VT-3	R				11C	·
3	P44-3368-G38	VT-3	R				12S	
3	P44-3558-G14	VT-3	R				12S	
3	P44-3559-G12	VT-3	R			10C		
3	P44-4624-G01	VT-3	G				11C	
3	P44-4624-G12	VT-3	R				12S	
3	P44-4625-G03	VT-3	G				11C	
3	P44-4625-G13	VT-3	R			09C		
3	P44-4628-G02	VT-3	R			10C		
3	P44-4629-G05	VT-3	G			09C		
3	P44-4629-G08	VT-3	R		08C			
3	P44-EECW Head Tank Sprts (Div. 2)	VT-3			08C			
3	P44-EECW Htr Sprts (Div. 1)	VT-3					12S	
3	P45-2178-G09	VT-3	R			09C		•
3	P45-2204-G11	VT-3	R				11C	
3	P45-3352-G02	VT-3	G				12S	
3	P45-3352-G06	VT-3	R		07C			
3	P45-3353-G05	VT-3	R			10C		
3	P45-3359-G03	VT-3	G		08C			

ISI - NDE Program Rev. 5 Change 0 Page 9

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspection		Remarks
3	P45-3360-G04	VT-3	R		100		
3	P45-3360-G07	VT-3	G		090		
3	P45-4626-G03	VT-3	G			12S	
3	P45-4626-G08	VT-3	Α			12S	
3	P45-4627-G06	VT-3	Α			12S	
3	P45-4627-G12	VT-3	R			11C	
3	P45-4630-G04	VT-3	R		090	C	
3	P45-4631-G04	VT-3	R		090	C	
3	P45-4631-G13	VT-3	G			11C	
3	P45-4632-G08	VT-3	R		100	C	
3	P45-4632-G10	VT-3	G			11C	
3	R30-2176-G17	VT-3	G		07C		
3	R30-2176-G28	VT-3	Α		100	C	
3	R30-2176-G31	VT-3	G		08C		
3	R30-2177-G04	VT-3	R		090	C	
3	R30-2177-G27	VT-3	R			11C	
3	R30-2177-G31	VT-3	G		08C		
3	R30-2181-G04	VT-3	R			11C	
3	R30-2181-G15	VT-3	R		10	С	
3	R30-2182-G02	VT-3	G		09	С	
3	R30-2182-G14	VT-3	R		07C		

SECTION 8

SUMMARY OF CONTAINMENT INSPECTIONS (IWE)

ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE ACTIONS TAKEN

UPDATED PROGRAM TABLES

8.0 SUMMARY OF CONTAINMENT INSPECTIONS (IWE)

8.1 PROGRAM STATUS, ASME SECTION XI CREDIT - IWE

8.1.1	CATEGORY:	E-A	Containment Surfaces
	ITEM NO:	E1.11	Accessible Surface Areas (each period)

Description	Total Com	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Accessible Liner Surfaces	3	3	3	100%	100%	100%
TOTAL	3	3	3	100%	100%	100%

NOTE:

(1) Per 10CFR50.55a, 100% of the accessible surfaces of the containment were required to be inspected (General Visual) during the first period (RF07) and once every period after. During RF09, a 100% inspection was completed of the accessible areas of the primary containment, which completed the inspection requirement for the 2nd period. During RF11, again 100% of the accessible surface was inspected. The RF11 inspection completes the requirements for the 3rd period (ISI/IST Evaluation 06-038).

8.1.2		EGORY: MNO:	E-A E1.12	Acces			
Des	scription	Total Comp.	Total Requiring	Examined To	Examined To Date	Minimum Required	Maximum Allowed
			Examination(1)	Date	(%)	(%)	(%)
_	cessible Liner	1	1	1	91%	80%	100%

NOTE:

Surfaces

TOTAL

1

(1) Inspections (VT-3) will be performed during the 3rd Period, RF11 and RF12 (91% of containment surface inspected during RF11). IWE-1230(a)(4) requires that 80% of the surface area identified in Table IWE-2500-1, Examination Category E-A be inspected Inspections completed through RF11 are 78% (ISI/IST Evaluation 06-035).

91%

80%

80%

8.1.3 CATEGORY: E-A Containment Surfaces
ITEM NO: E1.20 Vent System - Accessible Surface Areas

Description	Total Comp.	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Accessible Liner Surfaces	1	1	1	25%	80%	100%
TOTAL	1	1	1	25%	80%	100%

NOTE:

(1) Inspections (VT-3) will be performed during the 3rd Period, RF11 and RF12 (25% of Vent System surface inspected during RF11). IWE-1230(a)(4) requires that 80% of the surface area identified in Table IWE-2500-1, Examination Category E-A be inspected. Inspections completed through RF11 are 78% (ISI/IST Evaluation 06-035).

8.1.4 CATEGORY: E-B Pressure Retaining Welds ITEM NO: E3.10 Containment Penetration Welds

Description	Total Comp	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Visual Surfaces	0	0	0	N/A	N/A	N/A
TOTAL	0	0	0	N/A	N/A	N/A

NOTE:

(1) 10CFR50.55a(b)(2)(x)(c) lists this an as optional inspection because there is no currently identified degradation mechanism. Current visual examinations are satisfactory.

8.1.5	CATEGORY:	E-B	Pressure Retaining Welds
	ITEM NO:	E3.20	Flange Welds

Description	Total Comp	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Visual Surfaces	0	0	0	N/A	N/A	N/A
TOTAL	0	0	0	N/A	N/A	N/A

(1) 10CFR50.55a(b)(2)(x)(c) lists this as an optional inspection because there is no currently identified degradation mechanism. Current visual examinations are satisfactory.

8.1.6	CATEGORY:	E-B	Pressure Retaining Welds
	ITEM NO:	E3.30	Nozzle To Shell Welds

Description	Total Comp	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Visual Surfaces	0	0	0	N/A	N/A	N/A
TOTAL	0	0	0	N/A	N/A	N/A

NOTE:

(1) 10CFR50.55a(b)(2)(x)(c) lists this as an optional inspection because there is no currently identified degradation mechanism. Current visual examinations are satisfactory.

8.1.7 **CATEGORY:**

E-C

Containment Surfaces Requiring Augmented Examination

ITEM NO:

E4.11 Visible Surface

Description	Total Comp	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Visual Surfaces	0	0	0	N/A	N/A	N/A
TOTAL	0	0	0	N/A	N/A	N/A

NOTE:

No Visual augmented examinations have been identified through RF11. (1)

8.1.8 **CATEGORY:**

Containment Surfaces Requiring Augmented Examination E-C

ITEM NO:

E4.12 Surface Area Grid, Min Wall Thickness Locations

Description	Total Comp	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Surface Area Grid	0	0	0	N/A	N/A	N/A
TOTAL	0	0	0	N/A	N/A	N/A

NOTE:

(1) No Visual augmented examinations have been identified through RF11. 8.1.9 CATEGORY:

E-D Seals, Gaskets, and Moisture Barriers

ITEM NO:

E5.10 Seals

Description	Total Comp	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Seals	61	61	(1)	N/A	N/A	N/A
TOTAL	61	61	(1)	N/A	N/A	N/A

NOTE:

(1) Code requires a visual examination, VT-3, of all seals, gaskets, and other devices once each interval. Request for Relief CISI-001 has been approved to verify the leak tightness of seals and gaskets in accordance with the 10CFR50, Appendix J Program.

8.1.10	CATE	GORY: E-D Seals, G	askets, and Mo	iskets, and Moisture Barriers			
	ITEM	NO:	E5.20	Gaskets			
De	escription	Total Comp	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
	Gasket	31	31	(1)	N/A	N/A	N/A
	TOTAL	31	31	(1)	N/A	N/A	N/A

NOTE:

(1) Code requires a visual examination, VT-3, of all seals, gaskets, and other devices once each interval. Request for Relief CISI-001 has been approved to verify the leak tightness of seals and gaskets in accordance with the 10CFR50, Appendix J Program.

8.1.11	CATE	GORY:	E-D	Seals, Gaskets, and Moisture Barriers				
	ITEM	NO:	E5.30	Moisture Barrier				
Des	scription	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)	
	oisture Sarrier	1	1	1	100%	35%	67%	
TO	OTAL	1	1	1	100%	35%	67%	

During RF07, 100% of the moisture barrier was inspected and replaced. There was no damage to the liner at this location. During RF08, RF09 and RF10, it was inspected again with no degradation identified. 67% credited for RF08, RF09 and RF10. During RF11, again 100% of the moisture seal was inspected with no damage noted. 100% credited for RF11.

8.1	.12 CATI	EGORY: I NO:	E-F E7.10	Pressure Dissimila	Welds		
	Description	Total Comp	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
•	Visual Surfaces	0	0	0	N/A	N/A	N/A
•	TOTAL	0	0	0	N/A	N/A	N/A

NOTE:

(1) 10CFR50.55a(b)(2)(x)(c) lists this as an optional inspection because there is no currently identified degradation mechanism. Current visual examinations are satisfactory.

8.1.	13 CATEO	GORY: NO:	E-G E8.10	Pressure Retaining Bolting Bolting Connections			
	Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
•	Bolting Connections	89	89	87	97%	34%	67%
•	TOTAL	89	89	87	97%	34%	67%
		GORY:	E-G E8.20	Pressure Retaining Bolting Bolting Connections		Bolting	
	ITEM I	NO.	E0.20	Boung	Connections		
	Description	Total Comp	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
-	Bolting Connections Torque	89	89	(1)	N/A	N/A	N/A
-	TOTAL	89	89	(1)	N/A	N/A	N/A

(1) Code requires a bolt torque or tension test for bolted connections not disassembled. Request for Relief CISI-007 has been approved to verify the leak tightness of bolted connections in accordance with the 10CFR50, Appendix J Program.

8.1.1	5 CATE	GORY:	E-P	Pressure Retaining Components			
	ITEM:	NO:	E9.10	Pressure Retaining Boundary			
	Description	Total Comp	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
	Pressure Retaining Boundary	. 1	1	(1)	N/A	N/A	N/A
_	TOTAL	1	1	(1)	N/A	N/A	N/A

NOTE:

(1) Will be tested in accordance with the 10CFR50, Appendix J Program.

8.1.	.16 CATEGORY: ITEM NO:		E-P E9.20		Pressure Retaining Components Containment Penetration Bellows					
	Description	Total Comp	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)			
•	Containment Penetration Bellows	29	29	(1)	N/A	N/A	N/A			
•	TOTAL	29	29	(1)	N/A	N/A	N/A			

(1) Will be tested in accordance with the 10CFR50, Appendix J Program.

8.1.1	CATEGORY: ITEM NO:		E-P E9.30	Pressure Airlocks	Pressure Retaining Components Airlocks					
	Description	Total Comp	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)			
•	Airlock	1	1	(1)	N/A	N/A	N/A			
-	TOTAL	1	1	(1)	N/A	N/A	N/A			

NOTE:

(1) Will be tested in accordance with the 10CFR50, Appendix J Program.

8.1.	18 CATEGORY: ITEM NO:		E-P	Pressure Retaining Components						
			E9.40	Seals and Gaskets						
	Description	Total Comp	Total Requiring Examination(1)	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)			
·	Seals And Gaskets	92	92	(1)	N/A	N/A	N/A			
•	TOTAL	92	92	(1)	N/A	N/A	N/A			

NOTE:

(1) Will be tested in accordance with the 10CFR50, Appendix J Program.

8.2 Refuel-11

This is a summary of the IWE inspection activities at Fermi 2 that were completed on-line during cycle 11, and during Refueling Outage 11 (RF11). On-line inspections include VT-3 inspections of 100% of the torus exterior and portions of the drywell to torus expansions bellows. The inspection scope during RF11 consisted of VT-3 inspections of 100% of the exposed drywell interior and exterior, percentages of the containment bellows, and of the containment vent system. Also, 100% to the drywell floor to containment liner moisture seal was inspected, as well as, a representative sample of the primary containment bolting was examined.

During all VT-3 inspections, the protective coatings as well as the metallic shell was examined. The on-line inspections, as well as the refuel inspections were completed by using both the direct and remote visual inspection methods.

General inspections during RF10 identified six areas as requiring coating repairs in the drywell basement area. These repairs were completed during RF11 under Work Request 000Z043787. After the repairs were completed, the areas received baseline general visual inspections of the protective coating.

ABSTRACT OF CONDITION NOTED AND CORRECTED ACTIONS TAKEN

During Cycle 11 and RF11, the following inspections were performed:

- VT-3 inspection of 100% of the torus exteriors protection coatings and metallic shell.
- VT-3 inspection of 100% of the drywell exposed interior and exterior protection coatings and metallic shell.
- VT-3 inspection of 100% of the drywell floor to metallic shell moisture seal.
- VT-3 inspection of four drywell to torus downcomers expansion bellows.
- VT-3 inspection of eight drywell expansion bellows.
- VT-1 inspection of 26 primary containment bolted connections.
- General visual inspection of coating repairs in the drywell basement.

The following discrepancies were identified during the above inspections:

- Degraded protective coatings on the torus exterior, 16 locations identified for repair (CARD 05-25459). The identified areas have been repaired by restoring the protective coating.
- Minor tool punch marks on torus exterior, CARD 05-25341 was generated to document this condition, no repair required.

Refuel-10

This is a summary of the IWE inspection activities completed at Fermi 2 during the tenth refueling outage. RF10 concluded the second period in the interval and now aligns with the ISI NDE Program. The inspection scope was limited as the majority of the second period inspections were completed during RF09. Inspections consisted of the protective coating areas that were repaired during RF09, the drywell basement moisture seal, primary containment bolting on relief valves that were removed for testing, along with other miscellaneous bolting.

ABSTRACT OF CONDITION NOTED AND CORRECTED ACTIONS TAKEN

During RF10, the following inspections were performed:

- A general visual inspection of the protective coatings in the drywell basement area.
- The moisture seal at the drywell basement floor to steel liner was inspected.
- 18 bolted primary containment connections were inspected, 9 while the bolting material was under tension and 9 while the flanged connection was disassembled.
- While not credited, an inspection was also performed of the interior of the torus vent header during its closeout.
- During the cycle, the exterior of the torus was inspected.

The following discrepancies were identified during the above inspections:

- Degraded protective coating in the drywell basement area, eight locations were identified (CARD 04-26062).
- Degraded protective coatings in the torus vent header (CARD 04-26143).
- Evaluation of degraded protective coating in the drywell basement (CARD 04-26144).

Additionally, in preparation for torus diving inspections and coating repairs schedule for RF10, past inspection reports were reviewed. In the RF08 Torus Desludge, Inspection & Coating Repair Report, the review identified a corrosion pit in the torus shell that had not previously been brought to the attention of Fermi 2 personnel. The corrosion pit is located in Bay 3, Quadrant 2. The pit is ¼ inch in diameter and has a depth of 0.0285 inches. The pit and the surrounding area was cleaned and the protective coating was reapplied. The pit was evaluated and accepted in CARD 04-21434.

8.3 Refuel-09

This is a summary of the IWE inspection activities completed at Fermi 2 during the ninth refueling outage. The RF09 scope included the required 2nd period 100 percent inspection of the accessible surfaces of the primary containment and a representative sample of VT-1 and VT-3 inspections of primary containment bolted components. This is the second refueling outage of the 2nd period, which consist of three refueling outages, with RF09 containing the majority of the inspections.

ABSTRACT OF CONDITION NOTED AND CORRECTED ACTIONS TAKEN

Locations where degraded coating was identified during RF07 and RF08 were reinspected prior to repair. Areas identified showed no further degradation in their condition. These areas had a thin layer of surface rust, which was a result of condensation from overhead lines dripping down onto the primary containment shell.

During RF09, 11 locations below the 583 feet elevation had their protective coating replaced. During the protective coating prep work, no material loss of the primary containment shell was noted. In addition to these 11 areas, a pit at the I-Beam weld, at elevation 583 feet, azimuth 77 deg, was cleaned and repainted. Finally, seven arc strikes, which had been previously blend ground, were recoated.

During RF09, areas that were repaired during RF07 were reinspected with particular attention given to the moisture seal located at the concrete floor to drywell shell interface and the painted surface in this area. These inspections identified no new or unexpected degradation.

The inspections of the remainder of the primary containment resulted in the issuance of 7 condition assessment resolution documents (CARDs). CARD 03-14450, "Water Accumulation in Torus Downcomer to Vent Header Tee Connections," was generated to address the water accumulation in the ring header. None of the other CARDs were an operability concern and were issued for trending and cleanliness issues.

8.4 Refuel-08

This is a summary of the IWE inspection activities completed at Fermi 2 during the eighth refueling outage. The RF08 inspection scope was limited. This was a result of 10CFR50.55a being reissued with the requirement that IWE be implemented on an expedited basis and that all of the 1st period inspections be completed by September 2001. As a result, Fermi 2 was required to complete all the 1st period inspections during RF07. This resulted in the 2nd period consisting of three refueling outages, with RF09 containing the majority of the inspections.

ABSTRACT OF CONDITION NOTED AND CORRECTED ACTIONS TAKEN

Locations where degraded coating was identified during RF07 were reinspected to reassess their condition. No further degradation was identified. These areas were mapped and will be scheduled for re-coating during RF09.

During RF08, areas that were repaired during RF07 were reinspected with particular attention given to the moisture seal located at the concrete floor to drywell shell interface and the painted surface in this area. These inspections identified no new degradation since the repair work was completed.

During RF08, the immersed areas of the torus was desludged, after which both the immersed and vapor spaces were inspected by certified VT inspectors. All areas of coating degradations were recorded. None of the areas where the protective coating was degraded exhibited any pitting or degradation of the containment liner. After the initial VT inspections, locations with degraded protective coating were repaired.

8.5 Refuel-07

This is a summary of the IWE inspection completed at Fermi 2 during the seventh refueling outage. 10CFR50.55a was reissued with the requirement that IWE be implemented on an expedited basis and that all of the 1st period inspections be completed by September 2001. As a result, Fermi 2 was required to complete all the 1st period inspections during the seventh refueling outage as the eighth refueling outage is not scheduled until October 2001.

ABSTRACT OF CONDITION NOTED AND CORRECTED ACTIONS TAKEN

During the general visual inspections of the containment liner, several conditions were reported which required corrective actions. The reported conditions are listed as follows:

- Degradation of the moisture seal at the drywell floor to drywell liner interface.
- Loose protective coating in the area of the drywell floor to steel liner interface, from the floor and up one foot.
- Penetration radiation shield plate was found wedged into the penetration without the required tack welds.
- Outer drywell airlock seal had a crack in the rubber gasket.
- Material loss on a single tie-down eyebolt on the north equipment hatch.

All of the above conditions were repaired or replaced by corrective maintenance activities.

- Arc strikes on the south equipment hatch sealing area.
- Degradation of the protective coating at various locations on the containment liner, both interior and exterior.
- A pit of 0.093 inches in depth at the liner to I beams interface.

The above conditions were evaluated using prudent engineering analysis and were determined to be acceptable for the eighth operating cycle. Corrective maintenance for the above is being planned for future refueling outages.

IWE Containment Program

Component Examination Schedule

ISI-NDE Program Rev.5; Change 0 Appendix F4.7

					Period 1		Period 2		Peri	iod 3		Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
<i>E1.1</i> .	Drywell (Drywell inspections consisted of	E-A	E1.11	VT-G	GC	•	GC	-	GC	GS	NA	Once per Period, Prior to each Type A Test
2	items 3 through 35.) Suppression Chamber (Torus) (Torus inspections consisted of items 36 through 120.)	E-A	E1.11	VT-G	GC	-	GC	-	GC	GS	N\A	Once per Period, Prior to each Type A Test
E1.1.	2											
3	Drywell Interior 563' to 583' (Az 0 to 90)	E-A	E1.12	VT-3 VT-G	GC	GC	-	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
4	Drywell Interior 563' to 583' (Az 90 to 180)	E-A	E1.12	VT-3 VT-G	GC	GC	•	-	VTC	-	NA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
5	Drywell Interior 563' to 583' (Az 180 to 270)	E-A	E1.12	VT-3 VT-G	GC	GC	-	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
6	Drywell Interior 563' to 583' (Az 270 to 0)	E-A	E1.12	VT-3 VT-G	GC	GC	-	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
7	Drywell Interior 583' to 613' (Az 0 to 90)	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
8	Drywell Interior 583' to 613' (Az 90 to 180)	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
9	Drywell Interior 583' to 613' (Az 180 to 270)	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	-	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
10	Drywell Interior 583' to 613' (Az 270 to 0)	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
11	Drywell Interior 613' to 641' (Az 0 to 90)	E-A	E1.12	VT-3 VT-G	GC	•	GC		VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
12	Drywell Interior 613' to 641' (Az 90 to 180)	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	-	N∖A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
13	Drywell Interior 613' to 641' (Az 180 to 270)	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

				Period 1		Period 2		Peri	iod 3	1	Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Metho	d RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
14	Drywell Interior 613' to 641' (Az 270 to 0)	E-A	E1.12 VT-3 VT-G	GC	•	GC	•	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
15	Drywell Interior 641' to 659' (Az 0 to 90)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	NA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
16	Drywell Interior 641' to 659' (Az 90 to 180)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC .	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
17	Drywell Interior 641' to 659' (Az 180 to 270)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
18	Drywell Interior 641' to 659' (Az 270 to 0)	E-A	E1.12 VT-3 VT-G	GC	•	GC	•	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
19	Drywell Dome Interior and Exterior	E-A	E1.12 VT-3 VT-G	ĠC	•	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
20	Drywell Exterior 563' to 583' (Az 0 to 90)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC ·	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
21	Drywell Exterior 563' to 583' (Az 90 to 180)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
22	Drywell Exterior 563' to 583' (Az 180 to 270)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
23	Drywell Exterior 563' to 583' (Az 270 to 0)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
24	Drywell Exterior 583' to 613' (Az 0 to 90)	E-A	E1.12 VT-3 VT-G	GC	-	GC	•	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
25	Drywell Exterior 583' to 613' (Az 90 to 180)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
26	Drywell Exterior 583' to 613' (Az 180 to 270)	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
27	Drywell Exterior 583' to 613' (Az 270 to 0)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
28	Drywell Exterior 613' to 641' (Az 0 to 90)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

					<u> </u>	Period 2		Peri	iod 3	<u> </u>	Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE	Method RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
29	Drywell Exterior 613' to 641' (Az 90 to 180)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
30	Drywell Exterior 613' to 641' (Az 180 to 270)	E-A	E1.12 VT-3 VT-G	GC	-	GC	•	VTC	•	NA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
31	Drywell Exterior 613' to 641' (Az 270 to 0)	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
32	Drywell Exterior 641' to 659' (Az 0 to 90)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
33	Drywell Exterior 641' to 659' (Az 90 to 180)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
34	Drywell Exterior 641' to 659' (Az 180 to 270)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
35	Drywell Exterior 641' to 659' (Az 270 to 0)	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
36	Torus Interior Bay 1	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
37	Torus Interior Bay 2	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
38	Torus Interior Bay 3	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
39	Torus Interior Bay 4	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
40	Torus Interior Bay 5	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
41	Torus Interior Bay 6	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
42	Torus Interior Bay 7	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
43	Torus Interior Bay 8	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

				Period 1		Period 2		Peri	od 3	1	Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Meth	od RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
44	Torus Interior Bay 9	E-A	E1.12 VT-3 VT-G	GC	-	GC	•	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
45	Torus Interior Bay 10	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTPC	VTS	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
46	Torus Interior Bay 11	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
47	Torus Interior Bay 12	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
48	Torus Interior Bay 13	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
49	Torus Interior Bay 14	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
50	Torus Interior Bay 15	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N∖A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
51	Torus Interior Bay 16	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
52	· Torus Exterior Bay 1	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
53	Torus Exterior Bay 2	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTC	-	N∖A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
54	Torus Exterior Bay 3	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
55	Torus Exterior Bay 4	E-A	E1.12 VT-3 VT-G	GC	-	GC	•	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
56	Torus Exterior Bay 5	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	NA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
57	Torus Exterior Bay 6	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
58	Torus Exterior Bay 7	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	VTC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

					Period 1		Period 2		Peri	lod 3	1	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	Remarks
59	Torus Exterior Bay 8	E-A	E1.12	VT-3 VT-G	GC	•	GC	•	VTC	-		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
60	Torus Exterior Bay 9	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	•		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
61	Torus Exterior Bay 10	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	-		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
62	Torus Exterior Bay 11	E-A	E1.12	VT-3 VT-G	GC	-	GC	•	VTC	-		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
63	Torus Exterior Bay 12	E-A	E1.12	VT-3 VT-G	GC	•	GC	-	VTC	•		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
64	Torus Exterior Bay 13	E-A	E1.12	VT-3 VT-G	GC	•	GC	-	VTC	-		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
65	Torus Exterior Bay 14	E-A	E1.12	VT-3 VT-G	GC	•	GC	-	VTC	•		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
66	Torus Exterior Bay 15	E-A	E1.12	VT-3 VT-G	GC	•	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
67	Torus Exterior Bay 16	E-A	E1.12	VT-3 VT-G	GC	•	GC	-	VTC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
100	Drywell Penetration Expansion Bellow X-007A	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	VTC	-	NVA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
101	Drywell Penetration Expansion Bellow X-007B	E-A	E1.12	VT-3 VT-G	GC	•	GC	-	VTC	-	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
102	Drywell Penetration Expansion Bellow X-007C	E-A	E1.12	VT-3 VT-G	GC	-	GC	•	VTC	-	NVA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
103	Drywell Penetration Expansion Bellow X-007D	E-A	E1.12	VT-3 VT-G	GC	•	GC	-	VTC	•	N\A _.	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
104	Drywell Penetration Expansion Bellow X-008	E-A	E1.12	VT-3 VT-G	GC	•	GC	•	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
105	Drywell Penetration Expansion Bellow X-009A	E-A	E1.12	VT-3 VT-G	GC	-	GC	•	-	VTS	NVA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers

				Period 1		Period 2		Per	iod 3	1	Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Metho	d RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	Remarks
106	Drywell Penetration Expansion Bellow X-009B	E-A	E1.12 VT-3 VT-G	GC	-	GC	•	•	VTS	NA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
107	Drywell Penetration Expansion Bellow X-010	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
108	Drywell Penetration Expansion Bellow X-011	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	•	NA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
109	Drywell Penetration Expansion Bellow X-012	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
110	Drywell Penetration Expansion Bellow X-013A	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	VTC	-	NVA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
111	Drywell Penetration Expansion Bellow X-013B	E-A	E1.12 VT-3 VT-G	GC	•	GC	•	VTC	-	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
112	Drywell Penetration Expansion Bellow X-016A	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
113	Drywell Penetration Expansion Bellow X-016B	E-A	E1.12 VT-3 VT-G	GC	•	GC	-	-	VTS	NA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
114	Drywell Penetration Expansion Bellow X-017	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
115	Drywell Penetration Expansion Bellow X-035B	E-A	E1.12 VT-3 VT-G	GC	•	GC		-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
116	Drywell Penetration Expansion Bellow X-035C	E-A	E1.12 VT-3 VT-G	GC	•	GC	•	-	VTS	. NA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
117	Drywell Penetration Expansion Bellow X-035D	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
118	Drywell Penetration Expansion Bellow X-035E	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
119	Drywell Penetration Expansion Bellow X-035F	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
120	Drywell Penetration Expansion Bellow X-043	E-A	E1.12 VT-3 VT-G	GC	-	GC	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers

E1.20

Monday, July 24, 2006

			Period 1		Period 2		Peri	od 3		Appendix F4.7	
Item	Exam Area Identification	Cat.	Code NDE Meth	nod RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	Remarks
68	Drywell to Torus Downcomer to Bay 2 - Exterior	E-A	E1.20 VT-3 VT-G	GC	-	GC	-	VTPC	-		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
69	Drywell to Torus Downcomer to Bay 4 - Exterior	E-A	E1.20 VT-3 VT-G	GC	- .	GC	-	VTPC	•		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
70	Drywell to Torus Downcomer to Bay 6 - Exterior	E-A	E1.20 VT-3 VT-G	GC	•	GC	-	VTPC	-		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
71	Drywell to Torus Downcomer to Bay 8 - Exterior	E-A	E1.20 VT-3 VT-G	GC	•	GC	•	VTPC	-		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
72	Drywell to Torus Downcomer to Bay 10 - Exterior	E-A	E1.20 VT-3 VT-G	GC	-	GC	-	VTPC	•		Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
73	Drywell to Torus Downcomer to Bay 12 - Exterior	E-A	E1.20 VT-3 VT-G	GC		GC	-	VTPC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
74	Drywell to Torus Downcomer to Bay 14 - Exterior	E-A	E1.20 VT-3 VT-G	GC	•	GC	-	VTPC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
75	Drywell to Torus Downcomer to Bay 16 - Exterior	E-A	E1.20 VT-3 VT-G	GC	-	GC	-	VTPC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
76	Drywell to Torus Expansion Bellows Downcomer to Bay 2	E-A	E1.20 VT-3 VT-G	GC	-	GC	-	VTPC	•	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
. 77	Drywell to Torus Expansion Bellows Downcomer to Bay 4	E-A	E1.20 VT-3 VT-G	GC	-	GC	-	VTPC	•	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
78	Drywell to Torus Expansion Bellows Downcomer to Bay 6	E-A	E1.20 VT-3 VT-G	GC	•	. GC	•	-	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
79	Drywell to Torus Expansion Bellows Downcomer to Bay 8	E-A	E1.20 VT-3 VT-G	GC	•	GC	•	•	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
80	Drywell to Torus Expansion Bellows Downcomer to Bay10	E-A	E1.20 VT-3 VT-G	GC	•	GC	•	•	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
81	Drywell to Torus Expansion Bellows Downcomer to Bay12	E-A	E1.20 VT-3 VT-G	GC	•	GC	-	-	VTS	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
82	Drywell to Torus Expansion Bellows Downcomer to Bay14	E-A	E1.20 VT-3 VT-G	GC	•	GC	-	VTPC	-	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

					Period 1		Period 2		Peri	od 3	<u> </u>	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	Remarks
83	Drywell to Torus Expansion Bellows Downcomer to Bay16	E-A	E1.20	VT-3 VT-G	GC	•	GC	•	VTPC	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
84	Flow Channeling Devices (Ring Header) In Bay 1 - Exterior	E-A	E1.20	VT-3 VT-G	GC	. •	GC	-	VTPC	VTS	NA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
85	Flow Channeling Devices (Ring Header) In Bay 2 - Exterior	E-A	E1.20	VT-3 VT-G	GC	•	GC	-	VTPC	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
86	Flow Channeling Devices (Ring Header) In Bay 3 - Exterior	E-A	E1.20	VT-3 VT-G	GC	. -	GC	-	VTPC	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
87	Flow Channeling Devices (Ring Header) In Bay 4 - Exterior	E-A	E1.20	VT-3 VT-G	GC	•	GC	-	VTPC	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
88	Flow Channeling Devices (Ring Header) In Bay 5 - Exterior	E-A	E1.20	VT-3 VT-G	GC	•	GC	-	VTPC	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
89	Flow Channeling Devices (Ring Header) In Bay 6 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	•	VTPC	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
90	Flow Channeling Devices (Ring Header) In Bay 7 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	•	VTPC	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
91	Flow Channeling Devices (Ring Header) In Bay 8 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC		VTPC	VTS	N∖A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
92	Flow Channeling Devices (Ring Header) In Bay 9 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N∖A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
93	Flow Channeling Devices (Ring Header) In Bay 10 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N∖A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
94	Flow Channeling Devices (Ring Header) In Bay 11 - Exterior	E-A	E1.20	VT-3 VT-G	GC	•	GC	-	VTPC	VTS	. N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
95	Flow Channeling Devices (Ring Header) In Bay 12 - Exterior	E-A	E1.20	VT-3 VT-G	GC	•	GC	•	VTPC	VTS	NΔ	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
96	Flow Channeling Devices (Ring Header) In Bay 13 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	VTPC	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
97	Flow Channeling Devices (Ring Header) In Bay 14 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	•	VTPC	VTS	MA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers

				Period 1		Period 2		Peri	od 3		Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Metho	d RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
98	Flow Channeling Devices (Ring Header) In Bay 15 - Exterior	E-A	E1.20 VT-3 VT-G	GC	-	GC	-	VTPC	VTS	NVA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
99	Flow Channeling Devices (Ring Header) In Bay 16 - Exterior	E-A	E1.20 VT-3 VT-G	GC '	•	GC	-	VTPC	VTS	NA	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
401	Flow Channeling Devices (Ring Header) In Bay 1 - Interior	E-A	E1.20 VT-3 VT-G	-	•	-	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
402	Flow Channeling Devices (Ring Header) In Bay 2 - Interior	E-A	E1.20 VT-3 VT-G	-	•	•	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
403	Flow Channeling Devices (Ring Header) In Bay 3 - Interior	E-A	E1.20 VT-3 VT-G	•	-	-	-	-	VTS	N/A	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
404	Flow Channeling Devices (Ring Header) In Bay 4 - Interior	E-A	E1.20 VT-3 VT-G	•	•	-	-	•	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
405	Flow Channeling Devices (Ring Header) In Bay 5 - Interior	E-A	E1.20 VT-3 VT-G	-	-	•	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
406	Flow Channeling Devices (Ring Header) In Bay 6 - Interior	E-A	E1.20 VT-3 VT-G	-	-	-	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
407	Flow Channeling Devices (Ring Header) In Bay 7 - Interior	E-A	E1.20 VT-3 VT-G	•	-	•	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
408	Flow Channeling Devices (Ring Header) In Bay 8 - Interior	E-A	E1.20 VT-3 VT-G	•	•	-	•	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
409	Flow Channeling Devices (Ring Header) In Bay 9 - Interior	E-A	E1.20 VT-3 VT-G	•	•	•	•	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
410	Flow Channeling Devices (Ring Header) In Bay 10 - Interior	E-A	E1.20 VT-3 VT-G	-	•	•	•	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
411	Flow Channeling Devices (Ring Header) In Bay 11 - Interior	E-A	E1.20 VT-3 VT-G	•	-	-	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
412	Flow Channeling Devices (Ring Header) In Bay 12 - Interior	E-A	E1.20 VT-3 VT-G	-	-	-	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
413	Flow Channeling Devices (Ring Header) In Bay 13 - Interior	E-A	E1.20 VT-3 VT-G	-	-	-	-	•	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers

				Period 1		Period 2		Peri	iod 3	Ī	Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Meth	od RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
414	Flow Channeling Devices (Ring Header) In Bay 14 - Interior	E-A	E1.20 VT-3 VT-G	•	•	-	•	•	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
415	Flow Channeling Devices (Ring Header) In Bay 15 - Interior	E-A	E1.20 VT-3 VT-G	-	•	-	-	-	VTS	N/A	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
416	Flow Channeling Devices (Ring Header) In Bay 16 - Interior	E-A	E1.20 VT-3 VT-G	•	•	-	-	-	VTS	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
417	Drywell to Torus Downcomer to Bay 2 - Interior	E-A	E1.20 VT-3 VT-G	-	•	-	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
418	Drywell to Torus Downcomer to Bay 4 - Interior	E-A	E1.20 VT-3 VT-G	-	-	-	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
419	Drywell to Torus Downcomer to Bay 6 - Interior	E-A	E1.20 VT-3 VT-G	-	- ,	•	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
420	Drywell to Torus Downcomer to Bay 8 - Interior	E-A	E1.20 VT-3 VT-G	•	-	-	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
421	Drywell to Torus Downcomer to Bay 10 - Interior	E-A	E1.20 VT-3 VT-G	-	-	•	-	-	VTS	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
422	Drywell to Torus Downcomer to Bay 12 - Interior	E-A	E1.20 VT-3 VT-G	-	-	•	-	-	VTS	N∖A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
423	Drywell to Torus Downcomer to Bay 14 - Interior	E-A	E1.20 VT-3 VT-G	-	-	-	•	-	VTS	N∖A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
424	Drywell to Torus Downcomer to Bay 16 - Interior	E-A	E1.20 VT-3 VT-G	-	-	-	-	-	VTS	N∖A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
E4.1	· -					•					
121	Drywell Interior	E-C	E4.11 VT-1	•	•	-	-	-	•	N\A	No areas identified for augmented exams at this time
123	Drywell Exterior	E-C	E4.11 VT-1	-	-	-	-	•	-	N\A	No areas identified for augmented exams at this time
125	Suppression Chamber Interior	E-C	E4.11 VT-1	•	•	-	-	-	-	N\A	No areas identified for augmented exams at this time
	Suppression Chamber Exterior	E-C	E4.11 VT-1	•	-	-	-	•	-	NVA	No areas identified for augmented exams at this time
<i>E4.1</i> 122	12 Drywell Interior	E-C	E4.12 VOLU	-	-	-	-	-	-	N\A	No areas identified for augmented exams at this time

Component Examination Schedule

Period 1 Period 2 Period 3 Appendix F4.7 Item Exam Area Identification Cat. Code NDE Method RF07 RF08 RF09 **RF10** RF11 RF12 Relief Request Remarks E4.12 VOLU 124 Drywell Exterior E-C N\A No areas identified for augmented exams at this time 126 Suppression Chamber Interior **E4.12 VOLU** NΛ No areas identified for augmented exams at this time 128 Suppression Chamber Exterior E-C **E4.12 VOLU** N\A No areas identified for augmented exams at this time E5.10 129 Drywell Head Flange Seal X-001A E-D E5.10 VT-3 **CISI-001** No Examinations Required, In Appendix J Program 130 South Equipment Hatch Seal X-E5.10 VT-3 CISI-001 No Examinations Required, In 001B Appendix J Program 131 North Equipment Hatch Seal X-E5.10 VT-3 **CISI-001** No Examinations Required, In 001C Appendix J Program 132 Drywell Personnel Airlock Seals E5.10 VT-3 **CISI-001** No Examinations Required, In (2) X-001D Appendix J Program 133 Reactor Vessel Stablization E5.10 VT-3 **CISI-001** No Examinations Required, In Manhole Seal X-001E Appendix J Program 134 Reactor Vessel Stablization E5.10 VT-3 CISI-001 No Examinations Required, In Manhole Seal X-001F Appendix J Program 135 Reactor Vessel Stablization E5.10 VT-3 **CISI-001** No Examinations Required, In Manhole Seal X-001G Appendix J Program 136 Reactor Vessel Stablization E5.10 VT-3 **CISI-001** No Examinations Required, In Manhole Seal X-001H Appendix J Program 137 Reactor Vessel Stablization E5.10 VT-3 CISI-001 No Examinations Required, In Manhole SealX-001J Appendix J Program 138 Reactor Vessel Stablization E5.10 VT-3 **CISI-001** No Examinations Required, In Manhole Seal X-001K Appendix J Program 139 Reactor Vessel Stablization E5.10 VT-3 **CISI-001** No Examinations Required, In Manhole Seal X-001L Appendix J Program 140 Reactor Vessel Stablization E5.10 VT-3 No Examinations Required, In **CISI-001** Manhole Seal X-001M Appendix J Program 141 CRD Hatch Seal X-006 E-D E5.10 VT-3 **CISI-001** No Examinations Required. In Appendix J Program 142 TIP Penetration Seal X-035A E-D E5.10 VT-3 CISI-001 No Examinations Required, In Appendix J Program 143 TIP Penetration Seal (2) X-035B E-D E5.10 VT-3 CISI-001 No Examinations Required, In Appendix J Program 144 TIP Penetration Seal (2) X-035C E5.10 VT-3 **CISI-001** No Examinations Required, In Appendix J Program 145 TIP Penetration Seal (2) X-035D E5.10 VT-3 **CISI-001** No Examinations Required, In Appendix J Program 146 TIP Penetration Seal (2) X-035E E5.10 VT-3 **CISI-001** No Examinations Required, In Appendix J Program 147 TIP Penetration Seal (2) X-035F E5.10 VT-3 **CISI-001** No Examinations Required, In Appendix J Program

ISI-NDE Program Rev.5; Change 0

				Period 1		Period 2		Peri	od 3	<u> </u>	Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Meth	od RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	Remarks
148	Electrical Penetration Bolting X- 100A (X-100A)	E-D	E5.10 VT-3	-	-	-	-	-	-		No Examinations Required, In Appendix J Program
149	Electrical PenetrationSeal X-100B (X-102A)	E-D	E5.10 VT-3	•	•	•	•	•	-	CISI-001	No Examinations Required, In Appendix J Program
150	Electrical Penetration Seal (100C)	E-D	E5.10 VT-3	-	-	-	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
151	Electrical Penetration Seal (X-100E)	E-D	E5.10 VT-3	-	-	-	•	-	•		No Examinations Required, In Appendix J Program
152	Electrical Penetration Seal X-100F (X-103B)	E-D	E5.10 VT-3	-	-	-	• -	-	•		No Examinations Required, In Appendix J Program
153	Electrical Penetration Seal X- 100G (X-100G)	E-D	E5.10 VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
154	Electrical Penetration Seal X-101A (X-101A)	E-D	E5.10 VT-3	-	-	-	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
	Electrical Penetration Seal X-101B (X-101B)		E5.10 VT-3	-	-	-	-	-	-		No Examinations Required, In Appendix J Program
	Electrical PenetrationSeal X-101C (X-101C)		E5.10 VT-3	-	-	-	-	•	-		No Examinations Required, In Appendix J Program
	Electrical Penetration Seal X-101D (X-101D)		E5.10 VT-3	-	•	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
	Electrical Penetration Seal X-101E (X-101E)		E5.10 VT-3	-	-	-	•	-	-		No Examinations Required, In Appendix J Program
159	Electrical Penetration Seal X-101F (X-101F)	E-D	E5.10 VT-3	-	•	-	•	-	•		No Examinations Required, In Appendix J Program
	Electrical Penetration Seal X-102A (X-105B)	E-D	E5.10 VT-3	-	-	•	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
161	Electrical Penetration SealX-102B (X-102B)	E-D	E5.10 VT-3	-	-	•	-	•	-		No Examinations Required, In Appendix J Program
162	Electrical PenetrationSealX-102C (X-100B)	E-D	E5.10 VT-3	-	•	-	-	-	-		No Examinations Required, In Appendix J Program
	Electrical Penetration SealX-102D (X-105C)	E-D	E5.10 VT-3	•	-	•	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
164	Electrical Penetration Seal X-103A (X-103A)	E-D	E5.10 VT-3	-	•	-	-	•	•	CISI-001	No Examinations Required, In Appendix J Program
165	Electrical Penetration Seal X-103B (X-107B)	E-D	E5.10 VT-3	-	•	-	•	-	•		No Examinations Required, In Appendix J Program
166	Electrical Penetration Seal X-104A (X-104A)	E-D	E5.10 VT-3	-	•	-	•	•	-	CISI-001	No Examinations Required, In Appendix J Program
167	Electrical Penetration Seal X-104B (X-104B)	E-D	E5.10 VT-3	-	•	-	-	-	-		No Examinations Required, In Appendix J Program
168	Electrical Penetration Seal X-104C (X-104C)	E-D	E5.10 VT-3	-		-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
169	Electrical Penetration Seal X-104D (X-104D)	E-D	E5.10 VT-3	-	-	•	-	•	•	CISI-001	No Examinations Required, In Appendix J Program

Component Examination Schedule

Period 1 Period 2 Period 3 Appendix F4.7 Item Exam Area Identification Cat. Code NDE Method RF07 RF08 **RF09** RF10 RF11 RF12 Relief Request Remarks E5.10 VT-3 170 Electrical Penetration Seal X-104E E-D CISI-001 No Examinations Required, In (X-104E) Appendix J Program 171 Electrical Penetration Seal X-104F E5.10 VT-3 CISI-001 No Examinations Required, In (X-104F) Appendix J Program 172 Electrical Penetration Seal X-105A E-D E5.10 VT-3 **CISI-001** No Examinations Required, In (X-105A)Appendix J Program 173 Electrical Penetration Seal X-105D E-D E5.10 VT-3 **CISI-001** No Examinations Required, In (X-105D) Appendix J Program 174 Electrical Penetration Seal X-E5.10 VT-3 CISI-001 No Examinations Required, In 106A (X-100D) Appendix J Program 175 Electrical Penetration Seal X-106B E-D E5.10 VT-3 CISI-001 No Examinations Required, In (X-106B) Appendix J Program 176 South Torus Hatch Seal E-D E5.10 VT-3 **CISI-001** No Examinations Required, In Penetration X-200A Appendix J Program 177 NorthTorus Hatch Seal E5.10 VT-3 **CISI-001** No Examinations Required, In E-D Penetration X-200B Appendix J Program Electrical Penetration Seal X-209A E-D E5.10 VT-3 CISI-001 No Examinations Required, In Appendix J Program Electrical Penetration Seal X-209C No Examinations Required, In E5.10 VT-3 CISI-001 Appendix J Program Vacuum Breaker-Electrical E5.10 VT-3 CISI-001 No Examinations Required, In Penetration Seal X-228A Appendix J Program 181 Vacuum Breaker-Electrical E5.10 VT-3 **CISI-001** No Examinations Required, In Penetration Seal X-228B Appendix J Program 182 Vacuum Breaker-Electrical E5.10 VT-3 **CISI-001** No Examinations Required, In Penetration Seal X-228C Appendix J Program No Examinations Required, In 183 Vacuum Breaker-Electrical E5.10 VT-3 CISI-001 Penetration Seal X-228D Appendix J Program E5.20 184 Penetration Flange Rupture Disk CISI-001 No Examinations Required, In E5.20 VT-3 Gasket X-018 Appendix J Program 185 Penetration Flange Rupture Disk E-D E5.20 VT-3 CISI-001 No Examinations Required, In Gasket X-019 Appendix J Program Spectacle Flange Gasket X-020 **CISI-001** No Examinations Required, In E5.20 VT-3 E-D Appendix J Program 187 Penetration Flange Gasket X-039A E-D E5.20 VT-3 CISI-001 No Examinations Required, In Appendix J Program 188 Penetration Flange Gasket X-**CISI-001** No Examinations Required, In E5.20 VT-3 039B Appendix J Program No Examinations Required, In 189 Butterfly Valve Flange Gasket E5.20 VT-3 **CISI-001** Penet. X-205C Appendix J Program 190 Butterfly Valve Flange Gasket No Examinations Required, In E5.20 VT-3 **CISI-001** Penet, X-205D Appendix J Program 191 RHR Test Line Orifice D008B No Examinations Required, In E5.20 VT-3 **CISI-001** Gasket Penetration X-210A Appendix J Program

Monday, July 24, 2006

ISI-NDE Program Rev.5; Change 0

					Period 1		Period 2		Peri	od 3	L		Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	Remarks	
192	RHR Test Line Orifice D009B Gasket Penetration X-210A	E-D	E5.20	VT-3	•	•		•	-	•		No Examinations Red Appendix J Program	luired, In
193	Relief Valve Flange Gasket E1100F001B Penetration X-210A	E-D	E5.20	VT-3	-	-	-	-	•	-		No Examinations Red Appendix J Program	įuired, In
194	Relief Valve Flange Gasket E1100F025B Penetration X-210A	E-D	E5.20	VT-3	-	-	-	-	•	-		No Examinations Red Appendix J Program	•
	RHR Blind Flange Gasket Penetration X-210A	E-D	E5.20		•	-	-	-	-	-		No Examinations Red Appendix J Program	•
196	RHR Test Line Orifice D008A Gasket Penetration X-210B	E-D	E5.20	VT-3	•	-	-	•	•	•		No Examinations Red Appendix J Program	•
	RHR Test Line Orifice D009A Gasket Penetration X-210B	E-D	E5.20		•	•	•	-	-	•		No Examinations Red Appendix J Program	
	Relief Valve Flange Gasket E1100F001A Penetration X-210B	E-D	E5.20	VT-3	-	-	•	-	•	-		No Examinations Red Appendix J Program	
199	Relief Valve Flange Gasket E1100F025A Penetration X-210B	E-D			-	-	-	-	-	-		No Examinations Rec Appendix J Program	•
	Relief Valve Flange Gasket E1100F029 Penetration X-210B	E-D			-	-	-	•	-	•		No Examinations Red Appendix J Program	•
	RHR Blind Flange Gasket Penetration X-210B	E-D			-	•	-	-	-	-		No Examinations Red Appendix J Program	
	TWMS Spool Gasket 4055-1 Penetration X-213A	E-D			•	-	-	•	-	-		No Examinations Red Appendix J Program	
	TWMS Spool Gasket 4055-2 Penetration X-213A	E-D			-	•	-	-	•	-		No Examinations Re- Appendix J Program	
	TWMS Spool Gasket 4056-1 Penetration X-213B	E-D			-	•	-	•	•	-		No Examinations Re Appendix J Program	
	TWMS Spool Gasket 4056-2 Penetration X-213B	E-D			-	•	-	-	₹.	-		No Examinations Re Appendix J Program	
	Relief Valve Flange Gasket T4804F016A Penetration X-218	E-D		VT-3	•	-	-	•	-	-	CISI-001	No Examinations Re Appendix J Program	
	Relief Valve Flange Gasket T4804F016B Penetration X-218	E-D		VT-3	-	-	-	•	•	•	CISI-001	No Examinations Re Appendix J Program	
	Relief Valve Flange Gasket E1100F030D Penetration X-223A	E-D) VT-3	-	•	-	•	-	•	CISI-001	No Examinations Re Appendix J Program	
	Relief Valve Flange Gasket E1100F030B Penetration X-223B	E-D		VT-3	-	-	-	•	-	•	CISI-001	No Examinations Re Appendix J Program	•
	Relief Valve Flange Gasket E1100F030C Penetration X-223C	E-D	E5.20) VT-3	•	•	-	•	-	•	CISI-001	No Examinations Re Appendix J Program	
	Relief Valve Flange Gasket E1100F030A Penetration X-223D	E-D	E5.20) VT-3	•	-	-	•	-	-	CISI-001	No Examinations Re Appendix J Program	
	Relief Valve Flange Gasket E2100F011B Penetration X-227A	E-D) VT-3	-	•	-	•	•	•	CIS1-001	No Examinations Re Appendix J Program	
213	Relief Valve Flange Gasket E2100F012B Penetration X-227A	E-D	E5.20) VT-3	-	•	-	•	•	•	CISI-001	No Examinations Re Appendix J Program	

				Period 1		Period 2		Peri	od 3	<u></u>	Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Reque	st Remarks
214	Relief Valve Flange Gasket E2100F032B Penetration X-227A	E-D	E5.20 VT-3	•	•	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
215	Relief Valve Flange Gasket E2100F011A Penetration X-227B	E-D	E5.20 VT-3	-	-	-	•	-	-	CISI-001	No Examinations Required, In Appendix J Program
216	Relief Valve Flange Gasket E2100F012A Penetration X-227B	E-D	E5.20 VT-3	-	-	-	•	-	-	CISI-001	No Examinations Required, In Appendix J Program
217	Relief Valve Flange Gasket E2100F032A Penetration X-227B	E-D	E5.20 VT-3	-	-	-	•	-	-	CISI-001	No Examinations Required, In Appendix J Program
E5.3	0										Appendix of Togram
218	Drywell Moisture Seal (Drywell concrete floor to metal liner)	E-D	E5.30 VT-3	34% Complete	-	67% Complete	-	100% Complete	-	N/A	
E8.1											
219	Drywell Head Flange Bolting X- 001A	E-G	E8.10 VT-1	VTC	•	-	-	-	•	N/A	
220	South Equipment Hatch Bolting X- 001B	E-G	E8.10 VT-1	VTC	-	-	-	•	•	N/A	
221	North Equipment Hatch Bolting X-001C	E-G	E8.10 VT-1	VTC	•	-	-	-	-	N/A	
222	Drywell Personnel Airlock Bolting X-001D	E-G	E8.10 VT-1	VTC	-	-	-	-	-	N/A	
223	Reactor Vessel Stablization Manhole Bolting X-001E	E-G	E8.10 VT-1	VTC	-	-	•	-	-	N/A	
224	Reactor Vessel Stablization Manhole Bolting X-001F	E-G	E8.10 VT-1	VTC	-	-	•	-	-	N/A	
225	Reactor Vessel Stablization Manhole Bolting X-001G	E-G	E8.10 VT-1	VTC	-	-	-	-	-	N/A	
226	Reactor Vessel Stablization Manhole Bolting X-001H	E-G	E8.10 VT-1	VTC	-	-	-	-	-	N/A	
227	Reactor Vessel Stablization Manhole Bolting X-001J	E-G	E8.10 VT-1	VTC	•	•	-	-	-	N/A	
228	Reactor Vessel Stablization Manhole Bolting X-001K	E-G	E8.10 VT-1	VTC	•	•	-	-	-	N/A	
229	Reactor Vessel Stablization Manhole Bolting X-001L	E-G	E8.10 VT-1	VTC	-	-	-	-	-	N/A	
230	Reactor Vessel Stablization Manhole Bolting X-001M	E-G	E8.10 VT-1	VTC	-	-	-	-	•	N/A	
231	CRD Hatch Bolting X-006	E-G	E8.10 VT-1	-	VTC	VTC	•	-		N/A	
232	Penetration Flange Rupture Disk Bolting X-018	E-G	E8.10 VT-1	-	-	VTC	•	-	-	N/A	
233	Penetration Flange Rupture Disk Bolting X-019	E-G	E8.10 VT-1	-	• .	VTC	-	-	-	N/A	
234	Spectacle Flange Bolting X-020	E-G	E8.10 VT-1	-	•	-	VTC	-	÷	N/A	
235	TIP Penetration Bolting X-035A	E-G	E8.10 VT-1	VTC	•	VTC	-	-	-	N/A	

