William T. O'Connor, Jr. Vice President, Nuclear Generation

Fermi 2

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February 25, 2005 NRC-05-0010

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: Inservice Inspection Summary Report

Enclosed is the Summary Report of the 2004 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 Tenth Refueling Outage, which was completed on December 3, 2004.

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. Norman K. Peterson, Manager - Nuclear Licensing, at (734) 586-4258.

Sincerely,

William D. O'Conno

Enclosure

cc: E. R. Duncan
N. K. Ray
NRC Resident Office
Regional Administrator, Region III
M. Wilson - ANII
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Michigan Department of Labor &

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

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. (Owner Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226
	(Name and Address of Owner)
2. I	
	(Name and Address of Plant)
3. F	Plant Unit _2 4. Owner Certificate of Authorization (if required)N/A
5 (Commercial Service Date 01-23-88 6. National Board Number for Unit <u>N/A</u>
J. (
	omponents Inspected See Program Table in Section 7.0 and 8.0 of attached Summary 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	Wisner & Becker			
Components (1)	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		<i>v</i> 1		
Vessel	Chicago Bridge and Iron	C-4512	N/A	N/A
	· · · · · · · · · · · · · · · · · · ·			r.
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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 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. <u>OWN-159</u> for N-3 Data Report.

ISI SUMMARY REPORT OF THE 2004 INSERVICE INSPECTION

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: はしに

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TM15 05.043 2/25/05 Ton Dong

Manager, Performance Engineering

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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)*

(01/23/88 - 06/10/91)
(09/03/89 - 12/16/89)
(03/30/91 - 06/10/91)
(06/11/91 - 01/03/95)
(09/12/92 - 11/07/92)
(04/12/94 - 01/03/95)*
(01/03/95 - 12/31/98)*
(09/27/96 - 01/03/97)
(09/07/98 - 10/29/98)
(02/17/00 - 02/17/10)*
(02/17/00 – 03/27/03)
(04/01/00 – 05/23/00)
(10/22/01 – 11/30/01)
(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)

* 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).

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

- 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

		11 222 11	
	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
		PIPING	
-	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
		OTHER	
	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, Nev Commercial Service Date: 1-23-88 NB No. 21085 4	vport, MI 48166

TABLE A (continued)

REQUIREMENT

DESCRIPTION

EXAM METHOD

Visual Examination

PRESSURE TEST

1989 Edition

Interval 2 Pressure Testing (B-P, C-H, and D-B, Code Case N-416-1, Code Case N-498-1)

AUGMENTED

NUREG-0313, Rev. 2 and BWRVIP- 75	Pressure retaining piping welds (B-F, B-J)	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

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

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-01/76 BWR Core Shroud Inspection and Flaw Evaluation Guidelines	Core Shroud	Remote Methods as in BWRVIP-03
BWRVIP-03 Reactor Vessel and Internal Examination Guidelines	Reactor Vessel Internals Components	Remote Visual Examination, Ultrasonic and Eddy Current
BWRVIP-07 Guidelines for Reinspection of BWR Core Shrouds	Core Shrouds	Remote Visual and Ultrasonic
BWRVIP-18 Core Spray Inspection and Evaluation (I&E) Guidelines	Core Spray Internals Piping and Spargers	Remote Visual Examination

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

TABLE A (continued)

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REQUIREMENT	DESCRIPTION	EXAM METHOD
	AUGMENTED (continued)	
BWRVIP-25 Core Plate I&E Guidelines	Core Plate Components	Remote Visual Examination
BWRVIP-26 Top Guide I&E Guidelines	Top Guide Components	Remote Visual Examination
BWRVIP-27A 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
BWRVIP-38 Shroud Support I&E Guidelines	Shroud Support Components	Remote Visual Examination
BWRVIP-41 Jet Pump Assembly I&E Guidelines	Jet Pump Components	Remote Visual Examination
BWRVIP-47 BWR Lower Plenum I&E Guidelines	Incore Guide/Dry Tubes	Remote Visual Examination
BWVRIP-48 Vessel ID Attachment Weld I&E Guidelines	Vessel Internal Attachments	Remote Visual Examination
BWRVIP-49 Instrument Penetration I&E Guidelines	Instrument Penetrations	Remote Visual Examination

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

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SECTION 2

SUMMARY OF ASME CLASS 1 & 2 AND AUGMENTED EXAMINATIONS

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

2.1 Interval 2, Period 2, RF10 Examinations

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SYS/COMP ID	DESCRIPTION	ISO	'Exams	Procedure	- CAĽ STD	COMP	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
B-A Reactor Vessel	RPV Shell Welds		•									
5-308A	Shell Longitudinal Weld	5360-5	UT	7	2667-62	11/21/04	11/26/04	11/27/04	VES.62.IN	15-308a.1 15 15-308a.1 thru 14 15-308a.r.1 thru 13	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	VES.60.IN	15-308b.1.9	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	VES.62.IN	2-307b.1.1 thru 11 2-307b.r.1 thru 12	RF-10-12	DW,104,610'
-308A	Shell Longitudinal Weld	5360-5	UT	7		11/20/04			VES.62.IN	2-308a.l.1 thru 7 2-308a.r.1 thru 5	RF-10-13	DW,60,646'
-319E	Closure Head Meridional	5360-5	UT	6		11/8/04	11/24/04		N/A	UT-021, 22, 23, 24, 26, 27, 28, 90	RF-10-04	Refuel Floor
-319F	Closure Head Meridional	5360-5	UT	6			11/24/04		• N/A	UT-016, 17, 18, 19	RF-10-05	Refuel Floor
-306B	Bottom Head Meridional	5360-5	UT	6		11/17/04		11/27/04	N/A	UT-069, 70	RF-10-02	DWUV,40,6
306C	Bottom Head Meridional	5360-5	UT	6			11/24/04	11/27/04	N/A	UT-073, 74	RF-10-03	DWUV,77,6
319	Head-to-Flange Weld	5360-5	UT	6 .	2667-58	11/14/04	11/26/04	11/27/04	N/A	UT-043, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57	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	N/A	MT-011, 031	RF-10-16	Refuel Floor
-306	Circumferential Bottom Head	5360-5	UT	6	2667-59	11/17/04	11/24/04	11/27/04	N/A	UT-061, 62, 63, 64	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	NOZ.60.IN	13-314c.tl.1 thru 5, 13- 314c.p1.1 thru 3, 13- 314c.p2.1 thru 3, 13- 314c.70rl.1 & 2	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	N/A	UT-086, 87, 88	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	NOZ.60.IN	14-316a.tl.1 & 2, 14- 316apl.1 & 2, 14-316ap2.1 & 2, 14-316a70rl.1, 2, 3	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	N/A	UT-058, 59, 60 UT-091, 92	RF-10-14	Refuel Floor
I-D Reactor Vessel	Nozzle Inner Bore Region											
3-314C IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil	*Complete	d Invessel	VT's Under	r Job 110904	0328	IVVI	Invess,90,
9-314A IRS	Jet Pump Inst. Nozzle	5361-5	VT	15-Jan	wire 1-mil	*	•	•	*	. *	IVVI .	Invess,97
	sert multiplinar, Mozzie	5501-5	* 1	1 <i>3-</i> 3411	wire							

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Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Permi 2 Nuclear Power Plant, 6400 N. Dixle Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV) 9

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	L 111	ANII	CAL SHT	DATA SHT	Report	Loc/A2/El
2-318 IRS	Head Vent Nozzle	5361-5	VT-1	15	VT-1 Compar ator	•	*	•	*	*	IVVI	Refuel Floor
B-F Class 1-Piping	RHSI Welds											
N-5A	CS Noz to SE (IGSCC,CC)	3053-5	UT	10 & 22	CS44/IN 45	11/12/04	11/21/04	11/23/04	APC-001, 2, 3, 4, 5, 6	APD-003, UT-089	RF-10-55	DW,120,641'
SW-E21-3053-4W0X	CS Safe-End to Ext. (IGSCC)3053-5	3053-5	UT	10 & 22	CS44/IN 45	11/11/04	11/22/04	11/27/04	APC-026, 27, 28, 29, 30	APD-002	RF-10-61	DW,120,641'
101-304-E	RRI Noz to SE (IGSCC)	5358-5	UT	10 & 22	SS- 56/CSC L-54	11/14/04	11/19	11/24/04	APC-007, 8, 9, 10, 11, 12	APD-004	RF-10-01	DW,150,615'
B-J Class 1-Piping	RHSI Welds											
FW-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	N/A	UT-011	RF-10-50	DW,260,212'
SW-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	N/A	UT-012	RF-10-78	DW,260,608'
SW-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	N/A	UT-010	RF-10-79	DW,282,609'
SW-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	N/A	UT-009	RF-10-80	DW,282,610'
FW-G33-3096-8W9	RWCU 6" Pipe to Tee	5351-5	UT	3	CS-22	11/8/04	11/13/04	11/27/04	N/A	UT-007	RF-10-44	DW,240,572'
FW-G33-3096-8W11	RWCU 6" Pipe to Tee	5351-5	UT	3	CS-22	11/8/04	11/13/04	11/16/04	N/A	UT-006	RF-10-43	DW,250,572'
FW-G33-3096-9WF1	RWCU 6" Elbow to Pipe	5351-5	UT	3	CS-22	11/9/04	11/14/04	11/27/04	N/A	UT-008	RF-10-45	DW,140,572'
SW-N21-2336-13WC	Feedwater 20" Elbow to Tee	3537-5	UT	3	ÇS-11	11/12/04	11/13/04	11/27/04	N/A	UT-020	RF-10-70	DW,25,608
FW-N21-2336-13W14	Feedwater 12" Tee to Elbow	3537-5	UT	3	CS-15	11/12/04	11/14/04	11/27/04	N/A	UT-014	RF-10-48	DW,30,611'
FW-N21-2336-14WF1	Feedwater 12" Pipe to Elbow	3537 - 5 ·	UT	3	CS-15	11/11/04	11/17/04	11/18/04	N/A	UT-013	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	N/A	UT-040	RF-10-71	DW,35,608

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

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SYS/COMP ID	DESCRIPTION	150	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SIIT	DATA SHT	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	APC-013, 014, 015, 016, 017	APD-001	RF-10-51	DW,150,615
B-G-1 Bolting	Greater Than 2"											
326-01 (Closure Studs)	1/3 of locations (1-22)	5362-5	UT	5	RPV Stud Cal	11/7/04	11/13/04	11/16	N/A	UT-004, 5	RF-10-15	Refuel Floor
Base Scope												
B-G-2 Bolting	2" and Less											
RRC Pump A Seal Bolts	Main RR Pump Seal Bolting	5365-5	VT-I	16	N/A	11/10/04	11/13/04	11/27/04	N/A	VT-012	RF-10-60	DW,315,580'
B21-F028A-VBB	MS Valve Bonnet Bolting	5352-5	VT-1	16	N/A	11/10/04	11/13/04	11/27/04	N/A	VT-010	RF-10-23	Stm,5,589'
FBC-B21-5353-01F	SRV Flange Bolting	5353-5	VT-I	16	N/A	11/9/04	11/13/04	11/27/04	N/A	VT-008	RF-10-31	DW,78,612'
B21-F013F-VBB	SRV Body to Bonnet Bolting	5353-5	VT-1	16	N/A	11/9/04	11/13/04	11/27/04	N/A	VT-007	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	N/A	VT-009	RF-10-30	DW,46,612'
B21-F013C-VBB	SRV Body to Bonnet Bolting	5353-5	VT-I	16	N/A	11/9/04	11/13/04	11/27/04	N/A	VT-006	RF-10-19	DW,46,612'
FBC-B21-5354-01E	SRV Flange Bolting	5354-5	VT-1	· 16	N/A	11/11/04	11/13/04	11/24/04	N/A	VT-014	RF-10-32	DW,290,612
B21-F013E-VBB	SRV Body to Bonnet Bolting	5353-5	VT-I	16	N/A ·	11/11/04	11/13/04	11/27/04	N/A	VT-013	RF-10-20	DW,290,612
B21-F022C-VBB	MS Valve Bonnet Bolting	5354-5	VT-1	16	N/A	11/12/04	11/17/04	11/24/04	N/A	VT-015	RF-10-22	DW,343,590'
E11-F060B-VBB	RHR Valve Bonnet Bolting	2327-5	VT-l	16	N/A	11/13/04	11/17/04	11/24/04	N/A	VT-016	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	N/A	VT-011	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	N/A	VT-017	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	N/A	VT-018	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	N/A	N/A	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	N/A	VT-005	RF-10-24	As requested
B-II Integral	RPV Attachment Welds											
Attachments 8-319-C	Top Head Lifting Lug	5360-5	MT	2	N/A	11/8/04	11/13/04	11/27/04	N/A	MT-010	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	N/A	MT-017	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	N/A	MT-018	RF-10-73	DW,150,613'

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)

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SHT	DATA SIIT	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	N/A	MT-019	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	N/A	MT-020	RF-10-75	DW,150,613'
B-N-1 Vessel Interior	RPV Attachment Welds										•	
Sample Holders	Vessel Interior		VT-3	15	N/A	*Complete	d Invessel	VT's Under	Job 1109040	328	Ιννι	
B-N-2 Vessel Interior	Interior Attachment Weld											
Surveillance Speciment E	Bracket		VT-I	15	N/A	*Complete	d Invessel	VT's Under	Job 1109040	328	IVVI	
B-O Peripheral CRD	Housing Welds							•				
CRDII-/X02-Y31-W1	CRD Housing Tube to Flange	5363-5	PT	1	N/A	11/13/04	11/17/04	11/27/04	N/A	PT-004	RF-10-26	DW, UV ·
CRDH-/X02-Y31-W2	CRD Housing Tube to Tube	5363-5	РТ	1	N/A	11/12/04	11/19/04	11/23/04	N/A	PT-003	RF-10-27	

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) .

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RELOEXAM DAT	ABASE		1. M						-			
SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SHT	DATA SHT	· Report	Loc/Az/El
C-C Integral Attachment	Lug Attachment Welds				510			ı	2111	·		
PSFW-E41-3167-1WE	HPCI 14" Pipe Lug	3167-5	МТ	2	N/A	11/5/04	11/14/04	11/17/04	N/A	MT-005	RF-10-56	HPCI, G10,546'
PSFW-E41-3167-1WF	HPCI 14" Pipe Lug	3167-5	МТ	2	N/A	11/5/04	11/14/04	11/17/04	N/A	MT-006	RF-10-57	
PSFW-E41-3167-1WG	HPCI 14" Pipe Lug	3167-5	МТ	2	N/A	11/5/04	11/14/04	11/17/04	N/A	MT-007	RF-10-58	
PSFW-E41-3167-1WH	HPCI 14" Pipe Lug	3167-5	МТ	2	N/A	11/5/04	11/14/04	11/17/04	N/A	MT-008	RF-10-59	
C-F-I Augmented	NRC Commitment										•	·
FW-C41-2979-L	SLC 2" Pipe to Elbow	2979-5	РТ	1	N/A	11/2/04	11/19/04	11/27/04	N/A	PT-001	RF-10-34	RB2,D11,635'
FW-C41-2979-11S12	SLC 2" Pipe to Elbow	2979-5	PT	1	N/A	11/2/04	11/19/04	11/27/04	N/A	PT-002	RF-10-33	RB2, C11,630'
C-F-2 Piping	Circumferential Weld											
SW-E11-3146-6WE	RHR 24" Pipe to Tee	3146-5	MT	2	N/A	11/14/04	11/21/04	11/22/04	N/A	MT-023	RF-10-63	Tor,B12,575'
SW-E11-3146-6WE		3146-5	UT	3	CS-42	11/14/04	11/21/04	11/22/04	N/A	UT-032	RF-10-63	
FW-E11-3151-7W11	RHR 20" Tee to Pipe	3151-5	MT	2	N/A	11/11/04	11/19/04	11/27/04	N/A	MT-012	RF-10-35	Tor,B12,575'
FW-E11-3151-7W11		3151-5	UT	3	CS-42	11/12/04	11/19/04	11/27/04	N/A	UT-015	RF-10-35	
SW-E11-3161-4WB	RHR 18" Elbow to Pipe	3161-5	VT-1	17	Ņ/A	11/2/04	11/13/04	11/17/04	N/A	VT-001	RF-10-64	Tor,B11,575'
SW-G41-3669-3WB	RHR-FPC 8" Elbow to Pipe	3669-5	мт	2	N/A	11/3/04	11/14/04	11/17/04	N/A	MT-002	RF-10-67	RB1,B11,585'
FW-E11-4612-4W5	RHR 6" Pipe to Elbow	4612-5	VT-1	17	N/A	11/1/04	11/13/04	11/27/04	N/A	VT-002	RF-10-36	RB1,B17,585'
FW-E11-4612-7W8	RHR 6" Elbow to Pipe	4612-5	VT-1	17	N/A	11/1/04	11/13/04	11/27/04	N/A	VT-003	RF-10-37	Tor,B15,574'
FW-E11-4612-8WF3	RHR 6" Elbow to Pipe	4612-5	VT-1	17	N/A	11/1/04	11/13/04	11/18/04	N/A	VT-004	RF-10-38	Tor,B15,574'
FW-E21-3144-0W4	CS 12" Pipe to Valve	3144-5	MT	2	N/A	11/14/04	11/21/04	11/23/04	N/A	MT-022	RF-10-39	RBSB,F16,540'
FW-E21-3144-0W4		3144-5	UT	3	PDI-Alt- CS-1	11/14/04	11/21/04	11/23/04	N/A	UT-029, 30, 31	RF-10-39	
FW-E21-3145-11WO	CS 10" Pipe to Weldolet	3145-5	MT	2	N/A	11/3/04	11/19/04	11/21/04	N/A	MT-001	RF-10-40	NE Quad,578'
SW-E21-3147-15WG	CS 14" Elbow to Pipe	3147-5	МТ	2	N/A	11/4/04	11/13/04	11/20/04	N/A	MT-004	RF-10-65	RB1,D11,601'
SW-E21-3147-15WG		3147-5	UT	3	PDI-Alt- CS-1	11/5/04	11/13/04	11/20/04	N/A	UT-001,2,3	RF-10-65	
SW-E41-3162-1WU	HPCI 20" Pipe to Elbow	3162-5	MT	2	N/A	11/15/04	11/23/04	11/27/04	N/A	MT-026	RF-10-66	HPCI, G10,548'
SW-E41-3162-1WU	-	3162-5	UT	3	PDI-Alt- CS-1	11/15/04	11/23/04	11/27/04	N/A	UT-036, 37, 38	RF-10-66	•
FW-E41-3162-1W2	HPCI 20" Elbow to Pipe	3162-5	МТ	2	N/A	11/15/04	11/19/04	11/21/04	N/A	MT-025	RF-10-41	HPCI,G10,550'

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Detroit Edison Co., 2000 2nd Avc., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixle Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV) 13

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SIIT	DATA SHT	Report	Loc/Az/Ei
FW-E41-3162-1W2		3162-5	UT	3	PDI-Alt- CS-1	11/15/04	11/19/04	11/21/04	N/A	UT-033, 34, 35	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	N/A	MT-042, 048	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	N/A	UT-093, 94	RF-10-96	
FW-E41-3172-0W1	HPCI 10" Valve to Pipe	3172-5	МТ	2	N/A	11/17/04	11/20/04	11/21/04	N/A	MT-029	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	N/A ·	UT-042	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	N/A	MT-030	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	N/A	UT-041	RF-10-76	
FW-T48-04-2095-7W8	CGC 6" Elbow to Pipe	2095-5	МТ	2	N/A	11/3/04	11/14/04	11/17/04	N/A	MT-003	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	N/A	MT-009	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	N/A	MT-030, UT-041	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	N/A	MT-032	RF-10-62	Tor, B13 ,575'

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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)

RR10 Augu	EXAM DATA	BASE											
S	/S/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	L 111	ANII	CAL SHT	DATA SHT	Report	Loc/A2/El
ANSI I	331.1	GL 88-01 Category D		Vol.			•				· ·		
FW-N2	0-3107-0W1	FWII 5N Upper Safe-end to El	3107-1	UT	4	SSCL- 88	11/19/04	11/22/04	11/23/04	N/A	UT-080, 81, 82	RF-10-47	TB2,R12,624'
SW-N2 BWSE		FWII 5N Upper Nozz to Safe- end	3107-1	UT	4	SSCL- 88	11/19/04	11/22/04	11/22/04	N/A	UT-077, 78, 79	RF-10-69	TB2,R12,624'
		FWH 5N Lower Safe-end to El	3105-1	UT	4	SSCL- 88	11/19/04	11/22/04	11/22/04	N/A	UT-083, 84, 85	RF-10-46	TB2,R12,615'
SW-N2 AWSE		FWII 5N Lower Nozz to Safe- end	3105-1	UT	4	SSCL- 88	11/19/04	11/22/04	11/22/04	N/A	UT-074, 75, 76	RF-10-68	TB2,R12,615'
	Procedure		Refere	nce Code				Meth	bod				
	39.NDE.001			1				PT					
	39.NDE.002			2				MT					
	PDI-UT-1			3		•		PDI	CS				
	PDI-UT-2			4				PDI	SS				
	PDI-UT-5			5				PDI	Bolting				
١	GE-UT-300			6				PDI.	Manual RPV	,			
	GE-UT-704			7				GER	IS				
	GE-UT-705			8				GER					
	GE-UT-308			9					ge Threads				
	GE-UT-209			10					N-SE				
	GE-UT-245			11					CRC UT				
	GE-UT-504			12				JPB			•		
	PDI-UT-10			13					ual DM		,		
	43.000.03/04			14					Snubbers &	2 Supports			
	43.000.017			15				IVV					
	43.000.014			16					Bolting				
	43.000.019			17					ary Cont				
	43.000.013			18				Snut					
	39.NDE.015			19					scams				
	GE-UT-309			20					r Radius Siz	-			
	GE-UT-311			21					ual Inner Ra	dius			
	ISI Prog. Part E. A	lt. 1		22				RIIS	I Coverage				

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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) 15

2.2 Interval 2, Period 2, RF09 Examinations

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RR09 EXAM DAT	A DASE						5					
SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD.	COMP	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
B-A Reactor Vessel	Shell & Head Welds		Vol.								•	
1-306J	Bottom Head Meridional	5360-5	UT	6	2667-59	4/6	4/8	4/16	UT-042 thru 045	UT-042 thru 045	RF-09-01	Bio, 300,604'
1-319D	Closure IIcad Meridional	5360-5	UT	6	2667-58	3/31	4/2	4/11	UT-016 thru 018	UT-016 thru 018	RF-09-02	Refuel Floor
15-308B	Shell Longitudinal Weld	5360-5	UT	7	2667-62	4/4	4/10	4/15	VES.60.IN	186 Pages	RF-09-05	DW,172,620'
2-307C	Shell Longitudinal Weld	5360-5	UT	7	2667-60	4/4	4/7	4/14	VES.60.IN	76 Pages	RF-09-08	DW,218,610'
2-308B	Shell Longitudinal Weld	5360-5	UT ·	7	2667-60	4/5	4/9	4/14	VES.60.IN	27 Pages	RF-09-09	DW,180,646'
4-319	Closure Head Circ Weld	5360-5	UT	6	2667-58	4/9	4/10	4/16	UT-048 thru 050, UT- 063 thru 069	UT-048 thru 050, UT-063 thru 069	RF-09-13	Refuel Floor
2-307A	Shell Longitudinal Weld	5360-5	UT	7	2667-60	4/8	4/12	4/14	VES.60.IN	137 Pages	RF-09- 106	DW,340,610' -
B-D Reactor Vessel	Nozzle to Vessel Welds		Vol.									
13-314E	Recirc Inlet Nozzle	5361-5	UT	8	2667-60	4/6	4/11	4/14	NOZ.60.IN	34 Pages	RF-09-03	DW,150,615'
13-314F	Recirc Inlet Nozzle	5361-5	UT	8	2667-60	4/7	4/10	4/14	NOZ.60.IN	50 Pages	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	UT-051 thru 055	UT-051 thru 055	RF-09-06	DW,145,638'
4-316C	Feedwater Nozzle	5361-5	UT	8	2667-60	4/7	4/11	4/14	NOZ.60.IN	33 Pages	RF-09-12	DW,150,642'
B-D Reactor Vessel	Nozzle Inner Bore Region		Vol.									
13-314D IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wirc	•4/16	*4/27	*5/13	N/A	N/A	N/A	lnvess,120,
13-314E IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wire	+4/18	+4/27	*5/13	N/A	N/A	N/A	Invess,150

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

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SHT	DATA SIIT	Report	Loc/Az/El
13-314F IRS	Recirc Inlct Nozzle	5361-5	VT	15	1-mil wire	•4/18	* 4/27	*5/13	N/A	N/A	N/A	Invess,210
13-314G IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wire	•4/16	• 4/27	*5/13	N/A	N/A	N/A	Invess,240
13-314K IRS	Recirc Inlet Nozzle	5361-5	VT	15	1-mil wire	*4/16	*4/27	5/13+	N/A	N/A	N/A	Invess,330
B-P Class 1-Piping	RIISI Welds		Vol.					•				
N-9	CRD Return Cap (IGSCC)	5361-5	UT	13	CS-48, INC- 49	4/8	4/14	4/16	UT-059 thru 062	UT-059 thru 062	RF-09-47	DW,145,638'
2-303G	RRI Noz to SE (IGSCC)	5356-5	UT	10	SS- 56/CSCL-54	4/2	4/5	4/11	APC-001 thru 006	APD-001	RF-09-07	DW,240,615!
B-J Class 1-Piping	RIISI Welds		Vol.									
FW-RD-2-A16	B31 12" SE-P (IGSCC,CRC)	5356-5	UT	10	SS-17	4/3	4/5	4/14	APC-008 thru 011	APD-002	RF-09-44	DW,240,615
SW-RS-2-A2-WI	B31 28" Pipe-El (IGSCC)	5357-5	UT	4	SS-3	4/4	4/4	4/13	UT-036,UT-037	UT-036,UT-037	RF-09-69	DW,0,578'
FW-E11-2299-2WF3	RIIR 20" Tee-Pipe	2299-5	UT	3	CS-12	4/5	4/5	4/13	UT-040	UT-040	RF-09-29	DW,175,597
SW-E21-3053-3WN	Core Spray 12" El-Pipe	3053-5	UT	3	CS-15	4/8	4/10	4/15	UT-071	UT-071	RF-09-57	DW,120,637'
SW-E21-3053-3WP	Core Spray 12" Pipc-El	3053-5	UT	3	CS-15	4/8	4/10	4/15	UT-070	UT-070	RF-09-58	DW,120,636'
FW-E51-2192-1W2	RCIC 6" El-Pipe	2192-5	UT	3	CS-22	4/8	4/10	4/16	UT-056 thru 058	UT-056 thru 058	RF-09-40	DW,42,598'
FW-E51-2192-2W3	RCIC 6" Pipe-E.	2192-5	UT	3	CS-22	4/11	4/12	4/15	UT-073 thru 075	UT-073 thru 075	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	UT-029,UT-030	UT-029,UT-030	RF-09-63	Sun,10,586'
SW-N21-2336-1WU	RCIC 20" Pipe-Tee	3536-5	UT	3	CS-12	4/2	4/3	4/6	UT-031	UT-031	RF-09-65	Stin,10,590'
SW-N21-2336-1WL	FW (TASCS) 20" Tec-Pipe	3536-5	UT	3	CS-12	4/3	4/3	4/12	UT-025	UT-025	RF-09-64	Stin,10,594'
SW-N21-2336-3WC	RCIC 20" El-Tee	3536-5	UT	3	CS-12	4/5	4/6	4/13	UT-038	UT-038	RF-09-66	DW,330,608'
FW-N21-2336-3W4	RCIC 12" Tec-El	3536-5	UT	3	CS-15	4/5	4/6	4/14	UT-039	UT-039	RF-09-43	DW,330,608'

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

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	СОМР	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
B-G-1 Bolting	Greater Than 2"											
326-02 (Closure Nuts)	1/3 of locations (1-22)	5362-5	МТ	2	N/A	4/5	4/5	4/13	N/A	MT-013,VT-029	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	UT-015	UT-015	RF-09-70	RPV Cavity
326-03 (Closure Washers	i) 1/3 of locations (1-22)	5362-5	VT-I	16	N/A	4/5	4/5	4/14	N/A	VT-028	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	N/A	VT-032	RF-09-25	DW,51,595'
B31-F023A-VBB		5357-5	VT-1	16	N/A	4/3	4/4	4/17	N/A	VT-027	RF-09-17	DW,342,574'
B31-F031A-VBB		5357-5	VT-1	16	N/A	4/3	4/4	4/17	N/A	VT-026	RF-09-18	DW,290,578
E11-F067-VBB		2299-5	VT-1	16	N/A	. 4/5	4/10	4/17	N/A	VT-031	RF-09-21	DW,163,595'
E11-F009-VBB		2299-5	VT-1	16	N/A	4/5	4/10	4/17	N/A	VT-030	RF-09-20	DW,163,600'
E21-F005A-VBB		3052-5	VT-1	16	N/A	3/29	3/29	4/17	. N/A	VT-025	RF-09-22	RB2,C13,633
E21-F005B-VBB		3053-5	VT-1	16	N/A	3/29	3/29	4/17	N/A	VT-024	RF-09-23	RB2,C11,632
E51-F007-VBB		2192-5	VT-1	16 -	N/A	4/9	4/10	4/17	N/A	VT-048	RF-09-24	DW,360,583'
G33-F004-VBB		3096-5	VT-I	16	N/A	4/10	4/11	4/17	N/A	VT-049	RF-09-46	RB2,C13,624
B21-F032A-VBB		3537-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	N/A	RF-09-16	Stm,350,594'

SYS/COMP 1D	DESCRIPTION	ISO	Exams	Procedure	CAL STD	СОМР	LIII	ANII	CAL SHT	DATA SIIT	Report Loc/Az/El
B21-F010B-VBB		3536-5	VT-I	16	N/A	4/14	4/16	4/17	N/A	N/A	RF-09-14 DW,10,603'
B21-F011B-VBB		3536-5	VT-1	16	N/A	4/9	4/10	4/17	N/A	VT-047	KF-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	N/A	VT-046	RF-09-89
E21-F006A-VBB		3052-5	VT-1	16	N/A	4/9	4/10	4/17	· N/A	VT-045	RF-09-95
E21-F006B-VBB		3053-5	VT-1	16	N/A	4/9	4/10	4/17	N/A	VT-044	RF-09-96
E21-F007A-VBB		3052-5	VT-1	16	N/A	4/9	4/10	4/17	N/A	VT-043	RF-09-97
E21-F007B-VBB		3053-5	VT-I	16	N/A	4/9	4/10	4/17	N/A	VT-042	RF-09-98
E41-F002-VBB		2297-5	VT-1	16	N/A	4/8	4/10	4/17	N/A	VT-039	RF-09-79
E41-F003-VBB		2297-5	VT-1	16	N/A	4/8	4/10	4/17	N/A	VT-038	RF-09-78
E41-F006-VBB		3537-5	VT-1	16	N/A	4/8	4/10	4/17	N/A	VT-037	RF-09-77
E51-F008-VBB		2192-5	VT-I	16	N/A	4/8	4/10	4/17	N/A	VT-035	RF-09-75
E51-F013-VBB		3536-5	VT-I	16	N/A	4/8	4/10	4/17	N/A	VT-036	RF-09-76
G33-F001-VBB		3096-5	VT-1	16	N/A	4/9	4/10	4/17	N/A	VT-041	RF-09-99
G33-F101-VBB		3096-5	VT-1	16	N/A	4/9	4/10	4/17	N/A	VT-040	RF-09-
G33-F121-VBB		3536-5	VT-I	16	N/A	4/8	4/10	4/17	N/A	VT-034	101 RF-09-74
G33-F220-VBB		3536-5	VT-I	16	N/A	4/8	4/10	4/17	N/A	VT-033	RF-09-73

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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) 19

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	сомр	LШ	ANII	CAL SIIT	DATA SHT	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	N/A	VT-051	RF-09-80	
B21-F010B-VBB		3536-5	VT-I	16	N/A	4/14	4/15	4/17	N/A	VT-069	RF-09-81	
B21-F011A-VBB		3537-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-052	RF-09-82	
B21-F032A-VBB		3537 -5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-053	RF-09-83	
B21-F032B-VBB		3536-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-054	RF-09-84	
B21-F076A-VBB		3537-5	VT-I	16	N/A	4/11	4/12	4/17	N/A	VT-055	RF-09-85	
B21-F076B-VBB		3536-5	VT-I	16	N/A	4/11	4/12	4/17	N/A	VT-056	RF-09-86	
E11-F008-VBB		2299-5	VT-1	16	N/A	4/14	4/15	4/17	N/A	VT-068	RF-09-87	
E11-F015A-VBB		2298-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-057	RF-09-88	
E11-F050A-VBB		2298-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-058	RF-09-90	
E11-F050B-VBB	2	2327-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-059	RF-09-91	
E11-F060A-VBB		2298-5	VT-I	16	N/A	4/11	4/12	4/17	N/A	VT-060	RF-09-92	
E11-F060B-VBB		2327-5	VT-l	16	N/A	4/11	4/12	4/17 .	N/A	VT-061	RF-09-93	
E11-F608-VBB		2299-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-062	RF-09-94	
G33-F100-VBB		5351-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-063	RF-09- 100	
G33-F102-VBB		5351-5	VT-I	16	N/A	4/11	4/12	4/17	N/A	VT-064	RF-09- 102	
G33-F106-VBB		5351-5	VT-I	16	N/A	4/11	4/12	4/17	N/A	VT-065	RF-09- 103	
G33-F120-VBB		3536-5	VT-1	16	N/A	4/11	4/12	4/17	N/A	VT-066	RF-09- 104	

Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixle Hwy., Newport, MI 48166 Commercial Service Date: 1-22-88 NB No. 21085 (RPV)

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	гш	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
B-G-2 Bolting	2" and Less											
CRD Flange Bolts	4219 (1) 3431 (2)	5363-5	VT-1	16	N/A	4/9	4/12	4/17	N/A	VT-050	RF-09- 105	Drywell, Undervessel
CRD Bolting	New CRD Bolting 1-184	N/A	VT-I	16	N/A	3/27	3/28	4/16	· N/A	VT-001 thru VT-023	RF-09-72	
В-Р	Pressure Retaining Boundary	M-4536	VT-2	43.000.005	N/A	4/30	4/30	4/30	N/A	0975030430	03-022	Various

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)

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	' CAL SHT	DATA SHT	Report	Loc/Az/El
							-				•	• •
C-C Vessel	Intregal Attachment		Vol.						•			
W-E11-D2-HXS-13	RHR HX B	5370-5	MT	2	N/A	4/12	4/14	4/15	N/A	MT-018	RF-09-53 I	RB2,B9,625'
W-E11-D2-IIXS-14	RHR HX B	5370-5	МТ	2	N/A	4/12	4/14	4/15	N/A	MT-017	RF-09-54	
W-EI1-D2-HXS-15	RHR HX B	5370-5	МТ	2	N/A	4/12	4/14	4/16	N/A	MT-016	RF-09-55	
W-E11-D2-HXS-16	RHR HX B	5370-5	МТ	2	N/A	4/12	4/14	4/16	N/A	MT-019	RF-09-56	
-F-1 Augmented	NRC Commitment		Vol.									
W-C41-2979-63S64	SLC weld 2" El -Pipe	2979-5	PT	1	N/A	3/24	3/26	4/4	N/A	PT-001	RF-09-26 I	RB3, 652,E11
₩-C41-2979-64S65	SLC weld 2" Pipe-El	2979-5	PT	1	N/A	3/24	3/26	4/4	N/A	PT-002	RF-09-27 H	RB3, 652,E11
W-C41-5058-54855	SLC weld 2"Pipe-Reducer	5374-5	PT	1	N/A	3/24	3/26	4/4	N/A	PT-003	RF-09-28 1	RB3,F10,661
-17-2	Circumferential Weld		Vul.									
W-C11-2113-172-A	CRD SDV ' Pipc-Tec	5375-5	МТ	2	N/A	3/29	4/1	4/6	N/A	MT-006	RF-09-48 I	RB1,C10,597'
W-C11-2113-172-A		5375-5	UT	3	CS-20	3/29	4/1	4/6	UT-007,UT-008	UT-007,UT-008	RF-09-48	
W-E11-3035-7WB	RHR 6" El-Pipe	3035-5	MT	2	N/A	3/29	3/30	4/4	N/A	MT-005	RF-09-49 7	For,180,578
W-E11-3151-3WF2	RHR 24" Tec-El	3151-5	МТ	2	N/A	4/12	4/14	4/16	N/A	MT-020	RF-09-30 I	IxRm,C10,605'
W-E11-3151-3ŴF2		3151-5	UT	3	CS-43	4/12	4/14	4/16	UT-080,UT-081	UT-080,UT-081	RF-09-30	
W-E11-3154-4WC	RHR 24" El-Tcc	3154-5	MT	2	N/A	3/30	3/30	4/6	N/A	MT-007	RF-09-50 1	For,C17,543'
W-E11-3154-4WC		3154-5	UT	3	PDI-Alt-CS1	3/30	4/2	4/6	UT-009 thru 012	UT-009 thru 012	RF-09-50	
W-E11-3154-13WO	RHR 24" Pipe-Pump	3154-5	MT	2	N/A	3/31	4/2	4/13	N/A	MT-011	RF-09-31 1	RBSB,A15,541'
W-E11-3154-13WO		3154-5	UT	3	PDI-Alt-CS1	4/1	4/2	4/13	UT-019,UT-021, UT-022	UT-019,UT-021, UT-022	RF-09-31	
W-E11-3158-1W2	RHR 24" Pipe-El	3158-5	МТ	2	N/A	3/30	3/30	4/6	N/A	MT-008	RF-09-32 I	HxRm,C17,593'
W-E11-3158-1W2		3158-5	UT	3	CS-43	3/31	3/31	4/6	UT-014	UT-014	RF-09-32	
W-E11-3158-9WF2	RHR 20" Pipe-El	3158-5	MT	2	N/A	3/30	4/1	4/14	N/A	MT-009	RF-09-33 I	IxRm,B17,635'
W-E11-3158-9WF2		3158-5	UT	3	CS-42	3/31	4/1	4/14	UT-013	UT-013	RF-09-33	
W-E11-3177-9WE	RIIR 20"El-Pipe	3177-5	МТ	. 2	N/A	4/3	4/4	4/6	N/A	MT-012	RF-09-52	For,B10,570'
W-E11-3177-9WE		3177-5	UT	3	CS-42	4/3	4/4	4/6	UT-035	UT-035	RF-09-52	
W-E21-3148-7W0	Core Spray 12" Red-Pump	3148-5	МТ	2	N/A	3/31	4/2	4/14	N/A	MT-010	RF-09-34 I	RBSB,G17,541'
W-E21-3148-7W0		3148-5	UT	3	PDI-Alt-CS1	4/1	4/2	4/14	UT-020	UT-020	RF-09-34	
W-E41-3162-11WFI	HPCI 16" Pipe-Tee	3162-5	VT-1	17	N/A	3/25	3/28	4/4	N/A	N/A	RF-09-35	Tor,G11,564'
W-E41-3162-11WF4	HPCI 16" Tee-Reducer	3162-5	VT-I	17	N/A	3/25	3/28	4/4	N/A	N/A ·		Tor,G11,564'

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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)

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
FW-E41-3162-11WF5	HPCI 10" Reducer-Reducer	3162-5	VT-I	17	N/A	3/25	3/28	4/4	N/A	N/A	RF-09-37	Tor,G11,564'
FW-E41-3167-OW1	HPCI 10" Pump-Pipc	3167-5	MT	2	N/A	3/26	3/28	4/11	N/A	MT-001	RF-09-38	HPCI Skid, 546'
FW-E41-3167-OW1		3167-5	UT	3	CS-50	3/26	3/28	4/11	· UT-002	UT-002	RF-09-38	
FW-E41-3169-2W0	IIPCI 10" Pipe-Valve	3169-5	МТ	2	N/A	3/26	3/29	4/14	N/A	MT-002	RF-09-39	CRD,G11,569'
FW-E41-3169-2W0		3169-5	UT	3	CS-36	3/27	3/29	4/14	UT-003,UT-004	UT-003,UT-004	RF-09-39	
SW-E41-5373-GW3	IIPCI 12"El-Pipe	5373-5	MT	2	N/A	3/27	3/30	4/12	N/A	MT-003	RF-09-59	HPCI Skid, 546'
SW-E41-5373-GW3		5373-5	UT	3	PDI-Alt-CS1	3/27	3/30	4/12	UT-005,UT-006	UT-005,UT-006	RF-09-59	
SW-N30-3258-7WK	Main Steam 26" Pipe-RedEl	3258-5	MT	2	N/A	4/6	4/10	4/13	N/A	MT-014	RF-09-67	Stm,F12,589'
SW-N30-3258-7WK		3258-5	UT	3	CS-5	4/6	4/10	4/13	UT-046,UT-072	UT-046,UT-072	RF-09-67	
SW-N30-3258-7WKLU	Main Steam 26" Long Seam	3258-5	MT	2	N/A	4/6	4/10	4/15	N/A	MT-015	RF-09-68	Stm,F12,589'
SW-N30-3258-7WKLU		3258-5	UT	3	CS-5	4/6	4/10	4/15	UT-047	UT-047	RF-09-68	
C-F-2	Branch Connections		· Vol.									
SW-B11-3160-1WD	RHR 18" Weldolet	3160-5	MT_ '	2	N/A	3/29	3/30	4/4	N/A	MT-004,PT-005	RF-09-51	Tor,B15,578'

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Detroit Edison Co., 2000 2nd Ave., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport, MI 48166 Commercial Service Date: 1-22-88 NB No. 21085 (RPV)

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/Ei
ANSI B31.1	GL 88-01 Category D		Vol.			UT						
W-N20-3105-0W23	20" El-SE Htr 4N, Upper Nozz	3105-1	PT/UT	1/13	SSCL-88	4/16	4/18	N/A	UT-082 thru 084	UT-082 thru 084, PT-008	RF-09-41	TB2,P12,624'
W-N20-03-B011-BWSE	20" Nozz-SE 4N, Upper Nozz	3105-1	PT/UT	1/13	SSCL-88	4/16	4/18	N/A	UT-085 thru 087	UT-085 thru 088, PT-006	RF-09-62	TB2,P12,624'
W-N20-3105-22WO	20" El-SE Hir 4N, Lower Nozz	3105-1	PT/UT	1/13	SSCL-88	4/15	4/18	N/A	UT-091 thru 093	UT-091 thru 094	RF-09-42	TB2,P12,615'
W-N20-03-B011-AWSE	20" Nozz-SE 4N, Lower Nozz	3105-1	PT/UT	1/13	SSCL-88	4/15	4/18	N/A	UT-088 thru 090	UT-088 thru 091	RF-09-61	TB2,P12,615'

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)

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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

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)

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2.3 Interval 2, Period 1, RF08 Examinations

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	ÇOMP	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/A2/El
A Reactor Vessel	Shell Welds		Vol.									
308A		5360-5	UT	. 8	2667-62-1	15-Nov	17-Nov	19-Nov	PDI-254-C01 PDI-6-C25, C26	PDI-254-C01 UT23, UT24, UT25, UT26, 27	R8-96	DW,52,552
308B		5360-5	UT	8	2667-62-1	15-Nov	17-Nov	19-Nov	PDI-254-C01 PDI-6-C27, C28	PDI-254-C01 UT28, UT29, UT30, UT31	R8-97	DW,142,552
5-308C		5360-5	UT	8	2667-62-1	14-Nov	17-Nov	19-Nov	PDI-254-C01	PDI-254-C01	R8-98	DW,262,244
307A		5360-5	UT	8	2667-60-1	12-Nov	17-Jan	19-Nov	PDI-254-C02	PDI-254-C02	R8-99	DW,339,122
-A Reactor Vessel	Circ Head Welds		Vol.									
319	2-319C to 2-319E 40%	5360-5	UT	6	2667-58-1	1-Nov	5-Nov	17-Nov	PDI-6-C11, C12	UT09, UT10	R8-47	Refuel Floor
306	180 deg. to 360 deg.	5360-5	UT	6	2667-59-1	5-Nov	7-Nov	15-Nov	PDI-6-C13, C14	UT11, UT12	R8-57	Refuel Floor

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)

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SYS/COMP ID	DESCRIPTION	' ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SIIT	DATA SHT	Report	Loc/Az/Ei
B-A Reactor Vessel	Meridonal Head Welds		Vol.									
2-319A	Top Head	5360-5	UT	6	2667-58-1	31-Oct	6-Nov	17-Nov	PDI-6-C05, C06	UT05, UT06	R8-44	Refuel Floor
2-319B	Top Head	5360-5	UT	6	2667-58-1	31-Oct	6-Nov	17-Nov	PDI-6-C07, C08	UT07	R8-45	Refuel Floor
2-319C	Top Head	5360-5	UT	6	2667-58-1	2-Nov	6-Nov	17-Nov	PDI-6-C09, C10	UT08	R8-46	Refuel Floor
1-319B	Top Head	5360-5	UT	6	2667-58-1	30-Oct	5-Nov	17-Nov	PDI-6-C01, C02	UT01, UT02	R8-42	Refuel Floor
1-31911	Top Head	5360-5	UT	6	2667-58-1	30-Oct	5-Nov	17-Nov	PDI-6-C03, C04	UT03, UT04	R8-43	Refuel Floor
1-306A	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	17-Nov	PDI-6-C15, C16	UT13, UT14	R8-60	Bio, Odeg
1-306D	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	18-Nov	PDI-6-C17, C18	UT15, UT16	R8-61	Bio, 120deg
1-306E	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	18-Nov	PDI-6-C19, C20	UT17, UT18	R8-62	Bio, 144 deg
1-306G	Bottom Head	5360-5	UT	6	2667-59-1	6-Nov	7-Nov	18-Nov	PDI-6-C21, C22	UT19, UT20	R8-63	Bio, 225deg
1-306K	Bottom Head	5360-5	UT	6	2667-59-1	6-Nav	7-Nov	18-Nov	PDI-6-C23, C24	UT21, UT22	R8-64	Bio, 335deg
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	ISI-210-C46, C47, C48	UT25, UT26	R8-95	DW, 723"
13-308	Partial from flange	5360-5	UT	9	CSCI-52- FER	28-Oct		17-Nov	ISI-54-C01	UTOI	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	ISI-210-C01, C02, C03	UT01, UT02, UT03, UT04,	R8-41	Refuel Floor
3-319	1/3 of weld length	5360-5	МТ	2	N/A	30-Oct	6-Nov	17-Nov	N/A	UT05, UT11 MT-023	R8-41	Refuel Floor

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Detroit Edison Co., 2000 2nd Avc., Detroit, MI 48226 Fermi 2 Nuclear Power Plant, 6400 N. Dixle Hwy., Newport, MI 48166 Commercial Service Date: 1-23-88 NB No. 21085 (RPV) 27

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
B-D Reactor Vessel	Nozzle to Vessel Welds		Val.									
8-316A	Main Steam Nozzle	5361-5	UT	7	2667-62-1	8-Nov	9-Nov	19-Nov	ISI-210-C31, C32, C33	UT19	R8-76	DW,71,655
8-316-B	Main Steam Nozzle	5361-5	UT	7	2667-62-1	8-Nov	9-Nov	19-Nov	ISI-210-C34, C35, C36	UT20	R8-77	DW,109,655
4-316A	Feedwater Nozzle	5361-5	UT	7	2667-62-1	8-Nov	9-Nov	19-Nov	ISI-210-C28, C29, C30	UT17, UT18	R8-75	DW,30,642
4-316B	Feedwater Nozzle	5361-5	UT	7	2667-62-1	7-Nov	8-Nov	18-Nov	ISI-210-C22, C23, C24	UT15	R8-65	DW,90,642
4-316D	Feedwater Nozzle	5361-5	UT	7	2667-62-1	8-Nov	10-Nov	18-Nov	ISI-210-C37, C38, C39	UT21, UT22	R8-78	DW,210,642
14-316B	Core Spray Nozzle	5361-5	UT	7	2667-62-1	7-Nov	8-Nov	18-Nov	ISI-210-C25, C26, C27	UT16	R8-66	DW,240,641
13-314A	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	5-Nov	7-Nov	17-Nov	ISI-210-C10, C11, C12	UT09	R8-53	DW,30,615
13-314B	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	5-Nov	7-Nov	17-Nov	ISI-210-C19, C20, C21	UTI4	R8-59	DW,60,615
13-314D	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	6-Nov	7-Nov	17-Nov	ISI-210-C16, C17, C18	UT13	R8-58	DW,120,615
13-314G	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	4-Nov	7-Nov	17-Nov	ISI-210-C04, C05, C06	UT06, UT07, UT08	R8-51	DW,240,615
13-314K	Recirc Inlet Nozzle	5361-5	UT	7	2667-60-1	5-Nov	7-Nov	17-Nov	ISI-210-C13, C14, C15	UT10	R8-54	DW, 330,615
5-314A	Recirc Suction Nozzle	5361-5	UT	7	2667-60-1	12-Nov	14-Nov	15-Nov	ISI-210-C43, C44, C45	UT24	R8-93	DW, 0,614
19-314B	JPI Nozzle	5361-5	UT	7 ·	2667-60-1	9-Nov	10-Nov	17-Nov	ISI-210-C40, C41, C42	UT23	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	N/A	Completed unde Surv. 43.000.017	r 01-034	DW,71,655
8-316-B		5361-5	UT / VT	13 or 15	N/A	IVVI	18-Nov	30-Nov	N/A	Completed unde Surv. 43.000.017	r 01-034	DW,109,655

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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)

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	СОМР	LШ	ANII	С	AL SHT	DATA SHT	Report	Loc/Az/El
B-D Reactor Vessel	Nozzie Inside Radius		Vol. /										
4-316A		5361-5	VТ _ UT	11	N/A	8-Nov	13-Nov	17-Nov	ISI-246-0	C01	ISI-246-C01	R8-86	DW,30,642
4-316B		5361-5	UT	11	N/A	8-Nov	13-Nov	17-Nov	ISI-246-	C01	ISI-246-C01	R8-87	DW,90,642
4-316D		5361-5	UT	11	N/A	7-Nov	13-Nov	17-Nov	ISI-246-	C01	IS1-246-C01	R8-88	DW,210,642
14-316B		5361-5	UT / VT	13 or 15	N/A	1-Nov	13-Nov	30-Nov		N/A	Completed under Surv. 43.000.017	01-034	DW,240,641
15-315		5361-5	UT / VT	13 or 15	N/A	1-Nov	13-Nov	30-Nov	,	N/A	Completed under Surv. 43.000.017	01-034	DW,150,638
13-314A		5361-5	UT/VT	13 or 15	N/A	1-Nov	18-Nov	30-Nov	· .	N/A	Completed under Surv. 43.000.017	01-034	DW,30,615
13-314B		5361-5	UT / VT	13 or 15	N/A	1-Nov	18-Nov	30-Nov	,	N/A	Completed under Surv. 43.000.017	01-034	DW,60,615
13-314D		5361-5	UT/VT	13 or 15	N/A	N/A	N/A	N/A		N/A	43.000.017 N/A	N/A	DW,120,615
13-314G		5361-5	UT / VT	13 or 15	N/A	N/A	N/A	N/A		N/A	N/A	N/A	DW,240,615
13-314K		5361-5	UT/VT	13 or 15	N/A	N/A	N/A	N/A	•	N/A	N/A	N/A	DW, 330,615
5-314A		5361-5	UT / VT	13 or 15	N/A	1-Nov	18-Nov	30-Nov	,	N/A	Completed under Surv. 43.000.017	01-034	DW, 0,614
19-314B		5361-5	UT/VT	13 or 15	N/A	1-Nov	18-Nov	30-Nov	,	N/A	Completed under Surv. 43.000.017	01-034	DW,280,612
B-D Reactor Vessel	Nozzle Inner Borc Region		Vol.										
4-316A IBR	FW Nzz Inner Bore Region	5361-5	UT	11	70287	8-Nov	13-Nov	17-Nov	/ ISI-246-	C01	ISI-246-C01	R8-86	DW,30,642
4-316B IBR	FW Nzz Inner Bore Region	5361-5	UT	11	70287	8-Nov	13-Nov	17-Nov	/ ISI-246-	C01	ISI-246-C01	R8-87	DW,90,642
4-316D IBR	FW Nzz Inner Bore Region	5361-5	UT	11	70287	7-Nov	13-Nov	17-Nov	/ ISI-246-	C01	ISI-246-C01	R8-88	DW,210,642

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COMP	L 111	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
B-P & B-J Class 1 Piping	RIISI Welds				•							
N5B	12" CS SE to Nzz (DM)	3052-5	UT	12	CS-44/IN- 45	6-Nov	16-Nov	19-Nov	PDI-2-C14 UNIXD-C03, C04	UT13, UT14 UNIXD-C03, C04	R8-79	DW,240,641
SW-E21-3052-4W0X	10" CS Pipe to SE (DM)	3052-5	UT	12	CS-18/IN- 45	7-Nov	16-Nov	19-Nov	PDI-2-C13 UNIXD-C01, C02	UNIXD-C01, C02	R8-71	DW,240,641
FW-RD-2-A9	28" Tee to Cross	5357-5	UT	4	SS-30	3-Nov	5-Nov		PDI-2-C06	UT07	R8-49	DW,270,613
FW-E11-2298-6W0	24" Pipe to Tee	2298-5	UT	4	SS-8	2-Nov	2-Nov	17-Nov	PDI-2-C02	UT04	R8-39	DW,270,600
SW-E11-2298-6WC	24" Pipe to Pipe (DM)	2298-5	UT	*4	CS-7/SS-8	2-Nov	2-Nov	16-Nov	PDI-1-C18 PDI-2-C04	UT03	R8-38	DW,270,600
FW-G33-3096-10WF3	4' Sweepolet to Tee	5351-5	UT	4	SS-23	2-Nov	8-Nov	17-Nov	PDI-2-C05	UT05, UT06	R8-40	DW,140,573
7-316A	Main Steam Nzz to SE	5352-5	UT	3	CS-5	8-Nov	8-Nov	19-Nov	PDI-1-C34, C35	UT18	R8-74	DW,72,655
SW-PS-2-A1-A	26" Pipe to Elbow	5352-5	UT	3	CS-5	8-Nov	8-Nov	17-Nov	PDI-1-C30, C31	UT16	R8-72	DW,72,655
SW-PS-2-A1-B	26" Elbow to Pipe	5352-5	UT	3	CS-5	8-Nov	8-Nov	17-Nov	PDI-1-C32, C33	UT17	R8-73	DW,72,653
SW-PS-2-C3-J	8" Sweepolet to Pipe	5354-5	UT	3	CS-20	12-Nov	13-Nov	17-Nov	PDI-1-C40	UT23, UT24	R8-91	DW,314,609
SW-PS-2-C3-K	8" Pipe to Flange	5354-5	UT	3	CS-20	12-Nov	13-Nov	17-Nov	PDI-1-C41	UT25, UT26	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	PDI-2-C03	UT-02	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	PDI-2-C01	UT-01, MT-011	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	PDI-1-C19	UTII	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	ISI-350-C04 PDI-1-C17	UT09, UT10	R8-37	DW ,0,5 86
FW-E41-2297-0W4	10" Fluted head to pipe	2297-5	UT	3	CS-18	2-Nov	2-Nov	11-Nov	PDI-1-C15, C16	UT08	R8-36	Stm,F12,586

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) 30

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	СОМ Р	L 111	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
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	PDI-1-C28	UT14	R8-69	DW,30,642
N4A	SE Ext. to SE	3537-5	UT	3	CS-46	7-Nov	8-Nov	19-Nov	PDI-1-C29	UTI5	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	PDI-1-C27	UT13	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	PDI-1-C26	UTI2	R8-67	DW,30,641
B-G-1 Bolting	Greater Than 2"							•				
RPV Closure Nuts	1/3 of locations	5362-5	МТ	2	N/A	10- Nov	12-Nov	17-Nov	N/A	MT-027, MT-028 VT-004	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		PDI-5-C01, C02 PDI-5-C03, C04	UT-01	R8-10 R8-50	RPV Cavity
RPV Closure Studs	48-51 removed		МТ	2	N/A	10- Nov	12-Nov	17-Nov	N/A	MT-026	R8-50	Refuel Floor
Threads in Flange	1/3 of locations		UT	10	CSCL-52	29-Oct	30-Oct	16-Nov	ISI-55-C01	UT-01, UT-02	R8-11	RPV Cavity
RPV Closure Washers/Bushings	1/3 of locations		VT-1	. ¹⁶	N/A	10- Nov	12-Nov	17-Nov	N/A	VT-005	R8-84	Refuel Floor
Recirc Pump Studs	Pump A 1-16	5365-5	VT-I	16	N/A	10- Nov	17-Nov	27-Nov	N/A	01-035AP		DW,315,579
Recirc Pump Studs	Pump A 1-16		UT	5	B31 Stud	10- Nov	12-Nov	19-Nov	PDI-5-C05, C06	•	R8-85	DW,315,579
Recirc Pump nuts, bushings, and washers	, Pump A 1-16		VT-l	16	N/A	10- Nov	17-Nov	27-Nov	N/A	01-035AP		DW,315,579
RPV Spare Flange	0 deg.	5361-5	VT-I	16	N/A	10- Nov	17-Nov	27-Nov	N/A	01-035AN	۲	Refuel Floor
RPV Spare Flange	180 deg.		VT-1	16	N/A	10- Nov	17-Nov	27-Nov	N/A	01-035A0		Refuel Floor
B-G-2 Bolting	2" and Less											
FBC-E51-2192-01	FE Flange	2192-5	VT-I	16	N/A	1-Nov	17-Nov	27-Nov	N/A	01-035A		DW,360,594
FBC-B21-5352-01L	SRV Flange	5352-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	N/A	01-035B		DW,360,594
B21-F013L-VBB	SRV Bonnet	5352-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	N/A	01-035C		DW,39,613