				Period 1		Period 2		Peri	od 3	1		Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Request R	Remarks	
236	TIP Penetration Bolting X-035B	E-G	E8.10 VT-1	VTC	•	, VTC	•	-	-	N/A		
237	TIP Penetration Bolting X-035C	E-G	E8.10 VT-1	VTC	-	VTC	-	-	-	N/A		
238	TIP Penetration Bolting X-035D	E-G	E8.10 VT-1	VTC	-	VTC	•	•	-	N/A		
239	TIP Penetration Bolting X-035E	E-G	E8.10 VT-1	VTC		VTC	-	-	-	N/A		
240	TIP Penetration Bolting X-035F	E-G	E8.10 VT-1	VTC	-	VTC	-	-	-	N/A		
241	Penetration Flange Bolting X-039A	E-G	E8.10 VT-1	VTC	-	-	-	-	-	N/A		
242	Penetration Flange Bolting X-039B	E-G	E8.10 VT-1	VTC	-	-	-	-	-	N/A		
243	Electrical Penetration Bolting X- 100A (X-100A)	E-G	E8.10 VT-1	VTC	-	-	-	•	-	N/A		
	Electrical Penetration Bolting X- 100B (X-102A)	E-G	E8.10 VT-1	VTC	-	-	-	-	-	N/A		
245	Electrical Penetration Bolting (X-100C)	E-G	E8.10 VT-1	VTC	•	-	•	•	-	N/A		
246	Electrical Penetration Bolting (X-100E)	E-G	E8.10 VT-1	VTC	-	-	- .	-	-	N/A		
247	Electrical Penetration Bolting X- 100F (X-103B)	E-G	E8.10 VT-1	•	•	-	•	•	VTS	N/A		
	Electrical Penetration Bolting X- 100G (X-100G)	E-G	E8.10 VT-1	•	•	-	•	VTC	•	N/A		
249	Electrical Penetration Bolting X-101A (X-101A)	E-G	E8.10 VT-1	-	-	-	VTC	•	•	N/A		
250	Electrical Penetration Bolting X-101B (X-101B)	E-G	E8.10 VT-1	•	•	-	VTC	•	-	N/A		
251	Electrical Penetration Bolting X- 101C (X-101C)	E-G	E8.10 VT-1	•	-	-	VTC	•	•	N/A		
252	Electrical Penetration Bolting X- 101D (X-101D)	E-G	E8.10 VT-1	-	-	-	-	VTC	-	N/A		
253	Electrical Penetration Bolting X- 101E (X-101E)	E-G	E8.10 VT-1	•	-	-	•	VTC	•	N/A		
	Electrical Penetration Bolting X- 101F (X-101F)	E-G	E8.10 VT-1	-	-	-	•	VTC	-	N/A		
	Electrical Penetration Bolting X- 102A (X-105B)	E-G	E8.10 VT-1	VTC	-	-	-	•	•	N/A		
256	Electrical Penetration Bolting X- 102B (X-102B)	E-G	E8.10 VT-1	•	-	-	VTC	•	-	N/A		
	Electrical Penetration Bolting X-102C (X-100B)	E-G	E8.10 VT-1	VTC	•	-	•	-	-	N/A		
	Electrical Penetration Bolting X-102D (X-105C)	E-G	E8.10 VT-1	-	-	-	VTC	•	-	N/A		
	Electrical Penetration Bolting X-103A (X-103A)	E-G	E8.10 VT-1	-	-	VTC	•	-	-	N/A		
260	Electrical Penetration Bolting X- 103B (X-107B)	E-G	E8.10 VT-1	-	•	-	-	VTC	-	N/A		

				Period 1		Period 2		Peri	od 3		Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Metho	od RF07	RF08	RF09	RF10	RF11	RF12	Relief Request Remarks	
261	Electrical Penetration Bolting X- 104A (X-104A)	E-G	E8.10 VT-1	-	-	•	-	VTC	•	N/A	
262	Electrical Penetration Bolting X- 104B (X-104B)	E-G	E8.10 VT-1	•	-	-	-	VTC	•	N/A	
263	Electrical Penetration Bolting X- 104C (X-104C)	E-G	E8.10 VT-1	•	-	•	-	VTC	•	N/A	
264	Electrical Penetration Bolting X- 104D (X-104D)	E-G	E8.10 VT-1	-	-	VTC	•	•	-	N/A	
265	Electrical Penetration Bolting X-104E (X-104E)	E-G	E8.10 VT-1	-	•	-	-	VTC	-	N/A	
266	Electrical Penetration Bolting X- 104F (X-104F)	E-G		-	-	-	VTC	-	•	N/A	
	Electrical Penetration Bolting X-105A (X-105A)	E-G	E8.10 VT-1	-	•	-	•	VTC	-	N/A	
	Electrical Penetration Bolting X- 105D (X-105D)	E-G		-	-	•	-	VTC	-	N/A	
269	Electrical Penetration Bolting X- 106A (X-100D)	E-G	E8.10 VT-1	-	•	-	•	VTC	-	N/A	
270	Electrical Penetration Bolting X- 106B (X-106B)	E-G	E8.10 VT-1	-	•	-	•	VTC	-	N/A	
271	South Torus Hatch Bolting Penetration X-200A	E-G	E8.10 VT-1	VTC	-	-	•	-	•	N/A	
	NorthTorus Hatch Bolting Penetration X-200B	E-G	E8.10 VT-1	•	VTC	-	•	-	-	N/A	
273	Butterfly Valve Flange Bolting Penet. X-205C	E-G	E8.10 VT-1	-	-	VTC	•	•	-	N/A	
	Butterfly Valve Flange Bolting Penet. X-205D	E-G		•	-	-	•	-	VTS	N/A	
275	Electrical Penetration Bolting X- 209A	E-G	E8.10 VT-1	-	-	•	VTC	-	-	N/A	
276	Electrical Penetration Bolting X- 209C	E-G		-	•	-	VTC	•	-	N/A	
277	RHR Test Line Orifice D008B Bolting Penetration X-210A	E-G	E8.10 VT-1	•	-	VTC	-	-	-	N/A	
278	RHR Test Line Orifice D009B Bolting Penetration X-210A	E-G		-	-	VTC	-	-	-	N/A	
279	Relief Valve Flange Bolting E1100F001B Penetration X-210A	E-G	E8.10 VT-1	-	•	•	•	VTC	-	N/A	
280	Relief Valve Flange Bolting E1100F025B Penetration X-210A	E-G	E8.10 VT-1	-	VTC	-	-	•	•	N/A	
281	RHR Blind Flange Bolting Penetration X-210A	E-G	E8.10 VT-1	-	-	•	-	VTC	-	N/A	
282	RHR Test Line Orifice D008A Bolting Penetration X-210B	E-G	E8.10 VT-1	-	•	VTC	-	•	•	N/A	

				Period 1		Period 2		Peri	od 3		Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Metho	d RF07	RF08	RF09	RF10	RF11	RF12	Relief Request Remarks	•
283	RHR Test Line Orifice D009A Bolting Penetration X-210B	E-G	E8.10 VT-1	-	-	VTC	•	•	-	N/A	
284	Relief Valve Flange Bolting E1100F001A Penetration X-210B	E-G	E8.10 VT-1	-	VTC	•	•	-	-	N/A	
285	Relief Valve Flange Bolting E1100F025A Penetration X-210B	E-G	E8.10 VT-1	•	VTC	-	•	•	-	N/A	
286	Relief Valve Flange Bolting E1100F029 Penetration X-210B	E-G	E8.10 VT-1	-	-	-	•	VTC	-	N/A	
287	RHR Blind Flange Bolting Penetration X-210B	E-G		-	•	-	-	VTC	-	N/A	
	TWMS Spool Bolting 4055-1 Penetration X-213A	E-G	E8.10 VT-1	•	-	•	•	VTC	•	N/A	
	TWMS Spool Bolting 4055-2 Penetration X-213A	E-G		-	-	-	-	VTC	-	N/A	
	TWMS Spool Bolting 4056-1 Penetration X-213B	E-G	E8.10 VT-1	-	-	-	, •	VTC	•	N/A	
	TWMS Spool Bolting 4056-2 Penetration X-213B	E-G		-	•	-	-	VTC	-	N/A	
292	Relief Valve Flange Bolting T4804F016A Penetration X-218	E-G		-	VTC	-	-	•	-	N/A	·
	Relief Valve Flange Bolting T4804F016B Penetration X-218	E-G	E8.10 VT-1	-	VTC	-	•	•	-	N/A	
294	Relief Valve Flange Bolting E1100F030D Penetration X-223A	E-G		-	-	-	VTC	•	-	N/A	
295	Relief Valve Flange Bolting E1100F030B Penetration X-223B	E-G		-	-	•	VTC	•	-	N/A	
296	Relief Valve Flange Bolting E1100F030C Penetration X-223C	E-G		-	•	-	VTC	-	•	N/A	
	Relief Valve Flange Bolting E1100F030A Penetration X-223D	E-G	E8.10 VT-1	-	VTC	-	-	•	-	N/A	
298	Relief Valve Flange Bolting E2100F011B Penetration X-227A	E-G		-	-	-	VTC	•	-	N/A	
299	Relief Valve Flange Bolting E2100F012B Penetration X-227A	E-G	E8.10 VT-1	-	-	-	•	VTC	-	N/A	
	Relief Valve Flange Bolting E2100F032B Penetration X-227A	E-G	E8.10 VT-1	-	•	VTC	•	•	-	N/A	
	Relief Valve Flange Bolting E2100F011A Penetration X-227B	E-G	E8.10 VT-1	VTC	-	VTC	-	-	•	N/A	
302	Relief Valve Flange Bolting E2100F012A Penetration X-227B	E-G	E8.10 VT-1	VTC	-	•	•	-	-	N/A	
303	Relief Valve Flange Bolting E2100F032A Penetration X-227B	E-G	E8.10 VT-1	VTC	-	VTC	-	-	-	N/A	
304	Vacuum Breaker-Electrical Penetration Bolting X-228A	E-G	E8.10 VT-1	-	-	•	-	VTC	•	N/A	

Component Examination Schedule Period 1 | Period 2 | Period 3

Component Examination Schedule							Rev.5; Change 0					
				Ĩ	Period 1		Period 2		Peri	od 3	<u> </u>	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	Remarks
305	Vacuum Breaker-Electrical Penetration Bolting X-228B	E-G	E8.10	VT-1	-	-	-	-	VTC	-	N/A	
306	Vacuum Breaker-Electrical Penetration Bolting X-228C	E-G	E8.10	VT-1	-	-	•	•	VTC	•	N/A	
307	Vacuum Breaker-Electrical Penetration Bolting X-228D	E-G	E8.10	VT-1	-	•	-	•	VTC	-	N/A	
E8.2	0											
308	Drywell Head Flange Bolting X- 001A	E-G	E8.20	Torque/Tension	•	-	-	•	-	-		To Be Inspected In Accordance With E8.10 and Tested Per E9.40
309	South Equioment Hatch Bolting X-001B	E-G	E8.20	Torque/Tension	•	-	-	•	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
310	North Equioment Hatch Bolting X-001C	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CIS1-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
311	Drywell Personnel Airlock Bolting X-001D	E-G	E8.20	Torque/Tension	-	-	-	•	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
312	Reactor Vessel Stablization Manhole Bolting X-001E	E-G	E8.20	Torque/Tension	-	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
313	Reactor Vessel Stablization Manhole Bolting X-001F	E-G	E8.20	Torque/Tension	•	-	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
314	Reactor Vessel Stablization Manhole Bolting X-001G	E-G	E8.20	Torque/Tension	-	-	-	-	•	•	CIS1-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
315	Reactor Vessel Stablization Manhole Bolting X-001H	E-G	E8.20	Torque/Tension	-	-	-	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
316	Reactor Vessel Stablization Manhole Bolting X-001J	E-G	E8.20	Torque/Tension	•	-	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
317	Reactor Vessel Stablization Manhole Bolting X-001K	E-G	E8.20) Torque/Tension	•	-	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
318	Reactor Vessel Stablization Manhole Bolting X-001L	E-G	E8.20) Torque/Tension	-	-	•	•	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
319	Reactor Vessel Stablization Manhole Bolting X-001M	E-G	E8.20) Torque/Tension	•	-	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
320	CRD Hatch Bolting X-006	E-G	E8.20) Torque/Tension	-	-	-	•	-	-	CIS1-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
321	Penetration Flange Rupture Disk Bolting X-018	E-G	E8.20) Torque/Tension	-	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
322	Penetration Flange Rupture Disk Bolting X-019	E-G	E8.20) Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
323		E-G	E8.20	O Torque/Tension	•	•	•	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
324	TIP Penetration Bolting X-035A	E-G	E8.20	O Torque/Tension	•	-	-	-	•	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
325	TIP Penetration Bolting X-035B	E-G	E8.20	O Torque/Tension	-	-	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
326	TIP Penetration Bolting X-035C	E-G	E8.20	O Torque/Tension	-	-	•	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

Page 19 of 23

ISI-NDE Program

				Period 1		Period 2		Peri	od 3		Appendix F4.7
Item	Exam Area Identification	Cat.	Code NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Reque	st Remarks
327	TIP Penetration Bolting X-035D	E-G	E8.20 Torque/Tension	-	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
328	TIP Penetration Bolting X-035E	E-G	E8.20 Torque/Tension	•	-	•	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
329	TIP Penetration Bolting X-035F	E-G	E8.20 Torque/Tension	•	-	- '	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
330	Penetration Flange Bolting X-039A	E-G	E8.20 Torque/Tension		•	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
331	Penetration Flange Bolting X-039B	E-G	E8.20 Torque/Tension	•	-	-	-	•	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
332	Electrical Penetration Bolting X- 100A (X-100A)	E-G	E8.20 Torque/Tension		-	-	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
333	Electrical Penetration Bolting X- 100B (X-102A)	E-G	E8.20 Torque/Tension		-	-	-	•	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Electrical Penetration Bolting (100C)	E-G	E8.20 Torque/Tension		-	-	-	•	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
335	Electrical Penetration Bolting (X-100E)	E-G			•	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
336	Electrical Penetration Bolting X- 100F (X-103B)	E-G	E8.20 Torque/Tension	٠ -	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Electrical Penetration Bolting X- 100G (X-100G)	E-G	E8.20 Torque/Tension	ı -	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
338	Electrical Penetration Bolting X- 101A (X-101A)	E-G	E8.20 Torque/Tensio	1 -	•	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Electrical Penetration Bolting X- 101B (X-101B)	E-G	,		-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
340	Electrical Penetration Bolting X- 101C (X-101C)	E-G			-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
341	Electrical Penetration Bolting X- 101D (X-101D)	E-G	•		-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
342	Electrical Penetration Bolting X- 101E (X-101E)	E-G			•	•	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Electrical Penetration Bolting X- 101F (X-101F)	E-G	•		-	-	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Electrical Penetration Bolting X- 102A (X-105B)	E-G	E8.20 Torque/Tensio	n -	-	-	-	•	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Electrical Penetration Bolting X-102B (X-102B)	E-G	•		-	-	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
346	Electrical Penetration Bolting X- 102C (X-100B)	E-G			-	•	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
347	Electrical Penetration Bolting X- 102D (X-105C)	E-G	E8.20 Torque/Tensio	n -	-	•	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
348	Electrical Penetration Bolting X-103A (X-103A)	E-G	E8.20 Torque/Tension	n -	-		•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

					Period 1		Period 2	1	Peri	od 3	<u></u>	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Reque	st Remarks
349	Electrical Penetration Bolting X- 103B (X-107B)	E-G	E8.20	Torque/Tension	•	-	•	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
350	Electrical Penetration Bolting X- 104A (X-104A)	E-G	E8.20	Torque/Tension	-	-	-	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
351	Electrical Penetration Bolting X-104B (X-104B)	E-G	E8.20	Torque/Tension	•	-	-		-	-	CIS1-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
352	Electrical Penetration Bolting X- 104C (X-104C)	E-G	E8.20	Torque/Tension	•	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
353	Electrical Penetration Bolting X- 104D (X-104D)	E-G	E8.20	Torque/Tension	-	•	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
354	Electrical Penetration Bolting X- 104E (X-104E)	E-G	E8.20	Torque/Tension	•	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
355	Electrical Penetration Bolting X- 104F (X-104F)	E-G	E8.20	Torque/Tension	•	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
356	Electrical Penetration Bolting X- 105A (X-105A)	E-G	E8.20	Torque/Tension	-	•	-	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
357	Electrical Penetration Bolting X-105D (X-105D)	E-G	E8.20	Torque/Tension	-	-	-	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
358	Electrical Penetration Bolting X- 106A (X-100D)	E-G	E8.20	Torque/Tension	-	•	-	•	-	-	CIS1-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
359	Electrical Penetration Bolting X-106B (X-106B)	E-G	E8.20	Torque/Tension	-	•	-	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
360	South Torus Hatch Bolting Penetration X-200A	E-G	E8.20	Torque/Tension	•	•	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
361	NorthTorus Hatch Bolting Penetration X-200B	E-G	E8.20	Torque/Tension	•	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
362	Butterfly Valve Flange Bolting Penet. X-205C	E-G	E8.20	Torque/Tension	-	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
363	Butterfly Valve Flange Bolting Penet. X-205D	E-G	E8.20	Torque/Tension	•	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Electrical Penetration Bolting X- 209A	E-G	E8.20	Torque/Tension	-	•	-	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
365	Electrical Penetration Bolting X- 209C	E-G	E8.20	Torque/Tension	-	-	-	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
366	RHR Test Line Orifice D008B Bolting Penetration X-210A	E-G	E8.20	Torque/Tension	•	-	•	-	• •	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
367	RHR Test Line Orifice D009B Bolting Penetration X-210A	E-G	E8.20	Torque/Tension	•	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
368	Relief Valve Flange Bolting E1100F001B Penetration X-210A	E-G	E8.20	Torque/Tension	•	-	-	-	-		CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
369	Relief Valve Flange Bolting E1100F025B Penetration X-210A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
370	RHR Blind Flange Bolting Penetration X-210A	E-G	E8.20	Torque/Tension	-	•	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

					Period 1		Period 2		Peri	od 3	L	Appendix F4.7
Item	Exam Area Identification	Cat.	Code ND	E Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
371	RHR Test Line Orifice D008A Bolting Penetration X-210B	E-G	E8.20 Torq	ue/Tension	•	•	-	•	•		CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
372	RHR Test Line Orifice D009A Bolting Penetration X-210B	E-G	E8.20 Torq	ue/Tension	•	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
373	Relief Valve Flange Bolting E1100F001A Penetration X-210B	E-G	E8.20 Torq	ue/Tension	-	•	-	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
374	Relief Valve Flange Bolting E1100F025A Penetration X-210B	E-G	E8.20 Torq		-	-	•	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Relief Valve Flange Bolting E1100F029 Penetration X-210B	E-G	E8.20 Torq		•	-	-	•	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
376	RHR Blind Flange Bolting Penetration X-210B	E-G	E8.20 Torq	•	-	-	•	-	•	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
377	TWMS Spool Bolting 4055-1 Penetration X-213A	E-G	E8.20 Torq		•	-	-	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
378	TWMS Spool Bolting 4055-2 Penetration X-213A	E-G	E8.20 Torq	•	•	•	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
379	TWMS Spool Bolting 4056-1 Penetration X-213B	E-G	E8.20 Torq		-	•	•	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
380	TWMS Spool Bolting 4056-2 Penetration X-213B	E-G	E8.20 Torq	ue/Tension	•	-	•	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
381	Relief Valve Flange Bolting T4804F016A Penetration X-218	E-G	E8.20 Toro	que/Tension	-	-	•	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
382	Relief Valve Flange Bolting T4804F016B Penetration X-218	E-G	E8.20 Toro	que/Tension	•	-	•	•	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
383	Relief Valve Flange Bolting E1100F030D Penetration X-223A	E-G	E8.20 Tord	que/Tension	-	•	-	•	-	•	CIS1-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
384	Relief Valve Flange Bolting E1100F030B Penetration X-223B	E-G	E8.20 Tord	que/Tension	-	-	•	•	-	•	CIS1-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
385	Relief Valve Flange Bolting E1100F030C Penetration X-223C	E-G	E8.20 Toro	que/Tension	-	-	•	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
386	Relief Valve Flange Bolting E1100F030A Penetration X-223D	E-G	E8.20 Toro	que/Tension	-	•	-	•	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
387	Relief Valve Flange Bolting E2100F011B Penetration X-227A	E-G	E8.20 Tord	que/Tension	-	•	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
388	Relief Valve Flange Bolting E2100F012B Penetration X-227A	E-G	E8.20 Tord	que/Tension	•	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
389	Relief Valve Flange Bolting E2100F032B Penetration X-227A	E-G	E8.20 Tord	que/Tension	-	-	-	•	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
390	Relief Valve Flange Bolting E2100F011A Penetration X-227B	E-G	E8.20 Toro	que/Tension	-	-	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
391	Relief Valve Flange Bolting E2100F012A Penetration X-227B	E-G	E8.20 Tord	que/Tension	•	-	-	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
392	Relief Valve Flange Bolting E2100F032A Penetration X-227B	E-G	E8.20 Toro	que/Tension	-	-	-	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

					Period 1		Period 2		Peri	od 3	1	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
393	Vacuum Breaker-Electrical Penetration Bolting X-228A	E-G	E8.20	Torque/Tension	•	•	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
394	Vacuum Breaker-Electrical Penetration Bolting X-228B	E-G	E8.20	Torque/Tension	-	-	•	•		•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
395	Vacuum Breaker-Electrical Penetration Bolting X-228C	E-G	E8.20	Torque/Tension	-	-	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
396	Vacuum Breaker-Electrical Penetration Bolting X-228D	E-G	E8.20	Torque/Tension	•	-	-	-	-	•	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
E9.1	0											
397	Pressure Retaining Boundary	E-P	E9.10	VT-2	-	-	-	•	-	•		After repair, modification or replacement.
E9.2	0											
398	Containment Penetration Bellows	E-P	E9.20	App. J	-	-	-	-	-	•		10CFR50.AppendixJ
E9.3	0											
399	Airlock	E-P	E9.30	App. J	•	-	-	-	-	-		10CFR50.AppendixJ
E9.4	0											
400	Seals and Gaskets	E-P	E9.40	App. J	•	-	•	-	-	-		10CFR50.AppendixJ

 $GS = General\ Inspection\ Scheduled \qquad GC = General\ Inspection\ Complete \qquad VTS = VT\ Inspection\ Scheduled \qquad VTC = VT\ Inspection\ Complete \qquad VTPC = VT\ Inspection\ Partical\ Complete$

SECTION 9

SECTION XI REPAIR/REPLACEMENT NIS-2 FORMS INDEX

9.0 NIS-2 DATA REPORT INDEX

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
04-010	F523040100	E1151C001A	3	Replace Pump.
04-012C	000Z040909	R3000A003	3	Modify Chemistry Sampling Connections per EDP-32343.
04-012D	000Z040910	R3000A004	3	Modify Chemistry Sampling Connections per EDP-32343.
04-014	000Z034614	C1102D (VARIOUS LOCATIONS)	1	Refurbish CRDM's removed during RF10 for installation in RF11.
05-002	000Z050309 000Z050310 000Z050311	T4700B006 T4700B007 T4700B010	2	Install lifting lugs on Drywell Cooler heads.
05-003	VARIOUS	T4700B001 T4700B002 T4700B003 T4700B004 T4700B006 T4700B007 T4700B010	2	Install replacement (longer) fasteners.
05-005	000Z050407 THRU 000Z050418	C51N001A - D C51N002A - H	1	Install replacement SRM/IRM Dry Tubes.
05-006	A498060100 A519060100	VARIOUS MECHANICAL SNUBBERS	N/A	Mechanical Snubber Refurbishment.
05-007	A497060100 A514060100	VARIOUS HYDRAULIC SNUBBERS	N/A	Hydraulic Snubber Refurbishment.
05-008	B273060200	B2104F013A - R	1	Refurbish Main Steam Safety Relief Valves for installation in RF11.
05-009	VARIOUS	B2104F013A - R	1	Replace Main Steam Safety Relief Valve Pilots and main bodies in RF11.
05-010	VARIOUS	C1102D (VARIOUS LOCATIONS)	1	Install refurbished CRDM at select locations during RF11.
05-012	H605040100	B2100F080C	2 (D+)	Install replacement Stem/disc assembly, cage and seat ring.

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV)

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
05-013	000Z051979	N30-3256-G51 N30-3256-G55 N30-3256-G57	N/A1	Install 3 replacement mechanical snubbers in Drywell.
05-014	VARIOUS	T4700B001 T4700B002 T4700B003 T4700B004 T4700B010	2	Install replacement fasteners and plug leaking tube in T4700B003.
05-015	000Z044256	P44F402B	3	Install replacement Stem and Disc Assembly.
05-016	000Z042033	R3000F140B	3	Install replacement Disc.
05-017A	000Z043607	E1100F031A	2	Install replacement check valve per
05-017B	000Z050737	E1100F031B	2	ERE-33795. Install replacement check valve per ERE-33795.
05-020	000Z040063	E5150F019	2	Install replacement Valve per EDP-32366.
05-023	000Z050487 000Z053190	B3105F031A	1	Install replacement Bonnet Bolting material.
05-024	000Z042035	R3000F140D	3	Install replacement valve.
05-025	000Z043604	R30F401	3	Install replacement stem/disc assembly.
06-001	000Z042034	R3000F140C	3	Install refurbished replacement disc.
06-002	VARIOUS	T4700B004	2	Replace Drywell Cooler T4700B004 per EDP-33690.
06-005	000Z031475	R3000F139B	3	Replace valve.
06-009	H599040100	B2100F080A	2 (D+)	Install replacement Stem/disc assembly, cage and seat ring.
06-010	H600040100	B2100F080B	2 (D+)	Install replacement Stem/disc assembly, cage and seat ring.
06-012	A035060100	T2300F410	2	Restore damaged seal weld on valve.
06-013	000Z051606	T4803F602	2	Install replacement shaft and disc

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV)

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
			-	assembly.
06-014	000Z061322	B2103A001C	3	Remove/Blend Grind Arc Strike.
06-015	000Z061423	B1100G000A	1	Clean damaged threads on RPV closure studs and blend grind several gouges in closure head holes.
06-016	F011060100	T2302X200A	2	Replace damaged nuts on SE Torus hatch.
06-017	F032060100	B1100Y000	1	Replaced 2 short studs in RPV Head Vent Line.

								
1.	Owner Detroit	Edison Company		Date) 	Nov	vember 21, 2005	
	6400 North Dixie	Name e Highway, Newport M	II 48166	Shee	et	1 0	f 5	
		Address				<u>-</u>		
2.	Plant Fermi 2 Nu	clear Power Plant		Unit			2	
		Name						
	6400 North Dixia	e Highway, Newport M	1 48166			Deco Ma	intenance	
		Address			Repair C		2.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Con	npany		Code Symbol	· · · · · · · · · · · · · · · · · · ·	N/A	
				Stam	•			
		Name			orization No.		N/A	
	6400 North Dixie	Highway, Newport, M	1 48166	Expir	ation Date		N/A	
		Address						
4.	Identification of System	<u>T & B N5 —3 (</u>	(Residual Heat Remo	val Service \	Water (RHRSW) Pump E1	151C001A	
5.	.,		ss 3 19		71	Addenda	N/A	Code Case
	Replacements			_19	992-92 Addenda			
6.	Identification of Compo	nents Repaired or Replac	ced and Replacement C	components		-		
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	E1151C001A	Goulds Pumps	N30123-1	N/A	N/A	1975	Replaced	Υ
	E1151C001A	Enertech	11343	N/A	N/A	2004	Replacement	Υ
			·				ı	
	· · · · · · · · · · · · · · · · · · ·							
	Description	<u></u>				<u>' </u>		
7.	of Work	32781. Components	IRSW Pump with a ne s replaced included al head/flange portion w	ll pump colu	mns, column bo			
8.	Tests Conducted:	Hydrostatic [] Other [] Pressure		•	ing Pressure [X t Temp	•		

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.

Form NIS-2 (Back)

9.	Remarks
	Replacement components / materials installed included the following: Pump Assembly Serial No. #11343 procured per PO# 384407, Pump
	Column Assemblies, Serial No. 997, 1002, 1005, 1006, 1007, 1008, 1009, and 1010., SA106 Grade B / SA516 Grade 70, were procured per P
_	384311, Pump Bolting Material, SA193 Grade 67, Procured per PO# 384317and PO# 384407
	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
	We certify that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
	TO A COLOR DE LA C
	Type Code Symbol Stamp Original Code data report T&B -3 to be supplemented by Owners Section XI Program 04-010
	Certificate of Authorization No. N/A Expiration Date N/A
	Certificate of Authorization No. N/A Expiration Date N/A
	Signed R.M. Hambleton Lead ISI Engineer Ruff Date Nothen Rot 21 20 05
	Owner or Owner's Designee, Title
_	
	CERTIFICATE OF INSERVICE INSPECTION
	I di anti in transportatione de la constante d
	I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
	Province of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Components described in the Com
	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.
	adobitation with the regulations of all from a docty and the same and a docty and a do
	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.
	·
	Man Dil Commissions MIG10
	Obliniussions
	Inspector's Signature National Board, State, Province, and
	Endorsements
	Date Nov. 21 20 05
	Date 77 00. 97 20 00
	•
<u>.</u>	
4)	

For complete work package, see Work Request F523040100



Pg. 1 of $\frac{2}{}$

FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES* As Required by the Provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Enertech, A Div. of Curtiss-Wright Flow Control Corp.; 2950 Birch St.; Brea, CA 92821 (name and address of N Certificate Holder) Detroit Edison; 2000 2nd Avenue; Detroit, MI 48226-1279 2. Manufactured for _ (name and address of Purchaser) Detroit Edison; Fermi EF2; 6400 Dixie Hwy.; Newport, MI 48166 3. Location of installation _ (name and address) MD21146 N/A 4. Model No., Series No., or Type VITZ-SD12"x18" HMC Drawing W72 3 none 5. ASME Code, Section III, Division 1: (edition) (addenda date) (class) (Code Case no.) Pump 18 12 Nominal inlet size. 6. Pump or valve Outlet size (in.) N/A N/A N/A Bonnet Disk Bolting 7. Material: Body (b) (c) (a) (d) (e) Cart. Nat'l Body **Eonnet** Disk Holder's Board Serial Serial Serial Serial No. No. No. No. 11343 N/A N/A N/A

^{*} Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8% × 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (2) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NPV-1 (Back — Pg. 2 of _____)

			Certif	icate Holder's Serial No.	11343
8. Design conditions	150	104	. 95.00.41	alve pressure class	N/A
6. Design Conditions	(pressure)	psi(temperati		ave pressure class	
9. Cold working pressure .	N/A	psi at 100°F			
					•
10. Hydrostatic test	N/A psi.	Disk differential test	pressure	N/A	psi_
11. Remarks: Qty. 1, Enerte	ch Project Number	840027 Tag Number	6026 (Serial No. 1	1343)	
	N 4930 thru 4937)				
* Stuffing Box	c (S/N 5878) SA21	6 Gr. WCB	·		
* Top Interm	. Bowl, Intern. Bow	d: (S/N 5992, 5993) S/	A216 Gr. WCB		
* Top Column	Assy, Interm. Colu	mn, Bott. Column Ass	y. (S/N 997, 1005 t	hru 1010, 1002) SA106 G	ir. B/SA516 Gr. 70
				,	
		CERTIFICATION	OF DESIGN		
					24555
Design Specification certifi	ed byMicl	nael S. Williams	P.E. State _	MI Reg. no.	31686
Design Report certified by .		N/A	P.E. State _	N/A Reg. no.	N/A
We certify that the stateme of the ASME Code, Section	III, Division 1.	CERTIFICATE OF C port are correct and to N-2826		•	
N Certificate of Authorization	on No	14-2020		Expires	/11/05
7/6/04		Enertech		Lette //	/
DateNam	ıe	entificate Holder)	Signed .	(authorized represen	rau (1)
		CERTIFICATE OF IN	ISPECTION		
the undersigned, holding the State or Province of		amia	tional Board of Bo and employed by	HCB (I Inspectors and
ofCon	necticut		,	or valve, described in thi	s Data Benort on
76.	04 and stat			d belief, the Certificate	
structed this pump, or valve	, and star				Tiolder Hea Corr
By signing this certificate, r	neither the inspect	or nor his employer r	nakes any warran	ty, expressed or implied	, concerning the
component described in this	Data Report. Furt	hermore, neither the	inspector nor his e	mployer shall be liable in	any manner for
any personal injury or proper	•				•
Date 7-6-DYSigned_	line	200 Commiss	ions	9455N CA150	26
	(Authorized insp	ector) /	[Nat'l. 8d. (in	ol. endorsements) and state	or prov. and no.1

(1) For manually operated valves only.



FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL **NUCLEAR PARTS AND APPURTENANCES***

Manufactured and certified by	, Enertech, A Div. of C				iron St.; Brea, C/	À 92
		•	and address of cert	•		
Manufactured for	Detroit Ediso		Avenue; Detro		1279 .	
			address of purchase	•	• • • • • • •	
Location of installation	Detroit Ediso		; 6400 Dixie H	wy.; Newport	, MI 48166	
			name and address)			
TypeD1360 Rev. G	SA-106-B/SA-516-70			N/A	200	
(drawing no.)	(mat'l. spec. no.)	(tensile stre	ngth)	(CRN)	· (year)	
ASME Code, Section III:	1971	W 72		3	Nor	
	(edition)	(addenda)		(class)	(Code Case	
Fabricated in accordance wi	th Const. Spec. (Div. 2 only)	N/A (No.)	Revision.	N/A	DateN	W/A
•	•	(110.)				
Remarks: Oty. 1 Column,	Top (P/N: 641) for Goulds	Model VII X	SD 12x18HM	1C 2-Stage Pi	- dwr	
		0.10010 :	•			
Enertech Item N	No.: C9176N, Project No.:	840010				
	•				•	
				300		
Nom. thickness (in.)330	. Min. design thickness (in.))230_ Dia	. ID (ft. & in.) _	12.0" Lengt	h overall (ft. & in.)	
Vhen applicable, Certificate	Holders' data reports are at	tached for eac	h item of this i	eport:		
				· · · · · · · · · · · · · · · · · · ·		
•		- <u> </u>	•	j		
Part or Appurtenance	National		art or Appurten	ance	: National	
Serial Number	Board No.	11	Serial Numbe	c l	Board Numb	er
	in Numerical Order	11	•	· }	in Numerical O	rdei
	1	1 1			**	
997	N/A	(26)				
·)						
)		(28)				
))		(29)	•			
)·		(30)				
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5)		- (42)		1		
7)		(43)				
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5)		(43) (44) (45)				
5)		(43) (44) (45) (46)				
5)		(43) (44) (45) (46)				
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5)		(43) (44) (45) (46) (47) (48)	· · · · · · · · · · · · · · · · · · ·			

(when applicable)

FORM N-2 (back)

· .			Mfr. Serial No	997
	CERTIFICATE OF DESIGN			
Design specifications certified by	Michael S. Williams	P. E. state_	MI Reg. no	31686
Design report* certified by	(when sopiicable) N/A	•	Reg. no	
	(when applicable)			
	CERTIFICATE OF SHOP COMPLIAN	CE		
	report are correct and that this (these)	Тор	Column	·
conform to the rules of construction of th	e ASME Code, Section III.			
NPT Certificate of Authorization no	N-2827	Expires	October 11, 200	5
Date 3/5/04 Name Enertect	n, A Div. of Curtiss-Wright Flow Control Corp. Sign	ned Sorett	2 Gray	<u>a</u> .
	(NPT Certificate Holder)	(authorized	representative)	
	CERTIFICATE OF SHOP INSPECTION	N		
Ince of and employed	ion Issued by the National Board of Boiler a	nd Pressure Vessel Ir HSB CT	spectors and the	state or pro
	these items described in this data report of			
best of my knowledge and belief, the Certif Section III. Each part listed has been autho	rized for stamping on the date shown above	фрипелалсеs in acc: e.	organce with the A	SME Code,
By signing this certificate, neither the insp described in this data report. Furthermore, perty damage or loss of any kind arising	ector nor his employer makes any warranty neither the inspector nor his employer shall	, expressed or implie	ed, concerning the ner for any person	equipment al Injury or
Date 3.504 Signed circle	F. Rleyes comm	issions	6 NB943	5N .



FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III, Division 1

Not To Exceed One Day's Production

i. manaration and follower	by Ellertech, A Div. of C	Curtiss-Wright Flow Control Corp.; 295	U Birch St.; Brea, CA 928				
•		(name and address of certificate holder)					
2. Manufactured for	Detroit Edis	on; 2000 2nd Avenue; Detroit, MI 4822	26-1279				
•		(name and address of purchaser)					
3. Location of installation	Detroit Edisc	on; Fermi EF2; 6400 Dixie Hwy.; Newp	oort, MI 48166				
		(name and address)					
1. Type D1360 Rev. G	SA-106-B/SA-516-70		2003				
(drawing no.)	(matil. spec. no.)	(tensile strength) . (CRN)	· (year built)				
. ASME Code, Section III:	1971	W 72 3	None				
· ASIVIE Code, Section III	(edition)	(addenda) (class)	(Code Case no.)				
:	ith Coost Soos (Div 2 sel)		Date N/A				
. Pabricated in accordance w	nur Const. Spec. (Div. 2 only	y) <u>N/A</u> Revision <u>N/A</u>	bate				
		or Goulds Model VITX-SD 12x18HMC					
. Remarks: Gty. 0 Columni,	intermediate (1711: 642) i	Of Godine Model 1117 CB TEXTORING	o z olage i dilib				
Enertech Item	No.: C9177N. Project No.	• 840010					
Litertecti iterii	No CSTTTN. TTOJECTNO.	640010					
·		·					
220		220 : 12 0"					
Nom. thickness (in.)	 Min. design thickness (in 	.) .230 Dia. ID (ft. & in.) 12.0" Le	ngth overall (ft. & in.) 4				
When applicable, Certificate	Holders' data reports are a	ttached for each item of this report:					
							
•							
Part or Appurtenance	National	Part or Appurtenance	: National				
Serial Number	Board No.	Serial Number	Board Number				
	in Numerical Order		in Numerical Order				
•		.					
1)1005 /	N/A	(26)					
'/	N/A	(27)	**************************************				
÷)							
713/1/	1 1000						
3) 1007	N/A N/A	(28)					
4) 1008	N/A	(29)					
4) 1008 (N/A N/A	(29) (30)					
4) 1008 (N/A N/A	(29) (30)					
4) 1008 / 5) 1009 / 6) 1010	N/A N/A	(29)					
4) 1008 / 5) 1009 / 6) 1010 /	N/A N/A	(30)					
4) 1008 5) 1009 6) 1010 7)	N/A N/A	(29) (30) (31) (32)					
4) 1008 / 5) 1009 / 6) 1010 / 7)	N/A N/A	(29) (30) (31) (32) (33)					
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4) 1008 6 5) 1009 6 5) 1010 7 7) 3) 9) 10) 11)	N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36)					
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4) 1008 / 5) 1009 / 6) 1010 / 7) - 3) - 10) - 11) - 12) - 3) -	N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38)					
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1008 / 1008 / 1009 / 1009 / 1010 / 10	N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40)					
1008 (1009 (N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42)					
1008 (1009 (N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40)					
1008 (1009 (N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44)					
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1008 / 1008 / 1009 / 1009 / 1010 / 10	N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45)					
(4) 1008 (7) (8) 1009 (7) (8) 1010 (7) (8) (9) 10) (11) 11) 112) 113) 114) 115) 116) 117) 118) 119) 120) 120) 121)	N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46)					
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(4) 1008 (7) 1009 (7) (6) 1010 (7) (8) (9) 10) 11) 12) 13) 14) 15) 16) 17) 18) 19) 19) 19) 10) 11) 12) 13) 14) 15) 16) 17) 18) 19) 19) 19) 19) 19) 19) 19) 19) 19) 19	N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48)					
(4) 1008 (7) (8) 1009 (7) (8) 1010 (7) (8) 1010 (7) 111 (7) 113 (7) 118 (7) 11	N/A N/A N/A	(29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47)					

<u>.</u>	CERTIFICATE OF DESIGN	v
Design specifications certified by	Michael S. Williams	P. E. state MI Reg. no 31686
	(when applicable)	•
Design report* certified by	N/A	P. E. stateReg. no
,	(when applicable)	
	CERTIFICATE OF SHOP COMPL	IANCE
We certify that the statements made in this	report are correct and that this (these)	Intermediate Column
conform to the rules of construction of the		
NFT Certificate of Authorization no	N-2827	Expires October 11, 2005
1 1 1		Sent O
Date 5/3 / 07 Name Enertech	, A Div. of Curtiss-Wright Flow Control Corp. (NPT Certificate Holder)	Signed // Drella Callar
<u> </u>	(NPT Certificate Holder)	(authorized representative) (/
· .	CERTIFICATE OF SHOP INSPEC	TION
Ince of California and employe	ion Issued by the National Board of Boiled by	ler and Pressure Vessel Inspectors and the state or pro- HSB CT
	these items described in this data repo	
best of my knowledge and bellef, the Certif	icate Holder has fabricated these parts	or appurtenances in accordance with the ASME Code,
Section III. Each part listed has been autho	rized for stamping on the date shown a	ibove.
By signing this certificate, neither the inspi	ector nor his employer makes any warr	anty, expressed or implied, concerning the equipment
described in this data report. Furthermore, a	neither the Inspector nor his employer :	shall be liable in any manner for any personal injury or
sperty damage or loss of any kind arising	from or connected with this inspection	n.
Date 3504 Signed Cerel) F. Reyso co	ommissions CA 1526 MB 9435M (Nat'l. 8d. (Incl. endorsements) state or prov. and no.)
	(Authorized Inspector)	(Nat'l. Sd. (incl. endorsements) state or prov. and no.)



FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III, Division 1

Not To Exceed One Day's Production

	4		0
D-	1	۵	"
· ٧	_		

Manufactured and certified by	7	(name and address of	certificate holden	
Manufactured for	Detroit Edisc	on; 2000 2nd Avenue; De		1279 .
	•	(name and address of purc		
Location of installation	Detroit Edisc	on; Fermi EF2; 6400 Dixie		t, MI 48166
TypeD1360 Rev. G	SA-106-B/SA-516-70	···	, N/A	2003
Type	(mat1, spec. no.)	(tensile strength)		· (year built)
	1971	W 72	3	None
ASME Code, Section III:	(edition)	(addenda)	(class)	(Code Case no.)
Fabricated in accordance wit	th Const. Spec. (Div. 2 only	N/A Revision	on	DateN/A
	•	The state of the s		
Remarks: Oty. 1 Column, I	Bottom (P/N: 644) for Gor	ulds Model VITX-SD 12>	<18HMC 2-Stag	e Pump -
Faculach kam N	in CO170N Design No.	. 040040		
Enertech item i	No.: C9178N, Project No.:	: 840010		
			•	
lom. thickness (in.)330	Min design thickness fin	, .230 Dia ID (ft & in	12.0" Lengt	h overall (ft & in) · 4'
Vhen applicable, Certificate I				0 + 0.1 = 11.1 = 11.1
				
•		· · ·	1	
Part or Appurtenance	National	Part or Appurt	tenance	: National
Serial Number	Soard No.	Serial Nun	nber	Soard Number
	in Numerical Order			In Numerical Order
1000	N/A			
1002	· N/A	(26)		
<i>!</i>	 	(27)	 	
))		(28)		
)	<u> </u>	(30)	1	
\		(31)		
)		(32)		
		(33)		
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0)			. 1	
		(35)		
I) 		(35) (36)		
1)		(36)		
2)		(36)		
2)		(35) (36) (37) (38) (39)		
2)		(35) (36) (37) (38) (39) (40)		
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2)		(35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45)		
2)		(35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46)		
2)		(35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47)		
2)		(35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48)		
2)		(35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47)		

FORM N-2 (back)

1002

Mfr. Serial No. .

	CERTIFICATE OF DESIGN	1	
Design specifications cartified by	Michael S. Williams	P E state	MI Reg. no. 31686
Design specifications cartified by	(when applicable)		
Design report* certified by	N/A	P. E. state	Reg. no
Joseph Common Symmetry	(when applicable)		
	CERTIFICATE OF SHOP COMPL	IANCE	
We certify that the statements made in this	s report are correct and that this (these)	Intermedia	te Column
conform to the rules of construction of the	•		
			•
NFT Certificate of Authorization no	N-2827	ExpiresO	ctober 11, 2005
Date 3/5/04 Name Enerted		Q	- 1
Date 5/3/07 Name Enerted	h, A Div. of Curtiss-Wright Flow Control Corp. (NPT Certificate Holder)	Signed	e Brava
·	(NET CERTICALE HODER)	Įautiorizeu rep	
	CERTIFICATE OF SHOP INSPEC	TION	
I, the undersigned, holding a valid commissions of California and employ	sion Issued by the National Board of Boil ed by	ler and Pressure Vessel Insp HSB CT	pectors and the state or pro
of Connecticut have inspected	these items described in this data repo	ort on 2・2700	, and state that to the
best of my knowledge and belief, the Certi			
Section III. Each part listed has been authorized	orized for stamping on the date shown a	bove.	
By signing this certificate, neither the inst	pector nor his employer makes any warr	anty, expressed or implied,	concerning the equipment
described in this data report. Furthermore,	neither the inspector nor his employer	shall be liable in any manne	er for any personal injury or
perty damage or loss of any kind arising	g from or connected with this inspection	n.	
Date 3508 Signed Circle		ommissions A1526	NB9435N .
•	(Authorized Inspector)	(Nat'l. Bd. (incl. end	orsements) state or prov. and no.)

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

04-012C

1.	Owner Detro	it Edison Company		Dat	ta		November 16, 2005		
		Name		_					
	6400 North Di	xie Highway, Newport MI 4	8166	. She	eet		1 of 1		
		Address							
2.	Plant Fermi 2 N	luclear Power Plant		Uni	t		2		
		Name						•	
	6400 North Di	kie Highway, Newport MI	18166			_			
	<u> </u>	4.11					Maintenance		
_	We to Best and to	Address			Repair Organization P.O. No., Job No., etc. Type Code Symbol N/A				
3.	work Performed by	•		Stamp		N/A 			
		Name		Autl	norization No.		N/A		
	6400 North Dix	<u>ie Highway, Newport, MI 4</u>	8166	Exp	iration Date		N/A		
	•	Address							
4.	Identification of System	<u>T & B No. 18 Em</u>	ergency Diesel	Generator #1:	3 Fuel Oil Syste	<u>em</u> 			
5.		onstruction Code ASME Class dition/Addenda of Section XI	319		n 71	-	ia <u>N/A</u> C	Code Case	
6	Identification of Comm	Appenta Panairod er Panisaas	Lond Pontagomen	t Components				,	
6.	Identification of Comp	onents Repaired or Replaced	and Replacemen	it Components	· · · · · · · · · · · · · · · · · · ·		,— <u></u>		
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)	
	R3000A003	Graver Tank	60907N-3	8229	N/A	1977	Replacement	Y	
									
	Description	1			·	!		<u> </u>	
7.	of Work	Modify Storage tank by Chemistry sampling ac				and insta	all a modified cover to si	hodau	
8.	Tests Conducted:	Hydrostatic [] Pn Other [] Pressure		•	ating Pressure [X	ব	Ref. Code Case	N-416-2	
	information in it	nental sheets in form of lists, tems 1 through 6 on this repo							

(10/94)

Form NIS-2 (Back)

9. Remarks	 Replacement material consisting of: 18* 150# Blind Flange, ASME III Class 3, procured per PO# 389352, SA-105, HT # 3216ANF 3* ASME III Class 2 Sch 40 Pipe procured per PO# 402420, SA-106, HT# A80004. 3* 150# ASME III Class 2 Raised Face Flange procured per PO#402420, SA 105, HT# A24 3* 150# ASME III Class 2 Blind Flange procured per PO# 369180, SA 105, HT# S1210
	 (8) - 5/8* Nuts procured per PO# 892857, SA194 Grade 2H, HT# J269
	 (8) - 5/8" studs procured per PO#898850, SA193 Grade B7, HT#P123 Additional ASME material installed <1" NPT is detailed in work request.
	Additional Flowing Indicated The Flowing Institute of the Flowing Indicated Institute of the Flowing Institute of the Flowing Institute of the Flowing Institute of the Flowing Institute of
	Applicable Manufacturer's Data Reports to be attached
 	CERTIFICATE OF COMPLIANCE
We certify tha	the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
Type Code Sy	mbol Stamp Original Code data report T&B No. 18 to be supplemented by Owners Section XI Program # 04-012C
	•
Certificate of A	Authorization No. N/A Expiration Date N/A
· ·	M. Hambleton Lead ISI Engineer (M. Date Noviews 16, 2005
Ow	ner or Owner's Designee, Title
	·
	CERTIFICATE OF INSERVICE INSPECTION
	OFFICE OF MODIFIED MORE ENTROPY
	ned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
Province of	Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the escribed in this Owner's Report during the period 5-17-04 to 18-05, and state that to the best of my
	belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
accordance wit	h the requirements of the ASME Code, Section XI.
and corrective	certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
70	anderdia Commissions_ NII 610
	Inspector's Signature Commissions National Board, State, Province, and Endorsements
Date Nou	o. 18
Duit 7 4 00	

(10/94)

1.	Owner Det	roit Edison Company		_ Dat	te		March 16, 2006	
	6400 North (Name 6400 North Dixie Highway, Newport MI 48166		She	eet		1 of 1	
		Address		-				
2.	Plant Fermi 2	Nuclear Power Plant		Uni	t		2	
	0400 11 11 5	- Name	10100		•			
	6400 North L	Dixie Highway, Newport MI	48166			Door	Maintanana	
	·	Address			Renair		o Maintenance ion P.O. No., Job No., etc.	
3.	Work Performed b		anv	Tvo	e Code Symbol	Olganiza	N/A	
٠.	Work T Chomica D	y Beack Edison Comp	uny	Star				
		Name		Auth	horization No.		N/A	
	6400 North D	ixie Highway, Newport, MI	48166	Exp	iration Date		N/A	
		Address					•	
4.	Identification of System	<u>T & B No. 16 En</u>	nergency Diesel	Generator #14	4 Fuel Oil Syste	<u>em</u>		
	•	•						
5.	(a) Applicable	Construction Code - ASME		54 5 700	74 :	4.1.		
	(h) Applicable	Class Edition/Addenda of Section XI		71 Editio	n <u>71</u>	_ Adden	da <u>N/A</u> C	Code Case
	(b) Applicable Replaceme		Offitzed for Nepair		1992-92 Addenda	a	•	
	7.56			. –				
6.	Identification of Cor	nponents Repaired or Replace	d and Replacemen	t Components				
						· .		
		1	1	,, , ,	0.1			
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code
	Component		Cenario	Dogia No.	i identification	50	or risplacement	Stamped
			{			Į		(Yes.
		<u> </u>				<u> </u>		or No)
	R3000A004	Graver Tank	60907N-4	8230	N/A	1977	Replacement	Y
			<u> </u>					
	•							İ
				·	<u> </u>			<u> </u>
		-	·					
	·							
	Description							
7.	of Work					and inst	all a modified cover to st	<u>troact</u>
		Chemistry sampling ac	tivities as detaile	ed in EDP-325	343.			
,	Tests Conducted:	Understatio [] Pr	eumatic []	Naminal Opera	ating Pressure [)	/ 1	Ref. Code Case	N 442 0
	resis Conducted.	Hydrostatic [] Prossure		•	est Temp	^ J	of	14-410-2.
		0.1101 7 7 1000210		, ,	.o. 15,p		, • .	
		emental sheets in form of lists,						
		items 1 through 6 on this repo	nt is included on a	ach sheet, and	(3) each sheet is	numbere	d and the number of	•
	, sheets is rec	orded at the top of this form.						

(10/94)

9.	Remarks	Replacement material consisting of: 18" 150# Blind Flange, ASME III Class 3, Previously installed on EDG #13 tank, R3000A004. 3" ASME III Class 2 Sch 40 Pipe procured per PO# 402420, SA-106, HT# A80004. 3" 150# ASME III Class 2 Raised Face Flange procured per PO#394694, SA 105, HT# S1063 3" 150# ASME III Class 2 Blind Flange procured per PO# 357114, SA 105, HT# S1251 (6) - 5/8" Nuts procured per PO# 892857, SA194 Grade 2H, HT# J259 (8) - 5/8" studs procured per PO#598850, SA193 Grade B7, HT#P123 Additional ASME material installed <1" NPT is detailed in work request.
		<u> </u>
		Applicable Manufacturer's Data Reports to be attached
	•	
	——————————————————————————————————————	CERTIFICATE OF COMPLIANCE
	We certify that	t the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
	Type Code Sy	rmbol Stamp Oricinal Code data report T&B No. 18 to be supplemented by Owners Section XI Program # 04-012D
		Authorization No. N/A Expiration Date N/A
	Signed R.M	M. Hambleton Lead ISI Engineer Rubble Date MARCA 17 20 06 ner or Owner's Designee, Title
		CERTIFICATE OF INSERVICE INSPECTION
	Province of components de knowledge and accordance with	escribed in this Owner's Report during the period 25-17-2010 03-18-00, and state that to the best of my belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI.
i	and corrective r	certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
	-//	National Board, State, Province, and
	6	Endorsements
Į	Date <u>Ma</u>	rch 18 20 06

Reference WR # 000Z940910 for additional details.

(10/94)

==								
1.	Owner Detroit	Edison Company		Date	•		3-16-2006	
	6400 North Dixi	Name e Highway, Newport N	M 48166	She	et	<u>1 c</u>	of 34	
2.	Plant Fermi 2 Nu	Address clear Power Plant Name	·	Unit	<u> </u>		2	
	6400 North Dixis	1I 48166			Deca Ma	aintenance		
				. Repair		P.O. No., Job No., etc.		
3.	Work Performed by	Address Detroit Edison Cor	mpany	Type Stan	Code Symbol		N/A	
		Name		Auth	orization No.			
			Expir	ration Date		N/A		
	6400 North Dixie	Highway, Newport, N Address	11 48166				N/A	
4.	Identification of System		1) Control Dod Drive S	System	·			
5.		_ Cla	ME III, ss 1 19 7 XI Utilized for Repairs or	r 1	Winter 1971 992-W ' 92 ddenda	Addenda,	N/A	Code Case
6.		nents Repaired or Repla	ced and Replacement C				·	
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	Control Rod Drive Mechanisms	General Electric	Various	N/A	C1102D@	Various	Replacement	Yes
			·					
	•							
7.	Description of Work	Refurbish Control R	od Drive Mechanisms	for installat	ion in RF11.			
8.	Tests Conducted:	Hydrostatic [] Other [X] Pressure			ing Pressure []	°F		

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.

Form NIS-2 (Back)

. Remarks	Refurbished Control Rod Drive Mechanisms for Installation in RF-11. Replacement parts were procured per variable Code Data Reports are attached.
- :	•
	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
We certify that	the statements made in the report are correct and this <u>replacement</u> conforms to the rules of the ASME Code, Section XI.
Type Code Sy Plan 04-014 a N5-J120-N5-1	mbol Stamp Original Code Data Reports for each Control Rod Drive will be supplemented by Owners Section XI Program and work request 000Z034514 as listed on attached Sheet 2. For tracking purposes CRDM information will be maintained in
100120-10-1	
	I. Hambleton Lead ISI Engineer KM Date MAROL 16 , 2006 er or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
Province of Mi components de knowledge and	ed, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or chigan and employed by HSB_CT_of One State Street. Hartford. CT 06102 have inspected the scribed in this Owner's Report during the period/O-2/-04/to 03-20-04, and state that to the best of my belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI.
and corrective r	certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations neasures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
N	Commissions MET 6/0
7	Inspector's Signature National Board, State, Province, and Endorsements
Data Ma	~6 20 20 0 0
Juli -	

Serial No.	Rebuild WR	(1) Cylinder Tube/ Flange (480-8571)	Piston Tube	Other ASME Parts
3698	000Z034614			None
4565	000Z034614		#0673, PO # 371815	None
3160	000Z034614		#0509, PO # 371815	None
3950	000Z034614		#0513, PO # 371815	None
4585	000Z034614			None
4594	000Z034614	#5466	#0550, PO # 371815	None
6556	000Z034614	#6236		None
3345	000Z034614	#5555	#0506, PO # 371815	None
4498	000Z034614	#6192	#0512, PO # 371815	None
5222	000Z034614	#5977	#W2452N removed	None
ļ			from SN. 4594	. <u>.</u>
4047	000Z034614	·	#0623, PO # 371815	None
3320	000Z034614			None
4544	000Z034614		#0624, PO # 371815	None
3972	000Z034614	#5980	#0516, PO # 371815	None
4354	000Z034614			None
3177	000Z034614	#6161	#0564, PO # 371815	None
4377	000Z034614		#0707, PO # 371815	None
6314	000Z034614	#5984	#0353, PO # 314524	None
4287	000Z034614	#4982	#0568, PO # 371815	None
3960	000Z034614		#0667, PO # 371815	None
4540	000Z034614	#5673	#0657, PO # 371815	None
4281	000Z034614			None
3969	000Z034614	#6179	#0575, PO # 371815	None

Replacement Cylinder Tube/Flange assemblies were utilized from Shoreham Nuclear Station Control Rod Drive Mechanisms that were procured per P.O. 266443. Product Quality Certifications were supplied, however, manufacturers data reports were not supplied with these items. The CRDM's obtained were disassembled and inspected and the usable parts were put into the Fermi stock system.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Mar	nufacturing (GENF&CM
2117 Castle Havne Road, Wilmington, North Carolina 284	01
•	
(b) Hanufactured for : <u>Brunswick</u> <u>Southport, North Carolina 28461</u> (Name and Address of N Certificate Bolder for completed nuclear	component)
2. Identification - Certificate Holder's S/N of Part : <u>0506</u> Nat'l Bd. No. <u>N</u>	<u>/A</u>
(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D.L.	<u>Peterson</u>
(b) Description of Part Inspected: Piston Tube Assembly	
(c) - Applicable ASME Code: Section III . Edition <u>1974</u> , Addenda Date <u>W75</u> , Case No.	N207 1361-2 Class 1
3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)	
	Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Report are not the responsibility of the MPT Certificate Holder for parts. An MPT Certification	Specification and Stress n Holder for appurtenances
is responsible for furnishing a separate Design Specification and Stress Report if the appurted the component Design Specification and Stress Report). Date: 05/28/91 Signed GE-NEBG-NF & CM-QA By Control of Authorization Expires: 6/16/93 Certificate Bolder) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N	Cerentive)
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is responsible for furnishing a separate Design Specification and Stress Report if the appurted the component Design Specification and Stress Report). Date: 06/28/91	J- 1151 OC ACCEPTED SO A
is responsible for furnishing a separate Design Specification and Stress Report if the appurted the component Design Specification and Stress Report). Date: 06/28/91 Signed GE-NEBG-NF&CM-QA By SC QA Report (NFT Certificate Bolder) SC QA Report Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPT N Certification of Design for Appurtenance Design information on file at GE Company, San Jose, California Stress analysis report on file at GE Company, San Jose, California DC22A6Z53 Rev. 1	70.
is responsible for furnishing a separate Design Specification and Stress Report if the appurted the component Design Specification and Stress Report). Date: 05/28/91 Signed GE-NEBG-NF&CM-QA By SC QA Report (NFT Certificate Bolder) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPTN Certification of Design for Appurtenance Design information on file at GE Company, San Jose, California Stress analysis report on file at GE Company, San Jose, California DC22A6253 Rev. 1 Design specification certified by Biom Habberg Prof. Eng. State Calif. Reg. No. 155 DC22A6254 Rev 1	70.
is responsible for furnishing a separate Design Specification and Stress Report if the appurted the component Design Specification and Stress Report). Date: 05/28/91 Signed GE-NEBG-NF&CM-QA By SC QA Report (NFT Certificate Bolder) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPTN Certification of Design for Appurtenance Design information on file at GE Company, San Jose, California Stress analysis report on file at GE Company, San Jose, California DC22A6253 Rev. 1 Design specification certified by Biom Habberg Prof. Eng. State Calif. Reg. No. 155 DC22A6254 Rev 1	70.
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is responsible for furnishing a separate Design Specification and Stress Report if the appurte the component Design Specification and Stress Report). Date: 05/28/91 Signed GE-NEBG-NF&CM-QA By Control of Retificate Bolder) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPT No.: N	pectors and/or the h Carolina have continued this part in its employer arising from or

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(87/94)

4. Shelli Katamial	Ť.\$	Nominal Thickness in.	Corresion in Dis.	_ ft in. Length ft
(Kox	d & Spec. No.) (Min. of Re	nge Specified)	Allowance Int big. :	_ 151 1111 65119411 171
5. Seams: Long	•	H.T.	R.T.	Efficiency
		1		No. of Courses
				T.S
(a)	Thickness Radius	Radius Ratio	Apex Angle Radius	•
(b) If removable, bolt	s used		Other fastening	
. Jacket Closure:	(Materia	al, Spec. No., T.S. Size Number)		(Describe or attach seetch)
	(De	ecribe as ogee and weld, bar, sto:	If her give dimensions, If holts, describe or s	xetch)
		+ 3	Cha	p Weight ft-1
. Design pressure	1250	nsi at	575 °F at 1	temp of F
tems 9 and 10 to be co				
Tube Sheets: Stati	onary. Material	Mad I Sack No. 1	a Thickness	in. Attachment (Weided, B
Float	ing. Haterial	Df	a Thickness	in. Attachment
				Number Type
	· · · · · · · · · · · · · · · · · · ·		<u></u>	(Str. or
ems 11 - 14 incl. to b	be completed for	inner chambers of jack:	eted vessels, or channels of	heat exchangers.
Seams: Long:_	н	I.T	R.T	Efficiency
		.т.¹		
Girth	н	.ī.¹	R.T	
Girth Heads: [a] Moterial Location Thic Top.bottom.ends	Crown	.T. T.S	R.T	No. of Courses T.S Flat Side to Fress.
Heads: [a] Heterial Location Thic Top,bottom,ends Channel	Crown ckness Radius	.T. T.S	R.T (b) Haterial Concial Hemispherical	No. of Courses T.S. Flat Side to Fress. Diameter (conv. or conc.)
Heads: (a) Heterial Location Thic Top, bottom, ends Channel	Crown ckness Radius	T.S Knuckle Elliptical Radius Ratio	R.T. (b) Haterial Concial Hemispherical Apex Angle Radius Other fastening	No. of Courses T.S. Flat Side to Press.
Heads: (a) Heterial Location Thic Top,bottom,ends Channel	Crown ckness Radius	T.S Knuckle Elliptical Radius Ratio	R.T (b) Haterial Concial Hemispherical Apex Angle Radius Other fastening Drop 6	No. of Courses T.S. Flat Side to Press. Diameter (conv. or conc.) (conv. or conc.) (conv. or conc.) (designt
Girth Heads: (a) Material Location Thic Top.bottom.ends Channel If removable, bolts u	Crown ckness Radius	T.S Knuckle Elliptical Radius Ratio	R.T (b) Haterial Concial Hemispherical Apex Angle Radius Other fastening Drop 6	No. of Courses T.S. Flat Side to Press. Diameter (conv. or conc.)
Girth	Crown ckness Radius	T.S Knuckle Elliptical Radius Ratio (b)(c)	Consial Hemispherical Apex Angle Radius Other fastening Orop is Charpy	No. of Courses T.S. Flat Side to Press. Diameter (conv. or conc.)
Girth Heads: (a) Moterial Location Thic Top.bottom.ends Channel If removable, bolts u Design pressure s below to be complete	Crown ckness Radius seed (a)	T.S. Knuckle Elliptical Radius Ratio (b) (c) psi at s where applicable.	Concial Hemispherical Apex Angle Radius Other fastening Drop is Charpy F at tem	No. of Courses T.S. T.S. Flat Side to Press. Diameter Conv. or conc.
Girth Heads: (a) Meterial Location Thic Top.bottom.ends Channel If removable, bolts u Design pressure s below to be complete Safety Valve Outlets:	Crown ckness Radius seed (a)	T.S. Knuckle Elliptical Radius Ratio (b) (c) psi at s where applicable.	Concial Hemispherical Apex Angle Radius Other fastening Drop is Charpy F at tem	No. of Courses T.S.
Girth Heads: (a) Meterial Location Thic Top.bottom.ends Channel If removable, bolts u Design pressure s below to be complete Safety Valve Outlets:	Crown ckness Radius sed (a)	T.S. Knuckle Elliptical Radius Ratio (b) (c) psi at s where applicable.	Concial Hemispherical Apex Angle Radius Other fastening Drop to Charpy F at tem	No. of Courses T.S. T.S. Flat Side to Press. Diameter Conv. or conc.
Girth Heads: (a) Material Location Thic Top.bottom.ends Channel If removable, bolts u Design pressure s below to be complete Safety Valve Outlets: Nozzles: Pupper (New.)	Crown ckness Radius sed (a)	T.S Knuckle Elliptical Radius Ratio (b)(c) psi at s where applicable.	Concial Hemispherical Apex Angle Radius Other fastening Orop to Charpy Fat tem	No. of Courses I.S.
Girth Heads: (a) Moterial Location Thic Top.bottom.ends Channel If removable, bolts u Design pressure s below to be complete Safety Valve Outlets: Nozzles: Purpose (Noz.	Crown ckness Radius sed (a)	T.S Knuckle Elliptical Radius Ratio (b)(c) psi at s where applicable.	Concial Hemispherical Apex Angle Radius Other fastening Orop to Charpy Fat tem	T.S. Flat Side to Press. Diameter (conv. or conc.) feight ft-lb p of F
Girth Heads: (a) Material Location Thic Top.bottom.ends Channel If removable, bolts u Design pressure s below to be complete Safety Valve Outlets: Nozzles: Purpose (Noz. Code, Drain)	Crown ckness Radius used (a) ed for all vessel: Number	T.S Knuckle Elliptical Radius Ratio (b)(c) psi at s where applicable. Size Cuc at the Type	R.T. (b) Haterial Concial Hemispherical Apex Angle Radius Other fastening Drop is Charpy F at tem Location Meterial Thispherical Apex Angle Radius	No. of Courses I.S.
Girth Heads: (a) M. terial Location Thic Top,bottom,ends Channel If removable, bolts u Design pressure s below to be complete Safety Valve Outlets: Nazzles: Purpose (Naz. Cube. Drain) Inspection Kanholes, Openings: Handholes,	Crown ckness Radius used (a) ed for all vessel Number Number	T.S	Concial Hemispherical Apex Angle Radius Other fastening Orop is Charpy F at tem Location Location	Flat Side to Fress. Diameter (conv. or conc.) Feight (Describe or stach seeth) Feight ft-lb p of F
Girth Heads: (a) M. terial Location Thic Top.bottom.ends Channel If removable, bolts u Design pressure s below to be complet: Safety Valve Outlets: Nozzles: Pupoe (Not. Code, Dran) Inspection Kanholes, Threaded,	Crown ckness Radius used (a) ed for all vessel: Number Ko. Ko.	T.S Knuckle Elliptical Radius Ratio (b)(c) psi at s where applicable. Size Size Size Size Size Size	R.T. (b) Haterial Concial Hemispherical Apex Angle Radius Other fastening Drop is Charpy F at tem Location Location Location Location	No. of Courses I.S.
Girth Heads: (a) M. terial Location Thic Top,bottom,ends Channel If removable, bolts w Design pressure as below to be complete Safety Valve Gutlets: Nozzles: Pupoe (Not, Code, Drain) Inspection Kanholes, Threaded, Supports: Skirt	ed for all vessel: Number Ko. Ko. Lucs	T.S. Knuckle Elliptical Radius Ratio (b) (c) psi at s where applicable. Size Size Size Size Legs	R.T. (b) Haterial Concial Hemispherical Apex Angle Radius Other fastening Drop is Charpy F at tem Location Location Location Location Other	No. of Courses T.S.
Girth Heads: (a) M. terial Location Thic Top,bottom,ends Channel If removable, bolts w Design pressure as below to be complete Safety Valve Gutlets: Nozzles: Pupoe (Not, Code, Drain) Inspection Kanholes, Threaded, Supports: Skirt	ed for all vessel: Number Ko. Ko. Lucs	T.S Knuckle Elliptical Radius Ratio (b)(c) psi at s where applicable. Size Size Size Size Legs	R.T. (b) Haterial Concial Hemispherical Apex Angle Radius Other fastening Drop is Charpy F at tem Location Location Location Location	No. of Courses T.S.
Girth Heads: (a) M. terial Location Thic Top.bottom.ends Channel If removable, bolts w Design pressure s below to be complete Safety Valve Outlets: Mozzles: Purpose (Nov. Code, Dran) Inspection Kanholes, Threaded, Supports: Skirt [Yes	ed for all vessel: Number Ko. Ko. Lugs Lugs (*)	T.S Knuckle Elliptical Radius Ratio (b)	R.T. (b) Haterial Concial Hemispherical Apex Angle Radius Other fastening Drop is Charpy F at tem Location Location Location Location Other	No. of Courses T.S. Flat Side to Press. Diameter (conv. or conc.) Veight (Describe or stach seach) Impact ft-lb on F Attached

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASMZ Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401
(Name and Address of NFT Cartificate Holder)

(b) Hanufactured for : <u>Brunswick</u> <u>Southport, North Carolina</u> 28461

(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : 0506 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Piston Tube Assembly</u>

(c) Applicable ASME Code: Section III. Edition 1974, Addenda Date W75. Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor, Hydrostatically tested at 1825 psi. min.

(Brief description of service for which component was designed)

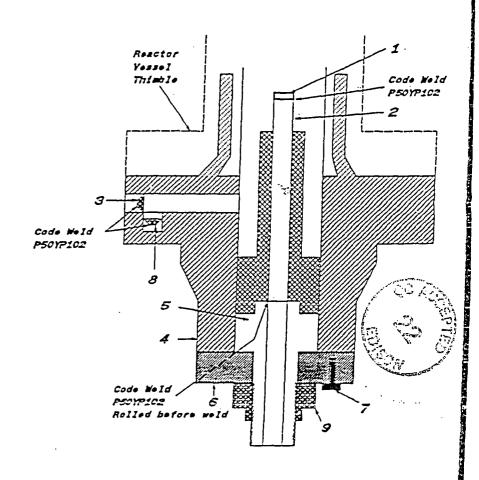
The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 16689274P001 \$A182 - F304 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 18689313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.

9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* 5 As required by the Provision of the ASKE Code Rules, Section III, Div. I

	1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM
	2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NFT Certificate Holder)
	(b) Kanufactured for : Brunswick Southoort, North Carolina 28461 (Name and Address of N Cartificate Holder for completed nuclear component)
	2. Identification - Certificate Holder's S/N of Part : <u>0509</u> Nat'l Bd. No. <u>N/A</u>
	(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson
	(b) Description of Part Inspected: <u>Piston Tube Assembly</u>
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
	3. REMARKS: Standard part for use with Reactor, Hydrostatically tested at 1825 psi, min. (Brief description of service for which component was designed)
_	
_	Sheet 1 of 2
	conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 05/28/91. Signed GE-NEBG-NF&CM-OA By SC OK Representive) Certificate of Authorization Expires: 6/16/33 Certification of Authorization No.: NPTN-1151
	Certification of Design for Appurtenance
•	Design information on file at <u>GE Company</u> , San Jose, California
	Stress analysis report on file atGE Company. San Jose . California
	DC22A5253 Rev. 1 Design specification certified by <u>Biorn Heaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A5254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
	Certification of Shop Inspection
	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASHE Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
	Date 1991 Accorded for the NC 1231, Ohio National Board, State, Province And No.
	Date Inspector's Signature Mational Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

4. Shell: Hateria	1 T.S	. Nominal Thicknessi	Corresion In. Allowance	in. Dia f	ft in. Length	ft
•	Ond & Sowa, No.) (Min. of F	1				
		1			Efficiency	
Girth _		н.т.	R.T.		No. of Courses	·
5. Heads: (a) Kate	erial	T.S	(b)	Katerial	T.S	<u>-</u>
Location (Top Bottom, Ends) a) b)	Thickness Radiu	s Radius Ratio	Apex Angle	Radius	·	or conc.)
If removable, bo	lts used	rial, Spec. No., T.S. Size Numb	Other fasts	ening	Describe or attach sketch)	
. Jacket Closure:						
··.	(1	Jescribe as ogee and weld, bar	, etc. If ber give dimensions,	if botts, describe or state Drop le Champy	m) Weight Vimpact	ft-1b
2 Design pressure	1250_	psi at	575		p of	
ems 9 and 10 to be						
				<u> </u>		
Tube Sheets: Sta	tionary. Material	(10nd & Spec. No.)	D1a. (Subject to pressu	Thickness _ m)	in. Attachment	(Weided, Bolte
Flo	ating. Haterial		Dia.	Thickness _	in. Attachment	·
Tubes: Material	· · · · · · · · · · · · · · · · · · ·	0.D in.	Thickness	inches or gage. Ni	mberTy	pe
				· · · · · · · · · · · · · · · · · · ·		(Str. or U)
ems 11 - 14 inči. to	be completed for	inner chambers of j	acketed vessels. c	r channels of he	eat exchangers.	
Shell: Katerial	1.5.	Thistones in				
(Kind	& Spec, No.) (Min. of Fang	e Specified) 1			in. Length	
Seams: Long	& Spec. No.) (Min. of Rang	Specified) 1 H.T.	R.T		in. Length Efficiency No. of Courses _	<u>*</u>
Seams: Long	& Spet, No.) (Min. of Feng	# Specified) H.T. H.T.	R.T R.T		Efficiency	<u>*</u>
Seams: Long Girth Heads: (a) Kateria Location The Top, bottom, ends	& Soec. No.) (Min. of Fang a) Crown nickness Radjus	H.T. T.S. Knuckle Elliptic	R.T	cerial	_· Efficiency	×
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Seams: Long	& Soec. No.) (Min. of Feng al Crown nickness Radius	H.T. H.T. T.S. Knuckle Elliptic Radius Ratio	R.T	Hemispherical Radius fastening Drop Wei	Efficiency Ho. of Courses T.S T.S Flat Side to Diameter (conv.	Press. or conc.)
Seams: Long	alCrown nickness Radius	H.T. H.T. T.S. Knuckle Elliptic Radius Ratio	R.T	Hemispherical Radius fastening Drop Wei	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or smarth assorting the control of t	Press. or conc.)
Seams: Long	alCrown nickness Radius	H.T. H.T. T.S. Knuckle Elliptic Radius Ratio (b) (c)	R.T	Hemispherical Radius fastening Drop Wei Charpy I	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or smarth assorting the control of t	Press. or conc.)
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Girth Heads: (a) Knteria Location Th Top,bottom,ends Channel If removable, bolts Design pressure s below to be comple	alCrown nickness Radius used (a)	H.T. H.T. T.S. Knuckle Elliptic Radius Ratio (b) (c) psi at ls where applicable.	R.T	Hemispherical Radius fastening Drop Wei Charpy I	Efficiency	Press. or conc.)
Girth Heads: (a) Knterio Location Th Top,bottom,ends Channel If removable, bolts Design pressure s below to be comple Safety Valve Outlet: Mozzles: Purpose (Mex.)	al Crown nickness Radius used (a) eted for all vesses: Number	#.T. T.S	R.T	Hemispherical Radius fastening Drop Wei Charpy I F at temp	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or attach see ght mpact of	Press. or conc.)
Girth Heads: (a) Knteria Location Th Top,bottom,ends Channel If removable, bolts Design pressure s below to be comple	alCrown nickness Radius used (a)	#.T. T.S	R.T	Hemispherical Radius fastening Drop Wei Charpy I	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or smarth assort mpact of Reinforcement	Press. or conc.) ft-lb
Girth Heads: (a) Knterio Location Th Top,bottom,ends Channel If removable, bolts Design pressure s below to be comple Safety Valve Outlet: Mozzles: Purpose (Mex.)	al Crown nickness Radius used (a) eted for all vesses: Number	#.T. T.S	R.T	Hemispherical Radius fastening Drop Wei Charpy I F at temp	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or smarth assort mpact of Reinforcement	Press. or conc.) ft-lb
Girth Heads: (a) Materia Location Th Top,bottom,ends Channel If removable, bolts Design pressure s below to be comple Safety Valve Outlet: Mozzles: Purpose (Mex. Ochen.)	al Crown nickness Radius : used (a) eted for all vesses: Number	H.T. H.T. T.S. Knuckle Elliptic Radius Ratio (b) (c) psi at Is where applicable. Siz	R.T	Hemispherical Radius fastening Drop Wei Charpy I F at temp	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or attach see ght mpact Listerial Listerial Listerial	Press. or conc.) ft-lb
Girth Heads: (a) Kateria Location Th Top.bottom.ends Channel If removable, boilts Design pressure Safety Valve Outlet: Mozzles: Puppe (Me., Oute, Oran) Inspection Manholes Openings: Handhole	alCrown nickness Radius	H.T. T.S. Knuck le Elliptic Radius Ratio (b) (c) psi at Is where applicable. Size Size	R.T	Hemispherical Radius fastening Drop Wei Charpy I Fat temp Location Thisness	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or attach assight mpact) Reinforcement Medicial (Ho	Press. or conc.) ft-lb ft-lb
Girth Heads: (a) Kateria Location Th Top.bottom.ends Channel If removable, boilts Design pressure s below to be complicately Valve Outlet: Mozzles: Pupper (Mex. Outlet) Inspection Manholes	alCrown nickness Radius	H.T. T.S. Knuck le Elliptic Radius Ratio (b) (c) psi at Is where applicable. Size Size Size	R.T	Hemispherical Radius fastening Drop Wei Charpy I F at temp	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or edach see ght mpact of	Press. or conc.) ft-lb ft-lb
Girth Heads: (a) Knteria Location Th Top,bottom.ends Channel If removable, boilts Design pressure s below to be comple Safety Valve Outlet: Kozźles: Purpow (hke, Oute, Orain) Inspection Kanholes Openings: Handfole Threaded Supports: Skirt	al Crown nickness Radius Radius used (a) eted for all vesses: Number Number No	H.T. T.S. Knuck le Elliptic Radius Ratio (b) (c) psi at Is where applicable. Size Size	R.T	Hemispherical Radius fastening Drop Wei Charpy I F at temp Location Thisness ation ation	Efficiency No. of Courses T.S. Flat Side to Diameter (conv. (Describe or attach and ght mpact Listerial Ho	Press. or conc.) ft-lb ft-lb

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b) Hanufactured for : Brunswick Southport, North Carolina 28451

(Name and Address of N Certificate Holder for completed nuclear component)

- 2. Identification Certificate Holder's S/N of Part : 0509 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: Piston Tube Assembly
 - (c) Applicable ASME Code: Section III , Edition 1974, Addenda Date W'75, Case No. N207 1361-2 Class 1
- 3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

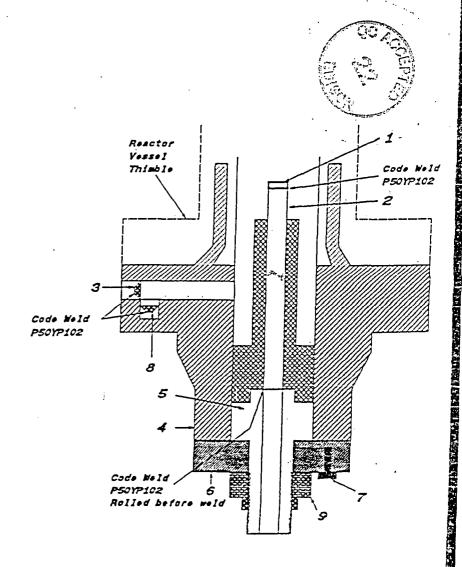
 (Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 16689274P001 \$A182 - F304 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 16689313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. die.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (7195474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Ease 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.36" thick x 1.307" die.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30" thick x 2.62" die.



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1. Kanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
2117 Castle Havne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
(b) Kanufactured for : Brunswick Southport North Carolina 28461 (Name and Address of M Cartificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part :
(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson
(b) Description of Part Inspected: Piston Tube Assembly
(c) Applicable ASME Code: Section III . Edition 1974 . Addenda Date W75. Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1625 psi. min.
(Brief description of service for which component was designed)
Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
Date: 06/23/91 Signed GE-NEBG-NF & CM-QA By SSC OK Representive)
Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151
Certification of Design for Appurtenance
Design information on file at <u>GE Company. San Jose. California</u>
Stress analysis report on file at <u>GE Company</u> , San Jose, California
DC22A6253 Rev. J Design specification certified by <u>Blorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Callf.</u> Reg. No. <u>M018646</u>
Certification of Shop Inspection
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on State of North Carolina have inspected that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
6/28 1991 Azone P Evere NC 1231, Ohio
Date 1991 Azore P Evere NC 1231, Ohio
*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 6-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

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Items 4-8 Incl. to be completed fo	r single wall vessels, jacke	ts vessels, or shells of he	at exchangers.
4. Shell: MaterialT.S. (Kind & Spec. No.) (Min.	Hominal C Thickness in. A	orrosion Nowanca in. Dia	ft in. Length ft
5. Seams: Long	H.T. 1	P.T	Efficiency
	1		No. of Courses
6. Heads: (a) Material			
Location (Top Cr Bottom, Ends) Thickness Ra	own Knuckle Elliptical dius Radius Ratio	Concial Hemispheric Apex Angle Radius	al Flat Side to Press. Diameter (conv. or conc.)
(a)		Other fastening	
7. Jacket Closure:	Vaterial, Spec. No., T.S. Size Number)		(Describe or attach sortch)
7. dacker didshie.	(Describe as open and weld, bar, std. #	ber give dimensions, if botts, describe or s	with)
	• •	Dro; Char	Weight ft-1b
8. Design pressure1250) nsiat	575 F at t	emp of°F
Items 9 and 10 to be completed for t			
9. Tube Sheets: Stationary. Mater Floating. Mater	(Kind & Spec, No.)	. Thickness (Subject to pressure)	in. Attachment(Weided, Botte
10. Tubes: Material			
Items 11 - 14 incl. to be completed	_		<u>.</u>
1. Shell: Material T.S	 		
2. Seams: Long	•		EfficiencyX
B. Heads: (a) Material	T.S	(b) Katerial	T.S
Location Thickness Radi	us Radius Ratio	Apex Angle Radius	
If removable, bolts used (a)	(b)(c)	Other fastening	
		Drop \	(Describe or attach statch)
2		Charp	y Impactft-lb .
. Design pressure	psi at	Fat ter	
tems below to be completed for all vi	essels where applicable.		
. Safety Valve Outlets: Number	Size	Locati	on
i. Nozzles: Purpose (iniet,	• •		Peinforcemant
	Dic. or Size Type	Material Thickness	Meional How Attached
		. <u> </u>	
			一個、多家
. Inspection Manholes, No Openings: Handholes, No.	Size Size	Location Location	
Threaded. No.	Size	Location	
. Supports: Škirt Lugs	Legs(Number) {Number}	Other	Attached
(Yes or No.)	(Humber) (Hum	noer) (Describe)	(worl 2 evently).
1 - If Possessid Heat-Treesed. 2 - List other internet or external pressure with coincid	for temperature some and result	•	,
5 - Det outue seement in examine business extl cource	fert temperature venen applicable.	ម ខេត្តក្រ	
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1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Cestle Havne Road. Wilmington. North Carolina 28401

(Name and Address of NFT Certificate Bolder)

(b) Manufactured for : Brunswick Southport, North Carolina 28451

(Name and Address of N Certificate Holder for completed nuclear component)

-2. Identification - Certificate Holder's S/N of Part : <u>0512</u> Nat'l Bd. No. <u>N/A</u>

(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III . Edition 1974 . Addenda Date W75 . Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psl. min.

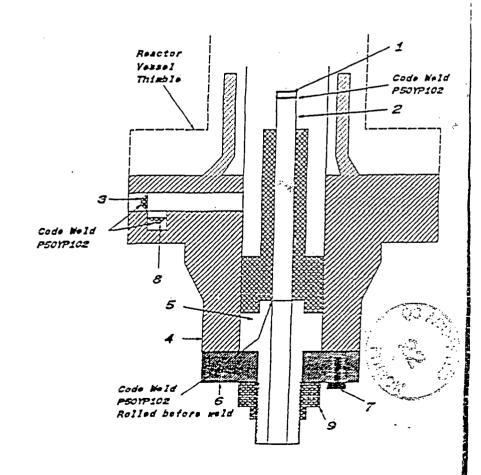
(Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - F304 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 16689313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37 thick x 9 5/8* OD
- 5. Base 137C5311P001 SA182 - F304 7/8"thick x 2.875" dia.
- 6. Ring Flange 11485122P002, P003 137C3151P001, P002 \$A182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 B5 6 ea #/2" dis. on 4 1/8" bolt circle
- 8. Plug 775A7961P001 SA182 - F304 0.38" shick x 1.307" dla.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30 Block x 2.62 dla.



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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
2117 Castle Havne Road, Wilmington, North Carolina 25401 (Name and Address of NET Cartificate Holder)
(b) Manufactured for : <u>Brunswick</u> Southport, North Carolina 28451
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : <u>0513</u> Nat'l Bd. No. <u>N/A</u>
(a) Constructed According to Drawing No: <u>798D228G012 Rev 35</u> Dwg. Prepared by <u>D. L. Peterson</u>
(b) Description of Part Inspected: <u>Piston Tube Assembly</u>
(c) Applicable ASME Code: Section III , Edition <u>1974</u> , Addenda Date <u>W'75</u> , Case No. <u>N207 1361-2</u> Class <u>1</u>
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1625 psl. min. (Brief description of service for which component was designed)
Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
Date: 06/28/91 Signed GE-NEBG-NF&CM-OA By SC OK Representive)
Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151
Certification of Design for Appurtenance
Design information on file atGE Company, San Jose, CaliforniaQC
Stress analysis report on file at <u>GE Company, San Jose, California</u>
DC22A5253 Rev. : Design specification certified by <u>Biorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
Certification of Shop Inspection
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on State of North Carolina have and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
Dete (/ Inspector's Signature NC 1231, Ohio National Board, State, Province And No.
Date // Inspector's Signature National Board, State, Province And No.
*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

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5. Seams: 6. Heads: Locatio	(Khek:	FT.SSpec. No) (Min. of Rev	nge Specified) 1			in. Dia i	ft in. L	ength f	"ŧ
6. Heads:	Girth		н.т. 1						
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Locatio			н.т.		R.T. ,		No. of	Courses	
	(a) Material	1 <u></u>		T.S	(b) H	sterial	7.	s	
(a)		Crown ckness Radius							
If rem	ovable, bolts	used			Other faster	ing			
7. Jacket	Closure:	· · · · · · · · · · · · · · · · · · ·						urtch)	
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ens 11 - 1	14 incl. to be	completed for	inner chamb	ers of jacket	ed vessels, or	channels of h	éat exchânger	š	<u>.</u>
	: (Kind & Spe	T.S.	Specified) 1					•	٠.
		·							
Locati Top.botts	ion Thick	Crown . ness Radius	Knuckle Radius	Elliptical Ratio	Concial : Apex Angle :	Hemispherical Radius	Flat S Diameter (ide to Press conv. or co	s.
Channel If remova	able, bolts us	ed (a)	(b)	(c)	Other f	estening			
						Drop We	(Describe of ight	x silech sketch)	
	· 2						Impact		ft-16
Design pr	essure	<u></u>	ps	1 at		F at temp	of		F
ms below t	o be completed	d for all vesse	ls where app	plicable.					
Safety Va	lve Outlets:	Number		· Size		Location		· ·	
	Purpose (Inlet, Outlet, Drain)	t Number	Die or State	Type	Material	Thictriese	Fishforcement, Material g	How Assa	<u> </u>
_								Z <u> </u>	e Fith
Inspection Openings:	Handholes,	No No No	S	ize	Loca	tion tion			<u></u>
	25.4-4	Lugs		terr	N+h		Attached		

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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road. Wilmington. North Carolina 26401
(Name and Address of NFT Certificate Bolder)

(b) Manufactured for : Brunswick Southport, North Carolina 28461

(Name and Address of N Cartificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : <u>0513</u> Nat'l Bd. No. <u>N/A</u>

(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

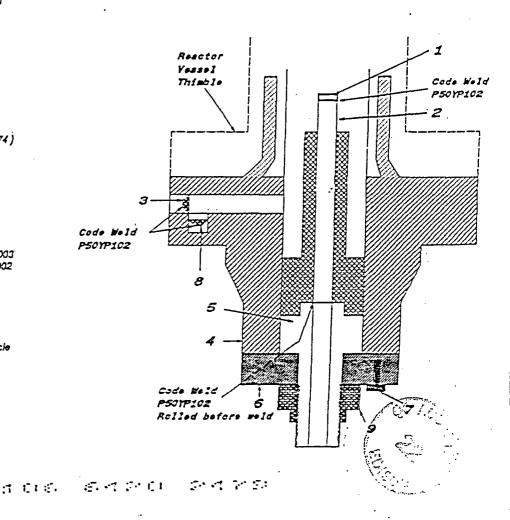
(Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - F304 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 16689313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176PC01 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Base 137C5311P001 SA182 - F304 7/8° thick x 2.875° die.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° cla.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

2117 Castle Havne Road. Wilmington. North Carolina 28401 (Name and Address of NFT Carolina 28461 (Name and Address of N Cartificate Holder for completed nuclear component) 2. Identification - Cartificate Holder's S/N of Part: 0516 Nat'l Bd. No. N/A
(Name and Address of N Certificate Holder for completed nuclear component)
·
2. Identification - Certificate notice 2 3/8 of Part
(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D.L. Peterson
(b) Description of Part Inspected: Piston Tube Assembly
(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
Date: 06/28/91 Signed GE-NEBG-NF&CM-OA By (NPT Certificate Holder) (SC Q/Representive)
Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151
Certification of Design for Appurtenance
Design information on file at <u>GE Company</u> , <u>San Josa</u> , <u>California</u>
Stress analysis report on file at <u>GE Company</u> , <u>San Jose</u> . <u>California</u> DC22A5253 Rev. 1 Design specification certified by <u>Biorn Haaberd</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A5254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
Certification of Shop Inspection
I, the undersigned, holding a valid commission by the Rational Board of Boiler and Pressure Inspectors and/or the State or Province of North Caroling and employed by Department of Labor of State of North Caroling have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
Dete Depart P Court NC 1231, Ohio Dete Depart P Court NE Signature Netional Board, State, Province And No.
Date V Inspector's Signature National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

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4. Shell: Katerial(المبدة	T.S. Sosa, No.) (Min. of Ren	ನ್ನ ಕ್ಷಾಂಥ್ಯ			in. Dia	ft in.	Length	_ ft
5. Seams: Long		н.т		R.T.		Effici	iency	
6irth		.н.т. ¹		R.T.		Xɔ. of	Courses _	
6. Heads: (a) Katerial								
Location (Top Bottom; Ends) Thi (a)				Concial Apex Angle				Press. or conc.)
If removable, bolts		I, Spec. No., T.S.	Cian Managed	Other faster	ing	(Describe or scaon		
7. Jacket Closure:			•	· · · · · · · · · · · · · · · · · · ·				
2					Charp	y Impast		
8. Design pressure						mo of	=====	F
Items 9 and 10 to be comp								
	g. Katerial	(Kind & Spec	- No.)	(Subject to pressure	Thickness	in. At	tachment _	(Welded, Botte
10. Tubes: Material		0.0.	_ in. Thic	kness	inches or gage. N	lumber	Type	(Str. or U)
Items 11 - 14 incl. to be	completed for i	inner chambe	ers of jacket	ted vessels, or	channels of h	eat exchange	rs.	
1. Shell: Material(Kind i 2po	T.S.	Nominal Thickness _ Specked;	Cor in. All	resion lowancein	. Dia ft	in. Le	ength	
1. Shell: Kzterial (Kind 12po	T.S. C. Ha.) (Min. of Penge S	Mominal Thickness _ Specified)	Cor in. Al	resion lowance in	. Dia ft	in. Le	ength	<u></u> *
I. Shell: Material (Kind 1 200) 2. Seams: Long Girth	T.S. c. No.) (Min. of Range S	Hominal Thickness Specified)	fn. All	rosion in R.T	. Dia ft	in. Le Efficier Xo. of C	ength	<u></u>
I. Shell: Material (Kind 1 200) 2. Seams: Long Girth	T.S. Ic. No.) (Min. of Range S	Kominal Thickness Speched)	fn. All	R.T (b) Kat:	. Dia ft	in. Le Efficier No. of C	ength	
1. Shell: Material(Kind a 200 2. Seams: Long Girth 3. Meads: (a) Material Location Thick: (a) Top, bottom, ends	T.S Ha.) (Min. of Range S	Nominal Thickness Specified) T.T.	in. All	R.T (b) Kat:	. Dia ft	in. Le Efficier No. of C T.S	ength	
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1. Shell: Katerial (Kind 1 2po) 2. Seams: Long Girth 3. Keads: (a) Naterial Location Thick: (a) Top, bottom, ends (b) Channel	T.S. CHal) (Min. of Range S H H Crown ness Radius	Mominal Thickness Specified) T. T. T. Knuckle Radius	in. All	R.T	erialft denispherical Radius astening	Efficier No. of C T.S Flat Diameter (December	ength	ess. conc.)
1. Shell: Material (Kind 2 200 2. Seams: Long Girth 3. Meads: (a) Material _ Location Thick: (a) Top, bottom, ends (b) Channel If removable, bolts use	T.S. CHal) (Min. of Range S H H Crown ness Radius	Mominal Thickness Speched) T. T. T. Knuckle Radius (b)	in. All	R.T	erial lemispherical Radius astening Drop We Charpy	Efficier No. of C T.S Flat Diameter (Decree	ength Courses Side to Pr	ess. conc.)
2. Seams: Long Girth Location Thick: (a) Top, bottom, ends (b) Channel If removable, bolts use	T.S. CHO.) (Min. of Pange S H H Crown ness Radius	Mominal Thickness _ Specified) I.T. I.T. Knuckle in Radius in [b] [b] psi	in. All	R.T	erialft denispherical Radius astening	Efficier No. of C T.S Flat Diameter (Decree	ength Courses Side to Pr	ess. conc.)
2. Seams: Long	T.S. K. No.) (Min. of Range S H H. Crown ness Radius ed (a)	Kominal Thickness Specified) T. T. Knuckle Radius (b) psi s where app	in. All in.	R.T	erial	Efficier No. of C T.S Flat Diameter [Describe ight Impact]	ength Courses Side to Pr	ess. conc.)
2. Seams: Long Girth 3. Meads: (a) Material Location Thick: (a) Top, bottom, ends (b) Channel If removable, bolts use tems below to be completed . Safety Valve Outlets:	T.S. K. No.) (Min. of Range S H H. Crown ness Radius ed (a)	Kominal Thickness Specified) T. T. Knuckle Radius (b) psi s where app	in. All in.	R.T	erial lemispherical Radius astening Drop We Charpy	Efficier No. of C T.S Flat Diameter (Describe ight Impact	courses Side to Pr	ess. conc.)
1. Shell: Material	T.S. C. No.) (Min. of Range S H H Crown ness Radius ed (a) ! for all vessel: Number	Kominal Thickness Specified) T. T. Knuckle Radius (b) psi s where app	in. All in.	R.T	erial	Efficier No. of C T.S Flat Diameter [Describe ight Impact]	courses Side to Pr	ess. conc.)
2. Seams: Long Girth 3. Meads: (a) Naterial Location Thick: (a) Top, bottom, ends (b) Channel If removable, bolts use tems below to be completed . Safety Yalve Outlets: . Mozzles: Furnow (box.	T.S. C. No.) (Min. of Range S H H Crown ness Radius ed (a) ! for all vessel: Number	Mominal Thickness Speched) Thickness	in. All in. All in. All in. All in. All columns and include a	R.T	erial	Efficier No. of C T.S Flat Diameter (Decree ight Impact of	ength	ess. conc.)
2. Seams: Long Girth 3. Keads: (a) Naterial Location Thick: (a) Top, bottom, ends (b) Channel If removable, bolts use 2. Design pressure tems below to be completed . Safety Valve Outlets: . Kozzles: Furpow (bick, Outlet, Deen)	T.S. C. No.) (Min. of Range S H H Crown ness Radius ed (a) ! for all vessel: Number	Mominal Thickness Specified) T. T. Knuckle Radius (b) psi s where app	in. All in. All in. All in. All in. All columns and include a	R.T	erial	Efficier No. of C T.S Flat Diameter (Describe ight Impact of	ength	ess. conc.)

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b) Manufactured for : Brunswick Southport, North Carolina 26461 (Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : 0516 _____ Nat'l Bd. No. ___N/A

(a) Constructed According to Drawing No: <u>798D22BG012 Rev 35</u> Dwg. Prepared by <u>D. L. Peterson</u>

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III . Edition 1974 . Addenda Date W75 . Case No. N207 1361-2 Class 1

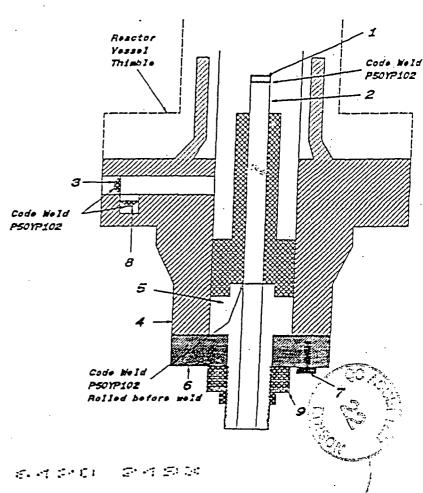
3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

> The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 16689274P001 SA182 - F304 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 16689313P001 SA312 - TP318 3/4° sch 40 - seamless pipe 0.113" wall thickness 1.065° max, dia.
- 3. Plug 159A1176P001 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) . SA182 - F301 3.37 thick x 9 5/8 OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002, P003 137C8151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B5 6 ea. 1/2° die. on 4 1/8° bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dle.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.52° dia.



ユロモ

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
2117 Castle Havne Road, Wilmington, North Caroling 28401 (Name and Address of NPT Cartificate Solder)
(b) Kanufzetured for : Brunswick Southport, North Carolina 28451
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part: 0550 Nat'l Bd. No. N/A
(a) Constructed According to Drawing No: <u>798D228G012 Rev 35</u> Dwg. Prepared by <u>D. L. Peterson</u>
(b) Description of Part Inspected: Piston Tube Assembly
(c) Applicable ASME Code: Section III . Edition <u>1974</u> . Addenda Date <u>W'75</u> , Case No. <u>N207 1361-2</u> Class <u>1</u>
3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the MPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
Date: 05/28/91 Signed GE-NEBG-NF&CM-OA By (NFT Certificate Bolder)
Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151
Certification of Design for Appurtenance
Design information on file atGE Company , San Jose , California
Stress analysis report on file at <u>GE Company, San Jose, California</u>
DC22A6253 Rev: 1 Design specification certified by <u>Blorn Häaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. Ho. <u>M018646</u>
Certification of Shop Inspection
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on ACTOR OFF, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASHE Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
Date / Inspector's Signature Notional Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

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- (57/50)

THE RUBBING WINDS PRINTED BY

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8ot (a)	ton. Ends) Th	nickness Radi	us Radius	Ratio	Apex Angle	Radius		(conv. or co
	removable, bolts				Other facts	20 (50		
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								(s
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			Nomina 1	Cor	rosion	- N		
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13. Heads: Loc (a) Top,bo (b) Channe	ation Thick	Crown kness Radius	Knuckle E	.S Elliptical Ratio	R.T. (b) Mat	erial Hemispherical Radius	No. of Co T.S. Flat S	urses
13. Heads: Loc (a) Top,bo (b) Channe	(a) Katerial	Crown kness Radius	Knuckle E	.S Elliptical Ratio	R.T. (b) Mat	erial Hemispherical Radius fastening	No. of Co	urses
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13. Heads: Loc (a) Top,bo (b) Channe If rem 14. Design Items below 15. Safety 16. Nozzles 17. Inspect Opening:	ation Thick ttom, ends lovable, bolts us pressure to be complete Valve Outlets: Purpose (thick Outlet, Durin) ion Manholes, fandholes, Threaded, s: Skirt	Crown kness Radius ed (a) d for all vesse Kumber Number Ho. Ko. Ko. Lugs	Knuck le E Radius R (b) psi Is where app Ec. & Size Size Size Size	.S	R.T. (b) Mat Cancial Apex Angle Other Loca Loca Loca Cother	Hemispherical Radius fastening Drop Ve Charpy Fat temp Location Thickness tion tion tion	No. of Co T.S. Flat S Diameter (General Communication of Communication o	ide to Press. conv. or cond sctach seetch) Ft
13. Heads: Loc (a) Top,bo (b) Channe If rem 14. Design Items below 15. Safety 16. Nozzles 17. Inspect Opening: 18. Supports	ation Thick ttom, ends lovable, bolts us pressure to be complete Valve Outlets: Purpose (bled, Outlet, Drain) ion Kanholes, Threaded, s: Skirt (Year	Crown Kness Radius d for all vesse Kumber Ho. Ko. Ko. Lugs x No)	Knuck le E Radius R (b) psi Is where app Calc or State (Number)	at	R.T. (b) Kat Cancial Apex Angle Other Loca Loca Loca Loca Other	Hemispherical Radius fastening Orap Ve Charpy Fat temp Location Thickness tion tion	No. of Co T.S. Flat S Diameter (General Company Com	ide to Press. conv. or conc stain seach) F
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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b) Manufactured for : <u>Brunswick</u> Southport, North Carolina 25461

(Name and Address of M Cartificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : <u>0550</u> Nat'l Bd. No. <u>N/A</u>

(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D.L. Peterson

. (b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASHE Code: Section III . Edition 1974 . Addenda Date W75 . Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor, Hydrostatically tested at 1825 psi, min. (Brief description of service for which component was designed)

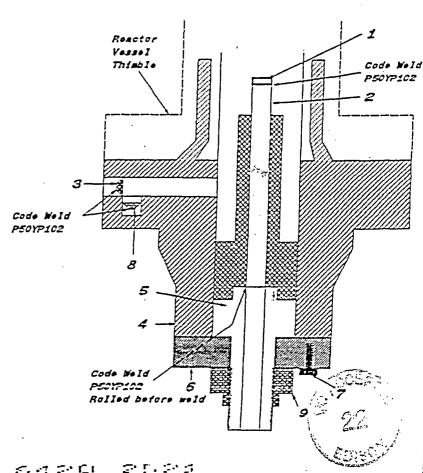
The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2 ·

- 1. Cap 166B9274P001 SA182 - F304 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 166B9313P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113° wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD

- 4. Flange 919D610P001 (719E474) SA162 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002, P003 137C8151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" die.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.52° dia.



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1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (G	ENF& CM
2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Carrifficate Bolder)	
(b) Kanufactured for : Brunswick Southport, North Carolina 28461	
(Name and Address of N Certificate Holder for completed nuclear component)	
2. Identification - Certificate Holder's S/N of Part : <u>0564</u> Nat'l Bd. No. <u>N/A</u>	
(a) Constructed According to Drawing No: <u>798D228G012 Rev 35</u> Dwg. Prepared by <u>D. L. Peterson</u>	
(b) Description of Part Inspected: <u>Piston Tube Assembly</u>	
(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2	Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psl. min. (Brief description of service for which component was designed)	
	•
	·
Sheet	1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification a Report are not the responsibility of the RPT Certificate Holder for parts. An NPT Certification Holder for applied for furnishing a separate Design Specification and Stress Report if the appurtenance is not in the component Design Specification and Stress Report).	nd Stress ourtenances
Date: 06/28/91 Signed GE - NEBG - NF & CM - OA By (KET Certificate Holder) SC QA Representive)	
Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151	
Certification of Design for Appurtenance	· · · · · · · · · · · · · · · · · · ·
Design information on file at <u>GE Company, San Jose, California</u>	
Stress analysis report on file at <u>GE Company. San Jose . California</u>	G P.O.C.E.
DC22A6253 Rev. Design specification certified by <u>Blorn Heaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>	
DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. Ko. <u>M018646</u>	(1 <u>021</u>)
Certification of Shop Inspection	
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on GROT, COPY and state that to the best of my knowledge and belief, the NFT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.	.,
G/28, 1991 Comme P. Experie NC 1231, Ohio Dête (/ Inspector's Signature Rational Board, State, Province And Ro.	
(/ Inspector's Signature Rational Board, State, Province And Ko.	
Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Dat Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REHARKS".	
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. Jacket Closure:	(Material,	Spec No., T.S. Size	Number)			(Describe or attach	sketch }	
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•	•				Charp	Weight y Impact		ft-
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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Cartificate Bolder)

(b) Manufactured for : Brunswick Southport, North Carolina 26461

(Name and Address of N Certificate Bolder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : 0564 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 796D228G012 Rev 35 Dwg. Prepared by D.L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASHE Code: Section III . Edition 1974 . Addenda Date W75. Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

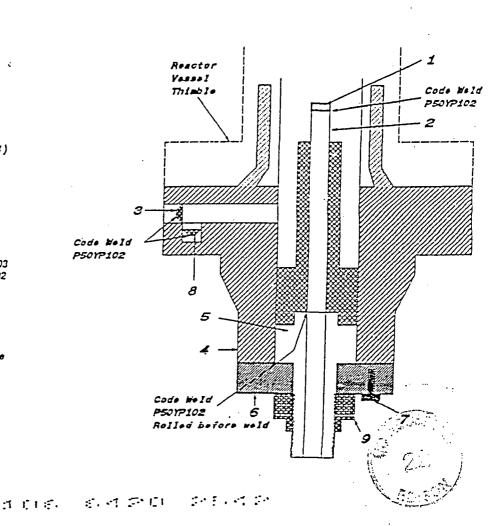
(Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 166B9274R001 \$A182 - F304 3/8" thick x 1 1/16" OD
- Indicator Tube 16699313P001 \$A312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° ttjk:k x 0.812° OD
- 4. Flang 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 =:F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ez. 1/2" día. on 4 1/3" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° die.
- 9. Not 137C5934P001 XM - 19 SA479 1.30° thick x 2.52° die.