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

SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COM P	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
B-G-2 Bolting FBC-B21-5353-01K	2" and Less SRV Flange	5353-5	VT-1	16	N/A	I-Nov	17-Nov	27 Nov	N/A	01-035D	•	DW,39,613
B21-F013K-VBB	SRV Bonnet	5353-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	N/A	01-035E		DW,70,613
FBC-B21-5353-01G	SRV Flange	5353-5	VT-I	16	N/A	1-Nov	17-Nov	27-Nov	N/A	01-035F		DW,70,613
B21-F013G-VBB	SRV Bonnet	5353-5	VT-I	16	N/A	I-Nov	17-Nov	27-Nov	N/A	01-035G		DW,38,613
B21-F028B-VBB	B Line Outboard MSIV	5353-5	VT-I	16	N/A	1-Nov	17-Nov	27-Nov	N/A	01-035H		DW,38,613
FBC-B21-5354-01B	SRV Flange	5354-5	VT-1	16	N/A	l-Nov	17-Nov	27-Nov	N/A	01-0351 .		DW,298,613
B21-F013B-VBB	SRV Bonnet	5354-5	VT-1	16	N/A	1-Nov	17-Nov	27-Nov	N/A	01-035J		DW,298,613
B21-F028D-VBB	D Line Outboard MSIV	5353-5	VT-1	16	N/A	31-Oct	17-Nov	27-Nov	N/A	01-035K		Strn,F12,599
E21-F006A-VBB	CS Inbd Check	3052-5	VT-1	16	N/A	9-Nov	17-Nov	27-Nov	N/A	01-035L		DW,210,627
E41-F003-VBB	HPCI Olbd ISO Valve	2297-5	VT-1	16	N/A	31-Oct	17-Nov	27-Nov	N/A	01-035M		Stm,F12,587
G33-F001-VBB	RWCU Inbd Iso	3096-5	VT-1	16	N/A	I-Nov	17-Nov	27-Nov	N/A	01-035N		DW,229,603
G33-F120-VBB	RWCU to FW Ck	3536-5	VT-1	16	N/A	I-Nov	17-Nov	27-Nov	N/A	01-0350		Stm,F12,587
B21-F011A-VBB	FW A Manual Iso	3537-5	VT-i	16	N/A	l-Nov	17-Nov	27-Nov	N/A	01-035P		DW,350,603
B-II RPV Integral												ı
Attachment Welds 3-306/4-309 Skirt Weld	10 percent of length	5360-5	МТ	2	N/A	4-Nov	6-Nov	19-Nov	N/A	MT-025	R8-52	Bio Annulus
3-306/4-309 Skirt Weld	10 percent of length	5360-5	UT	• 7		4-Nov	6-Nov	19-Nov	ISI-210-C07, C08	UT12	R8-52	Bio Annulus
10-324A Stabilizer		5360-5	МТ	2	N/A	13- Nov	14-Nov	16-Nov	C09 N/A	MT-029	R8-94	DW,0,647

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	СОМР	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
B-H RPV Integral Attachment Welds B-O CRD Housing Welds												
CRDH-X02-Y27-W1	Peripheral Housing Weld		PT	1	N/A	9-Nov	10-Nov	18-Nov	N/A	PT-004	R8-80	DWUV
CRDH-X02-Y27-W2	Peripheral Housing Weld		РТ	1	N/A	9-Nov	10-Nov	18-Nov	N/A	PT-005	R8-81	DWUV

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COM	LIII	ANII	CAL SHT	DATA SHT	Report	Loc/Az/El
						r					•	
C-A Vessel	Shell Welds		Vol.									
SW-E11-D2-HX-11	Shell to Flange	5370-5	UT	14	CS-80	30-Oct	2-Nov	16-Nov	ISI-350-C03 ISI-215-C02	UT03, UT04, UT05	R8-34	RB1,B9,
C-B Vessel	Nozzle to Shell Welds		Vol. /									
SW-E11-D2-HX-01	Inlet Nozzle to Head	5370-5	Surf. UT	14	CS-80	30-Oct	1-Nov	16-Nov	ISI-350-C01 ISI-215-C01	UT01, UT02	R8-13	RB1,B9,
SW-E11-D2-HX-01	Inlet Nozzle to Head	5370-5	МТ	2		29-Oct	1-Nov	16-Nov		MT-009	R8-13	RB1,B9,
C-B Vessel	Inside Radius		Vol.									
SW-E11-D2-HX-01 IRS	Inlet Nozzle to Head		UT	13	CS-81	30-Oct	1-Nov	15-Nov	ISI-211-C01	UT01	R8-30	RB1,B9,
C-C Vessel	Integral Attachment		Surf.									
SW-E11-D2-HXS-05	Upper Shell Stiffener Weld		MT	2		31-Oct	1-Nov	16-Nov		MT-013	R8-20	RB1,B9,
SW-E11-D2-HXS-06	Lower Shell Stiffener Weld		MT	2		31-Oct	1-Nov	16-Nov		MT-012, MT-012A	R8-19	RB1,B9,
SW-E11-D2-HXS-07	Support Ring		МТ	2		31-Oct	l-Nov	16-Nov	•	MT-014	R8-21	RB1,B9,
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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)

SYS/COMP ID	DESCRIPTION	ISO Exam	Procedure	CAL STD	COM P	LIII	ANII CAL SHT	DATA SIIT	Report	Loc/Az/El
C-C Vessel	Integral Attachment	Surf.								
SW-E11-D2-HXS-09	Stiffener Plate	МТ	2		31-Oct	1-Nov	16-Nov	MT-015	R8-22	RB1,B9,
SW-EI1-D2-HXS-10	Stiffener Plate	MT	2		31-Oct	1-Nov	16-Nov	MT-016	R8-23	RB1,B9,
SW-E11-D2-HXS-11	Stiffener Plate	MT	2		31-Oct	1-Nov	16-Nov	MT-017	R8-24	RB1,B9,
SW-E11-D2-HXS-12	Stiffener Plate	МТ	2		31-Oct	1-Nov	16-Nov	MT-018	R8-25	RB1,B9,
SW-E11-D2-HXS-21	Stiffener Plate	MT	2		31-Oct	1-Nov	16-Nov	MT-019	R8-26	RB1,B9,
SW-E11-D2-HXS-22	Stiffener Plate	МТ	· 2		31-Oct	1-Nov	16-Nov	MT-020	R8-27	RB1,B9,
SW-E11-D2-HXS-23	Stiffener Plate	МТ	2		31-Oct	1-Nov	16-Nov	MT-021	R8-28	RB1,B9,
SW-E11-D2-HXS-24	Stiffener Plate	MT	2		31-Oct	1-Nov	16-Nov	MT-022	R8-29	RB1,B9,
C-F-1 Piping	Circumferential Welds	Surf.								
FW-C41-2979-72S73	2" Elbow to Pipe	2979-5 PT	1		22-Oct	26-Oct	16-Nov	PT-001	R8-02	RB4,668
FW-C41-2979-2S3	2" Elbow to Reducer	2979-5 PT	1		31-Oct	1-Nov	11-Nov	PT-003	R8-33	RD2,C12,633
FW-C41-2979-1S2	2" Reducer to Pipe	2979-5 PT	1	•	31-Oct	1-Nov	11-Nov	PT-002	R8-32	RB2,C12,633
C-I ² -2 Piping	Circumferential Welds	Vol. / Surf. VT								
FW-E11-3146-5W0	18" Elbow to Valve	3146-5 MT	2		25-Oct	29-Oct	16-Nov	MT-002	R8-03	Tor,B13,579
FW-E11-3146-5W0		3146-5 UT	3	CS-40	25-Oct	29-Oct	16-Nov PDI-1-C01, C02	UTOI	R8-03	-
SW-E11-3153-13WD	24" Pipe to Elbow	3153-5 MT	2		24-Oct	29-Oct	16-Nov	MT-006	R8-07	SW Quad,543Y
SW-E11-3153-13WD	.375" Std.	3153-5 UT	3	PDI1-Alt	25-Oct	29-Oct	16-Nov PDI-1-C06, C07, C08	UT03	R8-07	
FW-E11-3159-0W1	12" Wol to Pipe	3159-5 MT	2		26-Oct	31-Oct	16-Nov	MT-008	R8-09	Tor, B13,575
FW-E11-3159-0W1	.406 Schd. 40	3159-5 UT	3	PDI1-Alt	26-Oct	31-Oct	16-Nov PDI-1-C09, C10, C11, C12	UT04	R8-09	

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COM P	LIII	ANII CAL SHT	DATA SHT	Report	Loc/Az/El
C-P-2 Piping	Circumferential Welds		Vol. / Surf. / VT								
SW-E21-3145-9WD	10" Elbow to Pipe	3145-5	VT-i	17		31-Oct	31-Oct	16-Nov	VT-001	R8-16	Tor,320,577
SW-E21-3147-5WJ	14" Pipe to Elbow	3147-5	MT	2		23-Oct	29-Oct	16-Nov	MT-003	R8-04	SE Quad,549Y
SW-E21-3147-5WJ	.438 Schd. 40	3147-5	UT	3	PDI1-Alt	24-Oct	29-Oct	16-Nov PDI-1-C03, C04	UT02	R8-04	
SW-E21-3147-19WB	12" Elbow to Pipe	3147-5	MT	2		23-Oct	29-Oct	16-Nov	MT-004	R8-05	RB2,"C11,628
SW-E21-3147-19WB		3147-5	'UT	3	CS-15	27-Oct	29-Oct	16-Nov PDI-1-C05	UT05	R8-05	
SW-E21-3148-5WD	20" Pipe to WOL	3148-5	MT	2		26-Oct	27-Oct	11-Nov	МТ-005	R8-06	NE Quad,541
FW-E41-3162-11W0 & LD	24" Elbow to Pipe	3162-5	VT-1	17		29-Oct	31-Oct	16-Nov	VT-003	R8-18	Tor,G11,560
SW-E41-3162-11WC	24" Elbow to Reducer	3162-5	VT-I	17		29-Oct	31-Oct	16-Nov .	VT-002	R8-17	Tor,G11,560
FW-N30-3259-4W0	24" Pipe to Valve	3259-5	MT	2		31-Oct	1-Nov	16-Nov	MT-024	R8-31	TB,L12,632
FW-N30-3259-4W0		3259-5	UT	3	CS-9	31-Oct	1-Nov	16-Nov ISI-350-C02 PDI-C13, C14	UT06, UT07	R8-31	
FW-T48-04-2095-19W0	8" Pipe to Tee	2095-5	MT	2		19-Oct	22-Oct	11-Nov	MT-001	R8-01	RB1,B13,594
SW-E11-3151-8WD	24" Pipe to Weldolet	3151-5	МТ	2		26-Oct	27-Oct	16-Nov	MT-007	R8-08	Tor,B12,575
SW-N30-3258-13WB	26" Pipe to Sweepolet	3258-5	МТ	2		29-Oct	30-Oct	16-Nov ·	MT-010	. R8-14	Stm,F12,598

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

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SYS/COMP ID	DESCRIPTION	ISO	Exams	Procedure	CAL STD	COM P	LIII	ANII	CAL SIIT	DATA SHT	Report	Loc/Az/El
ANSI B31.1	GL 88-01 Category D											
FW-N21-3109-18W0		3109-1	UT	3/4	CS- 86/SSCL- 87	5-Nov	7-Nov	17-Nov	PDI-1-C23, C24, C25 PDI-2-C10, C11, C12	UT11, UT12	R8-56	TB3,P5,645
SW-N21-01-B002-AWSE		3109-1	UT	3/4	CS- 86/SSCL- 87	5-Nov	7-Nov	17-Nov	PDI-1-C20, C21, C22 PDI-2-C07, C08, C09	UT08, UT09, UT10	R8-55	TB3,P5,645
FW-N20-3105-0W13		3105-1	UT	3/4	CS- 11/SSCL- 88	10- Nov	14-Nov	15-Nov	PDI-1-C36, C37, C38 PDI-2-C15, C16, C17	UT19, UT20 UT17	R8-89	TB2,P4,623
SW-N20-03-B010-BWSE		3105-1	UT	3/4	CS- 11/SSCL- 88	10- Nov	14-Nov	15-Nov	PDI-1-C39, C42 PDI-2-C18, C19, C20	UT21, UT22, UT23 UT15 _.	R8-90	ТВ2,Р4,623
Procedure	Reference	. Code		Proced	lure			Refe	rence Code			
39.NDE.001		1		ISI-UT	-55				10	. •		
39.NDE.002		2		GFRM	2-ISI-246				11			,
PDI-UT-1		3		UNIXI	DETC				12		• ,	
PDI-UT-2		4		ISI-UT	-211				13			
PDI-UT-5		5		ISI-UT	-215				14			
PDI-UT-6		6		43.000					15			
ISI-UT-210		7		43.000					16			
I/UX-PDI-254		8		43.000	.019				17			

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

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2.4 Interval 2, Period 1, RF07 Examinations

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RE07 EXAM Classif 2 au	DATA BASE SAL									
Cat/Item	Component ID	DESCRIPTION	ISO	Procedure	EXAMS	CAL STD	COMP	CAL SIIT	DATA SHT	Report
B-D	Reactor Vessel	Nozzle Inside Radius Section		6						I
B3.100	4-31C IRS	(NUREG-0619) Inner Radius	5361-5	6	UT	70287	17-Apr	AUT-IR-C01		R7-01
B3.100	4-316E IRS	(NUREG-0619) Inner Radius	5361-5	6	UT	70287	13-Apr	AUT-IR-C01		R7-02
B3.100	4-316F IRS	(NUREG-0619) Inner Radius	5361-5	6	UT	70287	17-Apr	AUT-IR-C01		R7-03
NUREG-0619	Reactor Vessel	Nozzle Inner Bore Region								
Augmented	4-316C IBR	FW Nozz Inner Bore Region	5361-5	6	UT	70287	16-Apr	AUT-IR-C01		R7-01
Augmented	4-316E IBR	FW Nozz Inner Bore Region	5361-5	6	UT	70287	13-Apr	AUT-IR-C01		R7-02
Augmented	4-316F IBR	FW Nozz Inner Bore Region	5361-5	6	UT	70287	16-Apr	AUT-IR-C01		R7-03
B-P	RPV / Piping	RPV Noz to Safe End								
B5.10	N5B	Dissimilar Metal Nozz-SE	3052-5	· 5	UT	FER-44,45	12-Apr	DETC-C05,C06		R7-04
	N5B	Core Spray	3052-5	1	PT	N/A	11-Apr		PT-05	R7-04
B5.10	2-30311	Dissimilar Metal Nozz-SE	5356-5	5	UT	FER-54,56	10-Apr	DETC-C01,C02	_	R7-05
•	2-303H	Recirc Inlet	5356-5	1	PT	N/A	5-Apr		PT-03	R7-05
B5.10	4-303A	Dissimilar Metal Nozz-SE	5357-5	5	UT	FER-55,57	12-Apr	DETC-C03,C04		R7-06
	4-303A	Recirc Suction	5357-5	1	РТ	N/A	7-Apr		PT-04	R7-06
B5.10	102-304A	Dissimilar Metal Nozz-SE	5361-5	4	UT	FER47, Alt.1	13-Apr	PDI-1-C15-17	UT-01	R7-07
							13-Apr	PDI-2-C07-09		
	102-304A	Jet Pump Instrumentation	5361-5	1	РТ	N/A	13-Apr		PT-06	R7-07
B5.20	5-315	Dissimilar Metal Nozz-SE	5361-5	4	UT	FER28	14-Apr	PDI-2-C10-12	UT-01	R 7-0 8
•	5-315	Core DP and Liquid Control	R1-91	1	РТ	N/A	14-Apr		PT-07	R7-08

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Cat/Item	Component ID	DESCRIPTION	ISO	Procedure	EXAMS	CAL STD	COMP	CAL SHT	DATA SHT	Report
B-K-1	Integral Attach For Piping, P	umps, Valves			·					
B10.10	SW-PS-2-A2-AA1	Pipe Lug Class 1	5352-5	2	MT	N/A	13-Apr		MT-17	R7-09
	SW-PS-2-A2-AA2	Pipe Lug	5352-5	2	MT	N/A	13-Apr		MT-18	R 7-10
	SW-PS-2-A2-AA3	Pipe Lug	5352-5	2	МТ	N/A	13-Apr		MT-19	R7-11
	SW-PS-2-A2-AA4	Pipe Lug	5352-5	2	MT	N/A	13-Apr	· .	MT-20	R7-12
C-C	Integral Attach For Piping, P	umps, Valves								
C3.20	PSFW-E21-3147-301	Class 2 Stanchion to pipe	3147-5	2	MT	N/A	30-Mar		MT-02	R7-13
C-I ²	Pressure Retaining Welds in	Piping				·				
C-F-1/Aug.	FW-C41-2979-P	2" pipe to coupling	2979-5	1	• PT	N/A	30-Mar		PT-01	R7-15
C-F-1/Aug.	FW-C41-3361-02W1	3" valve to pipe	3361-5	1	РТ	N/A	31-Mar		PT-02	R 7- 16
C-F-2/C5.51	FW-E11-3146-6W10	20" tee to elbow	3146-5	2	MT	N/A	6-Apr		MT-11	R7-17
	FW-E11-3146-6W10	20" tee to elbow	3146-5	3	UT	FER-41	8-Apr	PDI-1-C10	UT-01	R7-17
C-F-2/C5.51	FW-E11-3146-6WH	24" tee to pipe	3146-5	2	MT	N/A	3-Apr		MT-08	R7-18
	FW-E11-3146-6WH	24" tec to pipe	3146-5	3	UT	FER-43	4-Apr	PDI-1-C03	UT-01	R7-18
C-F-2/C5.51	FW-E11-3158-10WF4	20" pipe to nozzle	3158-5	2	MT	N/A	14-Apr		MT-05,05R	R7-19
	FW-E11-3158-10WF4	20" pipe to nozzle	3158-5	3	UT	FER-42	14-Apr	PDI-1-C18		R7-19
C-F-2/C5.51	SW-N-30-3258-19WJ	26" pipe to reducer	3258-5	2	MT ·	N/A	7-Apr		MT-12	R7-20
	SW-N-30-3258-19WJ	26" pipe to reducer	3258-5	3	UT	FER-5	8-Apr	PDI-1-C09	UT-01	R7-20
C-F-2/C5.52	SW-N-30-3258-19WJLU	intersecting long scam weld	3258-5	2	MT	N/A	7-Apr		MT-13	R7-20
	SW-N-30-3258-19WJLU	intersecting long scam weld	3258-5	3	UT	FER-5	8-Apr	PDI-1-C09	UT-02	R7-20
C-F-2/C5.51	SW-E11-3035-5WE	6" tee to reducer	3035-5	2	МТ	N/A	8-Apr		MT-14	R 7-2 1
C-F-2/C5.51	FW-E11-3157-0W6	16" pump to expander	3157-5	2	MT	N/A	31-Mar		MT-06	R7-22
	FW-E11-3157-0W6	16" pump to expander	3157-5	3	UT	FER-40	31-Mar	PDI-1-C01	UT-01	R7-22
C-F-2/C5.51	FW-E21-3144-0W1	12" pump to expander	3144-5	2	MT	N/A	30-Mar		MT-01	R7-23

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Detroit Edison Co., 2000 2nd Avc., 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) 39

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Cat/Item	Component ID	DESCRIPTION	ISO	Procedure	EXAMS	CAL STD	СОМР	CAL SHT	DATA SHT	Report
C-F-2/C5.51	FW-E21-3147-16W17	12" elbow to pipe	3147-5	2	MT	N/A	3-Apr		MT-09	R7-24
	FW-E21-3147-16W17	12" elbow to pipe	3147-5	3	UT	PDI-1 Alt.	6-Apr	PDI-1-C04-5	UT-01	R7-24
C-F-2/C5.51	SW-E21-3149-4WD	20" pipe to tee	3149-5	2	MT	N/A	1-Apr	•	MT-07	R7-25
	SW-E21-3149-4WD	20" pipe to tee	3149-5	3	UT	PDI-1 Alt.	1-Apr	PDI-1-C02	UT-01	R7-25
C-F-2/C5.51	FW-E41-3163-7W0	16" pipe to valve	3163-5	2	MT	N/A	8-Apr		MT-15	R7-26
	FW-E41-3163-7W0	16" pipe to valve	3163-5	3	UT	FER-85	10-Apr	PDI-1-C11	UT-01	R7-26
C-F-2/C5.51	FW-T48-04-2095-11W12	6" pipe to elbow	2095-5	2	MT	N/A	30-Mar		MT-03	R7-27
C-F-2/C5.51	FW-T48-04-2097-8W9	6" elbow to pipe	2097-5	2	МТ	N/A	30-Mar	•	MT-04	R7-28
C-F-2/C5.51	SW-T48-04-2097-21WB	8" elbow to pipe	2097-5	7	VT-1	N/A	5-Apr		VT-02	R7-29
C-F-2/C5.51	FW-T48-04-2097-20W21	8" pipe to tee	2097-5	2	МТ	N/A	8-Apr		MT-16	R7-30
C-F-2/C5.51	SW-T48-04-2097-25WF	10" elbow to elbow	2097-5	. 7	VT-I	N/A	5-Apr		VT-01	R7-31
C-F-2/C5.81	SW-E11-3146-5WC	24" pipe to weldolet	3146-5	2	MT	N/A	3-Apr		MT-10	R7-32
Augmented	FW-N20-3107-0W17	20" safe end to pipe (dm)	3107-1	3,4	UT	FER-11, 88	10-Apr	PDI-1-C12-14	UT-01	R7-33
GL 88-01							-	PDI-2-C04-06	UT-01	
Augmented	SW-N20-03-B014-BWSE	20" nozzle to safe end (dm)	3107-1	3,4	UT	FER-11, 88	10-Apr	PDI-1-C12-14	UT-02	R7-34
GL 88-01							-	PDI-2-C04-06	UT-02	
Augmented	FW-N20-3105-16W0	20" elbow to safe end (dm)	3105-1	3,4	UT	FER-11,88	6-Apr	PDI-1-C06-08	UT-01	R7-35
GL 88-01							•	PDI-2-C01-03	UT-01	
Augmented	SW-N20-03-B014-AWSE	20" safe end to nozzle (dm)	3105-1	3,4	UT	FER-11, 88	6-Apr	PDI-1-C06-08	UT-02	R7-36
GL 88-01							-	PDI-2-C01-03	UT-02	
GE recommended exam	I Steam Dryer	Support Ring Indications	5364-5	9	UT	CAL-DSR01	18-Apr	SDSR-CAL1/2	Dat-1/2	SDSR
		GE recommended exam								
	Procedure	Reference Code		Procedure	-	Reference	Code			
	39.NDE.001	1		UNIXDETC		5				
	39.NDE.002	2		Fermi-800-1/2		6				

43.000.019

43.000.004

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SECTION 3

SUMMARY OF REACTOR INTERNAL EXAMINATIONS

3.0 CODE CATEGORY

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 (Jet Pump No.5/6)	EVT-1 / VT-1	ASME/BWRVIP-41	NRI
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 (Jet Pump Nos. 5,6,8,11,16,17,19)	EVT-1 / VT-3	BWRVIP-41	NRI (Note 4)
Restrainer Bracket Assemblies (Jet Pump Nos. 5 and 15)	EVT-1 / VT-1/3	SIL 574 / SIL 629	RI (Note 6)
Sensing Lines	VT-3	SIL 420	NRI
(Jet Pump Nos. 5,6,7,16,17)			
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	EVT-1	BWRVIP-07 / 38	NRI (Note 3)
Gussets	VT-1	BWRVIP-07 / 38	NRI (Note 3)
Steam Dryer			
Assembly 50%	VT-1/VT-3	SIL 474/SIL 644, Rev. 1	RI (Note 7)
Steam Separator	x	27/4	
Assembly 30% Shroud Head Polta 50%	VT-3	N/A SIL 433	NRI
Shroud Head Bolts 50%	VT-3	455 سلاد	NRI

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)

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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.
- (3) 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.
- (4) 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.
- (5) 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.

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 Assemblies (Jet Pump Nos. 1 through 20)	EVT-1 / VT-1/3	SIL 574 / SIL 629	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

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

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) .

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 duringRF06 (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 Assemblies (Jet Pump Nos. 1	EVT-1 / VT-1/3	SIL 574 / SIL 629	NRI
through 20) 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 / BWRVIP-26	NRI
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	STL 474	No change in indications noted
Steam Separator			
Assembly 30%	VT-3	N/A	NRI
Shroud Head Bolts 50%	VT-3	SIL 433	NRI

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)

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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 Head Flange Vessel Flange O-Rings	VT-1 VT-1 VT-1 (Direct)	N/A	NRI NRI 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.

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	NRÍ
Shroud Head Bolts 50%	VT-3	SIL 433	NRI

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

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 2, Refuel-10.

	CLASS	COMPONENT SUPPORTS	SNUBBERS (1)	TOTAL
-	1	6	145	151
	2	16	237	253
	3	13	28	41
	Other		135	135

Note:

- (1) All 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-10 Examinations
 - 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.
 - 4.2.2 Refuel-09 Examinations
 - 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.

4.2.3 **Refuel-08 Examinations**

- VT-3 examinations were performed on all safety related and non-safety related 1. 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.
- Seal Life Changeout was performed on 31 Snubbers. 3.
- 4.2.4 **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.

4.2.5 Preservice 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, and RF10 (includes seal life changeout).

SECTION 5

ABSTRACT OF CONDITIONS NOTED

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5.0 ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE ACTIONS TAKEN

5.1 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.

5.1.1 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 ¼ 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.

5.1.2 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.

5.1.3 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.

5.2 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.

5.2.1 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 $1\frac{3}{4}$ 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^{0} 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.

5.2.2 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.

5.2.3 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.

5.3 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.

5.3.1 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 $\frac{3}{4}$ 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^o 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.

5.3.2 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.

5.3.3 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.

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.

5.4 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.

5.4.1 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 $1\frac{3}{4}$ 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 indication 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.

5.4.2 RPV External Volumetric and ASME Piping Weld Examinations

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

5.4.3 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.

5.5 Refuel-06

5.5.1 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 ³/₄ inches long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pump Nos. 7 and 8 at 120⁰ 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.

5.5.2 External Volumetric and ASME Piping Weld Examinations

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

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.

5.5.3 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.

5.6 Refuel-05

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

5.6.2 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 to 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.

5.6.3 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 effect the component operability; no reportable configurations were found. No additional component supports were examined as a result of these observations.

5.7 Refuel-04

5.7.1 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 are 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 preservice 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).

5.8 Refuel-03

5.8.1 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).

5.8.2 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 effect the components operability and was not reportable. No additional supports were inspected as a result of these observations.

5.9 Refuel-02

5.9.1 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).

5.9.2 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.

5.10 Refuel-01

5.10.1 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).

5.10.2 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

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

Interval 2, Period 2, Refuel-10 (Excludes Pressure Testing)

6.1 CATEGORY B-A

6.1.1	CATEGORY: ITEM NO:	B-A B1.11	Pressure Retaini	actor Vessel	
	TILIMINO.	D1.11	Shell Welds-Circumferential		
	System	Total	Total	Examined	Examined
		Comp.	Requiring	То	To Date
	<u></u>		Examination	Date	.(%)
	RPV	4	4 (1)	0	0%
	TOTALS:	4	4 (1)	0	0%

NOTE:

(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.

6.1.2	CATEGORY: ITEM NO:	B-A B1.12	Pressure Retaining Welds in Reactor Shell Welds - Longitudinal		actor Vessel
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RPV	14	14	10	71.4%
	TOTALS:	14	14	10	71.4%

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6.1.3 CATEGORY:

ORY: B-A ITEM NO: B1.21 Pressure Retaining Welds in Reactor Vessel Head Welds - Circumferential

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV Closure	2	2	1	50%
Head RPV Bottom Head	2	1 (1)	1	100%
TOTALS	4	3 (1)	2	66.6%

NOTE:

(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.

6.1.4	CATEGORY: ITEM NO:	B-A B1.22	Pressure Retaining Welds in Reactor Vessel Head Welds - Meridional		
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RPV Closure Head	13	13	8	61.5%
	RPV Bottom Head	17	10(1)	8	80.0%
	TOTALS:	30	23 (1)	16	69.5%

NOTE:

(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.

6.1.5 CATEGORY: ITEM NO:

B-A

B1.30

Pressure Retaining Welds in Reactor Vessel Shell-To-Flange

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%) (1)
RPV	1	1	.5	50%
TOTALS:	1	1	.5	50%

NOTE:

(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)).

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

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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	10 (71.4%)	N/A	N/A
	B1.21	3	2 (66.6%)	N/A	N/A ·
	B1.22	23	16 (69.5%)	N/A	N/A
	B1.30	1	.5 (50%)	N/A	N/A
_	B1.40	1	.66 (66.6%)	N/A	N/A
-	TOTALS:	46	29.2 (63.5%)	N/A	67%

NOTES:

- (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.

6.2 CATEGORY B-D

6.2.1

6.2.2

CATEGORY: ITEM NO:	B-D B3.90	Full Penetration Welds of Nozzles in Nozzle-To-Vessel Welds		es in Vessels
System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%) (1)
RPV	30	30	21	70%
TOTALS:	30	30	21	70%

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	Full Penetration Welds of Nozzles in Vessels			
ITEM NO:	B3.100	Nozzle Inside R	Nozzle Inside Radius Section		
System	Total Comp.	Total Requiring Examination	· Examined To Date	Examined To Date (%) (1)	
RPV	30	30	21	70%	
TOTALS:	30	30	21	70%	

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	21 (70%)	25%	N/A
B3.100	30	21 (70%)	25%	N/A
TOTALS:	60	42 (70%)	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)):

CATEGORY B-F 6.3

6.3.1	CATEGORY:	B-F	Pressure Retaining Dissimilar Metal Welds			
	ITEM NO:	B5.10	RPV Nozzle to Safe End Butt Welds \geq 4"		ds ≥ 4" Dia.	
	System	Total Comp.	Total Requiring	Examined To	Examined To Date	
	······	<u>.</u>	Examination	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 ITEM NO: B5.20		Pressure Retaining Dissimilar Metal Welds RPV Nozzle to Safe End Butt Welds ≤ 4" Dia.			
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	
	SLC	1	1	1	100%	

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

6.3.3	B-F	
	ITEM NO:	B5.130

Pressure Retaining Dissimilar Metal Welds Piping Butt Welds \geq 4" Dia.

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RHR	3	2 .	1	50%
CS	2	2	2	100%
RWCU	2	0.	0	0%
TOTALS:	. 7	4	3	75%

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	3 (75%)	(2)	(2)
TOTALS:	12 (1)	8 (66.6%)	50%	67%

CATEGORY B-F TOTALS

NOTES:

(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	CATE	GORY: ITEM NO:	B-G-1 B6.10	Pressure Retaining Bolting Greater than 2" in Closure Head Nuts		ter than 2" in Dia.
		System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
		RPV	68	68	45	66.2%
		TOTALS:	68	68	45	66.2%
6.4.2 CATEGORY: ITEM NO		GORY: ITEM NO:	B-G-1 B6.20	Pressure Retaini Closure Studs in		ter than 2" in Dia.
		System	Total	Total	Examined	Examined

System	Total	Total	Examined	Examined
	Comp.	Requiring	То	To Date
		Examination	Date	(%)
RPV	68	64 (1)	41	64%
TOTALS:	68	64 (1)	41	64%

NOTE:

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

6.4.3 CATEGOI		Y: MNO:	B-G-1 B6.30	Pressure Retaining Bolting Greater than 2" in Dia. Closure Head Studs when removed		
	Sys	tem	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RP	V	68	4 (1)	4	100%
	TO	TALS:	68	4 (1)	4	100%
	NOT	E:		•		

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

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6.4. 4	CATE				Pressure Retaining Bolting Greater than 2" in Dia. Reactor Vessel Threads in Flange		
		System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	
		RPV	68	68	. 45	66.2%	
		TOTALS:	68	68	45	66.2%	
6.4.5	CATE	GORY:	B-G-1	Pressure Retaining Bolting Greater than 2" in Dia.			
	ITEM NO: B6.50 Rea			Reactor Vessel Closure Washers, Bushings (When Removed)			
		System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	
		RPV	Washers 68	68	45	66.2%	
			Bushings 68	68 (1)	0	0%	
		TOTALS:	136	136 (1)	45	33.1%	

NOTE:

(1) Inspection of bushings is only required for connections that are disassembled.

6.4.6	CATÉGORY: ITEM NO:	B-G-1 B6.180	Pressure Retaining Bolting Greater than 2" in Pumps, Bolts and Studs		ter than 2" in Dia.
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RRS	32	32	16	50%
	TOTALS:	32	32	16	50%

6.4.7	CATEGORY: ITEM NO:	B-G-1 B6.200		ssure Retaining Bolting Greater than 2" in Dia. nps, Nuts, Bushings and Washers (1)		
	System	Total Comp.	Total Requiring Examination	Examined To Date (1)	Examined To Date (%)	
	RRS	32	32	16	50%	
	TOTALS:	32	32	16	50%	

NOTE:

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

CATEGORY B-G-1 TOTALS

Item No.	Total Requiring Examination	Examined To Date	Minimum Required (%)	Maximum Allowed (%)
B6.10	68	45 (66.2%)	(1)	(1)
B6.20	64	41 (64%)	(1)	(1)
B6.30	4	4 (100%)	(1)	(1)
B6.40	68	45 (66.2%)	(1)	(1)
B6.50	136 (2)	45 (33.1%)	(1)	(1)
B6.180	32	16 (50%)	(1)	(1)
B6.200	32	16 (50%)	(1)	(1)
TOTALS:	404	212 (52%)	50%	67%

NOTES:

(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.

6.5.1

CATEGORY: ITEM NO:	B-G-2 B7.10	Pressure Retaining Bolting 2" and smaller in D Reactor Vessel-Bolts, Studs and Nuts			
System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	
RPV	3	3 (1)	0	0%	
TOTALS:	3	3 (1)	0	0%	

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 ITEM NO: B7.50 Pressure Retaining Bolting 2" and smaller in Dia. Piping-Bolts, Studs and Nuts

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

NOTE:

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

6.5.3 CATEGORY:

ITEM NO:

B-G-2

B7.60

Pressure Retaining Bolting 2" and smaller in Dia. Pump Bolts, Studs and Nuts, and Seal Bolting

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RRC	2	2 (1)	1	50%
TOTALS:	2	2 (1)	1	50%

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	Pressure Retaining Bolting 2" and smaller in Dia. Valves-Bolts, Studs and Nuts			
	System	Total Comp.	Total Requiring Examination (1)	Examined To Date (2)	Examined To Date (%)	
	MS	38	38	26	68.4%	
	RRS	4	4	2	50%	
	RHR	10	10	6	60%	
	CS	6	6	4	66.6%	
	HPCI	3	3	2	66.6%	
	RCIC	3	3	2	66.6%	
	RWCU	9.	9	· 5	55.5%	
	FW	· 8	8	· 4	50%	
	TOTALS:	81	81	51	62.9%	

NOTES:

(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: ITEM NO:

Pressure Retaining Bolting 2" and smaller in Dia. CRD Housings-Bolts, Studs and Nuts

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
CRD	185	185 (1)	70 sets*	37.8%
TOTALS:	185	185 (1)	70 sets*	37.8%

*100% of disassembled flange bolting.

B-G-2

B7.80

NOTE:

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

Item No. Minimum Total Examined To Maximum Requiring Date Required Allowed Examination (2) (%) (%) B7.10 3 0 (0%) (1) (1) B7.50 2 2 (100%) (1) (1) 2 B7.60 1 (50%) (1) (1) B7.70 81 51 (62.9%) (1) (1) B7.80 70 (37.8%) 185 (2) (1) (1) TOTALS: 88 54 (61.3%) 50% 67%

CATEGORY B-G-2 TOTALS

NOTES:

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

6.7 CATEGORY B-J

6.7.1

CATE	GORY: ITEM NO:	B-J B9.11			
	System	Total Comp.	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)
	MS	113	11	9	81.8%
	RRS	109 ·	15	6	40%
	RHR	71	5	3	60%
	CS	42	• 3	0	0%
	HPCI	14	2	2	100%
	RCIC	16	2	2	i00%
	RWCU	70	7	4	57.1%
	FW	123	18	11 .	61.1%
	RPV	5	0	0	N/A
	TOTALS:	563	63	37	58.7%
	NOTE				

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	37 (58.7%)	50%	67%

NOTE:

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

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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	0 Piping-Integrally	y Welded Attach	ments	
	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%	

NOTES:

- (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: ITEM NO:	B-M-2 B12.50			
	System	Total Comp.	Total Requiring Examination	Examined To Date (1)	Examined To Date (%)
	MS	23	23	7	30.4%
	RRS	4	4	0	0%
	RHR	10	10	3	30%
	CS	б	6	2	33.3%
	HPCI	3	· 3	1	33.3%
	RCIC	1	1	0	0%
	RWCU	5	5	0	0%
	FW	8	8	6	75%
	TOTALS:	60	60	19	(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

CATE	GORY:	B-0	B-O Pressure Retaining Welds in Control Rod Housings				
	ITEM NO:	B14.10) (2) Reacted	Reactor Vessel-Welds in CRD Housings			
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date _(%)	Minimum Required (%)	Maximum Allowed (%)
	RPV	40	8 (1)	4	50%	50%	67%
	TOTALS:	40	8 (1)	4	50%	50%	67% (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	.1 CATEGORY: C-A ITEM NO: C1.10		Pressure Retaining Welds in Pressure Vessel 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%	

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C-A Pressure Retaining Welds in Pressure Vessel 6.11.2 CATEGORY: ITEM NO: C1.20 Head Circumferential Welds Total Total Examined Examined System Comp. Requiring То To Date Examination Date (%) 1 RHR 1 0 0% TOTALS: 1 1 0 0%

CATEGORY C-A TOTALS

Item No.	Total Requiring Examination	Examined To Date	Minimum Required (%)	Maximum Allowed (%)
C1.10	1	1 (100%)	N/A	N/A
C1.20	1	0 (0%)	N/A	N/A
TOTALS:	2	1 (50%)	N/A (1)	N/A (1)

NOTE:

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

6.12 CATEGORY C-B

6.12.1 CATE	GORY:	C-B	Pressure Retaining Welds in Vessels		
	ITEM NO:	C2.21	Nozzle-To-Shell (or Head) Weld		1
	System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
	RHR	4.	2	1	50%
	TOTALS:	4	2	1.	50%
6.12.2 CATE	GORY: ITEM NO:	C-B C2.22	Pressure Retaining Nozzle Welds in Vessels Nozzle Inside Radius Section		s in Vessels
	C	T-4-1	T- 4-1	Transing	Emanda d

System	Total	Total	Examined	Examined
	Comp.	Requiring	То	To Date
		Examination	Date	(%)
RHR	4	2	1	50%
TOTALS:	4	2	1	50%

CATEGORY C-B TOTALS

Item No.	Total Requiring	Examined To	Minimum Required	Maximum Allowed
	Examination	Date	(%)	(%)
C2.21	2	1(50%)	N/A	N/A
C2.22	2	1(50%)	N/A	· N/A
TOTALS:	4	2(50%)	N/A (1)	N/A (1)

NOTE:

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

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6.13 CATEGORY C-C

6.13.1	CATEGORY: ITEM NO:	C-C C3.10	Integral Attachments for Vessels, Piping, Pumps and Valv Pressure Vessels			
	System	Total Comp. (1)	Total Requiring Examination (2)	Examined To Date	Examined To Date (%)	
	RHR	5	1 (19 welds)	11 welds	57.9%	
	TOTALS:	5	1 (19 welds)	11 welds	57.9%	

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		C-C	Integral Attachments for Vessels, Piping, Pumps and Valve			
	ITEM NO:	C3.20	Piping Integrally Welded Attachments			
	System	Total	Total	Examined	Examined	
		Comp. (1)	Requiring	То	To Date	
			Examination	Date	(%)	
	<u> </u>		(2)			
	All Class 2	33	4	2	50%	
	Systems					
	TOTALS:	33	4	2	50%	

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.

CATEGORY C-C TOTALS

Item No.	Total Requiring Examination	Examined To Date	Minimum Required (%)	Maximum Allowed (%)
C3.10	1	.58 (58%)	N/A	N/A
C3.20	4	2 (50%)	N/A	N/A
TOTALS:	5	2.58 (51.6%)	50%	67%

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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	10	62.5%
	TOTALS:	131	16	10	62.5%

NOTE:

(1) The Class 2 portion of the Standby Liquid Control System is <4" NPS and is 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 C5.51 / C5.81	Piping	or Low Alloy Steel Thickness for		
System		'otal omp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
MS		74	6	5	83.3%
CRD		34 .	3	1	33.3%
RHR	4	464	34	22	64.7%
CGC	I	113	6	4	66.6%
HPCI	1	154	12	7	58.3%
CS ·	1	196	15 .	7	46.6%
Containment H	Piping (1) 2	279	23	14	60.86%
TOTALS:	1	314	99	60	60.6%

NOTE:

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

CATEGORY C-F TOTALS

Item No.	Total Requiring	Examined To	Minimum Required	Maximum Allowed
	Examination (1)	Date	(%) (2)	(%) (2)
C-F-1 (Augmented)	16	10 (62.5%)	N/A	N/A
C-F-2 (C5.51 & C5.81)	99	60 (60.6%)	N/A	N/A
TOTALS:	115	70 (60.8%)	50%	67%

NOTES:

- (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:

ITEM NO:

F-A

F1.10-F1.40

Plate and Shell Type Supports

Class 1	B11	RPV			(%)
	Det	ILT V	9	2	22.2%
	B21	Steam Supply	8	5	62.5%
	B31	Reactor Recirc	6	5	. 83.3%
	E11	RHR	3	1	33.3%
	E21	CS	.3	2	66.7%
	E41	HPCI	1	0	0%
	E51	RCIC	1	1	100%
	G33	RWCU	5	2	40%
	N21	Feedwater	5	3	60%
	C	LASS 1 TOTALS	41	21	51.2%
Class 2	B21	SRV .	6	4	66.7%
	C11	CRD	4	3	75%
	E11	RHR	45	30	66.7%
	E21	CS	16	8	50%
	E41	HPCI	14	9	64.2%
	N30	MS	6	5	83.3%
	P11	Demin	1	· 1	. 100%
	T48	. GCG	16	11	68.7%
	C	LASS 2 TOTALS	108	71	65.7%
Class 3	E11	RHRSW	14	10	71.4%
	G33	RWCU	1	1	100%
	P42	RBCCW	1 -	1	100%
	P44	EECW	33	19	57.5%
	P45	EESW	18	9	50%
	R30	DGSW	10	8	80%
	C	LASS 3 TOTALS	77	48	62.3%

Item No.	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
F-A Class 1	41	21	51.2%	N/A	N/A
F-A Class 2	108	71	65.7%	N/A	N/A
F-A Class 3	77	48	62.3%	N/A	N/A
TOTALS:	226	140	61.9%	50%	67%

CATEGORY F-A TOTALS

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 S	ystem
B31 - PIS Number for the Reactor Recircul	ation System
C11 - PIS Number for the Control Rod Driv	ve System
C41 - PIS Number for the Standby Liquid C	Control System
E11 - PIS Number for the Residual Heat Re	emoval System
E21 - PIS Number for the Core Spray Syste	em
E41 - PIS Number for the High Pressure Co	oolant Injection System
E51 - PIS Number for the Reactor Core Iso	lation Cooling System
G33 - PIS Number for the Reactor Water C	leanup System
G41 - PIS Number for the Fuel Pool Coolin	g System
N21 - PIS Number for the Feedwater System	m
N30 - PIS Number for the Main Steam Syst	em
T48 - PIS Number for the Combustible Gas	s 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
RĊIC	- Reactor Core Isolation Cooling
RHR	- Residual Heat Removal
RRC	- Reactor Recirculation
RWCU	- Reactor Water Cleanup
SDV	- Scram Discharge Volume
SLC	- Standby Liquid Control

Nondestructive Examination Method Abbreviations

MT	- Magnetic Particle Examination
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 Mech.	- UT Mechanized
UT Mech./Ma	n UT Mechanized or Manual

Weld Selection Basis Abbreviations

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

Degradation Mechanisms

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

Plant Components and Weld Terminology Abbreviations

CRDH EXPJT	- Control Rod Drive Housing - Pipe Expansion
FBC	- Field Weld
HX	- Heat Exchanger
HXS	- Heat Exchanger Shell
IBR	- Inner Bore Region (Nozzle)
ШН	- Incore Instrumentation Housing
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
PS	- Primary Steam (Nuclear Steam Supply System)
RD	- Recirculation Discharge
RS	- Recirculation Suction
SDV	- Scram Discharge Volume
SW	- Shop Weld
TRUNION	- Hanger Support Welded Directly onto the Pressure Boundary of the Pipe
VBB	- Valve Body and Bonnet Housing

Generic Miscellaneous Abbreviations

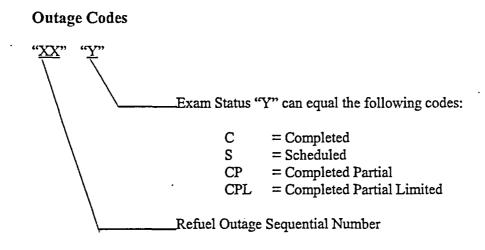
BWR	- Boiling Water Reactor
CRC	- Corrosion Resistant Cladding
DWG	- Drawing
DM	- Dissimilar Metal Weld
EF2	- Enrico Fermi 2
in.	, - Inches
N/A	- Not Applicable
NUREG	- Nuclear Regulatory Guide
PWR	- Pressurized Water Reactor
RR	- Relief Request
RPV	- Reactor Pressure Vessel

Component Support Abbreviations

Α	- Anchor
С	- Constant Support
G	- Guide
R	- Rigid Support
SP	- Spring Hanger

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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

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).

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

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.

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)

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INSERVICE INSPECTION NDE PROGRAM

TABLE A

INSERVICE INSPECTION NDE PROGRAM TABLE A

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FERMI 2 NUCLEAR POWER PLANT

tegory / Ite	m Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ction F	eriod 3	Remarks	
A										
B1.11	Circumferrential S	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	Weld								
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				12S		
1-308D		UT	All B-A Welds	5360-5				12S		
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				11S		
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				11S		
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				115		
6-306		UT	All B-A Welds	5360-5		08CP	10CP		One sided exam 180-360 Deg, RF08, 0-180 De RF10	
B1.22	Meridional Head	Weld								
1-306A		UT	All B-A Welds	5360-5		08C				

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INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / It	em Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspo 1	ection 2	Period 3	Remarks
B-A			•						
B1.22	Meridional Head Wel	đ							
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				11S	
1-306J		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	
1-31911		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
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				11S	

INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / Iten	n Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction T 2	Period 3	Remarks
В-Л									
B1.22	Meridional Head Wel	ld				•			
2-319E		UT	All B-A Welds	5360-5				11S	
B1.30	Shell to Flange Weld								
13-308 (from	n flange)	UT	All B-A Welds	5360-5	RR-A1	08CP		12SP	0-180 Deg, RF-08; 180- 0 Deg, RF-12
13-308 (from	n shell).	UT	All B-A Welds	5360-5	RR-A1	08CP		12SP	~120 Deg, RF-08 ; Remainder at RF-12
B1.40	Head to Flange Weld								
3-319		UT/MT	All B-A Welds	5360-5		08CP	10CP	12SP	1/3 of weld each scheduled Inspection Period
3-D			•						
B3.100	RPV Nozzle Inside Ra	adius Section	I						
13-314A IR		VT	All BD-IRS	5361-5	RR-A32	08C			
13-314B IR	5	VT	All BD-IRS	5361-5	RR-A32	08C			
13-314C IR	S	VT	All BD-IRS	5361-5	RR-A32		10C		
13-314D IR	S	VT	All BD-IRS	5361-5	RR-A32		09C		
13-314E IRS	5	VT	All BD-IRS	5361-5	RR-A32		09C		
13-314F IRS	5	VT	All BD-IRS	5361-5	RR-A32		09C		
13-314G IR	S	VT	All BD-IRS	5361-5	RR-A32		09C		
13-314H IR	s ·	VT	All BD-IRS	5361-5	RR-A32			12S	· ·
13-314J IRS	;	VT	All BD-IRS	5361-5	RR-A32			11S	
13-314K IR	S	VT	All BD-IRS	5361-5	RR-A32		09C		
14-316A IR	S	VT .	All BD-IRS	5361-5	RR-A32			12S	
14-316B IR	S	VT	All BD-IRS	5361-5	RR-A32	08C			
15-315 IRS		VT	All BD-IRS	5361-5	RR-A31	08C			
19-314A IR	S	VT	All BD Nozzles	5361-5	RR-A32		10C		
19-314B IR	S	VT	All BD Nozzles	5361-5	RR-A32	08C			
2-318 IRS		VT	All BD Nozzles	5361-5	RR-A31		10C		
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	Λ	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

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INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / Iten	1 Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction Peri	iod 3	Remarks
B-D									
B3.100	RPV Nozzle Inside	Radius Section							
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	All BD-IRS	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-316F IBR	•	UT	Α	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-316F IRS		UT	All BD-IRS	5361-5		07CA			NUREG-0619/GE-NE-523-A71-594
4-318A IRS		VT	All BD Nozzles	5361-5	RR-A31		1	1S	
4-318B IRS		VT	All BD Nozzles	5361-5	RR-A31		1	1S	
5-314A IRS		VT	All BD-IRS	5361-5	RR-A31	08C			
5-314B IRS		VT	All BD-IRS	5361-5	RR-A31		1	2S	· ·
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		1	2S	
8-316D IRS		VT	All BD-IRS	5361-5	RR-A31		1	2S	
B3.90	RPV Nozzle to Ves	sel 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			
13-314H		UT	All B-D Nozzles	5361-5	RR-A6		1	2S	
13-314J	•	UT	All B-D Nozzles	5361-5	RR-A6		1	1S	
13-314K		UT	All B-D Nozzles	5361-5	RR-A6	08C			
14-316A		UT	All B-D Nozzles	5361-5	RR-A6		10C		

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INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / Item Identification		Exams Required	Selection Basis	Isometric	Relief Request			Remarks	
B-D									
B3.90	RPV Nozzle to Vess	el Weld							
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			11S	
4-316F		UT ·	All B-D Nozzles	5361-5	RR-A6			11S	
4-318A		UT	All B-D Nozzles	5361-5	RR-A6			115	
4-318B		UT	All B-D Nozzles	5361-5	RR-A6			115	
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	Vessel Nozzles							
17-315		VT-2		5361-5		07C, 08C	09C, 10C	11S, 12S	
7-315		VT-2		5361-5		07C, 08C	09C, 10C	11S, 12S	Each Refuel Outage - Note 4 applies to all B- Items
B4.12	Partial Penetration	CRD Nozzles							
1-310-XY		VT-2		5363-5		07C, 08C	09C, 10C	11S, 12S	25% Nozzles External Surfaces - Note 4

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INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction F	Period 3	Remarks
В-Е								
B4.12 Partial Penetration	CRD Nozzles							
CRDH-YX_	VT-2		5363-5		07C, 08C	09C, 10C	11S, 12S	
B4.13 Partial Penetration	Instrumentatio	on Nozzles						
2-315A	VT-2		5361-5		07C, 08C	09C, 10C	11S, 12S	
2-315B	VT-2		5361-5		07C, 08C	09C, 10C	11S, 12S	
2-315C	VT-2		5361-5		07C, 08C	09C, 10C	11S, 12S	· · · · · · · · · · · · · · · · · · ·
2-315D	VT-2		5361-5		07C, 08C	09C, 10C	11S, 12S	
2-315F	VT-2		5361-5		07C, 08C	09C, 10C	11S, 12S	:
IIH-XY_ (55)	VT-2		5363-5		07C, 08C	09C, 10C	11S, 12S	
B-F								
B5.10 Dissimilar Metal RI	V Nozzle to S	afe End Weld 4" NP	S and Larger	•				
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
2-30311	UT	A, RI (IGSCC)	5356-5	RR-A30	07C		12S	Notes 2 & 8 Cat. B
4-303∧	UT	A, RI (IGSCC)	5357-5	RR-A30	07C		12S	Notes 2 & 8 Cat. B
N-9	UT	A, RI (IGSCC)	5361-5	RR-A30		09C		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
B5.130 Dissimilar Metal Pij	ping Butt Weld	d 4" NPS and Larger						
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				11S	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)

INSERVICE INSPECTION NDE PROGRAM TABLE A

FERMI 2 NUCLEAR POWER PLANT

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Category / Item	Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction P 2	eriod 3	Remarks
B-F	· · ·								
B5.130	Dissimilar Metal Pip	ing Butt Weld	I 4" NPS and Larg	er					
SW-E21-3053		UT	A (IGSCC)	3053-5			10C		Notes 1, 2 & 8 Category B (IGSCC)
B5.20	Dissimilar Metal RP	V Nozzle to Sa	afe End Weld Less	Than 4" NPS					
5-315		РТ	A	R1-91		07C			Note 18
5-315		UT	Λ			07C			Note 18
B-G-1									
B6.10	RPV Closure Head I	Nute Croator "	Than 21						
326-02, 1 thro		VT	>2 dia."	5362-5		08CP	09CP	11SP	1/3 Each Period, Code Case N-627
B6.180	Pump Studs Greater		- 2 Gm.	5502-5		0001	0701	1151	his Lach I chou, Couc Case 11-027
	, Studs 1 through 16	UT	>2 dia."	5365-5		08C			
-	3, Studs 1 through 16	UT	>2 dia."	5365-5		000		115	
B6.190	Pump Flange Surfac								
RRC Pump A		VT-1	>2 dia."	5365-5					Perform if disassembled
RRC Pump B	-	VT-I	>2 dia."	5365-5					Perform if disassembled
B6.20	RPV Closure Studs								
326-01, 1 thr		UT	>2 dia."	5362-5		08CP	10CP	11SP	1/3 Each Period
B6.200	Pump Nuts, Bushing	s, and Washe	rs						
RRC Pump A Washers Set	Nuts, Bushings & 1 - 16	VT-1	>2 dia."	5365-5		08C			
RRC Pump B Washers Set	3 Nuts, Bushings & 1 - 16	VT-1	>2 dia."	5365-5				115	
B6.30	RPV Closure Studs	Greater Than	2", When Remove	d					
326-01, 1 thre	ough 68	МТ	>2 dia."	5362-5		08C			48-51 Removed w/refueling chute
B6.40	RPV, Threads in Fig	nge							-
1 through 68		UT	>2 dia."	5362-5		08CP	09CP	11SP	1/3 Each Period
B6.50	RPV Closure Washe	ers and Bushir	igs						
326-03, Wasl	hers 1 through 68	VT-1	>2 dia."	5362-5		08CP	09CP	11SP	1/3 Each Period
Bushings I th	rough 68	VT-1	>2 dia."	5362-5				12S	Only required when studs are removed (48-51 removed with refueling shute)

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INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction2	Period 3	Remarks
B-G-2								
B7.10 RPV Bolts, Studs,	and Nuts 2" an	d Less						
Instrumentation Nozzle	VT-1	< 2 dia."	5361-5				115	
Spare Flange (0Deg)	VT-1	< 2 dia."	5361-5				115	
Spare Flange (180Deg)	VT-1	< 2 dia."	5361-5				115	
B7.50 Piping Bolts, Stud	s, and Nuts 2" a	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, Study	s, and Nuts 2" a	nd 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, Stude	s, and Nuts 2" a	nd 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			
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				11S	
B21-F013P-VBB	VT-1	< 2 dia."	5355-5				125	

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Category / Item Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspection 1 2	Period 3	Remarks
B-G-2							
B7.70 Valve Bolts, Stud	s, and Nuts 2" a	and Less					
B21-F013R-VBB	VT-1	< 2 dia."	5354-5			12S	
B21-F022A-VBB	VT-1	<2 dia."	5352-5			11S	
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-I	< 2 dia."	5354-5			11S	
B21-F028D-VBB	VT-1	< 2 dia."	5355-5		08C		
B21-F032A-VBB	VT-I	< 2 dia."	3537-5		09C		
B21-F032B-VBB	VT-1	< 2 dia."	3536-5	,	•	11S	
B21-F076A-VBB	VT-1	< 2 dia."	3537-5			115	
B21-F076B-VBB	VT-1	<2 dia."	3536-5			11S	
B31-F023A-VBB	VT-1	< 2 dia."	5357-5		09C		
B31-F023B-VBB	VT-1	< 2 dia."	5359-5			11S	
B31-F031A-VBB	VT-1	< 2 dia."	5357-5		09C		
B31-F031B-VBB	VT-1	< 2 dia."	5359-5			115	
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-I	< 2 dia."	2327-5			115	
E11-F050A-VBB	VT-1	<2 dia."	2298-5		07C		
E11-F050B-VBB	VT-I	<2 dia."	2327-5		07C		
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 diā."	2299-5		09C		
E11-F608-VBB	VT-1	< 2 dia."	2299-5			11S	
E21-F005A-VBB	VT-1	< 2 dia."	3052-5		09C		

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Category / Item Identification	Exams Required	Selection Basis	· Isometric	Relief Request	Inspe 1	ection 2	Period 3	Remarks
8-G-2								
B7.70 Valve Bolts, Studs,	and Nuts 2" a	nd Less						
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				125	
E21-F007B-VBB	VT-1	< 2 dia."	3053-5				12S	
E41-F002-VBB	VT-I	<2 dia,"	2297-5				11S	
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		-		11S	
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				11S	
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-B21-5354-0111	VT-1	<2 dia."	5354-5				12S	
FBC-B21-5354-01J	VT-1	<2 dia."	5354-5		07C			
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		

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction P 2	eriod 3	Remarks
B-G-2	nequirea	· · · · ·		nequest				
B7.70 Valve Bolts, Studs, a	and Nuts 2" ar	rd Less						
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				115	
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, Studs, a								
185 sets of Bolts, Studs and Nuts	Visual VT-1	< 2 dia."			08CP	09CP		When Disassembled (24 sets, 08), (23 sets, 09)
B-II								
B8.10 RPV Integral Attac	hment Weld							
10-324	МТ	B-H Weld	5360-5		08C			Code Case N-509
3-306/4-309	UT	B-H Weld	5360-5		08CP			10% of Weld length
3-306/4-309	MT	B-H Weld	5360-5		08CP			10% of Weld length
8-319A	MT	B-H Weld	5360-5				12S	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				12S	Supplemental exam for weld 1-391G, RR-A1
B-J								
B9.11 Circumferential Pip	ing Weld 4" I	NPS or Larger						
3-316A	UT	RI (TASCS, CC)	3537-5	RR-A30	08C			
3-316D	UT	RI (TASCS, CC)	3536-5	RR-A30			12S	
3-316E	UT	RI (TASCS, CC)	3536-5	RR-A30			115	
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		

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction	Period 3	Remarks
B-J								
B9.11 Circumferential P	iping Weld 4" I	NPS or Larger						
FW-E11-2327-0W1	UT	RI	2327-5	RR-A30	08C			
FW-E11-2327-0W6	UT	RI	2327-5	RR-A30			11S	
FW-E11-2327-6W0	РТ	A (IGSCC)	2327-5				11S	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			11S	
FW-G33-3096-8W11	UT	RI	5351-5	RR-A30		10C		
FW-G33-3096-8W9	UT	RI	5351-5	RR-730		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			11S	
FW-N21-2336-3W4	UT	RI	3536-5	RR-A30		09C		RCIC Selection
FW-PS-2-A6	UT	RI	5352-5	RR-A30			125	
FW-PS-2-C3	UT	RI	5354-5	RR-A30		10C	•	
FW-RD-2-A1-W1	UT	RI, A (IGSCC)	5357-5	RR-A30			12S	Note No. 2, Cat. B
FW-RD-2-A11	UT	RI, A (IGSCC)	5356-5	RR-A30			115	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	A (IGSCC)	5356-5				12S	Note 2, Category B(CRC)
FW-RD-2-A9	UT	A (IGSCC)	5357-5		08CA			Note 2, Category B
FW-RD-2-B1-W1	UT	RI, A(IGSCC)	5359-5	RR-A30			115	Note 2, Category B UFSAR 5.2.3.2
FW-RD-2-B19	UT	A, (IGSCC)	5358-5			10C		Note 2, Category B (CRC)
FW-RS-2-A1	UT	A (IGSCC)	5357-5				12SA	Note No. 2, Cat. B

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction I	Period 3	Remarks
3-J	<u> </u>					•		
B9.11 Circumferential	Piping Weld 4" N	VPS or Larger						
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			11S	
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			11S	
SW-G33-3096-5WH	UT	RI	3096-5	RR-A30			11S	
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	RI, A (IGSCC)	5356-5	RR-A30			11S	Note 2, Category B
SW-RD-2-A4-W2	UT	RI	5356-5	RR-A30			11S	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-2-A2-W1	UT	A (IGSCC)	· 5357-5			09C		Note No. 2, Cat. B

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Category / Item Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ection 1	Period 3	Remarks
B-J							•	
B9.11 Circumferential P	iping Weld 4"	NPS or Larger						
SW-RS-2-B1-W1	UT	RI, A (IGSCC)	5359-5	RR-A30			11S	Note 2, Category B
SW-RS-2A1-W1	UT	RI, A (IGSCC)	5357-5	RR-A30			12S	Note No. 2, Cat. B
B-K-1								
B10.10 Piping Integral At	itachment Wel	d						
SW-N21-2336-20WB	MT	> 5/8 T"	3537-5			10C		ISI Eval, 99-055; Code Case N-509
SW-N21-2336-20WC	MT	> 5/8 T"	3537-5			10C		ISI Eval, 99-055; Code Case N-509
SW-N21-2336-20WD	МТ	> 5/8 T"	3537-5			10C		ISI Eval. 99-055; Code Case N-509
SW-N21-2336-20WE	МТ	> 5/8 T"	3537-5			10C		ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA1	МТ	> 5/8 T"	5352-5		07C			ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA2	МТ	> 5/8 T"	5352-5		07C			ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA3	МТ	` ≥ 5/8 T"	5352-5		07C			ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA4	MT	> 5/8 T"	5352-5		07C			ISI Eval. 99-055; Code Case N-509
B10.20 Pump Integral At	tachment Weld	1						
SW-B31-5365-Pump A-WA	РТ	> 5/8 T"	5365-5				12S	ISI Eval. 99-055; Code Case N-509
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		Only if Disassembled
B21F010B	VT-3	>4 NPS"	3536-5		07C	09C		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					Only if Disassembled
B21F013B	VT-3	>4 NPS"	5354-5					Only if Disassembled
B21F013C	VT-3	>4 NPS"	5353-5		08C			Only if Disassembled

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relicf Request	Inspo 1	ection Period 2 3	Remarks
B-M-2							
B12.50 Valve Body							
B21F013D	VT-3	>4 NPS"	5353-5				Only if Disassembled
B21F013E	VT-3	>4 NPS"	5354-5				Only if Disassembled
B21F013F	VT-3	>4 NPS"	5353-5		08C		Only if Disassembled
B21F013G	VT-3	>4 NPS"	, 5353-5				Only if Disassembled
B21F013H	VT-3	>4 NPS"	5354-5	•			Only if Disassembled
B21F013J	VT-3	>4 NPS"	5354-5				Only if Disassembled
B21F013K	VT-3	>4 NPS"	5353-5		08C		Only if Disassembled
B21F013L	VT-3	>4 NPS"	5352-5		·		Only if Disassembled
B21F013M	′ VT-3	>4 NPS"	5352-5				Only if Disassembled
B21F013N	VT-3	>4 NPS"	5352-5		08C		Only if Disassembled
B21F013P	VT-3	>4 NPS"	5355-5				Only if Disassembled
B21F013R	VT-3	>4 NPS"	5354-5				Only if Disassembled
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		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				Only if Disassembled
B31F031B	VT-3	>4 NPS"	5359-5				Only if Disassembled

INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / Iter	n Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspo 1	ection 2	Period 3	Remarks
B-M-2									
B12.50	Valve Body								
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
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					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 Interior - Vessel Internals are examined using remote visual techniques. Exams listed are code required exams. More detailed techniques are utilized as per BWRVIP I&E Guidelines (Note 22).