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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* 17 As required by the Provision of the ASHE Code Rules, Section III, Div. I

	and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
	Certification of Shop Inspection I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 3607 6 1791.
· ·L	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
	DC22A6253 Rev. 1 Design specification certified by <u>Blom Haabera</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	Stress analysis report on file at <u>GE Company, San Jose, California</u>
·	Design information on file atGE Company, San Jose, California
ſ	Certification of Design for Appurtenance
• •.	Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151
	Date: 09/06/91 Signed GE-NEBG-NF&CM-QA 3
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and St. Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurter is responsible for furnishing a separate Design Specification and Stress Report if the appuntenance is not included the component Design Specification and Stress Report).
	Sheet 1 of
	3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psl. min. (Brief description of service for which component was designed)
	(c) Applicable ASME Code: Section III . Edition <u>1974</u> , Addenda Date <u>W'75</u> , Case No. <u>N207 1367-2</u> Class
	(b) Description of Part Inspected: Piston Tube Assembly
	(a) Constructed According to Drawing No: <u>798D228G012 Rev 35</u> Dwg. Prepared by <u>D. L. Peterson</u>
	(Name and Address of N Cartificate Holder for completed nuclear component) 2. Identification - Cartificate Holder's S/N of Part : 0568 Nat'l Sd. No. N/A
	(b) Manufactured for : Brunswick Southport, North Carolina 28461 (Name and Address of N Cartificate Bolder for completed nuclear component)
頏	2117 Castle Havne Road, Wilmington, North Carolina 28401
	1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF &

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1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401
(Name and Address of NFT Cartificate Bolder)

(b) Manufactured for : Eminswick Southport, North Caroline 28461

(Name and Address of N Cartificate Bolder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : <u>0568</u> Nat'l Bd. No. <u>N/A</u>

(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III. Edition 1974. Addenda Date W75. Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psl. min.

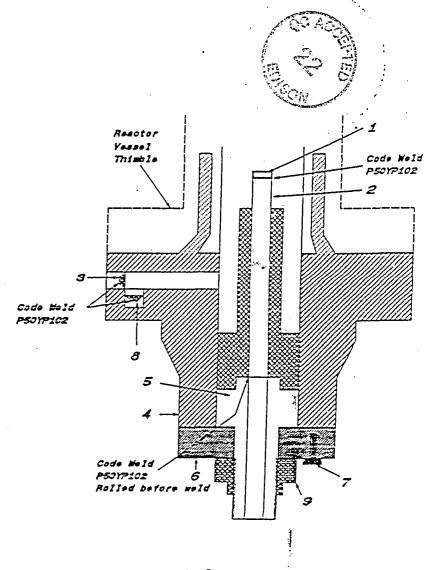
(Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 16EB9274P001 SA182 - F304 3/8" thick x 1 1/16" OD
- Indicator Tube 16689313P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113′ wall thickness 1.065° max, dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Fi≥100 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 11425122P002, P003 137C8151P001, P002 SA182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" die.
- 9. Nut 137C5934P001 XM - 19 SA479 1 30" thick x 2.62" die.



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FORM N-2 NFT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

2117 Castle Havne Road, Wilmington, North Caroline 28401 (Nems and Address of KFT Cartificate Bolder)
All the second of the second o
(b) Manufactured for : <u>Brunswick Southport North Caroling 28461</u> (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part :
(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson
(b) Description of Part Inspected: Piston Tube Assembly
(c) Applicable ASHE Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psl. min.
(Brief description of service for which component was designed)
Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenancis responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
Date: 09/05/91 Signed G5-NEBG-NF & CM-QA By SC QA Perseentive)
Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN-1151
Certification of Design for Appurtenance
Design information on file at GE Company; San Jose, California
Stress analysis report on file at <u>GE Compeny, San Jose, California</u>
DC22A5253 Rc 1 Design specification certified by <u>Blom Hasberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A5254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018645</u>
Certification of Shop Inspection
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on State of North Carolina, 1997, and state that to the best of my knowledge and belief, the MPT Certificate Holder has constructed this part in
accordance with the ASHE Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

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1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 2117 Castle Havne Road, Wilmington, North Carolina 28401

(Name and Address of NPT Certificate Holder)

(b) Manufactured for : Brunswick Southport, North Carolina 28461 (Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part: 0575 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson

. (b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1

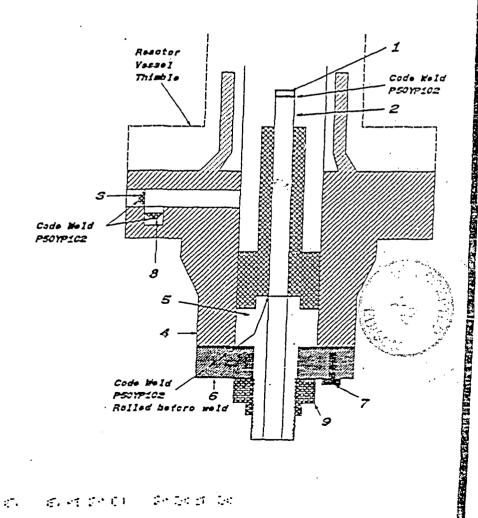
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 16639274P001 SA182 - F304 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 16689313P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113° wall thickness 1.065° max. dla.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 319D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8° thick x 2.875° dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Can Screw 117C4516P002 SA123 - B5 6 et 1/2 die on 4 1/8 bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dla.
- 9. Not 137C5934P001 XM - 19 SA479 1.30° thick x 2.52° die.



(67/94)

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES As required by the Provision of the ASME Code Rules, Section III, Div. I

	. Manufactured & Certified by : .General Electric Company Nuclear Fuel & Components Manufacturing (GE)	Nr & UM
	2117 Castle Hayne Road, Wilmington, North Caroling 25401 (Name and Address of NFT Carolifecte Holder)	
	(b) Hanufactured for : Brunswick Southoort, North Carolina 28461 (Name and Address of M Cartificate Holder for completed nuclear component)	
2	Identification - Certificate Holder's S/N of Part : <u>0623</u> Nat'l Bd. No. <u>N/A</u>	
	(a) Constructed According to Drawing No: <u>798D228G012 Rev 35</u> Dwg. Prepared by <u>D. L. Peterson</u>	
	(b) Description of Part Inspected: <u>Piston Tube Assembly</u>	
	(c) Applicable ASME Code: Section III , Edition <u>1974</u> , Addenda Date <u>W'75</u> , Case No. <u>N207 1361-2</u> C	lass <u>1</u>
3.	REMARKS: <u>Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.</u> (Prief description of service for which component was designed)	
	Sheet 1	of 2
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the conforms to the rules of construction of the ASHE Code Section III. (The applicable Designed Specification and Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appuis responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included component Design Specification and Stress Report).	Stress rtenance
	Date: 10/15/91 Signed GE-NEBG-NE&CM-OA By	
	Oate: 10/15/91 Signed GE-NEBG-NF&CM-OA By USC OF Representive)	
	(NPT Certificate Holder) (NPT Certificate Holder) (NPT Certificate Holder) (NPT Net I in the presentive) (NPT Certificate Holder)	
	ertificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151	JOA 3
	Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPTN-1151 Certification of Design for Appurtenance	ENC.
	Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPTN-1151 Certification of Design for Appurtenance Design information on file at GE Company. San Jose, California	E ACT
	Certification of Design for Appurtenance Design information on file at	EN SON
	Certification of Design for Appurtenance Design information on file at <u>GE Company. San Jose. California</u> Stress analysis report on file at <u>GE Company. San Jose. California</u> Design specification certified by <u>Blom Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u> Design Specification certified by <u>Blom Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>	E ACT
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	Certification of Design for Appurtenance Design information on file at GE Company. San Jose, California Stress analysis report on file at GE Company, San Jose, California Design specification certified by Blom Haaberg Prof. Eng. State Calif. Reg. No. 15570 Design specification certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. 16570 Certification of Shop Inspection The undersigned, holding a valid commission by the National Board of BoiMer and Pressure Inspectors and/or the tate or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on Control of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on Control of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on Control of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on Control of State of North Carolina have inspected the part of a pressure vessel described in the NPT Certificate Holder has constructed this part in coordance with the ASME Code Section III! The signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, oncerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer hall be Itable in any manner for any personal injury or property damages or a loss of any kind arising from or	E ACI

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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by: General Electric Company Nuclear Fuel & Components Menufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b) Manufactured for : Brunswick Southport, North Carolina 28461

(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : <u>0623</u> _ Nat'l Bd. No. __N/A

(a) Constructed According to Drawing No: <u>798D228G012 Rev 35</u> Dwg. Prepared by <u>D. L. Peterson</u>

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III. Edition 1974. Addenda Date W75. Case No. N207 1361-2 Class 1

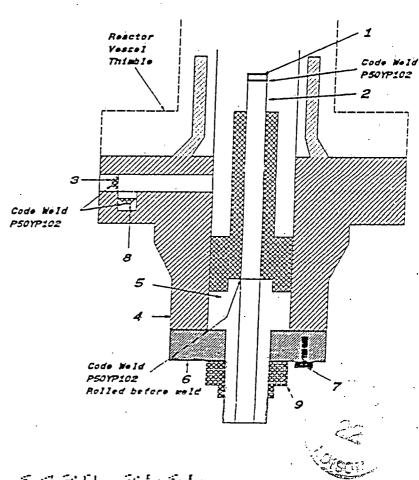
3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - F304 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 16689313P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113° wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° thick x 0.812° OD
- 4. Flange 319D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA 182 - F304 7/8° thick x 2.875° dia.
- 6. Ring Flange 114B5122P002, P003 137C8151P001, P002 SA182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001. SA 182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.



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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Gode Rules, Section III, Div. I

1. Kanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufa	acturing (GENF & CM)
2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)	
(b) Hanufactured for : Brunswick Southport, North Carolina 28461	
· (Name and Address of N Certificate Holder for completed nuclear co	•
Identification - Certificate Holder's S/N of Part : Nat'l Bd. No	
(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Pet	<u>lerson </u>
(b) Description of Part Inspected: Piston Tube Assembly	107.4004.0
(c) Applicable ASHE Code: Section III , Edition <u>1974</u> , Addenda Date <u>W75</u> , Case No. <u>N2</u>	07 1361-2 Class 1
. REMARKS: <u>Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.</u> (Brief description of service for which component was designed)	
	Sheet 1 of 2
	Sheet I bi Z
We certify that the statements in this report are correct and this vessel part or appurtenance as conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Spe Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification H is responsible for furnishing a separate Design Specification and Stress Report if the appurtenant the component Design Specification and Stress Report). Date: 10/16/91 Signed GE-NEBG-NF&CM-OA By	ecification and Stress to lder for appurtenances to local included in
(NPT Certificate Holder) (SC &A Repres	,
Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N -	<u>1151 </u>
Certification of Design for Appurtenance	
Design information on file at GE Company, San Jose , California	_ Choop
Stress analysis report on file at <u>GE Company, San Jose, California</u>	_ / 20 19
DC22A6253 Rev. 1 Design specification certified by <u>Biorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. 15570	- Diggies
DC22A5254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>MO18</u>	8646
Certification of Shop Inspection	
and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed accordance with the ASHE Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expresse concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor shall be liable in any manner for any personal injury or property damages or a loss of any kind ar	Carolina have (4), (29), this part in id or implied, his employer
connected with this inspection. 10/16 1991 Across P Earle NC 1231, Ohio, WC 3686 PA	,
Date Person Person NC 1231 Ohio, WC 3686 PA	ce And No.
pplemental sheets in form of lists, sketches or drawing may ovided (1) size is 8-1/2" x 11", (2) information in 1-2 on port is included on each sheet, and (3) each sheet is number of sheets is recorded in Item 3. "REMARKS".	/ be used this Data ered and
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FORM N-2 (back)

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Seams:	(Kind & St	oec. Na.) (Min. of I	Range Specified) 1 H.T.		R.T R.T		Efficien	cy	*
Seams: Heads: Local	(Kind & S: Long Girth (a) Mainrial tion Thic	ooc. No.) (Min. of I	Range Specified) H.T. H.T. 7.	.S	R.T	erial	Efficien No. of Co T.S. Flat S Diameter (ourses	ess.
Heads:	(Mnd & Si Long Girth (a) Majorial tion Thic	Crow	Range Specified) H.T. H.T. 7. m Knuck le E	.S Iliptical actio	R.T	erial demispherical ladius	Efficien No. of Co	ourses	ess.
Heads:	(Mnd & Si Long Girth (a) Majorial tion Thic	Crow	Range Specified) H.T. H.T. T. To Knuckle Eus Radius ; R	.S Iliptical actio	R.T	erial iemispherical ladius astening	Efficien No. of Communication T.S. Flat Soliameter (Communication)	ourses	ess.
Heads:	(Mnd & Si Long Girth (a) Majorial tion Thic	Crow	Range Specified) H.T. H.T. T. To Knuckle E us Radius ; R	.S Iliptical actio	R.T	erial demispherical ladius	Efficien No. of Countries T.S. Flat Soliameter ((Cescribe dight	ourses	ess.
Heads:	(And & S: Long Girth (a) Mairrial tion Thic tom.ends vable, bolts u	Crow	Range Specified) H.T. H.T. T. In Knuckle E us Radius ; R	.S Iliptical actio	R.T	erial iemispherical ladius astening	Efficient No. of Control of Contr	ourses	zss.
Heads: Local Top.bot: Channel If remove	Girth	Crow kness Radi	Range Specified) H.T. H.T. T. In Knuckle E us Radius ; R	.S	R.T	erialiemispherical adius	Efficient No. of Control of Contr	ourses	zss.
Heads: Local Top.bot: Channel If remove Design p	(And & S: Long Girth (a) No orial tion Thic tom, ends vable, bolts u pressure to be complete	Crowkness Radi	Range Specified) H.T. H.T. T. T. T. T. T. T. T.	at	R.T	erialiemispherical adius	Efficien No. of Comments T.S. Flat Soliameter (Consumer (Consume	ourses	zss.
Heads: Local Top.bot: Channel If remove Design purs below	Girth (a) Mairrial tion Thic tom.ends vable. bolts u pressure to be complete alve Outlets:	Crowkness Radi	Range Specified) H.T. H.T. T. T. T. Radius ; R	.S	R.T	erial	Efficien No. of Communication T.S. Flat Solution Diameter ((December ight impact of	ourses	zss.
Heads: Local Top.bot: Channel If remove Design purs below	(And & S: Long Girth (a) No orial tion Thic tom, ends vable, bolts u pressure to be complete	Crowkness Radi	Range Specified) H.T. H.T. T. T. T. T. T. T. T.	at	R.T	erial	Efficien No. of Comments T.S. Flat Soliameter (Consumer (Consume	ourses	ess. conc.)
Heads: Local Top.bot: Channel If remove Design purs below	(And & S: Long Girth (a) Mainrial tion Thic tom, ends vable, bolts u pressure to be complete alve Outlets:	kness Radi sed (a)	Range Specified) H.T. H.T. T. In Knuckle E us Radius ; R (b) psi	at	R.T	erial	Efficient No. of Communication T.S. Flat Soliameter (Describe	DUTSES	ess. conc.)
Heads: Local Top.bot: Channel If remove Design purs below	(And & S: Long Girth (a) Mainrial tion Thic tom, ends vable, bolts u pressure to be complete alve Outlets:	kness Radi sed (a)	Range Specified) H.T. H.T. T. In Knuckle E us Radius ; R (b) psi	at	R.T	erial	Efficien No. of Countries T.S. Flat Soliameter ((Describe of Soliameter of Soliam	DUTSES	ess. conc.)
Heads: Local Top.bot: Channel If remove Design purs below Safety V Hozzles:	(Kind & St. Long Girth (a) Mainrial tion Thic tom, ends vable, bolts u pressure to be complete alve Outlets: Purpose (Iniet, Outlet, Drain) on Manholes.	coc. No.) [Min. of I	Range Specified) H.T. H.T. T. In Knuckle E us Radius ; R (b) psi essels where app Dia or Size Si	at	R.T	erial	Efficient No. of Comment T.S. Flat Soliameter (Describe Impact Feinforcement Material Page 1 Page 2 Page 2 Page 3 Page 3 Page 4 Page 4 Page 4 Page 4 Page 4 Page 5 Page	ourses	ft-lb
Heads: Local Top.bot: Channel If remove Design purs below Safety V Hozzles:	(Kind & St. Long Girth (a) Mainrial tion Thic tom, ends vable, bolts u pressure to be complete alve Outlets: Purpose (Inies, Outlet, Drain) on Manholes,	coc. No.) [Min. of I	Range Specified) H.T. H.T. T. In Knuckle E us Radius ; R (b) psi essels where app Dia or Sire Si	at	R.T	erial	Efficient No. of Comments T.S. Flat Soliameter (Describe	ourses	ft-lb
Heads: Local Top.bot: Channel If remove Design properties: Mozzles: Inspection Openings	(Kind & St. Long Girth (a) Mainrial tion Thic tom, ends vable, bolts u pressure to be complete alve Outlets: Purpose (Iniet, Outlet, Drain) on Manholes, Threaded,	crowkness Radi sed (a) Mumber Number No. No.	Range Specified) H.T. H.T. T. T. T. T. T. T. T.	at	R.T	erial	Efficient No. of Comments T.S. Flat Soliameter (Describe	ourses	rss. conc.)
Heads: Local Top.bot: Channel If remove Design purs below Safety V Hozzles:	Girth (a) Mairrial tion Thic tom, ends vable, bolts u pressure to be complete 'alve Outlets: Purpose (iniet, Outlet, Drain) on Manholes, Threaded, Skirt	crowkness Radi sed (a) Mumber Number	Range Specified) H.T. H.T. T. T. T. T. T. T. T.	at	R.T	erial	Efficien No. of Cr T.S. Flat S Diameter ((Describe right Impact of S Reinforcement Metenal	ourses	ft-lb

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401

(Name and Address of NFT Certificate Holder)

(b)	Hanufactured for :	Brunswick	Southport, North Carolina	28461
	·	(Name and	Address of N Cartificate Holder	for completed nuclear compone

2. Identification - Certificate Holder's S/N of Part : 0624 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III. Edition 1974. Addenda Date W75. Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

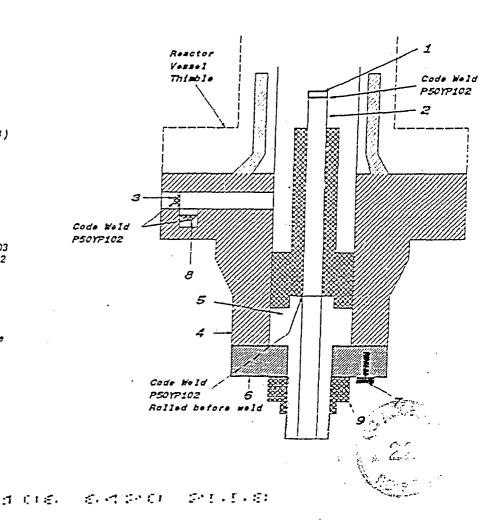
(Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - F304 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 16689313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Fla. 59 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2,875" dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38* thick x 1,307* dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.



1-014

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

	1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & C	<u>:M)</u>
•	2117 Castle Havne Road, Wilmington, North Carolina 28401	
	(Name and Address of MPT Certificate Holder)	
	(b) Manufactured for : Brunswick Southport. North Carolina 28461 (Name and Address of N Certificate Holder for completed nuclear component)	
	2. Identification - Certificate Holder's S/N of Part : <u>0657</u> Nat'l Bd. No. <u>N/A</u>	
	(a) Constructed According to Drawing No: <u>798D228G012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>	
	(b) Description of Part Inspected: Piston Tube Assembly	_
٠.	(c) Applicable ASME Code: Section III , Edition <u>1974</u> , Addenda Date <u>W'75</u> , Case No. <u>N207 1361-2</u> Class <u>1</u>	<u>_</u>
	3. REMARKS: <u>Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.</u> (Brief description of service for which component was designed)	
	Sheet 1 of 2	
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts, An NPT Certification Holder for appurtenance is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).	is ices
	Date: 12/18/91 Signed GE-NEBG-NF&CM-OA By SC & Representive)	
	Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151	
	Certification of Design for Appurtenance	•
	Design information on file at <u>GE Company, San Jose, California</u>	بديمهم
	Stress analysis report on file at <u>GE Company, San Jose, California</u>	
	DC22A5253 Rev. 1 Design specification certified by <u>Biorn Haabero</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>	
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>MO18646</u>	
	Certification of Shop Inspection	
٠	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.	
	12/18. 1991 June P & were NC 1231, Ohio, WC 3656 PA	

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

[17/20]

FORM N-2 (back)

							·	•	
4. Shell: M	latérial [Kind & Spec. N	T.S. lo.) [Min, of Range		in. /	Corresion Allowance	in. Dia.	ft in.	Length	ft
5. Seams: Lo	ong	Н	.т.'		R.T.		Effici	ency	:
· G	irth	н	.т.'		R.T.		No. of	Courses	
6. Heads: (a	a) Haterial	······································		T.S	(ь) м	laterial	т	.s	
Location (Bottom, Er	nds } Thicknes	Crown es Radius	Knuck le Radius	Elliptical Ratio	Concial Apex Angle	Radius		Side to Pre	
If removab	ole, bolts used			<u></u>	Other faste	ning			
7. Jacket Clo	sure:	(Material, S.	Dec. Na., T.S. S	ize Number j		/- <u>-</u>	(Describe or attach	sketch j	
	ssure	[Descri	-	•	bar give dimensions,	Dro; Chai	Weight		_ ft-1b _ F
Items 9 and 10	to be complete	d for tube se	ctions				••		
•	s: Stationary. Floating. Lerial	Material	[Kind & Spec.	No.)	Subject to pressur	Thickness	in. At	tachment	/eided, Boile
	nol: to be comp	leted for in	er chamber	rs of lacke	ted vessels, o	r channels of	heat exchange		(55.5)
					rrosion	•			
. Seams: Lone	(Kind & Spec, Na.)	(Min. of Range Spi	reified)	in. Al	lowance i		Efficies	y 6	
. Seams: Long	{ Kind & Soec, No. } G	(Min. of Range Soi	rcified) 1 • •	in. Al	lowance i R.T		Efficies	ncy Courses	 (;
C. Seams: Lond Gir: . Heads: (a) Location a) Top.bottom.e	(Kind & Spec. No.) G th Hat rial Thickness ends	(Min. of Range Soi H. T H. T Crown K. Radius R.	T. Tuckle Eadius R.	in. Al	lowance i R.T R.T (b) Hat	terial	Efficience No. of C	ncy Courses	
C. Seams: Lond Gir: . Heads: (a) Location a) Top.bottom.e	(Kind & Soec. No.) Thickness	(Min. of Range Soi H. T H. T Crown K. Radius R.	· T.	in. Al	R.T	terial	Efficies No. of C	Courses Side to Pres (conv. or co	
C. Seams: Lond Gir: . Heads: (a) Location a) Top.bottom.e b) Channel If removable	(Kind & Spec. No.) G th Hat rial Thickness ends e, bolts used (a	(Min. of Range Soil H. T H. T Crown K, Radius R.	T. T	S	R.T	Hemispherical Radius fastening Drop Charp	Efficies No. of C	Courses Side to Pres (conv. or co	
C. Seams: Lond Gir: . Heads: (a) Location a) Top.bottom.e b) Channel If removable Design press	(Kind & Spec. No.) G th Hat rial Thickness ends e, bolts used (a	(Min. of Range Soil H. T H. T Crown K, Radius R.	T. Touckle Eadius R	s Iliptical atio(c)	R.T	Hemispherical Radius fastening Drop Charp	Efficies No. of (T.S Flat Diameter (Describe Weight y Impact	Courses Side to Pres (conv. or co	s. onc.)
Gir: . Heads: (a) Location a) Top.bottom.e b) Channel If removable Design press	(Kind & Soec. No.) Thickness ends by bolts used (a	Crown K. Radius R. Crown K. Cr	T. nuckle E addius R psi	s Iliptical atio at	lowance i R.T R.T (b) Mas Concial Apex Angle Other	Hemispherical Radius fastening Drop Charp	Efficies No. of (Courses Side to Pres (conv. or co	s. onc.)
Gir: . Heads: (a) Location a) Top.bottom.e b) Channel If removable Design press	(Kind & Spec. No.) G th Hat rial Thickness ends e, bolts used (a	Crown K. Radius R. Crown K. Cr	T. nuckle E addius R psi	s Iliptical atio at	R.T	Hemispherical Radius fastening Drop Charp	Efficies No. of (Courses Side to Pres (conv. or co	s. onc.)
Gir: . Heads: (a) . Location a) Top.bottom.e b) Channel If removable . Design press . Besign press . Safety Valve Nozzles: Purpo	(Kind & Spec. No.) Thickness ands be, bolts used (a grant of the completed for Outlets: Numb ose (Inlef.	(Min. of Range Soil H. T Crown Ki Radius Ra 1) (6	T. nuckle E addius R psi	s Iliptical atio at	lowance i R.T R.T (b) Mas Concial Apex Angle Other	Hemispherical Radius fastening Drop Charp	Efficies No. of (Courses Side to Pres (conv. or co	s. onc.)
Gir: . Heads: (a) . Location a) Top.bottom.e b) Channel If removable . Design press . Outle	(Kind & Spec. No.) Thickness ands a, bolts used (a grave of the completed for Dutlets: Numboose (Inlet. et. Drzin) Num	(Min. of Range Soil H. T H. T Crown Ki Radius Ri L) (1	T. Touckle Eadius R. psi where appl	s	lowance i R.T R.T (b) Material Apex Angle Other	Hemispherical Radius fastening Drop Charp F at ter Locati	Efficies No. of C T.S Flat Diameter (Describe Weight y Impact ion Reinforcemer Material	Courses Side to Pres (conv. or co	s. onc.)
Cocation (a) (b) (cocation (a) (cocation (cocatio	(Kind & Spec. No.) Thickness ends e, bolts used (a grave of the completed for Outlets: Numb one (Inlet, et, Drzin) Numbers (Anholes, No.)	Crown Kradius Radius Ra	psi where appi	s Iliptical atio at Iicable Size Type	lowance i R.T	Hemispherical Radius fastening Orop Charp Fat tee Locati Thickness ation ation	Efficies No. of C T.S Flat Diameter (Describe Weight y Impact mp of Reinforcement Material	Courses Side to Pres (conv. or co	s. onc.) ft-lb ft-lb
Cocation (a) (b) (c) (d) (d) (d) (e) (e) (e) (e) (e	(Kind & Spec. No.) Thickness ends e, bolts used (a grave of the completed for Outlets: Numb one (Inlet, et, Drzin) Numbers (Anholes, No.)	(Min. of Range Soil H. T Crown Ki Radius Ra 1) (ri all vessels er	psi where appl cor Size Si. Si.	s Iliptical atio at Iicable Size Type ze	lowance i R.T R.T (b) Mass Concial Apex Angle Other Material Loc Loc Loc Loc	Hemispherical Radius fastening Drop Charp Fat tem Locati Thickness ation ation ation ation	Efficies No. of (Courses Side to Pres (conv. or co	s. onc.)

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b) Manufactured for : Brunswick Southport, North Carolina 28461

(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : <u>0657</u> Nat'l Bd. No. <u>N/A</u>

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III. Edition 1974. Addenda Date W75. Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

(Brief description of service for which component was designed)

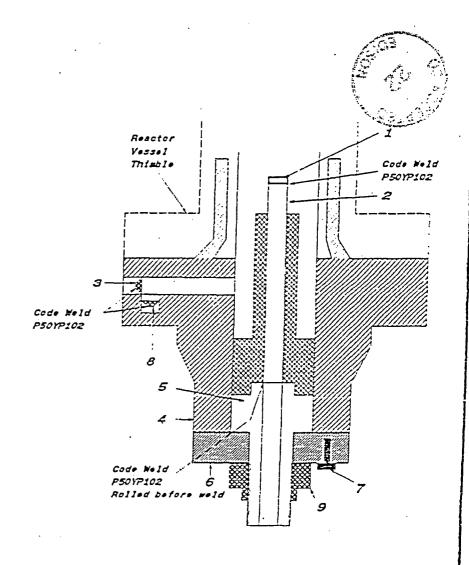
The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 166B9274P00; SA182 - F304 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 166B9313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange J19D610P001 (719E474) SA182 F304 3.37° thick x 9 5/8° OD
- 5. Base 137C5311P001 SA182 - F304 7/8° thick x 2.875° dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - 56 6 ea. 1/2* dia. on 4 1/8* bort circle
- 8. Plug 175A7961P001 SA182 - F304 0.38* thick x 1.307* dia.

9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM
2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Cartificate Holder)
(b) Manufactured for : <u>Brunswick</u> <u>Southport, North Carolina 28461</u>
(B) Manufactured for : Brunswick SouthDorf, North Carolina 2000 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : <u>0667</u> Nat'l Bd. No. <u>N/A</u>
(a) Constructed According to Drawing No: <u>798D228G012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>
(b) Description of Part Inspected: <u>Piston Tube Assembly</u>
(c) Applicable ASME Code: Section III . Edition 1974 . Addenda Date W'75 . Case No. N207 1351-2 Class 1
REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
Sheet 1 of 2
conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report of the appurtenance is not included in the component Design Specification and Stress Report). Date: 12/18/91 Signed GE-NEBG-NF&CM-OA By SECON Representive) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPT N - 1151
Certification of Design for Appurtenance
Design information on file atGE Company , San Jose . California CACO
Stress analyr's report on file atGE Company , San Jose , California
DC22A6253 Rev. 1 Design specification certified by <u>Biorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A5254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
Certification of Shop Inspection
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on

concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

P Erware NC 1231, Ohio. WC 3685 PA
National Board, State, Province And No. Ü Inspector's Signature Date /

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(07/90)

FORM N-2 (back)

	. Nominal	Corrosion	E
4. Shell: Material T.S. (Kind & Spec. No.) (Min. o	Thickness in Range Specified)		ft in. Length ft
5. Seams: Long	_ н.т	R.T	Efficiency
Girth	**	g.t	No. of Courses
6. Heads: (a) Material		(b) Haterial _	1.S
Bottom, Ends) Thickness Rad	wn Knuckle Ellipt ius Radius Ratio		erical Flat Side to Press. Diameter (conv. or conc.
lf removable, bolts used		Other fastening	
7. Jacket Closure:	atenal, Spec. No., T.S. Size Number)	(Describe or attach sketch)
	[Describe as ogen and weld, bar,	etc. If bar give dimensions, if bolts, describ	orsketch) Orop Weight
B. Design pressure 1250	psi at		
Items 9 and 10 to be completed for tu	1 1 224 4	•	
	in a contract of the contract	· · · · · · · · · · · · · · · · · · ·	·
Floating Materi	(Kind & Spec, No)	(Subject to pressure) Dia Thicks	ness in Attachment (Welded, Bonness In Attachment
			•. Number Type(Sr. or U
tems 11 - 14 incl. to be completed for	or inner chambers of ja	cketed vessels, or channels	of heat exchangers.
	Nominal	Corrosion	
. Shell: Material T.S. [Mind & Spec. No.] [Min. of Ra	Thickness in.	Corrosion	ft in. Length ft
(Kind & Spec. No.) (Min, of Re	Thickness in.	Corrosion Allowance in. Dia	ft in. Length ft
(Kind & Spec. No.) (Min. of Ra	Thickness in. unge Specified) H.T.	Corrosion Allowance in. Dia	ft in. Length ft %
(Kind & Spec. No.) (Min. of Ra Seams: Long Girth	Thickness in. unge Specified) H.T. H.T.	Corrosion Allowance in. Dia R.T R.T	ftin. Lengthft EfficiencyX
(Kind & Spec. No.) (Min. of Ra Seams: Long Girth Heads: (a) Material	Thickness in. unge Specified) H.T. H.T. T.S.	Corrosion Allowance in. Dia R.T R.T (b) Material	ftin. Lengthft EfficiencyX No. of Courses T.S
(Kind & Spec. No.) (Min. of Ra Seams: Long Girth Heads: (a) Material Crown Location Thickness Radius Top.bottom.ends	Thickness in. unge Specified) H.T. H.T. T.S. Knückle Elliptica s Radius Ratio	Corrosion Allowance in. Dia R.T R.T (b) Material Concial Hemispheri Apex Angle Radius	ftin. Lengthft Efficiency No. of Courses T.S
(Kind & Spec. No.) (Min. of Ra Seams: Long Girth Heads: (a) Material Crown Location Thickness Radius) Top, bottom, ends	Thickness in. unge Specified) H.T. H.T. T.S. Knückle Elliptica s Radius Ratio	Corrosion Allowancein. Dia R.T R.T (b) Material Concial Hemispheri Apex Angle Radius Other fastening	ftin. Lengthft
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1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Cartificate Holder)

(b) Manufactured for : Brunswick Southport, North Carolina 28461

(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part: 0667 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: <u>798D228G012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1

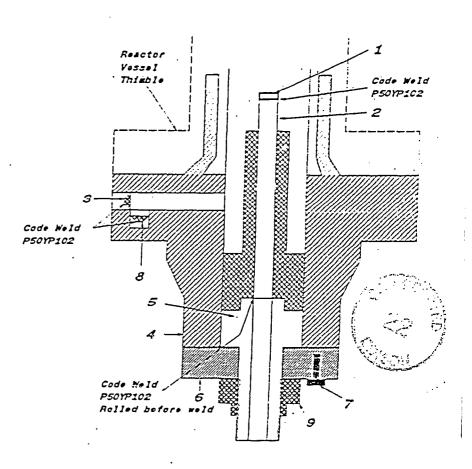
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1625 psl. min. (Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an atternate method of marking.

Sheet 2 of 2

- 1. Cap 16689274P001 SA182 - F304 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 16689313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113° wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° thick x 0.812° OD
- 4. Flan 919D610P001 (719E474) SA182 - F304 3:37" thick x 9 5/8" OD
- 5. Ease 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2° dia. on 4 1/8° bott circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.



04-014

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

\cdot
1. Hanufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM
2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NET Cartificate Bolder)
(b) Hanufactured for : Brunswick Southport, North Carolina 28461
(Name and Address of M Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : <u>0673</u> Nat'l Bd. No. <u>N/A</u>
(a) Constructed According to Drawing No: <u>798D22BG012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>
(b) Description of Part Inspected: <u>Piston Tube Assembly</u>
(c) Applicable ASME Code: Section III. Edition 1974. Addenda Date W75. Case No. N207 1361-2. Class 1
3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
Sheet 1 of 2
conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for Surnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: O6/16/92 Signed GE-NEBG-NF&CM-QA (NPT Certificate Bolder) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPT N-1151
Certification of Design for Appurtenance
Design information on file at <u>GE Company. San Josa. California</u>
Stress analysis report on file at <u>GE Company, San Jose, California</u>
DC22A5253 Rev. 1 Design specification certified by <u>Biorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018545.</u>
+ Certification of Shop Inspection
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on
たフノフ・フタグラ ガル・ニー・・・ 「 C c seesels NO 1231 Oblo WC 3ERE P5

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

Inspector's Signature

Dete

(67/50)

Netional Board, State, Province And No.

FORM N-2 (back)

4. Shell: Material (Kind & See	T.S. The There Spe		Corrosion Allowance in	n. Día f	t in. Length _	ft
5. Seams; Long	н.т.	·	R.T		Efficiency	;
Girth	н.т.	·	R.T		No. of Courses	
6. Heads: (a) Material _		T.S	(b) Mat	erial	T.S	
Bottom, Ends) Thick	Crown Kn	dius Ratio	Apex Angle	Hemispherical Radius	Flat Side to Diameter (conv.	
(b) If removable, bolts us	ed		Other fasteni	ng		
7. Jacket Closure:	(Material, Spec	. Na., T.S. Size Number)			Describe or sitach sketch)	·
	(Describe a	as ogee and weld, bar, etc	c. If her give dimensions, If h	ofte, describe or shell Drop 1	m) Weight / Impact	
•			•	_		
B. Design pressure	1250	psi at	. 575	F at tem	p of	<u> </u>
tems 9 and 10 to be comple	eted for tube sect	ions			·	
			Dia.	Thickness _	in. Attachment	
. Tube Sheets: Stationar	(K . Katerial	Ind & Sper. No.)	(Subject to pressure)	Thickness	in. Attachment	(Welded, Botte
. Tupes: Material						
. 16562: Harelial						(Sr. or U)
tems 11 - 14 incl. to be c	ampleted for inner	chambers of jac	keted vessels, or	channels of h	eat exchangers.	
(Kind & Spec. I	No.) (Min. of Range Specific	∞ ()			in. Length Efficiency	•
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Seams: Long Girth Heads: (a) Katerial Location Thickne Top.bottom.ends Channel If removable, bolts used Design pressure Ems below to be completed in Safety Valve Outlets: Ku Nozzles: Purpose (Mar., Outlet, Drain) Inspection Kanholes, K Openings: Kandholes, K Threaded, K	For all vessels when the control of		R.T	mispherical dius stening Drop Ve Charpy Fat temp Location Thickness	Efficiency Ho. of Courses T.S. Flat Side to it Diameter (conv. of (Describe or smach skeelight Impact Of Fetforcement Middleld Conv.	Press. pr conc.) ft-lb F
Seams: Long Girth Heads: (a) Material Location Thickne Top.bettom.ends Channel If removable, bolts used Design pressure Ems below to be completed in Safety Valve Outlets: Ki Mozzles: Purpose (Mar., Count, Drain) Inspection Manholes, Mopenings: Mandholes, Mopenings: Mandholes, Mopenings: Skirt	For all vessels when the control of	T.S	R.T	mispherical dius stening Drop Ve Charpy Fat temp Location Thickness	Efficiency Ho. of Courses T.S. Flat Side to it Diameter (conv. of (Describe or smach ske- light Impact Of Attached Attached	Press. pr conc.) ft-lb F
Seams: Long Girth Location Thickne Location Thickne Top.bottom.ends Channel If removable, bolts used Design pressure Location Safety Valve Outlets: Ku Kozzles: Purpose (Mar. Count, Drain) Location Inspection Kanholes, Kopenings: Kandholes,	H.T. Crown Knuc Radius Radi (a)(b)_ For all vessels whe Exper Humber Dia or Lugs	T.S	R.T. R.T. (b) Kater Concial He Apex Angle Ra Other fa	mispherical dius stening Drop Ve Charpy Fat temp Location Thickness	Efficiency Ho. of Courses T.S. Flat Side to it Diameter (conv. of (Describe or smach ske- light Impact Of Attached Attached	Press: or conc.) ft-1b ft-1b

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES' As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401
(Name and Address of NFI Certificate Holder)

Southport, North Carolina 28461 (b) Kanufactured for : Erunswick (Name and Address of M Certificate Holder for completed nuclear component)

__ Nat'l Bd. No. __ N/A Identification - Certificate Holder's S/N of Part : <u>0673</u>

(a) Constructed According to Drawing No: <u>798D228G012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASHE Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1

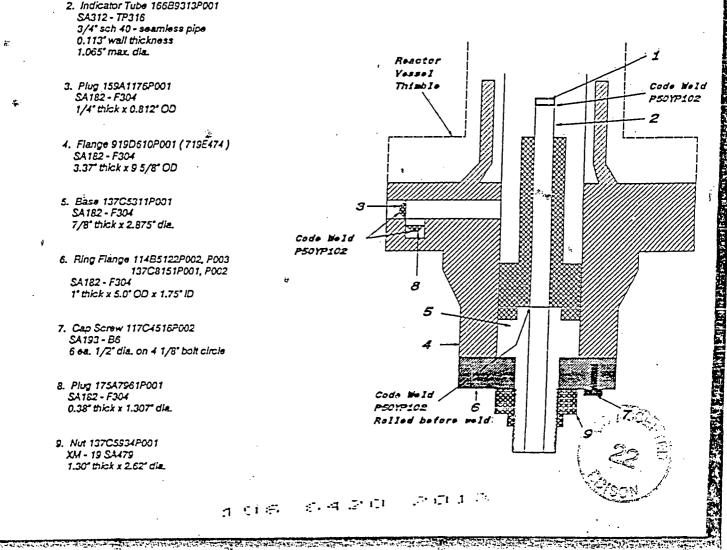
3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

> The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - F304 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 16689313P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113° wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° th/ck x 0.812° OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P0C2 SA182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4515P002 SA193 - B6 6 ea. 1/2" dia, on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° die.



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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Kanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
2117 Castle Havne Road, Wilmington, North Carolina 28401 (Nees and Address of NFT Cartificate Bolder)
(b) Manufactured for : Brunswick Southport, North Carolina 28461 (Name and Address of N Cartificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : 0707 Nat'l Bd. No. N/A
(a) Constructed According to Drawing No: 798D228G012 Rev 35 Dwg. Prepared by D.L. Peterson
(b) Description of Part Inspected: Piston Tube Assembly
(c) Applicable ASME Code: Section III. Edition 1974. Addenda Date W75. Case No. N207 1361-2 Class 1
3. REKARKS: Standard pair for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
Sheet 1 of 2
Ve certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 05/16/92 Signed GE-NEBG-NF&CM-QA By Stress Report (SC QN/Representive) Certificate of Authorization Authorization No.: NPTN-1751
Certification of Design for Appurtenance
Design information on file at GE Company, Sen Jose, California / Quantum file at GE Company, Sen Jose, California / Quantum file at
Stress analysis report on file at <u>GE Company</u> , San Jose, Calliomia
DCZZASZSS Rev. 1 Design specification certified by <u>Blom Heaberd</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the Kational Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on ACCO, PP2, and state that to the best of my knowledge and belief, the KPT Certificate Holder has constructed this part in accordance with the KSME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

C/17 1972 Oceans of Giver NC 1231, Ohlo, WC 3685 PA

Data NC 1231, Ohlo, WC 3685 PA

Retional Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2° x 11°, (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(47/14)

FORM N-2 (back)

4.	Shell: Material T.S	Thickness in. A	orrosion Nowance in. Dia f	t in. Length ft.
	(Kind & Spec. No.) (Min. of Re	arige Specified)		
5.	Seams: Long	1	·-	
		•	R.T	-
6.	Heads: (a) Material			
	Location (Top Crown Bottom, Ends) Thickness Radiu		Concial Hemispherical Apex Angle Radius	Flat Side to Press Diameter (conv. or co
(a) (b)				
	If removable, bolts used (Many	all Dava Ka TO Phy Missabal	Other fastening(Describe or attach sketch)
7.	Jacket Closure:	Deactibe as open and weld, bar, etc., If t	oer give dimensions, if boits, describe or stet	
			Drop \ Charp	deight
8.	Design pressure1250	psi at	•	
	s 9 and 10 to be completed for tube			
	Tube Sheets: Stationary. Material		Thickness	in. Attachment
	Floation Material	(Kind & Spec. No.)	(Subject to pressure) Thickness	(Weid
	Tubes: Katerial			
	10053. No.2. 181		iness neme or page.	(3
Item	s 11 - 14 incl. to be completed for	inner chambers of jacket	ed vessels, or channels of h	eat exchangers.
		Mominal Cor	resion	
11.	Shell: Katerial T.S. (Kind & So-c. No.) (Min. of Reng		owence in. Dia it	in. Length it.
12.	Seams: Long	н.т. 1	R.T	Efficiency
	Girth	1		
13. ł	eads: (a) Material			- ·
	Crown		Concial Hemispherical	
laí i		Radius Ratio	Apex Angle Radius	Diameter (conv. or cons
(b) C	hannel f removable, bolts used (a)	(b) (c)	Other fastening	
•	, 1510/45/6, 55/63 0355 (4)	(0/(0)		(Describe or attach stratch)
			Drop We Charpy	Impact ft
14. D	2 esign pressure	psi at	o Fat temp	of°F
Items	below to be completed for all vesse	els where applicable.		
15. S	ifety Valve Outlets: Number		Location	1
16. K	ezzles: Purpose (hist,		·	Reinforcement
	Cutiet, Drain) Number	Dict or Size Type	Material Trictimese	Meterial How Attached
				2 mg 32
17 [.	expection Kanholes. No.		Location	
	enings: Kandholes, Ko.	Size	Location	Magay See
	Threaded. No	Size	Location	
18. 50	pports: Skirt Lugs		Other(Decombe)	Attached (Where E How)
1	• E Postweid Hest-Trested.	,	•	,
2	- Use other internal or external prossure with coincident	lemperature when applicable.	n 2475	
			,	
è				

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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Gode Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Havne Road, Wilmington, North Caroline 28401
(Name and Address of NPT Cartificate Bolder)

(b) Manufactured for : Brunswick Southport, North Caroling 28461

(Name and Address of R Cartificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part: _____ Nat'l Bd. No. ____ N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Paterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASHE Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor, Hydrostatically tested at 1825 psi. min.

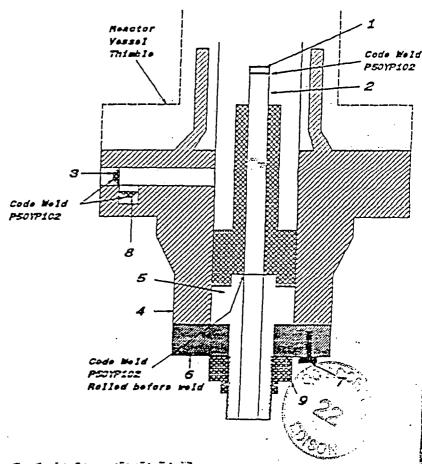
(Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 16689274P001 \$A182 - F304 3/8" thick x 1 1/16" OD
- 3. Plug 159A1178P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flance 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Base 137C5311P001 SA182 - F304 7/8* thick x 2.875* dia.
- 6. Ring Flange 11485122P002, P003 137C3151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ee, 1/2" die, on 4 1/8" bolt circle
- 8. Pkg 175A7961P001 SA182 - F304 0.38" thick x 1.307" die.
- 9. Nut 137CS934P001 XM - 19 SA479 1.30° thick x 2.52° dle.



106 6420 2037

TON N-2 NET CENTIFICATE ELLDES! DATA REPORT FOR MULTIPLE AND ASSESSMENT.
As camured by the Provision of the ASE Code Rules, Section III. Div. I
1. Manufactured a Castified by: @ Commery, 2117 Castle Sayro Sci., Wilminsten, N.C. 28401
the Manufactured for: BRINSWICK 142 SOUTHPORT, NORTH CAROUINA
(Water and World or W Contringed Horder ton Contringed Interest Interest Contri
2, Identification-Cartificate Holders's S/N of Part: 0353 15 15 NA NA
(a) Constructed According to Drawing No: 1798D228G012 Dag. Prepared by D. El Peterson
(b) Description of Fact Inspected: PISTON TIME ASSERTANT
(c) Applicable ASE Code: Section III, Edition 1974 , Adderes Date W'75, Case 20, 1351-2 Class
3. Reveres: Standard part for use with Resotor. Pydrostatically tested at 1825 had. him.
(Siles description of service for which component was designed)
Seet 1 of 2
We certify that the statements in this report are contact and this vessel tain or counterance of the defined in the code conforms to the rules of construction of the ASM Code Section III.
(The amplicable Designed Specification and Street Report are for the responsibility of the New Cornification Holder for Expensional Na responsible
for furnishing a senerate Design Specification and Street Report If the appurtantage is not included in the component Design Specification and Streets Report).
12/30 ,19 89 Elgrad Co-NEE-NESCHOR BY CO-NEE-NESCHOR
Cartificate CE Authorisation Spires: 6/15/90 Certification of Authorisation to 1-151
CONTROLLE CO DESIGNATION OF APPRICATION OF APPRICATION OF THE PROPERTY OF THE PROP
Design information on file at CONTANT. SAN TOSE. CALIFORNIA .
Strass analysis report on file at CZ CREANY. SAN JOSE. CALIFORNIA N EDIS
Design specification cornisied by BUSH BAZERS Prof. Drg. Sucto Galle. Page 15576
CO234912 Rev. 2 Streets enalysis report certified by BETTOTIAN ENERGY Prof. Drg. State COLT. Reg. No. 18345
I, the undersigned, holding a valid commission by the National Board of Boiled and Flassure Inspectors and/or the State or Province of NATA CARLINA and employed by paragraph or 14208
I WE OF STATE OF NEED CHALLAR - DAVE INSPECTED THE DELT OF & PRESSURE VALUE CASTIFICA IN THIS (
Partial Data report on 160 10 1977, and state that to the best of my knowledge and balled, the NFT Cartificate mices has constructed this part in accordance with the ASPE Code Section III.
By algoing this contistents, neither the Inspector nor his employer makes and werranty, and expressed or implied, concerning the part described in the Fartial Data Report, [purplemore,]
neither the Inspector for his employer shall be liable in any manner for any mercel injury or property damages or a loss of any kind arising from or connected with this inspection.
DEC 50 ,1989 1/200 Time BE 658 PA E02712 011
TATE TANGETON S SIGNATURE NELLONAL ENERGY, STAYLOW EN NO.
**Supplemental sheets in form of lists, skatches or drawing may be used provided (i) sits is
each sheet is numbered and number of sheets is recorded in Item 3. "ARTARKER"

<u> A AMERICA A AMERICA AMERICAN /u>

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FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

1.	Owner Detroit Edison Company			Da	te	March 3, 2005			
	6400 North Dix	Name ie Highway, Newport MI 4	I8166	- Sha	eet		1 of 2	· · · · · · · · · · · · · · · · · · ·	
2.		Address uclear Power Plant		- Uni		2			
		Name		-					
	6400 North Dix	ie Highway, Newport MI	48166						
							o Maintenance		
	West Burton Africa	Address		T	· ·	r Organiza	tion P.O. No., Job No., etc.		
3.	Work Performed by	Detroit Edison Compa	* *	Type Code Symbol N/A Stamp					
		Name			horization No.		N/A		
	6400 North Dixi	e Highway, Newport, MI 4	8166	_ Exp	iration Date		N/A		
	ldestforter	Address	: ::::- 0 		-+ C!: W-+	C		!-! ! -	
4.	Identification of System						<u>ms – supply and retum p</u> 008002, T47008006, & F		
	or cysisin						or N-5 Data Reports-See		
		DIVIDION E OCCION	<u> </u>		<u> </u>	=9.01 (.		<u>, bugo Ej</u>	
									
5.	(a) Applicable Co	nstruction Code ASME		-, -,					
	(h) Analiaskia Ed	Class 2 ition/Addenda of Section XI		71 Editio	n <u>71</u>	_ Adden	da <u>NVA</u> C	ode Case	
	(b) Applicable Ed Replacements		Uunzea tor Repan		1992-92 Addenda	,			
	rispiasomenia	,		_		-			
6.	Identification of Compo	onents Repaired or Replaced	i and Replacemer	nt Components					
	·		·						
							1		
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code	
	Component		Senai No	Board No.	I derinication	Duit	or neplacement	Stamped	
						ĺ		(Yes	
							ļ	or No)	
	T4700B001	CTI - Nuclear /	#1/#2	1202/1180	N/A	1975	Replacement	Y	
	T4700B002	Wismer & Becker	#3/#4	1182/1178	N/A	1975	Replacement	Y	
	T4700B003 T4700B004	CTI - Nuclear / Wismer & Becker	#5/#6 #7/#8	1181/1179 1197/1183	N/A N/A	1975 1975	Replacement Repair/Replacement	Y	
	T4700B004	CTI - Nuclear /	#11/#12	1196/1185	N/A	1975	Replacement	Y	
	T4700B007	Wismer & Becker	# 13 / # 14	1198/1191	N/A	1975	Replacement	Y	
	T4700B010	CTI - Nuclear /	# 19 / # 20	1194/1201	N/A	1975	Replacement	Υ	
		Wismer & Becker							
	Description								
7.	of Work						erial during gasket replac		
							lls to facilitate cooler rep		
	·						lugging and blendgrind c		
						nuts on	Drwell Coolers T4700B	002 and	
		T4700B004. See shee	LZ DI UNS INIS-2	ior material ir	istalieu.		·		
8.	Tests Conducted:	Hydrostatic [] Pna	eumatic []	Nominal Opera	ting Pressure [Y I	Ref. Code Case N	V-416-2	
J.	100% Odlidaciea.	Other [] Pressure	ominano []	•	st Temp	v.1	oF	1-710-5	
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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.

Form NIS-2 (Back)

	All pressure retaining material including bolting material installed meets ASME III, Class 2 requirements. Reference purchas orders for material installed is included on page 2 of this NIS-2.
	<u> </u>
	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
We certify Section XI.	that the statements made in the report are correct and this Repair/Replacement conforms to the rules of the ASME Code,
Type Code	Symbol Stamp Original Code data reports to be supplemented by Owners Section XI Program 05-002 and 05-003.
Certificate	of Authorization NoN/AExpiration DateN/A
	0 1 1 1.0 1
Signed	R.M. Hambleton Lead ISI Engineer (M) Date MCCH 3 .2005 Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
	signed, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
components knowledge	Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the sidescribed in this Owner's Report during the period O2 O O Sto O3 O O O O O O O O O O O O O O O O O O
knowledge accordance By signing t and correcti	s described in this Owner's Report during the period 02-01-05 to 03-07-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
knowledge accordance By signing t and correcti	s described in this Owner's Report during the period 22-07-5 to 23-07-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. This certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations we measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions
knowledge accordance By signing t and correcti	s described in this Owner's Report during the period O2-07-05 to O3-07-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. This certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations we measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
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(10/94)

For complete list of work packages, see page 2 of this NIS-2

Drvwell Cooler Repair & Replacements 05-002 and 05-003 Sheet 2 of 2

Component PIS Number	Work Request Number	Materials Installed Pure Ord Nun				
T4700B001	000Z050292	Flange Bolting (South Supply and Return flanges) 8Studs- ½"-13 UNC, SA193 B7, HT# 501 16—Nuts - ½"-13 UNC, SA194 2H, HT# P121	902046 974211			
	000Z050344	New Gaskets Only				
T4700B002	000Z050294	Flange Bolting (Supply and Return flanges) 16Studs- ½"-13 UNC, SA193 B7, HT# F728 10Nuts ½"-13 UNC, SA194 2H, HT# F173 10Nuts ½"-13 UNC, SA194 2H, HT# S399 12Nuts ½"-13 UNC, SA194 2H, HT# VJD Cover Bolting	889849 886170 977707 870784			
		1Nut - ¾"-10 UNC, SA194 8M, HT# 21586	407206			
	000Z050363	Torque Check Only				
T4700B003	000Z050293	Flange Bolting (Supply and Return flanges) 16Studs- ½"-13 UNC, SA193 B7, HT# 728 889849 32Nuts- ½"-13 UNC, SA194 2H, HT# F833 890711				
T4700B004	000Z050246	Flange Bolting (Supply and Return flanges) 16Studs- ½"-13 UNC, SA193 B7, HT# F728 32Nuts - ½"-13 UNC, SA194 2H, HT# S399 Cover Bolting 6Nuts ¾" - 10 UNC, SA194 8M, HT# 21586	889849 977707 407206			
ļ	000Z050328	New Gaskets only				
	000Z050332	2 Tube plugs – SA479 TP 304A, Ht # CHY	356971			
T4700B006	000Z050295	Flange Bolting (North and South Supply) 8Studs- ½"-13 UNC, SA193 B7, HT# P501 16Nuts - ½"-13 UNC, SA194 2H, HT# P121	902046 947211			
	000Z050309	4 Lifting Lugs (Supply and Return Headers) 5/8" bar, ASTM A276 TP 304, Ht #1G9316	357093			
T4700B007	000Z050310	2 Lifting Lugs (South Supply and Return Header) 5/8" bar, ASTM A276 TP 304, Ht #1G9316	368932			
	000Z050296	Flange Bolting (South Supply) 4Studs- ½"-13 UNC, SA193 B7, HT# P501 8Nuts- ½"-13 UNC, SA194 2H, HT# P121	902046 947211			
T4700B010	000Z050311	2 Lifting Lugs (North Supply and Return Header) 5/8" bar, ASTM A276 TP 304, Ht #1G9316	368932			
	000Z050297	Flange Bolting (Supply and Return flanges) 16Studs- ½"-13 UNC, SA193 B7, HT# F728 28Nuts - ½"-13 UNC, SA194 2H, HT# P121 4Nuts - ½"-13 UNC, SA194 2H, HT# VJD	889849 974211 870784			

*Cooler/Affected N-5 Code Data Reports

T4700B001	N5-0091, N5-0129, N5-0130
T4700B002	N5-0091, N5-0111, N5-0131, N5-0113
T4700B003	N5-0093, N5-0626
T4700B004	N5-0502
T4700B006	N5-0091, N5-0121, N5-0122, N5-0123, N5-0124
T4700B007	N5-0091, N5-0117, N5-0118, N5-0119, N5-0120, N5-0126
T4700B010	N5-0093

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

05-005

1.	Owner Detroit	Edison Company		Date		May 12, 2006		
	6400 North Dixie	Name e Highway, Newport N	/II 48166	Shee	et	1 of 3		
	Address							
2.	Plant Fermi 2 Nuclear Power Plant Name			Unit			_2	
	6400 North Dixie	11 48166						
	O-100 Horal Dixio	, riigiinay, riompoit ii	11 40100			Deco Ma	aintenance	
		Address			Repair O	rganization f	P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Cor	npany	Type Stam	Code Symbol		N/A	
		Name	<u> </u>		orization No.		N/A	
	6400 North Dixie	Highway, Newport, N	/II 48166	Expir	ation Date		N/A	
		Address						
4.	Identification	(N5-J120-N5-	1) Nuclear instrument	ation SRM's	/ IRM's			
	of System							
5.	(a) Applicable Cor	nstruction Code AS	ME III,					
		_ Cla	ss 1 19	71 Edition	<u>*71</u>	Addenda	N/A	Code Case
		tion/Addenda of Section	XI Utilized for Repairs of		200 00 4 11 . 1			
	Replacements				992-92 Addenda	_		
6.	Identification of Compor	nents Renaired or Renla	ced and Replacement C	Components				
٠.	racinalization of components	Total Properties						
	Name of	Name of Manufacturer	Manufacturer Serial No	National Board	Other Identification	Year Built	Repaired,	ASME Code
	Component	Manufacturer	NO	No.	idenuncation	Built	Replaced, or Replacement	Stamped
			i :				or replacement	(Yes
								or No)
	SRM Dry Tubes	General	N/A	N/A	N/A	1975	Replaced	Y
	IRM Dry Tubes SRM Dry Tubes	Electric GE Reuter-	See Matrix	N/A	See Matrix	2006	Replacement	Y
•	IRM Dry Tubes	Stokes Inc.	See Matrix	IVA	Oce Manx	2000	riepiacement	'
					-			
				1		li		
	- December -			<u> </u>				
7	Description of Work	Replaced all Nuclea	r Instrumentation Dry	Tuhac ise w	ell ac detectors	in the Res	etor Voccal during	DE11
٠.	OI ITOIN		sted of 4 SRM Dry Tul			111 (115 150	ictor vesser during	<u> </u>
						—		
	•							······································
8.	Tests Conducted:	, , , ,		•	ing Pressure [X]			
		Other[] Pressure	• <u> </u>	i Tes	t Temp	°F		

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.

Form NIS-2 (Back)

).	Replacement Dry Tubes were procured per PO # 979076.
	Applicable Manufacturer's Data Reports to be attached
	OFFICIAL TO GO ON THE LANGE
	CERTIFICATE OF COMPLIANCE
We certi	fy that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
Type Co	de Symbol Stamp Original Code data report N5-J120-N5-1 to be supplemented by Owners Section XI Program 05-005
••	
	te of Authorization No. N/A Expiration Date N/A
Signed	R.M. Hambleton Lead ISI Engineer (Date Date Date 2000)
	Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or ofMichigan_and employed by HSB_CT_ of One State Street, Hartford, CT 06102_have inspected the
compone	nts described in this Owner's Report during the period 3-9-cc to 06-05-cc, and state that to the best of my
	e and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in ce with the requirements of the ASME Code, Section XI.
and corre	g this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations ctive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any
manner fo	or any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
	Many Commissions MIG10
/	Commissions National Board, State, Province, and
6	Endorsements
	7 —
Date	Tune 5 20,06
/	
4)	

For complete work packages, see Work Requests listed on attached matrix.

NIS-2 05-005 Sheet 2 of 3

NIS-2 Attachment for Section XI Program No. 05-005 - RF11 SRM/IRM Exchange

SRM/IRM	PIS No.	Serial No.	Detector Serial No.	Work Request
SRM A	C51N001A	05S110296	06S111075	000Z050407
SRM B	C51N001B	05S110295	06S111074	000Z050408
SRM C	C51N001C	05S110294	04\$88725	000Z050409
SRM D	C51N001D	05S110293	06S111073	000Z050410
IRM A	C51N002A	05S110299	06S112235	000Z050411
IRM B	C51N002B	05S110300	05S104926	000Z050412
IRM C	C51N002C	05S110301	06S111361	000Z050413
IRM D	C51N002D	05S110297	06S112239	000Z050414
IRM E	C51N002E	05S110298	06S112150	000Z050415
IRM F	C51N002F	05S110291	06S111360	000Z050417
IRM G	C51N002G	05S110292	06S112236	000Z050416
IRM H	C51N002H	05S110302	06S112238	000Z050418

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III Not to Exceed One Day's Production HIS 2 05-005 SHEET 3=F 3

Pg. 1 of _2_

	:	·	and address of NPT Certificate Holder)					
2. Manufactured for Fermi-2 Detroit Edison Company 6400 N. Dixie Highway Newport, Michigan (name and address of Purchaser)								
. Location of ins	tallation Fermi-2 D	•	anv 6400 N. Dixie Highw	vav Newbort. N	<i>M</i> ichigan	<u>. </u>		
		(name and address)						
. Type:RS-1	E5-1500-201	N/A	N/A	N/A		2006		
	(drawing no.)	(mat'l spec. no.)	(tensile strength)	(CRN)		(year built)		
. ASME Code, Se	ection III, Division 1: _	1977	Summer 1977	1	_	N/A		
•	_	(edition)	(addenda date)	(class)		(Code Case no.)		
. Fabricated in a	ccordance with Const. S	pec. (Div. 2 only)	N/A Revision	N/A	Date	N/A		
. Remarks:	Certified Design Spe	cification CDS-	C-5600-1 Rev. H					
	Certified Design	Report CDR-	-C-5600-36 Rev. 0					
	On File at GE Ret	ter-Stokes, Inc.						
Nom. Thickness	s (in.) <u>N/A</u> Min. d	esign thickness (in.) _	N/A Dia. ID (ft & in.) _	N/A Length	overall (i	t & in.) <u>N/</u>		
•	• •	•	ned for each item of this rep	-	(.			

F	art or Appurtenance	National
1	Serial Number	Board No.
<u>. </u>		in Numerical Order
1)	∜ 05S110291	N/A
(2)	√05S110292	N/A
(3)	:/05S110293	N/A
(4)	√ 05S110294	N/A
(5)	√05S110295	N/A
(6)	√,05S110296	N/A
(7)	√,05S110297	N/A
(8)	√05S110298	· N/A
(9)	✓05S110299	N/A
(10)	√05S110300	N/A
(11)	√95S110301	N/A
(12)	√05S110302	N/A
(13)		
(14)	·	
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)	1	
(25)	i i	

Part or Appurtenance	National
Serial Number	Board No.
Schair vanisci	in Numerical Order
(26)	I I I I I I I I I I I I I I I I I I I
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
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(45)	
(46)	
(47)	·· <u> </u>
(48)	·
(49)	
(50)	

^{10.} Design pressure 1250 PSIG psi. Temp. Vessel 575°F. Seal 300°F. Hydro. test pressure 1875 PSIG at temp. 70°F. (when applicable)

^{*} Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 81/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet. (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg. 2 of 2)

Certificate Holder's Serial Nos. N/A through N/A

Reprint (7/91)

CERTIFICATION OF DESIGN									
Design specifications certified by	Bill A. Balazs (when applicable)	P.E. State <u>CA</u>	Reg. no.	MF348					
Design report* certified by	Ahmed I. Sabet (when applicable)	P.E. State NY	Reg. no.	071638					
	CERTIFICATE OF C	COMPLIANCE							
We certify that the statements made in this report are correct and that this (these) <u>Assemblies</u> conforms to the rules of construction of the ASME Code, Section III, Division 1.									
NPT Certificate of Authorization N	o. <u>N-2703</u>	Expires	September 1	6, 2006					
Date	Name <u>GE Reuter-Stokes, Inc</u> (NPT Certificate Holder)	c. Signed	(authorized represent	ative)					
7	CERTIFICATE OF I	NSPECTION							
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of OHIO and employed by H.S.B. CT of HARTFORD, CT have inspected these items described in this Data Report on and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.									
Date <u>2/27/06</u> Signed	mBano 2	Commissions NB/Z	604 ABN	OH 387					



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

05-006

1.	Owner Detroit Edison Cor	mpany		D	ate		May 2, 2006	···	
	Nan 6400 North Dixie Hichwa	··-	18166	S	neet :	l of	ما		
	Address	ay, Newport WII 4	60100			<u>-</u> - 0 -	<u> </u>		
2.	Plant Fermi 2 Nuclear Po	wor Plant		Ur	nit S	2			
۷.	Nam			O,	"` <u></u>				
	6400 North Dixie Highwa		48166		Di	ECo Main	tenance		
	Address	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Repair Organization P.O. No., Job No., etc.					
3.	Work Performed by Detroit	Edison Compan	γ	Ту	pe Code Symbol		N/A		
	Nam			Au	thorization No.	•	N/A		
	6400 North Dixie Highwa	y, Newport, MI 4	18166	E	piration Date		N/A		
	Address								
4.	Identification of System Va	rious Componer	nt Supports (Med	chanical Sn	ubbers)				
5.	ASME III 19 71 Edition W71 Addenda (Piping) 5. (a) Applicable Construction Code ASME III 19 74 Edition No Addenda, Subsection NF, Code Case 1644-5 (Snubbers) (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-W92							5 (Snubbers)	
6.	Identification of Components Repa	aired or Replaced	and Replacement	Components					
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes	
			Various	NIA .	NONE	Narious	DEDI ACEMENTO	or No)	
	PLANT MECHANICAL SNUBBERS	Pacific Scientific	Various	NA	NONE	Various	REPLACEMENTS	N	
							·		
				<u> </u>					
	,						Section 1		
	<u> </u>	<u></u>				<u> </u>			
7.	Description of Work Refurb	oish Mechanical S	Snubbers for fut	ure installat	ion				
8.	Tests Conducted: Hydrosi Other		eumatic N		ating Pressure		_°F Functional test & visual	inspection	
	Note: Supplemental shee information in items 1 thro								

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.

(12/82)

This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y. 10017

Form NIS-2 (Back)

9.	Remarks Attached are listings of Mechanical Snubbers that were refurbished and changed out during testing activities during RF11 Applicable Manufacturer's Data Reports to be attached
	Note: The listing of the Mechanical Snubbers that were refurbished prior to and during RF11 includes a listing
	of load bearing parts installed. Documentation satisfies requirements of Code Case N-508-1 as allowed by Relief Request RR-C4.
_	CERTIFICATE OF COMPLIANCE
	We certify that the statements made in the report are correct and this <u>Replacement</u> conforms to the rules of the ASME Code, Section XI. repair or replacement
	Type Code Symbol Stamp Original Code Data Reports to be supplemented by owners Section XI Program No. 05-006
	Certificate of Authorization No. N/A Expiration Date N/A
	Signed R. M. Hambleton, Lead ISI Engineer Ruthola Date MX 5 .2005 Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
	I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of
	One State Street, Hartford, CT 06102 have inspected the components described
	in this Owner's Report during the period O6-23-95 to O5-09-06, 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 National Board, State, Province, and Endorsements Pata May 9 20 9 6
	Date May 9 20 0 6

(12/82)

For complete work package, see Work Request A498060100 A519060100

sheet 2 of 6

Hanger Number Old Serial Number Work Request New Serial Nt B21-2187-G81 22456 000Z060062 12681 B21-2587-G05 7017 000Z051700 9889 B21-2589-G03 9905 000Z051700 4721 B21-2592-G10 8994 000Z051700 6182 B21-4095-G05 10347 000Z051700 9008 B21-4095-G05 10347 000Z051700 10336 B21-E213-SSB3 12816 000Z051700 8337 B21-E213-SSB3 12816 000Z051700 10341 B21-E213-SSC1 12803 000Z051700 01341 B21-E213-SSC3 6175 000Z051700 6186 B21-E213-SSC3 6175 000Z051700 9874 B31-5065-G39A 12731 000Z051700 9874 B31-5239-G06 13198 000Z051767 19922 B31-5239-G06 13198 000Z051702 13160 C41-2340-G11 8467 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13116 C41-2979-G01A 12753 000Z051702 13116 C41-2979-G01A 12753 000Z051753 19936 E11-3153-G15B 8989 000Z051597 9013 E11-3161-G17 20963 000Z051597 9013 E11-3164-G27 12450 000Z051590 20974 E11-3185-G54 6172 000Z051697 10346 E11-3519-G14 12447 000Z051697 12708 E21-2199-G05 16225 000Z051735 8951 E21-3052-G09A 12815 000Z051735 10329 E21-3052-G09B 8956 000Z051735 10329	
B21-2587-G05 7017 000Z051700 9889 B21-2589-G03 9905 000Z051700 4721 B21-2592-G10 8994 000Z051700 6182 B21-4095-G05 10347 000Z051700 9008 B21-4095-G08 12820 000Z051700 10336 B21-E213-SSB3 12816 000Z051700 8337 B21-E213-SSC1 12803 000Z051700 10341 B21-E213-SSC3 6175 000Z051700 6186 B21-E213-SSD3 11273 000Z051700 9874 B31-5065-G39A 12731 000Z051767 19922 B31-E215-SSB1 11270 000Z051765 4707 C41-2340-G16 13198 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13160 C41-2399-G07 12736 000Z051702 13116 C41-2979-G01A 12753 000Z051753 19936 E11-3153-G15B 8989 000Z051697 9013 E11-3164-G27 12450 000Z051	
B21-2589-G03 9905 000Z051700 4721 B21-2592-G10 8994 000Z051700 6182 B21-4095-G05 10347 000Z051700 9008 B21-4095-G08 12820 000Z051700 10336 B21-E213-SSB3 12816 000Z051700 8337 B21-E213-SSC1 12803 000Z051700 10341 B21-E213-SSC3 6175 000Z051700 9874 B21-E213-SSD3 11273 000Z051700 9874 B31-5065-G39A 12731 000Z051767 19922 B31-5239-G06 13198 000Z060062 8477 B31-E215-SSB1 11270 000Z051765 4707 C41-2340-G11 8467 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13116 C41-2979-G01A 12753 000Z051703 19936 E11-3153-G15B 8989 000Z051697 9013 E11-3164-G27 12450 000Z051698 15283 E11-3185-G54 6172 000Z0516	
B21-2592-G10 8994 000Z051700 6182 B21-4095-G05 10347 000Z051700 9008 B21-4095-G08 12820 000Z051700 10336 B21-E213-SSB3 12816 000Z051700 8337 B21-E213-SSC1 12803 000Z051700 10341 B21-E213-SSC3 6175 000Z051700 6186 B21-E213-SSD3 11273 000Z051700 9874 B31-5065-G39A 12731 000Z051700 9874 B31-5239-G06 13198 000Z060062 8477 B31-E215-SSB1 11270 000Z051765 4707 C41-2340-G11 8467 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13116 C41-2979-G01A 12753 000Z061223 12685 E11-3153-G15B 8989 000Z051769 9013 E11-3164-G27 12450 000Z051697 9013 E11-3178-G13 20986 000Z051698 15283 E11-3519-G14 12447 000Z051	
B21-4095-G05 10347 000Z051700 9008 B21-4095-G08 12820 000Z051700 10336 B21-E213-SSB3 12816 000Z051700 8337 B21-E213-SSC1 12803 000Z051700 10341 B21-E213-SSC3 6175 000Z051700 9874 B21-E213-SSD3 11273 000Z051700 9874 B31-5065-G39A 12731 000Z051767 19922 B31-5239-G06 13198 000Z060062 8477 B31-E215-SSB1 11270 000Z051765 4707 C41-2340-G11 8467 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13116 C41-2979-G01A 12753 000Z061223 12685 E11-3153-G15B 8989 000Z051697 9013 E11-3164-G27 12450 000Z051697 9013 E11-3185-G54 6172 000Z051697 10346 E11-3519-G14 12447 000Z051740 20969 E11-4251-G17 19913 000Z0	
B21-4095-G08 12820 000Z051700 10336 B21-E213-SSB3 12816 000Z051700 8337 B21-E213-SSC1 12803 000Z051700 10341 B21-E213-SSC3 6175 000Z051700 6186 B21-E213-SSD3 11273 000Z051700 9874 B31-5065-G39A 12731 000Z051767 19922 B31-5239-G06 13198 000Z060062 8477 B31-E215-SSB1 11270 000Z051765 4707 C41-2340-G11 8467 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13116 C41-2979-G01A 12753 000Z061223 12685 E11-2299-G07 12736 000Z051753 19936 E11-3153-G15B 8989 000Z051697 9013 E11-3164-G27 12450 000Z051697 9013 E11-3185-G54 6172 000Z051617 10346 E11-3519-G14 12447 000Z051697 12708 E21-2199-G05 16225 000Z	
B21-E213-SSB3 12816 000Z051700 8337 B21-E213-SSC1 12803 000Z051700 10341 B21-E213-SSC3 6175 000Z051700 6186 B21-E213-SSD3 11273 000Z051700 9874 B31-5065-G39A 12731 000Z051767 19922 B31-5239-G06 13198 000Z060062 8477 B31-E215-SSB1 11270 000Z051765 4707 C41-2340-G11 8467 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13116 C41-2979-G01A 12753 000Z051753 19936 E11-3153-G15B 8989 000Z051697 9013 E11-3164-G27 12450 000Z051698 15283 E11-3178-G13 20986 000Z051590 20974 E11-3519-G14 12447 000Z051697 10346 E11-329-G05 16225 000Z051735 8951 E21-2199-G05 16225 000Z051735 8951	
B21-E213-SSC1 12803 000Z051700 10341 B21-E213-SSC3 6175 000Z051700 6186 B21-E213-SSD3 11273 000Z051700 9874 B31-5065-G39A 12731 000Z051767 19922 B31-5239-G06 13198 000Z060062 8477 B31-E215-SSB1 11270 000Z051765 4707 C41-2340-G11 8467 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13116 C41-2979-G01A 12753 000Z061223 12685 E11-2299-G07 12736 000Z051753 19936 E11-3153-G15B 8989 000Z051697 9013 E11-3164-G27 12450 000Z051698 15283 E11-3178-G13 20986 000Z051590 20974 E11-3185-G54 6172 000Z051697 10346 E11-3519-G14 12447 000Z051697 12708 E21-2199-G05 16225 000Z051735 8951 E21-3052-G09A 12815 000	
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B31-5239-G06 13198 000Z060062 8477 B31-E215-SSB1 11270 000Z051765 4707 C41-2340-G11 8467 000Z051702 13160 C41-2340-G16B 13146 000Z051702 13116 C41-2979-G01A 12753 000Z061223 12685 E11-2299-G07 12736 000Z051753 19936 E11-3153-G15B 8989 000Z051697 9013 E11-3164-G17 20963 000Z051698 15283 E11-3178-G13 20986 000Z051590 20974 E11-3185-G54 6172 000Z051617 10346 E11-3519-G14 12447 000Z051740 20969 E11-4251-G17 19913 000Z051572 13193 E21-2199-G05 16225 000Z051735 8951	
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E11-2299-G07 12736 000Z051753 19936 E11-3153-G15B 8989 000Z051697 9013 E11-3161-G17 20963 000Z061117 12446 E11-3164-G27 12450 000Z051698 15283 E11-3178-G13 20986 000Z051590 20974 E11-3185-G54 6172 000Z051617 10346 E11-3519-G14 12447 000Z051740 20969 E11-4251-G17 19913 000Z051697 12708 E21-2199-G05 16225 000Z051735 13193 E21-3052-G09A 12815 000Z051735 8951	
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10029	
E21-3053-G10A 9002 000Z051717 8362	
E21-3053-G10B 10333 000Z051717 0332	
E21-5300-G06 19897 000Z061223 12724	
E41-3167-G14 12804 000Z051716 8330	 -
E51-3174-G09C 9869 000Z051716 9849	
G11-3659-G46 23163 000Z061118 23161	
G33-3096-G27 15288 000Z051762 12441	
G33-3245-G67 19577 000Z051762 18642	
G51-4056-G21 18646 000Z051716 23164	
G51-4059-G21 12433 000Z051716 12449	
N21-3131-G33 6186 000Z051703 8963	
N21-3131-G38 8362 000Z051703 8968	
N21-3536-G28 12821 000Z051701 8958	
N21-3536-G29A 9010 000Z051701 8955	
N21-3536-G32 8991 000Z061118 8328	1
N21-3536-G33 11278 000Z051701 8714	

Hanger Number	Old Serial Number	Work Request	New Serial Number
N21-3536-G38A	8985	000Z051749	8992
N21-3536-G38B	8999	000Z051749	6174
N21-3537-G29A	8364	000Z051701	8982
N21-3537-G29B	10353	000Z051701	10331
N21-3537-G35	8965	000Z051701	10353
N21-3537-G36	10329	000Z051701	9021
N21-3537-G38A	8961	000Z051749	8358
N21-3537-G38B	9019	000Z051749	9011
N30-2186-G04	22357	000Z051716	12699
N30-2186-G14	19579	000Z051762	9854
N30-3259-G30	8732	000Z051703	9892
N30-3259-G34	9844	000Z051703	7014
N30-3259-G46	8713	000Z051703	11265
N30-3259-G53	8726	000Z051703	9890
N30-3259-G56	2007	000Z051703	2007
N30-3259-G67	1583	000Z051703	1581
N30-3526-G46	8495	000Z051702	13205
N30-3526-G52	19936	000Z051702	22450 100 1
N30-3526-G53	19909	000Z060062	12686 1904
N30-3526-G58	13184	000Z060062	13157
P11-3566-G08	21957	000Z051702	9856
P42-4357-G22A	12704	000Z060062	22357
P50-2163-G15A	12759	000Z061153	22378
T23-I2837-36-G54	12708	000Z060062	12732
T23-I2837-36-G58	22429	000Z060062	12710
T23-I2837-36-G96A	19901	000Z051764	12700
T23-I2837-40-G04	21951	000Z051740	18657
T23-I2837-41-G07A	8490	000Z051766	13123
T23-I2837-41-G10A	8466	000Z061153	13174
T23-I2837-41-G10B	8464	000Z060062	13202
T23-I2837-42-G01	22358	000Z061148	19902
T23-I2837-42-G12A	8499	000Z051764	8508
T23-I2837-42-G14B	12730	000Z061148	19909
T23-l2837-42-G23A	12674	000Z060062	27916
T23-I2837-42-G27	13179	000Z051764	8460
T23-I2837-45-G04	18644	000Z061118	9858
T23-I2837-45-G11B	8503	000Z051766	13188
T23-I2837-45-G19	13206	000Z060062	13126
T23-I2837-46-G102	12685	000Z061153	19915
T23-I2837-46-G17C !	22364	000Z051740	22425
T23-I2837-46-G78	13122	000Z061113	13178
T23-I2837-46-G94E	22442	000z061152	12768
T23-I2837-48-G08B	19903	000Z061112	19913

Hanger Number	Old Serial Number	Work Request	New Serial Number	1
T23-l2837-51-G141	12743	000Z051764	22451	1
T23-I2837-51-G142	8506	000Z051740	8484	1
T23-I2837-51-G144	12725	000Z051740	12733	
T23-I2837-51-G19	22459	000Z051764	22363	1
T23-I2837-51-G28	12768	000Z051740	12745	Ĭ
T23-l2837-51-G29	12724	000Z051740	22365	
T23-I2837-51-G33	12751	000Z051740	22420	
T23-I2837-51-G43	12697	000Z060062	12762	
T23-l2837-51-G61	13153	000Z051740	13200	
T23-I2837-51-G62	22340	000Z051740	21917]
T23-I2837-53-G31	22415	000Z061153	12730	
T48-4062-G05A	22359	000Z051716	12726	}
T48-5314-G10	22352	000Z051766	12978)
T49-5325-G59	13191	000Z061223	13136	
T49-5325-G60	13197	000Z051768	13196	
T50-7114-G44	19937	000Z061223	19931	
T50-7114-G45	22443	.000Z051768	12711	٠.
T50-7431-G03A	12716	000z061152	12704	
T50-7431-G03B	12756	000z061152	19903	1751/2015
T71-I2820-35-G40	13117	000Z051767	8501	
T71-l2820-35-G46	8494	000Z061221	13149	1,11
T7.1-I2837-62-G37	12767	000Z061223	12731	
T71-l2837-62-G39	22386	000z061152	22446	
T71-I2837-63-G20	13189	000Z061153	8495	
T71-l2837-63-G22	12695	000Z051767	12691	Marie Carlo
T71-l2837-63-G24	19931	000Z061221	19929	Barrier & Table Control
T71-l2837-63-G34	22394	000Z061221	22340	
T71-l2837-64-G47	22446	000Z051768	22455	
T71-l2837-64-G48	12994	000z061152	22415	
T71-l2837-64-G49	12693	000Z061223	12759	
T71-I2837-64-G52	12675	000Z061223	22358	

.

Mechanical Snubbers Rebuilt with New Load Bearing Parts

NIS-2 for 05-006 Sheet 5 of 6

Serial	Snubber Location	Size	Description	PO	Work Package
8494	I Spare	1/2	Capstan Spring	402519	A519060100
10329	E21-3052-G09B	10	Capstan Spring	317958	A519060100
22429	Spare	1/4	Rod and Bearing Assembly Torque Carrier and Shaft Assembly	407465 407465	A519060100
19936	E11-2299-G07	1/4	Rod and Bearing Assembly Torque Carrier and Shaft Assembly	389195 407465	A519060100
12700	T23-I2837-36-G96A	1/4	Torque Carrier	362145	A498060100
22450	N30-3526-G52	1/4	Torque Carrier	362145	A498060100
19922	B31-5065-G39A	1/4	Torque Carrier Capstan Spring	362145 402519	A498060100
12681	B21-2187-G81	1/4	Torque Carrier	362145	A498060100
22425	T23-I2837-46-G17C	1/4	Rod and Bearing Assembly	396777	A498060100
12699	N30-2186-G04	1/4	Torque Carrier	362145	A498060100
12733	T23-I2837-51-G144	1/4	Torque Carrier	362145	A498060100
12711	T50-7114-G45	1/4	Capstan Spring	402266	A498060100
13150	Spare	1/2	Torque Carrier	317957	A498060100
8482	Spare	1/2	Torque Carrier	335317	A498060100
13158	Spare.	1/2	Torque Carrier (snubber 16235) Rod and Bearing Assembly (snubber 16235) ball bearing (snubber 16235)	*	A498060100
	C41-2340-G16B	11/2	Torque Carrier	335317	A498060100
	Spare	1/2	Capstan Spring	402519	A498060100
	Spare	1	Thrust bearing kit	362146	A498060100
	G33-3245-G67	11	Thrust bearing kit	406333	A498060100
	G51-4056-G21	1	Thrust bearing kit	362146	A498060100
9854	N30-2186-G14	1	Thrust bearing kit Support cylinder (from snubber 23170)	406333	A498060100
9856	P11-3566-G08	1	Thrust bearing kit Bearing Retainer Nut (from snubber 23170)	362146	A498060100
18643	Spare	11	Thrust bearing kit	406333	A498060100
	T23-I2837-45-G04	1	Thrust bearing kit	406333	A498060100
18647	Spare	1	Thrust bearing kit	406333	A498060100
23165	Spare	1	Telescoping Cylinder (snubber 23170) End Plug Assembly (snubber 23170)	*	A498060100
23161	G11-3659-G46	1	Thrust bearing kit	406333	A498060100
12451		3	Thrust bearing assembly	317959	A498060100
12441	G33-3096-G27	3	Thrust bearing assembly	317959	A498060100
20966	Spare	3	Thrust bearing assembly	362146	A498060100
12446	E11-3161-G17	3	Ball Bearing Screw Assembly	317959	A498060100
20976	Spare	3	Thrust bearing assembly	317959	A498060100
15289	Spare	3	Thrust bearing assembly	317959	A498060100
15283	E11-3164-G27	3	Thrust bearing assembly	317959	A498060100
8358	N21-3537-G38A	110	Thrust bearing assembly	1362146	A498060100
8336	Spare	110	Position Tube (snubber 9017)	*	A498060100
8982	N21-3537-G29A	10	Ball bearing screw assembly	319063	A498060100
8990	Spare	10	Thrust Bearing Kit	362146	A498060100

Mechanical Snubbers Rebuilt with New Load Bearing Parts

NIS-2 for 05-006 Sheet 6 of 6

Serial	Snubber Location	Size	Description	PO	Work Package
832	24 Spare	10	Cylinder (snubber 12796) End Plug Assembly (snubber 12796)	•	A498060100
127	70 Spare	110	Thrust Bearing Kit	362146	A498060100
1280	00 Spare	10	Thrust Bearing Kit Clutch Spring	362146 317959	A498060100
988	34 Spare	35	Capstan Spring	317958	A498060100
871	4 N21-3536-G33	35	Ball Bearings	362935	A498060100
471	7 Spare	35	Ball Bearings	362935	A498060100
470	06 Spare	35	Ball Bearings	362935	A498060100
701	9 Spare	35	Thrust Bearing Kit	402519	A498060100
871	0 Spare	35	Torque Carrier (snubber 8739) Inertia Mass (snubber 8739) Ball Bearings	362935	A498060100
989	Spare	35	Thrust Bearing Assembly (snubber 8739) Ball Bearings	362935	A498060100
985	6 P11-3566-G08	35	Ball Bearings	362935	A498060100
1128	3 Spare	35	Ball Bearings	362935	A498060100
1126	5 N30-3259-G46		Thrust Bearing Assembly Ball Bearings	362935 362935	A498060100
701	4 N30-3259-G34	35	Thrust Bearing Assembly Recirculation Bearing Assembly Ball Bearings	407465 318965 362935	A498060100
987	4 B21-E213-SSD3	35	Thrust Bearing Assembly Recirculation Bearing Assembly Ball Bearings	407465 318965 362935	A498060100
470	7 B31-E215-SSB1	35	Thrust Bearing Assembly (snubber 9854) Ball Bearings	362935	A498060100
. 158	9 Spare	100	Thrust Bearing Assembly Ball Bearings	402519 402519	A498060100
158	1 N30-3259-G67	100	Thrust Bearing Assembly Ball Bearings	406333 402519	A498060100
	B21-2589-G03		Load Pin	Req 9733159	000Z051700
	G33-3245-G67		Load Pin (Stock Code 482-5680)	245777	000Z051762

Note that these parts are ASME parts. Listing does not include non-load bearing parts (retaining rings, washers).

^{*} Re-used salvaged parts from unrepairable snubbers.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

05-007

								
1.	Owner Detroit Edison	Company		_ [)ate		May 2, 2006	
		Name		-				
	6400 North Dixie Hig	hway, Newport MI	48166	_ S	heet	1 of _	44	
	Addre							
2.	Plant Fermi 2 Nuclear	·····		. "	nit	2		
		Name	40400		_			
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance								
_	Addre			π.			ation P.O. No., Job No., etc.	
3.		oit Edison Compa	пу		ype Code Symbo	Stamp	N/A	
	•	Vame	40166		uthorization No. xpiration Date		N/A N/A	
	6400 North Dixie High Addre		40100		xpiration bate		N/A	
4.	· · · · · · · · · · · · · · · · · · ·	Various Compone	ent Supports (Hyd	draulic Snut	obers)			
	•							
_	(a) Alia-bla Cat		B31.7 19		icles 1-720 8	1-721		
5.	(a) Applicable Construct(b) Applicable Edition of			67 Arti	cle <u>121</u> 1992-W'92		•	
	(b) Applicable Edition of	Section At Othized	ioi nepairs of nepi	acements	1882-44 82			•
6.	Identification of Components F	lensired or Reolaced	I and Reniacement	Component	2			
٠.	rachimoedori or componenta r	icpaired of Ftopiades	and ricpiacement	. Domponem	•			
		1	1	Í	1		1	
	,			National				ASME
	Name of Component	Name of	Manufacturer	Board	Other	Year	Repaired, Replaced,	Code
		Manufacturer	Serial No	No.	Identification	Built	or Replacement	Stamped
	•	1 -) .	1		(Yes or No)
	PLANT HYDRAULIC	Power	Various	NA	NONE	Various	REPLACEMENTS	N
	SNUBBERS	Pipina	Vanoas		110112	1	. ·	"
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	,						A	
						'	<u> </u>	
7.	Description of Work Refu	urbish Hydraulic S	nubbers during te	esting activit	ties and for futu	re installa	tion ·	
•		2,2,0,1,1,0,1,2,1,0						
8.	Tests Conducted: Hydr	rostatic Pr	neumatic N	ominal Opera	ating Pressure	7	•	
		r Pressure		•	Test Temp.		_°F Functional test & visua	l inspection
		_						•
			•					
	Note: Supplemental sh							
	information in items 1 the sheets is recorded at the		on is included on ea	ach sheet, ar	id (3) each sheet	is number	ed and the number of	
	sneets is recorded at th	e top of trits form.			,			

Form NIS-2 (Back)

	Remarks	Attached are listings				d out during testing act	tivities during RF11.	
Applicable Manufacturer's Data Reports to be attached								
Note: The listing of the Hydraulic Snubbers that were refurbished prior to and during RF11 includes a listing of load bearing parts installed.								
_								
_	Documenta	tion satisfies requirement	nts of Code Case	N-508-1 as allowe	d by Relief Request I	RR-C4.		
_								
_					· · · · · · · · · · · · · · · · · · ·			
		We cortify that			COMPLIANCE	eplacement conforms t	o the rules of the	
,	ASME Code	e, Section XI.	the statements his	ada in ine report d		or replacement	o the rules of the	
					·			
	Type Coda	Simbol Stamp Original	l Coda Data Rano	de to ha sunniame	entar! by owners Sect	ion Yl Program No. 05		
,	Type Code Symbol Stamp_Original Code Data Reports to be supplemented by owners Section XI Program No. 05-007.							
(Certificate o	f Authorization No	N/A		Expiration Da	ate <u>N/A</u>		
c	SignedR	I. M. Hambleton, Lead ISI	Encineer (112-20	Date	MAY 5	5 .20 06	
٠	Owner or Owner's Designee, Title							
_					·			
_								
			CERTIFIC	CATE OF INSE	RVICE INSPECTIO	N		
I.	the unders	igned, holding a valid co	mmission issued	by the National Bo	oard of Boiler and Pre	ssure Vessel Inspecto	rs and the State	
	or Province o	of <u>Michigan</u>	and emp	loyed by HSB C	T		of	
-	One Stat	e Street, Hartford, CT	06102	2 0	have	inspected the compon	ients described	
	in this Owner's Report during the period 06-23-05 to 05-09-06, 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.							
44 .	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							
ex					Furthermore, neither	t the trispector flor this		
	xaminations		es described in this	s Owner's Report.				
sh	xaminations	and corrective measure	es described in this	s Owner's Report.				
sh	xaminations hall be liable	and corrective measure	es described in this	s Owner's Report. property damage (or a loss of any kind a	arising from or connect		
sh	xaminations hall be liable	and corrective measure in any manner for any p	es described in this personal injury or p	s Owner's Report. property damage (or a loss of any kind a	arising from or connect	ed with this	
sh	xaminations hall be liable	and corrective measure	es described in this personal injury or p	s Owner's Report. property damage (or a loss of any kind a	arising from or connect	ed with this	

(12/82)

For complete work package, see Work Requests A497060100
A514060100

Sheet 2 of 4

Hanger Number	Old Serial Number	Work Request	New Serial Number
E11-3152-G17A	810223	000Z051628	810192
E11-3152-G17B	810225	000Z051628	820188
E11-3152-G19	810083	000Z051628	820178
E11-3152-G25	820207	000Z051628	820206
E11-3153-G13	810226	000Z051697	810076
E11-3157-G10	830030	000Z051590	820204
E11-3157-G20	810129	000Z051590	830037
E11-3158-G10	810160	000Z051617	810009
E11-3158-G17	820052	000Z051698	830030
E11-3158-G31	820118	000Z051698	810023
E11-3160-G11	810185	000Z051590	810181
E11-3161-G13	830020	000Z051697	820136
E11-3164-G18	830052	000Z051698	810212
E11-3164-G23	810024	000Z051698	820159
E11-3177-G23	820203	000Z051697	820207
E11-3177-G31	820015	000Z051697	830039
E11-3184-G07B	810158	000Z051698	810086
E11-3185-G49	810141	000Z051617	810153
E11-3185-G50	820191	000Z051617	810135
E11-4612-G07A	830026	000Z051617	810008
E11-4612-G07B	830027	000Z051617	810199
E21-3144-G23	820209	000Z051572	820199
E21-3145-G16	810108	000Z051572	810019
E21-3147-G05	810052	000Z051699	810072
E21-3147-G06	810084	000Z051699	810205
E51-3174-G32	820114	000Z051716	810014
E51-3175-G01	810071	000Z051762	810137
E51-3175-G25	830050	000Z051716	810105
E51-3175-G26	820061	000Z051716	820128
N21-3109-G62	830039	000Z051759	810129
N21-3109-G66B	820206	000Z051759	830032
N21-3109-G71A	830037	000Z043392	820250
P11-2808-G20	820016	000Z051762	820160
T48-2366-G26A	820130	000Z051769	810193
T48-2366-G26B	810036	000Z051769	820172

Hydraulic Snubbers Rebuilt and Re-installed in RF11

NIS-2 for 05-007 Sheet 3 of 4

Hanger Number	Old Serial Number	Work Request	New Serial Number
N21-3103-G20B	820133	000Z060062	820133
N21-3109-G64B	830045	000Z052196	830045

Hydraulic Snubbers Rebuilt with New Load Bearing Parts

NIS-2 for 05-007 Sheet 4 of 4

Serial	Snubber Number	Size	Description	PO	Work Package
810009	E11-3158-G10	2 1/2 x 5	Cylinder (from snubber 810038), Piston Rod (from snubber 810038), Rod Bearing (from snubber 810038)		A497060100
820160	P11-2808-G20	1 1/2 x 5	Cylinder	273696	A497060100
810199	E11-4612-G07B	2 x 5	Piston and Piston Rod (from snubber 810087)		A497060100

Note that these parts are non-ASME as all Power Piping snubbers were not fabricated to ASME requirements. This list does not include non-load bearing parts (o-rings, piston rings, seal kits, reservoir brackets, tubing).

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

05-008

1.	Owner Detroit Edison C	Company			Date		02/06/06		
	N 6400 North Dixie High	lame	i0162	_	Sheet 1	of.	x7-		
	Addres		40100	_	- I	- '' ;	82		
2.	Plant Fermi 2 Nuclear F				Unit 2				
۷.		ame		-		r Tara	et Rock Corp, P.O. NS-4	03551	
	6400 North Dixie High		48166				S Technologies, P.O. NS		
	Addres	s			Repair	Organiz	ation P.O. No., Job No., etc.		
3.	Work Performed by Detro	it Edison Compa	ny		Type Code Symbol Stamp	•			
	Na		_	Authorization No. N/A					
	6400 North Dixie Highy	48166		Expiration Date		N/A			
•	Addres			-			·		
4.	Identification of System	B21 Nuclea	er Boiler, Main S	Steam Safe	ty Relief Valve Pilo	Asser	nblies, and Main Bodies.		
5. 6.	(a) Applicable Construction(b) Applicable Edition of Identification of Components Re	Class Section XI Utilized	1 19 for Repairs or Rep	placements		da	Addenda, NA	Code Case	
	·			<u> </u>					
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)	
	SRV Pilot Assemblies	Target Rock	Various, See attached list	N/A	B2104F013A-R	N/A	Replacement	Yes	
	SRV Main Body Assemblies	Target Rock	Various, See attached list	N/A	B2104F013A-R	N/A	Replacement	Yes	
7.	Description of Work Re	build & Test 15 S	RV Pilot Assemb	olies, and 4	SRV Main Bodies	as rea	uired.		
8.	Tests Conducted: Hydro			Nominal Ope psi	erating Pressure [] Test Temp		_°F)		

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.

Applicable Manufacturer's Data Reports to be attached where required.

All 15 SRV Pilot Assemblies, and 4 main Bodies were rebuilt and tested as necessary under Target Rock P.O. NS-403551, and NWS P.O. NS-332113 CO#4. All Parts used are recorded in Work Request B273060200, as well as the Target Rock final document backage from refurbishment activities. See attachment (1) list of SRV Main Body Serial Numbers that Pressure Retaining Parts were used on. No welding repairs were performed.

Certificate of Autho	rization No. \ "N/A		Expiration Date N/A	
Signed Rul	Owner's Designes, Title	, LOND IST ENCY	Date FEB,	6 .2005
 -	CERT	IFICATE OF INSERVICE	INSPECTION	
the undersioned b				annesters and the Chair
	nolding a valid commission iss Michigan and		Doller and Pressure vessel ii	of
One State Street	et, Hartford, CT 05102			components described
n this Owner's Repo	ort during the period Oco-	23-05	to 02-00,-00	, and state that
	owledge and belief, the Owner ort in accordance with the requ			es described
			, warranty, expressed or impli	ed. concerning the
	יכונווכמום ווכונוובו נוופ וווסף בנסווווובו	tion the employer manee an		
By signing this obtained and contact and c	rective measures described in manner for any personal injur	n this Owner's Report. Furt	nermore, neither the Inspector	nor his employer

Pressure Retaining Parts Installed in SRV Main Bodies

Main Valve Body S/N#	Pilot Base to body Nut 1-1/8-12 unf. Stock#252- 0565	P.O. #, Lot#, or HT#
339	. 12ea.	P.O.# 402217, HT#R212
389	12ea.	P.O.# 402217, HT#J250
321	12ea	P.O.# 402217, HT# K519
371	None	N/A

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

05-009

1.	Owner Detroit Edison	Company			Date		May 12, 2006	.				
		Vame		_								
	6400 North Dixie High	way, Newport MI	48166	_	Sheet 1	_ of _	2					
	Addre	SS			•							
2.	Plant Fermi 2 Nuclear	Power Plant			Unit 2							
		lame										
	6400 North Dixie High	way Newport MI	48166		DECo Maintenance							
	Addre		10100	Repair Organization P.O. No., Job No., etc.								
_				·								
3.	Work Performed by Detr	oit Edison Compa	ny		Type Code Symbol		N/A					
					Stamp	_						
	Ŋ	lame			Authorization No.		N/A					
	6400 North Dixie High	way, Newport, Mi	48166		Expiration Date		N/A					
	Addres	S		-			· · · · · · · · · · · · · · · · · · ·					
4.	Identification of System	R21Nuclea	r Boiler Main S	team Safet	v Relief Valve Pilot	Accen	blies, and Base Assemb	lies				
٦.		DETITUCICA	Doner, want o	tourn ource	y Honor Valve I hor	733011	ibiles, and base Assemb	nic3				
=	(a) Applicable Construct	ion Code ASMi	= 111									
5.	(a) Applicable Construct	Class		71	Edition W71		Addenda, NA	Code Case				
	no Annii oblo Estino at				1992, 92 Adder		Addelida, NA	Code Case				
	(b) Applicable Edition of	Section XI Utilized	for Repairs of Rep	placements	1992, 92 Acuer	ica						
								•				
6.	Identification of Components R	epaired or Replace	d and Replacemer	nt Componer	nts							
		···	1	T T	T	İ		T				
				National		I		ASME				
	Name of Component	Name of	Manufacturer	Board	Other	Year	Repaired, Replaced,	Code				
	Hame or Componers	Manufacturer	Serial No	No.	Identification	Built	or Replacement	Stamped				
		Mandiacturer	· Ochlar 110	110.		Dom	Or rieplacement	(Yes				
			['	l		or No)				
	CDV Bilet Assemblies	Toront Donie	Various (Cas	N/A	B2104F013A-R	I NIZA	Parlacement					
	SRV Pilot Assemblies	Target Rock	Various (See	IWA	1	N/A	Replacement	Yes				
			attached list)		Various		<u> </u>	<u> </u>				
	SRV Main Body	Target Rock	Various (See	N/A	B2104F013A-R	N/A	Replacement	Yes				
	Assemblies	1	attached list)		Various	!	· '	1				
		1	,			<u>'</u>		 				
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			<u> </u>					<u> </u>				
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		1	}	}				}				
		'		!				<u>, </u>				
7.	Description of Work Du	ring DE11 Bonio	and all 15 CDV I	Dilat Assam	blica Bankaad M	lain Dae	dies on B2104F013D, J.	0 14				
/.	Description of Work	ning hell, hebia	ced all 15 Shv i	FIIOL ASSELL	blies. neplaced iv	iain bud	1185 ON DZ 104F0 13D, J.	<u>α IVI,</u>				
		_										
В.	Tests Conducted: Hyd			Nominal Ope	erating Pressure 🗵							
	Othe	r 🗵 💮 Pressu	re	psi	Test Temp°F)						
				-	,	•						
							•					
	· VT-2	Per 43 000 005 a	and 24 137 21 C	-)perahility 1	Test per 24.137.11							

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.

9. Remarks

All 15 SRV Pilots, and 3 Main Bodies were replaced using Work Requests B350050100 thru B364060100. See attached listing for SRV exchange matrix. SRV Pilots and Main Bodies were refurbished per Section XI Program 05-008 and Work Request B273060200. Discharge flange bolting material (Nuts) were changed out on SRV B2103F013D (2) Nuts, B2103F013J (8) Nuts, and B2103F013M (2) Nuts -1"-8 UNC-2B, SA 194, Grade 2H, ASME III Class 1, PO. #908045, Heat Code X229. Discharge flange studs were replaced on B2103F013 (1) Stud, B2103F013J (4) Studs, B2103F013M (1) Stud. Stud material 1"-8 UNC-2A, SA 193, Grade B7, ASME Class 1, PO. #906866, Trace Code 282A. Pilot bolting nuts per valve were replaced on SRV's B2103 F013 A, B, C, E, F, G, H, K, L, N, P, and R.. Nuts are 5/8" x 11NC-2B, SA-194 Grade B7, PO#416203, Trace Code 176C

CERTIFICATE OF COMPLIANCE

Certificate of Authorization	No	Ex;	piration Date N/A	• /
Signed R. M. Hambleton, Owner or Owner's	ISI Engineer (IV) (See Supplemental See	War.	Date MAY	15,2000
	CEDTIEICATE	OF INSERVICE INS	PECTION	
	CERTIFICATE	OF INSERVICE INS	FECTION	
•				
	a valid commission issued by the		r and Pressure Vessel Insp	ectors and the State
or Province ofMich	nigan and employed t	y HSB CT		of
or Province of Mich	nigan and employed but of the control of the contro	y HSB CT	have inspected the con	of nponents described
or Province of Mich One State Street, Hart In this Owner's Report durin	nigan and employed by the period 03-/6	y HSB CT to_	have inspected the con	of nponents described, and state that
or Province of Mich One State Street, Hard In this Owner's Report during the best of my knowledge	nigan and employed by the period 03-/0- e and belief, the Owner has perior	by HSB CT to to med examinations and	have inspected the con	of nponents described, and state that
or Province of Mich One State Street, Hari In this Owner's Report during the best of my knowledge In this Owner's Report in ac	and employed by the period 03-60 e and belief, the Owner has period coordance with the requirements of	by HSB CT to_ med examinations and the ASME Code, Section	have inspected the con	of of opponents described and state that described
or Province of Mich One State Street, Hard In this Owner's Report during the best of my knowledge In this Owner's Report in act By signing this certificat	and employed by the period of	by HSB CT to med examinations and if the ASME Code, Seci ployer makes any warr	have inspected the con	of nponents described and state that described concerning the
or Province of Mich One State Street, Hard In this Owner's Report during the best of my knowledge In this Owner's Report in act By signing this certificat examinations and corrective	and employed by the period 03-60 e and belief, the Owner has period coordance with the requirements of	ny HSB CT to to med examinations and fithe ASME Code, Section ployer makes any warrier's Report. Furthermore	have inspected the contaken corrective measures ion XI. anty, expressed or implied, re, neither the Inspector no	of nponents described , and state that described concerning the r his employer
r Province of Mich One State Street, Hard this Owner's Report during the best of my knowledge this Owner's Report in act By signing this certificat examinations and corrective that be liable in any manner	and employed by the period of	ny HSB CT to to med examinations and fithe ASME Code, Section ployer makes any warrier's Report. Furthermore	have inspected the contaken corrective measures ion XI. anty, expressed or implied, re, neither the Inspector no	of nponents described , and state that described concerning the r his employer
or Province of Mich One State Street, Hard In this Owner's Report during the best of my knowledge In this Owner's Report in act By signing this certificat examinations and corrective	and employed by the period of	ny HSB CT to to med examinations and fithe ASME Code, Section ployer makes any warrier's Report. Furthermore	have inspected the contaken corrective measures ion XI. anty, expressed or implied, re, neither the Inspector no	of nponents described , and state that described concerning the r his employer

(10/94)

2006 Refueling Outage SRV Replacement Matrix RF11 - Section XI Program #05-009

 The "Positions" listed with (*) have had the Main Disc Spring Inspection already performed. The "Main Body" SN#s listed with (+) have had the Main Disc/Piston Modification Performed. 					SRV Pilots & listed below v during RF11. Areas)	Note that 3 Main Bodies listed below that a be complete Valves with Pilots already instant these SRVs were			age. (Shaded	
Steam Line	Low Set Funct.	N-5 Code Data report	Required Set Point Psig-	PIS Number B2104F013- Position	Valve/Body S/N	Pilot S/N	Solenoid S/N	Valve/ Body S/N	Pilot S/N	Solenoid S/N
D	(LSS)	N5-0265	1135	*A	337+	331	310	337+	342 1 L	310
C		N5-0301	1135	В	392+	340	311		1197	311
В		N5-0291	1135	*C	391	391計劃計劃	317	391	1184	317
В		N5-0278	1145	*D	328	371 - The Thirt	318	389∺=	327	318
С		N5-0309	1155	Е	373+	334	312	373+	336	312
В		N5-0290	1145	*[7	327	338	319	327	339	319
В	(LSS)	N5-0321	1135	*G	338+	341	326	338+	1200	326
С		N5-0266	1155	*I·I ·	336+	333	313	336+	1199	313
С		N5-0308	1155	*J	332	1182	314	321+	328	314
В		N5-0311	1135	*K	330	373	321	330+	332	321
Λ		N5-0313	1145	*L	319+	388	320	319+	319 建建筑	320
A		N5-0268	1145	*M	342	11178	325	339⊹	321	325
Λ		N5-0310	1145	*N	341	337	324	341	330	324
D		N5-0322	1155	*P	318+	390	315	318+	3185404	315
С		N5-0288	1155	R	340+	335 中国 经营业	316	340+	1180 1181	316

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

05-010

1.	Owner Detroit	Edison Company		Date	· •	· · · · · · · · · · · · · · · · · · ·	May 12, 2006				
	6400 North Dixi	Name e Highway, Newbort N	<u>И 48166</u>	She	et	10	of 2				
_	5	Address					_				
2.	Plant Fermi 2 Nu	clear Power Plant Name		Unit	Unit 2						
	6400 North Dixis	e Highway, Newport M	M 48166	Deco Maintenance							
		Address			Repair C		P.O. No., Job No., etc.				
3.	Work Performed by	Detroit Edison Cor	mpany	Type Code Symbol N/A Stamp							
		Name		Auth	orization No.		N/A				
	6400 North Dixie	Highway, Newport, N	/II 48166	Expir	ration Date		N/A				
4.	Address 4. Identification (N5-J120-N5-1) Control Rod Drive System of System										
5.	(a) Applicable Cor		ME III, ss 1 . 19	71 Edition	ı " 71	Addenda	N/A	Code Case			
	(b) Applicable Edit Replacements		XI Utilized for Repairs o		992-92 Addenda						
6.	Identification of Compor	nents Repaired or Repla	ced and Replacement C	Components			•				
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes			
						<u> </u>		or No)			
(ORD Housing Bolting	RCI	N5-J120-N5-1	N/A	See Matrix	1975	Replacement	N			
	Control Rod Drive Mechanisms	General Electric	See Matrix	N/A	See Matrix	1975	Replacement	Y			
7.	Description of Work		od Drive Mechanisms ate drive installation d								
8.	Tests Conducted:	Hydrostatic [] Other [X] Pressure		minal Operat Tes	ing Pressure [X t Temp] °F	Periormed VT-1	of Bolts			

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.