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· Category / It	em Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction 2	Period 3	Remarks
B-N-1									
B13.10	Reactor Vessel Inter techniques are utiliz	rior – Vessel I zed as per BWI	nternals are examin RVIP I&E Guideline	ed using remo es (Note 22).	ote visual te	chniques	s. Exa	ms listed	are code required exams. More detailed
Access Ho	ole Cover	VT-1	Vessel Interior, A				09C	12S	Note No. 13
CDP and S	SLC Line	VT-3	Vessel Interior						Only if Accessible
Control Re	od Drive Housings	VT-3	Vessel Interior						Only if Accessible
Core Shro	ud	VT-1	Vessel Interior, A			07CP/ 08CP			Note No. 19
Core Shro	ud	VT-3	Vessel Interior			07CP/ 08CP			Note No. 19
Core Shro	ud Welds	UT	Vessel Interior, A					12S	Note No. 19
Core Sprag Piping	y Sparger and Interior	VT-3 / VT-1	Vessel Interior, A			07C/0 8CP	09CP 10CP		Note No. 12
Feedwater	Sparger	VT-3	Vessel Interior			07CP/ 08CP			NUREG 0619 at least once every 4 Cycles
Flux Moni	itor Housings	VT-3	Vessel Interior						Only if Accessible
Guide Roo	i Holders / Brackets	VT-3	Vessel Interior			07CP/ 08CP	10CP	11SP	
Instrumen	tation Lines	VT-3	Vessel Interior, A			07CP/ 08CP			Note No. 7
Jet Pump (Components	VT-3 / UT	Vessel Interior, A			07CP/ 08CP		-	Note No. 17
Jet Pump I	Hold Down Beams	VT-3	Vessel Interior			07CP/ 08CP			
Jet Pump l	Hold Down Beams	UT	Vessel Interior, A				09C		Note No. 3
Recirculat	ion Inlet Nozzle	VT-3	Vessel Interior			08CP	09CP 10CP		
Sample H	olders	VT-3	Vessel Interior			08CP	10CP	11SP	
Shroud He	ead	VT-3	Vessel Interior			07CP/ 08CP			
Shroud He	ead Bolts	UT	Â						Note No. 9
Shroud He	ead Bolts	VT-3	Vessel Interior			07CP/ 08CP			

INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / Item	1 Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspec 1	ction P 2	eriod 3	Remarks
B-N-1									
B13.10	Reactor Vessel Inte techniques are utiliz				ote visual teo	chniques	. Exam	is listed	are code required exams. More detailed
Steam Dryer Downs	Assembly / Hold	VT-3	Vessel Interior			07CP/ 08CP		11SP/ 12SP	Note No. 11
Steam Separa	ator Assy.	VT-3	Vessel Interior			07CP/ 08CP	09CP/ 10CP	11SP/ 12SP	
Top Guide		VT-3	Vessel Interior			07CP/ 08CP		11SP/ 12SP	Note No. 16
B-N-2									
B13.20	RPV Interior Weld required exams. M								note visual techniques. Exams listed are code
Jet Pump Ris	ser Brace Arms	VT-1	Vessel Interior, A	-		07CP/ 08CP	09CP/ 10CP	11SP/ 12SP	
Surveillance	Specimen Bracket	VT-1	Attachment Weld			07CP/ 08CP	10CP	11SP	
B13.30	RPV Interior Weld required exams. M								note visual techniques. Exams listed are code
Core Spray F	Piping Brackets	VT-3	Interior Attachmer Beyond Beltline	nt		07CP/ 08CP			
Feedwater Sp	parger Brackets	VT-3	Interior Attachmer Beyond Beltline	nt		07CP/ 08CP	09CP/ 10CP		
Shroud Supp	oort Welds	VT-3 / UT	Interior Attachmer Beyond Beltline	nt			09CP/ 10CP	115	Note No. 19
Steam Dryer	Support Lugs	VT-3	Interior Attachmer Beyond Beltline	nt		07CP/ 08CP	10C		
B13.40	Welded Core Supp detailed techniques					visual to	echniqu	es. Ex:	ams listed are code required exams. More
Core Suppor	t 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 Fu	uel Support	VT-3	Α			07CP/ 08CP	09CP		

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Category / Item Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ction I 2	Period 3	Remarks
B-O								
B14.10 Welds in CRI	D Housing							
CRDH-X02-Y27-W1	РТ	10% Peripheral Housing Welds	5363-5		08C			
CRDII-X02-Y27-W2	РТ	10% Peripheral Housing Welds	5363-5		08C			
CRDH-X02-Y31-W1	РТ	10% Peripheral Housing Welds	5363-5			10C		
CRDH-X02-Y31-W2	РТ	10% Peripheral Housing Welds	5363-5			10C		
CRDH-X02-Y35-W1	РТ	10% Peripheral Housing Welds	5363-5				11S	
CRDH-X02-Y35-W2	PT	10% Peripheral Housing Welds	5363-5				11S	
CRDH-X02-Y39-W1	РТ	10% Peripheral Housing Welds	5363-5				12S	
CRDH-X02-Y39-W2	РТ	10% Peripheral Housing Welds	5363-5				12S	
B-P								
B15.X Class 1 Press	ure Retaining Boun	dary						
B21, B31, C41, E11, E21, E E51, G33, N21, P34	E41, VT-2	Class1 Pressure Retaining Boundary			07C, 08C	09C, 10C	115	X Includes items - B15.10, B15.50, B15.60 and B15.70. Each Refueling Outage; Note 15
B21, B31, C41, E11, E21, E E51, G33, N21, P34	E41, VT-2	Class1 Pressure Retaining Boundary	,				12S	X Includes items - B15.11, B15.51, B15.61 and B15.71. Each Interval, Code Case N-498-1
C-A								
C1.10 Shell Circum	ferential Weld	•			•			
SW-E11-D2-HX-11	UT	Gross Structural Discontinuity	5370-5		08C			
C1.20 Head Circun	nferential Weld							
SW-E11-D2-HX-05	UT	Gross Structural Discontinuity	5370-5				115	

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Category / Ite	em Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ction I 2	Period 3	Remarks
C-B									
C2.21	Nozzle to Shell (or Head) Weld	•						
SW-E11-D	2-HX-01	MT	Shell - T >.5"	5370-5		08C			
SW-E11-D	2-HX-01	UT	Shell - T >.5"	5370-5		08C			
SW-E11-D	2-HX-10	UT	Shell - T >.5"	5370-5				11S	
SW-E11-D	2-HX-10	. MT	Shell - T >.5"	5370-5				11S	
C2.22	Nozzle Inside Ra	dius Section							
SW-E11-E	2-HX-01 IRS	UT	Selected Nozzle			08C			
SW-E11-D	2-HX-10 IRS	UT	Selected Nozzle		,		•	11S	
C-C									
C3.10	Intregally Welde	ed Attachment (Vessel)						
SW-E11-D	2-HXS-05	МТ	10%	5370-5		08C			Code Case N-509
SW-E11-E	2-HXS-06	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D	2-HXS-07	МТ	10%	5370-5		08C			Code Case N-509
SW-E11-D	2-HXS-09	МТ	10%	5370-5		08C			Code Case N-509
SW-E11-E	2-HXS-10	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D	2-HXS-11	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D	2-HXS-12	MT	10%	5370-5		08C			Code Case N-509
SW-E11-E	2-HXS-13	MT	10%	5370-5			09C		Code Case N-509
SW-E11-D	2-HXS-14	MT	10%	5370-5			09C		Code Case N-509
SW-E11-E	2-HXS-15	МТ	10%	5370-5			09C		Code Case N-509
SW-E11-D	02-HXS-16	MT	10%	5370-5			09C		Code Case N-509
SW-E11-D	2-HXS-17	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D	2-HXS-18	MT	10%	5370-5				11S	Code Case N-509
SW-E11-E	2-HXS-19	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D	2-HXS-20	MT	10%	5370-5				11S	Code Case N-509
SW-E11-E	2-HXS-21	MT	10%	5370-5				11S	Code Case N-509
SW-E11-E	2-HXS-22	МТ	10%	5370-5				11S	Code Case N-509
SW-E11-E	2-HXS-23	MT	10%	5370-5				11S	Code Case N-509
SW-E11-E	92-HXS-24	MT	10%	5370-5				11S	Code Case N-509

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction 2	Period 3	Remarks
C-C								
C3.20 Intregally Welded At	tachment (Pi	ping)						
C11-50-2113-G262A	MT	10%	5375-5				115	Code Case N-509
C11-50-2113-G262B	MT	10%	5375-5				115	Code Case N-509
C11-50-2113-G262C	MT	10%	5375-5				11S	Code Case N-509
C11-50-2113-G262D	MT	10%	5375-5				115	Code Case N-509
C11-50-2113-G262E	MT	10%	5375-5				115	Code Case N-509
C11-50-2113-G262F	MT	10%	5375-5		·		11S	Code Case N-509
C11-50-2113-G262G	MT	10%	5375-5				115	Code Case N-509
C11-50-2113-G262H	MT	10%	5375-5				115	Code Case N-509
PSFW-E21-3147-301	МТ	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	МТ	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	МТ	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				125	Code Case N-509
SW-E11-3151-4WK	MT	10%	3151-5				12S	Code Case N-509
C-F-1		•						
Augmented NRC Commitment								
FW-C41-2979-11S12	РТ	А	2979-5			10C		EF2-53.873
FW-C41-2979-17S18	РТ	Α	2979-5				12S	EF2-53,873
FW-C41-2979-1S2	РТ	Α	2979-5		08C		•	EF2-53.873
FW-C41-2979-2S3	РТ	Α	2979-5		08C			EF2-53.873
FW-C41-2979-50S51	РТ	Ă	2979-5				11S	EF2-53.873
FW-C41-2979-63S64	РТ	А	2979-5			09C		EF2-53.873
FW-C41-2979-64865	РТ	А	2979-5			09C		EF2-53.873

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction 2	Period 3	Remarks
C-F-1								
Augmented NRC Commitment								
FW-C41-2979-72S73	РТ	٨	2979-5		08C			EF2-53.873
FW-C41-2979-81S82	РТ	Λ	2979-5				12S	EF2-53.873
FW-C41-2979-L	РТ	Α .	2979-5			10C		EF2-53.873
FW-C41-2979-P	РТ	Α	2979 - 5		07C			EF2-53.873
FW-C41-3361-02W1	РТ	Α	3361-5		07C			EF2-53.873
FW-C41-3361-1WF22	РТ	Α	3361-5				12S	EF2-53.873
FW-C41-3361-1WF25	РТ	Α	3361-5				11S	EF2-53.873
FW-C41-5058-54S55	PT	Α	5374-5			09C		EF2-53.873
FW-C41-5058-65866	PT	Α	5374-5				11S	EF2-53.873
C-F-2								
C5.51 Circumferential We		• •						
FW-C11-2113-249-B	MT	R	5372-5				125	
FW-C11-2113-249-B	UT	Ŕ	5372-5				12S	•
FW-E11-3146-5WO	UT	MS	3146-5		08C			
FW-E11-3146-5WO	MT	MS	3146-5		08C			
FW-E11-3146-6W10	MT	MS	3146-5		07C			
FW-E11-3146-6W10	UT	MS	3146-5		07C			
FW-E11-3146-OW1	MT	TE	3146-5				11S	
FW-E11-3146-OW1	UT	ТЕ	3146-5				11S	
FW-E11-3151-10W0	MT	TE	3151-5				11S	
FW-E11-3151-10W0	UT	TE	3151-5				11S	
FW-E11-3151-3WF2	UT	MS .	3151-5			09C		
FW-E11-3151-3WF2	MT	MS	3151-5			09C		
FW-E11-3151-7W11	MT	MS	3151-5			10C		
FW-E11-3151-7W11	UT	MS	3151-5 ⁻			10C		
FW-E11-3154-13WO	UT	ТЕ	3154-5			09C		
FW-E11-3154-13WO	MT	TE	3154-5			09C		
FW-E11-3154-4WO	UT	TE	3154-5				12S	

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction 2	Period 3	Remarks
C-F-2								
C5.51 Circumferential Wel	d							
FW-E11-3154-4WO	MT	TE	3154-5				12S	
FW-E11-3157-OW6	MT	ТЕ	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		
FW-E11-3158-9WF2	UT	R	3158-5			09C		
FW-E11-3159-OW1	UT	HS	3159-5		08C			
FW-E11-3159-OW1	MT	HS	3159-5		08C			
FW-E11-3160-OW2	VT-1	R	3160-5	RR-A26			11S	Note 21
FW-E11-3161-4WF5	VT-1	R .	3161-5	RR-A26			12S	Note 21
FW-E11-3164-4W5	UT	R	3164-5				125	
FW-E11-3164-4W5	MT	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			12S	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			11S	Note 21
FW-E21-3144-0W4	MT	TE	3144-5			10C		
FW-E21-3144-0W4	UT	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	UT	R	3147-5		07C			

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ection 2	Period 3	Remarks
C-F-2								
C5.51 Circumferential W	/eld							
FW-E21-3147-16W17	MT	R	3147-5		07C			
FW-E21-3148-0W8	MT	TE	3148-5				12S	
FW-E21-3148-0W8	UT	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
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	МТ	R	3162-5			10C		
FW-E41-3162-9WF0	UT	TE	3162-5				12S	
FW-E41-3162-9WF0	МТ	TE	3162-5				12S	
FW-E41-3163-7W0	MT	TE	3163-5		07C			
FW-E41-3163-7W0	· UT	ТЕ	3163-5		07C			
FW-E41-3163-8W0	UT	TE	3163-5				11S	
FW-E41-3163-8W0	МТ	TE	3163-5				11S	
FW-E41-3167-1W2	МТ	R	3167-5				12S	
FW-E41-3167-1W2	UT	R	3167-5				12S	
FW-E41-3167-9WO	МТ	TE	3167-5				11S	
FW-E41-3167-9WO	UT	ТЕ	3167-5				11S	
FW-E41-3167-OW1	МТ	ТЕ	3167-5			09C		
FW-E41-3167-OW1	UT	ТЕ	3167-5			09C		
FW-E41-3169-2W0	UT	R	3169-5			09C		
FW-E41-3169-2W0	МТ	R	3167-5			09C		
FW-E41-3172-0W1	UT	ТЕ	3172-5			10C		
FW-E41-3172-0W1	MT	ТЕ	3172-5			10C		
FW-E41-3172-0W8	UT	R	3172-5				12S	

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction 2	Period 3	Remarks
C-F-2								<u> </u>
C5.51 Circumferential V	Weld							
FW-E41-3172-0W8	МТ	R	3172-5				12S	
FW-G41-3669-0W9	MT	MS	3669-5				12S	
FW-N30-3259-4WO	MT	TE	3259-5		08C			
FW-N30-3259-4WO	UT	ТЕ	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	МТ	MS	2097-5	RR-A26	07C			Note 21
FW-T48-04-2097-8W9	MT	R	2097-5 [.]		07C			
SW-C11-2113-172-A	UT	R	5375-5			09C		
SW-C11-2113-172-A	MT	R	5375-5			09C		
SW-C11-2113-303-A	UT	R	5372-5				11S	
SW-C11-2113-303-A	MT	R	5372-5				11S	
SW-E11-3035-5WE	MT	R	3035-5		07C			
SW-E11-3035-7WB	MT	R	3035-5			09C		
SW-E11-3146-6WE	UT	HS	3146-5			10C		
SW-E11-3146-6WE	MT	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	UT ·	R	3153-5		08C			
SW-E11-3153-13WD	МТ	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	UT	R	3157-5				12S	
SW-E11-3157-1WB	MT	R	3157-5				12S	
SW-E11-3158-4WD	MT	R	3158-5				11S	
SW-E11-3158-4WD	UT	R	3158-5				115	
SW-E11-3158-8WG	UT	R	3158-5				115	

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INSERVICE INSPECTION NDE PROGRAM TABLE A

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FERMI 2 NUCLEAR POWER PLANT

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspo 1	ection 2	Period 3	Remarks
C-F-2								
C5.51 Circumferential We	eld							
SW-E11-3158-8WG	МТ	R	3158-5				11S	
SW-E11-3161-1WH	МТ	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			125	Note 21
SW-E11-3177-6WD	MT	R	3177-5				115	
SW-E11-3177-6WD	UT	R	3177-5				11S	
SW-E11-3177-9WE	МТ	R	3177-5			09C		
SW-E11-3177-9WE	UT	R	3177-5			09C		
SW-E21-3145-9WD	VT-1	R	3145-5	RR-A26	08C			Note 21
SW-E21-3147-15WF	UT	R	3147-5			•	115	
SW-E21-3147-15WF	MT	R	3147-5				11S	
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	МТ	R	3148-5	-	08C			
SW-E21-3149-4WD	МТ	R	3149-5		07C			
SW-E21-3149-4WD	UT	R	3149-5		07C			
SW-E21-3149-6WC	UT	R	3149-5				12S	
SW-E21-3149-6WC	МТ	R	3149-5				12S	
SW-E21-3149-6WL	ÙΤ	R .	3149-5				11S	
SW-E21-3149-6WL	МТ	R	3149-5				11S	
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	UT	R	5373-5			09C		

INSERVICE INSPECTION NDE PROGRAM TABLE A

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ategory / Item Identi	fication	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ction 2	Period 3	Remarks
-R-2			<u> </u>						
C5.51 Circu	mferential Weld								,
SW-E41-5373-GW3		MT	R	5373-5			09C		
SW-G41-3669-3WB	ł	MT	R	3669-5			10C		
SW-N30-3258-13W	J	UT	MS	3258-5				12S	
SW-N30-3258-13W	J	MT	MS	3258-5				12S	
SW-N30-3258-19W	J	MT	MS	3258-5		07C			
SW-N30-3258-19W	J	UT	MS	3258-5		07C			
SW-N30-3258-1WJ		MT	MS	3258-5			10C		
SW-N30-3258-1WJ		UT	MS	3258-5			10C		
SW-N30-3258-7WK		MT	MS	3258-5			09C		
SW-N30-3258-7WK		UT	MS	3258-5			09C		
SW-T48-04-2095-51	٧D	MT	R	2095-5				11S	
SW-T48-04-2095-W	/SW3	МТ	R	2095-5				11S	
SW-T48-04-2097-18	SWC	MT	R	2097-5			10C		
SW-T48-04-2097-20	OWD	MT	MS	3258-5	RR-A26			11S	Note 21
SW-T48-04-2097-21	WB	VT-1	R	2097-5	RR-A26	07C			Note 21
SW-T48-04-2097-25	5WF	VT-1	R	2097-5	RR-A26	07C			Note 21
C5.52 Longi	tuinal Weld								
SW-E41-3162-11W	OLD	VT-1	R	3162-5	RR-A26	08C			Note 21
SW-N30-3258-13W	JLU	MT		3258-5				12S	
SW-N30-3258-13W	JLU	UT		3258-5				12S	•
SW-N30-3258-19W	JLU	UT	•	3258-5		07C			
SW-N30-3258-19W	JLU	MT	•	3258-5		07C			
SW-N30-3258-1WJ	LU	MT		3258-5			10C		
SW-N30-3258-7WK	LU	UT		3258-5			09C		
SW-N30-3258-7WK	LU	MT		3258-5			09C		
C5.81 Brand	ch Connection W	eld							
FW-E11-3146-15FV	V01	MT	MS	3146-5				12S	
FW-E11-3157-4WF	01	MT	R	3157-5				128	

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ategory / Item Identification	Exams Require	Selection Basis	Isometric	Relief Request	Inspe 1	ction 1	Period 3	Remarks
C-F-2								
C5.81 Branch Connection W	Veld [.]							
SW-E11-3146-5WC	МТ	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				11S	
SW-N30-3258-13WB	MT	R	3258-5		08C			
С-Н								
C.7X Class 2 Pressure Reta	ining Boun	idary						
B21 Main Steam	VT-2	Class 2 Boundary	5808-1 5808-2		08C	10C		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		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		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		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		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		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		X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
P34 Post Accident Sampling	VT-2	Class 2 Boundary	5824		08C	10C		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	5830-1 5830-2		08C	10C		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	5831		08C	10C		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

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ategory / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ection 2	Period 3	Remarks
2-H								
C7.X Class 2 Pressure Reta	ining Bound	ary						
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		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-
C41 Standby liquid Control System	VT-2	Class 2 Boundary	5811		08C	10C		X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
C41 Standby liquid Control System	VT-2	Class 2 Boundary	5811				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
E11 Residual Heat Removal System	VT-2	Class 2 Boundary	5813-1 5813-2 5813-3				125	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
E21 Core Spray System	VT-2	Class 2 Boundary	5814				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
E41 High Pressure Coolant Injection	VT-2	Class 2 Boundary	5815	RR-A19			12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
G41 Fuel Pool Cooling & Cleanup System	VT-2	Class 2 Boundary	5819				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
G51 Torus Water Management System	VT-2	Class 2 Boundary	5820				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
N30 Main & Reheat Steam System	VT-2	Class 2 Boundary	5822				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
P34 Post Accident Sampling	VT-2	Class 2 Boundary	5824				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
T48-04 Containment Atmosphere, Control System	VT-2	Class 2 Boundary	5830-1 5830-2				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-
T50 Primary Containment Monitoring System	VT-2	Class 2 Boundary	5831				125	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-

D-B

D2.10 **Pressure Retaining Components**

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INSERVICE INSPECTION NDE PROGRAM TABLE A

FERMI 2 NUCLEAR POWER PLANT

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspe 1	ection I 2	Period 3	Remarks
D-B								
D2.10 Pressure Retaining C	omponents							
E11 Residual Heat RemovalSystem Functional Boundary	Visual, VT-2	System Function	Class 3 Systems		08C	10C	12S	Note 15 Perform Each Period; Code Case 498-1
P42 Reactor Building Closed Cooling Water	Visual, VT-2	System Function	Class 3 Systems		08C	10C	12S	Note 15 Perform Each Period; Code Case 498-1
P44 Emergency Equipment Cooling Water	Visual, VT-2	System Function	Class 3 Systems		08C	10C	12S	Note 15 Perform Each Period; Code Case 498-1
P45 Emergency Equipment Service Water	Visual, VT-2	System Function	Class 3 Systems		08C	10C	12S	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	12S	Note 15 Perform Each Period; Code Case 498-1
D2.20 Intregal Attachment	(Supports an	d Restraints)						÷
P45-3360-G11	VT-3	Integral Attachment Weld	3360-2				115	
D2.40 Intregal Attachment								
E11-3184-G08	VT-3	Integral Attachment Weld	3184-2			09C		
P44-3048-G10	VT-3	Integral Attachment Weld	3048-2		07C			
N/A								
N/A ANSI B31.1 Augmen	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				115	Note 2, Category D
FW-N20-3107-0W1	UT	NUREG 0313	3107-1			10C		Note 2, Category D

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DETROIT EDISON COMPANY -FERMI 2

INSERVICE INSPECTION NDE PROGRAM TABLE A

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Category / Item Identifi	Exar cation Requ	ns Selection Basis lired	Isometric	Relief Request	Inspec 1	ction I 2	Period 3	Remarks
N/A								
N/A ANSI B	31.1 Augmented							
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				11S	Note 2, Category D
SW-N20-03-B009-BV	/SE UT	NUREG 0313	3105-1				11S	Note 2, Category D
SW-N20-03-B010-BV	/SE UT	NUREG 0313	3105-1		08C			Note 2, Category D
SW-N20-03-B011-AV	/SE UT	NUREG 0313	3105-1			09C		Note 2, Category D
SW-N20-03-B011-BV	/SE UT	NUREG 0313	3105-1			09C		Note 2, Category D
SW-N20-03-B012-AV	VSE UT	NUREG 0313	3105-1				12S	Note 2, Category D
SW-N20-03-B012-BV	/SE UT	NUREG 0313	3105-1				12S	Note 2, Category D
SW-N20-03-B013-AV	VSE UT	NUREG 0313	3105-1			10C		Note 2, Category D
SW-N20-03-B013-BV	/SE UT	NUREG 0313	3107-1			10C		Note 2, Category D
SW-N20-03-B014-AV	VSE UT	NUREG 0313	3105-1		07C			Note 2, Category D
SW-N20-03-B014-BV	/SE UT	NUREG 0313	3107-1		07C			Note 2, Category D
SW-N21-01-B001-AV	VSE UT	NUREG 0313	3109-1				11S	Note 2, Category D
SW-N21-01-B002-AV	VSE UT	NUREG 0313	3109-1		08C			Note 2, Category D

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INSERVICE INSPECTION NDE PROGRAM.

TABLE B

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INSERVICE INSPECTION NDE PROGRAM TABLE B

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FERMI 2 NUCLEAR POWER PLANT

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Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspe 1	ction I 2	Period 3	Remarks
1	B11-5360-Skirt	VT-3	Α		08C			RPV Skirt & Bolting
1	B11-5360-STAB-A	VT-3	G				115	RPV Stabilizer Supports
1	B11-5360-STAB-B	VT-3	G		08C			RPV Stabilizer Supports
1	B11-5360-STAB-C	VT-3	G				115	RPV Stabilizer Supports
1	B11-5360-STAB-D	VT-3	G				115	RPV Stabilizer Supports
1	B11-5360-STAB-E	VT-3	G				11S	RPV Stabilizer Supports
1	B11-5360-STAB-F	VT-3	G				12S	RPV Stabilizer Supports
1	B11-5360-STAB-G	VT-3	G				115	RPV Stabilizer Supports
1	B11-5360-STAB-H	VT-3	G				11S	RPV Stabilizer Supports
t	B21-2192-G02	VT-3	SP				125	
1	B21-2192-G13	VT-3	G				125	
1	B21-2297-G14	VT-3	G			10C	•	
1	B21-5352-HA1	VT-3,	SP		07C			
1	B21-5353-HB2	VT-3	SP		08C			
I	B21-5354-AC1	VT-3	٨				11S	
1	B21-5354-HC3	VT-3	SP		08C			
1	B21-5355-GD1	VT-3	G		07C			
1	B31-5356-IIA4	VT-3	SP				125	
I	B31-5357-HA1	VT-3	SP			10C		
1 .	В31-5357-НА7	VT-3	С		08C			
1	B31-5358-HB3	VT-3	SP		07C			
1	В31-5359-НВ6	VT-3	С			10C		
1	B31-5359-HB7	VT-3	С			09C -		
1	E11-2298-G01	VT-3	SP				11S	
1	E11-2299-G03	VT-3	SP				11S	
1	E11-2327-G03	VT-3	R			09C		
1	E21-3052-G02	VT-3	SP			09C		
t	E21-3053-G01	VT-3	SP			09C		
1	E21-3053-G03	VT-3	R				125	

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INSERVICE INSPECTION NDE PROGRAM TABLE B

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FERMI 2 NUCLEAR POWER PLANT

Component Relief **Inspection** Period Exams Code Class **Identification Number** Remarks Support Type Method 2 3 Request 1 125 E41-2297-G05 VT-3 SP SP 07C E51-2192-G11 VT-3 10C G33-3096-G01 **VT-3** SP SP 07C G33-3096-G04 **VT-3 VT-3** 115 G33-3096-G10 SP 115 G33-3096-G32 VT-3 G N21-3536-G02 VT-3 SP 09C N21-3536-G03 VT-3 SP 12S VT-3 SP 11S N21-3536-G07 VT-3 SP 10C N21-3537-G04 N21-3537-G06 VT-3 SP 10C B21-2586-G02 **VT-3** R 12S Augmented exam - See ISI 99-056 B21-2587-G06 VT-3 SP **11S** Augmented exam - See ISI 99-056 VT-3 10C B21-2590-G12 SP Augmented exam - See ISI 99-056 07C B21-2592-G04 VT-3 R Augmented exam - See ISI 99-056 B21-2594-G06 VT-3 SP 09C Augmented exam - See ISI 99-056 B21-4095-G06 **VT-3** R 07C Augmented exam - See ISI 99-056 VT-3 G 11S C11-2113-G262 C11-2113-G266 09C VT-3 R 09C C11-2113-G274 VT-3 G C11-2113-G294 VT-3 07C G E11-3035-G02 **VT-3** 10C R 09C SP E11-3035-G05 **VT-3** 10C E11-3035-G19 **VT-3** G R 12S E11-3035-G24 VT-3 E11-3146-G30 **VT-3** G 12S E11-3146-G32 VT-3 SP 09C 10C E11-3146-G36 VT-3 R 11S E11-3151-G05 **VT-3** SP

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FERMI 2 NUCLEAR POWER PLANT

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 E11-3153-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 09C 2 E11-3157-G04 VT-3 SP 07C 2 E11-3157-G24 VT-3 R 09C 2 E11-3157-G29 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G66 VT-3 R 09C 2 E11-3158-G06 VT-3 R 09C 2 E11-3159-G06 VT-3 R 09C 2 E11-3160-G01 VT-3 R 11S	
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-G05 VT-3 R 08C 2 E11-3154-G22 VT-3 R 09C 2 E11-3154-G28 VT-3 R 09C 2 E11-3157-G24 VT-3 SP 07C 2 E11-3157-G24 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G34 VT-3 R 09C 2 E11-3158-G34 VT-3 R 09C 2 E11-3158-G34 VT-3 R 09C 2 E11-3158-G36 VT-3 R 09C 2 E11-3158-G50 VT-3 R 09C 2 E11-3159-G09 VT-3 R 11S 2 E11-3160-G19 VT-3 SP 12S	
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 09C 2 E11-3154-G28 VT-3 R 09C 2 E11-3157-G24 VT-3 SP 07C 2 E11-3157-G24 VT-3 R 09C 2 E11-3157-G24 VT-3 R 09C 2 E11-3157-G24 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G50 VT-3 R 09C 2 E11-3158-G50 VT-3 R 09C 2 E11-3159-G06 VT-3 R 11S 2 E11-3159-G06 VT-3 R 11S 2 E11-3159-G06 VT-3 SP 08C 2 E11-3160-G11 VT-3 SP 12S	
2 E11-3153-G16 VT-3 R 12S 2 E11-3154-G05 VT-3 SP 10C 2 E11-3154-G22 VT-3 R 08C 2 E11-3154-G22 VT-3 R 09C 2 E11-3154-G28 VT-3 R 09C 2 E11-3157-G24 VT-3 SP 07C 2 E11-3157-G24 VT-3 R 09C 2 E11-3157-G24 VT-3 R 09C 2 E11-3157-G29 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G34 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G36 VT-3 R 09C 2 E11-3159-G06 VT-3 R 09C 2 E11-3159-G06 VT-3 R 11S 2 E11-3160-G19 VT-3 SP 08C 2 E11-3160-G19 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 09C 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-G24 VT-3 R 09C 2 E11-3157-G29 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G66 VT-3 R 09C 2 E11-3158-G06 VT-3 R 09C 2 E11-3159-G06 VT-3 R 09C 2 E11-3159-G06 VT-3 R 11S 2 E11-3159-G09 VT-3 R 12S 2 E11-3160-G19 VT-3 R 12S 2 E11-3160-G19 VT-3 R 12S 2 E11-3161-G11 VT-3 R 08C	
2 E11-3154-G09 VT-3 R 08C 2 E11-3154-G22 VT-3 R 09C 2 E11-3154-G28 VT-3 SP 07C 2 E11-3157-G24 VT-3 R 09C 2 E11-3157-G24 VT-3 SP 07C 2 E11-3157-G24 VT-3 R 09C 2 E11-3157-G29 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G30 VT-3 R 09C 2 E11-3158-G30 VT-3 R 09C 2 E11-3158-G50 VT-3 R 09C 2 E11-3159-G06 VT-3 R 07C 2 E11-3159-G09 VT-3 R 11S 2 E11-3160-G01 VT-3 SP 08C 2 E11-3160-G19 VT-3 R 12S 2 E11-3161-G11 VT-3 R 08C 2 E11-3161-G15 VT-3 R 08C	
2 E11-3154-G22 VT-3 R 09C 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-G24 VT-3 R 09C 2 E11-3157-G29 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G46 VT-3 R 09C 2 E11-3158-G46 VT-3 R 09C 2 E11-3158-G50 VT-3 R 09C 2 E11-3159-G06 VT-3 R 07C 2 E11-3159-G06 VT-3 R 11S 2 E11-3160-G19 VT-3 SP 08C 2 E11-3160-G19 VT-3 R 12S 2 E11-3161-G11 VT-3 R 12S 2 E11-3161-G15 VT-3 R 12S 2 E11-3161-G15 VT-3 R 12S	
2 E11-3154-G28 VT-3 R 09C 2 E11-3157-G24 VT-3 SP 07C 2 E11-3157-G24 VT-3 R 09C 2 E11-3157-G29 VT-3 R 09C 2 E11-3158-G33 VT-3 R 09C 2 E11-3158-G46 VT-3 R 09C 2 E11-3158-G50 VT-3 R 09C 2 E11-3159-G06 VT-3 R 11S 2 E11-3160-G01 VT-3 SP 08C 2 E11-3160-G19 VT-3 R 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 E11-3157-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 R 09C 2 E11-3158-G50 VT-3 R 09C 2 E11-3159-G06 VT-3 R 09C 2 E11-3159-G06 VT-3 R 07C 2 E11-3159-G06 VT-3 R 07C 2 E11-3160-G01 VT-3 R 07C 2 E11-3160-G19 VT-3 SP 08C 2 E11-3160-G19 VT-3 R 12S 2 E11-3161-G11 VT-3 R 08C 2 E11-3161-G15 VT-3 R 08C 2 E11-3164-G11 VT-3 G 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 R 09C 2 E11-3158-G50 VT-3 R 09C 2 E11-3159-G06 VT-3 R 07C 2 E11-3159-G09 VT-3 R 07C 2 E11-3160-G01 VT-3 R 07C 2 E11-3160-G19 VT-3 R 11S 2 E11-3160-G19 VT-3 R 12S 2 E11-3161-G11 VT-3 R 12S 2 E11-3161-G11 VT-3 R 12S 2 E11-3161-G15 VT-3 R 08C 2 E11-3161-G15 VT-3 R 08C 2 E11-3164-G11 VT-3 G 07C	
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 R 09C 2 E11-3159-G06 VT-3 SP 12S 2 E11-3159-G06 VT-3 R 07C 2 E11-3159-G09 VT-3 R 11S 2 E11-3160-G01 VT-3 SP 12S 2 E11-3160-G19 VT-3 R 11S 2 E11-3161-G11 VT-3 R 12S 2 E11-3161-G15 VT-3 R 12S 2 E11-3161-G15 VT-3 R 12S 2 E11-3161-G15 VT-3 R 08C 2 E11-3161-G15 VT-3 R 08C 2 E11-3161-G15 VT-3 R 08C 2 E11-3161-G15 VT-3 G 07C	
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 11S 2 E11-3160-G01 VT-3 SP 08C 2 E11-3161-G11 VT-3 R 12S 2 E11-3161-G11 VT-3 R 08C 2 E11-3161-G15 VT-3 R 08C 2 E11-3164-G11 VT-3 G 07C	
2E11-3158-G46VT-3R09C2E11-3158-G50VT-3SP12S2E11-3159-G06VT-3R07C2E11-3159-G09VT-3R11S2E11-3160-G01VT-3SP08C2E11-3160-G19VT-3G12S2E11-3161-G11VT-3R12S2E11-3161-G15VT-3R08C2E11-3161-G15VT-3G07C	
2 E11-3158-G50 VT-3 SP 12S 2 E11-3159-G06 VT-3 R 07C 2 E11-3159-G09 VT-3 R 11S 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-G11 VT-3 R 12S 2 E11-3161-G15 VT-3 R 08C 2 E11-3161-G11 VT-3 R 08C 2 E11-3161-G15 VT-3 R 07C	
2 E11-3159-G06 VT-3 R 07C 2 E11-3159-G09 VT-3 R 11S 2 E11-3160-G01 VT-3 SP 08C 2 E11-3160-G19 VT-3 G 12S 2 E11-3161-G11 VT-3 R 08C 2 E11-3161-G15 VT-3 R 08C 2 E11-3161-G15 VT-3 G 07C	
2 E11-3159-G09 VT-3 R 11S 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 E11-3161-G15 VT-3 R 07C	
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 E11-3161-G15 VT-3 R 08C 2 E11-3164-G11 VT-3 G 07C	
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 E11-3161-G11 VT-3 R 12S 2 E11-3161-G15 VT-3 R 08C 2 E11-3164-G11 VT-3 G 07C	
2 E11-3161-G15 VT-3 R 08C 2 E11-3164-G11 VT-3 G 07C	
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	

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Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspo 1	ection 2	Period 3	Remarks
2	E11-4611-G15	VT-3	R		08C			
2	E11-4612-G10	VT-3	R				11S	
2	E11-4612-G12	VT-3	G ·		08C			
2	E11-5370-G01	VT-3	G				11S	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			09C		Div 2 RHR HTX Supports
2	E11-5370-G04	VT-3	G				115	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				11S	
2	E21-3144-G11	VT-3	R				12S	
2	E21-3144-G16	· VT-3	R		08C			
2	E21-3144-G20	VT-3	R				11S	
2 .	E21-3145-G05	VT-3	SP				12S	
2	E21-3147-G13	VT-3	R				12S	
2	E21-3147-G20	VT-3	G			09C		
2	E21-3147-G35	VT-3	R		07C			
2	E21-3147-G39	· VT-3	SP			10C		
2	E21-3148-G29	VT-3	R.			09C		
2	E21-3148-G37	VT-3	SP			10C		
2	E21-3148-G48	VT-3	R				12S	
2	E21-3149-G05	VT-3	SP				11S	
2	E21-3149-G06	VT-3	R				115	
2	E21-3150-G02	VT-3	R	•	07C			
2	E41-3162-G01	VT-3	SP			09C		
2	E41-3162-G03	VT-3	R			09C		
2	E41-3162-G13	VT-3	G				125	
2	E41-3163-G01	VT-3	SP		08C			
2	E41-3163-G12	VT-3	R				12S	

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Code Class	Identification Number	Exams Method	Component Support Type	Rellef Request	Inspo 1	ction 2	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				11S	
2	E41-3172-G18	VT-3	G				11S	
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				11S	
2	T48-2095-G10A	VT-3	R			10C		
2	T48-2095-G19	VT-3	G				115	
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				115	
2	T48-2097-G19	VT-3	G				115	
2	T48-2097-G21	VT-3	R	•	07C			

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Code Class	Identification Number	Exams Method	Component Support Type	Relief Request		n Period 2 3	Remarks
2	Т48-2097-G22Л	VT-3	R		09	С	
2	T48-2097-G25A	VT-3	R		08C		
2	T48-2097-G34	VT-3	G		09	С	
3	E11-2179-G20	VT-3	R		07C		
3	E11-2180-G14	VT-3	G			12S	
3	E11-2183-G07	VT-3	G		10	С	
3	E11-2183-G15	VT-3	R		08C		
3	E11-2184-G12	VT-3	R		10	С	
3	E11-2184-G22	VT-3	G		08C		
3	E11-3184-G04	VT-3	G			12S	
3	E11-3184-G08	VT-3	R		09	С	
3	E11-3184-G10	VT-3	R			115	
3	E11-3184-G18	VT-3	R		07C		
3	E11-3185-G40	VT-3	R		09	С	
3	E11-3185-G53	VT-3	SP		09	С	
3	E11-3185-G58	VT-3	SP			12S	
3	E11-3185-G60	VT-3	G		· 09	С	
3	G33-3096-G09	VT-3	R		10	С	
3	P42-3340-G06	VT-3	SP		09	С	
3	P44-3047-G28	VT-3	G			115	
3	P44-3048-G10	VT-3	SP		07C		
3	P44-3084-G10	VT-3	R		07C		
3	P44-3084-G15	VT-3	R		10	С	
3	P44-3189-G38	VT-3	SP		08C		
3	P44-3189-G42	VT-3	R		10	С	
3	P44-3189-G47	VT-3	R		. 07C		
3	P44-3336-G01	VT-3	Α		09	с	
3	P44-3336-G15	VT-3	R			11S	
3	P44-3337-G13	VT-3	R			128	

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3 P44-3337-016 VT-3 R 10C 3 P44-3345-002 VT-3 G 08C 3 P44-3345-008 VT-3 R 09C 3 P44-3345-008 VT-3 R 09C 3 P44-3347-014 VT-3 R 12S 3 P44-3347-014 VT-3 R 07C 3 P44-3347-014 VT-3 R 07C 3 P44-3347-014 VT-3 R 07C 3 P44-3347-014 VT-3 R 08C 3 P44-3347-014 VT-3 R 08C 3 P44-3348-012 VT-3 R 08C 3 P44-3351-028 VT-3 R 11S 3 P44-3368-031 VT-3 R 12S 3 P44-3368-031 VT-3 R 12S 3 P44-3558-012 VT-3 R 10C 3 P44-4624-011 VT-3 R 09C 3 P44-4624-012 VT-3 R 09C	Code Class	Identification Number	Exams Method	Component Support Type	Relicf Request	Inspo 1	ection 2	Period 3	Remarks
3 P44-3345-C08 VT-3 R 09C 3 P44-3346-C02 VT-3 G 11S 3 P44-3346-C02 VT-3 R 12S 3 P44-3347-C114 VT-3 R 07C 3 P44-3347-C14 VT-3 R 02S 4 P44-3347-C14 VT-3 R 02S 3 P44-3347-C14 VT-3 R 02S 4 P44-3351-C28 VT-3 R 08C 3 P44-3351-C28 VT-3 R 08C 4 P44-3351-G12 VT-3 R 12S 3 P44-336R-G31 VT-3 R 12S 4 P44-355R-G14 VT-3 R 12S 3 P44-462F-G01 VT-3 R 12S 4 P44-462F-G01 VT-3 R 12S 3 P44-462F-G03 VT-3 R 09C 4 P44-462F-G03 VT-3 R 09C 3 P44-462F-G03 VT-3 R 02C	3	P44-3337-G16	VT-3	R		<u> </u>	10C		
3 P44-3346-602 VT-3 R 128 3 P44-3347-610 VT-3 R 07C 3 P44-3347-614 VT-3 R 07C 3 P44-3348-612 VT-3 R 07C 3 P44-3348-612 VT-3 R 07C 3 P44-3348-612 VT-3 R 08C 4 S1-628 VT-3 R 08C 3 P44-3348-612 VT-3 R 12S 4 944-3348-612 VT-3 R 12S 3 P44-3348-613 VT-3 R 12S 4 944-3368-638 VT-3 R 12S 3 P44-3368-638 VT-3 R 12S 4 944-452-6012 VT-3 R 12S 3 P44-462-6012 VT-3 R 12S 4 P44-462-602 VT-3 R 09C 3 P44-462-603 VT-3 R 09C 4 P44-462-602 VT-3 R 08C	3	P44-3345-G02	VT-3	G		08C			
3 P44-3347-G10 VT-3 R D7C 3 P44-3347-G10 VT-3 R D7C 3 P44-3347-G14 VT-3 R D2C 3 P44-3348-G12 VT-3 R D7C 3 P44-3348-G12 VT-3 R D7C 3 P44-3351-G28 VT-3 R D8C 3 P44-3351-G41 VT-3 SP L2S 3 P44-3358-G14 VT-3 R D1S 3 P44-358-G14 VT-3 R D1C 3 P44-358-G14 VT-3 R D1C 3 P44-452-G01 VT-3 R D1C 3 P44-462-G01 VT-3 R D1C 3 P44-462-G02 VT-3 R D9C 4 P44-625-G13 VT-3 R 09C 3 P44-462-G02 VT-3 R 09C 4 P44-462-G02 VT-3 R 09C 3 P44-462-G02 VT-3 R 09C	3	P44-3345-G08	VT-3	R			09C		
3 P44-3347-G10 VT-3 R 128 3 P44-3347-G14 VT-3 R 128 3 P44-3348-G12 VT-3 R 07C 3 P44-3348-G12 VT-3 R 07C 3 P44-3351-G28 VT-3 R 08C 4 P44-3351-G41 VT-3 R 128 3 P44-358-G38 VT-3 R 128 4 P44-3558-G14 VT-3 R 128 3 P44-3559-G12 VT-3 R 128 4 P44-624-G01 VT-3 R 128 3 P44-624-G01 VT-3 R 128 4 P44-624-G01 VT-3 R 10C 3 P44-624-G01 VT-3 R 09C 4 P44-624-G01 VT-3 R 09C 3 P44-624-G01 VT-3 R 09C 4 P44-624-G01 VT-3 R 09C 3 P44-624-G01 VT-3 R 09C	3	P44-3346-G02	VT-3	G				11S	
3 P44-3347-G14 VT-3 R 12S 3 P44-3348-G12 VT-3 R 08C 3 P44-3351-G28 VT-3 R 08C 3 P44-3351-G28 VT-3 SP 12S 3 P44-3351-G41 VT-3 SP 12S 3 P44-3358-G31 VT-3 R 11S 3 P44-3558-G12 VT-3 R 12S 3 P44-4559-G12 VT-3 R 12S 4 P44-624-G01 VT-3 R 10C 3 P44-624-G12 VT-3 R 12S 4 P44-624-G01 VT-3 R 12S 3 P44-624-G12 VT-3 R 10C 4 P44-625-G03 VT-3 R 09C 3 P44-625-G03 VT-3 R 09C 4 P44-629-G08 VT-3 R 08C 3 P44-629-G08 VT-3 R 09C 4 P44-629-G08 VT-3 R 09C	3	P44-3346-G12	VT-3	R				12S	
3 P44-3348-G12 VT-3 A O7C 3 P44-3351-G28 VT-3 R 08C 3 P44-3351-G41 VT-3 SP 12S 3 P44-3368-G31 VT-3 R 11S 3 P44-3558-G14 VT-3 R 12S 3 P44-3558-G14 VT-3 R 12S 3 P44-3558-G14 VT-3 R 10C 3 P44-4624-G01 VT-3 R 10C 3 P44-4624-G12 VT-3 R 10C 3 P44-4624-G12 VT-3 R 10C 3 P44-4624-G12 VT-3 R 09C 4 P44-4625-G03 VT-3 R 09C 3 P44-4629-G05 VT-3 R 09C 4 P44-629-G05 VT-3 R 09C 3 P44-4629-G05 VT-3 R 09C 4 P44-629-G05 VT-3 R 09C 3 P44-629-G05 VT-3 R 09C </td <td>3</td> <td>P44-3347-G10</td> <td>VT-3</td> <td>R</td> <td></td> <td>07C</td> <td></td> <td></td> <td></td>	3	P44-3347-G10	VT-3	R		07C			
3 P44-3351-G28 VT-3 R 08C 3 P44-3351-G41 VT-3 SP 12S 3 P44-3368-G31 VT-3 R 11S 3 P44-3368-G38 VT-3 R 12S 3 P44-358-G14 VT-3 R 12S 3 P44-359-G12 VT-3 R 10C 3 P44-4624-G01 VT-3 R 12S 3 P44-4624-G12 VT-3 R 10C 3 P44-4625-G03 VT-3 R 12S 3 P44-4625-G13 VT-3 R 12S 3 P44-4629-G05 VT-3 R 09C 3 P44-4629-G05 VT-3 R 09C 3 P44-620-G08 VT-3 R 08C 3 P44-620-G08 VT-3 R 08C 3 P44-620-G01 VT-3 R 08C 3 P44-620-G08 VT-3 R 09C 3 P44-620-G08 VT-3 R 09C	3	P44-3347-G14	VT-3	R				. 12S	
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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	P45-2178-G09	VT-3	R			09C		
3 P45-3352-G06 VT-3 R 07C 3 P45-3353-G05 VT-3 R 10C	3	P45-2204-G11	VT-3	R				11S	
3 P45-3353-G05 VT-3 R 10C	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			

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INSERVICE INSPECTION NDE PROGRAM TABLE B

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FERMI 2 NUCLEAR POWER PLANT

Relief

Component

Exams

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marks	

Inspection Period

Code Class	Identification Number	Method	Support Type	Request	1	2	3	Remarks
3	P45-3360-G04	VT-3	R			10C		
3	P45-3360-G07	VT-3	G			09C		
3	P45-4626-G03	VT-3	G				12S	
3	P45-4626-G08	VT-3	Α				115	
3	P45-4627-G06	VT-3	Λ				12S	
3	P45-4627-G12	VT-3	R				115	
3	P45-4630-G04	VT-3	R			09C		
3	P45-4631-G04	VT-3	R			09C		
3	P45-4631-G13	VT-3	G				11S	
3	P45-4632-G08	VT-3	R			10C		
3	P45-4632-G10	VT-3	G	•			115	
3	R30-2176-G17	VT-3	G		07C			
3	R30-2176-G28	VT-3	٨			10C		
3	R30-2176-G31	VT-3	G		08C			
3	R30-2177-G04	VT-3	R			09C		
3	R30-2177-G27	VT-3	R				115	
3	R30-2177-G31	VT-3	G		08C			
3	R30-2181-G04	VT-3	R				115	
3	R30-2181-G15	VT-3	R			10C		
3	R30-2182-G02	VT-3	G			09C		
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 TABLE

8.0 SUMMARY OF CONTAINMENT INSPECTIONS (IWE)

8.1.1	CATI ITEM	EGORY: I NO:	E-A E1.11		Containment Surfaces (1) Accessible Surface Areas (each period)							
De	scription	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)					
	ccessible Liner urfaces	1	1	1	100%	100%	100%					
T	OTAL	1	1	1	100%	100%	100%					

8.1 PROGRAM STATUS, ASME SECTION XI CREDIT – IWE

NOTE:

 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.

8.1.2	.2 CATEGORY: ITEM NO:		E-A E1.12	Conta Acces	-		
I	Description	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)(1)	Maximum Allowed (%)
	Accessible Liner Surfaces	1	1	0 (1)	0%	N/A	N/A
	TOTAL	. 1	1	0 (1)	0%	N/A	N/A

NOTE:

(1) Inspections (VT-3) will be performed during the 3rd Period (Refueling Outages 11 and 12).

8.1.3		EGORY: MNO:	E-AContainment SurfacesE1.20Vent System - Accessible Surface Areas					
De	escription	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%) (1)	Maximum Allowed (%)	
	ccessible Liner Surfaces	1	1	0 (Note 1)	0%	N/A	N/A	
<u> </u>	TOTAL	1	1	0 (Note 1)	0%	N/A	N/A	

NOTE:

(1) Inspections (VT-3) will be performed during the 3rd Period (Refueling Outages 11 and 12).

8.1.4	CATEGORY:	E-C	Containment Surfaces Requiring Augmented Examination
	ITEM NO:	E4.11	Visible Surface

Description	Total Comp	Total Requiring Examination (1)	Examined To Date (1)	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) No Visual augmented examinations have been identified.

8.1.5	CATEGORY:	
	ITEM NO:	

E-C Containment Surfaces Requiring Augmented ExaminationE1.12 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.

8.1.0	6 CATI ITEM	EGORY: NO:	E-D E5.10	Seals, Gaskets, and Moisture Barriers Seals (1)				
	Description	Total Comp	Total Requiring Examination	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.

8.1.7	7 CATE ITEM	GORY: NO:	E-D E5.20	Seals, Gaskets, and Moisture Barriers Gaskets (1)			
	Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
-	Gasket	31	31	(Note 1)	N/A	N/A	N/A
-	TOTAL	31	31	(Note 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.

8.1.8	CATE ITEM	GORY: NO:	E-D E5.30	····				
	Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required	Maximum Allowed (%)	
•	Moisture Barrier	1	1	1	67%	35%	67%	
-	TOTAL	1	1	· 1	67%	35%	67%	

NOTE:

During RF07, 100% of the moisture barrier was inspected and replaced. There was no damage to the liner at this location. During RF08, RF090 and RF10, it was inspected again with no degradation identified. 67% credited for RF08, RF09 and RF10.

8.1.9	CATEC		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	60	67%	34%	67%
-	TOTAL	89	89	60	67%	34%	67%

8.1.10	CATEC ITEM 1		E-G E8.20	Pressure Retaining Bolting Bolting Connections (1)				
De	escription	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)	
Co	Bolting nnections Torque	• 89	89	(1)	N/A	N/A	N/A	
T NOT	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.

8.1.11	CATE ITEM	GORY: NO:	E-P E9.10	Pressure Retaining Components Pressure Retaining Boundary					
Des	scription	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)		
Re	ressure etaining oundary	1	1	(1)	N/A	N/A	N/A		
T	OTAL	1	1	(1)	N/A	N/A	N/A		

NOTE:

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

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8.1.12 CATEGORY: ITEM NO:		10:	E9.20	E-PPressure Retaining ComponentsE9.20Containment Penetration Bellows				
D	Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)	
Р	ontainment enetration Bellows	29	29	(1)	Ņ/Á	N/A	N/A	
	TOTAL	29	29	(1)	N/A	N/A	N/A	
NO	DTE:							
(1)	Will be	tested in	accordance with	the 10CFR50), Appendix J P	rogram.		
8.1.13	3 CATEGORY:		E-P	E-P Pressure Retaining Components				
	ITEM 1	10:	E9.30	Airloc	ks			
D	Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)	
<u> </u>	Airlock	1	1	(1)	N/A	N/A	N/A	
	TOTAL	1	1	(1)	· N/A	N/A	N/A	
NO	DTE:							
(1)	Will be	tested in	accordance with	the 10CFR50	, Appendix J P	rogram.		
8.1.14	CATEC	GORY:	E-P	Pressu	re Retaining Co	omponents		
	ITEM N	10:	E9.40	Seals a	and Gaskets	-		
D	escription	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	[•] Maximum Allowed (%)	
	Seals And Gaskets	92	92	(1)	N/A	N/A	N/A	
			92	(1)	N/A	N/A	N/A	

NOTE:

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

8.2 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 second 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.

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• 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 2^{nd} 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 2^{nd} 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.