Form NIS-2 (Back)

							
	Applic	able Manufactur	er's Data Report	s to be attac	ched		
				·			
		CEDTIE	CATE OF COL	JOI JANOS	:	· .	
		. CENTIFI	CATE OF COL	MELIANUE	-		
artify that the states	nents made in the r	report are correct	and this Replac	<u>ement</u> con	forms to the rules	of the ASME Co	ode, Section XI.
Code Symbol Stan	np <u>Original Code d</u>	ata report N5-J12	<u>20-N5-1 to be su</u>	<u>oplemented</u>	by Owners Section	n XI Program (05-010
cate of Authorization	on No.	N/A	1	Expiration	on Date	N/A	,
•		- Okt	Hon			12_	-06
		giuser /w	M. C.	Date			20 0 0
	·				"		
		CERTIFICATE	OF INSERVIC	E INSPEC	TION		
edge and belief, the	Owner has perform	ned examination:	s and taken com				
·							
							- · · · · · · · · · · · · · · · · · · ·
_ 1 \							
/c inci	pactor's Signature		Commission	``		Province and	
ııısı	estor a orginature		Į.		•	, r 1041103, 2110	
. /							
May 1	<u>5</u> _2	000			•		
	code Symbol Starricate of Authorization R.M. Hamble Owner or Owner	ertify that the statements made in the record of Symbol Stamp Original Code dicate of Authorization No	CERTIFICATE code Symbol Stamp Original Code data report N5-J12 icate of Authorization No. N/A R.M. Hambleton Lead ISI Engineer Owner or Owner's Designee, Title CERTIFICATE undersigned, holding a valid commission issued by the ce of Michigan and employed by HSB CT ments described in this Owner's Report during the periodege and belief, the Owner has performed examinational ance with the requirements of the ASME Code, Section ing this certificate neither the Inspector nor his employ rective measures described in this Owner's Report. For for any personal injury or property damage or a loss of the ASME Code, Section of the ASME Code, Section or the certificate neither the Inspector nor his employ rective measures described in this Owner's Report. For for any personal injury or property damage or a loss of the ASME Code, Section of the A	CERTIFICATE OF COMertify that the statements made in the report are correct and this Replace Code Symbol Stamp Original Code data report N5-J120-N5-1 to be surjected of Authorization No. NA R.M. Hambleton Lead ISI Engineer Owner or Owner's Designee, Title CERTIFICATE OF INSERVICE Inderesting the National Board of Code of Michigan and employed by HSB CT of One Statements described in this Owner's Report during the period C3-77-C0 representations and taken corrections with the requirements of the ASME Code, Section XI. Ining this certificate neither the Inspector nor his employer makes any was rective measures described in this Owner's Report. Furthermore, neither for any personal injury or property damage or a loss of any kind arising Inspector's Signature	CERTIFICATE OF COMPLIANCE entify that the statements made in the report are correct and this Replacement_con Code Symbol Stamp Original Code data report N5-J120-N5-1 to be supplemented locate of Authorization No	Code Symbol Stamp Original Code data report N5-J120-N5-1 to be supplemented by Owners Section Scate of Authorization No. N/A Expiration Date Date Date Date Date Date Date Date	entify that the statements made in the report are correct and this Replacement_conforms to the rules of the ASME Code Symbol Stamp Original Code data report NS-J120-NS-1 to be supplemented by Owners Section XI Program (cate of Authorization No

For complete work packages, see Work Requests listed on attached matrix.

NIS-2 05-010 Sheet 2 of 2

Nis-2 Attsachment for Section XI Program No. 05-010 - RF11 CRDM Exchange

• Replacement bolting (Cap Screws) were replaced on each drive mechanism installed (8 per drive). Bolting material consisted of previously removed and inspected Cap Screws. New CRDM Serial numbers are based on the locations requested prior to the outage and were verified during installation. Replacement CRDM's were previously refurbished per Section XI Program 04-014.

CRDM	PIS No.	Old Serial	New Serial	Cap Screws	Exchange WR
Location		No.	No.	from	
02-23	C1102D018	3349	6236	26-43	000Z050656
02-43	C1102D033	3162	5984	42-31	000Z050657
10-11	C1102D065	4328	4544	02-27	000Z050658
10-39	C1102D056	4137	3698	22-19 (7)	000Z050659
				22-35 (1)	
14-19	C1102D061	4538	4585	38-15	000Z050660
14-23	C1102D062	3344	3320	58-27 (7)	000Z050661
				22-35 (1)	
14-35	C1102D082	4134	3960	34-23 (5)	000Z050662
				22-35 (3)	
18-15	C1102D076	4321	5555	30-55	000Z050663
22-11	C1102D070	4302	4281	42-43	000Z050664
22-39	C1102D047	4529	4354	46-07	000Z050665
22-47	C1102D042	2526	6161	42-47	000Z050666
26-55	C1102D002	3157	3950	50-15	000Z050668
26-59	C1102D006	4598	3160	46-35 (6)	000Z050669
				22-35 (2)	
38-39	C1102D160	4513	4569	34-43	000Z050672
42-59	C1102D104	4280	4982	38-03	000Z050673
46-47	C1102D121	3646	4565	42-23	000Z050674
50-35	C1102D172	4437	6179	50-23	000Z050675
54-35	C1102D173	4343	4047	30-15	000Z050677
54-39	C1102D150	4299	5977	26-51	000Z050678

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

1.	Owner Detroi	t Edison Company		_ Da	te		September 9, 2005		
	6400 North Dix	Name tie Highway, Newport MI	18166	_ Sh	eet		1 of 1		
2.	Plant Fermi 2 N	Address uclear Power Plant	· ·	Un	it		2		
	6400 North Dix	Name ie Highway, Newport MI	48166			Deco) Maintenance		
		Address			Benai		ion P.O. No., Job No., etc.		
3.	Work Performed by	Detroit Edison Compa	any		Type Code Symbol N/A Stamp				
		Name		Aut	horization No.		N/A		
	6400 North Dix	ie Highway, Newport, MI	18166	Exp	iration Date		N/A		
		Address				-			
4.	Identification of System	Main Steam Line XI Class 2 Syste		Outboard M	SIV's and Cond	lenser. T	his System is an ASME	Section	
5. 6.	(b) Applicable Ed Replacement	D+ fition/Addenda of Section XI	Utilized for Repain		n <u>71</u> 1992-92 Addenda	Addend	da <u>N/A</u> C	ode Case	
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)	
	B2100F080C	Fisher Controls	6488862	N/A	V10-2008	N/A	Replacement	N	
,			·				<u>:</u>		
	· · · · · · · · · · · · · · · · · · ·								
									
7.	Description of Work	Replace valve plug/ste	n assembly due	to corrosion	deposits on sea	ting surf	aces of plug and cage		
3.	Tests Conducted:	Hydrostatic [] Pn Other [] Pressure			ating Pressure [> est Temp	q	Ref. Code Case	N-416-2	
								j	

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.

(10/94)

Form NIS-2 (Back)

Remarks	Replacement plug a Class 2 requirement							
								
		Applicable Mar	nufacturer'	's Data Repor	ts to be attached	i		
		••						
	7 <u> </u>	<u></u>	·					
		C	ERTIFIC	ATE OF CO	MPLIANCE			
We certify	that the statements mad	e in the report are	correct ar	nd this <u>Repla</u> r	ement conforms	to the rules	of the ASME C	ode, Section XI.
Type Code	e Symbol Stamp Original	Code data reports	s to be sur	pplemented b	y Owners Section	n XI Prograi	n # 05-012	
Certificate	of Authorization No		N/A	1	Expiration Da	ate	N/A	
Signed	R.M. Hambleton Lead Owner or Owner's Designe		BUL		 /Date	Sef	tusel	.20.05
·								
							•	
 		CERTIE	CATEC	VE INICERVII	CE INSPECTIO			
	signed, holding a valid co Michigan ar							
components	s described in this Owner	r's Report during t	the period <u>s</u>	23-27-05	to 09-09-0	<u>تحت</u> , and	state that to the	best of my
	and belief, the Owner ha with the requirements of				ective measures	described i	n inis Owners n	eport in
and correcti	this certificate neither the ive measures described i any personal injury or pro	in this Owner's Re	port. Furt	thermore, neit	ther the Inspector	r nor his em	ployer shall be li	
n	1 ans	b 9 7_		Commissio	ons MIC	010		
	Inspector's Sig	jnature		_			ate, Province, an	d
Date	· / C							

(10/94)

Reference WR # H605040100 for additional details.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

05-013

1.	Owner Detroit Edison C	ompany		D	ate		August 12, 2005	
		ame						
	6400 North Dixie Highw		48166	SI	neet1	of		
_	Addres							
2.	Plant Fermi 2 Nuclear P		·	Ur	nit2	<u> </u>		
		ame	40400					
	6400 North Dixie Highv		48100			Co Main		
3.	Address	_	•	Τ.,			tion P.O. No., Job No., etc.	
٥.	Work Performed by Detro	it Edison Compar ime	1y	-	pe Code Symbol thorization No.	Stamp	N/A	
	6400 North Dixie Highw	40400	•	cpiration Date		N/A		
	Address		40100	E.	kpiration bate		1V/A	
4.		lain and Reheat	Steam (N3018)	··· ·				
5.	(a) Applicable Construction (b) Applicable Edition of S		B31.1 19	67 Arti	cles 1-720 & cle <u>121</u> 1992-W'92	1-721	·	
6.	Identification of Components Re	paired or Replaced	l and Replacement	Components	;	· · · · · · · · · · · · · · · · · · ·	·	<u>-</u>
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	PLANT MECHANICAL SNUBBERS	Pacific Scientific	Various	NA	NONE	Various	REPLACEMENTS	N
	-							
					<u> </u>		 	
7.	Description of Work Repla	ace mechanical s	nubbers					
8.	Tests Conducted: Hydro Other		neumatic N		ating Pressure [Test Temp		_°F Functional test & visua	il inspection
	Note: Supplemental she information in items 1 the sheets is recorded at the	rough 6 on this rep						

(12/82)

This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y. 10017

Form NIS-2 (Eack)

	Attached are listings of Mechanical Snubbers that were changed out during forced outage 05-02. All replacement snubber
	Applicable Manufacturer's Data Reports to be attached
refurbished	under A498040100. No parts were replaced during the refurbishment.
0.0.5.5.	didd 71100 1910 110 pano 11010 repaire anning nic to be a second
	CERTIFICATE OF COMPLIANCE
	We certify that the statements made in the report are correct and this <u>Replacement</u> conforms to the rules of the
ASME Cod€	e, Section XI. repair or replacement
Type Code	Symbol Stamp_Original Code Data Reports to be supplemented by owners Section XI Program No. 05-013
Certificate o	f Authorization No. N/A Expiration Date N/A
SignedR	I. M. Hambleton, Lead ISI Engineer AM Date AGUST 12, 20 OS
	In the Individual Strengtheer Countries Date Date Date 2005 (2005)
	CERTIFICATE OF INSERVICE INSPECTION
the unders	
. Litt ununn	and helding a valid commission issued by the National Roard at Roller and Proceirs Vaccal inchestors and the State
	igned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Michigan and employed by HSB CT of
or Province of One Stat	of Michigan and employed by HSB CT of have inspected the components described
or Province of One Staten this Owner	of Michigan and employed by HSB CT of e Street. Hartford, CT 06102 have inspected the components described as Report during the period 06-28-05 to 09-09-05, and state that
or Province of One State of this Owner of the best of	of Michigan and employed by HSB CT of e Street. Hartford, CT 06102 have inspected the components described as Report during the period OG - 28 - 0.5 to OG - 09 - 05 , and state that my knowledge and belief, the Owner has performed examinations and taken corrective measures described
or Province of One Stat In this Owner In this Owner In this Owner	of Michigan and employed by HSB CT of eStreet. Hartford, CT 06102 have inspected the components described as Report during the period 26-28-05 to 09-09-05, and state that if my knowledge and belief, the Owner has performed examinations and taken corrective measures described as Report in accordance with the requirements of the ASME Code, Section XI.
or Province of One Stat In this Owner In this Owner Owner By signir	of Michigan and employed by HSB CT of eStreet. Hartford, CT 06102 have inspected the components described as Report during the period of examinations and taken corrective measures described and state that if my knowledge and belief, the Owner has performed examinations and taken corrective measures described as Report in accordance with the requirements of the ASME Code, Section XI. In this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the
or Province of One State of the best of the his Owner By signire examinations	of Michigan and employed by HSB CT of eStreet. Hartford, CT 06102 have inspected the components described as Report during the period OG-ZB-OS to OG-OS-CS, and state that if my knowledge and belief, the Owner has performed examinations and taken corrective measures described as Report in accordance with the requirements of the ASME Code, Section XI.
or Province of One State on this Owner of the best of the this Owner By signific examinations thall be liable	of Michigan and employed by HSB CT of e Street. Hartford, CT 06102 have inspected the components described as Report during the period of examinations and taken corrective measures described as Report in accordance with the requirements of the ASME Code, Section XI. In the securificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the seand corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer
or Province of One State on this Owner of the best of the this Owner By signific examinations thall be liable	of Street. Hartford, CT 06102 have inspected the components described to 09-09-05, and state that my knowledge and belief, the Owner has performed examinations and taken corrective measures described to see Report in accordance with the requirements of the ASME Code, Section XI. The sectificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the seand corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this
or Province of One State of the best of the his Owner By signire examinations	of Street. Hartford, CT 06102 Street. Hartford, CT 06102 And state that if my knowledge and belief, the Owner has performed examinations and taken corrective measures described it's Report in accordance with the requirements of the ASME Code, Section XI. In this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the stand corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer at in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this Commissions Commissions Commissions
or Province of One State on this Owner of the best of the this Owner By signific examinations thall be liable	of Street. Hartford, CT 06102 have inspected the components described of the Street. Hartford, CT 06102 have inspected the components described to 09-09-05, and state that if my knowledge and belief, the Owner has performed examinations and taken corrective measures described of s Report in accordance with the requirements of the ASME Code, Section XI. In this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the stand corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer and in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this

(12/82)

For complete work package, see Work Request 000Z051979

Mechanical Snubbers Replaced with Rebuilt Spares

HANGER NO#	OLD SERIAL NO	NEW SERIAL NO
N30-3256-G51	22403	22366
N30-3256-G55	13150	13167
N30-3256-G57	13188	6827

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

								
1.	Owner Detroit	Edison Company		_ _ Dat	e		August 9, 2005	
•	6400 North Dixi	Name e Highway, Newport MI 4	8166	_ She	et	1 of 2		
2.	Plant Fermi 2 Nu	Address uclear Power Plant		_ Unit	Unit 2		2	
	6400 North Dixi	Name e Highway, Newport MI 4	48166			Door	Maintenance	
		Address		•	Renair		ion P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Compa	any	Typ Star	e Code Symbol		N/A	
		Name		•	norization No.		N/A	
	6400 North Dixie	e Highway, Newport, MI 4	18166	Exp	ration Date		N/A	
4.	Identification of System	Drywell Coolers.	Division 1 Coo	lers include Co	olers T4700B0	001, T470	ms – Supply and Return 00B002. Division 2 Cool	
		<u>include T4700B0</u>	003, T4700B004	. & T4700B01	D. (For N-5 Dat	a Report	s-See page 2)	
5. 6.	(b) Applicable Edi Replacements	nstruction Code ASME Class tion/Addenda of Section XI	2 19 Utilized for Repair	· <u> </u>	n <u>71</u> 1992-92 Addenda	_ Addeno	da <u>N/A</u> Co	ode Case
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	T4700B001 T4700B002	CTI - Nuclear / Wismer & Becker	#1/#2 #3/#4	1202/1180 1182/1178	N/A N/A	1975 1975	Replacement Replacement	Y
	T4700B003	CTI - Nuclear /	#5/#6	1181/1179	N/A	1975	Replacement	Y
	T4700B004	Wismer & Becker	#7/#8	1197/1183	N/A	1975	Repair/Replacement	Ϋ́
	T4700B010	CTI - Nuclear / Wismer & Becker	#19/#20	1194/1201	N/A	1975	Replacement	Y
7.	Description of Work		5-02. Installation	n of tube shee	et reinforcemen	its neces	aterial during gasket repla sitiated the use of longer al installed.	
3.	Tests Conducted:	Hydrostatic [X] Pn Other [] Pressure	eumatic []	•	iting Pressure [X	K]	Ref. Code Case I	N-416-2

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.

Form NIS-2 (Back)

	lled is included on page 2 of t	
·		
Aş	oplicable Manufacturer's Data	Reports to be attached
	CERTIFICATE C	DF COMPLIANCE
We certify that the statements made in t Section XI.	the report are correct and this	Repair/Replacement conforms to the rules of the ASME Code,
Type Code Symbol Stamp Original Cod	e data reports to be suppleme	ented by Owners Section XI Program # 05-014.
Certificate of Authorization No.	N/A	Expiration Date N/A
Signed R.M. Hambleton Lead ISI Owner or Owner's Designee, Tit		Date AUGUST 9 20 05
		•
•	CERTIFICATE OF INS	ERVICE INSPECTION
I the undersigned, holding a valid comm		
Province of Michigan and en	nission issued by the National nployed by <u>HSB_CT_</u> of <u>Or</u>	Board of Boiler and Pressure Vessel Inspectors and the State or ne State Street, Hartford, CT 06102 have inspected the
Province of Michigan and en components described in this Owner's R	nission issued by the National inployed by HSB CT of Or eport during the period formed examinations and tak	Board of Boiler and Pressure Vessel Inspectors and the State or
Province of Michigan and er components described in this Owner's R knowledge and belief, the Owner has pe accordance with the requirements of the	nission issued by the National inployed by HSB CT of Or eport during the period formed examinations and tak ASME Code, Section XI.	Board of Boiler and Pressure Vessel Inspectors and the State or ne State Street, Hartford, CT 06102 have inspected the 23-05 to 08 10 -05, and state that to the best of my
Province of Michigan and er components described in this Owner's R knowledge and belief, the Owner has pe accordance with the requirements of the By signing this certificate neither the Instand corrective measures described in this	nission issued by the National inployed by HSB CT of Or eport during the period of take ASME Code, Section XI. Dector nor his employer makes to Owner's Report. Furthermo	Board of Boiler and Pressure Vessel Inspectors and the State or ne State Street, Hartford, CT 06102 have inspected the 23-05 to 08 10 -05, and state that to the best of my ten corrective measures described in this Owner's Report in
Province of Michigan and er components described in this Owner's R knowledge and belief, the Owner has pe accordance with the requirements of the By signing this certificate neither the Instand corrective measures described in this	nission issued by the National inployed by HSB CT of Or eport during the period formed examinations and take ASME Code, Section XI. Dector nor his employer makes sowner's Report. Furthermoty damage or a loss of any king	Board of Boiler and Pressure Vessel Inspectors and the State or ne State Street, Hartford, CT 06102 have inspected the 23-05 to 08 00 -05, and state that to the best of my sen corrective measures described in this Owner's Report in any warranty, expressed or implied, concerning the examinations are, neither the Inspector nor his employer shall be liable in any and arising from or connected with this inspection.
Province of Michigan and er components described in this Owner's R knowledge and belief, the Owner has pe accordance with the requirements of the By signing this certificate neither the Instand corrective measures described in this	nission issued by the National inployed by HSB CT of Or eport during the period of the formed examinations and take ASME Code, Section XI. Dector nor his employer makes is Owner's Report. Furthermore, the damage or a loss of any kind of the company of the National Section 1988.	Board of Boiler and Pressure Vessel Inspectors and the State or ne State Street, Hartford, CT 06102 have inspected the 23-05 to 08 00 -05, and state that to the best of my ten corrective measures described in this Owner's Report in any warranty, expressed or implied, concerning the examinations are, neither the Inspector nor his employer shall be liable in any
Province of Michigan and er components described in this Owner's R knowledge and belief, the Owner has pe accordance with the requirements of the By signing this certificate neither the Instand corrective measures described in this manner for any personal injury or property.	nission issued by the National inployed by HSB CT of Or eport during the period of the formed examinations and take ASME Code, Section XI. Dector nor his employer makes is Owner's Report. Furthermore, the damage or a loss of any kind of the company of the National Section 1988.	Board of Boiler and Pressure Vessel Inspectors and the State or ne State Street, Hartford, CT 06102 have inspected the 23-05 to 08 70 -05, and state that to the best of my sen corrective measures described in this Owner's Report in any warranty, expressed or implied, concerning the examinations ore, neither the Inspector nor his employer shall be liable in any and arising from or connected with this inspection.
Province of Michigan and er components described in this Owner's R knowledge and belief, the Owner has pe accordance with the requirements of the By signing this certificate neither the Instand corrective measures described in this manner for any personal injury or property.	nission issued by the National inployed by HSB CT of Or eport during the period of the formed examinations and take ASME Code, Section XI. Dector nor his employer makes is Owner's Report. Furthermore, the damage or a loss of any kind of the company of the National Section 1988.	Board of Boiler and Pressure Vessel Inspectors and the State or ne State Street, Hartford, CT 06102 have inspected the 23-05 to 08 70 -05, and state that to the best of my sen corrective measures described in this Owner's Report in s any warranty, expressed or implied, concerning the examinations ore, neither the Inspector nor his employer shall be liable in any and arising from or connected with this inspection. National Board, State, Province, and

For complete list of work packages, see page 2 of this NIS-2.

PIS Number	Work Request Number	Materials Installed / Work Performed	Purchase Order Numbers
T4700B001	000Z052075	32 Studs 3/4" - 10 UNC, SA-193 B8, HT# S623 32 Nuts 3/4" - 10 UNC, SA-194 B8, HT# S625 Replace gaskets and torqued covers	402677
	000Z051971	Replace gaskets and torqued covers	
T4700B002	000Z052076	32 Studs 3/4" - 10 UNC, SA-193 B8, HT# S623 32 Nuts 3/4" - 10 UNC, SA-194 B8, HT# S625 Replace gaskets and torqued covers	402677
		For 1/4" Male Pipe Plug Trace Code: MEI	362033
	000Z051972	Replace gaskets and torqued covers	
	000Z051970	16 Studs 3/4" - 10 UNC, SA-193 B8, HT# S623 16 Nuts 3/4" - 10 UNC, SA-194 B8, HT# S625 Replace gaskets and torqued covers	402677
T4700B003	000Z052077	48 Studs 3/4" - 10 UNC, SA-193 B8, HT# S623 48 Nuts 3/4" - 10 UNC, SA-194 B8, HT# S625 Replace gaskets and torqued covers	402677
	000Z052119	2 Tube Plugs, HT# CHY, SA-479 TP304 Replace gaskets and torqued covers	356971
	000Z052136	Replace gaskets and torqued covers	
T4700B004	000Z052078	70 Studs 3/4" - 10 UNC, SA-193 B8, HT# S623 70 Nuts 3/4" - 10 UNC, SA-194 B8, HT# S625 Replace gaskets and torqued covers	402677
T4700B010	000Z052079	64 Studs 3/4" - 10 UNC, SA-193 B8, HT# S623 64 Nuts 3/4" - 10 UNC, SA-194 B8, HT# S625 Replace gaskets and torqued covers	402677
	000Z051969	Replace gaskets and torqued covers	•

*Cooler/Affected N-5 Code Data Reports

T4700B001 N5-0091, N5-0129, N5-0130

T4700B002 N5-0091, N5-0111, N5-0131, N5-0113

T4700B003 N5-0093, N5-0626

T4700B004 N5-0502 T4700B010 N5-0093

	er <u>Detroi</u>	t Edison Company Name	<u> </u>	D	ate		September 9, 2005	
·	6400 North Dix	ie Highway, Newport MI	48166	_ Si	heet		1 of 2	
2. Plant	Fermi 2 N	Address uclear Power Plant		_ Ui	nit		2	
. 6	400 North Dix	Name ie Highway, Newport MI	48166					
					·		Maintenance	
3. Work	Performed by	Address Detroit Edison Comp	pany		нера pe Code Symbol amp	-	tion P.O. No., Job No., etc. N/A	•
		Name		-	thorization No.		N/A	
6/	400 North Dixi	e Highway, Newport, MI	48166		piration Date		N/A	
	TOO INGINI DIXI	Address	40100		p.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		· · ·	
of Sys	ication tem	Make-up Tank					<u>Demineralized Water S</u>	
(b) Identific	Replacements	tion/Addenda of Section XI	·	-	1992-92 Addend	a		
					·	,		
	ne of ponent	Name of Manufacturer	Manufacturer Senal No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	Code Stampe (Yes
	ponent	Name of Manufacturer Fisher Controls	1		1	1		ASME Code Stampe (Yes or No)
Comp	ponent		Senal No	Board No.	Identification	Built	or Replacement	Code Stampe (Yes or No)
Comp	ponent		Senal No	Board No.	Identification	Built	or Replacement	Code Stampe (Yes or No)
Comp	ponent		Senal No	Board No.	Identification	Built	or Replacement	Code Stampe (Yes or No)
Comp	402B		Senal No 5916392	Board No.	V8-2362	1974	or Replacement Replacement	Code Stampe (Yes or No)

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.

(10/94)

Form NIS-2 (Back)

	·
	Applicable Manufacturer's Data Reports to be attached
· · · · · · · · · · · · · · · · · · ·	ACCURATE OF COMPLIANCE
	CERTIFICATE OF COMPLIANCE
We certif	y that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section X
Type Cod	de Symbol Stamp Original Code data reports to be supplemented by Owners Section XI Program # 05-015
Certificati	e of Authorization No. N/A g Expiration Date N/A
	author of the second
Signed	R.M. Hambleton Lead ISI Engineer HVV Date Date Date Date Date
	
<u></u>	CERTIFICATE OF INSERVICE INSPECTION
	and the Property of the State of State of State of Decay of Delian and Decay of Vaccal Institute of the Otto
	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
Province o	if <u>Michigan</u> and employed by <u>HSB_CT</u> of <u>One State Street</u> , <u>Hartford</u> , <u>CT_06102</u> have inspected the ts described in this Owner's Report during the period <u>7-20-05</u> to <u>9-9-05</u> , and state that to the best of my
Province o componen knowledge	If Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the ts described in this Owner's Report during the period 7-20-05 to 9-9-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
Province of component knowledge accordance	If Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the ts described in this Owner's Report during the period 7-20-05 to 9-9-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in e with the requirements of the ASME Code, Section XI.
Province of component knowledge accordance By signing	If Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the ts described in this Owner's Report during the period 7-20-05 to 9-9-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in e with the requirements of the ASME Code, Section XI. This certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations
Province of component knowledge accordance By signing and correct	If Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the ts described in this Owner's Report during the period 7-20-05 to 9-9-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in e with the requirements of the ASME Code, Section XI.
Province of component knowledge accordance By signing and correct manner for	Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the ts described in this Owner's Report during the period 7-20-0 to 9-9-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in e with the requirements of the ASME Code, Section XI. this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations tive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Province of component knowledge accordance By signing and correct manner for	Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the ts described in this Owner's Report during the period 7-20-0 to 9-9-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in e with the requirements of the ASME Code, Section XI. this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations tive measures described in this Owner's Report, Furthermore, neither the Inspector nor his employer shall be liable in any any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions Commissions
Province of component knowledge accordance By signing and correct manner for	Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the ts described in this Owner's Report during the period 7-20-0 to 9-9-05, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in e with the requirements of the ASME Code, Section XI. this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations tive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Reference WR # 000Z044256 for additional details.

. (10/94)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III

Not to exceed One Day's Production

NIS-2 =0515
SHEET ZEF Z PHYFYOZZ
799F902E

1-0MID128261				. نب بند می		man the man a superior
Manufactured and certified by	FISHER CONTROLS	INT'L LLC. 2	05 SOUTH CENTER STI (name and address	REET, MARSHALL of NPT Certificate F		<u> </u>
Manufactured for	. Detroit Edison Co. P.C	D. Box 1659. D	Detroit. MJ 48231			
			(name and a	dress of purchaser)		
Location of installation	Fermi II Power Plant, 6	5400 N. Dixie I	Highway, Newport, MI 48			
	•	ė	(name	and address)		
ype 10A4611 Rev Rev I	B A276 S3		75.0 KSI, 125 KSI	N/A		2005
(drawing	(mat*l. spe	ec. no.)	(tensile strength)	(CRN		(year built)
SME Code, Section III:	1971	V.	Vinter 1971	3	·	N-62-2.
•	(edition)		(addenda date)	(class)		(Code Case no.)
abricated in accordance with Cor	ist Spec. (Div. 2 only)	N/A (no.)	Revision	N/A	Date	N/A
	•					
	BPVC Sec III. 1971 Edition, BPVC Sec III. 1989 Edition.					
Other: Asivie	Brac See III. 1888 Edinol.	No Addenda C	_125S J			
m. thickness (in.) N/A	Min. design thickness (in				.50. 010.01. (1.00 1.	n.) <u>N/A</u>
nen applicable, Certificate Holde	rs' Data Reports are attached	for each item of	of this report:		,	
		for each item o	<u> </u>	or Appurtenance	·	Heat Number
Part or Appurtenance Serial Number	rs' Data Reports are attached Heat Number	for each item o	Part	or Appurtenance crial Number	·	Heat Number
Part or Appurtenance			Part o			Heat Number
Part or Appuniznance Serial Number AH5096-1	Heat Number		(26) (27)		,	Heat Number
Part or Appurtenance Serial Number AH5096-1	Heat Number E40940 (PLUG)		(26) (27) (28)	crial Number		Heat Number
Part or Appuniznance Serial Number AH5096-1	Heat Number E40940 (PLUG)		(26) (27) (28) (29)			Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM)		(26) (27) (28) (29) (30) (31)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42)	crial Number		Heat Number
Part or Appunizanance Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43)	crial Number		Heat Number
Part or Appuniznance Serial Number AH5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44)	crial Number		Heat Number
Part or Appuniznance Serial Number AH5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43)	crial Number		Heat Number
Part or Appunizanance Serial Number AH5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47)	crial Number		Heat Number
Part or Appurtenance Serial Number AH5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48)	crial Number		Heat Number
Part or Appurtenance Serial Number AH5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49)	crial Number		Heat Number
Serial Number AH:5096-1	E40940 (PLUG) 725394 (STEM) E40940 (PLUG)		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48)	crial Number		Heat Number

^{*}Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (back)

					72.5070-1222
	CERTIFI	CATION OF DE	SIGN		
Design specifications certified by	Sylvester H. Noetzel (when applicable)	P.E. State	MI	Reg. no.	14386
Design report* certified by N/.	(when applicable)	P.E. State	N/A	Reg. nc.	N/A
We certify that the statements made in conforms to the rules of construction o	this report are correct and that this (these	OF SHOP COM Plug/Sta			
NPT Certificate of Authorization No.	1930 ·	_ Expires		10-27-2007	
Date 7-1-05 Name FI	SHER CONTROLS INT'L LLC (NPT Certificate Holder)		· 	Signed (a	my // / utherized representative)
		•			
I, the undersigned, holding a valid command employed by Hartford Steam E	CERTIFICATE nission issued by the National Board of B soiler of CT			and the state or Provinc	e of lowa
of Hartford CT hebest of my knowledge and belief, the Cebeen authorized for stamping on the date By signing this certificate, neither the integral of the certificate in the state of the certificate in the state of the certificate in the state of the certificate in the state of the certificate in the state of the certificate in the ce	ave inspected these items described in the tificate Holder has fabricated these parts shown above. Spector nor his employer makes any warrage employer shall be liable in any manner to the shall be liable in any manner to the shall be liable.	or appurtenances anty, expressed or	in accordance wit	ng the equipment descri	oed in this Data Report
Date 7-1-05 Signed	(Authorized Inspector)	Commissions		2 IA. Id. (incl. endorsements).	state or prov. and no.)

								
1.	Owner <u>Detroi</u>	t Edison Company		_ Da	te		September 9, 2005	
	6400 North Dix	Name tie Highway, Newport MI 4	18166	Sh	eet		1 of 2	
		Address .		-				
2.	Plant Fermi 2 N	uclear Power Plant		Un	it		2	
		Name		•				
	6400 North Dix	ie Highway, Newport MI	48166			Deco	Maintenance	
		Address			Repai	r Organizati	on P.O. No., Job No., etc.	
3.	Work Performed by	by Detroit Edison Company		Type Code Symbol Stamp			N/A	•
		Name		·	horization No.	•	N/A	
	6400 North Divi	ie Highway, Newport, MI 4	18166		iration Date		N/A	
	0400 NOITH DIXI	Address	+0100	LAP	mation Date		11/0	
4.	Identification of System	T & B No. 20 Em	ergency Diesel	Generator #1	3 Service Wate	r System		
5.	(b) Applicable Ec	onstruction Code ASME Class dition/Addenda of Section XI	3 . 19			_ Addend	da <u>N/A</u> C	ode Case
	Replacement	s ·	•		1992-92 Addenda	<u> </u>	•	
6. ·	Identification of Compo	onents Repaired or Replaced	f and Replacemen	t Components	1	1		
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes
	R3000F140B	William Powell	66500-2	N/A	V15-2074	N/A	Donlogoment	or No)
	N3000F140B	William Powell	00300-2	INA	V 15-2074	IN/A	Replacement	Y
		-						
	Description	<u>. </u>			<u> </u>			!
7.	of Work	Replace valve disc sind application and service		is worn and	corrodedCorr	osion is n	ot abnormal considering]
3.	Tests Conducted:	Hydrostatic [] Pneumatic [] Nominal Operating Pressure [X] Ref. Code Case N-416-2 Other [] Pressure psi Test Temp oF						N-416-2
	Note: Supplem	ental sheets in form of lists, s	sketches, or drawi	ngs may be use	ed provided (1) si	ze is 8 1/2	? in. X 11 in., (2)	

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.

(10/94)

Form NIS-2 (Back)

	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
W	e certify that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
Ту	pe Code Symbol Stamp Original Code data report T&B No. 20 to be supplemented by Owners Section XI Program # 05-016
Ce	rtificate of Authorization No. N/A Expiration Date N/A
Sig	Owner or Owner's Designee, Title
.	
	CERTIFICATE OF INSERVICE INSPECTION
Pro con kno	ne undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or exince of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the inspected in this Owner's Report during the period 375-05 to 5-9-05, and state that to the best of my invitedge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in ordance with the requirements of the ASME Code, Section XI.
and	signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any oner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
	Man Deric Commissions NCTG10
	Inspector's Signature National Board, State, Province, and
	Endorsements

(10/94)

Reference WR # 000z042033 for additional details.

NIS2⁴05-1016 外面 Z co2 R2000 F140至

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

Pg. 1 of 2

1. Ma	anufactured and cartified by	Weir Valves & Control	Is US	A, Inc. 285 Car PT Certificate Holder)	nal Street	Salem, MA	01970
2. Ma	nutactured for Detroit Ec	lison, 6400 Dixie Hwy, I		ort, MI 48166 me and address of Puro	haser)		
3. Lo	cation of installation Fern	ni 2, 6400 Dixie Hwy, N		rt, MI 48166			· · · · · · · · · · · · · · · · · · ·
4. Ty;	te: *60098 Rev. (drawing no.)	E SA 216, GR. W		76,448 PS (tensile strength)	<u> </u>	N/A (CRN)	2005 (year built)
5. AS	ME Code, Section III, Division	1: 1971 (edition)		NTER 1971	2 (class)		N/A (Code Case no.)
6. Fat	oricated in accordance with Co	onst. Spec. (Div. 2 only)	N/A		N/A	_ Date	N/A
_0	marks: Cust. Item 01 W NVC S.O. 71891) *Dwg. SME Section III 1971 Ed		his ce				of
3. Non	n. Thickness (in.) 1.06	Min. design thickness (in.)	.82	3 Dia. ID (ft & ir	i.) <u>N/A</u>	Length over	all (ft& in.) N/A
3. Whe	en applicable, Certificate Hold	ers' Data Reports are attache	d for e	ach item of this rep	ort: ,		
	Part or Appurtenance Serial Number	National Board No. In Numerical Order		Part or Appur Serial Nur		Bo	lational pard No. nencal Order
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19)		N/A		(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43)			
(20) (21) (22) (23) (24) (25)			((45) (46) (47) (48) (49) (50)			

(wnen applicable)

^{*}Supplemental Information in the form of lists, sketches, or drawings may be used provided (1) size is 8 ½ x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Eack - Pg. 2 of 2)

Certificate Holders' Serial Nos. HT: 05115 S/N: X173 CERTIFICATION OF DESIGN Design specifications certified by P.E. State N/A Reg. No. N/A N/A Design report " certified by P.E. State Reg. No. N/A N/A N/A CERTIFICATE OF COMPLIANCE. We certify that the statements made in this report are correct and that this (these) Disc conforms to the rules of construction of the ASME Code, Section III, Division 1, NPT Certificate of Authorization No. N2607 Expires 6-13-07 Weir Valves & Controls USA, Inc. CERTIFICATE OF INSPECTION ... It the undersigned, holding a valid commission issued by the National Board of Boller and Pressure Vessel Inspectors and the State or Province of MA And employed by have inspected these items described in this Data Report on , and state that to the. Hartford, CT Best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or properly damage or loss of any kind arising from or connected with this inspection. MAIGIL ABUE Commissions.



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

1.	. Owner Detroit Edison Company			Dat	ie		May 3, 2006	
		Name		-			, 2, 200	
	6400 North Dixi	e Highway, Newport MI	18166	She	eet		1 of 3	
		Address		-				
2.	Plant Fermi 2 Nuclear Power Plant			_ Unit	<u> </u>		22	
		Name						
	6400 North Dixi	e Highway, Newport MI	48166			_		
		A 1.1			D'		Maintenance	
	Wad. Dadamad b.	Address		T		r Organizat	ion P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Comp	any	Type Code Symbol N/A Stamp				•
		Name		•	norization No.		N/A	
	6400 North Dixis	e Highway, Newport, MI	18166		iration Date		N/A	···
		Address		,				
4.	Identification	Residual Heat R	emoval (RHR) S	System Division	n 1 and Divisio	n 2 Pipino	g (N5-0307)	
	of System						•	
5.	(a) Applicable Co	nstruction Code ASME		74 F.891.	- 14/174	A -1-1		
	(b) Applicable Edi	Class tion/Addenda of Section XI		71_ Edition	n <u>W'71</u>	_ Addeno	la <u>N62-4</u> C	ode Case
	(b) Applicable Edi Replacements		Offized for Nebali		1992-92 Addend	a		
	1 (opiceoe.			<u></u> -				
6.	Identification of Compo	nents Repaired or Replaced	d and Replacemer	nt Components				
	•	•	·					
								Ī
	Name of	Name of Manufacturer	Manufacturer	National	Other	Year	Repaired, Replaced,	ASME
	Component		Serial No	Board No.	Identification	Built	or Raplacement	Code Stamped
								(Yes
								or No)
	E1100F031A	William Powell	63872-1	N/A	V8-2103	1975	Replaced	Y
								<u> </u>
	E1100F031A	Weir Valves &	2-52861-A	N/A	V30-1627	2006	Replacement	Y
<u> </u>	E44005004B	Control USA Inc.	20220.0		1/2 0404	4075		
	E1100F031B	William Powell	63872-2	N/A	V8-2104	1975	Replaced	Y
	E1100F031B	Weir Valves &	1-52861-A	N/A	V30-1628	2006	Replacement	Y
	L11001001D	Control USA Inc.	1-22001-7	13//1	¥00-1020	2000	Neplacement	, ,
	Description 1	COMMON CONTINUE.	'	 !		- 		·
	of Work	Replace valves E1100	F031A & E1100	F031B due to	seat leakage a	nd seat o	lamage identified in RF1	0.
	Tests Conducted:	Hydrostatic [] Pn	eumatic[]	Nominal Opera	iting Pressure [ΧŢ	Code Case N-416	S-2 ·
		Other [X] Pressure		-	st Temp	-	^o F Performed RT of	
		ental sheets in form of lists						

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.

(10/34)

Form NIS-2 (Back)

	E1100F031B.
<u> </u>	Applicable Manufacturer's Data Reports to be attached
	
	CERTIFICATE OF COMPLIANCE
We certify that	at the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
Type Code S	ymbol Stamp Original Code data report N5-0307 to be supplemented by Owners Section XI Program # 05-017A & 017B
Certificate of	Authorization NoN/A \ Expiration DateN/A
SignedR.	M. Hambleton Lead ISI Engineer But Date Date MAY 3 2006
	mer or Owner's Designee, Title
- :	CERTIFICATE OF INSERVICE INSPECTION
I, the undersion	•
Province of	ned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the
Province of components d knowledge and	ned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
Province of components d knowledge and accordance wi By signing this and corrective	ined, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or <u>Michigan</u> and employed by <u>HSB_CT</u> of <u>One State Street</u> . <u>Hartford, CT_06102</u> have inspected the escribed in this Owner's Report during the period (2-24-00 to 5-70-00), and state that to the best of my defined, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
Province of components d knowledge and accordance wi By signing this and corrective	Ined, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street. Hartford. CT 06102 have inspected the escribed in this Owner's Report during the period 2-2-00 to 5-70-00, and state that to the best of my deblief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI. It certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Province of components d knowledge and accordance wi By signing this and corrective	med, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street. Hartford. CT 06102 have inspected the escribed in this Owner's Report during the period 2-2-00 to 5-70-00, and state that to the best of my defiel, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI. It certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any opersonal injury or property damage or a loss of any kind arising from or connected with this inspection.
Province of components d knowledge and accordance wi By signing this and corrective	Ined, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the escribed in this Owner's Report during the period 3-24-00 to 5-70-00, and state that to the best of my deblief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI. Inspector's Report. Furthermore, neither the Inspector nor his employer shall be liable in any of personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions National Board, State, Province, and

(10/94)

Reference WR # 000Z043507 and 000z050737 for additional details.

FO 418450 85-017 A/B 20F 3

FORM NPV-1 CERTIFICATE HOLDERS DATA REPORT FOR NUCLEAR PUMPS OR VALVES* As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of <u>2</u>

		···		
1. Manufactured and certi	fied by: Weir Valv	res & Controls USA, In Iname and addr	c., 285 Canal St., Salem, MA 0 ess of N Certificate Holder)	1970
2. Manufactured for Det	oit Edison, 6400 North Dixi	e Hwy. Newport Ml. 4	•	
3. Location of installation	Fermi 2, 6400 North Dixie	Hwy. Newport MI. 48	166	
		(name	and address)	
4. Model No., Series No., o	or Type Check	Drawing <u>52861</u>	-A Rev. 2	CRN N/A
5. ASME Code, Section III,	Division 1: 1971 (edition)	Winter 1971 (addenda date)	2 (class)	N62-4 (Code Case no.)
6. Pump or Valve <u>Valve</u>		20 Outlet size 2		
7. Material: Body <u>SA21</u>	6-WCB Bonnet S	SA516-70 Dis	k SA516-70 / See Remarks	BoltingSee Remarks
(a) Cert. Holder's Serial No.	(b) Nat'I Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
1-52861-A	N/A	HT. #: 43506	HT. #: T6464	HT. #: V02421
		S/N: N17322-		S/N: 1
				
· 			<u> </u>	

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^{*} Supplemental information in form of lists, sketches, or drawings may be used provided (1) size 8 ½ x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form (12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM NPV-1 (Back - Pg. 2 of 2)

Certificate Holder's Serial No. 1-52861-A

8. Design conditions 480 psi 335 °F or valve pressure class 300 (1) (pressure) (temperature)					
9. Cold working pressure740 psi at 100°F					
10. Hydrostatic test 1125 psi. Disk differential test pressure 825 psi					
11. Remarks: COVER LUG: SA 516-70 HT.#: S01841 S/N: 1, DISC POST: SA 105 GR II HT. #: 1180275 S/N: 1, DISC LUGS: HT# S01840 BEARING COVER: SA 516-70 HT#: M65877, STUD: SA193 GR B7 HT.#: S71215 TR#: AA26, STUD: SA193 B7 HT #: 15145 H.HEX NUTS: SA194 2H HT. #: 222424 TR: GRW, H.HEX NUTS: SA194 2H HT #: 829599					
CERTIFICATION OF DESIGN					
Design specification certified by Lawrence D. Burr P.E. State MI Reg. no. 33999					
(when applicable) Design report certified byN/A					
(when applicable)					
CERTIFICATION OF COMPLIANCE We certify that the statements made in this report are correct and that pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1. N Certificate of Authorization No. N-2606 Expires 6-13-07 Date Weir Valves & Controls USA Inc. Signed (N Certificate Holder)					
CERTIFICATE OF INSPECTION					
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of MA. I and employed by HSBCT of Hartford, CT have inspected the pump, or valve, described in this Data Report on 4/2/0/c and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.					
By signing this Certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.					
Date 4/2/00 Signed Curt House Commission MA1651 ABNI					
(Authorized Inspector) (Nat1. Bd. (incl. endorsement(s) state or prov and no)					

(1) For manually operated valves only.

FORM NPV-1 CERTIFICATE HOLDERS DATA REPORT FOR NUCLEAR PUMPS OR VALVES* As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of <u>2</u>

1. Manufactured and certi	ified by:Weir V	alves & Controls	USA, Inc., 2	85 Canal St., Salem, MA 01	1970	
		(name	and address	of N Certificate Holder)		
2. Manufactured for <u>Det</u>	rcit Edison, 6400 North D	lixie Hwy. Newo	ort MI. 48166	ess of Purchaser)		
				,		
3. Location of installation	Fermi 2, 6400 North Dix	de Hwy, Newpo	name and (name)	d address)		
4. Model No., Series No.,	or Type Check	Drawing	52861-A	Rev2	CRN N/A	1
4. Model No., Cones No.,	or typeoneox	Diaming	0200170		0101 102	`
5. ASME Code, Section III	, Division 1: <u>1971</u> (edition)	Winter 1 (addenda		(class)	N62-4 (Code Case	
6. Pump or Valve <u>Valve</u>	Nominal inlet siz	e <u>20</u> Outle (in.)	t size <u>20</u> (in.)			
7. Material: Body <u>SA21</u>	6-WCB Bonnet	SA516-70	_ Disk _	SA516-70 / See Remarks	Bolting	See Remarks
(a)	(b)	. ((c)	(d)		(e)
Cert.	Nat'l	E	Body	Bonnet		Disk
Holder's	Board	S	erial	Serial		Serial
Serial No.	No.		No.	No.		No.
2-52861-A	N/A	UT #	: 43506	HT. #: T6464		T. #: V02421
2-3280 I-A	IVA		117322-2	S/N: 2		S/N: 2
		3/14. 1	111322-2	3/14. 2		3/N. Z
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^{*} Supplemental information in form of lists, sketches, or drawings may be used provided (1) size 8 ½ x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form (12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM NPV-1 (Back -- Pg. 2 of 2)

Certificate Holder's Serial No. 2-52861-A

8. Design conditions 480 psi 335 °F or valve pressure class 300 (1) (pressure) (temperature)					
3. Cold working pressure 740 psi at 100°F					
IO. Hydrostatic test <u>1125</u> psi. Disk differential test pressure <u>825</u> psi					
11. Remarks: COVER LUG: SA 516-70 HT.#: S01841 S/N: 2, DISC POST: SA 105 GR II HT. #: 1180275 S/N: 2, DISC LUGS: HT# S01840 BEARING COVER: SA 516-70 HT#: M65877, STUD: SA193 GR B7 HT.#: S71215 TR#: AA26, STUD: SA193 B7 HT #: 15145 H.HEX NUTS: SA194 2H HT. #: 222424 TR: GRW, H.HEX NUTS: SA194 2H HT #: 829599, H.HEX NUTS: SA194 2H HT # 4628					
CERTIFICATION OF DESIGN					
Design specification certified by <u>Lawrence D. Burr</u> P.E. State <u>MI</u> Reg. no. <u>33999</u> (when applicable)					
Design report certified byN/AP.E. State _N/A Reg. noN/A					
(when applicable)					
CERTIFICATION OF COMPLIANCE					
We certify that the statements made in this report are correct and that pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.					
N Certificate of Authorization No. N-2606 Expires 6-13-07					
Date 3000 Name Weir Valves & Controls USA Inc. Signed Countrols USA Inc. (N Certificate Holder)					
CERTIFICATE OF INSPECTION					
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of MA. / and employed by HSBCT of Hartford, CT have inspected the pump, or valve, described in this Data Report on 3/30/66. and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.					
By signing this Certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.					
Date 3/30/06 Signed Confidence Commission MA 1651 ABNI					
· (Authorized Inspector) (Nat'l. Bd. (incl. endorsement(s) state or prov and no)					

(1) For manually operated valves only.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

05-020

									
1.	Owner Detroit Edison Company			Date	·		June 21, 2006		
	6400 North Dixie I	Name Highway, Newport M	II 48166	Shee	et	1 0	f 2		
2.		Address ear Power Plant		Unit			2	-	
	Name 6400 North Dixie Highway, Newport MI 48166		I 48166						
							aintenance		
		Address		•	•	rganization f	P.O. No., Job No., etc.		
3.	Work Performed by	Detroit Edison Con	npany	Type Stam	Code Symbol p	i . N/A			
		Name			orization No.	N/A			
		lighway, Newport, M	II 48166	Expir	ation Date		N/A	· · · · · · · · · · · · · · · · · · ·	
		Address							
4.	4. Identification Reactor Core Isolation Cooling System (N5-0211) RCIC Minimum Flow Valve of System								
 5. 6. 	Class 2 19 71 Edition W71 Addenda N/A Code Case (b) Applicable Edition/Addenda of Section XI Utilized for Repairs or Replacements 1992-92 Addenda								
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)	
	E5150F019	Rockwell International	LA-698	N/A	V8-2230	1974	Replaced	Y	
	E5150F019	Velan Valve	052013	N/A	V30-1576	2005	Replacement	Y	
	4 10								
7.	Description of Work	Install replacement v	valve per EDP-32366						
3.		Hydrostatic [] Other [X] Pressure			ing Pressure [X] °F	•		

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.

Form NIS-2 (Back)

9. Remarks	
Replacement valve procured per PO# 394775, Serial No. 052013, SA-105, ASME III, Class 2. Ad	
part of installation included the following: 2" Socket welded coupling, 6000#, SA-105, Heat # 9132 SA-106 Grade B, Heat #351823 procured per PO # 394664, and 2" Sch. 160 pipe, SA-106 Grade	
SATION Glade B. Fled (#351025 blockled bet 1 O # 354054 , alia 2 Oct. 100 bbs. 344100 Glade	0, Hear # 10125- Diocared be: 10 # 300776.
· · · · · · · · · · · · · · · · · · ·	
Applicable Manufacturer's Data Reports to be attached	
CERTIFICATE OF COMPLIANCE	· .
OLITII IOATE OF GOMIN EIANGE	• •
We certify that the statements made in the report are correct and this Replacement_conforms to the	e rules of the ASME Code, Section XI.
Type Code Symbol Stamp Original data report N5-0211 to be supplemented by Owners Section XI	Program_05-020
Certificate of Authorization No. N/A Expiration Date_	N/A
	INE 21,2006
Owner or Owner's Designee, Title	
CERTIFICATE OF INSERVICE INSPECTION	
OLITINIOATE OF MOLITIOE MOI ESTION	
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure '	Vessel Inspectors and the State or
Province of Michigan and employed by HSB CT of One State Street, Hartford, CT	06102 have inspected the
components described in this Owner's Report during the period 03-22-00 to 07-18-00	
knowledge and belief, the Owner has performed examinations and taken corrective measures descri accordance with the requirements of the ASME Code, Section XI.	ibed in this Owner's Report in
accordance with the requirements of the ASMIC Gode, Section Ar.	
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or in	mplied, concerning the examinations
and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor hi	is employer shall be liable in any
manner for any personal injury or property damage or a loss of any kind arising from or connected wi	th this inspection.
Commissions MTG	/0
	d, State, Province, and
Endorsements	·
Date Auly 18 2008	
/	
0/94)	

For complete work package, see Work Request # 000Z040063



PAGE-3

#052013

FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES * As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 o 1. Manufactured and certified by_ VELAN INC. 550 McArthur St., Montreal Ouebec H4T 1X8 CANADA (Name and address of N Certificatem Holder) DETROIT. 2. Manufactured for DETROIT EDISON COMPANY P.O.BOX 1659 MICHIGAN 48231 USA (name and address of purchaser) NOS-FMM-PPSD EP2 SITE DIXIE HIGHWAY NEWPORT MI 48166 USA 3. Location of installation DETROIT EDISON CO. (name and address) 4. Model No., Series No., or Type: W08-7054B-02PS Drawing P012-420280-N01 Rev_B CRN_N/A 1998 NONE 5. ASME Code, Section III, Division 1: N62-7 (edition) (addenda date) (class) (Code Case no.) 6. Pump or valve: 900# GATE VALVE. Nominal inlet size Outlet size _2" (in.) Wedge SA182 F6A Cl.2 SA564 GR-630 (H1100) 7. Mat'l.: Body _ SA-105 Bonnet SA-105 Bolting & SA-194 GR-2H (d) (a) (b) (c) (e) Nat'l Body Cert. Bonnet Wedge Serial Holder's Board Serial Serial SerialNo. No. No. No. No. #052013 N/A 8187 16720 6852 Heat/Test No.>>> 9807 Code FLDW 227C827 / 68402 L8243 / 68833 EQUAL.PIPE: MAT'L.SPEC .: SA-106 GR-B Code: "2FNN" VELAN TRACE: 73132 HEAT No .: PIPE CAP: MAT'L.SPEC. SA-105 SERIAL No.: P-644 Heat/Test No. 50002 7721

^{*}Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet (3) each sheet is numbered and the number of sheets is recorded at the top of this form.