				Co		ent Ex	aminat	tion So		C od 3		ISI-NDE Progran Rev.4; Change 0 Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1 RF07	RF08	RF09	RF10	RF11	RF12	Relief Regu	est Remarks
E1.1				• • • • • • • • • •								
1	Drywell (Drywell inspections consisted of items 3 through 35.)	E-A	E1.11	VT-G	·C	-	С	-	S	S	N\A	Once per Period, Prior to each Type A Test
2	Suppression Chamber (Torus) (Torus inspections consisted of items 36 through 120.)	E-A	E1.11	VT-G	С	-	С	-	S	S	NVA	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	-	-	S	-	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	-	-	S	-	N\A	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	-	-	S	-	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	-	-	S	•	NVA	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	-	-	S	MA	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	-	-	S	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	-	-	S	NA	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	-	-	S	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	-	s .	-	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	-	S	•	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	•	S	-	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

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				Con	npone	ent Ex	aminat	tion Sc	chedul	e		ISI-NDE Program Rev.4; Change 0
				[Period 1		Period 2	·	Perl	od 3	<u>I</u>	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	Remarks
14	Drywell Interior 613' to 641' (Az 270 to 0)	E-A	E1.12	VT-3 VT-G	GC	-	GC		S	-		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	-	-	S		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	-	-	S	Ν\Α	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	-	-	S	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	-	-	S	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	GC	-	GC	-	S	-	MA	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	-	S	-	NVA	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	-	S	-	MA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
22	Drywell Exterior 563' to 583' (Az 180 to 270)	Е-А	E1.12	VT-3 VT-G	GC	-	GC	-	S	-	NA	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	-	•	S	MA	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	-	-	S	MA	Includes parts of reinforcing structure, stilling 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	-	-	S	NЛА	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	-	-	S	MA	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	-	-	S	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	-	S	-	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

				COL	npone	ent Ex	amma	tion 20	cneau	e		Rev.4; Change 0
				·	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
29	Drywell Exterior 613' to 641' (Az 90 to 180)	E-A	E1.12	VT-3 VT-G	GC	-	GC	•	S	-	MA	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	-	S	-	N\A	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	-	S	-	NVA	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	-	•	S	NVA	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	-	-	S	MA	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	-	-	S	MA	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	-	-	S	N\A	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	-	-	S	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
37	Torus Interior Bay 2	È-A	E1.12	VT-3 VT-G	GC	-	GC	-	-	S	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	-	-	S	NA	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	-	-	S	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	-	-	S	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	-	-	S	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	-	-	S	NVA	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	-	-	S	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

Component Examination Schedule

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				Cor	npone	ent Ex	aminat	tion _. Sc	chedul	e		ISI-NDE Program Rev.4; Change 0
_					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
44	Torus Interior Bay 9	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	-	S	NVA	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	-	-	S	MA	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	-	-	S	MA	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	-	-	S	MA	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	-	-	S	MA	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	-	-	S	MA	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	-	-	S	MA	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	-	-	S	MA	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	-	S	-	NVA	Includes parts of reinforcing structure, stilfing rings, manhole covers and reinforcement around openings
53	Torus Exterior Bay 2	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	S	-	MA	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	-	S	-	MA	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	-	S	-	N\A	Includes parts of reinforcing structure, stilling rings, manhole covers and reinforcement around openings
56	Torus Exterior Bay 5	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	-	S	N\A	Includes parts of reinforcing structure, stilfing rings, manhole covers and reinforcement around openings
57	Torus Exterior Bay 6	E-A	E1.12	VT-3 VT-G	GC	-	GC	-	-	S	NVA	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	-	-	S	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

Component Examination Schedule

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				Cor	npone	ent Ex	amina	tion So	chedul	e		ISI-NDE Program Rev.4; Change 0
-				<u></u>	Period 1		Period 2		Per	od 3	<u> </u>	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	-	•	S	N\A	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	-	S	-	MA	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	-	S	-	NA	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	-	S	-	N\A	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	-	S	- ,	MA	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	-	-	S	MA	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	-	-	S	MA	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	-	-	S	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	-	-	S	N\A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
E1.2												
68	Drywell to Torus Downcomer to Bay 2 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	•	S	-	NA	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	-	S	-	NVA	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	-	S	-	NA	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	-	ĢC	-	S	•	NVA	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	•	-	S	NVA	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	-	-	S	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

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			Cor	npone	ent Ex	amina	tion Sc	hedul	e		- ISI-NDE Program Rev.4; Change 0	
					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
74	Drywell to Torus Downcomer to Bay 14 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	NVA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
75	Drywell to Torus Downcomer to Bay 16 - Exterior	Ė-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	NVA	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	-	S	-	N\A	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	-	S	-	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	-	S	-	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	• •	S	-	MA	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	-	-	S	NЛА	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	-	-	S	NVA	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	-	-	S	NA	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
83	Drywell to Torus Expansion Bellows Downcomer to Bay16	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	MA	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	-	-	S	N\A	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	-	-	S	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	-	-	S	NVA	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	-	-	S	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	-	•	S	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers

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				Coi	npone	ent Ex	aminal	tion Sc	chedul	e		Rev.4; Change 0
					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
89	Flow Channeling Devices (Ring Header) In Bay 6 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	NVA	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	-	-	S	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	-	-	S	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	-	-	S ≁	NA	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	-	-	S	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	-	-	S	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	-	-	S	MA	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	-	-	S	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	-	-	S	NVA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
98	Flow Channeling Devices (Ring Header) In Bay 15 - Exterior	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	NVA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
	Flow Channeling Devices (Ring Header) In Bay 16 - Exterior	E-A	E1.20	VT-G	GC	-	GC	-	-	S	NA	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
100	Drywell Penetration Expansion Bellow X-007A	E-A	E1.20	VT-3 VT-G	GC	•	GC	-	S	-	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
101	Drywell Penetration Expansion Bellow X-007B	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	S	-	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
	Drywell Penetration Expansion Bellow X-007C	E-A	E1.20	VТ-3 VT-G	GC	-	GC	-	S	-	NA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
103	Drywell Penetration Expansion Bellow X-007D	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	S	-	N\A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers

Component Examination Schedule

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ISI-NDE Program

					-	ent Ex	amina	tion So			_	ISI-NDE Program Rev.4; Change 0
. <u> </u>			•		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 Reques	t Remarks
104	Drywell Penetration Expansion Bellow X-008	E-A	E1.20	VT-3 VT-G	GC	-	GC		-	S	MA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
	Drywell Penetration Expansion Bellow X-009A	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	MA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
106	Drywell Penetration Expansion Bellow X-009B	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	MA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
107	Drywell Penetration Expansion Bellow X-010	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	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	E1.20	VT-3 VT-G	GC	•	GC	-	S	-	MA	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
109	Drywell Penetration Expansion Bellow X-012	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	S	-	MA	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
110	Drywell Penetration Expansion Bellow X-013A	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	S .	-	MA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
	Drywell Penetration Expansion Bellow X-013B	E-A	E1.20	VT-3 VT-G	GC	•	GC	.	S		MA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
112	Drywell Penetration Expansion Bellow X-016A	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	MA	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
113	Drywell Penetration Expansion Bellow X-016B	E-A	E1.20	VT-3 VT-G	GC	•	GC	-		S	MA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent- header and downcomers
114	Drywell Penetration Expansion Bellow X-017	E-A	E1.20	VT-3 VT-G	GC	-	, GC	-	-	S	NA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
115	Drywell Penetration Expansion Bellow X-035B	E-A	E1.20	VT-3 VT-G	GC	-	GC		-	S	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	E1.20	VT-3 VT-G	GC	-	GC	-	S	-	MA	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
117	Drywell Penetration Expansion Bellow X-035D	E-A	E1.20	VT-3 VT-G	GC		GC	-	S	-	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	E1.20	VT-3 VT-G	GC	-	. GC	-	S	-	MA	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers

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				Cor	npone	ent Ex	amina	tion So	chedul	e		ISI-NDE Program Rev.4; Change 0
				1	Period 1		Period 2		Peri	iod 3	1	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks
119	Drywell Penetration Expansion Bellow X-035F	E-A	E1.20	VT-3 VT-G	GC	•	GC	-	S	-	NA	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
120	Drywell Penetration Expansion Bellow X-043	E-A	E1.20	VT-3 VT-G	GC	-	GC	-	-	S	MA	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	•	-	-	-	S	-	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	-	-	-	-	S	-	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	•	•	-	•	S	-	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	•	-	-	-	S	-	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	-	-	-	-	S	-	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	-	-	-	-	S	-	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	-	-	-	-	S	-	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	-	-	-	-	S	-	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	•	•	-	-	S	-	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	-	-	-	-	S	-	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	-	-	-	-	S	-	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	-	-	-	-	S	-	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	-	-	-	-	S	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers

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Component Examination Schedule

				Cor	npone	ent Ex	amina	tion So	chedul	e		ISI-NDE Program Rev.4; Change 0
·					Period 1	[Period 2		Peri	od 3	I	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Request	t Remarks
414	Flow Channeling Devices (Ring Header) In Bay 14 - Interior	E-A	E1.20	VT-3 VT-G	-	-	-	-	S	-	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	-	-	-	-	S	-	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	-	-	-	-	S	-	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	-	-	-	-	S	-	MA	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	-	-	-	-	S	-	NVA	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	•	-	-	-	S	-	MA	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	-	-	-	-	S	-	NIA	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	-	-	-	-	S	-	NVA	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	-	-	-	-	S	-	NVA	Includes all welds, reinf, plates shell surfaces on the ventline, the vent header and downcomers
	Drywell to Torus Downcomer to Bay 14 - Interior	E-A	E1.20	VT-3 VT-G	-	-	-	-	S	-	NA	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	-	-	-	-	S	•	NЛА	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers
<i>E4.1</i> 121	1 Drywell Interior	E-C	F4.11	VT-1	_	-	-	_	_	-	N\A	No areas identified for augmented
						-	-	-	-	-		exams at this time
	Drywell Exterior	E-C		VT-1	-	-	-	-	-	-	N\A	No areas identified for augmented exams at this time
125	Suppression Chamber Interior	E-C	E4.11	VT-1	-	-	-	-	•	-	NVA	No areas identified for augmented exams at this time
127	Suppression Chamber Exterior	E-C	E4.11	VT-1	-	-	-	-	-	-	N\A	No areas identified for augmented exams at this time
E4.1											_	
122	Drywell Interior	E-C	E4.12	VOLU	-	-	-	-	-	-	N\A	No areas identified for augmented exams at this time

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				Cor	npone	ent Ex	aminat	tion So	chedul	e		ISI-NDE Program Rev.4; Change 0
				I	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 Reques	tRemarks
124	Drywell Exterior .	E-C	E4.12	VOLU	•	-	-	-	•	-	NVA	No areas identified for augmented exams at this time
126	Suppression Chamber Interior	E-C	E4.12	VOLU	-	-	-	-	-	-	NVA	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
<i>E5.1</i> 129	0 Drywell Head Flange Seat X-001A	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
130	South Equipment Hatch Seal X- 001B	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
131	North Equipment Hatch Seal X- 001C	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
132	Drywell Personnel Airlock Seals (2) X-001D	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
133	Reactor Vessel Stablization Manhole Seal X-001E	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
134	Reactor Vessel Stablization Manhole Seal X-001F	E-D	E5.10	VT-3		-	-	-	• .	-	CISI-001	No Examinations Required, In Appendix J Program
135	Reactor Vessel Stablization Manhole Seal X-001G	E-D	E5.10	VT-3	-		-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
136	Reactor Vessel Stablization Manhole Seal X-001H	E-D	E5.10	VT-3	-	-	-	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
137	Reactor Vessel Stablization Manhole SealX-001J	E-D	E5.10	VT-3	-	-	-	-	-	-	ĊISI-001	No Examinations Required, In Appendix J Program
138	Reactor Vessel Stablization Manhole Seal X-001K	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
139	Reactor Vessel Stablization Manhole Seal X-001L	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
140	Reactor Vessel Stablization A Manhole Seal X-001M	E-D	E5.10	VT-3	-	•	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
141	CRD Halch 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 Seat (2) X-035C	E-D	E5.10	VT-3	-	-	•	•	-	-	CISI-001	No Examinations Required, In Appendix J Program
145	TIP Penetration Seat (2) X-035D	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
146	TIP Penetration Seal (2) X-035E	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
147	TIP Penetration Seat (2) X-035F	E-D	E5.10	VT-3	-	-	•	-	-	-	CISI-001	No Examinations Required, In Appendix J Program

Thursday, February 03, 2005

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				I	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	Remarks
148	Electrical Penetration Bolting X- 100A (X-100A)	E-D	E5.10	VT-3	-	•	-	-	-	-	CISI-001	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	-	-	-	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
152	Electrical Penetration Seal X-100F (X-103B)	E-D	E5.10	VT-3	-	-	-	•	-	-	CISI-001	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
155	Electrical Penetration Seal X-101B (X-101B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
156	Electrical PenetrationSeal X-101C (X-101C)	E-D	E5.10	VT-3	-	-	-	-	-	•	CISI-001	No Examinations Required, In Appendix J Program
157	Electrical Penetration Seal X-101D (X-101D)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
158	Electrical Penetration Seal X-101E (X-101E)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
159	Electrical Penetration Seal X-101F (X-101F)	E-D	E5.10	VT-3	. -	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
160	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	•	-	-	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
162	Electrical PenetrationSealX-102C (X-100B)	E-D	E5.10	VT-3	-	•		-	-	-	CISI-001	No Examinations Required, In Appendix J Program
163	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	-	-	-	-	-		CISI-001	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	-	-	-	•	-	-	CISI-001	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

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				<u> </u>	Period 1	<u></u>	Period 2		Peri	od 3		Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	· Relief Request	t Remarks
170	Electrical Penetration Seal X-104E (X-104E)	E-D	E5.10	VT-3	-	•	•	-	-	-		No Examinations Required, In Appendix J Program
171	Electrical Penetration Seal X-104F (X-104F)	E-D	E5.10	VT-3	-	-	•	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
172	Electrical Penetration Seal X-105A (X-105A)	E-D	E5.10	VT-3	-	-	•	-	-	•	CISI-001	No Examinations Required, In Appendix J Program
173	Electrical Penetration Seal X-105D (X-105D)	E-D	E5.10	VT-3	•	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
174	Electrical Penetration Seal X- 106A (X-100D)	E-D	E5.10	VT-3	•	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
175	Electrical Penetration Seal X-106B (X-106B)	E-D	E5.10	VT-3	-	-	-	•	-	-	CISI-001	No Examinations Required, In Appendix J Program
176	South Torus Hatch Seal Penetration X-200A	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
177	NorthTorus Hatch Seal Penetration X-200B	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
178	Electrical Penetration Seal X-209A	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
179	Electrical Penetration Seal X-209C	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
. 180	Vacuum Breaker-Electrical Penetration Seal X-228A	E-D	E5.10	VT-3	-			-	-	-	CISI-001	No Examinations Required, In Appendix J Program
181	Vacuum Breaker-Electrical Penetration Seal X-228B	E-D	E5.10	VT-3	-	-	-	•	-	-	CISI-001	No Examinations Required, In Appendix J Program
182	Vacuum Breaker-Electrical Penetration Seal X-228C	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
183	Vacuum Breaker-Electrical Penetration Seal X-228D	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
E5.2	0											
184	Penetration Flange Rupture Disk Gasket X-018	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
185	Penetration Flange Rupture Disk Gasket X-019	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
186	Spectacle Flange Gasket X-020	E-D	E5.20	VT-3	-	-	-	-	•	-	CISI-001	No Examinations Required, In 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- 039B	E-D	E5.20	VT-3	-	-	•	•	-	-	CISI-001	No Examinations Required, In Appendix J Program
	Butterfly Valve Flange Gasket · Penet. X-205C	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
190	Butterfly Valve Flange Gasket Penet. X-205D	E-D	E5.20	VT-3	-	-	-	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
191	RHR Test Line Orifice D008B Gasket Penetration X-210A	E-D	E5.20	VT-3	. *	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program

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		Component Examination Schedule								e	- ISI-NDE Program Rev.4; Change 0		
				1	Period 1		Period 2		Period 3		I	Appendix F4.7	
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11	RF12	Relief Reques	t Remarks	
192	RHR Test Line Orifice D009B Gasket Penetration X-210A	E-D	E5.20	VT-3	•	•	-	•	-	-	CISI-001	No Examinations Required, In Appendix J Program	
193	Relief Valve Flange Gasket E1100F001B Penetration X-210A	E-D	E5.20	VT-3	-	-	-	· -	•	-	CISI-001	No Examinations Required, In Appendix J Program	
194	Relief Valve Flange Gasket E1100F025B Penetration X-210A	E-D	E5.20	VT-3	-	-	-	-	•	-	CISI-001	No Examinations Required, In Appendix J Program	
195	RHR Blind Flange Gasket Penetration X-210A	E-D	E5.20	VT-3	-	-	•	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
196	RHR Test Line Orifice D008A Gasket Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
197	RHR Test Line Orifice D009A Gasket Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
198	Relief Valve Flange Gasket E1100F001A Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
199	Relief Valve Flange Gasket E1100F025A Penetration X-210B	E-D	E5.20	VT-3	-	-	•	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
200	Relief Valve Flange Gasket E1100F029 Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
201	RHR Blind Flange Gasket Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
202	TWMS Spool Gasket 4055-1 Penetration X-213A	E-D	E5.20	VT-3	•	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
203	TWMS Spool Gasket 4055-2 Penetration X-213A	E-D	E5.20	VT-3	-	•	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
204	TWMS Spool Gasket 4056-1 Penetration X-213B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
205	TWMS Spool Gasket 4056-2 Penetration X-213B	E-D	E5.20	VT-3	-	•	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
206	Relief Valve Flange Gasket T4804F016A Penetration X-218	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
207	Relief Valve Flange Gasket T4804F016B Penetration X-218	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
208	Relief Valve Flange Gasket E1100F030D Penetration X-223A	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
209	Relief Valve Flange Gasket E1100F030B Penetration X-223B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
210	Relief Valve Flange Gasket E1100F030C Penetration X-223C	E-D	E5.20	VT-3	-		-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
211	Relief Valve Flange Gasket E1100F030A Penetration X-223D	E-D	E5.20	VT-3	-	-		-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
212	Relief Valve Flange Gasket E2100F011B Penetration X-227A	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
213	Relief Valve Flange Gasket E2100F012B Penetration X-227A	E-D	E5.20	VT-3	-	-	•	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	

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				Co	mpone	ent Ex	aminat	ion So	chedul	e		ISI-NDE Program Rev.4; Change 0
		_			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 Reques	t 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	V,T-3	-	-	-	-	•	-	CISI-001	No Examinations Required, In Appendix J Program
217	Relief Vaive Flange Gasket E2100F032A Penetration X-227B	E-D	E5.20	VT-3	-	•	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
E5.3	0											
	Drywell Moisture Seal (Drywell concrete floor to metal liner)	E-D	E5.30	VT-3	34% Complete	-	67% Complete	-	100%	-	NVA	
E8.1					_							
219	Drywell Head Flange Bolling X- 001A	E-G	E8.10	VT-1	C	•	•	-	-	-	N/A	
220	South Equipment Hatch Bolting X- 001B	E-G	E8.10	VT-1	С	•	-	-	-	-	N/A	
221	North Equipment Hatch Bolting X- 001C	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
222	Drywell Personnel Airlock Bolting X-001D	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
223	Reactor Vessel Stablization Manhole Bolting X-001E	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
224	Reactor Vessel Stablization Manhole Bolting X-001F	E-G	E8.10	VT-1	C	-	-	-	-	-	N/A	
225	Reactor Vessel Stablization Manhole Bolting X-001G	E-G	E8.10	VT-1	C	-	-	-	-	-	N/A	
226	Reactor Vessel Stablization Manhole Bolling X-001H	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
227	Reactor Vessel Stablization Manhole Bolting X-001J	E-G	E8.10	VT-1	С	-	-	-	-	•	N/A	
228	Reactor Vessel Stablization Manhole Bolting X-001K	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
229	Reactor Vessel Stablization Manhole Bolling X-001L	E-G	E8.10	VT-1	. C	-	-	-	-	-	N/A	
230	Reactor Vessel Stablization Manhole Bolting X-001M	E-G	E8.10	VT-1	С	-	-	-	•	-	N/A	
231	CRD Hatch Bolting X-006	E-G	E8.10	VT-1	•	С	С	-	-	-	N/A	
232	Penetration Flange Rupture Disk Bolting X-018	E-G	E8.10	VT-1	-	-	С	-	-	-	N/A	
233	Penetration Flange Rupture Disk Bolting X-019	E-G	E8.10	VT-1	-	-	-	-	S	-	N/A	
234	Spectacle Flange Bolting X-020	E-G	E8.10) VT-1	-	-	-	С	-	-	N/A	
	TIP Penetration Bolting X-035A	E-G	E8.10	VT-1	С	-	С	-	-	-	N/A	

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Itam	Exam Area Identification	Cat	Cada	NDE Method	RF07		RF09	I RF10	RF11	RF12	Relief Request Remarks	
						Kruo						
	TIP Penetration Bolting X-035B	E-G	E8.10		Ċ	-	С	-	-	-	N/A	
	TIP Penetration Bolting X-035C	E-G	E8.10		C	•	C	-	-	-	N/A	
	TIP Penetration Bolting X-035D	E-G	E8.10		C	-	C	•	-	-	N/A	
	TIP Penetration Bolting X-035E	E-G	E8.10		C	-	C	•	-	-	N/A	
	TIP Penetration Bolting X-035F	E-G	E8.10		C C	-	С	-	-	-	Ν/Λ Ν/Α	
	Penetration Flange Bolting X-039A		E8.10 E8.10		c	-	•	• ·	-	•	N/A	
	Penetration Flange Bolting X-039B Electrical Penetration Bolting X-	E-G	E8.10		. C	-	•	•	-	-	N/A	
244	100A (X-100A) Electrical Penetration Bolting X- 100B (X-102A)	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
245	Electrical Penetration Bolting (X- 100C)	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
246	Electrical Penetration Bolting (X- 100E)	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
247	Electrical Penetration Bolling X- 100F (X-103B)	E-G	E8.10	VT-1	-	-	-	•	S	-	N/A	
248	Electrical Penetration Bolting X- 100G (X-100G)	E-G	E8.10	VT-1	-	-	•	•	S	-	N/A	
	Electrical Penetration Boiting X- 101A (X-101A)	E-G	E8.10		-		-	С	-	-	N/A	
	Electrical Penetration Bolting X- 101B (X-101B)	E-G			-	-	-	С	-	-	N/A	
	Electrical Penetration Bolting X- 101C (X-101C)	E-G	E8.10		-	-	•	С	•	-	N/A	
	Electrical Penetration Bolting X- 101D (X-101D)	E-G			-	-	-	-	S	• .	N/A .	
	Electrical Penetration Bolting X- 101E (X-101E)	E-G			-	-	•	-	•	S	N/A	
	Electrical Penetration Bolting X- 101F (X-101F)	E-G	E8.10			-	-	-	S	-	N/A	
	Electrical Penetration Bolting X- 102A (X-105B)	E-G			C	-	-	•	•	-	N/A	
	Electrical Penetration Bolting X- 102B (X-102B)	E-G		VT-1	•.	-	-	С	-	-	N/A	
	Electrical Penetration Bolting X- 102C (X-100B)	E-G		VT-1	С	•	-	•	-	-	N/A	
	Electrical Penetration Bolting X- 102D (X-105C)	E-G		VT-1	-	-	•	С	-	-	N/A	
	Electrical Penetration Bolting X- 103A (X-103A)	E-G		VT-1	-	-	С	-	-	-	N/A	
260	Electrical Penetration Bolting X- 103B (X-107B)	E-G	E8.10	VT-1	-	-	- .	-	S	-	N/A	

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

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Component Examination Schedule

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ISI-NDE Program

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				Cor	npone	ent Ex	amina	tion So	chedul	e		ISI-NDE Program Rev.4; Change 0
					Period 1		Period 2		Peri	lod 3		Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	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	-	-	С	-	-	-	N/A	
284	Relief Valve Flange Bolting E1100F001A Penetration X-210B	E-G	E8.10	VT-1	-	с	-	•	-	-	N/A	
285	Relief Valve Flange Bolting E1100F025A Penetration X-210B	E-G	E8.10	VT-1	-	С	-	-	-	-	N/A	
286	Relief Valve Flange Bolting E1100F029 Penetration X-210B	E-G	E8.10	VT-1	-	-	-	-	S	-	N/A	
287	RHR Blind Flange Bolting Penetration X-210B	E-G	E8.10	VT-1	-	-	-	-	S	•	N/A	
288	TWMS Spool Bolting 4055-1 Penetration X-213A	E-G	E8.10	VT-1	-	-	-	-	-	S	N/A	
289	TWMS Spool Bolting 4055-2 Penetration X-213A	E-G	E8.10	VT-1	-	-	•	•	S	-	N/A	
290	TWMS Spool Bolting 4056-1 Penetration X-213B	E-G	E8.10	VT-1	-	•	-	-	S	-	N/A	
291	TWMS Spool Bolting 4056-2 Penetration X-213B	E-G	E8.10	VT-1	-	-	-	•	S	-	N/A	
292	Relief Valve Flange Bolting T4804F016A Penetration X-218	E-G	E8.10	VT-1	-	Ċ	-	•	-	•	N/A	
293	Relief Valve Flange Bolting T4804F016B Penetration X-218	E-G	E8.10	VT-1	-	С	-	•	-	-	N/A	
294	Relief Valve Flange Bolting E1100F030D Penetration X-223A	E-G	E8.10	VT-1	-	-	-	С	-	-	N/A	
295	Relief Valve Flange Bolting E1100F030B Penetration X-223B	E-G	E8.10	VT-1	-	-	-	· C	-	-	N/A	
296	Relief Valve Flange Bolting E1100F030C Penetration X-223C	E-G	E8.10	VT-1	-	-	-	С	-	-	N/A	
297	Relief Valve Flange Bolting E1100F030A Penetration X-223D	E-G	E8.10	VT-1	-	С	-	-	-	-	Ν/Α	
298	Relief Valve Flange Bolting E2100F011B Penetration X-227A	E-G	E8.10	VT-1	-	-	-	С	-	-	N/A	
299	Relief Valve Flange Bolting E2100F012B Penetration X-227A	E-G	E8.10	VT-1	-	-	-	-	S	-	. N/A	
300	Relief Valve Flange Bolting E2100F032B Penetration X-227A	E-G	E8.10	VT-1	-	-	С	-	-	-	N/A	
301	Relief Valve Flange Bolting E2100F011A Penetration X-227B	E-G	E8.10	VT-1	С	-	С	-	-	-	N/A	
302	Relief Valve Flange Bolting E2100F012A Penetration X-227B	E-G	E8.10	VT-1	С	-	-	-	-	-	N/A	
303	Relief Valve Flange Bolting E2100F032A Penetration X-227B	E-G	E8.10	VT-1	С	-	С	-	-	-	N/A	
304	Vacuum Breaker-Electrical Penetration Bolting X-228A	E-G	E8.10	VT-1	-	-	-	-	-	S	N/A	

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				Cor	npone	ent Ex	aminat	tion So	chedul	e		ISI-NDE Program Rev.4; Change 0
					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	t Remarks
305	Vacuum Breaker-Electrical Penetration Bolting X-228B	E-G	E8.10	VT-1	-	-	•	•	S	•	N/A	-
306	Vacuum Breaker-Electrical Penetration Bolting X-228C	E-G	E8.10	VT-1	-	-	-	-	-	S	N/A	
307	Vacuum Breaker-Electrical Penetration Bolting X-228D	E-G	E8.10	VT-1	-	-	-	-	S	-	N/A	
E8.2	0											
	Drywell Head Flange Bolling X- 001A	E-G	E8.20	Torque/Tensi on	-	-	-	-	-	-	CISI-007	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	•	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	•	-	-	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/Tensi on	-	-	-	-	-	-	CISI-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/Tensi on	-	•	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	. •	-	•	-	-	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/Tensi on	-	-	-	-	-	-	CISI-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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
323	Spectacle Flange Bolting X-020	E-G	E8.20	Torque/Tensi on	-	-	-	-	-	-	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	Torque/Tensl on	-	. -	-	-	-	-	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	Torque/Tensi on	-	-	•	-	-	-	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	Torque/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
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Component Examination Schedule

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					•	ent Ex	aminat	tion Sc			,	ISI-NDE Program Rev.4; Change 0
					Period 1		Period 2		Peri	nd 3	<u> </u>	Appendix F4.7
Item	Exam Area Identification	Cat.	Code	NDE Method	RF07	RF08	RF09	RF10	RF11 -	RF12	Relief Reques	at Remarks
327	TIP Penetration Bolting X-035D	E-G	E8.20	Torque/Tensi on	-		-	-	•'	-	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/Tensi on	-	-	•	-	-	-	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/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
330	Penetration Flange Bolting X-039A			Torque/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Penetration Flange Bolting X-039B	E-G	E8.20	Torque/Tensl on	-	•	-	•	• ·	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
	Electrical Penetration Bolting X- 100A (X-100A)	E-G	E8.20	Torque/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
334	Electrical Penetration Bolting (100C)	E-G	E8.20	Torque/Tensi on	-	•	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
335	Electrical Penetration Bolting (X- 100E)	E-G	E8.20	Torque/Tensi on	-	-	-	-	= (1 [*]) 1/	-	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/Tensi on	-	-	-	-		-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
337	Electrical Penetration Bolting X- 100G (X-100G)	E-G	E8.20	Torque/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
339	Electrical Penetration Bolting X- 101B (X-101B)	E-G	E8.20	Torque/Tensi on	-	-	-	-	-	-	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	E8.20	Torque/Tensi on	-	-	-	-	-	-	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	E8.20	Torque/Tensi on	-	-	-	-	- ·	-	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	E8.20	Torque/Tensi on	-	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
343	Electrical Penetration Bolting X- 101F (X-101F)	Ē-G	E8.20	Torque/Tensi on	•	· •	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
344	Electrical Penetration Bolting X- 102A (X-105B)	E-G	E8.20	Torque/Tensi on	-	•	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
345	Electrical Penetration Bolting X- 102B (X-102B)	E-G	E8.20	Torque/Tensi on	-	-	-	-	-	-	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	E8.20	Torque/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	•	-	-	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/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

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				Cor	npone	ent Ex	amina	100 SC	ineau	e		Rev.4; Change 0
					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 Reque	st Remarks
349	Electrical Penetration Bolting X- 103B (X-107B)	E-G	E8.20	Torque/Tensi on	-	-	-	-	•	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	•	•	-	-	-	-	CISI-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/Tensi on	-	•	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	•	-	•	-	-	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/Tensi on	-	•	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	- '	-	-	• -	•	-	CISI-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/Tensi on	-	-	-	, =	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	•	-	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/Tensi on	-	-	-	•	•	-	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/Tensi on	-	, -	-	•	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
364	Electrical Penetration Bolling X- 209A	E-G	E8.20	Torque/Tensi on	-	-	-	•	•	-	C1SI-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/Tensi on	-	-	-	•	-	-	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/Tensi on	-	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
367	RHR Test Line Orifice D009B Bolling Penetration X-210A	E-G	E8.20	Torque/Tensi on	-	-	-	•	•	-	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/Tensi	-	-	-	-	•	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
369	Relief Valve Flange Bolling E1100F025B Penetration X-210A	E-G	E8.20	Torque/Tensi on	-	-	-	•	• ·	-	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/Tensi on	-	•	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

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ISI-NDE Program

				Cor	npone	ent Ex	aminat	tion So	chedul	e		ISI-NDE Program Rev.4; Change 0
					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
371	RHR Test Line Orifice D008A Bolting Penetration X-210B	E-G	E8.20	Torque/Tensi on	•	-	-	-	-	-	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	Torque/Tensi on	-	-	-	-	-	-	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	Torque/Tensl on	-	-		-	-	•	CISI-007	To Be Inspected in Accordance With E8.10 and Tosted Per E9.40
374	Relief Valve Flange Bolting E1100F025A Penetration X-210B	E-G	E8.20	Torque/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
375	Relief Valve Flange Bolting E1100F029 Penetration X-210B	E-G	E8.20	Torque/Tensi on	·-	-	-	-	•	-	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	Torque/Tensi on	-	-	-	-	-	-	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	Torque/Tensi on	-	•	-	-	•	-	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	Torque/Tensi on	-	-	-	-	•	-	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	Torque/Tensi on	-	-	-	-	-	-	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	E.8.20	Torque/Tensi on	-	-	-	-	•	-	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	Torque/Tensi on	-	-	-	-	-	-	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	Torque/Tensi on	-	•	-	-	•	-	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	Torque/Tensi on	-	•	-	-	•	-	CISI-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	Torque/Tensi on	-	-	-	-	-	•	CISI-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	Torque/Tensl on	-	-	-	-	-	-	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	Torque/Tensi on	-	-	-		-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
387	Relief Valve Flange Bolling E2100F011B Penetration X-227A	E-G	E8.20	Torque/Tensi on	-	-	-	-	-	-	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	Torque/Tensi on	-	-	-	•	-	-	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	Torque/Tensi on	-		-	-	-	-	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	Torque/Tensi on	-	-	-	-	-	-	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	Torque/Tensi on	-	-	-	-	-	-	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	Torque/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

Component Examination Schedule

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			Cor	npone	ent Ex	aminat	tion S	chedul	e		ISI-NDE Program Rev.4; Change 0
				Period 1		Period 2		Peri	lod 3	I	Appendix F4.7
Item Exam Area Identification	Cat.	Code	NDE Method	RF07	<u>RF</u> 08	RF09	RF10	RF11	RF12	Relief Reque	st Remarks
393 Vacuum Breaker-Electrical Penetration Bolting X-228A	E-G	E8.20	Torque/Tensi on	-	•	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	-	-	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/Tensi on	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
E9.10											
397 Pressure Retaining Boundary	E-P	E9.10	VT-2	-	-	-	-	-	-		After repair, modification or replacement.
E9.20								1			
398 Containment Penetration Bellows	E-P	E9.20	App. J	-	-	-	-	-	-		10CFR50.AppendixJ
E9.30											
399 Airlock	E-P	E9.30	App. J	-	-	-	-	-	-		10CFR50.AppendixJ
<i>E9.40</i>											
400 Seals and Gaskets	E-P	E9.40	App. J	•	-	-	-	-	-		10CFR50.AppendixJ
C = Complete		GC=	General Insp	ection Ca	omplete	(GS = Gen	eral Inspe	ction Sch	eduled	S = Scheduled

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SECTION 9

SECTION XI REPAIR/REPLACEMENT NIS-2 FORMS INDEX

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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)

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9.0 NIS-2 DATA REPORT INDEX

LOG No.	WORK PKG. . No.	COMPONENT No.	ASME CLASS	DESCRIPTION
02-003	000Z020885	E4100F067	2	Replace Valve Bonnet
02-018A	VARIOUS	P4500C002A	3	Install Make-up Pump, Piping, and Valves
02-018B	VARIOUS	P4500C002B	3	Install Make-up Pump, Piping, and Valves
03-004	VARIOUS	VARIOUS	1	Rebuild CRDM's for installation in RF10 – Replace parts as necessary
03-027	000Z032283	R300F083C	3	Replace Valve
03-031	000Z030996	R30001B025	3	Replace Ht Exchanger bolting (studs)
03-032	000Z030832	R3001B026	3	Replace Ht Exchanger bolting (studs)
03-033	000Z030833	R3001B027	3	Replace Ht Exchanger bolting (studs)
03-034	000Z030837	R3001B028	3	Replace Ht Exchanger bolting (studs)
03-035	000Z033202	G3300F120	1	Seal Weld Body to Bonnet Connection
03-036	P522060100	P4500F002A	3	Replace Disc in Check Valve
03-038	A473010100	P45F401	3	Replace Valve
04-001	B273030100	B2104F013A - R	1	Safety Relief Valve (SRV) Refurbishment
04-002	VARIOUS	B2104F013A - R	1	Safety Relief Valve Replacements during RF10
04-Ó03	000Z022442	E51F015	2	E51F015 valve replacement per EDP-32161
04-005	000Z032413	E41F035	2	E41F035 valve replacement per EDP-32036
04-007	C261040100	E5100F018	_2	E5100F018 disc, nozzle, and bushing replacement
04-008	1130050100	R3000C006	3	Pump Replacement

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. N₀.	COMPONENT No.	ASME CLASS	DESCRIPTION
04-009	1461040100	P4500C002A	3	Pump Replacement
04-013	VARIOUS	VARIOUS	1	RF10 CRDM Replacements
04-015	000Z034791	R3000F140A	3	Disc replacement
04-017	000Z042049	R3000F140A	3	Repair valve disc for use as a spare
04-018	A498040100/ A519040100	VARIOUS	1, 2, 3	Mechanical Snubber Refurbishment/Replacement for RF10
04-019	A497040100/ A514040100	VARIOUS	N/A	Hydraulic Snubber Refurbishment/Replacement for RF10
04-020	B937040100	E1100F029	2	Replace Relief Valve
04-021	H606040100	B2100F080D	2	Replace Valve Internals
04-022	B940090100	E1100F030D	2	Replace Relief Valve Disc
04-023	000Z032755	B2100F010B	1	Refurbish Check Valve Stuffing Box
04-024	T211040100	B2100F076B	1	Replace bolting material
04-025	T250040100	B2100F032A	1	Replace bolting material
04-026	T211040100	B2100F076B	1	Replace bolting material
04-027	T251040100	B2100F032B	1	Replace bolting material
04-028	D648040100	E1100F037P	2	Repair valve seating surfaces and replace spring washer/nut
04-029	A560040100	SW-E41-3162-2WC	2	Remove indication in base metal
05-001	000Z050273	VARIOUS	1	Mechanical Snubber Replacement for Forced Outage 05-01

.

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)

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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.	OwnerDetro	it Edison Compar	ny :			Date		A	ugust 14, 2003	
		Name								
	6400 North Di	kie Highway, New	port MI 48166			Sheet		10	of 2	
		Address								
2.	Plant Fermi 2 N	luclear Power Pla	int			Unit			2	
		Name					·			·
	6400 North Dix	ie Highway, New	port MI 48166							•
			· · ·					Deco Ma	aintenance	
	<u></u>	Address				.	Repair	Organization P	.O. No., Job No., e	£.
3.	Work Performed by	Detroit Edisc	on Company			Type C Stamp	ode Symbol		N/A	
		Name	1	·		Authoria	zation No.		N/A	
	6400 North Dix	ie Highway, New	port, MI 48166			Expirati	on Date		N/A	
	<u> </u>	Address				•	•			
4.	Identification of System	High Pr	essure Coolant	Injection (H	<u>PCI) (</u>	System S	team Supply	/ Line	· · · · · · · · · · · · · · · · · · ·	
5.	(a) Applicable Co	onstruction Code	ASME III, Class 2	19	71	Edition	71	Addenda	N/A	Code Case
	(b) Applicable Ec Replacement	lition/Addenda of S s				•	2-92 Addenda	· · · · · · · · · · · · · · · · · · ·		
6.	Identification of Comp	onents Repaired or	Replaced and R	leplacement C	Compo	onents				

Name of Component	Name of Manufacturer	Manufacturer Senal No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
E4100F067	Schutte & Koerting	M67-05774-v	N/A	V17-2026	N/A	Replacement	N
			-				
		•					

Description 7. of Work

Install replacement cover/bonnet

8. Tests Conducted: -

Hydrostatic [], Pneumatic [] Other [] Pressure

Nominal Operating Pressure [X] psi Test 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.

(10/94)

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Form NIS-2 (Back)

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9. Remarks: Replacement Bonnet/Cover procured per PO# 363191, Dresser Rand no 68-XC-71, Heat E-7401. This valve is a non stamped control/stop valve within the ASME Section XI boundary

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Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE O	FCOMPLIANCE		
We certify that the statements made in the re	eport are correct and this	Replacement conforms to the	e rules of the ASME C	ode, Section XI.
Type Code Symbol Stamp Original valve re	cords to be supplemented	by Owners Section XI Proc	ram 02-003	· · · · · · · · · · · · · · · · · · ·
Certificate of Authorization No	N/A	Expiration Date	N/A	<u></u>
Signed R.M. Hambleton Lead ISI Enc	aineer BM Chal	L Date At	GUST 14	2003

CERTIFICATE OF INSERVICE INSPECTION	
I, the undersigned, holding a valid commission issued by the National Board of Boller and Pressure Vessel Inspectors and the State or Province of <u>Michigan</u> and employed by HSB <u>CT of One_State Street, Hartford, CT 06102</u> have inspected the components described in this Owner's Report during the period <u>5-24-0240</u> <u>8-15-03</u> , 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	
Dale Acagus + 15 2003	
(10/94)	

For complete work package, see Work Request 000Z020385

02-018A

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		Date	February 23, 2005	
		Name	-			
	6400 North Dixie	e Highway, Newport MI 48166		Sheet	1 of 🗭	
		Address	•			
2.	Plant Fermi 2 Nu	clear Power Plant		Unit	2	
		Name	•	·		_
	6400 North Dixie	Highway, Newport MI 48166				
				-	Deco Maintenance	
	<u> </u>	Address	-	Repair	Organization P.O. No., Job No., etc.	-
3.	Work Performed by	Detroit Edison Company		Type Code Symbol Stamp	N/A	
		Name	•	Authorization No.	N/A	_
	6400 North Dixie	Highway, Newport, MI 48166		Expiration Date	N/A	-
		Address	•	-		-
4.	Identification	(<u>N5 - 0053, - 0241, & - 0352) Di</u>	vision 1	Emergency Equipme	nt Service Water / Emergency Equipment	
	of System	Cooling Water Systems				
_						-
5.	(a) Applicable Cor	nstruction Code ASME III, Class 3 19	71	Edition 71	Addenda N/A Code Case	
	(b) Applicable Edit	tion/Addenda of Section XI Utilized for Repair				
	Replacements	•		1992-92 Addend	a	

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 Stampe (Yes or No)
P4400C002A	Flowserve Corp.	02RLCA 0081801001	N/A	N/A	2002	Replacement	Y
<u></u>							

Modify existing piping systems by installing a pump between EESW / EECW to provide additional make-up capability to the EECW system to support component cooling requirements per EDP-30844. In addition to the pump listed above, piping and valves were also installed.

8.	Tests Conducted:	Hydrostatic [] Pneumatic []	Nominal Operating Pressure [X]	Ref. Code Case N-416-2
		Other[] Pressure	_ psi 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.

Form NIS-2 (Back)

9. Remarks Data reports are attached for all components installed that are greater than 1" diameter. All pressure retaining material including small bore pipe, fittings and bolting material installed meet ASME III, Class 3 requirements. Reference purchase orders for material installed is included in EDP-30844 and associated work requests.

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE OF COMPLIANCE
We certi	y that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section XI.
Туре Со	de Symbol Stamp Original Code data reports to be supplemented by Owners Section XI Program 02-018 A.
Certificat	e of Authorization NoN/AExpiration DateN/A
	R.M. Hambleton Lead ISI Engineer RM Dule_Date_FEBQURE1_Z3_20_05

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

Component PIS Number	Alternate Identification *	Serial Number	Purchase Order No.
P4400C002A	N/A	S/N No. 02RLCA0081801001	317696
P4400F201A	N/A	S/N No. 16410750	317696
P4400F504A	V30-1373	S/N No. E635T-1-1	379806
P4400F625A	V8-1280	S/N No. 11228	371565
P4400F629A	V30-1363	S/N No. 89-168860	380071
P4400F630A	V30-1316	S/N No. 58AVY	371730
P4400F634A	V30-1318	S/N No. 59AVY	371730
- P4500F014A	V30-1383	S/N No. 90-168860	380071
P4500F205A	V30-1353	S/N No. 84-168860	380071

EDP-30844 Division 1 NIS-2 02-018A Sheet 2 of 8

* Alternate Identification Number assigned by EDP-30844

All pressure retaining material installed including pipe, fittings, and bolting material meet ASME III, Class 3 requirements. Reference purchase order numbers for all material installed is detailed in EDP-30844 as well as the following work requests:

- 000Z022255
- 000Z022256
- 000Z022257
- 000Z023255
- 000Z023294
- 000Z023553
- 000Z040199
- 000Z040200

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

2 Pg. 1 of ____

1. Manufactured and ce			(nam	e and address o	t N Certificate H	older)		
2. Manufactured for	Detroit Ediso	n, 2000 2				9		
	Deter it E	diana . Parm		and address of P		AT 101	<i>c c</i>	
3. Location of Installatio		alson. renn	1 2, 0400 100		ghway, Newp		.00	
4. Model No., Series No	IK	C 1.5X1-82	Drawing	Iname and ad L004519	dress) Rev	Orig.	CRN NA	
4. Model No., Series No	or Type	1995		1996	nev		NA	
5. ASME Code, Section	III, Division 1:	(edition					(Code Case no.)	
	Pump			(addenda date)		1	lode Lase no.	1
 Pump or valve 		Nominal inle	it size	(m.)	Outlet size _			
7. Material: Body	NA	Bonnet	NA	Disk	NA	Bolting .	NA	
(a)	(b)		(c)		(d)	-	(e)	
Cert.	Nat'l		Body		Bonnet		Disk	
Holder's	Board		Serial		Serial		Serial	
Serial No.	No.		No.		No.		No.	
2RLCA0081801001	NA		NA		NA		NA	
2RLCA0081801002	NA		NA	<u> </u>	NA		NA	
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* 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, [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

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REPRINT 6/93

FORM NPV-1 (Back - Pg. 2 of ____)

Certificate Holder's Senal No 02RLCA0081801001/2

and a series

8.	Design conditions	lpressure)		125°F or vi	alve pressure class	NA		
9	Cold working pres	ssure <u>NA</u>	psi at 100°!	F				
10.	Hydrostatic test .	psi.	Disk differentiat	test pressure	NA		psi	
11.	Nemarks:	Material, Fabrication, Material, ASME Cod	e, Section II, Part	s A. B. C. 1995 Edit	tion, 1996 Addenda			
		Design and Stamping NOTE: Nameplate at					ess steel	l wire

CERTIFICATION OF DESIGN							
Design Specification certified byLouis Bertani	PE. State <u>M1</u>	Reg no	19924				
Design Report certified byCarl F. Reimers	PE State <u>CA</u>	Reg no	M018283				

	CERTIFICATE OF COMPLIA	ANCE
We certify that the statements n	hade in this report are correct and that this	pump or valve conforms to the rules for construction
of the ASME Code, Section III, D N Certificate of Authorization Ma	N_EI30	June 10, 2005
DateName	Flowserve Corp. Pump Division	Signed Linkly im
	IN Certificate Holder)	. (authorfed/epresentative)

	CERTIFI	CATE OF INSPEC	NOIT
I, the undersigned, holding the State or Province of	g a valid commission issued California		Board of Boiler and Pressure Vessel Inspectors and employed by <u>HSB-CT</u>
ofHartford, CT 12/30/02	, and state that to t	- have inspected the best of my H	d the pump, or valve, described in this Data Report on nowledge and belief, the Certificate Holder has con-
	re, in accordance with the AS		•
component described in the	is Data Report, Furthermore, i	neither the inspe	any warranty, expressed or implied concerning the ctor nor his employer shall be liable in any manner for or connected with this inspection.
any personal injury or prop	L D.		CA 1969

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(1) For manually operated valves only.

0201BA 4 0= 8 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 17 #1 NR-371696 FISHER CONTROLS INT'L INC., VALVE DIVISION, 205 S. CENTER STREET, MARSHALLTOWN, IA. 50158 Manufactured and certified by 1. (name and address of N Certificate Holder) Manufactured for ______ Detroit Edison Co. PO Box 1659, Detroit, Michigan 48231 2. (name and address of Purchaser) Fermi II Power Plant, 6400 N. Dixie Highway, Newport, MI 48166 Location of installation 3. (name and address) Drawing AAA04230 Rev. CRN N/A 95H Model No., Series No., or Type 4. No Addenda N/A 1989 3 ASME Code, Section III, Division 1: 5. (class) (Code Case no.) (addenda date) (edition) Outlet size 1 1/2 VALVE Nominal inlet 1 1/2 6. Pump or valve size (in.) (in.) SA216 WCC SA216 WCC Disk A582 416 Bolting - SA193 B7 Bonnet Material: Body 7. SA1947 (c) `· (ð) (c) (2) **(b)** Bonnet Disk Body Cert Nat'l Serial Serial Serial Board Holder's No. No. No. No. Serial No. 64795 U80 9 65099 A446 11 7797H 7354 16410750

*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.

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				Certificate Holder's Serial No.	164107	50
3.	Design conditions	psi (pressure)	125 (temperature)	°F or valve pressure class	<u>N/A</u>	(1)
•	Cold working pressure	290	psi at 100°F			
0.	Hydrostatic test	450 psi. Disk di	ifferential test pressure	N/A		p:
1.	Remarks: Design: A	SME BPVC Sec III, 1989 Edition,	No Addenda, Class 3			

		CERTIFICATION OF DESIGN				
Design Specification certified by	Lawrence D. Burr		E. State	ML	Reg. no.	33999
Design Report certified by	N/A		E. State	N/A	Reg. no.	N/A

	CERTIFICATE OF COMPL	ANCE	
We certify that the statements made in i	his report are correct and that this pump or valve conforms	to the fulles for constru	ction of the ASME code, Section III, Division 1.
N Certificate of Authorization No.	1929	Expires	11-11-2004
Date <u>3-10-03</u> Name		, 	Signed Sonda, le ard
	(N Certificate Holder)		(authorized representative)

CERTIFICA	ATE OF INSPECTION
I, the undersigned, holding a valid commission issued by the National Board of I Province of	Boiler and Pressure Vessel Inspectors and the State or Iowa
and employed by Hartford Steam Boiler of CT	of Hartford, CT
have inspected the pump, or valve, described in this Data Report	2 - 10 - 03 and state that to the best of my knowledge and
belief, the Certificate Holder has constructed this pump, or valve, inaccordance v	ith the ASME Code, Section III, Division 1.
Furthermore, neither the inspector not his employer shall be liable in any manner with this inspection.	ranty, expressed or implied, concerning the component described in this Data Report. for any personal injury or property damage or a loss of any kind arising from or connected nissions \underline{NB} \underline{PPPI} \underline{NBA} $\underline{P22}$ \underline{TA} .
(Authorized Inspector)	(Nat'l. Bd. (include, endorsements) and state or prov. and no.)

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(1) For manually operated valves only.

02-018A 50F8

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

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Pg. 1 of _____

			· · ·					
1. Manufactured and c	ertified by	vserve Co	rporation, 70	1 First Street,	Williamsport, P	A 1770)1	_
			(na	ime and address o	f N Certificate Hold	er)		
2. Manufactured for	Detroit Edisoil, I	U. DUX	1039, Deubli	a and address of F				•
3. Location of installat	Enrico Ferr	ni I Init 3						
3. Location of installat	ion	<u> </u>	0400 DIAICI	(name and ad				-
	. <u> </u>	D.D. Gate		W0225975		в	CRN N/A	
4. Model No., Series N	io., or Type		Drawing		Rev	<u> </u>	_ CRNN/A	•
5. ASME Code, Sectio	n III. Division 1:	198	86	None	3		N/A	
		(edit	ion)	(addenda date)	lclass		(Code Case no.)	•
6. Pump or valve	Valve	Nominal i	nlet size	1 1/2"	Outlet size	1 1/2"		
	PANCE WCD			(in.)		(in.)		
7. Material: Body	SA216-WCB	Bonnet	SA351-CF8	Disk	NOREM BI	. Bolting	Studs: SA453-660B	
							Nuts: SA194-8M	
(a)	(b)		(c)		(d)		(e)	
Cert.	'Nat'l		Bod	-	Bonnet		Disk	
Holder's	Board		Seria		Serial		Serial	
Serial No.	No.	<u> </u>	<u>No.</u>		No.		No.	. ,
E635T-1-1	N/A		<u> </u>	·	14	·	Ht: #2461	.V,
E635T-1-2	N/A		2		16		Ht. #2461	. /
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*Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8½ × 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.

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FORM NPV-1 (Back - Pg. 2 of ___)

				Certificate Holder's Serial No.	E635T-1-1 & -1	<u>1-</u> 2
0	Design conditions	. 150	125	.°F or valve pressure class		
	-	(pressure)	(temperature)	. For valve pressure class		- 0
9.	Cold working pressure	740	psi at 100°F			
10.	Hydrostatic test	1125 psi.	Disk differential test pressure	814	P	si
11	Bemarks Material:	Bonnet Studs: Hi	t. #536632; Trace Code A562	2		
•••		Bonnet Nuts: Ht.	#713217; Ht. Code H3			-
		· · ·	······			_
					<u></u>	

	CERTIFICAT	TION OF DESIGN			
Design Specification certified by	Lawrence D. Burr	P.E. State	MI	Reg. no	33999
Design Report certified by		P.E. State			

	· CERTIFICATE OF COMP	LIANCE
	•	is pump or valve conforms to the rules for construction
of the ASME Code, Section III, Divis N Certificate of Authorization No	N1717	Expires 4/15/04
Date 12303_Name	Flowserve Corporation (N Certificate Holder)	Signed Suthorized (opresentative)

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I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Pennsylvania and employed by One Beacon America Insurance of Boston, Mass. have inspected the pump, or valve, described in this Data Report on Structed 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 component described in this Data Report. Furthermore, neither the inspector for his employer shall be liable in any manner for any personal injury or property damage or a joss of any kind arising from or current with this inspection. Date 1-3-03 Signed Warman for any formation of the state of prov. and no.]	CERTIFICATE OF INSPE	ECTION
component described in this Data Report. Furthermore, neither the inspector for his employer shall be liable in any manner for any personal injury or property damage or a joss of any kind arising from or currently with this inspection. Date 1-33-03 Signed Multiply commissions 9 Pennsylvania 2392	the State of Pennsylvania and of Boston, Mass. have inspect B-9-07 the 1-23-03, and state that to the best of my	d employed by <u>One Beacon America Insurance</u> ed the pump, or valve, described in this Data Report on knowledge and belief, the Certificate Holder has con-
Hush-stand laff-stand	component described in this Data Report. Furthermore, neither the insp any personal injury or property cannoe or a loss of any kind arising from	pector for his employer shall be liable in any manner for n or connected with this inspection.
	Date Signed Commissions Charles Young Charles To the provided inspector)	5 9 Pennsylvania 2392 [Nat'l. Bd. (incl. endorsements) and 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>

02-018A

•		Div. of Curtiss-Wrigh (name an	id address of N Ce	tificate Holde	er)	
. Manufactured for	Detroit	t Edison; 2000 2nd	Avenue; Detr	oit, MI 48	226-127	9
			address of Purchas			······
Location of installation	Detroit	Edison; Fermi EF2	; 6400 Dixie H	lwy.; New	port, MI	48166
- Loodton of motoration	······································		name and address)		<u> </u>	
. Model No., Series No.,	ERV-Z	DrawingN	1D20906	lev	С	CRN_ None
. Model Nd., Selies No.,	01 19pc	Unutraing	· ·			01111
. ASME Code, Section II	II. Division 1:	1986	No	2		None
			enda date)	(class)		(Code Case no.)
Pump or valve Nozzle	Check Valve Nomin	al iniet size1-1/2	<u>S.W.</u> Outl	et size	1-1/2 S.	<u>w. </u>
		(in	.)		(in.)	
Material: Body SA-4	79 Type 316 Bonne	n/A	Disk SA-479	Type 316	Bolting .	N/A
 ,		···, .*		. –		
(a)	(b)	(c)		(d)		· (e)
Cert.	Nat'l	Body		Bonnet		Disk
Holder's	Board	Serial		Serial		Serial
Serial No.	No.	No.		No.		No.
11228	None	KLX-001	<u></u> .	None	·	KLY-001
11229	None	KLX-002		None		KLY-002
					,	
	·	- <u> </u>		<u> </u>		
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• Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8½ × 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.

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FORM NPV-1 (Back - Pg. 2 of _2_)

				Centricat		s ochai m	D	28 & 1	
. Design conditions	150	psi1 Itempe	25	°F or valve	nressure	riass		600	
. Design contentions	(pressure)	tempt	erature)		, bi cecare				
Cold working pressure	1440	psi at 100°F	· ·						
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For manually operated valves only.



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Location of Installation_U	NKNOWN					
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or Type	Sata No.	No	No	(c) Cl225	Bd. No.	Buit
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1 1/3" GLOBE VALVE	2					
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1480 & . Pressure Retaining Pieces

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(1) العال معدم با مرمع شعد العالم وال

"Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 5-1/2" 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.

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9. 1	Hydrostade test 2225 .	pat Disk Déferential test press	sure 1650 P31.	•	-
We	certify that the statements that	par. Desk Differential test press CERTIFICATE OF C de in this report are correct and that t at Power 'Plant' Components. Section	SURB 1650 P31. COMPLIANCE tris pump, or volve, conforms to th		- - - - -
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We of	certify that the statements may the ASME Code for Nucles ends WINTER "77 • Med Flowserve Corp	CERTIFICATE OF C de in this report are correct and that t ar Power 'Plant' Components. Section Code Case Ne <u>N/R</u> portion	SURE 1650 PSI. COMPLIANCE tris pump, a volve, conforms to th a til, Div. 1., Editor	1977	
We d Add Sign	certify that the statements may the ASME Code for Nucles and WINTER "77	CERTIFICATE OF C de in this report are connect and that t ar Power 'Plant' Components. Section Code Case No <u>N/R</u> portation	sure 1650 pst. COMPLIANCE tris pump, or volve, conforms to th a fill Div. 1., Edilon Date 2.	1977 14/03 	-
We d Add Sign	certify that the statements may the ASME Code for Nuclei ends WINTER "77 and Flowserve Corr Notestate and Authorization	CERTIFICATE OF C de in this report are correct and that t ar Power 'Plant' Components. Section Code Case No <u>N/R</u> portaion Na <u>N-1562</u> to use the CERTIFICATION (sure 1650 P31. COMPLIANCE tris pump, or volve, conforms to the a fill, Div. 1., Edilion Date 2. M symbol expires N symbol expires P35 OF DESIGN	1977 14/03 	
We d Add Sign	certify that the statements may the ASME Code for Nucles ends WINTER '77 and Flowserve Corp (N Contract here	CERTIFICATE OF C de in this report are correct and that t ar Power Plant Components. Section Code Case No <u>N/R</u> portaion Na <u>N-1562</u> to use the CERTIFICATION (sure 1650 P31. COMPLIANCE tris pump, or volve, conforms to the a fill, Div. 1., Edilon Date 2.	1977 14/03 	
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We d' Add Sign Our	certify that the statements may the ASME Code for Nuclei ends WINTER '77 and Florestrue Corr (Restures her ASME Certificate of Authorization Dragon Information on file et Stress analysis seport (Class 1 of Design specifications certified by PE State Stress analysis certified by (1)	CERTIFICATE OF C de in this report are cornect and that t at Power Plant Components. Section Code Case No <u>N/R</u> poration by Na <u>N-1562</u> to use the CERTIFICATION (cody) on file at (1) <u>NC</u> Neg. No.	SUITE 1650 P31. COMPLIANCE tris pump, a volve, conforms to th a n1, Div. 1., Edifor Date 2.	1977 14/03 	
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We d' Add Sign Our Cur (1) S (1) S (1) S (1) S Can inspe Corkin By car	certify that the statements may the ASME Code for Nuclei ends (WINTER '77) and Flowserve Corr (Reduces her ASME Certificate of Authorization Drongn Information on file et Stress analysis report (Class 1 of Design specifications certified by PE State Stress analysis report (Class 1 of Design specifications certified by PE State Stress analysis certified by (1) PE State	CERTIFICATE OF C de in this report are cornect and that t ar Power Plant Components. Section Code Case No <u>N/R</u> poration by by by certification Na <u>N-1562</u> to use the CERTIFICATION (conty) on file at (1) <u>NC</u> Reg. No. Reg. No. Reg. No. Reg. No. Heg. No. Heg. No. Heg. No. Heg. No. Heg. No. Heg. No. Heg. No. Heg. No. Heg. No. CERTIFICATE OF SHC usedon issued by the National Board of Bolk HSB CT. Janump, or value, in the condence with ASME C prector nor his employer makes any warrant spector nor his employer makes any warrant spector nor his employer make any warrant	SUITE 1650 P3L COMPLIANCE this pump, or volve, conforms to the a ril, Div. 1., Edifora Date 2. Date 2. Da	1977 14/03 11-26-03 (Umin) V V V V V V V V V V V V V	

FLOWSERVE

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FORM NI'V-1 (back)



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	Hork Nee Reverte Reverte
	(c) Bolting B7 A·193 B7 Texas Bolt
	(d) <u>etcifics</u> (Gate)
	8. Hydrostalle lest2175
	Design information on file at
	Certificate of Shop Inspection
	I, the undersigned, holding a valid commission issued by the National Based of Gailer and Pressure Vessel Inspectors and/or the State of Province of
	Dure April 8. 19 74 F?. Dure April 8. 19 74 F?. Complexions Kentucky 91 (Insported, Role, Province and No.)
	BEST AVAILABLE COPY

02-018B

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

								المحدين فالبابا مع المحد مع ال	
1.	Owner Detroit Edis	son Company	· ·	Date	<u></u>	February 23, 2005			
		Name	1 at 100						
	6400 North Dixie Hi	48166	Shee	et	10	18			
		ddress	· · · ·						
2.	Plant Fermi 2 Nuclea			Unit			2		
		Name							
	6400 North Dixie Hig	ghway, Newport M	48166						
			······	<u></u>			intenance		
		ddress			•	ganization F	2.O. No., Job No., etc.		
3.	Work Performed by	Detroit Edison Con	ipany	Type Stam	Code Symbol		N/A		
	. —	Name		Autho	prization No.		N/A		
	6400 North Dixie Hig	hway, Newport, N	II 48166	Expir	ation Date		N/A		
	A	ddress			-				
4.	Identification of System	(N5 - 0025, 02 Cooling Water	97, & 0381) Division : System	2 Emergenc	y Equipment Se	vice Wate	er / Emergency Equi	pment	
5.	(a) Applicable Constru	uction Code ASI	ле III,	<u></u>	<u>·</u>	·	· ·		
•	(b) Applicable Edition/ Replacements	ss 3 19 7 XI Utilized for Repairs of		71	Addenda	<u>N/A</u> (Code Case		
6.	Identification of Component	is Repaired or Repla	ced and Replacement C	omponents					
			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	
	P4400C002B	Flowserve	02RLCA	N/A	N/A	2002	Boplanamost	or No) Y	
	r4400002B	Flowserve	02RLCA 0081801002	IV/A	N/A	2002	Replacement	Т 	
	· .		••• • • • • • • • • • • • • • • • • •		•				
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Description

7. of Work

Modify existing piping systems by installing a pump between EESW / EECW to provide additional make-up capability to the EECW system to support component cooling requirements per EDP-30844. In addition to the pump listed above, piping and valves were also installed.

B. Tests Conducted: Hydrostatic [] Pneumatic [] Nominal Operating Pressure [X] Ref. Code Case N-416-2 Other [] Pressure _____ psi Test Temp._____ ^oF

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 Data reports are attached for all components installed that are greater than 1" diameter. All pressure retaining material including small bore pipe, fittings and bolting material installed meet ASME III, Class 3 requirements. Reference purchase orders for material installed is included in EDP-30844 and associated work requests.

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.
	Type Code Symbol Stamp Original Code data reports to be supplemented by Owners Section XI Program 02-018 B.
٠	Certificate of Authorization No N/A Expiration Date N/A
	Signed R.M. Hambleton Lead ISI Engineer RUCLES Date FEBRUARY 23, 20,05 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 <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 components described in this Owner's Report during the period $//-/3-020_{22-23}-05_{22}$, 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
Date Fed. 23 2005
(10/94)

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

Component PIS	Alternate	Serial Number	Purchase Order
Number	Identification *		No
P4400C002B	N/A	S/N No.	317696
		02RLCA0081801002	
P4400F201B	N/A	S/N No. 16410751	317696
P4400F504B	V30-1374	S/N No. E635T-1-2	379806
P4400F625B	V8-1281	S/N No. 11229	9061255
P4400F630B	V30-1317	S/N No. 60AVY	371730
P4400F634B	V30-1319	S/N No. 61AVY	371730
P4500F014B	V30-1384	S/N Nó. 96-168860	380071
P4500F205B	V30-1362	S/N No. 87-168860	9061255

EDP-30844 Division 2 NIS-2 02-018B Sheet 2 of 3

• Alternate Identification Number assigned by EDP-30844

All pressure retaining material installed including pipe, fittings, and bolting material meet ASME III, Class 3 requirements. Reference purchase order numbers for all material installed is detailed in EDP-30844 as well as the following work requests:

- 000Z022251
- 000Z022252
- 000Z022254
- 000Z023295
- 000Z023554

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

2 Pg. 1 of _

		- 100 - 001		me and address o				
Manufactured for	Detroit Ediso	n, 2000 2 A		troit, Michiga		y		
				and address of P				
Location of Installation	Detroit E	aison. Fermi	2, 6400 N	orth Dixie Hig		ort, MI 481	66	
			u i mur u u U	 Insme and ad 	dress			
Model No., Series No.,	or Type	1.5X1-82	Drawing	L004519	Rev	Orig.	CRNNA	
*	•	1905	•	1996	3		NA	
ASME Code, Section	III, Division 1:	(edmon)		(addenda date)	(cia		ICode Case no	
. .	Pump			1.5		1"		•••
Pump or valve		Nominal inlet	size	lin,l	Outlet size	(10.)		
Manager Date	NA	Bonnet	NA	Disk	NA	Bolting .	NA	
Material: Body		Bonnet		Disk		- Borring .	••••••••••••••••••••••••••••••••••••••	
(a)	(Б)		. (c)		(d)		(e)	
Cert.	Nat'l		Body		Bonnet		Disk	
Holder's	Board		Serial		Serial		Serial	
Serial No.	No.		No.		No.		No.	
LCA0081801001	NA		NA		NA		NA	
LCA0081801002	NA		NA		NA		NA	
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*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, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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(12/88)

This form (E00037) may be obtained from the Order Dept , ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300 REPRINT 6/93

FORM NPV-1 (Back – Pg. 2	of)
	Certificate Holder's Senal No U2RLCA0081801001/2
	•

8.	Design conditions	120	psi 125 jtemperatursi	•F or valve pressure class	<u>NA</u> (1)	R
	Cold working pressure _					•
10.	Hydrostatic test	psi.	Disk differential test pres	ssureNA	psi	
11.	Mater	al. ASME Code	, Section II, Parts A, B,	Code, Section III, 1995 Edition, 199 C, 1995 Edition, 1996 Addenda		
				II. Class 3, 1995 Edition, 1996 Adde upper portion of the bearing housing		vire

CERTIFICATION OF DESIGN								
Design Specification certified by . Design Report certified by	Louis Bertani Carl F. Reimers	P E. StateM	A Reg	no <u>19924</u> no <u>M018283</u>				

CERTIFICATE OF COMPLI	ANCE
We certify that the statements made in this report are correct and that this	pump or valve conforms to the rules for construction
of the ASME Code, Section III, Division 1. N-1130	June 10, 2005
Date 12/30/02 Flowserve Corp. Pump Division	Signed Line Krimm
IN Certificate Holder)	(authorfed (epresentative)

	CERTIFI	CATE OF INSPE	CTION
the State or Province of of	California	have inspecte	I Board of Boiler and Pressure Vessel Inspectors and employed by <u>HSB-CT</u> ad the pump, or valve, described in this Data Report on enowledge and belief, the Certificate Holder has con- on III, Division 1
component described in this	s Data Report. Furthermore,	neither the inspi	s any watranty, expressed or implied concerning the ector nor his employer shall be liable in any manner for or connected with this inspection. CA 1969 [Nat'l Bd lincl, endorsements) and state or prov. and no 1

(1) For manually operated valves only.

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

	NR-371	6910 It	Ø 1	· · · · · · · · · · · · · · · · · · ·			Pg.	.1 of <u>2</u>		
1.	Manufactured and c			INT'L INC., VALVE DI	VISION, 205 S. CE	NTER STREET, M N Certificate Holde	ARSHALLT	OWN, IA. 50158		
2.	Manufactured for	Detroit Edison Co,	PO Box 1659, Detr	oit, Michigan 48231	nd address of Purch	_				
3.										
э.	Dealion of histana	ion <u>Feinin Fo</u> v	(c) 1 Ianc, 0400 14. L	A A A A A A A A A A A A A A A A A A A	(name and addres	s)		<u></u>		
4.	Model No., Series N	lo., or Type	95H	Drawing	AAA04230	Rev.	A	_ CRNN/A		
5.	ASME Code, Sectio	on III, Division 1:	1989	No Ad	ldenda .	3		N/A		
	-		(edition)	(addeno	la date)	(class)		(Code Case no.)		
6.	Pump or valve	VALVE	Nominal inlet size	1 1/2	Outlet size	1 1/2				
	-		, -	(in.)	-	(in.)	-	• • •		
7.	Material: Body	SA216 WCC	Bormet	SA216 WCC	Disk	A582 416	Bolting	SA193 B7 SA194 7		
	(a) Cert. Holder's Serial No.	(b Na Boz No	t'l . ard .	(c) Body Serial No.	•	(d) Bonnet Serial No.	• •••••	(c) Disk Serial No.		
	16410751	73		64795 USO 1	0	65099 A446 1	2	7797H		
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*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 NP	/-1 (Back - Pg. 2 of)			
				Certificate Holder	's Serial No.	1641	0751
8.	Design conditions	150 (pressure)	psi <u>125</u> (temperature)	•F or valve pressur	e class	N/A	(1)
9.	Cold working pressure	290	psi at 100°F				
10.	Hydrostatic test	450ps	i. Disk differential test press	ure	N/A		psi
11.	Remarks: Design: ASM	E BPVC Sec III, 198	9 Edition, No Addenda, Class	3			
	·						<u> </u>
	<u></u>						
	. <u></u>						
			CERTIFICATION	OF DESIGN			
Desig	n Specification certified by	Lawrence D. Burr		P.E. State	ML	Reg. no.	33999
Desig	n Report certified by	N/A		P.E. State	N/A	Reg. no.	N/A
<u> </u>		<u> </u>			<u> </u>		
			CERTIFICATE OF C		·		
			• .				
	ertify that the statements made in	this report are correct			ruction of the AS		II, Division 1.
N Cer No.	rtificate of Authorization		1929	Expires		11-11-2004	,
Date	3-10-03 Name	FISHER CON	TROLS INT'L INC.		Signed	Linda 11	laid
			(N Certificate Hol	der)			epresentative)
			······		<u>·</u>	<u></u>	
			•				
			CERTIFICATE OF I	NSPECTION			
Lthe	undersigned, holding a valid com	mission issued by the			d the State or	Iowa	•
Provi	nce of						
	inspected the pump, or valve, des		port 7.1	<u> </u>	of <u>Hartfo</u> and state that t	ord, CT o the best of my kno	owledge and
on	, the Certificate Holder has consta			0-03	_		-0
ocnel	, une Cerunicate Holder has consu	rucica uns pump, or vi	ave, maccoruance with the Az	Min Couc, Section III, DIVISI		•	

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector not 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.

(Nat'l. Bd. (include. endorsements) and state or prov. and no.) Date 3-10-03 Signed Лß Commissions e oc (Authorized Inspector)

(1) For manually operated valves only,



02-0190

FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*

Pg. 1 of ____

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1. Manufactured and	certified by Flow	vserve Co	rporation, 701	1 First Street, '	Williamsport,	PA 1770	1		
			nan)	me and address of	f N Certificate Hol	der)			
2. Manufactured for	Detroit Edison, I	P.O. Box]	1659, Detroit,	, MI 48231				·	
			(name	and address of P					
3. Location of installa	ation Enrico Ferr	ni Unit 3,	6400 Dixie H	lighway, New	port, MI 4816	6			
	г			{name and ad	dress)	_			
4. Model No., Series	No., or Type	D.D. Gate	- Drawing -	W0225975	Rev	B	CRN_	N/A	
5. ASME Code, Sect	ion III, Division 1:	198		None	3			N/A	
		(edit		(addenda date)	(clas		(Code	Case no.)	,
 Pump or valve 	Valve	Nominal i	niet size	<u>1 1/2"</u> (in.)	Outlet size	<u> </u>			/
7. Material: Body	SA216-WCB	Bonnet _	SA351-CF8	M Disk	NOREM B1	Bolting	Studs: S	A453-660B	
								A194-8M	
(8)	(b)		(c)		(d)		10	-	
Cert.	Nat'l		Body		Bonnet		Di		
Holder's	Board		Serial	1	Serial		Se		
Serial No.	No.		No.		No.		N:		1
<u> </u>	N/A		<u>·····1</u>	·	14.		<u>Ht. #2</u>		J,
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* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ × 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.

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FORM NPV-1 (Back - Pg. 2 of ___)

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CT 1 1

					Certificate Holder's Seri	al No	1 & -1-2
8.	Design conditions	150	psi	125 (temperature)	°F or valve pressure class	300	(1)
9.	Cold working pressure		psi a				
10.	Hydrostatic test	1125 psi.	Disk diffe	rential test pressu	814		psi
11.	Remarks: Material: I	Bonnet Studs: H	t. #536632	2; Trace Code A	562		
•••	I	Bonnet Nuts: Ht.	#713217	Ht. Code H3			
	<u></u>						
							<u>_</u>

	CERTIFICA	TION OF DESIGN		
Design Specification certified by Design Report certified by	Lawrence D. Burr N/A	P.E. State P.E. State		

	CERTIFICATE OF COMP	LIANCE
		his pump or valve conforms to the rules for construction
of the ASME Code, Secti N Certificate of Authoriza	N1717	Empires 4/15/04
Date 2303 N	ame Flowserve Corporation	Signed Stury
	(N Certificate Holder)	(authorized (opresentative)

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I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Pennsylvania and employed by One Beacon America Insurance of Boston, Mass. have inspected the pump, or valve, described in this Data Report on <u>BOSTON</u> , Mass. have inspected the pump, or valve, described in this Data Report on <u>BOSTON</u> , Mass. have inspected the pump, or valve, described in this Data Report on <u>BOSTON</u> , Mass. have inspected the pump, or valve, described in this Data Report on <u>BOSTON</u> , Mass. have inspected the pump, or valve, described in this Data Report on structed 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 component described in this Data Report. Furthermore, neither the inspector for the 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. Dete 1-33-03 Signed Mathematical Inspector for the function of the func	CE	RTIFICATE OF INSPECTION
component described in this Data Report. Furthermore, neither the inspector for his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or current of with this inspection. Date 1-33-03 Signed Mark Mark pommissions 9 Pennsylvania 2392	the State of Pennsylvar of Boston, Mass. B-9-07 ch	have inspected the pump, or valve, described in this Data Report on to the best of my knowledge and belief, the Certificate Holder has con-
I had a start and the formation of the start and a start of the start	component described in this Data Report. Furtherm any personal injury or property carrage or a loss of	nore, neither the inspector prime employer shall be liable in any manner for any kind arising from or configured with this inspection.
	Date Signed Authorized Inspector Charles Young	[Nat'l. Bd. (incl. endorsements) and 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 ____

02-018B

Manufactured and cer			(n	ame and addre	ess of N Certificate Ho	ider)	
. Manufactured for	1	Detroit E			ue; Detroit, MI 4		'9
. Manufactured for					s of Purchaser)		<u> </u>
. Location of installation		etroit Ed	• •		D Dixie Hwy.; Ne	wport. MI	48166
. Location of installation					d address)		
. Model No., Series No.		ERV-Z	Drawing	MDOOC		С	свы Коле
. Model No., Selles No.	, or type		Drawing				CRNNONE
. ASME Code, Section	III Division 1.	19	986	No.	2	2	None
		(edi	ition)	(addenda da	ate) (clas	ss)	Code Case no.
Pump or valve _Nozzle	e Check Valve	Nominal	inlet size	-1/2 S.W.	Outlet size	1-1/2 S.	W.
			· · · ·	(in.)		- {in.}	
. Material: Body SA-	479 Type 316	Bonnet .	<u>N/A</u>	Disk	SA-479 Type 31	6 Bolting	N/A
· · · · · · · · · · · · · · · · · · ·	•••			,	·		
(8)	(b))	{d}		(e)
Cert.	Nat'l		Boo		Bonnet		Disk
Holder's	Board		Ser	ial	Serial		Serial
Serial No.	No.		No		No.		No.
11228	None	· · ·	KLX-	001	None		KLY-001
11229	None	· ·	KLX-	002	None		KLY-002
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* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8½ × 11, (2) information in items 1 through 4 on this Date Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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REPRINT 6/93

FORM NPV-1 (Back - Pg. 2 of ___)

	•		Certificate Holder's Serial No	11228 & 11229
8. Design conditions	150	psi125	PE or valve pressure class	600
8. Design conditions	(pressure)	psi(temperature	•F or valve pressure class	(1)
9. Cold working pressure	1440	psi at 100°F		
10. Hydrostatic test	2175 psi.	Disk differential test pr	essure 1600	psi
11. Remarks: <u>Qty. 2, En</u>	ertech Job Nun	nbe r 27832V		
			· · ·	
<u>.</u>		CERTIFICATION OF	2 DESIGN	
		awrence D. Burr		33999
Design Specification certi Design Report certified by	ned by	1.01	F.E. State neg. ;	no23241
		- <u></u>		
		CERTIFICATE OF CO	MPLIANCÉ	
		report are correct and the	at this pump or valve conforms to the m	ules for construction
of the ASME Code, Section N Certificate of Authorization		N-2826	Expires	10/26/02
alasha			D Dra	14-1
DateNa	meEnertech, A Div. (N	of Curtiss-Wright Flow Control Co Certificate Holder)	Ap. Signed Academy (authorized repre	Hildley esentative
			······································	
		CERTIFICATE OF IN	SPECTION]
I, the undersigned, holdir	ng a valid commis	sion issued by the Nati	onal Board of Boiler and Pressure Ve	ssel inspectors and
the State or Province of _	Ca	lifomia		B CT
of		have insp	ected the pump, or valve, described in my knowledge and belief, the Certific	this Data Report on
structed this pump, or val				ate Holder has con-
By signing this certificate	, neither the inspi	ector nor his employer m	nakes any warranty, expressed or imp	lied, concerning the
•	•		nspector nor his employer shall be liab from or connected with this inspection	·
			ions <u>CA1526 DB 96</u> [Nat'l. Bd. (incl. endorsements) and s	
	(Authorized I	nspector)	[Nat'l. Bd. (incl. endorsements) and s	state or prov. and no.]

(1) For manually operated values only.



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Feb 04 03 08:36a Vic Singer

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	FORM NEV-1		HOLDERS' D	ATA REPORT FOR NI	JCLEAR PUMP	S OR VALVE	\$ *
					zeres (20ry V	Pg. 1 o
Mer	wischured by	Flowserve Co	rnoration. 1	900 S. Szunders St., 1	Releigh, NC 27	7603	
• •			itiame and	Job and the A Central Party		-	~~~~
1.Jay	wfactured for <u>SIGN</u>	1A. INC., 1295 B		LESTOWN. IN 47111	·		
Lœ	zion of Installation _UI	NKNOWN		Future and American			
Pur	np or Valve	Valve	•	In/#1 Size 1 1/2	Outlet 5	ize	1/2
•	 (3) Model Na	(5) N Certificate	(c) Canadian	[rai]			nchi
	Series Na	Holder's	Registration	(d) Drawing		(f) Nat7.	(g) Y
	or Type	Seiz No.	No	No	(c) C1255	Bd. No.	Bu
(1)	A848JYT3	SEAVY	N/A	02-22100-01 F/0	3	N/A	20
(2)		59AVY					
(3)	•	GOAVY	· · ·			······	*
(4) '	ASISJYT3	61AVY	N/A	02-22100-01 R/0	3	N/A	20
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	Working Pressure	1480					·

1480 Pressure Retaining Places 2

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9QAB	SA105	TRINITY FORGE	BODY
KKL	SA105	TRINITY FORGE	BONNET
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<u></u>	Nek Na.	Matorial Spe	C. No.	Mar	าปอุธริบาล	Remarks
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	that the statements made in SACE Code for Nuclear P				Editon * * •	1977
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		N-1562		<u></u>		11-26-03 (Univ)
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Docign	specifications certified by (1)			LEONARI	D J STEPBENS	
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	lysis certified by (1)		ieg Na.			
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Carolina P	n's employed by		15B CT	nZ , and		ford Connecticut have of my knowledge and belief, the N
Certificate Ho By signing this Data Report, F	der has constructed this pump contribute nother the inspects untermore, neither the inspects of the inspect of the inspect of the inspect of the inspect 4 - 1 - 03	, or valve, in scordand or nor his employer mail for nor his employer sh	e with ASME Code	pressed or in	nAled, concerning the y personal injusy or pic	equipment described in this s perty damage or a loss of any
Signed	1.1 M. Ten (Inspecial)		nissions <u>juz^E116</u>	6 ANDAR	NC1421	
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FC	drei NPV-l Manui	r ACTUM	DIG. DATA INTONI		
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l. Manufactured b	Henry Vo Louisvil		hine Coi, P.Q. 30201		CRO 168860 Order No. Vogt Item 1
		(R£38)	al: Electric Co		N00331
. Hannfactured fo	Alder St.	. Por	tland, Oregon	97205	order No. PGE Item 1.
•			(Karie and Address)		
Dwaer	Portland	Gener	El'Electric Co	Trojan Nu	clear Plant.
t constant of Die	Troian. (Oracon	(·····································		
	2"	Manua	1 Line SW Gate	Valve - Vog	t SN 79-168860 th
Pump of Valve	Identification _1,9	2 <u>-1688</u>	60: (See Attach	ed Sheet)	
			am System	•	
	(B)	inf coscript	lies of service for which equi	ipmont wpg dosigned)	
(a) Drawing No.	E-48494		Prepared by Henry	Vogt Machine	a Çompany
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Desim Conditio	1440	0		80 mt 1	,
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	Certificat	e of Astherization No	<u>N-357</u> :	espires Jan.	<u>11, 197</u> 5		
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1	f, the	undersigned, holding a va	lid commission	Issued by the Nation	al Board of Briler and P	ressure Vessel Inspectors	
		Store of Province of					
	n					ent described in this Data d helief, the Manufacturer	
	has const	nucted this equipment in an	COLORNIC & AIR	LAC APPLICADLE NODALC	THOUS OF ADDIE VAGE, SE		
	lar ute eq	aing this certificates nett pelpment described in this is a sy personal injust or pr-	nur inc inspec Dain Report, P	writermare, acither th	c inspector our his emply	over shall be lisble in any	
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		(Inspector)	•		(Notional Grand, Blais,	Province and No.)	
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AVAILABLE COPY

03-004

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	,			Date		10-3	30-2003	
		Name	·····						1	
	64	00 North Dixie Highway, Newr	ort MI 48166			Sheet		1 of 🗇	24	
		Address								
2.	Plant	Fermi 2 Nuclear Power Plar	at			Unit		2		
		Name					<u> </u>		•	
	64	00 North Dixie Highway, Newr	ort MI 48166					Deco Mainte	nance	
	<u> </u>	Address					 Repair	Organization P.O. N		
3	Work F	Performed by				Type Co	de Symbol			-
υ.	TOR	Detroit Edisor	Company			Stamp	ac oynibor	N	Δ	
		Name	roompany			Authoriz	ation No			
		. Mamo	,	· · · ·				N	/A .	
			• • • •	· • *		Expiratio	n Date			
	64	00 North Dixie Highway, Newp	ort. MI 48166					N	/A	
		Address								
4.	Identifi							•		
••	of Syst	•	D-N5-1) Control	Dod Driv	e Syst	em	_	·•	-	
5.	(a)	Applicable Construction Code	ASME III,	•			Winter			
υ.	(4)	Abburger consussion cons	Class 1	19	71	Edition	1971	Addenda,	N/A	Code Case
	(b)	Applicable Edition/Addenda of S Replacements	ection XI Utilized f	for Repair	sor	1992 Adde	- W' ' 92 enda		· · · · ·	
				·.						
6.	Identifi	cation of Components Repaired or	Replaced and Re	placemen	t Com:	onents			•	

4

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@	Variou s	Replacement	Yes
	`					ŝ	
		· · · · · · · · · · · · · · · · · · ·			•	······································	

Description of Work 7.

Refurbish Control Rod Drive Mechanisms for installation in RF10.

Tests Conducted: 8.

Pneumatic [] Hydrostatic []

Other [X] Pressure

Nominal Operating Pressure [] psi Test Temp._

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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)

9. Remarks Refurbished Control Rod Drive Mechanisms for Installation in RF-10. Replacement parts were procured per various Purchase Orders as detailed on attached sheets. Copies of available Code Data Reports are attached.

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Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE OF COMPLIANCE
Ve certif	y that the statements made in the report are correct and this replacement conforms to the rules of theASME Code, Section X
	de Symbol Stamp <u>Original Code Data Reports for each Control Rod Drive will be supplemented by Owners Section XI Proor</u> 004 and various work requests as listed on attached Sheet 2. For tracking purposes CRDM information will be maintained in 1
Certificat	e of Authorization NoN/AExpiration DateN/A

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 <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 components described in this Owner's Report during the period <u>OB -05 -0210</u> <u>AB - 06</u>, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Inspector's Signature Commissions MII 610 National Board, State, Province, and Endorsements

(10/94)

NIS-2 For Section XI Program 03-004

Sheet 2 of Z	-
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Serial No.	Rebuild WR	(1) Cylinder Tube/ Flange (480-8571)	Piston Tube	Other ASME Parts
4340	000Z021104	•	#0455, PO#371815	None
6397	000Z021047		#0454, PO# 371815	None
4488	000Z021049	#6277, PO# 266443	#0489, PO# 371815	None
3326	· 000Z021051	#6417, PO# 266443	#0505, PO# 371815	None
4436	000Z021053	-	-	None
4312	000Z021055	-	•	None
· 7019	000Z021057	-	#0654, PO# 371815	None
3410	000Z021059	#5866, PO# 266443	-	None
4189	000Z021061	#6017, PO# 266443	-	None
4584	000Z021063	-	•	None
4459	000Z021065	-	#0490, PO# 371815	None
3608	000Z021069	-	#1983, PO# 295214	None
6541	000Z021071	-	#0456, PO# 371815	None
3623	000Z021073	-	-	None
4286	000Z021075	-	#0695, PO# 371815	None
5655	000Z021090	-	•	None
4315	000Z021092	#3918, PO# 266443	-	None
4391	000Z021094	#6035, PO# 266443	#0656, PO# 371815	None
3521	000Z021096	-	#2984, PO# 314467	None
4330	000Z021098	+	•	None
3999	000Z021100	-	#0650, PO# 371815	None
4309	000Z021102	+	•	None
4523	000Z021067	-	-	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.

03-00

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

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1. Kanufactured & Certified	by : <u>General Electric Company Na</u>	Iclear Fuel & Components Manufact	uring (GENF&CM)
	2117 Castle Havne Road, Wi (Name and Address of	Imington, North Ceroline 25401	
(b) Hanufactured for : _	Brunswick Southport, North	Carolina 28461	
		te Holder for completed nuclear comp	-
		Nat'l Bd. No. <u>N/A</u>	
· ·		<u>PV_35</u> Dwg. Prepared by <u>D.L. Peters</u>	son
	Inspected: <u>Piston Tube Assembly</u>		•
		Addenda Date <u>W75</u> , Case No. <u>N207</u>	1351-2 Class 1
3. REHARKS: <u>Standard part f</u> (Brief	or use with Reactor. Hydrostatical description of service for which co	<u>v fested at 1825 psi. min.</u> mponent was derigned)	
· · · · · · · · · · · · · · · · · · ·	2012 - 20	· · · ·	· · · .
•			Sheet 1 of 2
conforms to the rules of co	nstruction of the ASME Code Section	this vessel part or appurtenance as d III. (The applicable Designed Specif	Fication and Stress
is responsible for furnishi	ng a separate Design Specification a ication and Stress Report). Signed <u>GE - NEBG - NF & C</u>	For parts. An NPT Certification Hold and Stress Report if the appurtenance	is not included in
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"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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Seams: Heads: Loc Top.ho Channe If rem Design Oesign Safety Nozzles Inspect Opening Support	[Kind & Sp Girth Girth Girth (a) Material mation Thic station Thic station Thic station thic mathematical pressure w to be complete Valve Outlets: S: Purpose (block, Outlet, Drain) tion Kanholes, Threaded, s: Skirt	Ed for all vers Number Ko.	Thickness • Specified) H. T. H. T. H. T. Knuck le Radius (b) Pels where a Dia or Sire	in. All	lowanceiR.TR.TR.T(b) Ka Concial Apex AngleOtherOtherLaAaAaAaAa	terial Hemispherical Radius fastening Drop We Charpy F at temp Location Thismes costion	Efficie No. of T. Flat Diameter (Deent ight Impact of Reitizours Kiefend	ncy Courses of E.U S Side to Press. (conv. b (conc.) recent

03-004 4 of 74 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. Nanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENE & CM) 2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder) Southport, North Carolina 28461 (b) Manufactured for : <u>Brunswick</u> (Name and Address of N Certificate Eolder for completed nuclear component) 2. Identification - Certificate Holder's S/N of Part : 0454 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 Pose Item 5, and the two related Code Welds. Sheet 2 of 2 Serial # and tester stamp is an alternate method of marking. 1. Cap 16689274P001 SA182 - F304 E 3/8" thick x 1 1/15" OD 2. Indicator Tube 16529313P001 SAS12 - TP316 3/4" sch 40 - seamless pipe 0.113 wall thickness 1.065" max. dia. 1 Reactor Yesse J Code Neld Thistian 3. Plug 159A1175P001 P50YP:02 SATE2 - F304 1/4" thick x 0.812" OD 2 4. Flange 919D610P001 (7195474) SA182 - F364 3.37" thick x 9 5/8" OD 5. Base 137C5311P001 3 SA182 - F304 7/8" thick x 2.875" die. Cods Hold P5017102 6. Ring Flange 11425122PC02, P003 137C8151P001, P0C2 SA182 - F304 8 1" thick x 5.0" OD x 1.75" ID . 7. Cap Screw ...7C4515P002 SA153 • B6 6 ea. 1/2" diz. on 4 1/8" bolt circle 8. Plug 175A7951PC01 Code Hald SA182 - F304 PSOPPOS 6 0.35" thek x 1.307" dia. Rollod Defero mid 24 8 3 9. Net 13705934P001 XM - 19 SA479 1.30" thick x 2.62" dia.

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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

03-007 5 0= 24

1. Kanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
2117 Castle Havne Road, Wilmington, North Caroling 28401
(b) Kanufactured for : Brunswick Southport. North Carolina 28451
(Name and Address of N Cartificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : 0455 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: <u>Piston Tube Assembly</u>
(c) Applicable ASKE Code: Section III, Edition <u>1974</u> , Addenda Date <u>W75</u> , Case No. <u>N207 1351-2</u> Class <u>1</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 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: 03/27/91 Signed <u>GE-NEBG-NF&CM-QA</u> By
Certificate of Authorization Expires: <u>6/16/93</u> Certification of Authorization No. : <u>NPTN-1151</u>
Certification of Design for Appurtenance
Design information on file at GE Company, San Jose, California
Streer analysis report on file at <u>GE Company, San Jose, California</u>
DC22A6253 Rev. 1 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>Calif.</u> Reg. No. <u>M018546</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 <u>North Carolina</u> and employed by <u>Department of Lebor</u> of <u>State of North Carolina</u> have inspected the part of a pressure vessel described in this Partial Data Report on <u>3/2/</u> , <u>1991</u> , 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 cert. ficate, 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.
2/27, 1991 Gume PErece NC 1231, Ohio Dete Dete Inspector's Signeture Retionel 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 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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tems 4-8 [ns]. to be completed for single wall vessels. jakkets vessels. or shells of heat exchangers. . Shell: Miterial T.S. . Shell: Miterial R.T. . Shell: Miterial R.T. . Hedds: (a) Material R.T. . Hedds: (a) Material T.S. . Hedds: (b) Material T.S. . Hedds: (b) Material T.S. . Hedds: (c) Material T.S. . Hedds: (c) Material T.S. . Hedds: (c) Material T.S. . Jacket Closure: (Meenda Spec No, T& Bas Number) . Jacket Closure: (Meenda Spec No, T& Bas Number) . Tobe Sheetz: Stationary, Material Other fastening . Tobe Sheetz: Stationary, Material <th>•</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>FORM N</th> <th>-2 (bac</th> <th>t)</th> <th></th> <th>•</th>	•						FORM N	-2 (bac	t)		•
. Shall: HistorialT.SThicknessin. Allowanceft. Disftft. Lengthft [most Same, Na (MM, March Same)R.TR.TR.J	Items 4	4-8 Ir	ncl. to be	completer	for sir	ngle wall v	essels, jac	kets vessels,	or shells of hea	t exchangers.	
Sense: Long H.T. ¹ R.T. Efficiency * Girth H.T. R.T. N.S. of Courses * Leasting (10) Naterial T.S. (b) Raterial T.S. Leasting (10) Thickness Radues Radius Ratio Apex Angle Kallus Editor T.S. Lossing (10) Thickness Radues Ratios Ratios Ratios Apex Angle Kallus Editor T.S. J. Jacket Closure: (Manuk, Spac, Ns, T.S. Staw Number) (Debetwe stach mach) (Debetwe stach mach) Lossing pressure ² 1250 psi at 575 F et temp of	. She	=11:	Material (King	T.	.S (Min. of Ran	_ Thicknes	s in.	Corrosion Allowance	_ in. Dia	ft in.	Length ft
Girth H.T. R.T. No. of Courses Hadds: (a) Material T.S. (b) Katerial T.S. Location (Top Crown Knuckle Elliptical Conial Hentspherical Flat Side to Press. a) Dittom. Ends Radius Radius Ratio Aps: Anjal Radius Dimerce (100% or cach west) a) Dittom. Ends Thickness Ratius Radius Ratio Other fastening (100% or cach west) a) Decket Closure: (Named) Spec. Na, TL Sim Numbel (100% or cach west) (Decker aregulated for tube sections Disc. Thickness in Attachment File Design pressure 1250 psi at	5. Sea	uns:	-			1	- <u>-</u>	R.	ſ	Effici	ency
Location (Top Doction (Top Doction (Top Doction (Top) Difference of the second						1		R.	r	No. of	Courses
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If removable, bolts used	Loc Bot	ation	Ends }	Thickness		Knuck le Radius					
. Jacket Closure: (Desche al oper and well bat, et. Thar give demonstrat, Eloitz, desche or catals) Drop Weightft-lb Design pressure	o) If	remov	able, bol	ts used _		·		Other fa	itening		
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Tube Sheets: Stationary. Material	. Des	ign p	ressure		1250	P	si at	575	Ftt	emp of	°F
Tubes: Ksterial 0.0. in. Thickness indexecopage. Number Type ems 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers. Shell: Material T.S. Nominal Corrosion in. Dis. ft. in. Length Shell: Material T.S. Minimal Corrosion in. Dis. ft. in. Length Seams: Long H.T. R.T. Efficiency Efficiency Girth H.T. R.T. No. of Courses Corrosion Hends: (a) Katerial T.S. (b) Katerial T.S. Side to Press. Location Thickness Radius Radius Ratio Apax Angle Radius Diameter (conv. or conc.) Top, batter, ends (c) Other Fastening Diameter (conv. or conc.) Channel F at temp of F If removable, bolts used (a) (b) (c) Other Fastening Concreation Safety Valve Outlets: Number Size Location New Methodes Noze (bid Coart Eastening Diameter Katenopereet Disponee (wid				· ·							
Tubes: Ksterial 0.0. in. Thickness indexecopage. Number Type ems 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers. Shell: Material T.S. Nominal Corrosion in. Dis. ft. in. Length Shell: Material T.S. Minimal Corrosion in. Dis. ft. in. Length Seams: Long H.T. R.T. Efficiency Efficiency Girth H.T. R.T. No. of Courses Corrosion Hends: (a) Katerial T.S. (b) Katerial T.S. Side to Press. Location Thickness Radius Radius Ratio Apax Angle Radius Diameter (conv. or conc.) Top, batter, ends (c) Other Fastening Diameter (conv. or conc.) Channel F at temp of F If removable, bolts used (a) (b) (c) Other Fastening Concreation Safety Valve Outlets: Number Size Location New Methodes Noze (bid Coart Eastening Diameter Katenopereet Disponee (wid	Tube	e She	ets: Stat	ionary.	Material	(Kind & S)ia. (Sutient to co	Thickness	in. A	ttachment
ems 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers. Shell: KaterialT.SThicknessin. Allowancein. Diaftin. LengthSIGNSIG			Floa	iting.	Material		[)ia	Thickness	in. A	ttachment
Shell: Material	Tube	es:	Katerial_		. <u></u>	0.D	in. Th	nickness	Inches of gage,	Kunber	Туре (Эс. ог U)
IONA & Seec. No.) (Min. of Renge Specified) Seams: Long H.T. R.T. Efficiency x Girth H.T. R.T. No. of Courses x Girth H.T. R.T. No. of Courses x Hends: (a) Material T.S. (b) Material T.S. Location Thickness Radius Radius Diameter Side to Press. Location Thickness Radius Radius Diameter (conv. or conc.) (Channel If removable, bolts used (a) (b) 2	ens li	1 - 14	4 incl. to	be compl	eted for	inner char	mbers of jac	keted vessels	, or channels of	heat exchange	ers.
Gittin		ms: !	(Kind Long	& Spec. No.) (Min. of Reng	e Specified } t H.T			•	Efficie	ancy
Hends: (a) Katerial T.S. (b) Katerial T.S. Location Thickness Radius Radius Radius Diameter Side to Press. Top, bottom, cnds		¢	Girth		. <u> </u>	н.т.'		R.T	•	No. of	Courses
Location Thickness Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)) Top, botton, ends	Hend	ds: ((a) Materi	al	<u></u>		T.S	(b)	Katerial	T.	s. <u>19</u>
If removable, bolts used (a)(b)(c)Other festening) Top,	botto		hickness		Knuckle Radius	Elliptica Ratio	l Concial Apex Angl	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
2) Chan If r	nne i remova	ble, bolt	s used (a)		(b)	(c)	0t	er festening		
2										Veight	
	Desi	ign pr	2 essure				osi at				0
Safety Valve Outlets: Number Size Location Nozzles: Purpose (Nist Outlet, Onin) Number Die. or Size Type Inspection Manholes, No. Size Location Inspection Manholes, No. Size Location Openings: Handholes, No. Size Location Supports: Skirt Skirt Location (Yes or No) (Number) (Number) Other Attached 1-X Postweid Hest-Treaded. Hors Alexing (Where & Hors)											
Nozzles: Purpose (niet. Number Diz. or Size Type Himstel How Admintel Inspection Manholes. No.	Safe	ty Va	lve Outlet	s: Numbe	r		Size	:	Locat	ien _	
Inspection Manholes, No											
Supports: Skirt Lugs Legs Other Attached (Yes or No) (Number) (Number) (Describe) (Where & How) 1-K Postweid Heal-Traked.			Outlet, Drain)	Num	bet	Dia, or Sins	يتروي م		si Tátarana	Listenal	View American
Supports: Skirt Lugs Legs Other Attached (Yes or No) (Number) (Number) (Describe) (Where & How) 1-K Postweid Heal-Traked.		_									
Supports: Skirt Lugs Legs Other Attached (Yes or No) (Number) (Humber) (Describe) (Where & How) 1-K Postweid Hest-Treased.			n Kanho la Kandho l Threade	es, No.		·	Size		Location		
(Yes or No.) (Number) (Number) (Number) (Where E Haw)	•	orts:									
	ວັນອອະ			(Yes or No)	,•	(Number)		(Humber)	(Describe)		(Where E How)
	Suppi										

	OB-004 6 OF 24 FORM N-2 NFT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASKE Code Rules, Section III, Div. I
1.	Kanufactured & Certified by : <u>General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)</u>
	<u>2117 Cestle Hayne Road. Wilmington, North Caroline 28401</u> (Neme and Address of RFT Certificate Bolder)
	(b) Hanufactured 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 : _0455 Nat'l Bd. NoN/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 <u>1974</u> , Addenda Date <u>W75</u> , Case No. <u>N207 7351-2</u> Class <u>1</u>
3.	REMARKS: <u>Standard part for use with Reactor. Hydrostatically tested at 1625 psi. min.</u> (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 15635274P001 SAT52 - F304 $3/6^{\circ}$ thick x 1 1/15' OD 2. Indicator Tube 15635313P001 SA312 - TP316 $3/4^{\circ}$ sch 40 - seamless pipe 0.113' well thickness 1.055' max. dia. 3. Plug 15541176P001 SAT52 - F304 $1/4^{\circ}$ thick x 0.812' OD 4. Flange 919D510P001 (7195474) SAT52 - F304 2.37° thick x 9 5/8' OD
	5. Ease 137C5311F001 SATE2 - F304 7/8" thick x 2.875" dia. 6. Ring Flange 11425122P002, P003 137C6151P001, P002 SATE2 - F304 1" thick x 5.0" OD x 1.75" ID 7. Cep Screw 1 1/C4516P002 SA183 - B5 6 ee. 1/2" dia. on 4 1/C" bolt chicke 8. Plug 17547861P001 SATE2 - F304 0.38" thick x 1.307" dia. 5. Nun 137C5534P001 Xin - 18 SAATS 1.30" thick x 2.62" dia.
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O'3-004 7 OF 24 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 (GENE & CM)
2117 Castle Hayne Road, Wilmington, North Caroline 26401
(b) Hanufactured for : <u>Brunswick</u> <u>Southport. North Carolina</u> 28451 (Name and Address of R Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : <u>0455</u> Nat'l Bd. No. <u>N/A</u>
(a) Constructed According to Drawing No: <u>793D228G012 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 1351-2 Class 1
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
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: 03/27/91 Signed <u>GE-NEBG-NF&CM-QA</u> (NFT Certificate Bolder) <u>VSC</u> QA <u>Bepresentive</u>)
Certificate of Authorization Expires: <u>6/15/93</u> Certification of Authorization No. : <u>NPT N - 1151</u>
Certification of Design for Appurtenance
Design information on file at GE Company, San Jose, California
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>
DC22A5254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018546</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 <u>North Caroling</u> and employed by <u>Department of Labor</u> of <u>State of North Caroling</u> have inspected the part of a pressure vessel described in this Partial Data Report on <u>State of North Caroling</u> have and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accord-nce with the ASKE 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.
3/27,1991 Aussile F. Werz NC 1231, Ohio Date Inspector's Signature Kational 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". (*7/*)
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• •	•	FORM N-2	(back)	• •
It	ens 4-8 Incl. to be completed for sir	gle well vessels, jeckets	s vescels, or shells of heat	exchangers.
4.	Shell: Katerial T.S. (Kind & Spec. No.) (Min. of Ren	_ Thickness in. Al	rrosion lowance in. Dia f	t in. Length ft in.
5.	Seams: Long	н.т.	R.T	EfficiencyX
	Girth	н.т.'	R.T	No. of Courses
6.	Heads: (a) Katerial	T.S	(b) Material	T.S
(a (b	Location (Top Crown Bottom, Ends) Thickness Radius)] If removable, bolts used	Azdius Ratio	Concial Hemispherical Apex Angle Radius 	Flat Side to Press. Diameter (conv. or conc.)
,		al, Spec. No., T.S. Size Number)		Describe or attach sketch)
	Jacket Closure:(D		Charp	y Impact ft-lb
	Design pressure1250	•	<u> </u>	πp ofF
	ems 9 and 10 to be completed for tube		Thistopp	in 644-01
	Tube Sheets: Stationary. Katerial Floating. Katerial	Dia.	Thickness	in. Attachment
10.	Tubes: Katerial	0.D in. Thick	Inters Intere or gage. 1	iumber Type(Bar. or U)
Ite	ems II - 14 incl. to be completed for	inner chambers of jacket	ed vessels, or channels of I	neat exchangers.
11.	Shell: Material T.S (Kind & Spec. No.) (Min. of Parg	_ Thickness in. All	••	
12.	Seams: Long	н.т.	R.T	Efficiency
	Girth	н.т.	R.T	No. of Courses in Cr
13.	Heads (a) Haterial	T.S	(b) Katerial	T.S. 105 00
(a)	Crown Location Thickness Radius Top,bottom,ends	Knuckle Elliptical Redius Ratio	Concial Hemispherical Apex Angle Radius	Flat Side to Press. Diameter (conv. or conc.)
(b)	Channel If removable, bolts used (a)	(b)(c)	Other festening	
	2		Drop W Charpy	(Describe of stach sketch) eightft-lb
14.	Design pressure	psi at	Fattem	p of F
Ite	ms below to be completed for all vess	els where applicable.		
15.	Safety Valve Outlets: Number	Size	Locati	on
16.	Kozzles Purpose (Inlet, Outlet, Druh) Number	Die. er 2150 T)70		Petrizonerrent Miniscial Harr Altraitus
	······································	·····		
17.	Inspection Kanholes, No. Openings: Kandholes, No. Threaded, No.	Size Size Size	Location	
18.			Uther Other	
	1 - I Postweid Hest-Treated, 2 - Liel other Internet of externet pressure with coinciden			

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F	ORM N-2 NPT CERTIFICATE HO As required by the Pr	LDERS'DATA REPOR	TFOR NUCLEAR F	ARTAND APPUR Section III,	TENANCES* Div. I
				·	
1. Ke:	nufactured & Certified by : <u>Ganer</u>	el Electric Company Nu	elear Fuel & Comp	onents Manufacturi	ina (GEN <u>F&CM</u>
	2117	Castie Havne Road, Wi (Name and Address of	Imington, North Ca NPT Certificate Ecli	<u>roline 25401</u> dez)	
(b)) Kanufactured for : <u>Brunswick</u>	Southport, North	Carolina 28461		
	•	d Address of N Certifics			ent)
	entification - Certificate Holder's) Constructed According to Drawing				79
	-	•		d by <u>contract</u>	<u></u>
) Description of Part Inspected: _			Coco No - N/207 1	·
) Applicable ASKE Code: Section I				
3. REI	HARKS: <u>Standard part for use with</u> (Brief description	A of service for which co	mponent was designe	d)	
	The Piston Tube Assembly o the two related Code Welds	onsists of the Cap Item	1, the Indicator Pip	e Item 2, and the F	ese liem 5, end
	Serial # and tester stamp is	an alternate method of i	marking.		Sheet 2 of 2
				· · · · · · · · · · · · · · · · · · ·	
	1. Cap 15539274P001			N	Den i
	SA1E2 - F304 3/8° thick x 1 1/16° OD			. / .	
					2
	2. Indicator Tube 15553313P001 SA312 - TP315	. ·		: 15	
	3/4° sch 40 - seamless pipe			1 1001	1 Start /
	0.113° wall thickness 1.055° mer. die.		1		بر المسلم
			Reector Vessel		
	3. Plug 159A1176P001		Thimble		Code I
	SA182 - F304				PS:P
	1/4" thick ± 0.512" OD				122
	4. Fiange \$1905102001 (7195474)		لـــــــــــــــــــــــــــــــــــــ		[] i
	SA162 - F304		-		
	3.37" thick x 9 5/6" OD	Ň			
	5. Base 137C5311P001 SA162 - F304	3			
	7/6" thick x 2.675" diz.		XIDseXIIIIIII		\$ <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>
		Cedo Nold PS0YP102			
	£. Ring Flange 114851222002, 2003	r svir lue			<i>£11111111</i>
	137C6151P001, P032 SA162 • F334				
	1" thick x 5.0" OD x 1.75" ID		5		
			5		
	7. Cep Screw 117C4515P002 SA153 - E5				
	5 ea. 1/2° diz. on 4 1/6° bolt circle		£	//////////////////////////////////////	
	-				
	8. Piug 175A7951P001		Code Mild		
	58,182 - F304 0.38° thick x 1.307° die.		PSOTFICE	╘ 📓 📓	
			Follog beføre i		` 9 ``
	8. Nut 13705834P001				-
	1.30° thick x 2.62° die.				•
		त हो हे, हे, ल	2011 A 77	27. EF	
	SATE2 - F334 0.35° thick x 1.337° cie. 9. Nut 13705834P091 XH - 19 S4479	ದರು ಕಂಡ	RCIIOG baforo e		9

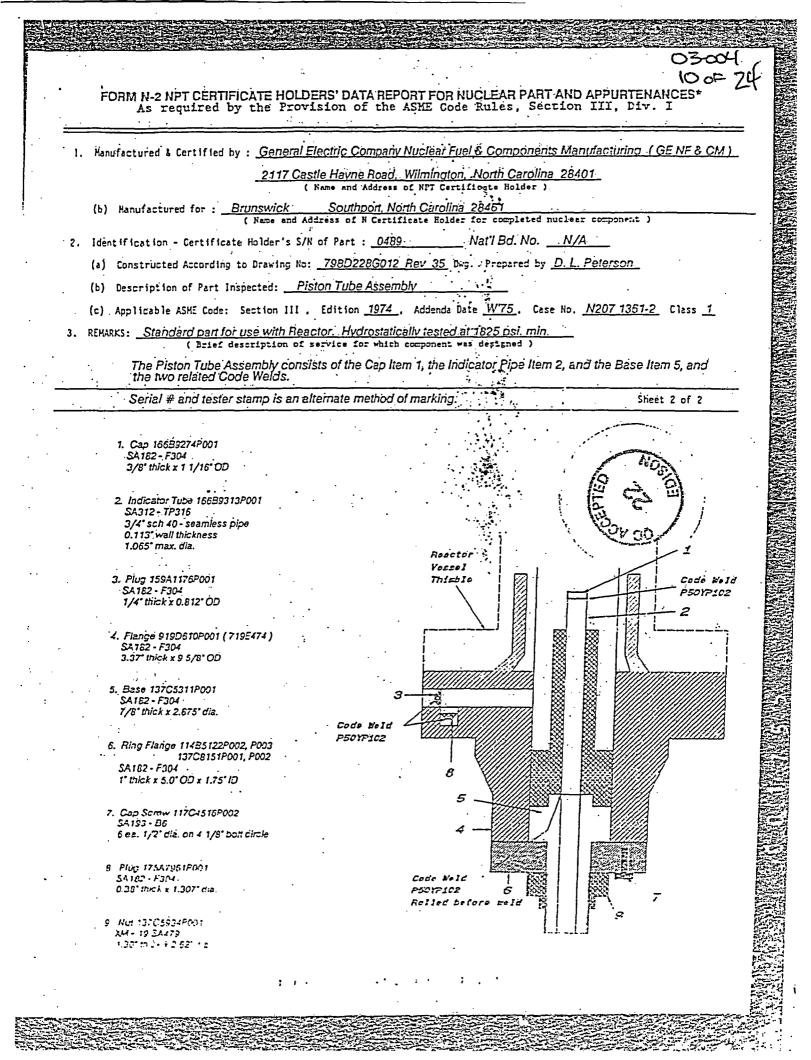
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03-04 900 FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I 1. Kanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 2117 Castle Havne Road, Wilmington, North Carolina 25401 (Neme and Address of NPT Certificate Holder) (b) Manufactured for : <u>Brunswick</u> Southport, North Carolina 28461 (Name and Address of N Certificate Holder for completed nuclear component) 2. Identification - Certificate Holder's S/N of Part : ____0489___ ___ Nat'l Bd. No. ___N/A (a) Constructed According to Drawing No: 799D228G012 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. REKARKS: 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 ASHE Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An KPT 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). Signed GE-NEBG-NF&CM-OA Date: 03/27/91 Bue (NPT Certificate Holder) SC OK Representive) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NFTN-1151 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 Heaberg_ Prof. Eng. State Calif. Reg. No. _15570 DC22A5254 Rev 1 Stress analysis report certified by Edward Yoshio. Prof. Eng. State Callf. Reg. No. MO18545 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 <u>North Carolina</u> and employed by <u>Department of Lebor</u> of <u>State of North Carolina</u> have inspected the part of a pressure vessel described in this Partial Data Report on <u>3//9</u>, <u>1997</u>, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in a cordance 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 lieble in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection. 3/27-99/ NC 1231, Ohio Date Inspector's Eignet Estional 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". 3 75.20 (\$7/54) 5. 1. 2. 1.1 1 6150

tems 4-8 Ir	nc'l. to be comp	leted for sing	le wall ve	ssels, jacket	s vessels, or	shells of heat	exchangers.	
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	(Kind & Spe	c. No.) (Min. of Range	t Specified)					ength ft
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					•			Courses
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Bottom.	Ends) Thick		Radius	Ratio	Apex Angle	Hemispherical Radius		Side to Press. { conv. or conc.
) If remay	vable, bolts us				Other faster	ing		
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tems 9 and	10 to be compl	eted for tube	sections					
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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASHE Code Rules, Section III, Div. I

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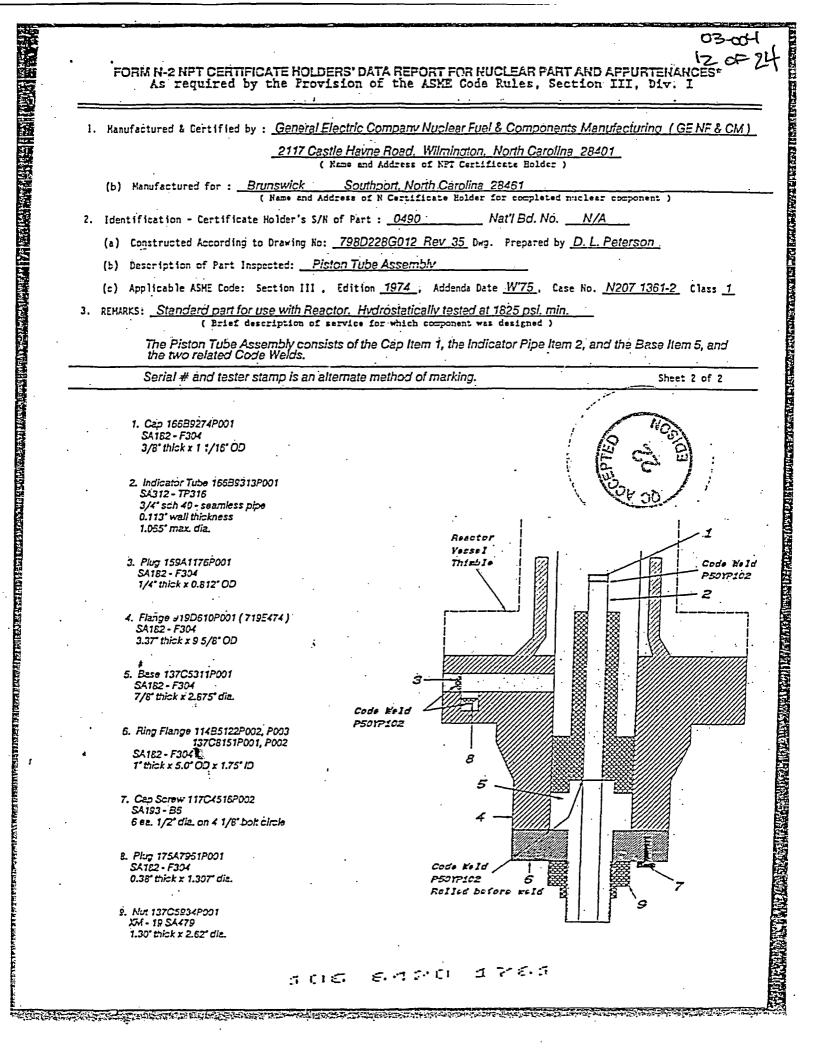
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1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
<u>2117 Castle Havne Road, Wilmington, North Caroline 28401</u> (Name and Address of NPT Certificate Holder)
(b) Hanufactured for : Brunswick Southport, North Caroling 28461 (Name and Address of N Certificate Bolder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : <u>0490</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 ASHE 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: <u>Standard part for use with Reactor. Hydrostatically tested at 1825 psl. 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 ASKE 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: 03/27/91 Signed <u>GE-NEBG-NF& CM-QA</u> By SC GK Representive)
Certificate of Authorization Expires: 6/16/93 Certification of Authorization Ho. : <u>NFT N - 1151</u>
Certification of Design for Appurtenance
Design information on file at GE Company, San Jose, California
Stress analysis report on file atGE Company, San Jose, Callfornia
DC22A6253 Rev. 1 Design specification certified by <u>Blorn Haabero</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>M018546</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 <u>North Carolina</u> and employed by <u>Department of Labor</u> of <u>State of North Carolina</u> have inspected the part of a pressure vessel described in this Partial Gata Report on <u>3/2/</u> , <u>//9/</u> , 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.
3/27 1991 Aume PEwere NC 1231, Ohio
Date // Inspector's Signature National 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 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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FORM N-2 NFT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENAN As required by the Provision of the ASHE Code Rules, Section III, Div. I 1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF& CM 2117 Cestle Havne Road, Wilmington, North Caroline 26401 ( Kame and Address of MPT Certificate Holder ) (b) Manufactured for : Brunswick Southport, North Carolina 28461 ( Name and Address of N Certificate Bolder for completed nuclear component ) Identification - Certificate Holder's S/N of Part : 0505 ____ Nat'l Bd. No. ___N/A __ (a) Constructed According to Drawing Ho: 7980228G012: Rev 35 Dwg. Prepared by D.L. Peterson (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 1625 psi. min. ( Brisf 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: 05/28/91 Signed <u>GE-NEBG-NF& CM-OA</u> · ( NPT Certificate Holder ) PA Representive ) 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 ___ GE Company, San Jose, California DC22A6253 Rev. 1 Design specification certified by ______Blorn Haaberg_ Prof. Eng. State Calif. Reg. No. ______15570 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 <u>North Carolina</u> and employed by <u>Department of Labor</u> of <u>State of North Carolina</u> have inspected the part of a pressure vessel described in this Partial Data Report on <u>State of North Carolina</u>, <u>2997</u>, and state that to the best of my knowledge and belief, the KPT Certificate Holder has constructed this part in accordance with the ASKE 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. P. E. 1. li 2. inis: <u>NC 1231, Ohio</u> 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". 'this Data ( E7/ee ) 3 CIE ENDO DADE 