FORM NPV-1 (Back - Pg. 2 of $\underline{2}$)

Page - 4

Certificate Holder's Serial No. #052013

(1) For manually operated valves only.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

05-023

1.	. Owner <u>Detroit</u>	Edison Company	·	_	Date	e . 		May 3, 2006	<u></u>
		Name							
	6400 North Dix	e Highway, Newport MI	48166	_	She	et	1	<u>of 1</u>	
_		Address						_	
2.	. Plant <u>Fermi 2 Ni</u>	clear Power Plant		-	Unit			2	
	0400 M- 41 Dt 1	Name	40400						
	6400 North Dixi	e Highway, Newport MI	48166				D I	4-1	
		A delegan		-	•	Popois		Maintenance n P.O. No., Job No., etc.	
3.	Work Performed by	Address	2014		Type	nepaii Code Symbol	Organization	N/A	
ა.	work renomined by	Detroit Edison Comp	any		Stan			IVA	
		Name		•		orization No.		N/A	
	6400 North Divis	Highway, Newport, MI	48166			ration Date		N/A	
		Address	10100	•					
4.	Identification	Reactor Recircu	lation System Pi	pina (N	(5-250)				
	of System					į			
5.	(a) Applicable Co	nstruction Code ASME		68	NPVC	. ,			•
		Class	1 19	71	Edition	· · · · · ·	Addenda	N/A · (Code Case
	#		I ber aut fan Danasia		,	(piping)	-		
	(b) Applicable Edi Replacements	tion/Addenda of Section XI	Officed for Repair	s or	1	992-92 Addenda	,		
	riepiacements				<u> </u>	OUE-UE Madenae		•	
6.	Identification of Compo	nents Repaired or Replace	d and Replacemen	nt Comp	onents	•			•
	120	· · · · · · · · · · · · · · · · · · ·							
	·····		T T						
	Name of	Name of Manufacturer	Manufacturer	Nati	ional	Other	Year	Repaired, Replaced,	ASME
	Component		Serial No	Boar	d No.	Identification	Built	or Replacement	Code
]		. [Stamped
			· ·		i		1		(Yes
	B3105F031A	Lunkenheimer	69-GE-	N.	//	V8-2003	1971	Poplosoment	or No)
	DSTUDEUSTA	Lunkenner	14123-31	11/1	^	V0-2003	19/1	Replacement	N
			14125-51						
					. 1				
			_						
	Description								
7.	of Work	Replace Body to bonn	<u>et bolting during</u>	mainte	nance a	activities to rep	lace the so	cored stem.	·
									·
8.	Tests Conducted:	,				ting Pressure []			
		Other [X] Pressure		psi	Tes	st Temp		F Performed VT-1	of studs
	,								

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.

(10/94)

	Remarks	Replacement studs were cut from all-thread that was procured per PO # 980441 and PO # 982520. Material - 1 -3/4"-8 UN-SA-193 Grade B7, Heat' # P911 and # X297 respectively. Replacement Nuts were procured per PO # 980442. Material - 1
		8 UN-2B, SA-194 Grade 7, Heat # S897 and M313.
_		
_		
_		Applicable Manufacturer's Data Reports to be attached
		-
		· .
		CERTIFICATE OF COMPLIANCE
	We certify tha	t the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
	Type Code Sy	rmbol Stamp Original Code data report N5-250 to be supplemented by Owners Section XI Program # 05-023
	Cadicada of (Authorization No. N/A N/A Expiration Date N/A
	Centicate of A	
,	Signed R.M	M. Hambleton Lead ISI Engineer & Date Date Date 20 06
•		ner or Owner's Designee, Title
	=	, and a strong leaf, that
_		
		CERTIFICATE OF INSERVICE INSPECTION
٠		CERTIFICATE OF INSERVICE INSFECTION
1	the underside	ned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
		Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the
		escribed in this Owner's Report during the period 3-10-00 to 6-5-00, and state that to the best of my
		I belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
		th the requirements of the ASME Code, Section XI.
		** *** *** *** *** *** *** *** *** ***
В	y signing this	certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations
		measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any
П	nanner for any	personal injury or property damage or a loss of any kind arising from or connected with this inspection.
	n	700 - NT 610
	1/	Commissions Commissions
	6 1	Inspector's Signature National Board, State, Province, and
	•	Endorsements
		·
_	. 0	ne 5 20 0 4

(10/94)

Reference WR # 000Z050487 for additional details.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

05-024

1.	Owner Detro	it Edison Company		_ Da	ite		March 17, 2006	
	6400 North Dix	Name kie Highway, Newport MI	48165	_ Sh	eet		1 of 2	
2.	Plant Fermi 2 N	Address Juclear Power Plant		_ Un	it		2	
	6400 North Dix	Name ie Highway, Newport MI	48166		·.	Des	o Maintenance	
			<u> </u>	<u> </u>				
		Address				ir Organiza	tion P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Comp	any .	. Sta	•		N/A	•
		Name		Aut	horization No.		N/A	
	6400 North Divi	ie Highway, Newport, MI	48166	Exc	iration Date	***************************************	N/A	-
	<u> </u>	Address	-0100		,		14/1	
4.	Identification of System	T & B No. 20 En	nergency Diesel	Generator #1	4 Service Wate	r System	1	
5. 6.	(b) Applicable Ed Replacements	onstruction Code ASME Class lition/Addenda of Section XI s onents Repaired or Replaced	3 19 Utilized for Repair		n <u>71</u> 1992-92 Addend	_ Addeno	da <u>N/A</u> C	Code Case
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	R3000F140D	William Powell	66500-4	N/A	V15-2030	N/A	Replacement	Y
								1
				·				
						.		
	Description of Work	Replace valve disc since		is worn and o	orroded. Corro	osion is n	ot abnormal considering	1
	Tests Conducted:	Hydrostatic [] Pne Other [] Pressure			ting Pressure [X st Temp]	Ref. Code Case I F	V-416-2

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.

(10/94)

		Valves.							
									
					,				
			Applicable Manufa	acturer's Dat	a Reports to	be attached			
						·			·
			CER	TIFICATE	OF COMPL	JANCE			
We c	ertify that	the statements made	in the report are co	rrect and this	s <u>Replaceme</u>	nt conforms to	the rules	of the ASME	Code, Section XI
Туре	Code Syn	nbol Stamp <u>Original (</u>	Code data report T&	B No. 20 to	be suppleme	ented by Owne	ers Section	XI Program	# 05-024
Certif	icate of Au	uthorization No.	N/A	. .	ſ	Expiration Date	a	N/A	
		<u>-</u> -)\	•	•	Masc		at.
Signe		. Hambleton Lead er or Owner's Designee		MUN		Date	FILECO	HU	
	20°	· · · · · · · · · · · · · · · · · · ·	CERTIFIC/	TE OF INS	SERVICE IN	SPECTION	 :		<u>. </u>
i, the o	undersigne	 ed, holding a valid cor							
	ice of	Michigan and cribed in this Owner's	d employed by <u>HSE</u> s Report during the	CT of O	ne State St	reet, Hartford	d. CT 0610	02 have instant	spected the
knowle	edge and b	pelief, the Owner has the requirements of t	performed examina	tions and tal					
and co	mective m	ertificate neither the li easures described in personal injury or prop	this Owner's Repor	t. Furthermo	ore, neither ti	ne Inspector n	or his empl	oyer shall b	
manne		1 0	1 <u>ā</u>	Cor	mmissions	NIC	610		
manne	N	an elen							
manne	N	Inspector's Sign	nature		Endo	National E rsements	Board, State	e, Province,	and

(10/94)

Reference WR # 000Z042035 for additional details.

CAL OS-OZY
SHEET ZOF!

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the Provisions of the ASME Code, Section III

Not to Exceed One Day's Production

Pg. 1 of 2

	ufactured and certified by	(name znd zo	areas of	NPT Certhicate Hoiser)				
Wien	ufactured for <u>Detroit Ec</u>	dison, 6400 Dixle Hwy,	WSWI	one and address of Purc	:naser)			
Loca	tion of installation Fern	ni 2, 6400 Dixie Hwy, N	lewpo	ort. MI 48166				
		(r	ame and	address)				
Type		E SA 216, GR. V		77,885 PS	1	N/A	2005	
	(araving no.)	(mail specinc.	.)	(ופתפוופ בעברקונה)		(CRN)	(Neat prigg)	
MSA	E Code, Section III, Division	11: 1971 (equipm)		NTER 1971	2		N/A	
Cabat	anta di la manusiana a siditu. Ca	(**************************************			(cizss)	Data	(Code Case no.)	
rabn	cated in accordance with Co	mst. Spec. (Div. 2 day)	N/		N/A	_ Date	N/A	
Reme		/VC Item 20 Qtv. 1 Dis	c POV	VELL P/N: 2608	00982000	017		•
	VC S.O. 71014) *Dwa.			ertification meet	s required i	information (of	
<u> </u>	ME Section III 1971 Ed	dition Winter 1971adde	nda.	· · · · · · · · · · · · · · · · · · ·	<u></u>			
Nom.	Thickness (in.) 1.08	Min. design thickness (in.)	22	3 Dia, ID (ft & in	Δ\ <i>Μ</i>	Length overz	II (fi& in.) N/A	
When	applicable, Certificate Holds	ars' Data Reports are attache	ed for e	ach item of this rep	ort:	•	•	
		1	7		·	}		
	Part or Appurtenance	National		Part or Appur	tenance		tional	
	Serial Number	Board No. In Numerical Order		Serial Nur	nber		rd No. riosl Order	
		nt Matthetical Order	1 1	,		In regine	inal Order	
(1)	HT(04348	N/A	1 1	(26)	•	}	. 1	
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(3)] [(28)				
(4)	1] [(29)			·	
(5)			1 1	(30).				
(5)			1 1	(31)				
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20) - 21) - 22) -			(4	(3) (3)			20	}

LOT#3/LDE:2

FORM N-2 (Back - Pg. 2 of 2)

Certificate Holders' Serial Nos. HT: 04348 S/N: V1137 through CERTIFICATION OF DESIGN Design specifications certified by P.E. State N/A Reg. No. N/A (wnen esplisable) P.E. State Design report * certified by N/A N/A Reg. No. N/A (when applicable) CERTIFICATE OF COMPLIANCE We certify that the statements made in this report are correct and that this (these) Disc conforms to the rules of construction of the ASME Code, Section III, Division 1. NPT Certificate of Authorization No. 6-13-07 Weir Valves & Controls USA, Inc. CERTIFICATE OF INSPECTION I, the undersigned, holding a valid commission issued by the National Soard of Soiler and Pressure Vessel Inspectors and the State or Province of And employed by MA , and state that to the have inspected these items described in this Data Report on 1-27-05. Hartford, CT Best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection Commissions MA 1653 [Nat) 5d. (mg. Engorsaments) and state or prov. and no.]



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

1.	. Owner Detro	oit Edison Company		_ Da	te		March 17, 2006	
	6400 North Di	Name xie Highway, Newport MI	48166	Sh	eet		1 of 2	
2.		Address Nuclear Power Plant		- Un	it		2	
۲.	TIGHT TOTAL	Name		-	·			
	6400 North Di	xie Highway, Newport MI	48166			Dane	Maintenance	
	. 	Address			Panai		ion P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Comp.	any	Tyr Sta	e Code Symbol	ii Oigailizai	N/A	
		Name		•	horization No.		N/A	
	6400 North Dia	kie Highway, Newport, MI	18166	Exp	iration Date		N/A	
		Address		•				
4.	Identification of System	T & B No. 20 Em	nergency Diesel	Generator #1	4 Service Wate	er Svstem	·	
5.		Construction Code ASME Class dition/Addenda of Section XI	3 19		n <u>71</u> 1992-92 Addend	_ Addeno	da <u>N/A</u> C	ode Casa
6.	Identification of Comp	oonents Repaired or Replaced	d and Replacemen	nt Components				
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	R300F401	Fisher Controls	6803480	. 4569	V15-2076	1979	Replacement	Y
	•							
			·					
7.	Description of Work		ed to replace the	ese parts to a			xisting parts were rust st Corrosion is not abnorr	
١.	Tests Conducted:	Hydrostatic [] Pno		•	ting Pressure [X st Temp		Ref. Code Case i	V-416-2
		nental sheets in form of lists, s lems 1 through 6 on this repor						

(10/94)

sheets is recorded at the top of this form.

		·	<u>-</u>		
•					
	Applica	able Manufacturer's	Data Reports to	oe attached	
		CERTIFICA	TE OF COMPL	IANCE	
We certify that the	e statements made in the re	eport are correct and	d this <u>Replaceme</u>	nt conforms to the rules of the ASM	ME Code, Section XI.
Type Code Sym	ool Stamp <u>Original Code da</u> t	ta report T&B No. 20) to be suppleme	nted by Owners Section XI Progra	m # 05-025
Certificate of Aut	norization No	N/A	E	xpiration DateN/A	
Signed R.M.	Hambleton Lead ISI Eng or Owner's Designee, Title	ineer RMH	pods	Date Mecf 1	7 .20 06
	·	·			
	C	CERTIFICATE OF	INSERVICE IN	SPECTION	
				ler and Pressure Vessel Inspector	
Province of	Michigan and employ	red by <u>HSB_CT</u>	of One State Sta	eet, Hartford, CT 06102 have 3-17-06, and state that to	inspected the
knowledge and be	lief, the Owner has perform	ed examinations an	d taken corrective	e measures described in this Own	er's Report in
accordance with t	ne requirements of the ASM	E Code, Section XI.	•		
				ty, expressed or implied, concerni	
				e Inspector nor his employer shall n or connected with this inspection	
and corrective me	rsonal initiry or property cer				 :
and corrective me	rsonal injury of property car	nage of a loss of all			
and corrective me	rsonal injury or property car	mage of a loss of an		NC 610	
and corrective me manner for any pe	Inspector's Signature		_Commissions	National Board, State, Province	e, and
and corrective me manner for any pe	<u> Dule</u>	mage of a loss of an	_Commissions		e, and

(10/94)

Reference WR # 000Z043604 for additional details.

FORM N-1 CERTIFICATE HOLDEN -...

NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III

Not to exceed One Day's Production

	(ES)
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11-OMID126729	. FIGURE CONTROL OF CHIEF I	C nos column Ceramen CED	EET, MARSHALLTOWN, IA. 501	150
Manufactured and certified by	FISHER CONTROLS INT L LI	(name and address o	f NPT Certificate Holder)	130
Manufactured for	Detroit Edison Co. PO Box 165	9 Detroit MI 48231		
Managara to	Deadle Edison Co. 1 O Dox 103		dress of purchaser)	
Location of installation	Fermi II Power Plant, 6400 N. D	nivie Highway Newmort MI 48	166	
Location of histanation	· · · · · · · · · · · · · · · · · · ·		and address)	
Type IIAS326 Rev. E	SA479 S31603	70 KSI	N/A	2005
Type <u>11A5326 Rev. E</u> (drawing no		(tensile strength)	(CRN)	(year built)
ASME Code, Section III:	1971	Winter 1971	3	N/A
ASIVIE Code, Section III.	(edition)	(addenda date)	(class)	(Code Case no.)
Fabricated in accordance with Const.	. Snec. (Div. 2 only) N/A	Revision	N/A Date	N/A
Patricated in accordance with Const	(no.)			
Remarks: Design: ASME BF	PVC Sec III, 1971 Edition, Winter I	071 Addenda Class 3	٠.	
	VC Sec III, 1989 Edition, No Add			
			·	
Nom. thickness (in.) N/A	Min. design thickness (in.)	N/A Dia ID (ft &in.)	N/A Length overall (fi	&in.) N/A
•				* ************************************
When applicable, Certificate Holders'	Data Reports are attached for each	item of this report:		
Part or Appurtenance	Heat Number	Part	or Appurtenance	Heat Number .
Serial Number				
		1	Serial Number	
	730715		Serial Number	
	730715 730715	(26)	Serial Number	
(2) A10684-2 (3) A10684-3		(26) (27) (28)	Serial Number	
2) A10684-2 3) A10684-3 4)	730715	(26)		
2) A10684-2 (3) A10684-3 (4) (5)	730715	(26) (27) (28) (29) (30)		
2) A10684-2 3) A10684-3 4) 5)	730715	(26) (27) (28) (29) (30) (31)		
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2) AI0684-2 3) AI0684-3 4) 5) 6) 7) 8) 9) 110) 111)	730715	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36)		
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2) AI0684-2 3) AI0684-3 4) 5) 6) 7) 8) 9) 110) 111) 122	730715	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38)		
2) AI0684-2 3) AI0684-3 4) 5) 6) 77 8) 9) 110 111 122 133	730715	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37)		
2) AI0684-2 3) AI0684-3 4) 5) 6) 77 8) 9) 110 111 122 133 144)	730715	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39)		
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2) AI0684-2 3) AI0684-3 4) 5) 6) 7) 8) 9) 11) 122) 33) 4) 55) 6) 77 8) 99	730715	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44)		
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2) AI0684-2 3) AI0684-3 4) 5) 6) 77 8) 99 110) 111) 122) 133) 144) 155) 166) 177 188) 199 200 211) 222	730715	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47)		
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(2) AJ0684-2 (3) AJ0684-3 (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24)	730715	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47)		
A10684-2 (3) A10684-3 (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23)	730715	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49)		

^{*}Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Mfr. Serial No. _ AJ0684-1 thru -3 CERTIFICATION OF DESIGN Design specifications certified by P.E. State (when applicable) N/A N/A Design report* certified by P.E. State (when applicable) CERTIFICATE OF SHOP COMPLIANCE We certify that the statements made in this report are correct and that this (these) Plug/Stem conforms to the rules of construction of the ASME Code, Section III. 10-27-2007 NPT Certificate of Authorization No. Name FISHER CONTROLS INT'L LLC 10/31/05 Signed Date ·(NPT Certificate Holder) (authorized representative) CERTIFICATE OF SHOP INSPECTION 1, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or Province of mployed by Hartford Steam Boiler of CT
Hartford, CT and employed by have inspected these items described in this Data Report on and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Date Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

(Nat'l. Bd. (incl. endorsements) state or prov. and no.)

!-36-6.doc

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

06-001

1.	Owner <u>Detroit</u>	Edison Company		Date			farch 17, 2006	
	6400 North Dixi	Name e Highway, Newbort M	1 48166	Shee	et	1 0	f_1	
		Address	-			7		
2.	Plant Fermi 2 Nu	uclear Power Plant Name	· · · · · · · · · · · · · · · · · · ·	Unit			2	
	6400 North Dixi	e Highway, Newport M	1 48165		•			
		A .d.d			Dennis O		intenance	
3.	Work Performed by	Address Detroit Edison Con	nany	Tyna	Code Symbol	rganization r	P.O. No., Job No., etc. N/A	
٥.	Work renomined by	Delivit Edison Con	ipariy	Stam			IVA.	
		Name		Autho	orization No.		N/A	
	6400 North Dixie	e Highway, Newport, M	11 48166	Expir	ation Date		N/A	
		Address					•	
4.	Identification of System	N5-005 (T&B)	Emergency Diesel G	enerator # 1	3			
	o. 0,0.0							
5.	(a) Applicable Co.		ΛΕ III,					
•			ss 3 19 <u></u>		<u>-71</u>	Addenda	N/A	Code Case
	(b) Applicable Edi Replacements	tion/Addenda of Section	XI Utilized for Hebairs o		992-92 Addenda			
	riopiacomonio	•			JOE OE Floderida	 .		
6.	Identification of Compo	nents Repaired or Replac	ced and Replacement C	Components		•		•
			<u> </u>				1	1
	Name of	Name of	Manufacturer Serial	National	Other	Year	Repaired,	ASME
	Component	Manufacturer	No .	Board No.	Identification	Built	Replaced, or Replacement	Code Stamped
				145.	•		Of Flagasilient	(Yes
						<u> </u>		or No)
	R3000F140C	William Powell	66500-3	N/A	V15-2105	1976	Replacement	. Y
	······································							<u> </u>
•		<u> </u>						
			1	Ì				
	Description	1	<u> </u>			<u> </u>		<u> </u>
7.	of Work	Install praviously ref	urbished replacement	t disc due tó	waar on the dis	o quide nir	The valve contin	uad to
• •		function properly.	orbiaried replacemen	1 4.50 455 10	NOST OF THE CIS	C OCIOS DII	i. The valve condi	
ď	To the Committee de	the decided at 1	Decembra 61		· · · · · · · · · · · · · · · · · · ·		Ondo Ocea N. A	40.0
3.	Tests Conducted:	Hydrostatic [] Other [] Pressure		•	ing Pressure[X] t Temp		Code Case N-4	10-2
		oner 1 1 coons	ps	. 155	· · · · · · · · · · · · · · · · · · ·			
	:				•			
	Note: Suppleme	ental sheets in form of list	s, sketches, or drawings	s may be used	d provided (1) size	is 8 1/2 in.	X 11 in., (2)	

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.

We certify that the statements made in t	
We certify that the statements made in to Type Code Symbol Stamp Original Code Certificate of Authorization No	CERTIFICATE OF COMPLIANCE the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI. de data report N5-013 to be supplemented by Owners Section XI Program #06-001. N/A Expiration Date N/A I Engineer Date MWOLL 7 20
We certify that the statements made in to Type Code Symbol Stamp Original Code Certificate of Authorization No	CERTIFICATE OF COMPLIANCE the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI. de data report N5-013 to be supplemented by Owners Section XI Program #06-001. N/A Expiration Date N/A I Engineer Date MARCH 7 20
We certify that the statements made in to Type Code Symbol Stamp Original Code Certificate of Authorization No	CERTIFICATE OF COMPLIANCE the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI. de data report N5-013 to be supplemented by Owners Section XI Program #06-001. N/A Expiration Date N/A I Engineer Date MARCH 7 20
We certify that the statements made in to Type Code Symbol Stamp Original Code Certificate of Authorization No	CERTIFICATE OF COMPLIANCE the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI. de data report N5-013 to be supplemented by Owners Section XI Program #06-001. N/A Expiration Date N/A I Engineer Date MARCH 7 20
Type Code Symbol Stamp Original Cod Certificate of Authorization No SignedR.M. Hambleton Lead ISI	the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI. de data report N5-013 to be supplemented by Owners Section XI Program #06-001. N/A Expiration Date N/A I Engineer Date MWCH 7 20 06
Type Code Symbol Stamp Original Cod Certificate of Authorization No SignedR.M. Hambleton Lead ISI	the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI. de data report N5-013 to be supplemented by Owners Section XI Program #06-001. N/A Expiration Date N/A I Engineer Date MWCH 7 20 06
Type Code Symbol Stamp Original Cod Certificate of Authorization No SignedR.M. Hambleton Lead ISI	de data report N5-013 to be supplemented by Owners Section XI Program #06-001. N/A Expiration Date N/A I Engineer Date MWOLL 7 20
Certificate of Authorization No	N/A Expiration Date N/A I Engineer Date MARCH 17 20 06
Signed R.M. Hambleton Lead ISI	1 Engineer RM Date MARCH 17 20 06
Signed R.M. Hambleton Lead ISI	1 Engineer RM Date MARCH 17 20 06
Owner of Owner's Designes, Th	
•	CERTIFICATE OF INSERVICE INSPECTION
	CERTIFICATE OF INSERVICE INSPECTION
	nission issued by the National Soard of Soiler and Pressure Vessel Inspectors and the State or
	HS3 CT of One State Street. Hartford. CT 06102 have inspected the components
	the period 1/-/3-00 to 03-/7-00, and state that to the best of my knowledge and ations and taken corrective measures described in this Owner's Report in accordance with the
requirements of the ASME Code, Section	
•	·
	pector nor his employer makes any warranty, expressed or implied, concerning the examinations
	is Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any
manner for any personal injury of property	ty damage or a loss of any kind arising from or connected with this inspection.
Mar Lis.) & MICOLO
Inapparator a Signatur	Commissions Varional Board, State, Province, and Endorsements
mapacior's Signatu	national Edaid, State, Frovince, and Endotsements
Date March 17	20 0 4

(10/94)

For complete work package, see Work Request 000Z042034.

1.	Owner Detroit	t Edison Company		_ Dat	ie		May 11., 2006	
	6400 North Dix	Name ie Highway, Newport MI 4	18166	She	eet		1 of 12	
2.		Address uclear Power Plant		- Uni	t		2	
	6400 North Dix	Name ie Highway, Newport MI	48166	-	 -		- 	
				<u> </u>	Paga		Maintenance	
3.	Work Performed by	Address Detroit Edison Compa	any	Typ . Stai	e Code Symbol	i Organizat	ion P.O. No., Job No., etc. N/A	
		Name		Autl	norization No.		N/A	
	6400 North Dixi	e Highway, Newport, MI 4	18166	. Exp	iration Date		· N/A	
4.	Identification of System	Address <u>Division Emerge</u> <u>T4700B004 N-5</u>			Systems - Su	pply and	Return piping to Drywel	Cooler
5. 6.	(b) Applicable Ed Replacements	onstruction Code ASME Class Sition/Addenda of Section XI Sonents Repaired or Replaced	2 19 Utilized for Repair		n <u>71</u> 1992-92 Addend	_ Addeno	da <u>N/A</u> C	code Case
		3					· 	
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	T4700B004	CTI - Nuclear / Wismer & Becker	#7/#8	1197/1183	N/A	1975	Replaced	Y
	T4700B004	Aerofin Corporation	960612	771	N/A	1996	Replacement	Y
	T4700B004	Aerofin Corporation	960608	767	N/A	1996	Replacement	Y
	T4700B004	Aerofin Corporation	960606	765	N/A	1996	Replacement	Y
	T4700B004	Aerofin Corporation	960610	769	N/A	1996	Replacement	Y
7.	Description of Work		n of new isolatio	n valves for T	4700B004 per		ng for cooler T4700B004 90 during RF11. See sl	
8.	Tests Conducted:	Hydrostatic [X] Pnother [] Pressure	eumatic []	•	ting Pressure [X	•	Ref. Code Case	N-416-2

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.

	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
We certify	that the statements made in the report are correct and this <u>Replacement</u> conforms to the rules of the ASME Code, Section XI.
•	e Symbol Stamp Original Code data report N5-0502 to be supplemented by Owners Section XI Program # 06-002.
Certificate	of Authorization No. N/A Expiration Date N/A
Signed	R.M. Hambleton Lead ISI Engineer Date NAY II .20 00
	Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
	rsigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
t the rinde	f Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the
Province o	
Province o componen	is described in this Owner's Report during the period 2-21-00 to 6-08-00, and state that to the best of my
Province o component knowledge	
Province o componen knowledge accordance	is described in this Owner's Report during the period 2-2/-co to 6-08-co, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations
Province o component knowledge accordance By signing and correct	is described in this Owner's Report during the period 2-2/-co to 6-08-co, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations ive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any
Province o component knowledge accordance By signing and correct	is described in this Owner's Report during the period 2-2/-co to 6-08-co, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations
Province o component knowledge accordance By signing and correct	and state that to the best of my and belief, the Owner's Report during the period 2-2/-cc to 6-08-cc, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. This certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations ive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Province o component knowledge accordance By signing and correct	and belief, the Owner's Report during the period 2-2/-cc to 6-08-cc, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations ive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

(10/94)

For additional details of material installation reference work requests 000z053439, 000z060030, and 000z060041.

EDP 33690 MA	TERIAL VERIFICATION MA	ATRIX	<u> </u>
Index Item: A4	Dwg.: WM-5275-1	Division: 2	WR: 000Z053439
Fiece No.	Description	Heat /Trace/Ser. No	Purchase Order
19	Existing 2" Pipe	N/A	N/A
191	2" 3000# SW Cpl'g	9396	PO # 416067
192	2" Pipe Sch. 80	00A050856	PO # 416067
20	2" Elbow	76259	PO#416067
21	2" Pipe Sch. 80	00A050856	PO # 416067
22	2" Elbow	76259	PO # 416067
23	2" Pipe Sch. 80	00A050856	PO # 416067
230	2" Tee	76110	PO # 416067
231	2" x 3/4" Red. Insert	GG04	PO # 416067
232	3/4" Nipple	466854	PO # 354114
233	3/4" Valve P4400F1075	S/N 29 AYT	PO # 394643
234	2" Pipe Sch. 80	00A050856	PO # 416067
24	2" Elbow	76259	PO # 416067
25	2" Pipe Sch. 80	00A050856	PO # 416067
26	2" Tee	76110	PO # 416067
27	2" Pipe Sch. 80	00A050856	PO # 416067
28	2" Valve P4400F247	S/N 38 BFB	PO # 418479
29	2" Pipe Sch. 80	00A050856	PO # 416067
30	2" Tee	76110	PO # 416067
31	2" x 1-1/2" Red. Insert	GG04	PO # 416067
32	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
33	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
34	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
34A	Threaded Rod	474A	PO # 984718
34B	Nuts	492A	PO # 984775
34C	Gasket	N/A	N/A
35	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
36	1-1/2" Elbow	75807	PO # 416067
37	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
38	1-1/2" Elbow	75807	PO # 416067
SN# 960612	COOLING COIL	S/N 960612	PO#410007 PO#313960
39	2" x 1-1/2" Red. Insert	GG04	PO # 416067
40	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
41	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
42	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
42A	Threaded Rod	474A	PO # 984718
42B	Nuts	492A	PO # 984775
42C	Gasket	N/A	N/A
43	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
44	1-1/2" Elbow	75807	PO # 416067
45	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
46	1-1/2" Elbow	75807	PO # 416067
SN# 960608	COOLING COIL	S/N 960608	PO # 416067
50	2" Pipe Sch. 80	00A050856	PO#416067
51	2" Valve P4400F249	S/N 39 BFB	PO # 418479
52		00A050856	PO # 416067
	2" Pipe Sch. 80		
53	2" Tee	76110 GG04	PO # 416067
54	2" x 1-1/2" Red. Insert	0004	PO # 416067

EDP 33690 MA	TERIAL VERIFICATION MA	ATRIX	
Index Item: A4	Dwg.: WM-5275-1	Division: 2	WR: 000Z053439
Piece No.	Description	Heat /Trace/Ser. No	Purchase Order
55	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
56	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
57	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
57A	Threaded Rod	474A	PO # 984718
57B	Nuts	492A	PO # 984775
57C	Gasket	N/A	N/A
58	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
59	1-1/2" Elbow	75807	PO # 416067
60	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
61	1-1/2" Elbow	75807	PO # 416067
SN 690606	COOLING COIL	S/N 960606	PO # 313960
62	2" x 1-1/2" Red. Insert	GG04	PO # 416067
63	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
64	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
65	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
65A	Threaded Rod	474A	PO # 984718
65B	Nuts	492A	PO # 984775
65C	Gasket	N/A	N/A
66	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
67	1-1/2" Elbow	75722	PO # 416148
68	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
69	1-1/2" Elbow	75722	PO # 416148
SN# 960610	COOLING COIL	S/N 960610	PO # 313960
Index Item A11	Dwg: M-5240-1		WR 000Z060041
Piece No. 505	3/4" S/S Coupling	DKA	PO # 416251
Index Item A12	Dwg: M-5241-1		WR 000Z060041
Piece No. 500	1" S/S Pipe	43801	PO # 416067
Piece No. 900	1 1/2" S/S Coupling	56505	PO #416251

EDP 33690 MAT	FERIAL VERIFICATION MA	TRIX	
Index Item: A5	Dwg.: WM-5282-1	Division: 2	WR: 000Z053439
			000Z060041
Piece No.	Description	Heat /Trace/Ser. No	Purchase Order
24	Existing Pipe	N/A	N/A
23	Existing Elbow	N/A	N/A
68	2" Pipe Sch. 80	00A050856	PO # 416067
69	2" Tee	76110	PO # 416067
70	Existing TEW	N/A	N/A
71	Existing Coupling	N/A	N/A
52	Existing 1 1/2" Pipe	N/A	N/A
53	Existing Reducer	N/A	N/A
54	Existing Tee	N/A	N/A
55	Existing Reducer	N/A	N/A
56	Existing 2" Pipe	N/A	N/A
70	2" Pipe Sch. 80	00A050856	PO # 416067
71	2" 3000# SW Cpl'g	9209	PO # 416067
77	2" Valve P4400F248	S/N 09BFB	PO # 418479
711	2" x 1 1/2" Red. Insert	GG04	PO # 416067
79	2" Tee	76110	PO # 416067
80	2" x 1-1/2" Red. Insert	GG04	PO # 416067
81	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
82	1-1/2" Elbow	75722	PO # 416148
83	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
84	1-1/2" Elbow	75722	PO # 416148
841	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
85	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
86	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
86A	Threaded Rod	474A	PO # 984718
86B	Nuts	492A	PO # 984775
86C	Gasket	N/A	N/A
87	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
88	1-1/2" Elbow	75807	PO # 416067
SN# 960608	COOLING COIL	S/N 960608	PO # 313960
89	2" Pipe Sch. 80	00A050806	PO # 416067
90	2" Elbow	76259	PO # 416067
91	2" x 1-1/2" Red. Insert	GG04	PO # 416067
92	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
93	1-1/2" Elbow	75722	PO # 416148
931	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
94	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
95	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
95A	Threaded Rod	474A	PO # 984718
958	Nuts	492A	PO # 984775
95C	Gasket	N/A	N/A
96	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
97	1-1/2" Elbow	75807	PO # 416067
SN# 960612	COOLING COIL	S/N 960612	PO # 313960
98	2" Pipe Sch. 80	00A050856	PO # 416067
99	2" Elbow	76259	PO # 416067

EDP 33690 MA	TERIAL VERIFICATION MA	ATRIX	
Index Item: A5	Dwg.: WM-5282-1	Division: 2	WR: 000Z053439
Piece No.	Description	Heat /Trace/Ser. No	Purchase Order
100	2" Pipe Sch. 80	00A050856	PO # 416067
101	2" Elbow	76259	PO # 416067
102	2" Pipe Sch. 80	00A050856	PO # 416067
103	2" 3000# SW Cpl'g	9209	PO # 416067
104	2" x 1 1/2" Red. Insert	GG04	PO # 416067
10	Existing 1 1/2" Pipe	N/A	N/A
11	Existing Reducer	N/A	N/A
12	Existing Tee	N/A	N/A
68	Existing TEW	N/A	N/A
69	Existing Coupling	N/A	N/A
13	Existing Reducer	N/A	N/A
14	Existing Pipe	N/A	N/A
109	2" Valve P4400F250	S/N 10BFB	PO # 418479
110	2" Pipe Sch. 80	00A050856	PO # 416067
111	2" Tee	76110	PO # 416067
112	2" x 1-1/2" Red. Insert	GG04	PO # 416067
113	1-1/2" Pipe Sch. 80	3M50192	PO#416067
114	1-1/2" Elbow	75722	PO # 416148
115	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
116	1-1/2" Elbow	75722	PO # 416148
1161	1-1/2" Pipe Sch. 80	3M50192	PO#416067
117	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
118	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
118A	Threaded Rod	474A	PO # 984718
1188	Nuts	492A	PO # 984775
118C	Gasket	N/A	N/A
119	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
120	1-1/2" Elbow	75807	PO # 416067
SN# 960610	COOLING COIL	S/N 960610	PO # 313960
121	2" Pipe Sch. 80	00A050856	PO # 416067
122	2" Elbow	76259	PO # 416067
123	2" x 1-1/2" Red. Insert	GG04	PO # 416067
124	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
125	1-1/2" Elbow	75722	PO # 416148
1251	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
126	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
127	1-1/2" 150# RF Flange	3526ANF2 WFI	PO # 416067
127A	Threaded Rod	474A	PO # 984718
127B	Nuts	492A	PO # 984775
127C	Gasket	N/A	N/A
128	1-1/2" Pipe Sch. 80	3M50192	PO # 416067
129	1-1/2" Elbow	75807	PO # 416067
SN# 960606	COOLING COIL	S/N 960606	PO # 313960

FORM NPV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES

As Required by the Provisions of the ASME Code , Section III, Div. 1

							Pg. 1 of
Manufactured by	Flowserve Co	Orporation. 1! (Name and	900 S. Saunde Address of N Certific	ers St Rale	eigh. NC 2	7603	
Manufactured forDetr	roit Edison Comp	anv PO Box 1659	Detroit. MI	48231-1659	 		
Location of Installation	<u>Detroit Edison EF</u>	2 Site 6400 Dixi			231		
Pump or Valve	Valve	Nominal I		3/4" (inch)	Outlet	Size	3/4"
(a) Model No. Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Dra No	wing	(e) Class	(f) Nat'l. Bd. No.	(g) Yea
(1) 600#	29AYT	N/A	04-28791-	01 Rev. 0	2	N/A	200-
(2)							
(3)	<u> </u>						5 4
(4)							
(5)							
(5)						·	
(7)						بيها بلغواء المحميل برا	·
(8)							4 5
(9)						\$1.00 mg	Mark .
(10)						1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Ý
3/4"-600# Edward For	rged Steel Globe S	Stop Valve	,				A. S. S. S. S. S. S. S. S. S. S. S. S. S.
3/4"-600# Edward Foo		(Bnef description of		ipment was designed 7 Addenda		28791	
dy and Cover shall be p	er ASME Section	(Bnef description of III 1977 Edition si	Summer 197	•		28791 600	(1)
dy and Cover shall be p Design Conditions Cold Working Pressure	er ASME Section 940 p. (Pressure) 1440	(Bnef description of III 1977 Edition	Summer 197	7 Addenda		 	
dy and Cover shall be possign Conditions Cold Working Pressure Pressure Retaining Pieces	er ASME Section 940 p (Pressure) 1440 s	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197	7 Addenda or Valve Pressure	e Class	600	(1)
dy and Cover shall be p Design Conditions Cold Working Pressure	er ASME Section 940 p (Pressure) 1440 s	(Bnef description of III 1977 Edition	Summer 197	7 Addenda	e Class	 	(1)
dy and Cover shall be possign Conditions Cold Working Pressure Pressure Retaining Pieces Mark No. (a) Castings	er ASME Section 940 p (Pressure) 1440 s	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer	e Class	600 Remar	(1)
dy and Cover shall be p Design Conditions Cold Working Pressure Pressure Retaining Piece Mark No. (a) Castings	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure	e Class	600	(1)
dy and Cover shall be p Design Conditions Cold Working Pressure Pressure Retaining Piece Mark No. (a) Castings	er ASME Section 940 p (Pressure) 1440 s	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer	e Class	600 Remar	(1)
dy and Cover shall be p Design Conditions Cold Working Pressure Pressure Retaining Piece Mark No. (a) Castings	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer	e Class	600 Remar	(1)
dy and Cover shall be p Design Conditions Cold Working Pressure Pressure Retaining Piece Mark No. (a) Castings BQ	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer	e Class	600 Remar	(1)
dy and Cover shall be p Design Conditions Cold Working Pressure Pressure Retaining Piece Mark No. (a) Castings BQ	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer	e Class	600 Remar	(1) ks
dy and Cover shall be p Design Conditions Cold Working Pressure Pressure Retaining Piece Mark No. (a) Castings BQ	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer	e Class	600 Remar	(1)
dy and Cover shall be possign Conditions Cold Working Pressure Pressure Retaining Pieces Mark No. (a) Castings BQ (b) Forgings	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer OLIDATED C.	e Class	600 Remar	(1)
Design Conditions Cold Working Pressure Pressure Retaining Piece Mark No. (a) Castings BQ (b) Forgings 8FXB	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition of III 1977 Edition of Si 700 (Temper psi at 100 °F. SAISI 615	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer OLIDATED C.	e Class	600 Remar DISI Bonne	(1)
dy and Cover shall be possign Conditions Cold Working Pressure Pressure Retaining Pieces Mark No. (a) Castings BQ (b) Forgings	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition si 700 (Temper psi at 100 °F.	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer OLIDATED C.	e Class	600 Remar	(1)
dy and Cover shall be possign Conditions Cold Working Pressure Pressure Retaining Pieces Mark No. (a) Castings BQ (b) Forgings 8FXB	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition of III 1977 Edition of Si 700 (Temper psi at 100 °F. SAISI 615	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer OLIDATED C.	e Class	600 Remar DISI Bonne	(1)
dy and Cover shall be possign Conditions Cold Working Pressure Pressure Retaining Pieces Mark No. (a) Castings BQ (b) Forgings 8FXB	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition of III 1977 Edition of Si 700 (Temper psi at 100 °F. SAISI 615	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer OLIDATED C.	e Class	600 Remar DISI Bonne	(1)
Design Conditions Cold Working Pressure Pressure Retaining Piece Mark No. (a) Castings BQ (b) Forgings 8FXB	er ASME Section 940 Pressure) 1440 S	(Bnef description of III 1977 Edition of III 1977 Edition of Si 700 (Temper psi at 100 °F. SAISI 615	Summer 197 °F c	7 Addenda or Valve Pressure Manufacturer OLIDATED C.	e Class	600 Remar DISI Bonne	(1)

⁽¹⁾ For manually operated valves only

^{*}Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

	·	Valve S	N 29AYT through ***
Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Q324	SA193 GR. B7	MACKSON	SCREW
		1	
	<u> </u>		
(d) Other Parts			·A·
· · · · · · · · · · · · · · · · · · ·			
<u> </u>	· .		
<u> </u>			
		<u> </u>	40 a. 11 Abrel 14 a.
			St. Ph. DAY
Hydrostatic test 2175 ps	si. Disk Differential test pres	sure 1440 psi.	
2173			
	CERTIFICATE OF	COMPLIANCE	
We certify that the statements made			the rules of construction
conforms	D D 10 1 0 1	re- w pro d	1971
	Power Plant Components. Sec le Case No. N/A		7/
Signed Flowserve	by	$\pm \lambda$ 0 $\sqrt{-\frac{4}{3}}$	127/64
(N Certificate Holder)		N.A.ICL	
Our ASME Certificate of Authorization No.	. N-1562 to use th	ne N symbol expires	11-26-06
	OF STIFICATION	(N)	(Date)
Design information on file at	CERTIFICATION F	Or DESIGN Towserve Corporation Raleigh,	NC .
Stress analysis report (Class 1 only)		ionserve corporation realeign,	
Design specifications certified by (1)		T.J. O'Keefe	
	/II Reg. No.	24359	
Stress analysis certified by (1) PE State	Reg. No.		
re state	Neg. No.		
) Signature not required. List name only.			
	CERTIFICATE OF SHO	OP INSPECTION	
the undersigned, holding a valid commiss	sion issued by the National Board of	Boiler and Pressure Vessel Inspectors	
orth Carolina and employed by	HSB CT		artford Connecticut
ve inspected the pump, or valve, describ lief, the N Certificate Holder has construc			the best of my knowledge and
signing this certificate neither the Inspec	tor nor his employer makes any war	ranty, expressed or implied, concernin	g the equipment described in
s s Data Report. Furthermore, neither the ss of any kind arising from or connected v	: Inspector nor his employer shall be vith this Inspection.	liable in any manner for any personal	injury or property damage or a
ate 4127104	•		
		NC1083	
gned (Inspector)	Commissions	(Nat'l Ed., State, Prov. and No.)	
· · · · · · · · · · · · · · · · · · ·			

106002 Te= 12

FORM NPV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*

As Required by the Provisions of the ASME Code, Section III, Div. 1

							Pg. 1 of _2
1.	Manufactured by	Flowserve C			Raleigh, NC 276	503	
2.	Manufactured for De	<u>troit Edison Comp</u>	any, PO Box 16:	Address of N Certificate Holder) 59 Detroit, MI 48231			
3.			(Name and npany. Fermi 2.	Address of Purchaser or Owner) . 6400 Dixie Fighway. Ne	wdort, MI 48166	5	
4.	Pump or Valve	Valve	· ·	(Name and Address) Inlet Size 2".	Outlet S	ize	2"
	(a) Madal Na		(a) Canadian	(inch)			(inch)
	(a) Model No. Series No.	(b) N Certificate Holder's	(c) Canadian Registration	(d) Drawing	_	(f) Nat'l.	(g) Year
	or Type	Serial No.	No.	No.	(e) Class	Bd. No.	Built
	(1) 800#	07BFB	N/A	05-37122-01 Rev. B	1	N/A	2006
	(2) 800#	08BFB	N/A	05-37122-01 Rev. B	1	N/A	2006
	(3) 800#	09BFB	N/A	05-37122-01 Rev. B	1	N/A	2006
	(4) 800#	10BFB	N/A	05-37122-01 Rev. B	1	N/A	2006
	(5)						
	(6)						
	(7)						
	(8)	· ·					
	(9)		· ·				
	(10)						
<u> </u>		· 		<u></u>		37122	
6.	Design Conditions	2-120	si <u>68</u>		sure Class	800	(1)
7. B <i>.</i>	Cold Working Pressure Pressure Retaining Piece	(Pressure) 1973	psi at 100 °F.	raure)	•		
- <u></u>	Mark No.		aterial Spec. No.	Manufactu	rer	Remark	 :s
_	(a) Castings						
	M8344		SA216-WCB	Flowser	ve	Body	
, v.			_ 				·
e e	-						
	(b) Forgings						
	99951		SA105	Askew		Bonne	<u>t</u>
	J566		664-630-H1075	Nova_		Disc	
	G6439	SA	564-630-H1075	Flowserv	'e	Gasket Reta	ainer
						•	
•	· · · · · · · · · · · · · · · · · · ·					·	

⁽¹⁾ For manually operated valves only

^{*}Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

Valve	S/N	07RFB	through	1085
AGIAC	2111		unougn	1000

			. ,
Mark No.	Material Scec. No.	Manufacturer	Remarks
(c) Boiting		- 	
(0, 00.01.9			
·			

-	<u> </u>		
(d) Other Parts			
			·
		•	
			'
==-,==================================			F. S. F
We certify that the statements mad of the ASME Code for Nuclear	CERTIFICATE OF e in this report are correct and Power Plant Components. S	that this pump, or valve, conforms to	the rules of construction 1986
Addenda No Co	ode Case No. N62-4	, Date3	17-06
Signed Flowserve Co.	rp. by .	12 mll	
(N Certificate Holder)			
Our ASME Certificate of Authorization N	o. N-1562 to use	e the N symbol expires	11-26-06
		(N)	(Date)
	CERTIFICATION	N OF DESIGN	
Design information on file at		Flowserve Corporation Raleigh,	NC
Stress analysis report (Class 1 onl	y) on file at	Flowserve Corporation Rale	
Design specifications certified by (1)	F.A. Bensinger	
PE State	PA Reg. No.	PE-31002-E	
Stress analysis certified by (1)		R.S. Farrell	
	NC Reg. No.	028656	
	· ·	020030	
(1) Signature not required. List name only	у.		
· · · · · · · · · · · · · · · · · · ·	CERTIFICATE OF SI	HOP INSPECTION	
l, the undersigned, holding a valid commi <u>North Carolina</u> and employed by		of Boiler and Pressure Vessel Inspectors	s and the State or Province of Hartford Connecticut
have inspected the pump, or valve, describelief, the N Certificate Holder has construed by signing this certificate neither the Inspection is Data Report. Furthermore, neither those of any kind arising from or connected	ucted this pump, or valve, in accord actor nor his employer makes any whe inspector nor his employer shall	dance with ASME Code, Section III. varranty, expressed or implied, concerning	ng the equipment described in
Date 3 118 106	120	•	•
Signed M. Va	M Commissions	NC = 1921	
(Inspector)	Continuations	(Nat'l Bd., State, Prov. and No.)
		•	2 .

10002 B 0= 12

FORM NPV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*

As Required by the Provisions of the ASME Code , Section III, Div. 1

_						· · · · · · · · · · · · · · · · · · ·	Pg. 1 of _2	
1.	Manufactured by	Flowserve C	Corporation, 1		aleigh. NC 27603	<u>; </u>		
2.	(Name and Address of Purchaser or Owner)							
3.	Location of Installation _E	Detroit Edison Co	mpany, Fermi 2.	. 6400 Dirie Highway. Ne-	vport. MI 48166			
4.		Valve	((Name and Address) Inlet Size 2"	Outlet Size		2"	
	· · · · · · · · · · · · · · · · · · ·			(inch)			(inch)	
	(a) Model No. Series No.	(b) N Certificate Holder's	(c) Canadian Registration	(d) Drawing		(f) Nat'l.	(g) Year	
	or Type	Serial No.	No.	No.	(e) Class	Bd. No.	. Built	
	(1) 800#	37BFB	N/A	05-37122-02 Rev. A	1	N/A	2006	
	(2) 800#	38BFB	N/A	05-37122-02 Rev. A	1 .	N/A	2006	
	(3) 800#	39BFB	N/A	05-37122-02 Rev. A	1	N/A	2006	
	(4) 800#	40BFB	N/A	05-37122-02 Rev. A	1	N/A	2006	
	(5)							
	(6)			······································				
	(8)		·					
	(9)							
	(10)							
								
5.	2" 800# Split Wedge	Gate Valve	(Brief description o	of service for which equipment was design	ed)	37122	Item 002	
 5.	. Design Conditions	1425	Psi 68	n °F or Valve Press	ure Class		. (1)	
<i>.</i>		(Pressure)	Psi 68 (Tempe psi at 100 °F.	erature)		800		
7. ₹	Cold Working Pressure Pressure Retaining Piece	1973	psi at 100 °F.					
<u>'</u>	Mark No.		Material Spec. No.	Manufactur	er	Remark	s	
_	(a) Castings					····		
	(a) Castings M3634		SA216-WCB	Flowserv	e	Body		
				· · · · · · · · · · · · · · · · · · ·				
	(h) Famina					···		
	(b) Forgings 150717		SA479-316	DuBose		Bonnet	<u> </u>	
	22595	SA	64-XM13-H110			Male Di		
	22575-1	SA5	64-XM13-H110	0 DuBose		Female D	isc	
	R0253-P30	SA	\$564-630-H1075	Askew		Gasket Reta	ainer	
						·		
	,							
•								

⁽¹⁾ For manually operated valves only

^{*}Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

Valve S/N	37BFB	through	4085

	Material Spec. No.	Manufacturer	Remarks	
(c) Bolting				
	•			
			<u> </u>	
		<u> </u>		
				
(d) Other Parts				
<u> </u>				
			•	
				
9. Hydrostatic test 2975 psi	Disk Differential test press	ure <u>2175</u> psi.	•	
We certify that the statements made i	CERTIFICATE OF C in this report are correct and that		rms to the rules of construction	חכ
of the ASME Code for Nuclear F Addenda No , Code	Power Plant Components. Section Case No. N62-4	ion III, Div. 1., Editi	on 1986 3-20-06	
of the ASME Code for Nuclear F Addenda No Code Signed Flowserve Corp.	Case No. N62-4			
of the ASME Code for Nuclear F Addenda No , Code	Case No. N62-4	Date N symbol	3-20-06	
of the ASME Code for Nuclear F Addenda No Code Signed Flowserve Corp. (N Certificate Holder)	by N-1562 to use the	Date N symbol	3-20-06	
of the ASME Code for Nuclear F Addenda No Code Signed Flowserve Corp. (N Certificate Holder) Our ASME Certificate of Authorization No.	N-1562 to use the	Date N symbol OF DESIGN	3-20-06 expires 11-26-06 (Date)	
of the ASME Code for Nuclear F Addenda No Code Signed Flowserve Corp. (N Certificate Holder)	N-1562 to use the	Date N symbol OF DESIGN owserve Corporation F	3-20-06 expires 11-26-06 (Date)	
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FORTH TO CENTRICATE KOLDERS' DATA REPORT FOR HUCLEAR VESSELS.