24	FORM N-2 ( back )
3	Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers,
	4. Shall: KaterialT.SThicknessin. Allowancein. Diaftin. Lengthft
	5. Sezms: Long H.T R.T Efficiency
	Girth H.T R.T No. of Courses
	6. Heads: (a) Material T.S: (b) Material T.S
:	Location ( Top Crown Knuckle Elliptical Concial Hemispherical Flat Side to Press Bottom, Ends') Thickness Radius Radius Ratio Apex Angle Radius Diameter ( conv. or co (a)
	(b)
•	(Meterial, Spec. No., T.S. Bize Number) (Describe of attach sketch )
	(Describe as opee and weld, bar, stc. If bar give dimensions, if bots, describe or sketch ) Drop. Ve i ght
	Charpy Impact
•	B. Design pressure 1250 psi atF at temp of
	Items 9 and 10 to be completed for tube sections
<u>.</u> .	9. Tube Sheets: Stationary, Katerial Dia Thickness in. Attachment (Weide Spec. No.) (Subject to pressure ). (Weide
	(Mod& Spec. No.) (Subject to pressure). (Welde Floating. Material Dia Thickness in. Attaciment
	10. Tubes: Material 0.D in. Thickness Inches or page. Number Type
	۵۵) ۲۰۰۰
	Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.
	Nomina] Corresion 1. Shell: MaterialT.SThicknessin. Allowancein. Diaftin. LengthTt (Kind & Spec. No.) (Min. of Benge Specified) 1
1	2. Seams: Long H.T R.T Efficiency O
•	Girth H.T R.T R.T Ko. of Courses
. 13	3. Heads: (a) Haterial T.S (b) Haterial T.S.
{	Crown Knuckle Elliptical Concial Hemispherical Flat Side to Press. Location Thickness Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc. a) Top.bottom.ends b) Channel
	If removable, bolts used (a) (b) (c) Other fastening
•	(Describe or attach sketch) Drop Weight
•	Charpy Impact ft-
	. Design pressure F at temp of F
 	tems below to be completed for all vessels where applicable.
<u>I1</u> 15.	. Safety Valve Outlets: Number Size Location
<u>I1</u> 15.	
<u>I1</u> 15.	Safety Valve Outlets: Number       Size       Location         Nozzles: Purpose (block,
11 15. 16.	Safety Valve Outlets: Number       Size       Location         Kozzles: Purpose (Net, Outlet, Ortin)       Number       Dia or Size       Type         Inspection       Kanholes, No.       Size       Location
11 15. 16.	Safety Valve Outlets: Number       Size       Location         Kozzles: Purpose (Inket, Outlet, Druin)       Reinforcement Number       Dia, or Size       Type
<u>11</u> 15. 16.	Safety Valve Outlets: Number       Size       Location         Kozzles: Purpose (Net, Outlet, Orthn)       Number       Dia or Size       Type         Inspection       Kanholes, No.       Size       Location
11 15. 16. 17.	Safety Valve Outlets: Number       Size       Location         Nozzles: Purpose (Inlet, Outlet, Druin)       Number       Dictor Size       Type         Inspection       Kanholes, No.       Size       Location         Openings:       Handholes, No.       Size       Location
11 15. 16. 17.	Safety Valve Outlets: Number       Size       Location         Kozzles: Purpose (het, Outlet, Druh)       Number       Dia or Size       Type         Inspection       Konboles, No.       Size       Location         Openings:       Handholes, No.       Size       Location         Supports:       Skirt       Lugs       Logs       Other

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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES As required by the Provision of the ASEE Code Rules, Section III. Div. I 1. Kenufactured & 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 Certificate Holder ) -(b) Hanufactured 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 : ______ 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 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 Walds. Serial # and tester stamp is an alternate method of marking. Sheet 2 of 2 -1. Cap 16539274P001 SA162 - F304 . 3/6" thick x 1 1/16" OD 2. Indicator Tube 15589313P001 S4312 - TP315 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.055° mźx. dia. Reector Verrel 3. Plug 159A1176P001 Thissie -Code Keld SA1E2 - F304 P5017102 1/4" thick x 0.812" OĎ 2 4. Flange 919D510P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD 5. Base 137C5311P001 SA152 . F304 ... 7/8" thick x 2.875" dia. Code Meld P507P102 5. Ring Flange 11485122P002. P003 137C8151P001, P002 SÅ1E2 - F304 1" thick x 5.0" OD x 1.75" ID : 7. Cap Screw 117C4515P002 SA193-55 6 62. 1/2" die. on 4 1/6" bolt circle E. Plug 175Å7951P001 SA1E2 - F304 Code Weld 0.35" thick x 1.307" dia." P531P102 6 Relled before reld g. Nut 137C5934P001 XM - 19 SA479 1.30" thick x 2.62" die. ದರ್ಶ. ಕೆ.ಮರ್ಣ 5 4 V C 

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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENA As required by the Provision of the ASHE Code Rules, Section III, Div. I 1. Hanufactured & Certified by : Géneral Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 2117 Castle Havne Road, Wilmington, North Carolina 28401 ( Name and Address of NFT Certificate Holder ) Southport, North Carolina 28461 (b) Hanufactured for : Brunswick ( Name and Address of N Certificate Holder for completed nuclear component ) ___ Nat'l Bd. No. __<u>N/A</u> 2. Identification - Certificate Holder's S/K of Part : _____0650___ (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D.L. Peterson (b) Description of Part Inspected: <u>Piston Tube Assembly</u> (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 ) 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 : 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: <u>12/18/91</u> Signed GE - NEBG - NF & CM - OA ( NFT Cestificate Holder ) resentive Certificate of Authorization Expires: 6/16/93 Certification of Authorization fio. : NPT N - 1151 Certification of Design for Appurtenance Design information on file at _____ GE Company, San Jose, California Stress analysis report on file at ____<u>GE Company. San Jose</u>. California DC22A6253 Re . 1 Design specification certified by _______Bjorn Haaberg_ Prof. Eng. State _______ Reg. No. _______15570____ 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 1. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of <u>North Carolina</u> and employed by <u>Department of Labor</u> of <u>State of North Carolina</u> have inspected the part of a pressure vessel described in this Partial Data Report on 1.2/05 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. 12/18.1991 Acome PEwere <u> NC 1231, Ohio, WC 3686 PA</u> National Board, State, Province And No. 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". 167/901 1 CIE. E.4.20  $\ge \square \boxtimes \mathbb{Z}$ 

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lte	ems 4-8 incl. to be	e completed for	r Single wall :				t exchangers.	
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	(Kind	nd & Spec. No. ) ( Min. )	of Range Specified )					
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5.	Heads: (a) Mater							
(a) (b)				Elliptical Ratio	Apex Angle	·	Flat Diameter	
(2)	If removable, bolt		Asienal, Spec. No., T.S	S Site Number	Other faste	ning	Describe of attach #4	eich 1
7.	Jacket Closure:	· · · · · · · · · · · · · · · · · · ·		- <u></u>	bar nive dimensions,	f boftz, describe or skel	<u> </u>	
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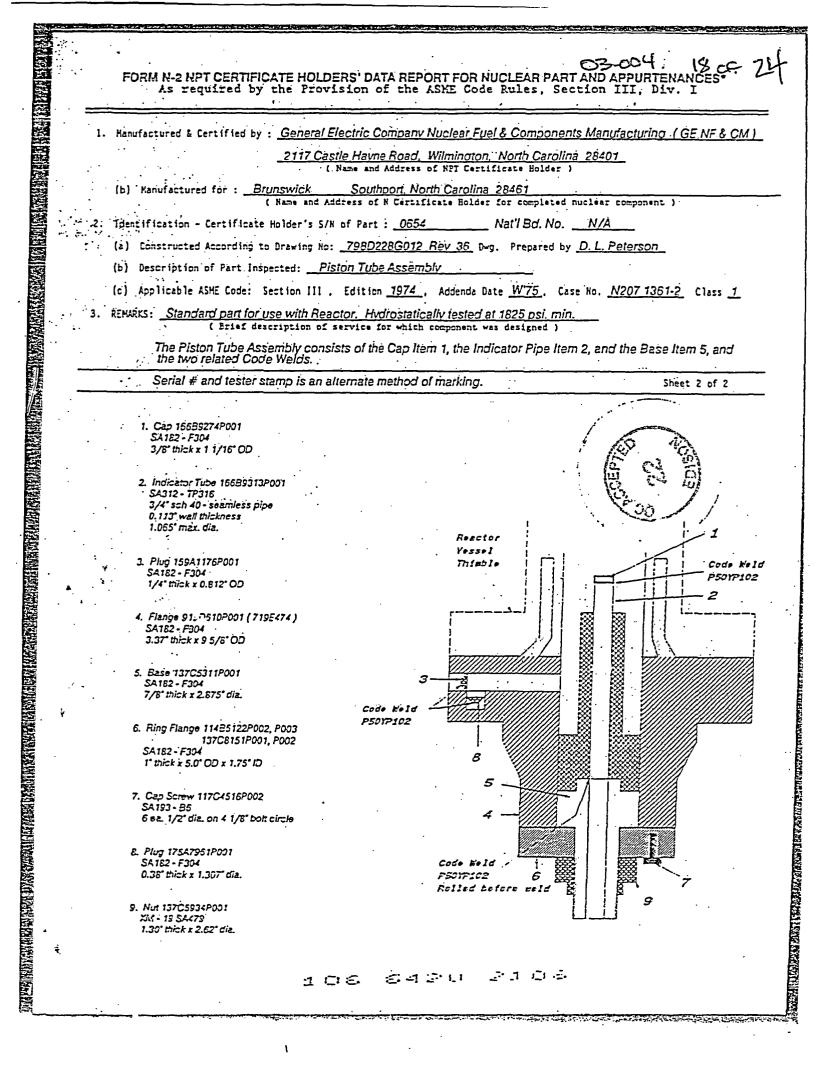
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16 of 74 FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES' As required by the Provision of the ASKE Code Rules; Section III; Div. I 1. Kanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM) 2117 Castle Havne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder ) (b) Kenufectured for : Brunswick Southport, North Carolina 28461 ( Name and Address of N Certificate Holder for completed nuclear component ) _ Nat'l Bd. No. _ 2. Identification - Certificate Holder's S/N of Part : _0550 - 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: <u>Piston Tube Assembly</u> (c) Applicable ASME Code: Section III. Edition <u>1974</u>, Addenda Date <u>W75</u>, Case No. <u>N207 1361-2</u> Class <u>1</u> 3. REHARKS: 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 16639274P001 SA182 - F304 . 3/8" thick x 1 1/16" OD .2. Indicator Tube 15589313P001 SA312 . TP316 3/4" sch 40 - seamless pipe 0.113' wall thickness 1.055° mex. dia. Reactor Vessel 3. Plug 159Å1176P001 Thimble Code Neld SA1E2 - F304 P50179102 1/4" thick x 0.812" OD 2 4, Flar.ne 919D610P001 (719E474) SA162 - F304 . 3.37" thick x 9 5/8" OD 5: Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia. Code Keld P50YP102 6. Ring Flange 11425122P002, P003 137C8151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID 7. Cap Screw 117C4516P002 SA193 - 86 6 ez. 1/2" dia. on 4 1/8" bolt circle 8. Plug 175A7951P001 SA182 - F304 Code Keld 0.38° thick x 1.307° diz. P5017102 6 Rolled before Reld 9. Not 137C5934P001 XM - 19 SA479 1.30" thick r 2.62" die. 1.05 8.9.20 2022

170FZ 03-004 FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANC 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 / GE NF & CM 2117 Castle Havne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder ) (b) . Kanufactured for : <u>Brunswick</u> Southport, North Carolina_28461 ( Name and Address of N Certificate Holder for completed nuclear component ) 2. Identification - Certificate Holder's S/N of Part : 0654 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> (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: _<u>Standard part for use with Reactor. Hydrostatically tested at 1825 psl. 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 appurtenences 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 ). Signed <u>GE-NEBG-NF & CM-OA</u> Date: <u>12/18/</u>91 " By ( NPT Certificate Holder ) . En 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 _____ GE Company, San Jose, California GE Company: San Jose, California Stress analysis report on file at DC22A6253 Rev. 1 Design specification certified by _______Bjorn Haaberg_ Prof. Eng. State ______ Reg. No. _______ 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 1, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the 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. me PEver <u>NC 1231, Ohio, WC 3586 PA -</u> National Board, State, Province And No. Date Inspector's Signature *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". 1 87/90 1 106 6420 2-1:7-7 

FORM N+2 ( back ) Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers. Kominal Corrosion Thickness _____ in. Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in. T.S. 4. Shell: Material [Kind & Spec. No. ) [Min. of Range Specified ] н.т. R.T. _____Efficiency _____X 5. Seams: Long _____ H.T. _____ R.T. ____ No. of Courses _____ Girth _____T.S. _______ (h) Katerial _______ T.S. _____ 6: Heads: (a) Material .____ Crown Knuckle Elliptical Concial Hemispherical Flat Location ( Too Side to Press. Bottom, Ends ) Thickness Radius Radius Ratio Apex Angle Radius Diameter ( conv. or conc. ) {<u>a</u>} 761 If removable, bolts used _ Other fastening Describe of attach saeich I . [Matenal, Spec, No., T.S. Size Number] 7. Jacket Closure: [Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch ] Drop Veight Charpy Impact Et-lb F · 1250 _____psi at _____ 575 at temp of 8. Design pressure Items 9 and 10 to be completed for tube sections 9. Tube Sheets: Stationary. Material ____ _ Dia. _ Thickness ____ in. Attachment _ [Kind & Spec. No. ] [Subject to pressure ] Dia. _____ Thickness _____ in. Attachment (Welded, Balled ) Floating. Haterial _ 10. Tubes: Material ______ 0.D. _____ in. Thickness ______ inches or gage. Number ______ Type _____ (Str. or U) Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers. Nominal Corrosion Nominal Corrosion Thickness in Allowance in Dia. ft. in Length 11. Shell: Material T.S. (Kind & Spec, No.) (Min. of Range Specified) _____R.T. ____Efficiency 12: Seams: Long ____ Girth _____ H.T. _____ R.T. _____ No. of Courses ______ T.S. ____ (b) Material 13; Heads: (a) Material _____ T.S. • `a Knuckle Elliptical Concial Hemisph Radius Ratio Apex Angle Radius Crown Hemispherical Flat Side to Press. Location Thickness Radius Radius Diameter ( conv. or conc. ) (a) Top.bottom.ends ____ (b) Channel if removable, bolts used (a) (0) (=) Other fastening / Describe or attach seeich ) Drop Veicht ft-lb Charpy Impact F F at temp of ____ 14. Design pressure __psiat__ Items below to be completed for all vessels where applicable. 15. Safety Valve Outlets: Kumber ____ Size Location 16. Nozzles: Purpose (inlet, **Eninforment** Outlet, Dram J Due, or Size Time Material Thickness Number Material How Attached 17. Inspection Kanholes, No. ____ Location Size Openings: Handholes, No. Size Location Location Threaded, No. (number) Other ____ 18. Supports: Skirt_ _ Lugs _ __ Legs __ ____ Attached _ Yet or No I (Describe) (Where & Hoer) 1 - E Foeward Heet-Treased, 2 - List other memal or external pressure with coincide المراجع المراجع المراجع المستعن المستعر والتلج والم

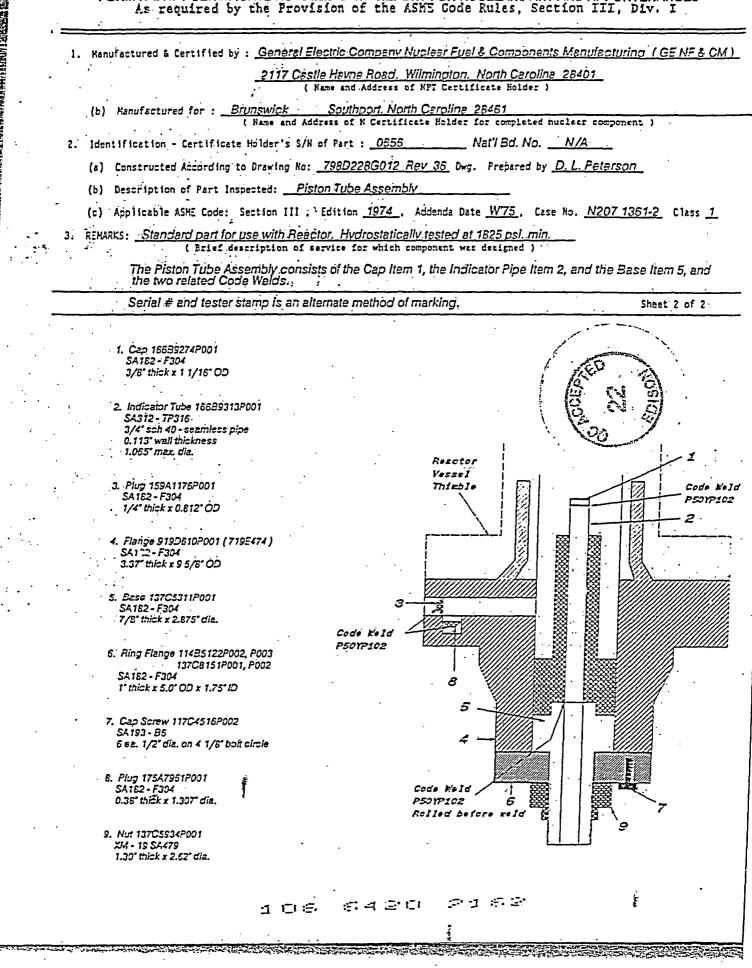


19 0P FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES As required by the Provision of the ASME Code Rules, Section III, Div. I 1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM). 2117 Castle Havne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder ) (b) Hanufactured for : Brunswick Southport, North Carolina 28461 ( Name and Address of N Certificate Holder for completed nuclear component ) Nat'l Bd. No. 2. Identification - Certificate Holder's S/N of Part : 0656 N/A (a) Constructed According to Drawing Ho: _798D228G012 Rev 36 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. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psl. min. . [ Erisf description of service for which component was designed ) CARGONICA PRODUCED AND DEDINING 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 111. ( 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: 12/18/91 Signed <u>GE - NEBG - NF & CM - OA</u> ( NPT Certifitate Holder ) Representive ) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N- 1151 Certification of Design for Appurtenance GE Company, San Jose, California Design information on file at ____ Stress analysis report on file at ____ GE Company, San Jose __ California DC22A6253 Rev. 1 Design specification certified by Biorn Haaberg Prof. Eng. State Calif. Reg. No. 15570 DC22A6254 Rev 1 Edward Yoshio Prof. Eng. State Calif. Stress analysis report certified by . • Certification of Shop Inspection I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State of Province of <u>North Carolina</u> and employed by <u>Department of Labor</u> of <u>State of North Carolina</u> have inspected the part of a pressure vessel described in this Partial Data Report on <u>IZ/I2</u>, <u>IZ/I2</u>, <u>IZ/I2</u>, <u>IZ/I2</u>. 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 111. 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. Quinne PEriere NC 1231, Ohio, WC 3586 PA National Board, State, Province And No. 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": { 87/H } 106 6420 8180 

4	. Shell: Mater	ia]			is in. /	Corrosion Allowance	in. Die f	t In. Le	ngth ft
5	- Seams: Long		<u>.</u>	н.т.		R.T.	<u></u>	Efficien	
	- Girth			н.т.'		R.T.	<u></u> .	No. of C	ourses
. 6.	Heads: (a) Ka	sterial			T.S	(b) ł	laterial	· T.S	•
(a	Location ( Top Bottom, Ends )			Knuckle Radius			Radius		Side to Press. ( conv. or conc.
{b -	lf removable.	bolts used	• <u></u>	·		Other faste	ning	. <u>ــــــــــــــــــــــــــــــــــــ</u>	
	Jacket Closure	•	Jidatan	al, Spec. No., T.S	I. Size Number ]		(1	Describe or attach ske	tch )
		, <u></u>	{D	escribe as ogee s	and weld, bar, etc. I	l bar give dimensions,		h) eight Impact	ft-
· 8.	-Design pressur	2	1250		i at	<u>575</u> ·	Fattem	p of	°F
	ems 9 and 10 to 1				<u> </u>			,	
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·	Tubes: Materia	1] <u></u>		° D.D	in. This	kness	inches or gage. Nu	mber	Type(Str. or
1+0	ms 11 - 14 incl.	to he compl	eted for	inner chamb	bers of jacke	ted vessels, o	r channels of he	at exchangers	•
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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES As required by the Provision of the ASE Code Rules. Section III. Div. I



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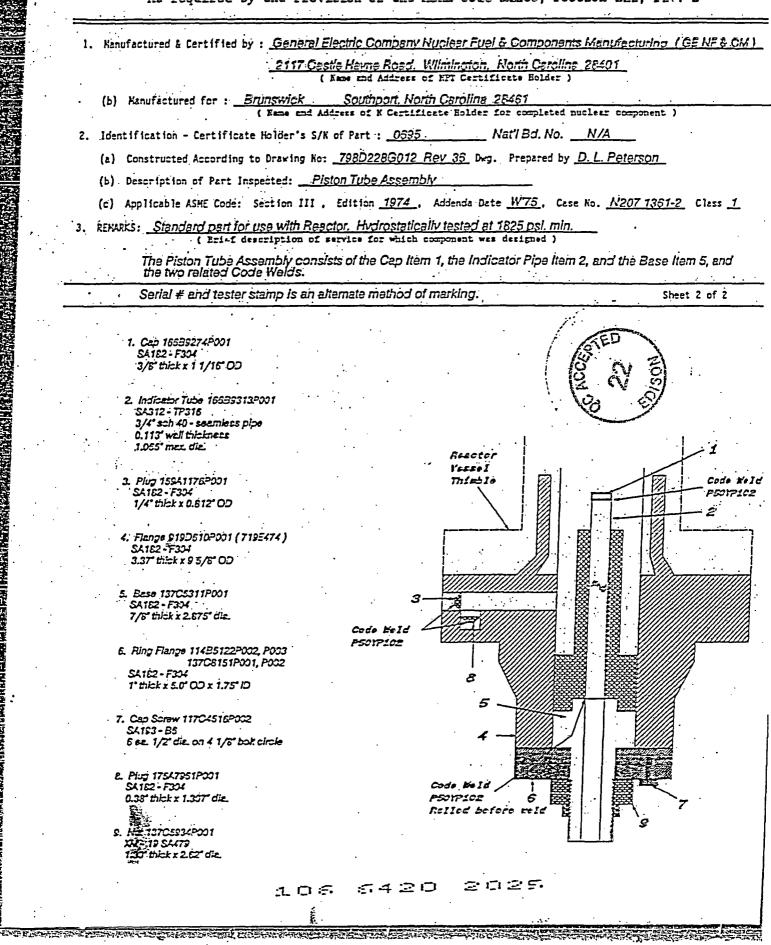
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Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 2117 Castle Havne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder ) Southport. North Carolina 28461 (b) Manufactured for : Brunswick ( Name and Address of N Certificate Holder for completed nuclear component ) Identification - Certificate Holder's S/N of Part : ** 0595 Nať I Bd. No. / N/A (a) Constructed According to Drawing Ho: _798D228G012_Rev_36_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 Ho. N207 1351-2 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 ) 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 ASNE Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the KPT Certificate Holder for parts. An MPT 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 🖉 ( KFT Certificate Holder ) ( SC OF Representive .) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN-1151 Certification of Design for Appurtenance GE Company ._ San Joss ._ California Design information on file at _ Stress analysis report on file at _____ GE Company, San Jose, California DC22A5253 Rev. 1 DC22A5254 Rev 1 Stress analysis report certified by _Edward Yoshio_ Prof. Eng. State Calif. Reg. No. _MO18646 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 <u>North Caroling</u> and employed by <u>Department of Labor</u> of <u>State of North Caroling</u> have inspected the part of a pressure vessel described in this Partial Data Report on <u>(1)</u> 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." Jume NC 1231, Ohio, WC 3585 PA مصعفيدتم لل 17_,1992 Retional Board, State, Province And No. Inspector's Signature med a *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". (07/62) 108 8420 アロシュ 

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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR FART AND APPURTENANCES* At required by the Provision of the ASKE Gode Bules, Section III, Div. I



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CETERATE OF DEPOSITIEN

 Poge 2 of 2 FORM MENTE CERTIFICATE HOLDIESE DATA LEPORT FOR MUCLEAR PART AND AFFURTENANCESO As requires by the Provision of the ASHE Cude Rules. Section 111. Dev. 1

L. (c) Kundernerd by General Electric Company, Castle Esyme Rd., Wilmington, N.C.

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(+). Description of Par Lapported Piscon Tube Assembly

(c) Applicable ATECCeler Service 21, Editors 1377 . Addeede Lere NOIC . Case No. _____ Clare 1 2. Romannie Standard part for use with Reactor. Eydrostatically tested at 1920 psi End to require a current or the content of the current of the content of the current of the curren

* Number of sheets - 2

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 SA182-FJ04 3/5 thick x 1 1/16 OD
 Indicator Tube 1045(3)6P1

SAJI2-TRJ16 J/4 sch 60-uesmless pipe 0.113 vell thickness F1065 siz. uls.

3. FIUE 139A1126P1 SA182-F304 1/4 thick ± 02012 OD

4. 71 Ange 310061081 (71)2474; 54192-5304 3.37 chick - 9 5/8 00 heck 1.1.0 chick = 5.0 00 2.335 10

2003 129535771 28102-7305 2/8 19104 - 2.575 116.

6. Alog Flange 11455122P2 SA182-F304 1" thick g 9.0 00 a 1.75 13

7. Cap Scree 117C4516P3 SA193-56 6 co.3/2. Sta. on 4 1/A butt cliente

Code Vele PEGYP11 teactor versel thelie Lude or hi 194.81.2 izelo neld PERTY 7 istic hefore walk

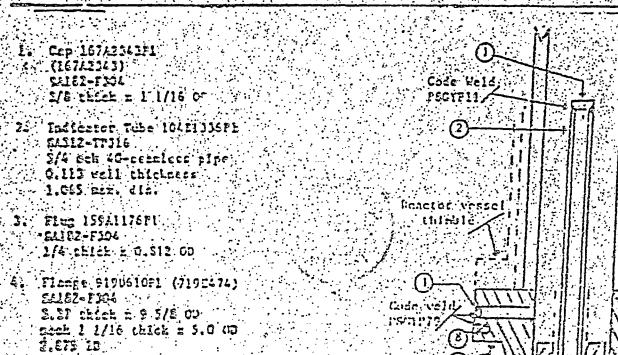
DZ-OH Page 2 of 2 Provide Pair and Appendences

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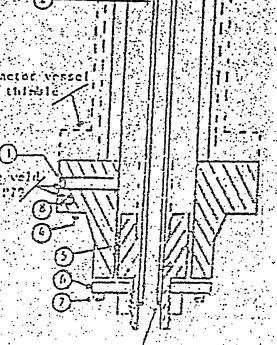
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# 03-027

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

	· ·	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·		<u></u>	
1.	Owner Detroit E	dison Company		Date			May 14, 2004	
		• Name						
	6400 North Dixie	Highway, Newport M	ll 48166	Shee	et	10	f 2	
		Address	• .					
2.	Plant Fermi 2 Nucl	ear Power Plant		Unit			2	
		Name						
	6400 North Divia I	Highway, Newport M	48165			Deco Ma	intenance	
		Address		·	Repair C		P.O. No., Job No., etc.	
		, agained a		Type	Code Symbol	· g		
З.	Work Performed by	Detroit Edison Con	npany	Stam	•		N/A	
	•	Name	······		- prization No.			<u> </u>
			•				N/A	
		•		Expir	ation Date			<u> </u>
	6400 North Dixie H	Highway, Newport, N	11 48166		-		<u>N/A</u>	
		Address						
4.	Identification							
	of System	(I & B No-06	, Emergency Diesel G	enerator 12	Fuel Oil Systen	ı)		
5.	(a) Applicable Cons	truction Code ASI	ME 111,		Winter			
э.	(a) Applicable Dolla		ss 3 19	71 Edition		Addenda,	N/A	Code Case
			· •		·	·	. ·	
-		on/Addenda of Section	XI Utilized for Repairs o					
	Replacements	•			92-92 Addenda	·		
~	Identification of Democra	ata Danairad as Dania	and and Daplacement C					
6.	Identification of Compone	ents Repaired of Repla	ceo ano neplacement o	omponents				
<b></b>			<u></u>		1	1	1	1
	Name of	Name of	Manufacturer Serial	National	Other	Year	Repaired,	ASME
ĺ	Component	Manufacturer	No.	Board	Identification	Built	Replaced,	Code
			· · · ·	No.			or Replacement	Stamped
	•							(Yes
	R3000F083C	Rockwell	MA-157	N/A	V14-2037	1974	Replaced	or No) Y
	1300010030	Edwards	WIA-107	ועה	V14-2007	1514	nepiaceu	
	R3000F083C	FlowServe	65AXL	N/A	V30-1492	2003	Replacement	Y
		Corp.						
-	· · · · · · · · · · · · · · · · · · ·	· ·						· ·
					<u> </u>		·	
7.	Description	Install replacement	valve and 1-1/2" pipe	in system.	· · · · · · · · · · · · · · · · · · ·	·		
	of Work							
	Tanta One duale de		Decementie 13					
8.	Tests Conducted:	Hydrostatic []			ting Pressure [X	l		
		Other [] Pressure	e ps	i 18	st Temp ⁰ 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.

(10/94)

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#### 9. Remarks <u>The replacement valve was procured per PC# 385682 (Report Attached). The replacement 1-1/2" pipe was</u> procurred per PO #385819. Schedule 80, SA-106. Grade B. Ht Code 2M33358.

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE OF C	OMPLIANCE		
We certify that the statements made in the	report are correct and this <u>Re</u>	placement conforms to	the rules of theASM	E Code, Section XI
Type Code Symbol Stamp Original Code I	Data reports to be supplemente	ed by Owners Section XI F	Program #03-027	
Certificate of Authorization No	N/A	Expiration Date	N/A	
SignedR.M. Hambleton, Lead ISI E	ingineer Butter Ut	ANT Date	MARY 14	04
Owner or Owner's Designee, Title				

biler and Pressure Vessel Inspectors and the State or reet. Hartford, CT 06102 have inspected the $5-24-04$ , and state that to the best of my re measures described in this Owner's Report in nuty, expressed or implied, concerning the examinations the Inspector nor his employer shall be liable in any proceeded of the base of the state.
he Inspector nor his employer shall be liable in any
or connected with this inspection.
MITCO10
onal Board, State, Province, and Endorsements

(10/94)

. For complete work package, see Work Requests 000Z032283

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	03-027	Z
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Manufactured by	FLOWSER	E CORPORATIO	N. 1900 S. Szunder	s St. Ralei	gh. NC 2760	3
Manufactured for	<u>EENERGY, DET</u>	ROIT MICHIGAN	48226			
Location of Installation I	DETROIT EDISC	N. FERMI, NEWP	ss of Purchaser or Owner) ORT MI. 48166 and Address)			
Pump or Valve	Valve	Nominal Inle	•	Outlet	Size	1.5"
· (a) Model No.	(b) N Certificate	(c) Canadian	ניבחון			(inch)
· Series No.	Holder's	Registration	(d) Drawing		(f) Nat'L	(g) Ye
or Type	Serial No.	No.	No.	(e) Class	Bd. No.	Built
(1) A838YT3	62AXLJ	N/A	03-24990-01/0	3	N/A	200
(2)	63AXL J					
				·		
(3)	64AXL J	·			·······	
(4)	65AXL J	·			·	
(5)	66AXL J		•			
(6) A838YT3	67AXLJ	N/A	03-24990-01/0	3	N/A .	2003
(7)				·	•	
(8)	<u>.                                    </u>				·	
(9)				·····		·
			-	•		•
10) 1.5" CHECK VALVE	lal meet asn		te for which equipment was design 7 ADD.	ned)		)
10) 1.5" CHECK VALVE DY & COVER MATER Design Conditions	940 P	1E III, 1977ED., S'7	7 ADD. °F or Valve Press		24990 600	)(1)
10) 1.5" CHECK VALVE DY & COVER MATER Design Conditions	940 pr Pressure) 1440	1E III, 1977ED., S'7	7 ADD. °F or Valve Press			
10) 1.5" CHECK VALVE DY & COVER MATER Design Conditions Cold Working Pressure	940 P: Pressure) 1440	1E III, 1977ED., 5*7	7 ADD. °F or Valve Press	ure Class		
10) 1.5" CHECK VALVE DY & COVER MATER Design Conditions Cold Working Pressure Pressure Retaining Pieces	940 P: Pressure) 1440	1E III, 1977ED., S ^{*7} si <u>700</u> psi at 100 °F.	F or Valve Press	ure Class	600	(1)
10) 1.5" CHECK VALVE DY & COVER MATER Design Conditions Cold Working Pressure Pressure Retaining Pieces Mark No.	940 P: Pressure) 1440	1E III, 1977ED., S*7         si       700         [Temperature]         psi at 100 °F.         aterial Spec. No.	F or Valve Press	ure Class	600	
10) 1.5" CHECK VALVE DY & COVER MATER Design Conditions Cold Working Pressure Pressure Retaining Pieces Mark No.	940 P: Pressure) 1440	1E III, 1977ED., S*7         si       700         [Temperature]         psi at 100 °F.         aterial Spec. No.	F or Valve Press	ure Class	600	
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(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 lop of this form.

FORM NPV-1 (Back)

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Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Q314 J	SA193 GR B7	MACKSON	FLGD HEX HD SCREW
			<u> </u>
			<u> </u>
•			
(d) Other Parts			
			·
·			
Hydrostatic test 2175 P	osi. Disk Differentiat test pressu	ire 1440 psi.	• •
			•• •
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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		Date			6-29-2004	
	6400 North Dixie	Name Highway, Newport MI	48166	Shee	t	1 0	1	
2.	Plant Fermi 2 Nu	Address clear Power Plant	•••••	Unit			2	
	6400 North Dixie	Name Highway, Newport MI	48166		<u></u>			
					•		intenance	
		Address			Repair Or	ganization P	.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Com	pany	Type Stam	Code Symbol		N/A	
	6400 North Divie	Name Highway, Newport, M	48166		rization No.		N/A N/A	
		Address		. <b>ב</b> אףויי	-	<u> </u>		
4.	Identification of System		Emergency Diesel Ge	enerator # 1	1			
5 <b>.</b>	(a) Applicable Con	Clas	AE III, is 3 19 7 KI Utilized for Repairs of	 r	/	Addenda	<u>N/A</u> (	Code Case
-	<ul> <li>(a) Applicable Cor</li> <li>(b) Applicable Edi</li> <li>Replacements</li> </ul>	Clas	IS 3 19 7 I Utilized for Repairs of	r 19		Addenda	<u>. N/A</u> (	Code Case
5.	<ul> <li>(a) Applicable Cor</li> <li>(b) Applicable Edi</li> <li>Replacements</li> </ul>	_Clas tion/Addenda of Section )	IS 3 19 7 I Utilized for Repairs of	r 19		Addenda Year Built	N/A Repaired, Replaced, or Replacement	ASME Code
-	(a) Applicable Con (b) Applicable Edi Replacements Identification of Compo	Clas tion/Addenda of Section ) nents Repaired or Replac Name of	IS 3 19 XI Utilized for Repairs of ced and Replacement C Manufacturer Serial	omponents National Board	292-92 Addenda Other	Year	Repaired, Replaced,	ASME Code Stampe (Yes
-	<ul> <li>(a) Applicable Con</li> <li>(b) Applicable Edi</li> <li>Replacements</li> <li>Identification of Compo</li> <li>Name of</li> <li>Component</li> </ul>	Clas tion/Addenda of Section 3 nents Repaired or Replac Name of Manufacturer	IS 3 19 7 KI Utilized for Repairs of ced and Replacement C Manufacturer Serial No -	omponents National Board No.	092-92 Addenda Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stampe (Yes or No)
-	<ul> <li>(a) Applicable Con</li> <li>(b) Applicable Edi</li> <li>Replacements</li> <li>Identification of Compo</li> <li>Name of</li> <li>Component</li> </ul>	Clas tion/Addenda of Section 3 nents Repaired or Replac Name of Manufacturer	IS 3 19 7 KI Utilized for Repairs of ced and Replacement C Manufacturer Serial No -	omponents National Board No.	092-92 Addenda Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stampe (Yes or No)

Description

7. of Work

Install replacement cover studs and selected nuts as not all originally supplied studs provided for full thread engagement.

8. Tests Conducted:

Hydrostatic [] Pneumatic [] Other [] Pressure

 Nominal Operating Pressure [X]

 psi
 Test 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: 18 replacement studs (5/8"x5") were cut from all thread procured per PO# 955769, SA193 Grade B7, Heat Code # C232. 18 replacement studs (5/8"x5") were cut from all thread procured per PO# 892856, SA193 Grade B7, Heat Code # H480. 12 replacement nuts were installed that were procured per PO# 897889, SA-194 Grade 2H, Heat Codes M489.

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE OF	COMPLIANCE			
We certify that the statements made in the re	eport are correct and this Re	eplacement conform	s to the rules	of the ASME C	ode, Section XI.
Type Code Symbol Stamp Original Code da	ta report N5-013 to be supp	plemented by Owner	rs Section XI F	Program 03-031	l
Certificate of Authorization No	N/At	Expiration I	Date	N/A	
Signed R.M. Hambleton Lead ISI End	gineer RUHA	Date	JUN	E 29	_2004

CERTIFICATE OF INSERVICE 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 <u>Michigan</u> and employed by HSB <u>CT of</u> One <u>State Street</u> , <u>Hartford</u> , <u>CT 06102</u> have inspected the components described in this Owner's Report during the period $\frac{05-28-03}{20}$ to $\frac{07-08-04}{20}$ , 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
Date July 8 2004

For complete work package, see Work Request 000Z030996

#### 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		Date	e	<u> </u>	ugust 14,, 2003	
6400 North Div	Name ie Highway, Newport N	AL 48166	She	et	1.	of 1	
	Address	1 40100	one	<u></u>		· ·	
2. Plant · Fermi 2 N	uclear Power Plant		Unit			2	
	Name						
6400 North Dix	ie Highway, Newport N	1 48166					
			·			aintenance	
• West Destanded	Address	· · ·	<b>.</b>		irganization (	P.O. No., Job No., etc.	
3. Work Performed by	Work Performed by Detroit Edison Company			e Code Symbol		N/A	
	Name			orization No.		N/A	
6400 North Dixi	e Highway, Newport, N	11 48166	Expir	ration Date		N/A	
	Address			-		··· ·	
4. Identification	<u>N5-015 (T&amp;B)</u>	Emergency Diesel G	<u>Generator #1</u>	3			
of System	- <u></u>	•		<u></u>			
	Cla		71 Edition		Addenda	<u>N/A</u>	Code Case
(b) Applicable Ed Replacements	Cla ition/Addenda of Section	ss 3 19 XI Utilized for Repairs o	<u>r</u> 1	992+92 Addenda	Addenda	<u></u>	Code Case
(b) Applicable Ed Replacements	Cla ition/Addenda of Section	ss 3 19 XI Utilized for Repairs o	<u>r</u> 1		Addenda 	<u></u>	Code Case
(b) Applicable Ed Replacements	Cla ition/Addenda of Section	ss 3 19 XI Utilized for Repairs o	<u>r</u> 1		Addenda Year Built	N/A Repaired, Replaced, or Replacement	ASME Code Stamped (Yes
(b) Applicable Ed Replacements 5. Identification of Compo Name of	Cla ition/Addenda of Section s onents Repaired or Repla Name of	ss 3 19 XI Utilized for Repairs o ced and Replacement C Manufacturer Serial	or1 Components National Board	992+92 Addenda Other	Year	Repaired, Replaced,	ASME Code Stamped
(b) Applicable Ed Replacements 5. Identification of Compo Name of Component	Cla ition/Addenda of Section onents Repaired or Repla Name of Manufacturer	ss 3 19 XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No	r Components National Board No.	992+92 Addenda Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
<ul> <li>(b) Applicable Ed Replacements</li> <li>6. Identification of Compo Name of Component</li> </ul>	Cla ition/Addenda of Section onents Repaired or Repla Name of Manufacturer	ss 3 19 XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No	r Components National Board No.	992+92 Addenda Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)

Description

7. of Work

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Install replacement cover studs and nuts as not all original studs provided for full thread engagement.

8. Tests Conducted:

Hydrostatic [] Pneumatic [] Other [] Pressure Nominal Operating Pressure [X] psi Test 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.

(10/94)

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Form NIS-2 (Back)

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 Remarks: Replacement studs (5/8" x 5") were cut from all thread procured per PO# 955769, SA 193 Grade B7, Heat # C232. 30 replacement nuts were procured per PO# 863302, SA194 Grade 2H, Heat #SAG and 34 replacement nuts procured per PO# 892857, SA194 Grade 2H, Heat # J269

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE	OF COMPLIANCE			
Ne certify that the statements made in the r	eport are correct and thi	s <u>Replacement</u> conforms	to the rules o	of the ASME C	Code, Section XI.
Type Code Symbol Stamp Original Code da	ata report N5-015 to be s	upplemented by Owners	Section XI P	rogram 03-03	2
Certificate of Authorization No	N/A	Expiration Da	ate	<u>N/A</u>	
Signed R.M. Hambleton Lead ISI End Owner or Owner's Designee, Title	gineer RMH	puls_Date	Augus	<u>14</u>	2003

#### **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 <u>Michigan</u> and employed by HSB<u>CT of One State Street</u>, <u>Hartford</u>, <u>CT 06102</u> have inspected the components described in this Owner's Report during the period 5 - 28 - 0 to 8 - 14 - 03, 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.

Commissions MZ 6/0 Inspector's Signature National Board, State D National Board, State, Province, and Endorsements Date 20 03

(10/94)

For complete work package, see Work Request 000Z030832

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

1.	Owner Detroit I	Edison Compan	y			Date		Au	igust 14, 2003	
		Name	·		-					
	6400 North Dixie	Highway, New	oort MI 48166	;		Sheet		1 of	ZIPS	
		Address			•				······································	
2.	Plant Fermi 2 Nuc	lear Power Pla	nt			Unit			2	
•		Name			•					
	6400 North Dixie	Highway, New	oort MI 48166	3						
				· ••				Deco Mai	intenance	
		Address	•				Repair	Organization P.	O. No., Job No., et	c.
3.	Work Performed by	Detroit Ediso	n Company			Type C Stamp	Code Symbol		N/A	
		Name				Authori	ization No.	<u></u>	N/A	
	6400 North Dixie	Highway, News	ort, MI 48166	i -		Expirat	ion Date	·	N/A	
	<u></u>	Address	•	· · ·		-		<u></u>		
4.	Identification of System	<u>N5-012</u>	T&B) Emerge	ncy Diesel	Genera	tor # 12				
5.	(a) Applicable Con	struction Code	ASME III, Class 3	19	71	Edition	71	Addenda	N/A	Code Case
	(b) Applicable Editi Replacements	on/Addenda of Se	ection XI Utilize	d for Repairs	or	_199	2-92 Addenda	- 		-
6.	Identification of Compon	ents Repaired or	Replaced and I	Replacement	t Compoi	nents		. ·		

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)
R3000B027	American Stnd.	5-20002-02-1	25204	N/A	1974	Replacement	Ŷ
						· · ·	
	·	· · ·	·				

Description

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7. of Work

Install replacement cover studs and nuts as not all originally supplied studs provided for full thread engagement.

8. Tests Conducted:

Hydrostatic [] Pne Other [] Pressure

Pneumatic [] Nominal O e psi

Nominal Operating Pressure [X] psi Test 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 studs (5/8"x5") were cut from all thread procured per PO# 955769, SA193 Grade B7, Heat Code # C232. 64 replacement nuts were installed that were procured per PO# 955785 and #965260, SA-194 Grade 2H, Heat Codes C240 and F554.

#### Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE O	FCOMPLIANCE	
We certify that the statements made in t	the report are correct and this <u>r</u>	Replacement conforms to the	rules of theASME Code, Section XI.
Type Code Symbol Stamp Original Coc	le data report N5-012 to be su:	plemented by Owners Section	n XI Program 03-033
Certificate of Authorization No	N/A	Expiration Date	N/A
	Engineer RM Could	Arts Date A	SUNT 14 .2003

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 <u>Michigan</u> and employed by HSB <u>CT of One State Street</u> , <u>Hartford</u> , <u>CT 06102</u> have inspected the components described in this Owner's Report during the period $5-26-03$ to $8-15-03$ , 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.
ManduleCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissionsCommissions
Data August 15 2003
(10/94)

For complete work package, see Work Request 000Z030833

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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 Name	· · ·	Date	• <u>•</u> ••••••••••••••••••••••••••••••••••	A	ugust 14, 2003	<u> </u>
	6400 North Dixi	e Highway, Newport N	/1 48166	Shee	et	10	121pg	
2.	Plant Fermi 2 Nu	Address Iclear Power Plant		Unit	· •		2	· ·
	6400 North Dixi	Name e Highway, Newport N	1 48166			Deco Ma	iintenance	
		Address			Repair Or		O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Cor	noanv	Type	Code Symbol	•	N/A	
				Stam		• • • •		
	. ·	Name			prization No.		N/A	
	6400 North Dixie	e Highway, Newport, N	AI 48166	Expir	ation Date		N/A	
		Address		•	-	·····		
4.	Identification of System	<u>N5-014 (T&amp;B)</u>	Emergency Diesel G	enerator #14	<u> </u>			<u> </u>
				71 Edition	."71 /			
6.	Replacements	ition/Addenda of Section	• • ••••• • •	r1	992-92 Addenda			
6.	Replacements	· .	• • ••••• • •	r1	<del></del>	Year Built	Repaired, Replaced, or Replacement	ASM Code Stamp (Yes or No
6.	Replacements Identification of Compo Name of	nents Repaired or Repla	ced and Replacement C Manufacturer Serial	r19 omponents National Board	292-92 Addenda Other		Replaced,	Cod Stamp (Yes or No
6.	Replacements Identification of Compo Name of Component	nents Repaired or Repla Name of Manufacturer	ced and Replacement C Manufacturer Serial No	r19 omponents National Board No.	292-92 Addenda Other Identification	Built	Replaced, or Replacement	Cod Stamp (Yes or No
6.	Replacements Identification of Compo Name of Component	nents Repaired or Repla Name of Manufacturer	ced and Replacement C Manufacturer Serial No 5-20002-02-3	r19 omponents National Board No.	292-92 Addenda Other Identification	Built	Replaced, or Replacement	Code Stamp
6.	Replacements Identification of Compo Name of Component	nents Repaired or Repla Name of Manufacturer	ced and Replacement C Manufacturer Serial No 5-20002-02-3	r19 omponents National Board No.	292-92 Addenda Other Identification	Built	Replaced, or Replacement	Cod Stamp (Yes or No
6.	Replacements Identification of Compo Name of Component R3000B028	nents Repaired or Repla Name of Manufacturer American Stnd.	ced and Replacement C Manufacturer Serial No 5-20002-02-3	r19 omponents National Board No. 26206	292-92 Addenda Other Identification N/A	Built 1974	Replaced, or Replacement Replacement	Codi Stamp (Yes or No Y
	Replacements Identification of Compo Name of Component R3000B028 Description	Name of Manufacturer American Stnd.	ced and Replacement C Manufacturer Serial No 5-20002-02-3	r19 omponents National Board No. 26206	292-92 Addenda Other Identification N/A	Built 1974	Replaced, or Replacement Replacement	Cod Stamp (Yes or No Y
6.	Replacements Identification of Compo Name of Component R3000B028	nents Repaired or Repla Name of Manufacturer American Stnd.	ced and Replacement C Manufacturer Serial No 5-20002-02-3	r19 omponents National Board No. 26206	292-92 Addenda Other Identification N/A	Built 1974	Replaced, or Replacement Replacement	Cod Stamp (Yes or No Y
	Replacements Identification of Compo Name of Component R3000B028 Description	Name of Manufacturer American Stnd.	ced and Replacement C Manufacturer Serial No 5-20002-02-3	r19 omponents National Board No. 26206	292-92 Addenda Other Identification N/A	Built 1974	Replaced, or Replacement Replacement	Cod Stamp (Yes or No Y

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.

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# 9. Remarks: Replacement studs (5/8"x5") were cut from all thread procured per PO# 955769, SA193 Grade B7. Heat Code C232. 64 replacement nuts (5/8'-11 UNC-2B) were procured per PO# 892857, SA194 Grade 2H, Heat Code J269.

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Applicable Manufacturer's Data Reports to be attached

•	CERTIFICATE OF C	OMPLIANCE	
We certify that the statements made in th	e report are correct and this Rep	lacement conforms to the rules of the ASM	E Code, Section XI.
Type Code Symbol Stamp Original Code	e data report N5-014 to be supple	mented by Owners Section XI Program 03	-034
	N/A ,	Expiration Date N/A	
Certificate of Authorization No.			

CERTIFICATE	OF INSERVICE INSPECTION
I, the undersigned, holding a valid commission issued by the I Province of <u>Michigan</u> and employed by HSB <u>CT of One Stat</u> described in this Owner's Report during the period <u>5-23</u> - belief, the Owner has performed examinations and taken corre requirements of the ASME Code, Section XI. By signing this certificate neither the Inspector nor his employed	National Board of Boiler and Pressure Vessel Inspectors and the State or te <u>Street</u> , <u>Hartford</u> , <u>CT 06102</u> have inspected the components $\underline{c_3}$ to $\underline{9-100-03}$ , and state that to the best of my knowledge and ective measures described in this Owner's Report in accordance with the er makes any warranty, expressed or implied, concerning the examinations urthermore, neither the Inspector nor his employer shall be liable in any
Manality Inspector's Signature	Commissions <u>MZG/O</u> National Board, State, Province, and Endorsements
Data <u>Les 7. 16</u> 20.0.3	
(10/94)	

For complete work package, see Work Request 000Z030837

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# 03-035

#### 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			•		Date		Sept	tember 17, 200	3
		1	Vame									
	64(	00 North Dixie Highwa		<u>MI 48166</u>	<u> </u>			Sheet		1 of	1	
-	-	Addre								• •		
2.	Plant	Fermi 2 Nuclear Po			<u> </u>			Unit	<del></del>		2	
		Nar	ne			•						
	640	00 North Dixie Highwa	ay, Newport	MI 4816	6	- 10				Deco Ma	intenance	
		Addre	SS					<u>.</u>	Repa	r Organization P	.O. No., Job No., e	tc.
				- 1				Туре С	ode Symbol			
З.	Work P	erformed byDetro	oit Edison C	ompany			•	Stamp		<u> </u>	N/A	
		Nan	ne		6			Authoriz	zation No.			
						. •					N/A	<u> </u>
								Expiration	on Date			
	640	0 North Dixie Highwa	ay, Newport	<u>, MI 48166</u>	<u> </u>					<b>-</b>	N/A	<u> </u>
	•	Addres	55		'	• .						
· 4.	Identific	•								•		
	of Syste	-m	N5-0214 Fe	edwater L	.00p B,	RW(	CU Re	tum to Ves	ssel			
5.	(a)	Applicable Construction		ASME III,	¥* • • • *	•••••			Winter			
	~ `			Class 1	<u> </u>	19		Edition	1971	_ Addenda,	<u> </u>	_ Code Case
		Applicable Edition/Adde	enda of Secti	on XI Utilizi	ed for He	epairs	s or	100	1 02 Addaad	<b>`</b> a		
		Replacements		• • •		•	•		2-92 Addend	<u>a</u>		
6.	Identifica	ation of Components Re	epaired or Re	placed and	Replace	emen	t Comp	onents				

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)
G3300F120	Anchor Darling	E 3062-2-1	N/A	V8-4615	1983	Repair	Y
· · ·							
7. Description	Seal weld body to b	onnet per RID 72424	to stop leak	age. Seal welds	were con	npleted between val	ve body

n pi of Work

Seal weld body to bonnet per RID 72424 to stop leakage. Seal welds were completed between valve body and segment rings and between segment rings and valve bonnet.

8. Tests Conducted: Hydrostatic [] Pneumatic [] Nominal Operating Pressure [X] Other [] Pressure <u>1090</u> psi Test Temp. <u>92</u> ^oF 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 The pressure seal gasket was degraded and to avoid additional seal work and potential leakage a decision was made to seal weld this connection. Weld installed per WPCS 000Z0033202-1 & -1 -R1. Liquid Penetrant examination performed on final weld. Pressure test performed prior to return to service per procedures 43.000.005/43.000.007.

Applicable Manufacturer's Data Reports to be attached

•		CERTIFICATE OF	COMPLIANCE		
We certif	y that the statements made in the re	eport are correct and this_R	epair_conforms to the rules	of theASME Code, Section	XI.
Туре Сос	de Symbol Stamp <u>Original Code Da</u>	ata report N5-0214 to be su	pplemented by Owners Section	n XI Program #03-035	
Certificat	e of Authorization No	<u>N/A</u>	Expiration Date	N/A	<u> </u>
Signed	R.M. Hambleton, Lead ISI En	gineer RULD	Date SEP	1743-R, 17,20 0	3
	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 8-28-03 to 09-26-03, 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 MI 610 Commissions National Board, State, Province, and Endorsements Date Sept. 20 2003 (10/94)

For complete work package, see Work Requests 000Z033202

# 03-036

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

1.	Owner Detroit	t Edison Company	· · ·	Date		Ö	tober 30, 2003	
		Name	1 40400	Shee			5 O	
	6400 Noπh Dix	ie Highway, Newport M Address	1 48100	Shee	·	10		
2.	Plant Fermi 2 N	uclear Power Plant		Unit			2.	
	<u> </u>	Name					· ·	
	6400 North Dix	ie Highway, Newport M	48166			Deco Ma	intenance	
		Address			-	rganization P	.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Con	npany	Type Stam	Code Symbol		N/A	
		Name		Autho	prization No.			
				E		<del>_</del>	N/A	<u>.</u>
	6400 North Dixi	ie Highway, Newport, N	11 48166	Expin	ation Date		N/A	
4.	Identification of System	Address	nergengy Equipment	Service Wat	er (Div. 1)			
5.		Cladition/Addenda of Section	ME III, ss 3 19 7 XI Utilized for Repairs of	 r	Winter 1971 92-92 Addenda	Addenda,	<u>N/A</u>	Code Case
6.	Identification of Comp	onents Repaired or Repla	ced and Replacement C	omponents			· ·	
	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)
	P4500F002A	Wm. Powell	64305-7	N/A	V15-2092	1975	Replacement	Y
			· · · · ·					

of Work

8.	Tests Conducted:	Hydrostatic []	Pneumatic []	Nominal	Operating Pressure [X]	
		Other [] Pre	ssure	psi	Test Temp ⁰ F	

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) informa-tion 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)

11

#### 9. Remarks The replacement Disc was procurred per P.O. #371510. ASME SA217 CA 15. Serial Number CM 9060B.

Applicable Manufacturer's Data Reports to be attached

		C	CERTIFICATE	OF COMPL	IANCE			
We certify that the	e statements mad	e in the report ar	e correct and th	nis <u>Replace</u>	<u>ment</u> conf	orms to the r	ules of theASM	E Code, Section XI.
Type Code Symb	ol Stamp <u>Original</u>	Code Data repo	ort T&B N5-4 to	be suppleme	nted by Ow	mers Section	XI Program #0	3-036
Certificate of Auth	orization No		N/A	i	Expiration [	Date	N/A	
	<u>Hambleton, Lea</u> or Owner's Designe	-	RUH	net -	Date	OCTUB	<u>er 30</u>	_20 <u>C3</u>

#### 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 <u>Michigan</u> and employed by <u>HSB CT</u> of <u>One State Street</u>, <u>Hartford</u>, <u>CT 05102</u> have inspected the components described in this Owner's Report during the period<u>c8-28-03</u> to <u>//-04-03</u>, 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.

45610 Commissions Inspector's Signature National Board, State, Province, and Endorsements Date Nov. 4 20 03

(10/94)

For complete work package, see Work Requests P522060100

NIS-2 03-036 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_

1.	Manufactured and certified by	e Wm. Powell Com	pany, 3233 Colerai		Cincinnati, OH	<u>4522</u> 5
2.	Manufactured for	dison, P.O. Box	1659, Detroit, MI Iname and address of purchaser)			
3.	Location of installationEF_2	Site, 6400 Dixie	Highway, Newport, (name and address)	MI 48166	,	
4.	Type 2 <u>6-089865-15002-00⁷</u>	ASME SA217 CA15 (matl. spec. no.)	114.6 (tensile strength)	<u>N/Å</u>	2003 (year built)	
5.	ASME Code, Section III, Division 1:	1971	Winter 1971 (addenda date)	3	N/A (Code Case no.)	. <u></u>
6.	Fabricated in accordance with Const.	Spec. (Div. 2 only)	(no.) Revision	; <u>~</u> ; <u>~</u>	Date	
7.	Remarks:Valve Tag V15-	-2067	·		·	

8. Norn. thickness (in.) ______ Min. design thickness (in.) ______ Dia. ID (ft & in.) ______ Length overall (ft & in.) ______
 9. When applicable, Certificate Holders' Data Reports are attached for each item of this report: .

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>CM 9060B</u>	N/A	(26)	
(2)		(27)	
(3)	· ·	(28)	
(4)		(29)	
(5)		(30)	······································
(6)		(31)	
(7)		(32)	:
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)	······································	(36)	
(12)	<u></u>	(37)	
(13)	······································	(38)	· · · · · · · · · · · · · · · · · · ·
		(39)	
(15)	······································	(40)	· · · · · · · · · · · · · · · · · · ·
(16)		(41)	
(17)		(42)	
(18)	· · · · · · · · · · · · · · · · · · ·	(43)	
(19)		(44)	
(20)	·	(45)	
(21) [		(46)	
(22)		(47)	·
(23)		(48)	•
(24)		(49)	·
[25]		(50)	

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ 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.

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

(when applicable)

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

•	Certificate Holde	r's Serial Nos.	through
	CERTIFICATION OF D	ESIGN	
Design specifications certified by	(when applicable)	P.E. State	
Design report* certified by	(when applicable)	P.E. State	Reg. no
	CERTIFICATE OF COMP	PLIANCE	
We certify that the statements made in this r conforms to the rules of construction of the	•	Disc	
NPT Certificate of Authorization No.	N1579 ·	Expires 12	2/13/03
Date	m. Powell Co., Plant 2 (NPT Certificate Holder)	Signed <u>Sin</u>	(authorized representative)
	CERTIFICATE OF INSPE	ECTION	······
I, the undersigned, holding a valid commissi of <u>Ohio</u> and employed by of <u>Hartford</u> , <u>CT</u> have insi best of my knowledge and belief, the Certific III, Division 1. Each part listed has been author By signing this certificate, neither the inspects in this Data Report. Furthermore, neither the or loss of any kind arising from or Connected Date <u>5-33-05</u> Signed	H.S.B.CT pected these items described in this C ate Holder has fabricated these parts orized for stamping on the date show or nor his employer makes any warrar inspector nor his employer shall be lia	Data Report on <u>VErg</u> or appurtenances in accord in above. hty, expressed or implied, c	A dock , and state that to the dance with the ASME Code, Section concerning the equipment described

# 03-038

1.	Owner Detroit	Edison Company		Date		Fel	oruary 18, 2005	<u>.</u>
	6400 North Divie	Name Highway, Newport M	1 48166	Shee	t	1 of	F 1	
		Address			· · ·		· · · · · · · · · · · · · · · · · · ·	
2.	Plant _ Fermi 2 Nuc	clear Power Plant	<u></u>	Unit	•		2	
	6400 North Divia	Name Highway, Newport M	1 48166					
	·	inginity, nerpoir m	1 40100			Deco Ma	intenance	
	••••••••••••••••••••••••••••••••••••••	Address				ganization P	O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Con	npany	Type Stam	Code Symbol		N/A .	
	•	Name			prization No.		N/A	
•	6400 North Dixie	Highway, Newport, N	11 48166	Expir	ation Date		N/A	
	· · · ·	Address						
4.	Identification	( <u>N5-4 T &amp; B) E</u>	Emergency Equipmen	t Service Wa	ater			
	e, eyelen							
5.	(a) Applicable Cor		ME III,		•		•	
			nn 9 10 1	71 Edition		Addonda		<u>n</u>
				71 Edition		Addenda	<u> </u>	Lobe Lase
		ion/Addenda of Section		r	<u></u>	hujenda	<u></u> (	600e 625e
	Replacements	ion/Addenda of Section	XI Utilized for Repairs o	r1	992-92 Addenda		<u>N/A</u>	
5.		ion/Addenda of Section	XI Utilized for Repairs o	r1	<u></u>		<u></u> (	
5.	Replacements	ion/Addenda of Section	XI Utilized for Repairs o	r1	<u></u>	Year Built	Repaired, Replaced, or Replacement	ASME Code Case ASME Code Stampe (Yes
ð. 	Replacements Identification of Composition Name of	ion/Addenda of Section nents Repaired or Repla Name of	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial	r19 components National Board	092-92 Addenda Other	Year	Repaired, Replaced,	ASME Code Stampe (Yes
ð. 	Replacements Identification of Compose Name of Component	ion/Addenda of Section nents Repaired or Repla Name of Manufacturer	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No	r19 components National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stampe (Yes or No)
5. 	Replacements Identification of Compose Name of Component P45F401	ion/Addenda of Section nents Repaired or Repla Name of Manufacturer Target Rock	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No 2	r19 components National Board No. N/A	Other Identification V30-1034	Year Built 2000	Repaired, Replaced, or Replacement Replaced	ASME Code Stampe (Yes or No) Y
6. 	Replacements Identification of Compose Name of Component P45F401	ion/Addenda of Section nents Repaired or Repla Name of Manufacturer Target Rock	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No 2	r19 components National Board No. N/A	Other Identification V30-1034	Year Built 2000	Repaired, Replaced, or Replacement Replaced	ASME Code Stampe (Yes or No) Y
5. 	Replacements Identification of Compose Name of Component P45F401	ion/Addenda of Section nents Repaired or Repla Name of Manufacturer Target Rock	XI Utilized for Repairs o ced and Replacement C Manufacturer Senial No 2 1	r19 components National Board No. N/A	Other Identification V30-1034	Year Built 2000	Repaired, Replaced, or Replacement Replaced	ASME Code Stampe (Yes or No) Y
	Replacements Identification of Compose Name of Component P45F401 P45F401	ion/Addenda of Section nents Repaired or Repla Name of Manufacturer Target Rock Target Rock Replace existing ba	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No 2 1 1	r19 components National Board No. N/A N/A N/A	Other Identification V30-1034 V30-1033	Year Built 2000 2000	Repaired, Replaced, or Replacement Replaced Replacement	ASME Code Stampe (Yes or No) Y Y
5.	Replacements Identification of Compose Name of Component P45F401 P45F401 Description	ion/Addenda of Section nents Repaired or Repla Name of Manufacturer Target Rock Target Rock Replace existing ba	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No 2 1	r19 components National Board No. N/A N/A N/A	Other Identification V30-1034 V30-1033	Year Built 2000 2000	Repaired, Replaced, or Replacement Replaced Replacement	ASME Code Stampe (Yes or No) Y Y

## Form NIS-2 (Back)

			<u></u>	<u> </u>		
					•	
		·				•
<u>.</u>		A	-liashia Manufasturada Data	Donata ta ba attaabad	·	
		Apr	olicable Manufacturer's Data	Hepons to be attached		
		<u></u>	CERTIFICATE O	FCOMPLIANCE		<u></u>
١	We certify tha	at the statements made in th	ne report are correct and this	Replacement conforms to	he rules of the ASME C	ode, Section XI.
7	Type Code S	ymbol Stamp Original Code	e data report (T & B N5-4) to	be supplemented by Owne	rs Section XI Program (	3-038
		Authorization No	N/A	Expiration Date		
S	Signed <u> </u>	M. Hambleton Lead ISI	Engineer En the	Date_FE	BUNY 18	.2005
	Óv	mer 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 <u>Michigan</u> and employed by <u>HSB_CT_ol One State Street</u> , <u>Hartford</u> , <u>CT 06102</u> have inspected the components described in this Owner's Report during the period <u>OP-08-03</u> to <u>D2-22-05</u> , 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.
Marine Commissions MEE Co 10 Inspector's Signature National Board, State, Province, and Endorsements
Date February 22 2005
(10/94)

For complete work package, see Work Request A473010100

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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		Date			08/25/04
	Name					.R
	6400 North Dixie Highway, Newport MI 48166		Sheet	1	of	\$25
	Address	•				
2.	Plant Fermi 2 Nuclear Power Plant		Unit	2	_	· ·
	Name			Repair	Tar	get Rock Corp, P.O. NS-325856
	6400 North Dixie Highway, Newport MI 48166					S Technologies, P.O. NS-394576
	Address			Repair	Organ	ization P.O. No., Job No., etc.
3.	Work Performed by Detroit Edison Company		Type Cod Stamp	ie Symbol		N/A
	Name		Authoriza	tion No.		N/A
	6400 North Dixie Highway, Newport, MI 48166		Expiration	n Date		N/A
	Address		·	•		
4.	Identification of System B21 Nuclear Boiler, Main Stea	am Safe	ty Relief V	/alve Pilot	Ass	emblies, and Main Bodies.
5.	(a) Applicable Construction Code ASME III Class 1 19 7	71	Edition	S'1970		Addenda, NA Code Case
	(b) Applicable Edition of Section XI Utilized for Repairs or Replac	ements		, 92 Adden	da	

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)
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
			·				
		-	с.				
		**	••	• • •		•	

**Description of Work** Rebuild & Test 15 SRV Pilot Assemblies, and 4 SRV Main Bodies as required. 7.

**Tests Conducted:** 8.

Hydrostatic Pressure

Other 🗵

Pneumatic - Nominal Operating Pressure [] psi 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) informa-tion 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 Applicable Manufacturer's Data Reports to be attached where requred.
	All 15 SRV Pilot Assemblies, and 4 main Bodies were rebuilt and tested as necessary under Target Rock P.O. NS-394576, and NWS P.O. NS-332113. All Parts used are recorded in Work Request B273030100, as well as the Target Rock final document package 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 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 Report to be supplemented by Section XI Program 04-001 and TR field Service report 02Z-010
	Certificate of Authorization No 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 the State or Province of <u>Michigan</u> and employed by <u>H.S.B./CT</u> of <u>One State Street, Hartford, CT 06102</u> have inspected the components described in this Owner's Report during the period <u>OR-09-2009</u> to <u>OB-31-2009</u> , 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.
	Date <u>August 31</u> 2004

### Attachment (1) NIS-2 Repair Replacement Program 04-001

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# Pressure Retaining Parts Installed in SRV Main Bodies

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**

Main Valve Body S/N#	Pilot Base to body Nut 1-1/8-12 unf. Stock#252- 0565	P.O. # , Lot#, or HT#
337	12ea.	P.O.# 362415, HT#D230
392	8ea.	P.O.# 362415, HT#D230
392	4ea.	P.O.# 389242, HT#K519
373	12ea.	P.O.# 389242, HT#K519
340	12ea.	P.O.# 389242, HT#K519

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04-002

## 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	Date 12/10/2004
	Name	:
	6400 North Dixie Highway, Newport MI 48166	Sheet 1 of 2
	Address	
2.	Plant Fermi 2 Nuclear Power Plant	Unit 2
	Name	
	6400 North Dixie Highway, Newport MI 48166	DECo Maintenance
	Address	Repair Organization P.O. No., Job No., etc.
3.	Work Performed by Detroit Edison Company	Type Code Symbol N/A Stamp
	Name	Authorization No. N/A
	6400 North Dixie Highway, Newport, MI 48166	Expiration Date N/A
	Address	
4.	Identification of System B21Nuclear Boiler, Main Ste	am Safety Relief Valve Pilot Assemblies, and Base Assemblies
.5.	(a) Applicable Construction Code ASME III Class 1 19	71 Edition W71 Addenda, NA Code Case
	(b) Applicable Edition of Section XI Utilized for Repairs or Repl	

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)
SRV Pilot Assemblies	Target Rock	Various (See attached list)	.N/A	B2104F013A-R Various	N/A	Replacement	Yes
SRV Main Body Assemblies	Target Rock	Various (See attached list)		B2104F013A-R Various	N/A	Replacement	Yes
						. ·	
		· ·					
 						· · · · · · · · · · · · · · · · · · ·	

7. Description of Work During RF10, Replaced all 15 SRV Pilot Assemblies. Replaced Main Bodies on B2104F013B, E, A, & R.

8. Tests Conducted:

Hydrostatic Pneumatic Dother I Pressure

Nominal Operating Pressure S psi Test Temp._____

°F)

VT-2 Per 43.000.005 and 24.137.21, Operability 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.

(10/94)

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#### 9. Remarks

#### Applicable Manufacturer's Data Reports to be attached

All 15 SRV Pilots, and 4 Main Bodies were replaced using Work Requests B350040100 thru B364040100. See attached listing for SRV exchange matrix. Bolting material was changed out on SRV B2103F013E (4) Nuts -1"-8 UNC-2B, SA 194, Grade 2H, ASME III Class 1, PO. #974214, Heat Code P120 & (1) Stud 1"-8 UNC-2A, SA 193, Grade B7, ASME Class1, PO. #891599, Trace Code J137. Bolting for SRV B2103F013R (1) Nut 1-3/8" x 6UNC-2B, SA-194 Grade B7, PO#806420, (2) 1-3/8" nuts, SA-194, Grade B7, PO# 806420. (2) Studs 1"-8 UNC-2A, SA 193, Grade B7, ASME Class1, PO. #891599, Trace Code J137. (4) Nuts -1"-8 UNC-2B, SA 194, Grade 2H, ASME III Class 1, PO. #974214, Heat Code P120 SRV Pilots were refurbished per Section XI Program 04-001 and Work Request B273030100,

We SME Code, Sectio				COMPLIANCE e correct and this	replacement		to the rules of
SME Code, Secua	n XL				repair or replaces	neni	
Code Symbol Star	mp Original Cod	e Data Reports to	o be supplement	ed by Section XI Pro	gram 04-002		
icate of Authorizat	ion No.	N/A		Expiration Da	te _N/A		
		Quit		· .			
I R. M. Hamblet	ton: ISI Engineer per's Designee, Tit			Date	Decembe	er 10 7	2004
Owner or Own	ner's Designee, Tit						

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CERTIFICATE OF IN	ISERVICE INSPECTION
I, the undersigned, holding a valid commission issued by the Nation	al Board of Boiler and Pressure Vessel Inspectors and the State
or Province of Michigan and employed by HS	SB CT of
One State Street, Hartford, CT 06102	have inspected the components described
in this Owner's Report during the period_ Acts. 9. 200	4 to Dec. 13, 2004, and state that
o the best of my knowledge and belief, the Owner has performed e	xaminations and taken corrective measures described
By signing this certificate neither the Inspector nor his employer examinations and corrective measures described in this Owner's Re shall be liable in any manner for any personal injury or property dar nspection.	eport. Furthermore, neither the Inspector nor his employer
Mandende i o	commissions_MZG1D
Inspector's Signature	National Board, State, Province, and Endorsements

(10/94) ...

# 2004 Refueling Outage SRV Replacement Matrix RF10

<ul> <li>The "Positions" listed with (*) have had the Main Disc Spring Inspection already performed.</li> <li>The "Main Body" SN#s listed with (+) have had the Main Disc/Piston Modification Performed.</li> <li>Note that the "A" Position SRV is being replaced due to high amount of actuations.</li> </ul>					SRV Pilots & listed below a <u>Removed</u> dur (Shaded Area (Note that these installed during	ring RF10. ns) SRVs were	SRV Pilots During RF Note that 4 N	10 Refuel		aded Areas) at are shaded, will	
Steam	Low	N-5 Code	Required	PIS Number	Valve/Body	Pilot	Solenoid	Valve/	Pilot	Solenoid	
Line	Set	Data	Set Point	<u>B2104F013-</u>	S/N	S/N	S/N	Body	S/N	S/N	
D	Funct. (LSS)	report N5-0265	Psig- 1135	Position *A	280	342	310	S/N	1331EBERIT	310	
C		N5-0301	1135	B			311	In The International Contract Contract	340	311	
<u>B</u>		N5-0291	1135	*C	391	1197	317	<u>391</u>	391	317	
B		N5-0278	1145	*D	328	327	318		37.1	318	
C		N5-0278	1145	E E			312		334	312	
B		N5-0290	1145	*F	327	339	319	327	1338	312	
B	(LSS)	N5-0321	1135	*G	338	F1200	326	338+	341	326	
C		N5-0266	1155	*H	336	11200	313	336+	333	313	
C	<del> </del>	N5-0308	1155	*J	332	328	314	332	1182	314	
B	†	N5-0311	1135	*K	330	332	321		373	321	Z
Ā	1	N5-0313	1145	*L	319	319	320		388	320	
Ā		N5-0268	1145	*M	342	1198	325	342	1178	325	-10
A		N5-0310	1145	*N	341	330	324	341	337	324	-13
D	·	N5-0322	1155	*P	318	318		318+	390	315	
С	·   ·····	N5-0288	1155	· R		1180	316		335	316	-14

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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 Ec	lison Company		Date		· •	larch 5, 2004	
		Name						·····
	6400 North Divie H	Highway, Newport Mi	48166	Shee	et	10	£ 2	
		Address						
2.	Plant Fermi 2 Nucle	ear Power Plant		Unit	•		2	
۲.		Name	·	Ofat			<u> </u>	
	•	Name						
		lighway, Newport M	48166				intenance	
		Address			Repair Or	ganization F	O. No., Job No., etc.	
	•		- · · ·	. Туре	Code Symbol			
З.	Work Performed by	Detroit Edison Com	рапу	Stam	p		N/A	
	• :	Name	· · · · · · · · · · · · · · · · · · ·	Autho	prization No.		· ·	
			· · · · · · · · ·		•		N/A ·	•
			· · ·	Expir	ation Date –	·	· · · · · · · · · · · · · · · · · · ·	
	6400 North Divie H	lighway, <u>Newport, M</u>	148166				N/A	
		Address			-			<u> </u>
4.	Identification				·			
4.	of System	NE 204 NE 20	5, N5-384, and N5-0	211 Depator	Core legistion (	Soling Sy	etem (PCIC)	
	or ogsienn .	<u></u>	15, N5-364, and N3-0.		COLE ISOIALION C	Journy Sy		<u> </u>
5.	(a) Applicable Const		ΛΕ III,	Tutula	Winter	A		
	Al Annet all matte		s 2 19			Addenda,	<u>N/A</u> (	ode Case
		n/Addenda of Section J	XI Utilized for Repairs o		992-92 Addenda			
	Replacements				592-92 Robenoa		•	
~	Martin da d <b>o</b> rrege							
6.	Identification of Compone	ents Repaired or Replac	ceo ano Replacement C	omponents				
		· · · · · · · · · · · · · · · · · · ·		<u></u>			· · · ·	·
					0		<b>_</b>	
	Name of	Name of	Manufacturer Serial No.	National Board	Other dentification	Year Built	Repaired,	ASME
	Component	Manufacturer	NO.	No.	loenuncation	Buin	Replaced,	Code
				190.		· ·	or Replacement	Stamped
				•.		<b>.</b>	• *	(Yes or No)
	É51F015	, Fisher Controls	5595340	634	V8-2240	1974	Replaced	Y
			0000040	004	¥0-2240		richiaren	
	E51F015	Target Rock	03M-001 s/n 1	N/A	V30-1501	2003	Replacement	Y
· •		Targernock		· · ·	400-1001	2005	riepiacement	•
					·	· · · ·		
			_			{		
	Description		One set of Deserves	Contrat Mater			Control Mater	
7.	Description		Operated Pressure	Jontrol valve	e with self contai	neo Press	ure Control Valve p	er EUP-
	of Work	32161.		·····		<u>.</u>	- <u></u>	
	-		<u> </u>	<u>.</u>				
	-							
8.					ting Pressure [X]		(Ref Code Case	N-416-1)
8.		Hydrostatic [] Other [] Pressure			ting Pressure【X】 st Temp ^o F		(Ref Code Case	N-416-1)

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 <u>The replacement Valve was procurred per PO # 385716 (Data report Attached) Replacemnet fittings installed - 2"</u> pipe, sch 160, SA106 Gr.B, Ht # 151234, PO# 368778, 2" elbow, SA 105, Ht# R118N, PO # 303722, 2" coupling, SA 105, Ht# 9132, PO# 394582.

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE O	FCOMPLIANCE			
We certify that the statements made in the	report are correct and this	Replacement_confo	orms to the rules	s of theASM	E Code, Section XI.
Type Code Symbol Stamp Original Code	Data reports to be supplem	ented by Owners Section	on XI Program	#04-003	······
Certificate of Authorization No	N/A	Expiration D	ate	N/A	
SignedR.M. Hambleton, Lead ISI E Owner or Owner's Designee, Title	ingineer RUH	Date	March	.5	20 04

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 <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 components described in this Owner's Report during the period $2 - 13 - 04$ or $3 - 12 - 04$ , 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
Date March 12 2004

For complete work package, see Work Requests 000Z022442

NIS-2.FDL ESIFOI. SHEET ZOF Z #04-003

#### 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

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Pg. 1 of 2

۱.	manufactured and	Certified by <u>Tar</u>	get Rock; 1966E Bro (name and addr	ess of N Certific	ate Holder)	ie, N1 11700
2.	Manufactured for	Detroit Edison (name and	6400 North Dixie H address of Purcha	wy.; Newport, M ser)	<u> </u>	
	Location of installa	tion <u>Enrico Fe</u>	rmi 2: 6400 North Di (name and address	xie Hwy.; Newp	ort, MI	·
•	Model No., Series	No., or Type0	<u>3M-001</u> Drawi	ng <u>03M-001</u>	RevA	CRNN/A
	ASME Code, Sect	ion III, Division 1:	1995 (edition)	1996 (addenda date)	2 (class)	<u>None</u> (Code Case no.
i.	Pump or valve	Valve	Nominal inlet size	2(in.)	_ Outlet siz	e2(in.)
	Material: Body	SA182 F316L	Bonnetn/a	Disc	<u>n/a</u>	Bolting <u>SA193 B8</u>
	(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Seria No.		(d) Bonnet Serial No.	(e) Disc Serial No.
	1	n/a	7		n/a	n/a
	n/a		<b>•</b>			
			• 11 ⁻			•
			• • • • • • • • • • • • • • • • • • • •		· <u> </u>	
	<u></u>	·	· · · · · · · · · · · · · · · · · · ·			<u></u>
	<u></u>				· · ·	
	· · · · · · · · · · · · · · · · · · ·		•		·	
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		

* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8½ 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 REPRINT 6/93

### FORM NPV-1 (BACK - Pg. 2 of 2)

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	Certificate Holder's Serial No. <u>03M-001 s/n 1</u>
8.	Design conditions <u>1280</u> psi <u>170</u> °F or valve pressure class <u>N/A</u> (1) (pressure)
9.	Cold working pressure1800 psi at 100 °F
10.	. Hydrostatic test <u>2700</u> psi. Disc differential test pressure <u>N/A</u> psi
11.	. Remarks: Spring Housing Flange SA479 316 s/n 13
	Sleeve SA479 316 s/n 12
Γ	CERTIFICATION OF DESIGN
	Design Specification certified byLawrence D. Burr P.E. State Reg. No. 33999
D	Design Report certified by Not Applicable P.E. State Reg. No
Ci   N	CERTIFICATE OF COMPLIANCE         Ve certify that the statements made in this report are correct and that this pump or valve conforms to the rules for onstruction of the ASME Code, Section III, Division 1.         I Certificate of Authorization No         N-1947         Expires
D	Date <u>12/23/2003</u> Name <u>Target Rock</u> (N Certificate Holder) Signed <u>R. E. Glazier QA Manager</u> (authorized representative)
	CERTIFICATE OF INSPECTION
a	the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors nd the State of Province of <u>New York</u> and employed by <u>OneBeacon Americal Insurance Co.</u> of <u>Boston, MA</u> have inspected the pump, or valve, described in this Data Report on <u>A2/23/2003</u> and tate that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in ccordance with the ASME Code, Section III, Division 1.
D W	By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, oncerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall the 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 $\frac{2}{203}$ Signed $\frac{1}{2003}$ Signed $\frac{1}{2003}$ Signed $\frac{1}{2003}$ Commissions $\frac{1}{1000}$ (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

04-005

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

	Owner Detroit E	Edison Company Name	<u> </u>	Date			April 19, 2004	
	6400 North Dixie	Highway, Newport M	48166	· Shee	et	10	f 2	
_		Address				•		
2.	Plant Fermi 2 Nuc	lear Power Plant	<u> </u>	Unit			2	
		Name				•		
	6400 North Dixie	Highway, Newport MI	48166			Deco Ma	intenance	
	<b></b>	Address	<u>.                                    </u>		Repair Or	ganization F	O. No., Job No., etc.	
				••	Code Symbol			
3.	Work Performed by	Detroit Edison Com	ipany	Stam	· –		_N/A	
		Name		Autho	orization No.			••••
			. · · · ·	Evoir	ation Date		_N/A	
•	6400 North Divie	Highway, Newport, M	148166	Expir	allon Dale		N/A	
		Address			-			· ···
4.	Identification of System	N5-0336. N5-0	359, N5-0475, and N	15-0645 - Hid	ah Pressure Coo	lant Iniect	ion System (HPCI)	
	•		······		2		<u></u>	
5.	(a) Applicable Con		AE NI,		Winter			
	(b) Applicable Editi	Clas		71 Edition	1971	Addenda,	<u> </u>	Code Case
	Replacements		XI Utilized for Repairs o		992-92 Addenda		· .	
6.	Replacements	nents Repaired or Replac			992-92 Addenda		· · ·	
6 <b>.</b>	Replacements				Other	Year	Repaired,	ASME
6. 	Replacements	nents Repaired or Replac	ced and Replacement C	tomponents National Board		Year Built	Replaced,	Code
6. 	Replacements Identification of Compor	nents Repaired or Replac Name of	ced and Replacement C Manufacturer Serial	15 components National	Other	1		Code Stamped
6. 	Replacements Identification of Compor	nents Repaired or Replac Name of	ced and Replacement C Manufacturer Serial	tomponents National Board	Other	1	Replaced,	Code Stamped (Yes
6. 	Replacements Identification of Compor	nents Repaired or Replac Name of	ced and Replacement C Manufacturer Serial	tomponents National Board	Other	1	Replaced,	Code Stamped
6. 	Replacements Identification of Compor Name of Component	nents Repaired or Replac Name of Manufacturer	ced and Replacement C Manufacturer Serial No.	15 Components National Board No.	Other Identification	Built	Replaced, or Replacement	Code Stamped (Yes or No)
6. 	Replacements Identification of Compor Name of Component E41F035	nents Repaired or Replac Name of Manufacturer Fisher Controls	ced and Replacement C Manufacturer Serial No. 5596096	15 components National Board No.	Other Identification V8-2209	Built 1974	Replaced, or Replacement Replaced	Code Stamped (Yes or No) Y
6.	Replacements Identification of Compor Name of Component E41F035 E41F035 Description	Name of Manufacturer Fisher Controls Target Rock Remove existing Air	ced and Replacement C Manufacturer Serial No. 5596096	15 Components National Board No. N/A N/A	Other Identification V8-2209 V30-1500	Built 1974 2004	Replaced, or Replacement Replaced Replacement	Code Stampec (Yes or No) Y Y
· ·	Replacements Identification of Compor Name of Component E41F035 E41F035	Name of Manufacturer Fisher Controls Target Rock	ced and Replacement C Manufacturer Serial No. 5596096 03M-002 s/n 2	15 Components National Board No. N/A N/A	Other Identification V8-2209 V30-1500	Built 1974 2004	Replaced, or Replacement Replaced Replacement	Code Stamped (Yes or No) Y Y

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)

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#### 9. Remarks The replacement Valve was procurred per PO # 385717 (Data report Attached)

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE OF C	MPLIANCE			
We certify that the statements made in the re	eport are correct and this <u>Re</u>	lacement con	forms to the rules	of theASM	IE Code, Section XI.
Type Code Symbol Stamp Original Code Da	ata reports to be supplemente	by Owners Sec	tion XI Program	<u>04-005</u>	
Certificate of Authorization No	N/A	Expiration	Date	N/A	
Signed R.M. Hambleton, Lead ISI En	gineer RUH LIEU	Date	APRIL	19.	04
Owner or Owner's Designee, Title	•	•			<b>`</b>

#### 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 <u>Michigan</u> and employed by <u>HSB_CT_of One State Street, Hartford, CT_06102</u> have inspected the components described in this Owner's Report during the period 2-27-040_97-22-040, 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.

Commissions 12610

Inspector's Signature

National Board, State, Province, and Endorsements

2004 Date

(10/94)

For complete work package, see Work Requests 000Z032413

NIS-Z FOR SUCTOODER FRANKING Off SUFFET ZOFZ E41F035

#### 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

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Pg. 1 of 2

		Detroit Edison (name and	address of Pu	rchaser)			
•	Location of install	ation <u>Enrico Fe</u>	rmi 2; 6400 Nor (name and add	<u>th Dixie Hwy.; Ne</u> Iress)	wport, MI		
•	Model No., Series	s No., or Type(	<u>03M-002</u> [	Drawing <u>03M-C</u>	02 Rev	<u>C</u> CRN_	<u>N/A</u>
•	ASME Code, Sec	tion III, Division 1:	1995 (edition)	<u>1996</u> (addenda da	te)2	None (Code (	Case no
•	Pump or valve	Valve	Nominal inlet	size <u>1 ½</u> (in.)	Outlet	size <u>1 ½</u> (in.)	
•	Material: Body _	SA182 F316L	Bonnetr	n/a Disc	n/a	Bolting SA	193 B8
	(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	S	Body	(d) Bonnet Serial No.	(e Dis Ser No	ial
_	2	n/a	<u> </u>	44	n/a	n/:	a
	n/a						
		<u>-</u> `.	· · · · · · · · · · · · · · · · · · ·	,			
		· · ·	····				
	•				· · · ·		
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				<b>i</b> (			
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				· · · · · · · · · · · · · · · · · · ·	······································		

* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8½ 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.

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### FORM NPV-1 (BACK - Pg. 2 of 2)

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						Certi	ificate Hold	ler's Se	rial No	03M-0	02 s/n 2	
					si <u>170</u> (temperat		F or valve	pressur	e class _		<u>N/A</u>	(1)
10.	Hydrostatic	: test <u>27</u>	700	_psi. Di	sc differentia	al test p	oressure		N/A			psi
11.	Remarks:	Sprir	ng Housing	Flange S/	479 316 s/n	1						
		S	leeve SA47	79 316 s/n	4 .							
<b>—</b>				CER	TIFICATION	OF DE	SIGN	<u>.</u> .				
D	esign Specif	fication certi	fied by	Lawrei	nce D. Burr		P.E.	State _	<u>_MI</u>	Reg. I	No. <u>339</u>	99
D	esign Repor	t certified by	/	Not Ar	plicable		P.E.	State		Reg. !	No. <u>-</u>	
W	e certify tha	t the statem	ents made	in this rep	FICATE OF ort are corre			mp or v	alve con	forms to	the rules	s for
N	Certificate o	of Authorizat	ion No	<u>N-</u>	1947		E		1	2/12/200	04	
Da	ate <u>  ///</u>	2007 Nar	тө(N С	Target R Certificate I	ock Holder)		s	igned	R. E. Gla (authoriz	azien QA ed repr	A Manage esentative	er e)
	•			CERTI	FICATE OF	INSPE	CTION					
I,t an sta	the undersigned the State Boston, MA ate that to the cordance w	ned, holding of Province he best of n ith the ASM	a valid com of <u>Ne</u> have inspect ny knowled E Code, Se	mission is <u>w York</u> ted the pu ge and be ction III, D	sued by the f and em mp, or valve lief, the Cen ivision 1.	Nationa ployed descri tificate	l Board of E by <u>One</u> bed in this Holder ha	Boiler an Beacor Data Re constr	d Pressu <u>America</u> port on ucted thi	re Vess a <u>l Insura</u> oi / i.s s pump,	el Inspect nce Co. 7.2004 a or valve	tors _of and , in
co be	ncemina the	e componen y manner fo	t described r any perso	in this Dat nal injury	or nor his e a Report. Fu or property d	irtherm	ore. neithe	r the ins	pector n	or his en	nplover sl	hali

Date 1/15/04 Signed ______ Commissions ______ (Authorized inspector) ______ (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

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# 04-007

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

	6400 North Dixi	Name e Highway, Newport Mi	1 48166	Shee	et	10	f 1	
		Address			<del></del>			
2.	Plant Fermi 2 Nu	clear Power Plant	<u></u>	Unit	· · ·		2	
		Name	· • .		-			
	6400 North Dixie	e Highway, Newport Mi	48166	•		Deco Ma	intenance	
	<u></u>	Address	:			rganization P	O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Com		Type Stam	Code Symbol		N/A	
J.	Work Pendimed by	Detroit Edison Corr Name	ipany		prization No.		N/A	
							N/A	
		•		Expire	ation Date			
•	6400 North Dixie	Highway, Newport, M Address	1 48166			·	<u>_`N/A</u>	·····
4.	Identification	Address	a santanin ka ya s					
	of System	(N5-204, N5-7	64 Reactor Core Isol	ation Cooling	, RCIC)	· ·	·	
5.		-stanting Cardo ACL	A		Winter			
<b>b</b> .	(a) . Applicable Uo	nstruction Code ASM	Æ III,			Addenda,	N/A	Code Cas
		Clas	ss 2 19 19	71 Edition	1971	Auuenua,	IVA	
•		ition/Addenda of Section 2	·	r .	992-92 Addenda		N/A	0000 043
•	(b) Applicable Edi Replacements	ition/Addenda of Section 2	XI Utilized for Repairs o	r19	······································		N/A	
•	(b) Applicable Edi Replacements Identification of Compo	ition/Addenca of Section 3	XI Utilized for Repairs o	r19	······································	Year		
6 <b>.</b>	(b) Applicable Edi Replacements	ition/Addenca of Section A	XI Utilized for Repairs o ced and Replacement C	r19 components National Board	992-92 Addenda		Repaired, Replaced,	ASME
•	(b) Applicable Edi Replacements Identification of Compo Name of	ition/Addenca of Section A pnents Repaired or Replac Name of	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial	r components National	992-92 Addenda Other	Year	Repaired,	ASMi Code Stamp
•	(b) Applicable Edi Replacements Identification of Compo Name of	ition/Addenca of Section A pnents Repaired or Replac Name of	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial	r components National Board No.	992-92 Addenda Other	Year	Repaired, Replaced,	ASMi
•	(b) Applicable Edi Replacements Identification of Compo Name of	ition/Addenca of Section A pnents Repaired or Replac Name of	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial	r19 components National Board	992-92 Addenda Other	Year	Repaired, Replaced,	ASMi Code Stamp (Yes
•	(b) Applicable Edi Replacements Identification of Compo Name of Component	ition/Addenda of Section 2 onents Repaired or Replac Name of Manufacturer	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No.	r components National Board No.	092-92 Addenda Other Identification	Year Built	Repaired, Replaced, or Replacement	ASMI Code Stamp (Yes or No
•	(b) Applicable Edi Replacements Identification of Compo Name of Component	ition/Addenda of Section 2 onents Repaired or Replac Name of Manufacturer	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No.	r components National Board No.	092-92 Addenda Other Identification	Year Built	Repaired, Replaced, or Replacement	ASM Code Stamp (Yes or No
•	(b) Applicable Edi Replacements Identification of Compo Name of Component	ition/Addenda of Section 2 onents Repaired or Replac Name of Manufacturer	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No.	r components National Board No.	092-92 Addenda Other Identification	Year Built	Repaired, Replaced, or Replacement	ASMI Code Stamp (Yes or No
<b>.</b>	(b) Applicable Edi Replacements Identification of Compo Name of Component E5100F018 Description	ition/Addenda of Section 2 onents Repaired or Replac Name of Manufacturer Crosby	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No.	r components National Board No. N/A	Other Identification V22-2587	Year Built 1982	Repaired, Replaced, or Replacement	ASM Code Stamp (Yes or No
5.	(b) Applicable Edi Replacements Identification of Compo Name of Component E5100F018	ition/Addenda of Section 2 onents Repaired or Replac Name of Manufacturer Crosby	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No. N65627-00-0001	r components National Board No. N/A	Other Identification V22-2587	Year Built 1982	Repaired, Replaced, or Replacement	ASMi Code Stamp (Yes or No
5. 	(b) Applicable Edi Replacements Identification of Compo Name of Component E5100F018 Description of Work	ition/Addenda of Section 2 onents Repaired or Replac Name of Manufacturer Crosby	XI Utilized for Repairs of ced and Replacement C Manufacturer Serial No. N65627-00-0001	r components National Board No. N/A	Other Identification V22-2587	Year Built 1982	Repaired, Replaced, or Replacement	ASMi Code Stamp (Yes or No
•	(b) Applicable Edi Replacements Identification of Compo Name of Component E5100F018 Description	ition/Addenda of Section 2 onents Repaired or Replac Name of Manufacturer Crosby	XI Utilized for Repairs o ced and Replacement C Manufacturer Serial No. N65627-00-0001 nozzle, disc, and bus Pneumatic [] N	r19 components National Board No. N/A hing assemb	Other Identification V22-2587	Year Built 1982	Repaired, Replaced, or Replacement	ASMi Code Stamp (Yes or No

#### 9. The replacement nozzle, disc and bushing assembly were procurred per PO # 149503. Nozzle Heat Code /Trace # Remarks N90635-36-0027. Disc and bushing assembly Heat Code /Trace # 40-0013.

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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</u> conforms to the rules of theASME Code, Section XI.
Туре Со	de Symbol Stamp Original Code Data reports to be supplemented by Owners Section XI Program #04-007
Certificat	te of Authorization No N/A Expiration Date N/A
Signed	R.M. Hambleton, Lead ISI Engineer GULL Date MRC14 5, 2004 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 3-2-04 to 3-12-04, 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.

Commissions NB 9486 ABINNS MIZCO National Board, State, Province, and Endorsements

Date March 12 20 a 2004

(10/94)

For complete work package, see Work Requests C261040100

# 04-008

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

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•	Owner Detroit I	Edison Company		Date	· · · · · · · · · · · · · · · · · · ·	Fe	bruary 17, 2005	
		Name						
	6400 North Dixie	Highway, Newport M Address	48166	Shee	et	10	of 5	
	Plant Fermi 2 Nuc	clear Power Plant		Unit			2	
		Name		Offic	<u> </u>		<u> </u>	
	6400 North Dixie	Highway, Newport M	1 48166					
			·			Deco Ma	aintenance	
		Address			•	rganization F	P.O. No., Job No., etc.	
	Work Performed by	Detroit Edison Con	npany		Code Symbol	•	N/A	
		Name	<u> </u>	Stam Autho	p prization No.		N/A	·····
	6400 North Dixie	Highway, Newport, M	1 48166		ation Date		N/A	
		Address						
	Identification	T& B N5-5(	Emergency Equipmer	nt Service W	later (DGSW) P	ump R300	1006	
	of System				•			
			·		( <b>5</b> )			
	(a) Applicable Con		• •	74 Edition 71 Edition	• • •	Addenda	N/A	Code Case
	(b) Applicable Edit	ion/Addenda of Section				Autonita		0000 0230
	Replacements				92-92 Addenda		;	
	•		•					
	Identification of Compor	nents Repaired or Replac	ced and Replacement C	omponents				
	·	nents Repaired or Replac	ced and Replacement C	omponents	<u></u>			
	Identification of Compor			•	Other	Vor	Poppirod	
	Identification of Compor	Name of	Manufacturer Serial	omponents National Board	Other	Year Built	Repaired, Replaced.	1
•	Identification of Compor			National	Other Identification	Year Built	Repaired, Replaced, or Replacement	Code
	Identification of Compor	Name of	Manufacturer Serial	National Board		•	Replaced,	Code Stampe (Yes
	Identification of Compor Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Identification	Built	Replaced, or Replacement	Code Stampe (Yes or No)
	Identification of Compor	Name of	Manufacturer Serial	National Board		•	Replaced,	Code Stampe (Yes
	Identification of Compor Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Identification	Built	Replaced, or Replacement Replaced	Code Stampe (Yes or No)
	Identification of Compor Name of Component R3001C006	Name of Manufacturer Goulds Pumps	Manufacturer Serial No TCN N0007-1	National Board No. N/A	Identification	Built	Replaced, or Replacement	Code Stampe (Yes or No) Y
	Identification of Compor Name of Component R3001C006	Name of Manufacturer Goulds Pumps	Manufacturer Serial No TCN N0007-1	National Board No. N/A	Identification	Built	Replaced, or Replacement Replaced	Code Stampe (Yes or No) Y
	Identification of Compor Name of Component R3001C006	Name of Manufacturer Goulds Pumps	Manufacturer Serial No TCN N0007-1	National Board No. N/A	Identification	Built	Replaced, or Replacement Replaced	Code Stampe (Yes or No) Y
	Identification of Compor Name of Component R3001C006	Name of Manufacturer Goulds Pumps	Manufacturer Serial No TCN N0007-1	National Board No. N/A	Identification	Built	Replaced, or Replacement Replaced	Code Stampe (Yes or No) Y
	Identification of Compor Name of Component R3001C006 R3001C006	Name of Manufacturer Goulds Pumps	Manufacturer Serial No TCN N0007-1	National Board No. N/A	Identification	Built	Replaced, or Replacement Replaced	Code Stampe (Yes or No) Y
	Identification of Compor Name of Component R3001C006 R3001C006	Name of Manufacturer Goulds Pumps Enertech	Manufacturer Serial No TCN N0007-1 11341	National Board No. N/A N/A	Identification N/A N/A	Built 1977 2004	Replaced, or Replacement Replaced Replacement	Code Stampe (Yes or No) Y
	Identification of Compor Name of Component R3001C006 R3001C006	Name of Manufacturer Goulds Pumps Enertech Replace existing DC	Manufacturer Serial No TCN N0007-1 11341 SSW Pump with a new	National Board No. N/A N/A	Identification N/A N/A ufactured to the	Built 1977 2004 original de	Replaced, or Replacement Replaced Replacement	Code Stampe (Yes or No) Y Y
	Identification of Compor Name of Component R3001C006 R3001C006	Name of Manufacturer Goulds Pumps Enertech Replace existing DG 32781. Component	Manufacturer Serial No TCN N0007-1 11341 SSW Pump with a new s replaced included al	National Board No. N/A N/A	Identification N/A N/A ufactured to the mns, column bol	Built 1977 2004 original de	Replaced, or Replacement Replaced Replacement	Code Stampe (Yes or No) Y Y
	Identification of Compor Name of Component R3001C006 R3001C006	Name of Manufacturer Goulds Pumps Enertech Replace existing DG 32781. Component	Manufacturer Serial No TCN N0007-1 11341 SSW Pump with a new	National Board No. N/A N/A	Identification N/A N/A ufactured to the mns, column bol	Built 1977 2004 original de	Replaced, or Replacement Replaced Replacement	Code Stampe (Yes or No) Y Y
	Identification of Compor Name of Component R3001C006 R3001C006	Name of Manufacturer Goulds Pumps Enertech Replace existing DG 32781. Component	Manufacturer Serial No TCN N0007-1 11341 SSW Pump with a new s replaced included al	National Board No. N/A N/A	Identification N/A N/A ufactured to the mns, column bol	Built 1977 2004 original de	Replaced, or Replacement Replaced Replacement	Code Stampe (Yes or No) Y Y
	Identification of Compor Name of Component R3001C006 R3001C006	Name of Manufacturer Goulds Pumps Enertech Replace existing DC 32781. Component box. The discharge	Manufacturer Serial No TCN N0007-1 11341 SSW Pump with a new s replaced included al head/flange portion w	National Board No. N/A N/A N/A	Identification N/A N/A ufactured to the mns, column bol	Built 1977 2004 original de ting, and p	Replaced, or Replacement Replaced Replacement	Code Stampe (Yes or No) Y Y
	Identification of Compor Name of Component R3001C006 R3001C006 Description of Work	Name of Manufacturer Goulds Pumps Enertech <u>Replace existing DC</u> <u>32781. Component</u> box. The discharge	Manufacturer Serial No TCN N0007-1 11341 <u>assw Pump with a new</u> <u>s replaced included al</u> <u>head/flange portion w</u> Pneumatic [] No	National Board No. N/A N/A N/A	Identification N/A N/A ufactured to the mns, column bol aced.	Built 1977 2004 original de ting, and p	Replaced, or Replacement Replaced Replacement	Code Stampe (Yes or No) Y Y
	Identification of Compor Name of Component R3001C006 R3001C006 Description of Work	Name of Manufacturer         Goulds Pumps         Enertech         Beplace existing DC         32781. Component box. The discharge         Hydrostatic [ ]	Manufacturer Serial No TCN N0007-1 11341 <u>assw Pump with a new</u> <u>s replaced included al</u> <u>head/flange portion w</u> Pneumatic [] No	National Board No. N/A N/A N/A	Identification N/A N/A ufactured to the mns, column bol aced.	Built 1977 2004 original de ting, and p	Replaced, or Replacement Replaced Replacement	Stamper (Yes or No) Y Y Y

9. Remarks

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Replacement components / materials installed included the following: Pump Assembly Serial No. #11341 procured per PO# 384406, Pump Column Assemblies, Serial No. 918, 919, 920, 921, 922, 923, 924, and 925, SA106 Grade B / SA516 Grade 70, were procured per PO# 384310, Pump Bolting Material, SA193 Grade B7, Procured per PO# 304309

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE OF COMPLIANCE
We certi	y that the statements made in the report are correct and this Replacement conforms to the rules of the ASME Code, Section X
Туре Со	de Symbol Stamp Original Code data report T&B -5 to be supplemented by Owners Section XI Program 04-008
Certificat	e of Authorization NoN/AExpiration DateN/A
Signed	R.M. Hambleton Lead ISI Engineer RIM Delite Date FEBRINO 17.2005
	Owner or Owner's Designee, Title

Province of <u>Michigan</u> and employed by <u>HSB</u> C components described in this Owner's Report during the period	National Board of Boiler and Pressure Vessel Inspectors and the State or <u>T</u> of <u>One State Street</u> , <u>Hartford</u> , <u>CT 06102</u> have inspected the dOP-27-Of to <u>O2-21-05</u> , and state that to the best of my s and taken corrective measures described in this Owner's Report in n XI.
	er makes any warranty, expressed or implied, concerning the examinations urthermore, neither the Inspector nor his employer shall be liable in any of any kind arising from or connected with this inspection.
Inspector's Signature	National Board, State, Province, and Endorsements
Date February 21 20 05	

For complete work package, see Work Request 1130050100

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 ____

04-005

ZOFS

1. Manufactured and	certified by Enert	ech, A Div.	of Curtiss-V	Vright Flow Co	ntrol Corp.; 2	950 Birch Si	t.; Brea, CA 928
		Dotroit Ed		me and address o			0
<ol><li>Manufactured for _</li></ol>		Detroit Ed		2nd Avenue; and address of F		+8220-127	9
• • •	· · ·	atrait Edia	*			Second SE	10400
3. Location of installa	tionL			EF2; 6400 Di		ewport, IVII	48166
	\//Т	R"¥12" IMC				C	CRN N/A
4. Model No., Series 1	No., or Type				Rev	· · · · · · · · · · · · · · · · · · ·	CRNN/A
		197	4	No	3	2	none
5. ASME Code, Section	on III, Division 1:	(editio		(addenda date)	 (cla)		(Code Case no.)
	Pump			12		8	10000 0432 110.1
<ol> <li>Pump or valve</li> </ol>		Nominal ini	et size	(in.)	Outlet size	(in.)	
. Material: Body	*	Bonnet	N/A	Disk	N/A	Bolting _	N/A
(a)	(b)		(c)		(d)		(e)
Cert.	Nat'l		Body		Bonnet		Disk
Holder's	Board		Serial		Serial		Serial
Serial No.	· No.		No.		No.	•	No.
11341	N/A	· · · ·	*.	<u></u>	N/A	·	N/A
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• 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, (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.



REPRINT 6/93

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FORM NPV-1	(Back -	Pg. 2	of $\frac{2}{1}$

	•			Certifi	cate Holder's	Serial No	11341
J. Design conditions	75 [·]		100	PEorva	lve pressure	class	N/A
. Design conclutions	(pressure)	psi	(temperature)		ive pressure		
Cold working pressure		———— hai	at 100°F		•		•
Hydrostatic test	25/***110	psi. Disk diff	ferential test pre	ssure		N/A	 
Remarks: Qty. 1, Ener	tech Project Nu	Imber 840025 '	Tag Number 667	8 (Serial No. 11	341)		
*/ ** Stuffing	Box: (S/N 658	1) SA479 Tp. 4	410 ,				<u>.</u> .
*/ ** Top Int	erm, Bowl, Inte	erm. Bowt: (S/N	5507, 5506) SA	216 Gr. WCB			
*/ *** Top Cc	olumn Assy, Int	erm. Column, I	Bott, Column Ass	y. (S/N 918 thr	925) SA106	Gr. B/SA516	Gr. 70
						•	
<u>.</u>		CERT		DESIGN			····
esign Specification certi	Find by	Michael S.	Williams	_ P.E. State _	мі	Reg. no.	31686
		N/A		_ P.E. State _	N/A	Reg. no	N/A
esign Report certified by						neg. no	
•				·		•	
······································		CEBTI	FICATE OF COM	PLIANCE			
· · · ·		CERTI	FICATE OF COM	PLIANCE		•	······
e certify that the statem					alve conforms	to the rules	for construction
		this report are	correct and that		alve conforms		
the ASME Code, Section	on III, Division	this report are			alve conforms		for construction
the ASME Code, Section	on III, Division	this report are	correct and that		•		
the ASME Code, Section	on III, Division	this report are	correct and that N-2826		•		
the ASME Code, Section	on III, Division	this report are 1.	correct and that N-2826 ch		•		
the ASME Code, Section	on III, Division	this report are 1. Enerted	correct and that N-2826 ch		•		
the ASME Code, Section	on III, Division	this report are 1. Enerted	correct and that N-2826 ch		•		
the ASME Code, Section	on III, Division	this report are 1. Enerted (N Certificate	correct and that N-2826 ch Holder)	this pump or va	•		
the ASME Code, Section	on III, Division	this report are 1. Enerted (N Certificate	correct and that N-2826 ch	this pump or va	•		
the ASME Code, Section Certificate of Authorization the <u>9/9/04</u> Na	on III, Division tion No 	this report are 1. Enerted (N Certificate CERTI	CORRECT and that N-2826 Ch Holder) FICATE OF INSP	this pump or va	Expires	10/1	1/05 7 *a.f0- milet
the ASME Code, Section Certificate of Authorization the <u>9/9/04</u> Na	on III, Division tion No 	this report are 1. Enerted (N Certificate CERTI nmission issue	correct and that N-2826 ch Holder) FICATE OF INSF	This pump or va Signed 2 - PECTION al Board of Bo	Expires	10/1	Inspectors and
the ASME Code, Section Certificate of Authorization the <u>9/9/04</u> National N	ng a valid com	this report are 1. Enerted (N Certificate CERTI	correct and that N-2826 ch Holder} FICATE OF INSF ed by the Nation	This pump or va Signed 2 ECTION al Board of Board of Board of Board by	Expires	10/1 fized represent fissure Vessel HSB, C	Inspectors and
the ASME Code, Section Certificate of Authorization the <u>9/9/04</u> National N	n III, Division tion No	this report are 1. Enerted (N Certificate CERTI mission issue California	correct and that N-2826 ch Holder) FICATE OF INSF ed by the Nation ar have inspec	Signed z Signed z ECTION al Board of Bo and employed by ted the pump,	Expires	10/1 fta ized represent ssure Vessel HSB, C cribed in this	Inspectors and Data Report on
the ASME Code, Section Certificate of Authorization its $\frac{9/9/04}{04}$ National Na	n III, Division tion No	this report are 1. Enerted (N Certificate CERTI mission issue California d state that to	correct and that N-2826 ch Holder) FICATE OF INSE ed by the Nation have inspec to the best of my	Signed , Signed , ECTION al Board of 3d ad employed by ted the pump, knowledge ar	biler and Press	10/1 fta ized represent ssure Vessel HSB, C cribed in this	Inspectors and Data Report on
the ASME Code, Section Certificate of Authorization its $\frac{9/9/04}{04}$ National Na	n III, Division tion No	this report are 1. Enerted (N Certificate CERTI mission issue California d state that to	correct and that N-2826 ch Holder) FICATE OF INSE ed by the Nation have inspec to the best of my	Signed , Signed , ECTION al Board of 3d ad employed by ted the pump, knowledge ar	biler and Press	10/1 fta ized represent ssure Vessel HSB, C cribed in this	Inspectors and Data Report on
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the ASME Code, Section Certificate of Authorization ate <u>9/9/04</u> Nate the undersigned; holding the state or Province of <u>Co</u> <u>Co</u> <u>Co</u> <u>y. G. Dy</u> ucted this pump, or value signing this certificate, imponent described in the personal injury or prop	on III, Division tion No ame ame ame ame ame ame on ether the in his Data Report perty damage of	this report are 1. Enerted (N Certificate CERTI mission issue California d state that to nce with the A hspector nor h t. Furthermore	correct and that N-2826 ch Holder) FICATE OF INSF ed by the Nation have inspec to the best of my SME Code, Sector is employer makes, neither the inst	This pump or va Signed 2 ECTION al Board of Bo ad employed by ted the pump, knowledge ar tion III, Division tes any warran pector nor his t	Expires (author (author) oiler and Press or valve, desc nd belief, the n 1. ty, expressed employer shall	10/1 factorized represents fized represents fized represents fized in this Certificate H d or implied, Il be fiable in	Inspectors and Data Report on folder has con-
the ASME Code, Section Certificate of Authorization ate <u>9/9/04</u> Nation the undersigned; holding the undersigned; holding e State or Province of <u>Constant</u> <u>9.9.00</u> ructed this pump, or value signing this certificate, imponent described in the personal injury or prop	on III, Division tion No ame ame ame ame ame ame on a valid corr on necticut , and ve, in accordant we, in accordant on a valid corr on necticut , and ve, in accordant nis Data Report perty damage of <i>Quud</i>	this report are 1. Enerted (N Certificate CERTI mission issue California d state that to nce with the A hspector nor h t. Furthermore or a loss of any <i>Q. Peyper</i>	correct and that N-2826 ch Holder) FICATE OF INSF ed by the Nation have inspec to the best of my SME Code, Sector is employer makes, neither the inst	Signed 2 Signed 2 ECTION al Board of Bo and employed by ted the pump, knowledge ar tion III, Division es any warran pector nor his m or connected s	Expires (author (author of valve, desc of valve, desc of valve, desc of belief, the of 1. ty, expressed employer shal d with this ins	10/1 fized represents fized represents fized represents the spectron cribed in this Certificate H d or implied, Il be fiable in spection.	Inspectors and Data Report on folder has con- concerning the any manner for
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· As ne		d One Day's Production		Pg_1_of
. Manufactured and certified by	Enertech, A Div. of Curt	iss-Wright Flow Control Co		n St.; Brea, CA 9282
Manufactured for	Detroit Edison;	2000 2nd Avenue; Detroit,		79
	Datmit Ediaant	(name and address of purchaser) Fermi EF2; 6400 Dixie Hw	Novment 1	
. Location of installation	Denoit Euison,	(name and address)	y., Newpon, K	/1 40 100
. Type D1700 Rev. G		0,000 / 70,000 PSI	N/A	2003
(drawing no.)	(mar'L spec. no.) 1974	(tensils strength) No	(CRN) 3	tyear built) None
ASME Code, Section III				(Code Case no.)
Enhricated in papardappa with		- N 1/A	N/A	DateN/A
Fabricated in accordance with	•			
Remarks: Oty. 2 Column, T	op (P/N: 641) for Goulds N	Iodel VIT Bx12JMC 2-Stag	je Pump -	• •
•				
Enertech Item N	o.: C9173N, Project No.: 8-	40009		
		·		
Part or Appurtenance	National	Part or Appurtenan	ice	National
Serial Number	Board No.	Serial Number		Board Number
· · · ·	in Numerical Order	· · ·		In Numerical Order
019	N/A			
(1) <u>918</u> . (2) 919	N/A	(26)	<u> </u>	•
(2)919 (3)	· · · ·	(28)		
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8) 9) 10)		(35)		
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*Supplemental information in the form of lists, skatches, or drawings may be used provided (1) size is 8½ 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.

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This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017.

### FORM N-2 (back)

				^{-'} Mfr. Serial	No. 918 & 919
	CERTIFIC	ATE OF DESIG	in .	•	
	Michael S.	Williams	P. E. sta	te MI	
Design specifications certified by	(when applicat				_ neg. no
Design report* certified by	• N/A		P. E. staf	te	_Reg. no
	(when applicabl	1e)			
•	CERTIFICATE O	F SHOP COMP	LIANCE		
We certify that the statements made in t conform to the rules of construction of	•		T	op Column	
NPT Certificate of Authorization no.	N-282	27	Expires	October	11,2005
			Ling	4. 1	
Date_12/10/03 Name	tech, A Div. of Curtiss-Wright Flov (NPT Centificate Holder)	r Control Corp.	. Signed		rayo.
	CERTIFICATE O	F SHOP INSPE	CTION	•	
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By signing this certificate, neither the in					
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Manufactured for		2000 2nd Avenue; Detro	oit, MI 48226-1	279
		ermi EF2; 6400 Dixie +		MI 48166
Location of installation		(name and address)		, MI 40100
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Enertech Item No	o.: C9174N, Project No.: B4	0009		
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esign specifications cartified	by	· Michael S. V	Villiams.	P. E. state		31686
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Date 12/10/03 Name	Enertech, A D	iv. of Curtiss-Wright Flow	Control Corp. Signed	Kasit	to, Anua	· .
ate <u>e / e / e</u> Name	,	(NPT Certificate Holder)	Signed	(authorized	representative)	<u> </u>
· ·			SHOP INSPECTION			
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*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. This form (E00040) may be obtained from the Order Dept, ASME, 345 E. 47th St., New York, N.Y. 10017. •

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•	FORM N-2 (back)		· ·	
	·		Mfr. Serial No	325
•	CERTIFICATE OF DESIG	ìN		
Design specifications certified by	. Michael S. Williams	P. E. state	MI Beg, np3	31686
Design specifications continue of	(when applicable)			
Design report* certified by	(when applicable)	P. E. state_	Reg. no	
	CERTIFICATE OF SHOP COMP	LIANCE		
	· · · · · · · · · · · · · · · · · · ·	Intérme	diate Column	
We certify that the statements made in conform to the rules of construction of	n this report are correct and that this (these) of the ASME Code, Section III.			
NPT Certificate of Authorization no.	N-2827	Expires	October 11, 2005	
Date_ <u>12/10/03</u> _NameEn	entech, A Div. of Curtiss-Wright Flow Control Corp. (NPT Centificate Holder)		a (maya of representative)	e
· ·	CERTIFICATE OF SHOP INSPE	CTION	•	
the undersigned, holding a valid com	mission issued by the National Board of Bo	oller and Pressure Vessel	Inspectors and the stat	e or pi
nce of <u>California</u> and emp	ployed by	HSB CT		·
	ected these items described in this data re Certificate Holder has fabricated these part	,		
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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

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1.	Owner <u>Detroit E</u>	dison Company	: 	Date		Fel	oruary 17, 2005	
	6400 North Dixie	Name Highway, Newport Mi	48166	Shee	t	1 of	6	
		Address						
2.	Plant Fermi 2 Nuc	lear Power Plant		Unit			2	
		Name						
	6400 North Dixie	Highway, Newport MI	48165			Dees Ma		
	<u> </u>	Address	· · · · · · · · · · · · · · · · · · ·		Penairi		intenance .O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Com	nanv	Type	Code Symbol	organzanon r	N/A	
0.			puly	Stam	•			
		Name			prization No.		N/A	
	6400 North Dixie	Highway, Newport, M	48166	Expire	ation Date		N/A	·····
		Address	·				· .	
4.	Identification of System	<u>T &amp; B N5 – 4 (</u>	Emergency Equipmer	nt Service W	/ater (EESW) F	Pump P4500	DC002A	<u></u>
-								
5.	(a) Applicable Con	struction Code ASN	•	74 Edition 71 Edition	· · · · ·	Addenda	N/A	Code Case
	(b) Applicable Editi	on/Addenda of Section )			<u>, /1</u>	Autentia	N/A	
	Replacements	orraderida di Oscilditi	A Duized for Hepans D		92-92 Addenda			
	•							
6.	Identification of Compon	ents Repaired or Replac	ed and Replacement C	omponents	•			
						<u></u>		
	<i>.</i>	· · · · ·						
	Name of -Component	Name of Manufacturer	Manufacturer Serial No	National Board	Other Identification	Year Built	Repaired, Replaced,	ASME Code
{	- oomponent	ivid: luidclui ei	NO	No.	roshimcanon	Duint	or Replacement	Stamped
1							or nopidocincin	Yes
								or No)
	P4500C002A	Goulds Pumps	TCN N0006-1	N/A	N/A	1977	Replaced	Y
	P4500C002A	Enertech	11342	N/A	N/A	2004	Replacement	Y
					·			
			4 44 44 A			1		
							·······	
		.			•			
	Description					<u> </u>	<u></u>	<u> </u>
7.	of Work	Replace existing EF	SW Pump with a new		ufactured to the	e original de	sian requirements	Der EBE
			s replaced included a					
	•		head/flance portion v			<u>, on ing tang</u>		<u></u>
			· · · · · · · · · · · · · · · · · · ·		••			
	•							
8.	Tests Conducted:			ominal Operat	ing Pressure [)			•
		Other [] Pressure	ps	i Tes	st Temp	°F		
			a attaction and a				<b>W</b> 4 4 1	
		ntal sheets in form of list ns 1 through 6 on this re						

sheets is recorded at the top of this form.