As Required by the	Provisions of the	ASME Code.	Section III,	Division	i

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		As Requ	ired by th	e Provision	s of the Al	SME Code, S	Section III, Di	ivision 1	Fg. 1 c
s us	ಗುಗಳಿವರ್ಭಕಲ್ಲೆ ಕಗುರೆ ಆ	confilerations	AEROFIN	CORPORA	TION, 46	21 MURRAY	PLACE, LYI	NCHBURG,	VA 24502
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2. 14.5	referenced for	DETROI	T EDISO	N CUMPANY	trame a	PLANT, UN	111 C, KER	7081, RI	46166
3. Loc	etion ut installetic	on DET	ROIT ED	ISON COMP	ANY, FER	MI PLANT,	UNIT 2, A	EWPORT, !	45166 IX
4 Tun	HORIZONT	AL HEST E	XC+444833	950606			= N-R-1033	765	<u> </u>
) Cert. Horder			it away ne.1	(Net'L St.	uc) ties p
5. ASW	E Code, Section	Kt, Division 1:	1971	ditent	1972 S	UREKER	2		Cada Caca ne.)
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7. Seam	s: NONE		•						<u></u>
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e. Heads	<u>SA-240,3</u>	104 spec re.1	75,0	JOU TO THE STREET		SA-240,3	M4		75,000
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^{*} Supplemental information in form of Este, executors, or drawings may be used provided (1) size is \$ % × 11, (2) information at items 1 through 4 on this Data Report is included on each shaet. (3) each sheet is numbered and number of shaets is recorded at top of this form.

Ceraficate Holder's Serial No. -

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R END	N/R	.375"	S4-182	THE VOED	SS FLIG	13/4" UNS	8	VENT/DRAIN
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We ca	rolly that the statemen	ats made in thi	theo six thegen a	ect and that	this nuclear v	ressel confo	ums to the rule	is for constructi	ion of the ASM
Code,	Section III, Division 1.								
	ficate of Authorization	1 NO	(-2814	£ # # O.L.		_ Expres	MARLH	30, 1999	
Date d	2-9-96 N	eme Atti	FIN CORPOR		Sign	e: Z			
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l. the ur	ndorsigned, holding e	velid commissio	in issued by the l	Vetional Bo	erd of Boder an	d Fressure	Vessel Inspess	as and the State	e or Frovince o
VA	&nc	f employed by _	*ALLEND!	LE MUTI	JAL INSURA	ANCE			
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8-	8-96	and state that	to the best of my	knowiedae					•
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ಗಚಪಾ ಚ ಜ	menuocion of the ASA	∉E Coste, Sectio	ın III, Division 1.						
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	e ad this component in					_			
By signing t	his ascrificate neither	the inspector no	or his employer n	nakes any v	earranty, expre	esed or imp	lied, concernin	g the componen	t qeecuped
in this Date	Report. Furthermore,	neither the inspi	ector nor his emp	loyer shall	be liable in any	manner for	any personal in	jury or property	damage or
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Deta	Signed				Com:	nissions		ementel end eteta er i	
	· · · · · · · · · · · · · · · · · · ·		(Authorized Inspection)	•		[Na	CL 55, lines, encome	numenten blug biblig di. I	NOW. BAL CALL

77 1 sus Drive Box 2300 Fairfield, NJ 07007-2300.

FORM R-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS'

As Required by the Provisions of the ASME Code, Section III, Division 1



									Fg. 1 cf
1. ida	ಸ್ಥಾಕಕರಾಗುವ <u>ನ</u> ಾರ ರ	ertified by	AEROFI	N CORPO	PRATION,	4621 NURR	AY PLACE,	LYNCHBURG	, VA 24502
• • •	- ಇನಿ ಶಿತಾಜಕಾತಿ	DETRO	TT ENTS	ON COMP	PANY. FER	, ,	UNIT 2. N		I 48166
4. Him	2332762 for 				. (0:	ಬಾಲ ಬಳ ಬಲಿಸಬೇ ನ	~ರ್ಜವಾರ್)		
3. Loc	etion of installeti	m DET	TROIT E	DISON C	OMPANY, I	FERMI PLAN		, NEWPORT,	MI 48166
4. Typ	E: HORIZONT	AL HEAT E	XCHVCER	960	808		N-R-103	3 767	19
								2. (Nect.)	Bd. no.) (year bo
5. AS&	fE Cade, Section	III. Division 1	: 1971	(edition)	13/2	essensa Estel		<u>C</u> (cc)	(Code Case no.)
	10 inclusive to be						e sheks of heat	exchangers.	
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6. Shell	SA-240,	304 73,0 3 mm	Selle Strengthi	(north	. thickness (en.)}	from congn the	≠necs (m.)]	3 . / 0 die. 10 lft & in.11	11 - 11 ⁿ Hength lovers III to
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^{*} Supplemental information in form of Kets, sketches, or drawings may be used provided (1) size is \$ 🛠 × 11, (2) information in items 1 through 4 on this Deta Report is included on each sheet. (I) each sheet is numbered and number of sheets is recorded at top of this form.

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^{*} Supplemental information in form of lists, shetches, or drawings may be used provided (1) size is 3 % × 11, (2) information in items 1 through 4 on this Data Report is included on each shoot. (3) each sheet is numbered and number of sheets is recorded at 100 of the form.

Cartificate Holder's Serial Re. .

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FORM R-1 CERTIFICATE HOLDERS' DATA REPORT FOR HUCLEAR VESSELS' As Required by the Provisions of the ASIAE Code. Section III. Division 1

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^{*} Suspiamental informacion in form of lists, exerches, or drawings may be used provided (1) size is 6% x 11. (2) information in items 1 through 4 on this Detz Report is included an each sheet. (3) each sheet is numbered and number of sheets is recorded at top of this form.

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	OUTLET		115" NPS	ISS PIPE	<u> </u>	177-355 54-312	<u>.</u> නැ	N/R	END
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	V_NT/DRAIN	8	13/4" UNS	SS PLUS	THE '03	S4-182	.375"	N/R	END
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1	n specification certified	by N/A	1	16.1		P.E. S	tate HI	11.0	
Cearg	त repart certified by	<u>``'</u>				P.E. \$	(Ett	Reg. no	<u> </u>
			CERTIFI	CATE OF S	HOS COMEN	ANCE	· · · · · · · · · · · · · · · · · · ·		
We co	utily that the statement	s made in this					ms to the rules	for construction o	f the ASA
	Section III. Division 1.	•		•			•		
	ificate of Authorization h	ŧ7	-2814	*****	·	_ Emires_	MARCH 30), 1999	·
Date_	8-9-96 No	reAEHUI	FIN CORPOR		Sign	مصنعتم به	Jan Jangsonton	HET	
			IK Caretscare H						
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I. COA	nderoigned, holding a va and a	#d commission	n issued by the f *All FRA	Vational Boa	rd of Epiler en Late Taights	d fressure V ⊪ಚಿ೧೯	essel inspectors	and the State or i	Province o
		mployed by _	NORWOOD, M	A				cribed in this Date	
5	2-9-96					•		ructed this compo	•
ಯಾಗ್ರತಿಗಾರ	o with the ASME Code,								
By eignic	ng this cardificate neither	the inspector	not his employe	r meşes en	y wententy, ex	pressed or in	nplied, concerni	ng the component	ರಣಾಗುಂಡ
In this D	eta Report. Furthern are,	nelthershein	epegtor nor hijé ji	المعرفة فالمحاولات	sgisse lieble in 1	eny menner f	or any personal	injury or property o	iemage or
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	hat parts referred to as d							in the certificate	
	zeve been inspected by					ledge and bel	iet the Centificst	e Helder has come	ructes
and scremi	bled this component in a	coordance with	h the ASME Cod	e, Section II	II, Division 1.		ad macas *- ·	ha aam aan da	ا مربتید.
ey signing	this certificate neither th	e inspector no	r his employer m	iekes eny w	enunty, expre	Esea or Impli	ea. concerning t	ne camponent des	577.00
	Report, Furthermore, ne			Hover sace t	ie recie iu sua	manuer iot a	אוא מפנבסטפנ וטוטי	ראַ טר פרטקפרוץ טצח	og = 0. (
	y kind erising from or cor	naected with ti	nis inspection.		Came	niesions			
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FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As required by the Provisions of the ASME Code Section XI

06-005

1.	Owner <u>Detroi</u>	it Edison Company		. Da	<u> </u>		May 2, 2006			
	6400 North Dix	Name kie Highway, Newport MI 4	18166	She	et		1 of 2			
2.	Plant Fermi 2 N	Address luclear Power Plant		Uni	t		2			
	6400 North Dix	Name rie Highway, Newport MI	48166				Deco Maintenance Organization P.O. No., Job No., etc.			
3.	Work Performed by	Address Detroit Edison Compa	any	Typ Sta	e Code Symbol	Organizati	on P.O. No., Job No., etc. N/A			
		Name			norization No.		N/A			
	6400 North Dix	Exp	iration Date		N/A					
4.	Identification of System	Address T & B No. 20 Err	nergency Diesel	Generator #1	3 Service Water	r System				
5.	(a) Applicable Co	onstruction Code ASME		71 Editio	n 71	Addend	a N62-4 C	ode Case		
	(b) Applicable Ed Replacement	dition/Addenda of Section XI		s or	1992-92 Addenda	•	u <u></u> 0	oud Oude		
6.	Identification of Comp	onents Repaired or Replaced	d and Replacemen	t Components			•			
	Name of	Name of Manufacturer	Manufacturer	National	Other	Year	Repaired, Replaced,	1		
•	Component	Name of Manufacturer	Serial No	Board No.	Identification	Built	or Replacement	ASME Code Stamped (Yes		
		Wm. Powell	1	Board No.	Identification V15-2075	Built N/A		Code Stamped		
	Component		Serial No				or Replacement	Code Stamped (Yes or No)		
	Component R3000F139B	Wm. Powell Weir Valves &	Serial No - 66285-16	N/A	V15-2075	N/A	or Replacement Replaced	Code Stamped (Yes or No) Y		
	Component R3000F139B R3000F139B	Wm. Powell Weir Valves &	Serial No - 66285-16	N/A	V15-2075	N/A	or Replacement Replaced	Code Stamped (Yes or No) Y		
7.	Component R3000F139B	Wm. Powell Weir Valves &	Serial No 66285-16 1-52182-A	N/A N/A	V15-2075 V30-1566	N/A N/A	or Replacement Replaced Replacement	Code Stamped (Yes or No) Y		

sheets is recorded at the top of this form.

(10/94)

	Remarks	Replacement valve was procured per PO #394742, SN # 1-52182-A,, SA-216-WCB, V30-1566. Replacement valve was manufactured by Weir Valves.
	·	
		·
		Applicable Manufacturer's Data Reports to be attached
_		CERTIFICATE OF COMPLIANCE
	We certify that	at the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
	Type Code S	symbol Stamp Original Code data report T&B No. 20 to be supplemented by Owners Section XI Program # 06-005
	Cortificate of	Authorization No. N/A Expiration Date N/A
	Octunicate of	
		.M. Hambleton Lead ISI Engineer KWW Date Date 20 00 pate 10 pa
	· • • • • • • • • • • • • • • • • • • •	when of Owner's Designee, Thie
		CERTIFICATE OF INSERVICE INSPECTION
	Province of components di knowledge and	gned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the described in this Owner's Report during the period 3-29-60 to 5-4-00, and state that to the best of my dibelief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in ith the requirements of the ASME Code, Section XI.
	and corrective	s certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any y personal injury or property damage or a loss of any kind arising from or connected with this inspection.
	m	Commissions_NZ610
	m	Commissions

· (10/94)

Reference WR # 000Z031475 for additional details.

06-005 SKRET ZOFZ

FORM NPV-1 CERTIFICATE HOLDERS DATA REPORT FOR NUCLEAR PUMPS OR VALVES* As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of 2

						·	
1. Manufactured and certifi	ed by: Weir Va	ilves & Controls US (name and	A. Inc., 28 address c	5 Canal St., Salem	MA 01970 er)		
		•			,		
2. Manufactured for <u>Detro</u>	it Edison, 6400 North D	<u>ixie Hwv. Newbort N</u> name a	nd addre	ss of Purchaser)			
		in Liver Novement Mi					·
3. Location of installation_i	Fermi 2, 6400 North Dix	e Hwv. Newport Mil	ame and	address)			
4. Model No., Series No., or	Type <u>Gate</u>	Drawit	1g <u>5</u>	2182-A	Rev <u>1</u>	CRN_N/	Α
5. ASME Code, Section III, I	Division 1: <u>-1971</u> (edition)	Winter 1971 (addenda date)		3 (class)	(Co	N62-4 de Case no.)	15.
6. Pump or Valve Valve	Nominal inlet size	e <u>8</u> Outlet size (in.)	<u>8</u> (in.)		·	·	(S)
7. Material: Body <u>SA216</u> -	-WCB Bonnet _	SA216-WCB	•	_SA216-WCB_	Bolting _	See Remarks	
		•					2
(a) Cert.	(b) Nat'l	(c) Body		(d) Bonne	et .	(e) Disk	
Holder's	Board	Serial		Seria		Serial	
Serial No.	No.	No.		No.		No.	
1-52182-A	N/A	HT. #: 05	131	HT. #: 0	585	HT. #: 058	5
		S/N: X2		S/N:X1		S/N: X164	
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^{*} Supplemental information in form of lists, sketches, or drawings may be used provided (1) size 8 ½ x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form (12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM NPV-1 (Back - Pg.-2 of 2)

	Certificate Holder's Serial No. 1-52182-4
8. Design conditions 285 psi 100 °F or valve pressure class 150 (pressure) (temperature)	
9. Cold working pressure285 psi at 100°F	
10. Hydrostatic test 450 psi. Disk differential test pressure 285 psi	The state of the s
11. Remarks: STUD SA193 GR B7 HT.#: M11348 TR#: Q345, H.HEX NUT SA194 2H HT.	#: S07492 TR#: KVE
CERTIFICATION OF DESIGN	
Design specification certified by <u>Lawrence D. Burr</u> P.E. State <u>MI</u> (when applicable)	Reg. no. <u>33999</u>
Design report certified byN/AP.E. State _N	I/A Reg. no. N/A
(when applicable)	
CERTIFICATION OF COMPLIANCE We certify that the statements made in this report are correct and that pump or valve conform Section III, Division 1.	
* 15/04	gnes 6-13-07 gnes Of the first firs
CERTIFICATE OF INSPECTION	
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pres of MA. and employed by HSBCT of Hartford, CT have install Data Report on 2/9/06 and state that to the best of my knowledge at this pump, or valve, in accordance with the ASME Code, Section III, Division 1. By signing this Certificate, neither the inspector nor his employer makes any warranty, express described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable property damage or loss of any kind arising from or connected with this inspection. Date 2/9/66 Signed Commission MA/	epected the pump, or valve, described in this and belief, the Certificate Holder has constructed ed or implied, concerning the equipment old in any manner for any personal injury or
(Authorized Inspector) (Nat'l. Bd. (in	cd. endorsement(s) state or prov and no)

(1) For manually operated valves only.

06-009

								
1.	Owner Detroit E		Date	·		June 1, 2006		
		Name						
	6400 North Dixie	11 48166	Shee	et	1 c	of 2		
_	Diest Francischia		11-4					
2.	Plant Fermi 2 Nucl	lear Power Plant Name		Unit			2	
	6400 North Dixie I	Highway, Newport M	J 48166					
						Deco Ma	aintenance	
		Address			Repair O		P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Con	npany	Type Stam	Code Symbol		N/A	
	•	Name		Autho	orization No.		N/A	
	6400 North Dixie I	Highway, Newport, M	11 48166	Expir	ation Date		N/A	
		Address						
4.	Identification of System	Main Steam Li	ine Drains System, B	31.1 Class L)+ Piping Systen	1 (B2100)	-080A / V10-2006)	
 6. 	(a) Applicable Cons (b) Applicable Edition Replacements Identification of Components	Class or Addenda of Section 2	XI Utilized for Repairs o	19	<u>No</u> 992-92 Addenda	Addenda	N/A	Code Case
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	B2100F080A	Fisher Controls	None	N/A	V10-2006	1976	Replacement	N
				-				
								
								
 7.	Description of Work	Install replacement s	stem and plug asssen	nbly as well a	as seat ring and	cage.		
3.		Hydrostatic [] Other [] Pressure		•	ing Pressure [X]			

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.

9.	Remarks
	Replaced stem and plug assembly, seat ring and cage in control valve. Replacement parts procured per PO# 394592, Heat Code # 44830, Seria
	No. AG0711-2 for stem /olug assembly. Valve was built to ASME III, Class2 requirements but was not 'N' stamped due to system design. Pipin
	system is classified as ASME Section XI, Class 2.
	· · · · · · · · · · · · · · · · · · ·
	Applicable Manufacturer's Data Reports to be attached
	Applicable manufactures a para reporte to se attached
	CERTIFICATE OF COMPLIANCE
	We certify that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
	Type Code Symbol Stamp Valve records to be supplemented by Owners Section XI Program 06-009
	Certificate of Authorization No. N/A Expiration Date N/A
	Signed R.M. Hambleton Lead ISI Engineer FM Date Date 20 06
	Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
	I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
	Province of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 4-6-40 to 6-5-06, 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.
	. 1
	Man July Commissions NIT 610
	Inspector's Signature National Board, State, Province, and
	Endorsements
	Date (1012 3 20 06
	ℓ

(10/94)

For complete work package, see Work Request # H599040100

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL

NUCLEAR PARTS AND APPURTENANCES*

		<i>-</i>	
SHEET	2	CF.	Z

	•			sions of the ASME I One Day's Produ		um St	団で年上
		rioc i		One Day 311000	CLION	Pg1	of <u>1</u>
	2119710 IT. 3 ctured and certified by	FISHER CONTROLS INT'	L LLC, 205	SOUTH CENTER STE			158
. Manufa	ctured for	DETROIT EDISON COP.O	D. BOX 16				
Location	of installation	FERMI II POWER PLANT,	6400 N. D	ixie highway, new		•	
	•			(name	and address)		
Туре	1U4615 REV. B	SB166 N06600		80 KS1		I/A	2004
	(drawing no.)) (mat'l, spec, no	.)	(tensile strength)	(C	RN)	(year built)
ASME C	Code, Section III:	1971	wn	NTER 1971	2		N/A
	•	(edition)	(addenda date)	(class))	(Code Case no.)
abricate	ed in accordance with Const	· · · · · · · · · · · · · · · · · · ·	N/A	Revision	N/A	Date	N/A
		PVC, SECT. III, 1989 EDITI					
lom, thic	ckness (in.) N/A	Min. design thickness (in.)	N/A	_ Dia, ID (fl &in.)	N/A	Length overall (ft	& in.) N/A
Viten app	olicable, Certificate Holders'	Data Reports are attached for e	each item o	f this report:			
	Part or Appurtenance Serial Number	Heat Number			or Appurtenance Serial Number		Heat Number
)	AG0711-1 -	44830 /	ı	(26)			
) _	AG0711-2 🗸	. 44830 🗸		(27)			
) _	AG0711-3 /	44830 🗸		(28)			
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				(33)			•
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Ø	AG0711-1 ~	44830 -]]	(26)		1		
(2)	AG0711-2 🗸	44830	7 i	(27)				
(3)	AG0711-3 /	44830 🗸		(28)				
(4)]	(29)				
(5)		<u> </u>	1 1	(30)				
(6) (7)		<u> </u>	↓ .	(31)				
(7)			- 1	(32)				
(8)			-	(33)			•	
(9)		1 •	4 1	(34)				
(10)			4	(35)				
(11)			4 1	(36)	 		<u> </u>	
(12)			1	(37)			· · · · · · · · · · · · · · · · · · ·	
(13)		ļ		(50)	•			
(14)			4.	(39)				
(15)	•		- 1	(40)				
(16)			} }	(41)				
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10. Design Pressure 1005 547 °F. __ psi. Temp. Hydro, test pressure N/A (when applicable)

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

FORM N-2 (back)

					Mfr. Serial No	AG0711-1,2 &3
	CERTIFICA	TION OF DE	ESIGN			
Design specifications certified by	SYLVESTER H. NOETZEL (when applicable)	P.E State	МІ.	Reg. no.	1438	6
Design report* certified by N/A	(when applicable)	P.E State	N/A	Reg no	N/A	
	CERTIFICATE O	F SHOP COM	<i>I</i> PLIANCE			
We certify that the statements made in conforms to the rules of construction of	this report are correct and that this (these) The ASME Code, Section III.	PLUGA	STEMS	,		
NPT Certificate of Authorization No	1930	Expires		11-	11-2004	
Date //-5-04 Name FI	SHER CONTROLS INT'L LLC (NPT Centificate Holder)			Signed	(authorized r	epresentative)
	CERTIFICATE C	F SHOP INS	PECTION			
I, the undersigned, holding a valid com and employed by Hartford Steam	mission issued by the National Board of Bo Boiler of CT	iler and Pressu				lowa
of Hartford, CT best of my knowledge and belief, the Ce been authorized for stamping on the dat By signing this certificate, neither the in	have inspected these items described in this crificate Holder has fabricated these parts of	or appurtenance	es in accordance with or implied, concerni	ng the equipme	ode, Section III Eac	Data Report
Date 11-05-04 Signed	(Authorized Inspector)	Commissions			sements) state or pro	ov. and no.)

06-010

								
1.	Owner Detroit E	dison Company		. Date		_	June 1, 2006	
	040011: 41 0: 1	Name	11 40400	Char		4 -		
	6400 North Dixie I	11 48166	Shee		10	f 2		
2.	Plant Fermi 2 Nucl	Address		Unit			9	
٠.	Tient Terrin 2 1400	Plant Fermi 2 Nuclear Power Plant Unit 2 Name						
•	6400 North Dixie I	Highway, Newport M	1 48166				•	
						Deco Ma	aintenance	
		Address			Repair O	rganization F	P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Con	npany	Type Stam	Code Symbol		N/A	
	•	Name		Autho	orization No.		N/A	
	6400 North Dixie H	Highway, Newport, M	II 48166	Expir	ation Date	····	N/A	
		Address						
4 .	Identification of System	Main Steam Li	ine Drains System, B	31.1 Class E)+ Piping Systen	n (B2100F	-080B / V10-2007)	
 5. 6. 	(a) Applicable Const (b) Applicable Edition Replacements Identification of Compone	Classin/Addenda of Section :	XI Utilized for Repairs o		No 992-92 Addenda	Addenda`	N/A(Code Case
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	B2100F080B	Fisher Controls	None	N/A	V10-2007	1976	Replacement	N N
							_	
7.	Description . of Work	Install replacement s	stem and plug asssem	nbly as well	as seat ring and	cage.		
3.		Hydrostatic [] Other [] Pressure			ing Pressure [X]	 °F		

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.

	Remarks
	Replaced stem and plug assembly, seat ring and cage in control valve. Replacement parts procured per PO# 394592, Heat Code #44830, S
	No. AG0711-3 for stem / plug assembly. Valve was built to ASME III, Class2 requirements but was not 'N ' stamped due to system design. Piping system is classified as ASME Section XI, Class 2.
	Fibility system is disastiled as Advite dection At, diess 2.
-	
	Applicable Manufacturer's Data Reports to be attached
	\cdot
	CERTIFICATE OF COMPLIANCE
	We certify that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
	Type Code Symbol Stamp Valve records to be supplemented by Owners Section XI Program 06-010
	Certificate of Authorization No. N/A \ Expiration Date \ N/A
	Signed R.M. Hambleton Lead ISI Engineer Dute Date JVNF 1 20 06
	Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
	Province of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the
	components described in this Owner's Report during the period 1 Court to 5 Court 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.
	Market Commissions MI 6/3
	/ Inspector's Signature National Board, State, Province, and
	Endorsements
	Date Oune 5 20 04
,	Date Ocine 5 20 04

For complete work package, see Work Request # H600040100

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL

	FO		PARTS AND APP	TA REPORT FOR IDE URTENANCES* ASME Code, Section II		206-010
			exceed One Day's	Production		
			-	Pg	g. <u>1</u>	of
011-A03	2119710 IT. 3					
	ctured and certified by	FISHER CONTROLS INT'L				- <u> </u>
				address of NPT Certificate Hol		
2. Manufac	ctured for	DETROIT EDISON COP.O.	BOX 1659, DETROIT,	MICHIGAN,48231		
•	•	•		ne and address of purchaser)		
3. Location	of installation	FERMI II POWER PLANT. 6	400 N. DIXIE HIGHWA	Y. NEWPORT, MI., 48166		
₽, -	- 01 μι <u>αμιτικό.</u>	Lateria a , C.	100 10	(name and address)		
4. Турс	1U4615 REV. B	SB166 N06600	80 KS1	N/A		2004
4. 1770	(drawing no.)					(year built)
: -: 45 6				• • • • • • • • • • • • • • • • • • • •		•
5. ASME C	ode, Section III:	(edition)	WINTER 1971 (addenda date)	(class)		N/A (Code Case no.)
				` ,		•
5. Fabricate	d in accordance with Const S	Spec. (Div. 2 only)N/.	A Revision	1 <u>N/A</u>	Date	N/A
	•	ţ,,,	1.)			
7. Remarks:		PVC, SECT. III, 1971 EDITIO			<u>-</u>	
	OTHER: ASME B&	PVC, SECT. III, 1989 EDITION	N, NO ADDENDA, CLA	SS 2		
				-		
l. Nom. thic	kness (in.) N/A	Min. design thickness (in.)	N/A Dia ID (fl &i	in.) N/A Leng	gth overall (ft & in.)	N/A
	_		•	n.) N/A Leng	th overall (ft & in.)	N/A
	_	Min. design thickness (in.)	•	n.) N/A Leng	th overall (ft & in.)	N/A
	olicable, Certificate Holders' D	Data Reports are attached for each	•			N/A eat Number
	_		•	Part or Appurtenance Serial Number		
). When app	Part or Appurtenance Serial Number	Data Reports are attached for each	ch item of this report:	Part or Appurtenance		
When app	Part or Appurtenance	Data Reports are attached for each	•	Part or Appurtenance		
(j)(2)(3)	Part or Appurtenance Serial Number	Data Reports are attached for each Heat Number	(26) (27) (28)	Part or Appurtenance		
(j)(2)(3)(4)	Part or Appurtenance Serial Number AG0711-1 AG0711-2	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29)	Part or Appurtenance Serial Number		
(j)(2)(3)(4)(5)	Part or Appurtenance Serial Number AG0711-1 AG0711-2	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30)	Part or Appurtenance Serial Number		
(J) (2) (3) (4) (5) (6)	Part or Appurtenance Serial Number AG0711-1 AG0711-2	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31)	Part or Appurtenance Serial Number		
(j)(2)(3)(4)(5)	Part or Appurtenance Serial Number AG0711-1 AG0711-2	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30)	Part or Appurtenance Serial Number		
(1) (2) (3) (4) (5) (6) (7) (8) (9)	Part or Appurtenance Serial Number AG0711-1 AG0711-2	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (30) (31) (32) (33) (34) (35) (36) (37) (38) (38)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (6) (6) (7) (7) (10) (11) (12) (13) (14) (15) (16) (16)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (4) (5) (6) (7) (8) (9) (11) (12) (13) (14) (15) (16) (17) (16) (17)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (6) (7) (11) (12) (13) (14) (15) (16) (17) (18) (17) (18) (18)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (37) (38) (39) (40) (41) (42) (43)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (4) (5) (6) (7) (11) (12) (13) (14) (15) (16) (17) (18) (19) (19)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (37) (38) (39) (40) (41) (42) (43) (44)	Part or Appurtenance Serial Number	• н	
(1) (2) (3) (6) (7) (11) (12) (13) (14) (15) (16) (17) (18) (17) (18) (18)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46)	Part or Appurtenance Serial Number	• н	
(I) (2) (3) (4) (5) (6) (7) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20)	Part or Appurtenance Serial Number AG0711-1 AG0711-2 AG0711-3	Data Reports are attached for each Heat Number 44830 44830	(26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45)	Part or Appurtenance Serial Number	• н	

1005 547 °F. 10. Design Pressure Temp. Hydro, test pressure N/A (when applicable)

(49)

(50)

(24)

(25)

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

FORM N-2 (back)

					Mir. Serial No	AG0711-1,2 _&3
	CERTIFIC	ATION OF DE	esign			
Design specifications cerufied by	SYLVESTER H. NOETZEL (when applicable)	P.E Smin	MI	Reg. no.	14386	i
Design report* certified by N	(When applicable)	P.E State	N/A	Reg no	N/A	
	CERTIFICATE O	F SHOP COM	1PLIANCE			
We certify that the statements made a conforms to the rules of construction	in this report are correct and that this (these) of the ASME Code, Section III.	PLUG/	STEMS			
NPT Certificate of Authorization No	1930	Expires _		11-1	1-2004	
Date Name	FISHER CONTROLS INT'L LLC (NPT Certificate Holder)			Signed	(authorized re	presentative
and employed by Hartford Steam		iler and Pressu	re Vessel Inspectors			lowa
been authorized for stamping on the di By signing this certificate, neither the	have inspected these items described in the Certificate Holder has fabricated these parts of ate shown above. Inspector nor his employer makes any warran his employer shall be liable in any manner for the semployer shall be liable in any manner for the semployer shall be liable in any manner for the semployer shall be liable in any manner for the semployer shall be liable in any manner for the semployer shall be liable in any manner for the semployer shall be liable in any manner for the semployer shall be liable in any manner for the semployer shall be semployer the semployer shall be semployer the semployer the semployer the semployer shall be semployer the semploye	or appurienance	s in accordance with or implied, concernir	ng the equipment	fe, Section III Each I described in this D	ata Report
Date 11-05-04 Signed	(Authorized Inspector)	Commissions			ments) state or prov.	and no.)

06-012

1.	Owner Detroit	Da	ta		May 2, 2006			
	6400 North Dix	Name ie Highway, Newport MI 4	18166	_ Sh	eet		1 of 1	
2.	Plant Fermi 2 N	Uni	it		. 2			
	Name 6400 North Dixie Highway, Newport MI 48166							
							o Maintenance	
	•	Address				r Organiza	tion P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Comp	any	Тур Sta	e Code Symbol mp		N/A	
		Name		Aut	horization No.		N/A	
	6400 North Dixi	e Highway, Newport, MI 4	18166	. Exp	iration Date		N/A	
4.	Identification of System	Address <u>T23-4524 - Prim</u> (N5-0392)	ary Containmen	t Penetration .	Assembly Toru	s to Rea	ctor Bldg Vacuum Breake	er System
 5. 6. 	(b) Applicable Ed Replacements	onstruction Code ASME Class ition/Addenda of Section XI s onents Repaired or Replaced	2 19 Utilized for Repair	s or	on <u>W'71</u> 1992-92 Addend	_ Adden	da <u>N/A</u> Ce	ode Case
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	T2300F410	Jamesbury	NC46261- 24B	N/A	V21-2016	1978	Replaced	Y
					-	-	·	
						-		
7.	Description of Work	Replace existing seal v	veld that was da	maged during	ı valve refurbisl	nment.		
8.	Tests Conducted:	Hydrostatic [] Pn Other [X] Pressure			ating Pressure [est Temp. 65		°F LLRT 43.401.374	

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.

(10/94)

	Remarks	Seal weld removal area was examined by the liquid penetrant method. Final seal weld was examined by the magnetic parti- method. Pressure testing was subsequently performed on the seal weld at containment design pressure followed by an LLF the valve.
		Applicable Manufacturer's Data Reports to be attached
		Applicable Manufacturer's Data neports to be attached
		•
		CERTIFICATE OF COMPLIANCE
		CENTRICATE OF COMPENSAGE
We	e certify that	at the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
Tyr	pe Code S	ymbol Stamp Oricinal Code data report N5-0392 to be supplemented by Owners Section XI Program # 06-012
•	•	
Cer	rtificate of r	Authorization No. N/A Expiration Date N/A
Sign		M. Hambleton Lead ISI Engineer W. Date MAY Z 20 06
	Ow	vner or Owner's Designee, Title
		
		CERTIFICATE OF INSERVICE INSPECTION
Prov comp knov	vince of nponents de wledge and	CERTIFICATE OF INSERVICE INSPECTION gned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the described in this Owner's Report during the period 12-02-05 to 5-4-05, and state that to the best of my debilef, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI.
Prov comp know acco By si and c	vince of	ned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the escribed in this Owner's Report during the period (belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
Prov comp know acco By si and c	vince of	ined, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the escribed in this Owner's Report during the period 2-2-co to 5-4-co , and state that to the best of my deblief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI. It certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Prov comp know acco By si and c	vince of	ined, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the escribed in this Owner's Report during the period with the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI. It certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any
Prov comp know acco By si and c	vince of	med, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the escribed in this Owner's Report during the period to 5-4-60 and state that to the best of my deblief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the requirements of the ASME Code, Section XI. It certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any of personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions Mational Board, State, Province, and

(10/94)

Reference WR # A035060100 for additional details.

06-013

1.	Owner Detroit	Edison Company		Date			June 21, 2006	
		Name		O 1.				
	6400 North Dixie	Highway, Newport N Address	<u> 11 48166</u>	Sheet 1 of 2				
2.	Plant Fermi 2 Nuc	clear Power Plant		Unit			2	
		Name						
	6400 North Dixie	Highway, Newport M	11 48166					
		Address			Poneir		intenance	·····
3.	Work Performed by	Address Detroit Edison Cor	moany	Tvne	Code Symbol	organization F	P.O. No., Job No., etc.	
٠.	ononnod by	Name		Stamp				
			Authorization No. N/A					
	6400 North Dixie	/II 48166	Expira	ation Date		N/A		
4.	Identification	Address Standby Gas	Treatment - Containr	ment Interface	Pining (N5-0/	143)		
٦.	of System	Clariday Clas	Treatment - Contain	nem menace	, r iping (145-6-	0)		
_								
5.	(a) Applicable Con		ME III, 19 ss 2 19	71 Edition71 Edition		Addenda Addenda	(Valve) N/A	Code Case
	(b) Applicable Edit	ion/Addenda of Section				nadelida		Oode Oase
	Replacements		•		92-92 Addenda			
^	Liverity of a sign			0				
6.	Identification of Compor	nents Hepaired or Hepla	ced and Heplacement	Components				
			1	-		<u> </u>		
	Name of	Name of	Manufacturer Serial	National	Other	Year	Repaired,	ASME
	Component	Manufacturer	No	Board No.	Identification	Built	Replaced, or Replacement	Code Stamped
	•			110.	•		or neplacement	(Yes
								or No)
	T4803F602	Jamesbury	VC46261-26A	N/A	VR3-3024	1978	Replacement	Y
_		-[<u> </u>					
								
								
	Description			<u>' </u>		1		
7.	of Work	Install replacement	shaft and wafer asse	mbly after LL	RT failure.			
,	Tests Conducted:	I budanatatia f 1	Proumatic [1]	laminal Ones-#	ma Danassis F	ì		
3.	Leara Countracted:	Hydrostatic [] Other [X] Pressure			ing Pressure [] t Temp		LLRT per 43.40	1.321/510
			P'	- 103	опр	 '	zz. 11 pei 40.40	1.55 1/0/10

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.

	Applicable Manufacturada Data Dasada ta ba attachad
	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
We ce	rtify that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section X
Туре (Code Symbol Stamp Original data report N5-0443 to be supplemented by Owners Section XI Program 06-013
Certific	ate of Authorization No. N/A Expiration Date N/A
Signed	Published Tax 71 00
	CERTIFICATE OF INSERVICE INSPECTION
Provinc compor knowle	ndersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or e ofMichigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the nents described in this Owner's Report during the period of Y Y - 0 to E - 2 9 - CC , and state that to the best of my dge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the unce with the requirements of the ASME Code, Section XI.
and cor	ing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations rective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
	Madrie Commissions NII 600
7	Inspector's Signature National Board, State, Province, and Endorsements
	Tune 29 20 06

For complete work package, see Work Request # 000Z051606

FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NIS-2 06013 **NUCLEAR PARTS AND APPURTENANCES***

As Required by the Provisions of the ASME Code, Section III, Division 1

Not To Exceed One Day's Production Enertech, A Div. of Curtiss-Wright Flow Control Corp.; 2950 Birch St.; Brea, CA 92 1. Manufactured and certified by _ (name and address of certificate holder) Detroit Edison; 2000 2nd Avenue; Detroit, MI 48226-1279 2. Manufactured for .. (neme and serbbs bus eman) Detroit Edison; Fermi EF2; 6400 Dixie Hwy.; Newport, MI 48166 3. Location of installation (name and address) 4. Type NC-46261-25 & 26 .70,000 PSI SA-351 Gr. CF8M N/A 2001 (mat'l. spec, no.) (dignesta ellanes) (CRN) (year built) Summer 1972 2 None 5. ASME Code, Section IIL (addenda) (class) (Code Case no.) N/A N/A 6. Fabricated in accordance with Const. Spec. (Div. 2 only) Revision (Na.) 7. Remarks: Qty: 1 Shaft & Wafer Assy., 24" Jamesbury Butterfly Valve; Jamesbury P/N: 196-9139-98 Stock No.: C7376N, ENERTECH Job No.: 24971V Mat'l.: Wafer - SA351 Gr. CF6M, Shaft - A564 Ty. 630 H1075, Taper Pins - A564 Ty. 630 H1075 1.0 Min. design thickness (in.) 0.58 Dia. ID (ft. & in.) 22.25 Length overall (ft. & in.) 9. When applicable, Certificate Holders' data reports are attached for each Item of this report: National Part or Appurtenance National Part or Appurtenance Board No. Serial Number. Board Number Serial Number In Alcomodoni Codes

(25)
(27) (28) (29) (30) (31) (32) (33)
(2B) (29) (30) (31) (32) (33) (33)
(29) (30) (31) (32) (33)
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(46)
(47) SUISU
(48)
1 1 (40)
(49)
(50)
1 1 1 1 1

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8% X 1, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (back)

			Mfr. Serial No	KHP-001				
	CERTIFICATE OF DESIGN							
Design specifications cartified by	Lawrence D. Burr	P. E. state	MIReg.	no <u>33999</u>				
Design report* certified by	(when applicable) N/A (when applicable)	P. E. state	Reg. 1	no				
CERTIFICATE OF SHOP COMPLIANCE								
We certify that the statements made in thi conform to the rules of construction of the		24" Shaft 8	& Wafer Assy.					
NPT Certificate of Authorization no	N-2827	Expires	October 26, 20	202				
Date 11/08/01 Name	ENERTECH Sig	gned Laube jauthorized	(Ultilula representative)	<u>-</u>				
	CERTIFICATE OF SHOP INSPECTI	ION						
of Connecticut have inspected best of my knowledge and belief, the Certi Section III. Each part listed has been author by signing this certificate, neither the inspected by signing this certificate, neither the inspected by signing this certificate.	sion issued by the National Board of Boiler yed by Hartford Steed of these items described in this data report lilicate Holder has fabricated these parts or orized for stamping on the date shown above pector nor his employer makes any warrant, neither the inspector nor his employer ship from or connected with this inspection.	t on	and statement, and statement the concerning to	ate that to the e ASME Code, the equipment				



06-014

_								
1.	Owner Detroit	t Edison Company		Dai	e		May 2, 2006	
	6400 North Dix	Name ie Highway, Newport MI 4	8166	- She	eet		1 of 1	
		Address		•				
2.	Plant Fermi 2 No	uclear Power Plant		Uni	t		2 .	
		Name	· · · · · · · · · · · · · · · · · · ·					
	6400 North Dix	ie Highway, Newport MI	48166			D	Malatanana	
		Address		· —	Renai		Maintenance on P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Compa	Typ Star	e Code Symbol	Organizza	N/A		
		Name	. ,		norization No.		N/A	
	6400 North Dixi	e Highway, Newport, MI	18166	Exp	iration Date		N/A	
	,	Address						
4.	Identification of System	Primary Contains	ment Pneumatic	Supply Divisi	on 2 (N5-0523)	·	·	
6.	Replacements	Class ition/Addenda of Section XI is considered and a section	Utilized for Repair	_	n <u>W'71</u>	_ Addend	a <u>N/A</u> C	ode Case
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	B2103A001C	RECO INC.	N-2216.30	73385	N/A	1976	Repaired	Y
			-			·		
					·			
7.	Description of Work	Remove arc strike that	was identified o	n accumulato	r tank B2103A0	001C by f	iling.	
8.	Tests Conducted:	Hydrostatic [] Pn Other [X] Pressure			ating Pressure []	^o F Performed UT & N	ńΤ

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.

	 		
Ap	oplicable Manufacturer's Data F	eports to be attached	
		·	
	CERTIFICATE OF	COMPLIANCE	-
	CERTIFICATE OF	COMPLIANCE .	
We certify that the statements made in t	he report are correct and this R	epair conforms to the rules of the ASME Code, Section XI.	
Type Code Symbol Stamp Original Code	e data report N5-0523 to be sur	plemented by Owners Section XI Program # 06-014	
Certificate of Authorization No	N/A	Expiration DateN/A	
Signed R.M. Hambleton Lead ISI	England Broth	Date MAY Z 20 00	_
Signer Bill Battloleion Lead ist			~)
Owner or Owner's Designee, Titl		Date	
	le	Dais	
Owner or Owner's Designee, Tit	CERTIFICATE OF INSE	RVICE INSPECTION	
Owner or Owner's Designee, Titl	CERTIFICATE OF INSE	RVICE INSPECTION pard of Boiler and Pressure Vessel Inspectors and the State	or
Owner or Owner's Designee, Title I, the undersigned, holding a valid common Province of	CERTIFICATE OF INSE ission issued by the National Braployed by HSB CT of One eport during the period	RVICE INSPECTION	
Owner or Owner's Designee, Title I, the undersigned, holding a valid comme Province of Michigan and encomponents described in this Owner's Reknowledge and belief, the Owner has per accordance with the requirements of the By signing this certificate neither the Inspand corrective measures described in this	ission issued by the National Branch of One eport during the period (1997) formed examinations and taker ASME Code, Section XI.	RVICE INSPECTION pard of Boiler and Pressure Vessel Inspectors and the State State Street, Hartford, CT 06102 have inspected the	ions
Owner or Owner's Designee, Title I, the undersigned, holding a valid comme Province of Michigan and encomponents described in this Owner's Reknowledge and belief, the Owner has per accordance with the requirements of the By signing this certificate neither the Inspand corrective measures described in this	certificate of INSE ission issued by the National Braployed by HSB CT of One eport during the period formed examinations and taker ASME Code, Section XI. Sector nor his employer makes as Owner's Report. Furthermore y damage or a loss of any kind	RVICE INSPECTION pard of Boiler and Pressure Vessel Inspectors and the State State Street, Hartford, CT 06102 have inspected the to to 5-4-09 , and state that to the best of my corrective measures described in this Owner's Report in any warranty, expressed or implied, concerning the examinating neither the Inspector nor his employer shall be liable in any arising from or connected with this inspection.	ions
Owner or Owner's Designee, Title I, the undersigned, holding a valid comme Province of Michigan and encomponents described in this Owner's Reknowledge and belief, the Owner has per accordance with the requirements of the By signing this certificate neither the Inspand corrective measures described in this	ission issued by the National Braployed by HSB CT of One eport during the period formed examinations and taker ASME Code, Section XI. sector nor his employer makes as Owner's Report. Furthermore y damage or a loss of any kind	RVICE INSPECTION Pard of Boiler and Pressure Vessel Inspectors and the State State Street, Hartford, CT 06102 have inspected the complete to state that to the best of my corrective measures described in this Owner's Report in any warranty, expressed or implied, concerning the examination in the Inspector nor his employer shall be liable in any arising from or connected with this inspection.	ions

(10/94)

Reference WR # 000Z061322 for additional details.

06-015

1.	Owner Detroit	Edison Company		Dai	ie		May 2, 2006		
	Name 6400 North Dixie Highway, Newbort MI 48166 Address				Sheet1 of 1				
2.	Plant Fermi 2 Nu	Uni	t		2				
	Name 6400 North Dixie Highway, Newport MI 48166								
	O400 Notal Dixe ingliway, Newport Wil 40100				Deco Maintenance				
		Address			Repair	Organizati	ion P.O. No., Job No., etc.		
3.	Work Performed by	Detroit Edison Compa		Type Code Symbol Stamp		· · · · · · · · · · · · · · · · · · ·			
		Name		Aut	horization No.		N/A		
	6400 North Dixie	Highway, Newport, MI 4	18166		iration Date		N/A		
		Address							
4.	Identification of System	Reactor Presure	Vessel (CE-672	211 & Closure	Head CE-671	<u>11)</u>			
6.	(a) Applicable Construction Code ASME III Class 1 19 68 Edition S 69 Addenda (Various) Code Case (b) Applicable Edition/Addenda of Section XI Utilized for Repairs or Replacements 1992-92 Addenda 6. Identification of Components Repaired or Replaced and Replacement Components								
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)	
	B1100G000A	Combustion Enaineering	CE- 67111	21085	CE-67211	1972	Repaired	Y	
			·						
7.	Description of Work				ud holes and cl	ean up d	amages threads on seve	ral RPV	
3.	Tests Conducted:	Studs to allow installation of nuts and washers. Hydrostatic [] Pneumatic [] Nominal Operating Pressure [X] 24.137.21 / 43.000.005 Other [] Pressure 1041 psi Test Temp. 159 F						0.005	

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 6 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.

	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
Wa andifut	had the statements made in the samed are covered and this Bonnis performs to the subscript ASME Code. Costion VI
	hat the statements made in the report are correct and this Repair conforms to the rules of the ASME Code, Section XI.
Type Code	Symbol Stamp Original Code data report CE-67111/CE-67211 to be supplemented by Owners Section XI Program # 06-015
Certificate o	f Authorization No. N/A Expiration Date N/A
Signed F	R.M. Hambleton Lead ISI Engineer Putton Date MAY Z 20 06
	owner or Owner's Designee, Title
•	
	CERTIFICATE OF INSERVICE INSPECTION
	igned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or
Province of _	Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the
Province of _ components knowledge a	Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the described in this Owner's Report during the period 4-26-06 to 5-04-06, and state that to the best of my nd belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
Province of _ components knowledge a	Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the described in this Owner's Report during the period 4-26-06 to 5-04-06, and state that to the best of my
Province of _ components knowledge at accordance v	Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the described in this Owner's Report during the period 126-05 to 5-04-06, and state that to the best of my nd belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI.
Province of _ components knowledge at accordance v By signing th and corrective	Michigan and employed by HSB CT of One State Street. Hartford. CT 06102 have inspected the described in this Owner's Report during the period 126-26 to 5-24-06, and state that to the best of my not belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI.
Province of _ components knowledge at accordance v By signing th and corrective	Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the described in this Owner's Report during the period 126-26 to 15-26, and state that to the best of my not belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. Is certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations are measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any my personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Province of _ components knowledge at accordance v By signing th and corrective	Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the described in this Owner's Report during the period 4-26-06 to 5-04-06, and state that to the best of my nd belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. is certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations are measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any my personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions
Province of _ components knowledge at accordance v By signing th and corrective	Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the described in this Owner's Report during the period 4-26-06 to 5-04-06, and state that to the best of my and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. Is certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations are measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any may personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions National Board, State, Province, and
Province of _ components knowledge at accordance v By signing th and corrective	Michigan and employed by HSB CT of One State Street. Hartford, CT 06102 have inspected the described in this Owner's Report during the period 4-26-06 to 5-04-06, and state that to the best of my nd belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI. is certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations are measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any my personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions

Reference WR # 000z061423 for additional details.

									
1.	Owner <u>Detroit</u>	t Edison Company	,	Dat	e		May 2, 2006		
		Name					_		
	6400 North Dix	ie Highway, Newport MI 4	8166	. She	et <u></u>		1 of 1		
2.	Plant Fermi 2 No	Address		Uni	•		2		
۷.	Fidill Fellill 2 No.	luclear Power Plant Name		-	·		2		
	6400 North Dixi	ie Highway, Newport MI	18166						
						Deco	Maintenance '		
		Address			•	Organizat	on P.O. No., Job No., etc.		
3.	Work Performed by	Detroit Edison Compa	any		Type Code Symbol N/A Stamp		N/A		
		Name			norization No.	N/A			
	6400 North Dixi	e Highway, Newport, MI 4	8166	Expiration Date N/A			N/A		
		Address							
4.	Identification of System	Torus Suppression	on Chamber (C-	<u>4512)</u>					
_									
5.	(a) Applicable Co	Instruction Code ASME Class 2		63 Editio	n S' 69	Addeno	ia N/A C	ode Case	
	(b) Applicable Ed	ition/Addenda of Section XI				- /1000110		000 0000	
	Replacements		•		1992-92 Addenda	<u> </u>			
6.	Identification of Compo	onents Repaired or Replaced	i and Replacemen	it Components		··			
	Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)	
	S/E Torus Hatch	CB & I	C-4512	N/A	X-200A	1973	Replacement	Y	
	T2302X200A								
									
					<u> </u>				
7.	Description of Work	Replace 2 damaged H	eavy Hex Nuts fo	or S/E Torus I	latch.				
В.	Tests Conducted:	Hydrostatic [] Pn Other [X] Pressure			ating Pressure [X		°F LLRT 43.401.208		
	•								

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.

(10/94)

	Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE OF COMPLIANCE
We certi	fy that the statements made in the report are correct and this <u>Replacement conforms</u> to the rules of the ASME Code, Section XI.
	de Symbol Stamp Original Code data report C-4512 to be supplemented by Owners Section XI Program # 06-016
•••	
Certificat	e of Authorization No. N/A Expiration Date N/A
Signed	
	Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
the und	
Province (ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the
Province (compone)	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the nts described in this Owner's Report during the period 4-20-90 to 5-11-99, and state that to the best of my
Province o componer knowledg	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the
Province of componer of the co	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the nts described in this Owner's Report during the period 20-00 5-11-05, and state that to the best of my e and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the with the requirements of the ASME Code, Section XI. If this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations
Province of componer of the componer of the componer of the contract of the co	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the nts described in this Owner's Report during the period 20-00 5-11-00, and state that to the best of my e and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the equirements of the ASME Code, Section XI. If this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations clive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any
Province of componer of the componer of the componer of the contract of the co	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the nts described in this Owner's Report during the period 20-00 5-11-05, and state that to the best of my e and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the with the requirements of the ASME Code, Section XI. If this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations
Province of componer of the componer of the componer of the contract of the co	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the nts described in this Owner's Report during the period 20-00 5-11-00, and state that to the best of my e and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the equirements of the ASME Code, Section XI. If this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations clive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any
Province of componer of the componer of the componer of the contract of the co	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the nts described in this Owner's Report during the period 20-00 5-11-00 , and state that to the best of my e and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the with the requirements of the ASME Code, Section XI. Inspector to this owner's Report in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any or any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions Mational Board, State, Province, and
Province of componer of the componer of the componer of the contract of the co	ersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or of Michigan and employed by HSB CT of One State Street, Hartford, CT 06102 have inspected the nts described in this Owner's Report during the period 20-00 to 5-11-00 and state that to the best of my e and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the with the requirements of the ASME Code, Section XI. If this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations crive measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any or any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions Commissions

(10/94)

Reference WR # F011060100 for additional details.

1.	Owner	Detroit Edisc	on Company		_ Dat	e	May 11, 2006			
	6400 No	rth Dixie Higl	Name nway, Newport MI 4	18166	She	eet		1 of 1		
2.	Plant Ferr		dress Power Plant		_ Uni	t		2		
	6400 Nor	-	Name nway, Newport MI	48166						
			·	 				Maintenance		
			dress				ir Organizatio	on P.O. No., Job No., etc.		
3.	Work Performed by Detroit Edison Company				Typ Star	N/A ·	·			
			lame			norization No.		N/A		
	6400 Nor		way, Newport. MI 4	18166	Exp	iration Date		N/A		
4.	Address 4. Identification								<u>0724.</u>	
5.	.,	able Construc	Class	119	_71 Editio	n <u>W'71</u>	_ Addend	a <u>N/A</u> (Code Case	
	, , , , , , , , , , , , , , , , , , , ,	able Edition/A ements	ddenda of Section XI	Utilized for Repair		1992-92 Addend	a			
6.	Identification of	Components	Repaired or Replaced	i and Replacemen	nt Components					
	Name of Component	Nar	ne of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)	
<u></u>	Bolting	W	ismer & Becker	N/A	N/A	N/A	1982	Replacement	Y	
	**									
						.		· · · · · · · · · · · · · · · · · · ·		
	Description of Work		place 2 studs in the			I Vent Piping E	ulkhead fl	ange that did not allow	for	
8.	Tests Conducte		rostatic [] Pner [X] Pressure		•	ating Pressure [^o F Performed VT-1	of Studs	
	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)									

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.

(10/94)

9. Remarks	Replacement studs were cut from all-thread rod that was procured per PO # 968347. Material - SA-193 Grade B7, Heat Tra Code 8991565 / F972.
	
· · · · · · · ·	
	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
We certify t	that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
Type Code	Symbol Stamp Original Code data reports N5-0499 and N5-0724 to be supplemented by Owners Section XI Program # 06-017
Certificate of	of Authorization No. N/A Expiration Date N/A
SignedF	R.M. Hambleton Lead ISI Engineer Court Date MAY 1 20 06
	Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
Province of _ components knowledge a	described in this Owner's Report during the period of taken corrective measures described in this Owner's Report in with the requirements of the ASME Code, Section XI.
and correctiv	nis certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations re measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any ny personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Ma	Commissions NIT610
	Inspector's Signature National Board, State, Province, and Endorsements
2. 11	'a ₇ // 20 0 6
Date	ay // 20 0 6

(10/94)

Reference WR # F032060100 for additional details.