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9. Remarks

Replacement components / materials installed included the following: Pump Assembly Serial No. #11342 procured per PO# 384408, Pump Column Assemblies, Serial No. 926, 927; 930, 931, 932, 933, 934, and 935, SA106 Grade B/ SA516 Grade 70, were procured per PO# 384313, Pump Bolting Material, SA 193 Grade B7, Procured per PO# 304309

#### Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE C	OF COMPLIANCE	
We certify that the statements made in	the report are correct and this	Replacement conforms to the n	ules of the ASME Code, Section XI.
Type Code Symbol Stamp Original Co	de data report T&B -4 to be su	pplemented by Owners Section	XI Program_04-009
Certificate of Authorization No	<u>N/A</u>	Expiration Date	
Signed <u>R.M. Hambleton Lead IS</u> Owner or Owner's Designee, T		LE Date FESS	2UARY 17,2005

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 <u>Michican</u> and employed by <u>HSB_CT</u> of <u>One State Street</u> , <u>Hartford</u> , <u>CT 06102</u> have inspected the components described in this Owner's Report during the period <u>P_2_2_6</u> ( <u>0</u> <u>2</u> - <u>2</u> <u>2</u> ), 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
Date February 22 2005
(10/94)

For complete work package, see Work Request I461040100

04-009. ZOFG

#### 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_

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1. Menutactu:	red and cert	Ified by Enert	ech, A Div. c	of Curtiss-W	right Flow Co	ontrol Corp.; 29	50 Birch St	t.; Brea, CA 92821	
						of N Certificate Hol			
2. Manufactur	red for		Detroit Edis	and the second se		Detroit, MI 4	8226-127	9	
					and address of I				
3. Location of	installation	D	etroit Edison; Fermi EF2; 6400 Dixie Hwy.; Newport, Ml 48166						
				•	(name and address)				
4. Model No.,	Series No.,	or Type VIT-	8"x14" JMC	Drawing _	MD21145	Rev	<u>C</u>	CRNN/A	
5. ASME Code	e, Section I	II. Division 1:	<u>1974</u>	·	No	3	<u></u>	none	
	-,		ledition	)	(addenda date)	(class		(Code Case no.)	
6. Pump or val	iveF	Pump	Nominal inle	t size	14	Outlet size	8		
					(in.)		{in.}		
7. Máterial: I	Body	*	Bonnet	N/A	Disk	N/A	_ Bolting _	N/A	
(B)		(b)	•	(c)		(d)		(e)	
Cert.		Nat'i		Body		Bonnet	•	Disk	
Holder's		Board		Serial		Serial		Serial	
Serial No.		No.	-	No.		No.		No.	
11342		N/A		*		N/A		N/A	
			, <u></u> _	;					
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* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8½ × 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 Lew Drive, Box 2300, Fairfield, NJ 07007-2300.

REPRINT 6/33

# FORM NPV-1 (Back - Pg. 2 of ____)

			Certificate Holder's Serial	No11342
B. Design conditions(	125 psi	100 (temperature)	•F or valve pressure class .	N/A
. Cold working pressure	Ν/Δ	at 100°F		
). Hydrostatic test**200 /*	***175 psi. Disk difi	ferential test press	ureN/A	p
. Remarks: Qty. 1, Enertech F	Project Number 840026	Tag Number 6679 (	Serial No. 11342)	
	: (S/N 6682) SA479 Tp.			
	. Bowl, Interm. Bowl: (S/ Assy, Interm. Column,		(S/N 926, 927, 930 thru 935) SA	106 Gr. B/SA516 Gr. 70
		••••••••••••••••••••••••••••••••••••••	<u> </u>	
	. CERT	TIFICATION OF DE	SIGN	
Design Specification certified b		Williams	P.E. State MI Reg	1. no. <u>31686</u>
Design Report certified by	- Ν/Δ		NT/A	3. no. <u>N/A</u>
Na cartify that the statements		FICATE OF COMPL		niles for construction
•	made in this report are o		IANCE s pump or valve conforms to the	rules for construction
of the ASME Code, Section III.	made in this report are a			rules for construction
of the ASME Code, Section III.	made in this report are o Division 1. No Enerted	correct and that th N-2826 ch	s pump or valve conforms to the	
of the ASME Code, Section III, N Certificate of Authorization N $Q[Q]_{Q/2}$	made in this report are a Division 1. No	correct and that th N-2826 ch	s pump or valve conforms to the	10/11/05 Grazja
of the ASME Code, Section III, N Certificate of Authorization N	made in this report are o Division 1. No Enerted	correct and that th N-2826 ch	s pump or valve conforms to the Expires Signed	10/11/05 Grazja
of the ASME Code, Section III, N Certificate of Authorization N $Q[Q]_{Q/2}$	made in this report are o Division 1. No Enerted (N Certificate	correct and that th N-2826 ch	s pump or valve conforms to the Expires Signed	10/11/05 Grazja
of the ASME Code, Section III, N Certificate of Authorization N Date <u>9/9/04</u> Name , the undersigned, holding a v	made in this report are o Division 1. No (N Certificate (N Certificate CERTII valid commission issue California	correct and that the N-2826 Ch Holder) FICATE OF INSPEC d by the National	s pump or valve conforms to the Expires Signed Association (authorized rep TION Board of Boiler and Pressure V	10/11/05 Graya resentative
of the ASME Code, Section III, N Certificate of Authorization N Date <u>9/9/04</u> Name	made in this report are o Division 1. No Enerted (N Certificate CERTII valid commission issue California Cticut	correct and that the N-2826 Ch Holder) FICATE OF INSPEC d by the National and	s pump or valve conforms to the Expires Signed Accella (authorized rep TION Board of Boiler and Pressure N employed byHS If the pump, or valve, described	10/11/05
of the ASME Code, Section III, N Certificate of Authorization N Data $\frac{q/q}{04}$ Name the undersigned, holding a v he State or Province of f $Q_1 Q_2$	made in this report are o Division 1. No (N Certificate (N Certificate) CERTIN valid commission issue California Cticut	correct and that the N-2826 ch Holder) FICATE OF INSPEC d by the National and have inspected o the best of my k	s pump or valve conforms to the Expires	10/11/05
of the ASME Code, Section III, I Certificate of Authorization N Date $9/9/04$ Name the undersigned, holding a v the State or Province of f $Q_1 Q_2 Q_4$ tructed this pump, or valve, in	made in this report are of Division 1. No (N Certificate (N Certificate CERTIN valid commission issue California cticut , and state that to accordance with the A	Correct and that the N-2826 Ch Holder) FICATE OF INSPEC d by the National and have inspected the best of my k SME Code, Section	s pump or valve conforms to the Expires	10/11/05
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		-		*6013	rected 11/23/04
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	Form N-2 N	OR NPT CERTIFICA	TE HOLDERS' DAT.	A REPORT FOR ID	ENTICAL 3026
	•	NUCLEAR PA	RTS AND APPURTE	NANCES*	
	As Rec	uired by the Provisio	ns of the ASME Code	, Section III, Division	n 1
	<b>.</b>		ceed One Day's Produ		Pr 1 012
I. ME	nufectured and contilisd by	Enertech, A Div. of C	Curtiss-Wright Flow Cor		I St.; Brea, CA 92821
•••••			fourse and attinues	of certificete holder)	
2 146	nuferture: for :	Detroit Edis	on; 2000 2nd Avenue; I	Detroit, MI 48226-1271	8
			ות המשלא השלא באל העודה לא		·
3 kar	stion of installation	Detroit Edisc	on; Fermi EF2; 6400 Di	kie Hwy.; Newport, Ml	48165
		74 I	(name and addr	22	
4. Týp	D1691 Rev. H	SA-106-B/SA-516-70	50,000 / 70,000 PSI	N/A	2003
41.135	(drawing no.)	(mar'l spec. no.)	(tensile strength) -	(CRN)	iyear bully .
124 2	ME Code, Section III:	1974	No	3	None
u. 70		(adition)	(addenda)	{class}	(Code Case no.)
6. Fab	nicated in accordance with	Const. Spec. (Div. 2 only	r) <u>N/A</u> Rėvi (No.)	sion <u>N/A</u>	Date N/A
7. Ren	narks: <u>Qty. 1 Column, To</u>	op (P/N: *641A) for Go:	ulds Model VIT Bx14JN	C 2-Stage Pump -	
-	Enertech Item No	.: C9179N, Project No	: 840012		
					E STATE

B. Nom. thickness (in.) 0.281 Min. design thickness (in.) 0.162 Dia. ID (ft. & in.) 7.981 5-0 _ Length overall (ft. & in.). 9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	Nztional Board No. in Numerical Order		Part or Appurtenance Serial Number	National Board Number In Numerical Order
1) 926	N/A	(25)	•	
21			· · · · · · · · · · · · · · · · · · ·	
3)	·	(28)	•	<u> </u>
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31				
4)		• •		
5)		(50)_		

(when applicable) (when applicable) "Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is EX 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. This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017.

(6/85)-1

## FORM N-2 (back)

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					Mfr. Serial No	•	925
	•	CERTIFICATE	E OF DESIGN	· · ·			
		Michael S. Wil	liams	P. E. state	MI sa		31686
Design specifications cartifie		(when applicable)		P. E. SIEI9_	Re	g. no	
		N/A		P. E. state	2~	a. no	
Design report* contified by_	·····	(גוונבר בברג השווא)		F. 2. 2.1116_	<b>``</b> E	2. 10	
	<u> </u>	CERTIFICATE OF SI	Hop compliance				
No certify that the statement:	s made in this rep:	ort are correct and that	this (these)	Тор	Column		•
conform to the rules of const			•				
NPT Certificate of Authoriza	stion na.	N-2827	Expir	es	October 11,	2005	
		v of Currice Mitch Flow Co	•	Jaco H	- 1.		
Date 11/23/04 Nar	TIB	(NPT Centificate Holder)	· Signed _	Jauthorized	representative)	<u>ya</u>	<u> </u>
		CERTIFICATE OF SI	HOP INSPECTION			<u> </u>	
the undersigned, holding a v					nspectors and	the sta	te or pro-
		- itams described in t	his data report on		3	· ·	
est of my knowledge and bel	•				•		
				nances in acc	organce with	ing ASI	va Cobe,
ection III. Each part listed hz							•
y signing this certificate, nel							
escribed in this data raport. F roperty damage or loss of an				ole in any mai	iner for any p	srsonal	זכ עזענתו
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*Corrected 11/23/04

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(when applicable)

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FORM N-	2 N OR NPT CERTIFIC	ATE HOLDERS' DA	<b>TA REPORT FOR</b>	RIDENTICAL 04-0
	NUCLEAR P/	ARTS AND APPURT	TENANCES*	40=6
As	Required by the Provisi	ons of the ASME Co	de, Section III, Div	rision 1
	-	ceed One Day's Pro	• •	Pr 1 of 2
				Birch SL; Brea, CA 92621
1. Menulectured and certified	by Ellertech, A Div. Of		ese of pertificate holdes)	SIICH OL, DIES, CA SZOZI
		son; 2000 2nd Avenue	•	1070
2 Identicatived for		firme and accreate		1219
	Debalt Edu	•		4 MI 40100
3. Location of installation _	Debolt Euls	son; Ferni EF2; 6400		C, WII 40100
- 		•		0000
4. Type D1691 Rev. H	SA-100-5/5A-516-70	60,000 / 70,000 PS		2003
(crawing no.)		tiensile strength)	(CRN)	(year built)
5. ASME Code, Section III:	1974	<u>No</u> .	3	None
•	(edition) .	(addenda)	[class]	(Code Case no.)
6. Febricated in accordance	with Const. Spec. (Div. 2 on	ly) N/AR	evisionN/A	DateN/A
•		(		
7. Remarks: <u>Qty. 1 Column</u>	1, Top Intermediate (P/N: )	641B) for Goulds Mo	del VIT 8x14JMC 2	-Stage Pump -
Enertech Iten	No.: C9180N, Project N:	5.: 840012		
		··· .		······································
		•		· · · · ·
3. Nom. thickness (in.) _0.28	1 Ett duala shielangan li	0.162 Dia 10 (th	R := \ 7.981"	45
6. When applicable, Certificat				
. when applicable, Certification		anached für each nem	di uns report.	· · ·
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Serial Number	Board No.	11	I Number	Board Number
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	In Numerical Order			HI WAIIISHGELOTABI
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*Supplemental information in the form of lists, skatches, or drawings may be used provided (1) size is EX X 1, (2) information in items 2 and 3 on this date report is included on each these, (3) each sheet is numbered and the number of sheets is recorded at the top of this form. This form (E00040) may be obtained from the Order Dept., ASIME, 345 E. 47th St., New York, N.Y. 10017.

_ °F. Hydro, test pressure.

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(45)

(45)

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_psi Temp._

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(25).

10. Design pressure_

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			FORM N-2 (bac	:k)			,	927	
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	•	.CE	ERTIFICATE OF DE	SIGN	• .	•			
Design specifications certifie	d by	. Mich	nael S. Williams	·	_P. E. state	<u></u>	eg. no	31685.	
		-	(aldaoliqqa				•	•	
Design report' contified by			N/A		_P. E. state	Fa	rg. nc	`	
		CERTIFIC	CATE OF SHOP CO	MPLIANCE			<u> </u>		
					Top (	Column			
We certify that the statements conform to the rules of const				:50 <u>;</u>					
NPT Certificate of Authorize	tion no		N-2827	Expire	. 0	Dotober 11	, 2005	ľ	
				•	D 44	$\overline{\Lambda}$	<u> </u>		
Date 11/23/07 Nan	18Enerlech,	A Div. of Curtiss-Vi (NPT Centificate	Wight Flow Control Corp. # Holder)	Signed	ACKILL.	epresentative)	jeen -	i	
		CERTIFIC	CATE OF SHOP INS	SPECTION	•				
, the undersigned, holding a va	alid commissi	ion issued by th	e National Board of	Boller and Press	sura Vessel ins	spectors an	d the state		
California		d by		HSB (	CT				•
	ano empioye	0 <i>DY</i>				12			
			scribed in this data	report on	12.10.0	2 inc	i state tha	t to the	
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Def Connecticut hat best of my knowledge and bell Section III. Each part listed has	ve inspected ef, the Certifi s been author	these items der icate Holder has rized for stample	scribed in this data s fabricated these p ing on the date sho	arts or appurten wn above.	ances in accor	rdance with	i the ASM	≘ Code,	
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of <u>Connecticut</u> ha best of my knowledge and bell Section III. Each part listed has By signing this certificate, nel described in this data report. F property damage or loss of any	ve inspected ef, the Certifi s been author ther the Inspec- furthermore, r	these items derivate Holder has rized for stample ector nor his en heither the inspir from or connect $\mathcal{L}$	scribed in this data s fabricated these p ing on the date sho nployer makes any ector nor his emplo cted with this inspe	win above. warranty, expres warranty, expres over shall be ilabi ction.	ances in according the set or implies le in any mann $\mathcal{BQ}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}P$	rdance with 1, concernin er for any ( 557)	the ASM ng the equ personal li	E Code, ulpment njury or	
	ve inspected ef, the Certifi s been author ther the Inspec- furthermore, r	these items derivate Holder has rized for stample ector nor his en heither the inspir from or connect $\mathcal{L}$	scribed in this data s fabricated these p ing on the date sho nployer makes any ector nor his emplo cted with this inspe	win above. warranty, expres warranty, expres over shall be llab otion.	ances in according the set or implies le in any mann $\mathcal{BQ}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}\mathcal{P}P$	rdance with 1, concernin er for any ( 557)	the ASM ng the equ personal li	E Code, ulpment njury or	

	•	NUCLEAR PAI	RTS AND APPUF		SOFO
			eed One Day's Pr	ode, Section III, Divisi	$\frac{1}{F_{p-1}} ot \frac{2}{2}$
1.	Manufactured and certified by	Enertech, A Div. of C		Control Corp.; 2950 Bird	ch St.; Brea, CA 92821
2.	Manufectured for	Detroit Edisc	on; 2000 2nd Aven	ue; Detroit, MI 48226-12	279
3.	Location of installation	Detroit Ediso		s of purchaser) 10 Dixie Hwy.; Newport, I 1d address)	MI 48166
4.	TypeD1691 Rev. H	SA-106-B/SA-516-70	60,000 / 70,000	PSIN/A	2003
5.	(drawing no.) ASME Code, Section III	(matil spec, no.) 	(tensile strength)	(CRN) 3	typer built: None
6.	Fabricated in accordance with	(edition) Const. Spec. (Div. 2 only	(addenda) )N/A (No.)	Revision N/A	(Code Case no.) DateN/A
7.	Remarks: <u>Qty. 5 Column, Int</u>	termediate (P/N: 642) jo	or Goulds Model V	IT 8x14JMC 2-Stage P	umo -
	Enertech Item No	.: C9174N, Project No.	: 840012	<u>.</u>	
-	· · · · · · · · · · · · · · · · · · ·		· · · ·	•	· · · · ·

8. Nom. thickness (in.) 0.281 Min. design thickness (in.) 0.162 Dia. ID (it. & in.) 7.981⁺ Length overall (it. & in.) 5'-0"
 9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerica! Order	•	Part or Appurtenance . Serial Number	National Board Number in Numerical Order
(1) 930	N/A	(26)		
(2) 931	N/A	1271		
(3) <u>932</u> 933	N/A	(28)		
4	N/A	(29)		
5) 934	N/A	(30)		
6)				
7)		(32)		
8)		(33)_		
9)	•	(34)_		
10)		(35) _		
11)		(36) _		
12)		(37)		
13)	· ·			
14)				
15)				
16)		• •		
17)				
18)				
19)		• •		
20)				
21)		• •		
22)	· · · ·			
23)				
24)		• •		
25)	· · · · · · · · · · · · · · · · · · ·			1

(when applicable)

*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.

(6/85)-1

FORM N-2 (back) 930 thru 934 Mfr. Serial No. CERTIFICATE OF DESIGN 31685 Michael S. Williams M P. E. state___ Reg, no. Design specifications certified by_ (when applicable) N/A Reg. no. P. E. state. Design report* certified by_ (when applicable) CERTIFICATE OF SHOP COMPLIANCE Intermediate Column We certify that the statements made in this report are correct and that this (these). conform to the rules of construction of the ASME Code, Section III. N-2827 October 11, 2005 Expires NPT Certificate of Authorization no. _ Date 12/10/03 Enertech, A Div. of Curtiss-Wright Flow Control Corp. Name (NPT Centricate Holder) leutherized repress CERTIFICATE OF SHOP INSPECTION t, the undersigned, holding a valid commission issued by the National Board of Boller and Pressure Vessel Inspectors and the state or pro-Ince of California and employed by HSB CT California ince of. _and employed by_ Connecticut Ю.0Э have inspected these items described in this data report on _ D. ol. , and sizie that to the best of my knowledge and bellet, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section 411, 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 rescribed in this data report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or perty damage or loss of any kind arising from or connected with this inspection. Civilo F. Reyos Commissions CA+520 NO 9435N (Nart. Bd. (Incl. endorsements) state or prov. and not 12. 10. Dosland Date_

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	NOR NPT CERTIFICA NUCLEAR PA equired by the Provisio	RTS AND APPURTE	NANCES*	604
		ceed One Day's Produ		$P_{2} \frac{1}{10}$
. Michufectured and certified by		Curtiss-Wright Flow Con	trol Corp.; 2950 Bir	
	Detroit Edis	on; 2000 2nd Avenue; E	•	70
. Weaufectured for		(הבהו בהל בלנהונ כי פנ		
Location of installation	Detroit Edis	on; Fermi EF2; 6400 Di		MI 46165
Type		60,000 / 70,000 PSI	N/A	2003
(drawing no.)	(mat'l. spec. no.)	(tensile strength)	(CRN)	(year built)
ASME Code, Section III	1974	(eddenda)	3	None (Code Case no.)
Fabricated in accordance wit	h Const. Spec. (Div. 2 only	N1/A	sionN/A	DateN/A
	•	(No.)		
Remarks: <u>Qty. 1 Column, E</u>			NO 2-Stage Fump	
Enertech Item N	lo.: C9181N, Project No.	.: 840012		
· · · · · ·	•			
Nom. thickness (in.) 0.281				overall (ft. & in.) - 5'-0"
When applicable, Certificate H	lolders' data reports are a	stached for each item of	this report:	
•••		]. [	·	
Part or Appurtenance	· National	Part or App		National
Serial Number	Board No.	N Isriel	umber	Board Number In Numerical Order
	in Numerical Order			
1)935	N/A	(25)		
2)		(27)		
3)		(28)		
4) ( 5) (		(29) (30)		· · · · · · · · · · · · · · · · · · ·
5)		(31)		
7)	· · · · · · · · · · · · · · · · · · ·	(32)		
5)		(33)		
»				· ·
O) 1)		(35)	1	······································
· · / · · · · · · · · · · · · · · · · ·		(37)	1	
21				
	<u></u>	(38)		
3)	······	(38)		
3)		(38) (39) (40)	· · · · · · · · · · · · · · · · · · ·	······
3) 4) 5) 6)		(38) (39) (40) (41)	· · · · · · · · · · · · · · · · · · ·	•
3) 4) 5) 6) 7)		(38) (39) (40) (41) (42)		•
3) 4) 5) 6) 7) 8)		(38) (39) (40) (40) (41) (42) (43)		· · · · · · · · · · · · · · · · · · ·
3) 4) 5) 6) 7) 8) 9)		(38) (39) (40) (40) (41) (42) (42) (43) (44)		•
3)   4)   5)   6)   7)   8)   9)   0)		(38) (39) (40) (40) (41) (41) (42) (43) (43) (44) (45)		
3)		(38)         (39)         (40)         (41)         (42)         (43)         (44)         (45)		
2)		(38) (39) (40) (40) (41) (41) (42) (43) (43) (44) (45)		
3)		(38)         (39)         (40)         (41)         (42)         (43)         (44)         (45)         (45)         (47)		

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"Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is BX 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.

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This form (EDD040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017.

· ·			•	
·	FORM N-2 (back)		Mfr. Serial No	935
· · ·	CERTIFICATE OF DESIGN			
Design specifications certified by	Michael S. Williams	P. E. state_	MIReg. n	. 31686
Design report* certified by	N/A (when spolladble)	P. E. state_	Rsg. n	0
	CERTIFICATE OF SHOP COMPLIANC	2	· · · · · · · · · · · · · · · · · · ·	
We certify that the statements made in the conform to the rules of construction of t		Interme	diate Column	
NPT Certificate of Authorization no Date_ <u>(2/10/03</u>	N-2827 ch, A Div. of Curtiss-Wright Flow Control Corp. Sign: (NPT Certificate Holder)		October 11, 20	05
	CERTIFICATE OF SHOP INSPECTION			
nce of <u>California</u> and employ f <u>Connecticut</u> have inspecte est of my knowledge and bellef, the Cert ection III. Each part listed has been auth y signing this certificate, neither the ins escribed in this data report. Furthermore,	sion issued by the National Board of Boller ar yed by d these items described in this data report or ificate Holder has fabricated these parts or a porized for stamping on the date shown above pector nor his employer makes any warranty, neither the inspector nor his employer shall g from or connected with this inspection.	HSB CT n <u>12.10-</u> ppurtenances in ac ac , expressed or impl be liable in any ma	ob and stat cordance with the lied, concerning th anner for any perso	e that to the ASME Code, e equipment onal injury or
ate 12.10. Bigned UL	(Authorized Inspector)	issions_CA15	20 NB90	SSP

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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

	·					-	
Owner	Detroit Edison Company	y		Date	Decem	ber 06, 2004	
	Name						
6400	North Dixie Highway, Newr	oort MI 48166		Sheet	1 of 2		
	Address	• •					
Plant F	Fermi 2 Nuclear Power Plar	nt		Unit	2		
	Name						
6400	North Dixie Highway, Newp	oort MI 48166	•				
	-				Deco Mainte	enance	
	Address			F	Repair Organization P.O. I	No., Job No., etc.	
Work Perfo	ormed by Detroit Ediso		; ² ; ² ; ²	Type Code Syn Stamp	nbol N	/A	
	Name			Authorization N	o. N	ľA	
6400	North Dixie Highway, News	oort, MI 48166		Expiration Date	. <u>N</u>	J/A	
	Address			·	<b>.</b>	· · · · · · · · · · · · · · · · · · ·	
Identificatio	on ( <u>N5-J12</u>	0-N5-1) Control R	od Drive Svs	tem		1	<u> </u>
of System							
			1 .				
(a) Ap	plicable Construction Code	ASME III,	19 71	Edition 71	Addenda	N/A	Code Case
••••••	piicable Edition/Addenda of S						
	6400 Plant F 6400 Work Perfo 6400 Identification of System (a) App	Name         6400 North Dixie Highway, Newn         Address         Plant       Fermi 2 Nuclear Power Plan         Name         6400 North Dixie Highway, Newn         Address         Work Performed by       Detroit Ediso         Name         6400 North Dixie Highway, Newn         Address         Work Performed by         Detroit Ediso         Name         6400 North Dixie Highway, Newn         Address         Identification         of System         (a)         Applicable Construction Code	Name         6400 North Dixie Highway, Newport MI 48166         Address         Plant       Fermi 2 Nuclear Power Plant         Name         6400 North Dixie Highway, Newport MI 48166         Address         Work Performed by         Detroit Edison Company         Name         6400 North Dixie Highway, Newport, MI 48166         Address         Work Performed by         Detroit Edison Company         Name         6400 North Dixie Highway, Newport, MI 48166         Address         Identification         of System         (a)       Applicable Construction Code         ASME III,         Class 1	Name         6400 North Dixie Highway, Newport MI 48166         Address         Plant       Fermi 2 Nuclear Power Plant         Name       6400 North Dixie Highway, Newport MI 48166         Address         Work Performed by       Detroit Edison Company         Name       6400 North Dixie Highway, Newport, MI 48166         Address         Work Performed by       Detroit Edison Company         Name       6400 North Dixie Highway, Newport, MI 48166         Address       Identification       (N5-J120-N5-1) Control Rod Drive System         (a)       Applicable Construction Code       ASME III, Class 1       19       71	Name         6400 North Dixie Highway, Newport MI 48166         Address         Plant       Fermi 2 Nuclear Power Plant         Name         6400 North Dixie Highway, Newport MI 48166         Work Performed by       Detroit Edison Company         Name         Address         Work Performed by       Detroit Edison Company         Name         Authorization N         6400 North Dixie Highway, Newport, MI 48166         Expiration Date         Address         Identification         (N5-J120-N5-1) Control Rod Drive System         of System         (a)       Applicable Construction Code         ASME III,         Class 1       19         71	Name         6400 North Dixie Highway, Newport MI 48166       Sheet       1 of 2         Address       Address         Plant       Fermi 2 Nuclear Power Plant       Unit       2         Name       6400 North Dixie Highway, Newport MI 48166       Deco Mainte         Address       Repair Organization P.O.I         Work Performed by       Detroit Edison Company       Type Code Symbol       N         Name       Authorization No.       N         6400 North Dixie Highway, Newport, MI 48166       Expiration Date       N         Name       Authorization No.       N         6400 North Dixie Highway, Newport, MI 48166       Expiration Date       N         Address       Identification No.       N         (a)       Applicable Construction Code       ASME III,       19 71       Edition 71       Addenda	Name       Sheet       1 of 2         6400 North Dixie Highway, Newport MI 48166       Sheet       1 of 2         Address       Name         6400 North Dixie Highway, Newport MI 48166       Unit       2         Name       6400 North Dixie Highway, Newport MI 48166       Deco Maintenance         Address       Repair Organization P.O. No., Job No., etc.         Work Performed by       Detroit Edison Company       Type Code Symbol       N/A         Stamp       Authorization No.       N/A         6400 North Dixie Highway, Newport, MI 48166       Expiration Date       N/A         6400 North Dixie Highway, Newport, MI 48166       Expiration Date       N/A         6400 North Dixie Highway, Newport, MI 48166       Expiration Date       N/A         Address       Identification No.       N/A         Identification       (N5-J120-N5-1) Control Rod Drive System       N/A         of System

				· · ·			
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)
CRD 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
							ļ

Description

7. of Work

<u>Replaced Control Rod Drive Mechanisms at various locations and installed replacement Cap Screws on each</u> mechanism to facilitate drive installation. All removed bolting was inspected and stored for future installation.

8. Tests Conducted:

Hydrostatic [] Pneumatic [] Other [X] Pressure Nominal Operating Pressure [X]
psi Test Temp.____

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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.

	Replacement bolting (Cap Screws procured per PO # 384015, 362633, and 389120.
····· ,	
	Applicable Monufecturede Date Departs to be attached
	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
147	
we cen	ify that the statements made in the report are correct and this <u>Replacement</u> conforms to the rules of the ASME Code, Section XI.
Туре Со	ode Symbol Stamp Original Code data report N5-J120-N5-1 to be supplemented by Owners Section XI Program 04-013
Certifica	te of Authorization NoN/AExpiration DateN/A
0' d	R.M. Hambleton Lead ISI Engineer Ruttie Date Decombor 6, 20 04
Signed_	Owner or Owner's Designee, Title
	CERTIFICATE OF INSERVICE INSPECTION
l. the un	
Province	dersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or a of Michigan_and employed by HSB_CTof One State Street, Hartford, CT 06102have inspected the
Province	dersigned, 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</u> , <u>CT</u> 06102_have inspected the ents described in this Owner's Report during the period $29-29'$ to $12-9-200'$ , and state that to the best of my
Province compon knowled	dersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or e of <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 ents described in this Owner's Report during the period <u>P_29-04</u> to <u>12-9-2004</u> and state that to the best of my ge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
Province compon knowled accorda	dersigned, 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</u> , <u>CT 06102</u> have inspected the ents described in this Owner's Report during the period $229 - 94$ to <u>12-9299</u> , and state that to the best of my ge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in nce with the requirements of the ASME Code, Section XI.
Province compon knowled accorda By signin	dersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or e of <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 ents described in this Owner's Report during the period <u>29.01</u> to <u>110.79.2007</u> , and state that to the best of my ge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in nce with the requirements of the ASME Code, Section XI.
Province compon knowled accorda By signin and corr	dersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or e of <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 ents described in this Owner's Report during the period <u>29.01</u> to <u>12.79.2007</u> , and state that to the best of my ge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in nce with the requirements of the ASME Code, Section XI.
Province compon knowled accorda By signin and corr	dersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or e of <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 ents described in this Owner's Report during the period <u>29.01</u> to <u>110.79.2007</u> , and state that to the best of my ge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in nce with the requirements of the ASME Code, Section XI.
Province compon knowled accorda By signin and corr	dersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or e of <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 ents described in this Owner's Report during the period <u>29.07</u> to <u>112-9.2007</u> , and state that to the best of my ge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in nice with the requirements of the ASME Code, Section XI. Ing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations ective 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.
Province compon knowled accorda By signin and corr	dersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or e of <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 ents described in this Owner's Report during the period <u>29.01</u> to <u>12.79.2007</u> , and state that to the best of my ge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in nce with the requirements of the ASME Code, Section XI.

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

#### NIS-2_04-013_Sheet 2 of 2

#### Nis-2 Attsachment for Section XI Program No. 04-013 - RF10 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 and new Cap Screws. Replacement Cap Screws were procurred per PO # 384015 or #362633,HT Code F280, PO # 389120, HT Code H947 ASME III - Class 1, SA193 Grade B7, 1"-8UNC-2A x 5-1/2"
- New Serial are based on the locations requested prior to the outage and were verified during installation.

CRDM	Serial No.	New Serial	Exchange WR	NewCap Screws
		No.		HT# - PO # - (Qty)
30-55	3698	6541	000Z033860	8 – From Location 34-15
18-35	4565	5866	000Z041313	8 – From Location 06-27
02-27	3160	3999	000Z041314	8 – From Location 54-43
26-19	3950	4584	000Z041315	8 – From Location 58-19
26-43	4585	3623	000Z041316	8 – From Location 34-47
26-51	4594	7019.	000Z041317	7 – From Location 14-51
				1-HT Code F280, PO# 384015
22-19	6556	6017	000Z041318	7 – From Location 30-59
				1-HT Code H947, PO# 389120
34-23	3345	4436	000Z041319	8 – From Location 30-39
30-15	4498	4526	000Z041320	6-From Location 14-11
				2-HT Code F280, PO# 384015
22-35	5222	4309	000Z041321	8 – From Location 54-27
42-23	4047	4312	000Z041322	7 – From Location 42-35
				1-HT Code H947, PO# 389120
38-03	3320	4286	000Z041324	8 – From Location 50-19
58-27	4544	4459	000Z041325	7 – From Location 10-27
			•	1-HT Code F280, PO# 362633
42-43	3972	4330	000Z041327	8 – From Location 58-23
42-47	4354	3608	000Z041328	8-HT Code F280, PO# 362633
34-43	3177	5655	000Z041329	8 – From Location 14-55
50-51	4377	6277	000Z041330	8 – From Location 38-47
50-23	6314	3521	000Z041331	8 – From Location 42-55
46-07	4287	6417	000Z041332	8 – From Location 22-15
46-35	3960	4340	000Z041333	8 – From Location 38-07
42-31	4540	3918	000Z041334	8 – From Location 26-11
50-15	4281	6035	000Z041335	8 – From Location 58-35
38-15	3969	6397	000Z041336	8 – From Location 30-31

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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	Date	6-29-2004
	¢	Name	· · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
	6400 North Dixi	Highway, Newport MI 48166	Sheet	1 of 2
		Address		
2.	Plant Fermi 2 Nu	clear Power Plant	Unit	2
		Name	· · · · · · · · · · · · · · · · · · ·	
_	6400 North Dixie	Highway, Newport MI 48166		
		•	D	eco Maintenance
		Address	Repair Organ	nization P.O. No., Job No., etc.
3.	Work Performed by	Detroit Edison Company	Type Code Symbol Stamp	N/A
		Name	Authorization No.	N/A
	6400 North Dixie	Highway, Newport, MI 48166	Expiration Date	N/A
	<u></u>	Address		· · ·
4.	Identification	N5-005 (T&B) Emergency Diesel	Generator # 11	
	of System	· · · · ·		
5.	(a) Applicable Co	nstruction Code ASME III, Class 3 19	71 Edition 71 Add	denda N/A Code Case
	(b) Applicable Edi	tion/Addenda of Section XI Utilized for Repair		
•	Replacements		1992-92 Addenda	<b>.</b> .

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)
R3000F140A	William Powell	66500-5	N/A	V15-2098	1977	Replacement	Y
·	-	:			· .		

· · · · · · ·

Description

7. of Work

Install replacement disc due to wear on the disc guide pin. The valve continued to function properly,

8.	Tests Conducted:	Hydrostatic [	j	Pneumatic []	Nominal	Operating Pressure [X	]
		Other [ ]	Pressure	•	psi	Test 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.

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9. Remarks: The replacement disc was procurred per PO# 269746, SA216 Grade WCB, Serial No. CM5336B.

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Applicable Manufacturer's Data Reports to be attached

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	CERTIFICATE C	F COMPLIANCE			_
We certify that the statements made in the	eport are correct and this	Replacement conforms	s to the rules	of the ASME C	ode, Section XI.
Type Code Symbol Stamp Original Code d	ata report N5-013 to be su	pplemented by Owner	s Section XI F	Program 04-015	i
Certificate of Authorization No	<u>N/A</u>	Expiration D	ate	N/A	
Signed R.M. Hambleton Lead ISI En	aineer BULL	Date	JUN	15 29	-20 OL
Owner or Owner's Designee, Title					( )

		y the National Board of Boiler and Pressure Vessel Inspectors and the State or
Province of Mic	nigan and employed by HSB <u>CT of</u> One	e <u>State Street, Hartford, CT 06102</u> have inspected the components
described in this	Owner's Report during the period	2/-04 to 07-05-04, and state that to the best of my knowledge and
	the ASME Code, Section XI.	n corrective measures described in this Owner's Report in accordance with the
and corrective m	easures described in this Owner's Repo	nployer makes any warranty, expressed or implied, concerning the examinations ort. Furthermore, neither the Inspector nor his employer shall be liable in any loss of any kind arising from or connected with this inspection.
Ma	u Du Die	Commissions MIT 610
6	Inspector's Signature	National Board, State, Province, and Endorsements
Ĺ		

For complete work package, see Work Request 000Z034791

							The second s	-N15-2	E
	FORM N-2 NP	T CERTIFIC	ATE HOLD	ERS' DATA R	EPORT FOR N	UCLEAR PAR	TS AND APP	URTENANCES	~ 7
	• • •	As Req		Provisions of	the ASME Code	Rules, Section	III, Div. 7		• .
								世 04	-0
•	1. (a) Manufactured b							A DESCRIPTION OF TAXABLE PARTY OF TAXABLE PARTY.	
	(b) Manufactured fo	" <u>Detroit</u>	: Edison _{(Nam}	Co., 2000 e and addres of 7	Second Ave	nue, Detroi	t, Michie	Jan 48226	
	2. Identification-Certif (a) Constructed Acc	icate Holder's S	Serial No. Pari	C4 5336	Nati Bo N 200-00-17	10 <u>N/A</u>	CRN N	N/A	
	(a) Constructed Acc (b) Description of Pa	ording to Draw		for 0" Fi	$\frac{200}{30310}$	rawing Prepared b	y_ine wn.	Powell Co.	•
	(c) Applicable ASMI	art Inspected		1071	Andreas and III	tor 71	<u>ve</u>		
			n m, cardon.	و مصحیحات افراد که طعیت مرد داد از اسه		· · · · · · · · · · · · · · · · · · ·	No. N/A	Class2	
	3. Remarks:		(Brief	description of se	rvice for which co	mponent was desi	gned.)		
	S/N 66500 J	Ftem 21			•		•		
	<u> </u>			· · · · · · · · · · · · · · · · · · ·					<u>.</u>
	· · · · · · · · · · · · · · · · · · ·								
	<u></u>								
1	Item 4-8 inclusive to be co	ompleted for si	ngle wall vesse	is, jackets of jacl	leted vessels, or sh	ells of heat exchan	igers.		
•									
	4. Shell: Material		_TS	of range specified	Nom. Thki	n. Corr. Allow_i	n. Diam. fr	_in. Lengthft.	
		d & Spec. No.)							•
	5. Seams: Long	·	H.T.'		R.T	Ef	ficiency		
	Girth		H.T.'		R.T				
	6. Heads: (a) Material	<u></u>	T S	· · ·		<u>ــــ ـــــ الا</u>	(.)		
	Location (top, bottom, ends)	Thickness	Crown Radius		ptical Conic. atto Apex Ar			Side to Press (convex or cons	
	(a)	·	·····						
	(5)	<u></u>						•	
	If removable, bolts use	d			Other fast			·	
		181		C. C.d. Alumana					
	•	(Material	, Spec. No., T	.S., Size, Number	• •		Describe or att	sch sketch)	
•	7. Jacket Closure:				• •	-			
		{De	scribe as ogee	ana wela, bar. e	tc. If bar, give arm	ensions, if bolted,	describe or ske	[ch]	
	. 7. Jacket Closure: 8. (a) Design Pressure ³	{De	scribe as ogee	ana wela, bar. e	tc. If bar, give arm	ensions, if bolted,	describe or ske	[ch]	
8 	3. (a) Design Pressure ²	{De	scribe as ogee psi at	ana wela, bar. e	tc. If bar, give arm	ensions, if bolted,	describe or ske	[ch]	
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This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

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Nozzles:							
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outlet, drain)	Number	Diam. or Size			Thickness	Material	How Attached
					-		
Inspection Manholes:			ize				
Openings: Handholes			.:e				
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Supports: Skirt	Lugs ir no)	(Number)	(Number)	Other	Attached	(Where	& how)
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			R'S REPORT FOR F the Provisions of the			NTS		
1.	Owner Detroit E	dison Company	• • • • •	Date		Feb	ruary 16, 2005	
	6400 North Dixie	Name Highway, Newport MI	48165	Sheet			2	
2.		Address lear Power Plant		Unit			2	
L.		Name	40400	Orm		<u> </u>	<u> </u>	<u>·</u>
		Highway, Newport MI	48100 	<u></u>			intenance	
3.	Work Performed by	Address Detroit Edison Com	pany	Type Stamp	Code Symbol	ganization P.	O. No., Job No., etc. N/A	
		Name			rization No.		N/A	
	6400 North Dixie	Highway, Newport, M	48166	Expira	ition Date		N/A	
4.	Identification of System	Address ( <u>N5-5 T &amp; B) D</u>	eisel Generator Servi	ice Water Sy	vstem for EDG #	<u>11</u>		
5. _.	<ul> <li>(a) Applicable Con</li> <li>(b) Applicable Editi Replacements</li> </ul>	struction Code ASM Class on/Addenda of Section 2			 92-92 Addenda	Addenda	<u>N/A</u>	Code Case
6.	Identification of Compor	ents Repaired or Replac	ced and Replacement C	omponents				
	Name of Component	Name of Manufacturer	Manufacturer Serial No	Nationa! Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
	R3000F140A	William Powell	66500-5 Disc CM 7423	N/A	V15-2098	1977	Repaired	Y
	······································							
					• .			
							•	
7.	Description of Work	a base metal build-u	d from valve R3000F up of disc guide pin, w Disc Mark No, CM 742	rith final mac	chining to origina	I thickness	s. Repaired disc w	
8.	Tests Conducted:	Hydrostatic [] Other [] Pressure		•	ting Pressure [X st Temp	} °F		
(10/3	information in ite sheets is record	ental sheets in form of lis ems 1 through 6 on this r ed at the top of this form	eport is included on eac					

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Remarks Repaired Disc by welding.

9.

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	Applicable Manufacturer's Data Reports to be attached
	CERTIFICATE OF COMPLIANCE
Ve certify th	at the statements made in the report are correct and this <u>Repair</u> conforms to the rules of the ASME Code, Section XI.
ype Code S	symbol Stamp Original Code data report (T & B N5-5) for Disc to be supplemented by Owners Section XI Program 04-017
`ortificato of	Authorization NoN/AExpiration DateN/A

CE	RTIFICATE OF INSERVICE INSPECTION
Province of <u>Michigan</u> and employed components described in this Owner's Report d	issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or d by <u>HSB_CT_of One State Street, Hartford, CT 06102</u> have inspected the luring the period $//2 - 05$ to $2 - 2/ - 05$ , and state that to the best of my d examinations and taken corrective measures described in this Owner's Report in Code, Section XI.
and corrective measures described in this Owne	nor his employer makes any warranty, expressed or implied, concerning the examinations er's Report. Furthermore, neither the Inspector nor his employer shall be liable in any age or a loss of any kind arising from or connected with this inspection.
Inspector's Signature	National Board, State, Province, and Endorsements
Date February 21 20	<u>05</u>
/94)	

For complete work package, see Work Request 000Z042049

NISZ-04 1.1  $\cdot \mathbf{O}$ 1 FORM NEV-1 MANUFACTURERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES Required by the Provisions of the ASME Code, Section III, Div. 1) 1. Manufactured by ______ The W.D. Powell Co., Cincinnati, Ohio Plant #2 (Name and Address of Manufacturer) 2. Manufactured for ______ Detroit Edicon Co., 2000 2nd Ave., Detroit, Michigan (Name and Address of Purchaser or Owner) 400 N. Dirie Highway, Stoney Creek, Monroe County, Michigan 3. Location of Installation (Name and Address) 8 8 4 Pump or Valve 3004 Globe Valve -. Nominal Inlet Size Outlet Size unchi (a) Model No., (b) Manufacturers' (c) Canadian - Series No. Serial : Registration (d) Drawing (I) NorL (g) Year (e) Class Bd. No. or Type No. No. ·No. Buih N/A 66500-N/A 043474 3 1977 Fig. 3031 WE (1) (3) (4) . ..... (5) (6) LECIPLE DOCUMENT 18 (9) (10) 5 DIESEL GENERATOR SERVICE WATER SYSTEM (Brief description of service for which equipment was designed) N/A 125 125 6. Design Conditions . *F or Valve Pressure Class psi _ (Temperature) (Pressure) . 720 7. Cold Working Pressure psi at 100°F. 8. Pressure Retaining Pieces .. : • Mark No. Manufacturer Material Spec. No. Remarks (s) Castings Body C. 1725A ASTE SA 216 Gr. WCB Howmet Corp. Milwaukee, Wisc. Heat 1473 Bonnet, CH 1205A 216 WCB Howmet Corp. aste sa Gr. Milwaukee, Wisc. Heat 1684 Electric Steel Casting Co. Disc CM 7423 216 WCB ASIE SA Gr. Speedway-Indianapolis, Ind. Heat 2085 (b) Forgings N/A TIDERTIONS NEORMATION 100 2010 . . -- (1) For manually operated valves only. 8. • Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in kems 1, 2 and 5 on this data report is included on each sheet, and (3) each sheet is num, ared and number of sheets is recorded at top of this form. (1/78) This form (E00037) may be obtained from the Order Dept., ASME, 345 E. 47 St., New York, N.Y. 10017

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Mark No.	Material Spec. No.	Manufacturer	Remarks					
(c) Balting			·					
Stud Lot //CM 466B	ASAE SA 193 Gr. B7	Texas Bolt Co.						
Code P29		Houston, Texas						
Heat 8067903								
Nut Lot #CM 4678	ASTE SA 194 Gr. 2H	Texas Bolt Co.						
Code P51		Houston, Teras						
Heat KM2593								
(d) Other Parts		-						
Bonnet Drain Nipple	ASTE SA 106 Gr. B	U.S.Steel Corp.	•					
CM 9381		Gary, Ind.						
LL HEBE KAA375								
•								
		<u></u>						
We certify that the statement	CERTIFICATE OF C							
We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. L. Edition								
Addanda Winter, 1971		ponents. Section III, Div. L. Editio						
Addenda <u>Winter</u> , 1971	, Code Case No							
Addenda <u>Winter, 1971</u> (Date), Signed <u>The Vin. Powel</u> (Marufacture		Date Com	126, 1977					
Addenda <u>Winter</u> , 1971 (Date), Signed The Wm. Powel		Date Com						
Addenda <u>Winter, 1971</u> (Date), Signed <u>The Vin. Powel</u> (Marufacture		by Charles Symbol e	26, 1972					
Addenda <u>Winter, 1971</u> (Date), Signed <u>The Vin. Powel</u> (Marufacture	Code Case No 1 Co., Plant #2 rization NoN157810	by Charlie Symbol e	26, 1972					
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Addenda <u>Winter</u> , 1971 (Dete), Signed <u>The Vm. Powel</u> (Manufacture Dur ASME Certificate of Autho Design information on file at _ Stress analysis report (Class 1 Design specifications certified PE State <u>MiCh</u> . Stress analysis certified by (1) PE State <u>MiCh</u> . (1) Signature not required. Lis and the State or Province of _ of <u>Hartford</u> , Conn. <u>Y/2</u> C structed this pump, or valve, in By signing this certificate, nei- the equipment described in the	CERTIFICATE OF SHC valid commission issued by the <i>I</i> CERTIFICATE OF SHC valid commission issued by the <i>I</i> Ohio N/A Reg. No. N/A t name only. CERTIFICATE OF SHC valid commission issued by the <i>I</i> Ohio have inspected th 13 ZZ and state that to the be n accordance with the ASME Code, ther the inspector nor his employed is Oata Report. Furthermore, neut	Date Control of Boiler and Press and employed by	sure Vessel Inspectors by I a concerning the shall be liable in any					
Addenda <u>Winter</u> , <u>1971</u> (Dete), Signed <u>The Vm. Powel</u> (Manufacture) Dur ASME Certificate of Autho Design information on file at _ Stress analysis report (Class 1 Design specifications certified PE State <u>Mich</u> . Stress analysis certified by (1) PE State <u>Mich</u> . (1) Signature not required. Lis and the State or Province of _ of <u>Hartford</u> , <u>Conn</u> . (1) Signature not required. Lis structed this pump, or valve, in By signing this certificate, nei the equipment described in the manner for any personal injur	CERTIFICATE OF SHC valid commission issued by the N CERTIFICATE OF SHC valid commission issued by the N CERTIFICATE OF SHC N/A Reg. No. 1/4386- N/A Reg. No. 1/4 Reg. No	Date Control of Boiler and Press and employed by	sure Vessel Inspectors by I a concerning the shall be liable in any					
Addenda <u>Winter</u> , 1971 (Dete), Signed <u>The Vm. Powel</u> (Manufacture Dur ASME Certificate of Autho Design information on file at _ Stress analysis report (Class 1 Design specifications certified PE State <u>MiCh</u> . Stress analysis certified by (1) PE State <u>MiCh</u> . (1) Signature not required. Lis and the State or Province of _ of <u>Hartford</u> , Conn. <u>Y/2</u> C structed this pump, or valve, in By signing this certificate, nei- the equipment described in the	CERTIFICATE OF SHC valid commission issued by the <i>I</i> CERTIFICATE OF SHC valid commission issued by the <i>I</i> Ohio N/A Reg. No. N/A t name only. CERTIFICATE OF SHC valid commission issued by the <i>I</i> Ohio have inspected th 13 ZZ and state that to the be n accordance with the ASME Code, ther the inspector nor his employed is Oata Report. Furthermore, neut	Date Control of Boiler and Press PF DESIGN Dincinnati, Ohio Plant DF DESIGN Dincinnati, Ohio Plant tzel DP INSPECTION National Board of Boiler and Press and employed by H.S.E be pump, or valve, described in st of my knowledge and belief, the Section III. Tr makes any warra Ty, expresses in her the Inspector nor his employed any kind arising from or connected	sure Vessel Inspectors by I a concerning the shall be liable in any					

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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

05-001

1.	Owner Detroit Edison Company	Date February 15, 2005
	Name	
	6400 North Dixie Highway, Newport MI 48166	Sheet 1 of 5
	Address	
2.	Plant Fermi 2 Nuclear Power Plant	Unit 2
	Name	<u></u>
	6400 North Dixie Highway, Newport MI 48166	DECo Maintenance
	Address	Repair Organization P.O. No., Job No., etc.
3.	Work Performed by Detroit Edison Company	Type Code Symbol Stamp N/A
	Name	Authorization No. N/A
	6400 North Dixie Highway, Newport, MI 48166	Expiration Date N/A
	Address	•
4.	Identification of System Various Component Supports (Mechar	ical Snubbers)
`		
	ANSI B31.7 19 69	Articles 1-720 & 1-721
5.	(a) Applicable Construction Code ANSI B31.1 2 19 67	7Article121
	(b) Applicable Edition of Section XI Utilized for Repairs or Replacen	nents 1992-W'92

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)
PLANT MECHANICAL SNUBBERS	Pacific Scientific	Various	NA	NONE	Various	REPLACEMENTS	N
							]
		· . : .		— · ·			
						-	

Refurbish Mechanical Snubbers for future installation Description of Work 7.

8. **Tests Conducted:**  Hydrostatic Other 🔀

Pneumatic Nominal Operating Pressure Pressure psi

*F Functional test & visual inspection

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.

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

Test Temp.___

9.	Remarks	Attached are listings of Mechanical Snubbers that were refurbished and changed out during testing activities during RF10 and
		Applicable Manufacturer's Data Reports to be attached

During forced outage 05-01. Note: The listing of the Mechanical Snubbers that were refurbished prior to and during RF10 includes a listing

of load bearing parts installed. Documentation satisfies requirements of Code Case N-508-1 as allowed by Relief Request RR-C4.

		DF COMPLIANCE
We certify that th ASME Code, Section XI.	e statements made in the report.	rt are correct and this <u>Replacement</u> conforms to the rules of the repair or replacement
Type Code Symbol Stamp <u>Original C</u> Certificate of Authorization No Signed <u>R, M, Hambleton, Lead ISI En</u> Owner or Owner's Designee,	N/A aineer PAUL Data	Expiration Date N/A Date FEBR M.D. 15, 20,05
	CERTIFICATE OF INS	SERVICE INSPECTION
	•	Board of Boiler and Pressure Vessel Inspectors and the State
or Province of <u>Michigan</u> One State Street, Hartford, CT 0	and employed by <u>HSB</u>	of
in this Owner's Report during the perio	Aug, 6, 2004	to $\cancel{6}$ $\cancel{3}$ , $\cancel{2005}$ , and state that
to the best of my knowledge and belief,	, the Owner has performed example	minations and taken corrective measures described
in this Owner's Report in accordance w		
		akes any warranty, expressed or implied, concerning the ort. Furthermore, neither the Inspector nor his employer
		ge or a loss of any kind arising from or connected with this
nspection.		
Manul	e Com	nmissions_MCTG10
Inspector's Signa	ture	National Board, State, Province, and Endorsements
~		
Inter End 22	20 0 5	

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For complete work package, see Work Request

<u>A498040100</u>	
A519040100	
000Z050273	

Mechanical Snubbers Rebuilt with New Load Bearing Parts Page 20F5 05-001

Serial	Snubber Location	Size	Description	РО	Work Package
<u>`</u>				 ·	l
12810	Spare	10	Bearing Retainer Nut	402520	A519040100
18649 -	G33-3245-G49A	1	Thrust Bearing Kit	362146	A519040100
8340	N21-3536-G35	10	Capstan Spring	217421	A51904010
10330	E11-3164-G22	10	Capstan Spring	217421	A519040100
11282	B21-E216-SSA1	35	Thrust Bearing Kit	402519	A519040100
8738	N21-3536-G30	35	Ball Screw Assembly Thrust Bearing Kit	318965 402519	
9873	N21-3537-G26B	35	Ball Screw Assembly Thrust Bearing Kit	318965 402519	
22368	Spare	1 1/4	Rod and Bearing Assembly	389195	A498040100
22369	T23-12837-42-G03	1/4	Rod and Bearing Assembly	389195	A498040100
13142	N30-2186-G09	1/2	Carrier and Shaft Assembly	317957	A498040100
13130	T23-I2837-45-G02A	1/2	Rod and Bearing Assembly	362730	A498040100
22387	T23-I2837-42-G36	1/4	Rod and Bearing Assembly Carrier and Shaft Assembly	362730 362145	A498040100
13144	T48-5314-G04	1/2	Carrier and Shaft Assembly	335317	A498040100
	N30-2186-G13	1	Load Pin Stock Code 482-5680	245777	0963041022
	E41-3162-G25	10	PSA 10 Load Pin machined from PSA 35 Load Pin	215027	0963041022

Does not include non-load bearing parts (retaining rings, washers). Note that these parts are ASME parts.

Mechanical Snubbers Replaced with Rebuilt Spares in RF10

NIS-2 for 04-018 and 05-001 Page 30F5

HANGER NO#	OLD SERIAL NO	NEW SERIAL NO
B21-2174-G25B		
	8496	13183
B21-2187-G81	12710	. 22456
B21-2297-G08	9024	8978
B21-2297-G09	20966	20959
B21-2297-G11	12770	8960
B21-2586-G06	10335	9016
B21-2592-G10	8955	8994
B21-2593-G13	9008	8357
B21-2596-G11	9883	9900
B21-4093-G13	8341	6185
B21-4094-G05	8986	9026
B21-4096-G08	8963	10352
B21-4096-G11	6182	9012
B21-E213-SSA1	9861	11282
B21-E213-SSB1	6186	8993
B21-E213-SSB3	6174	12816
B31-5239-G02A	12681	11466
B31-E215-SSA1	11284	4718
C41-2340-G15	13149	13111
E11-2299-G02	22437	22405
E11-2299-G05	22363	· 22440
E11-3146-G25	20975	20973
E11-3146-G35A	12789	12810
E11-3146-G37A	8339	10357
E11-3151-G18	12802	10332
E11-3151-G18	8718	9855
E11-3151-G23A	8337	
		10335
E11-3152-G31A	15289	12436
E11-3152-G34	20976	12437
E11-3154-G12	8952	8355
E11-3154-G21A	12454	20972
E11-3154-G21B	12441	12448
E11-3154-G23	8366	9025
E11-3158-G24	8348	8950
E11-3160-G09	20969	. 12444
E11-3161-G14	8950	9003
E11-3161-G18	20959	15287
E11-3164-G19	20971	· 15292
E11-3164-G22	8960	10330
E11-3164-G27	20981	12450
E11-3185-G36	20987	20975
E11-4011-G04	22423	22344
E21-3052-G08	12449	20957
E41-3162-G25	8336	9024
E41-3163-G17	8958	8341
E41-3163-G19	15283	20971
E41-3172-G19	10357	8345
E51-3166-G44	9857	18641
E51-3174-G30	23164	18652
G11-3658-G47	23171	18656
G33-3245-G37	18657	18655
		10033

## Mechanical Snubbers Replaced with Rebuilt Spares in RF10

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NIS-2 for 04-018 and 05-001

Page 40F5

HANGER NO#	OLD SEPIAL NO	NEW SERIAL NO
G33-3245-G45	21947	21949
G33-3245-G49A	9856	18649
G33-3245-G49A	23172	
G33-3245-G49B	23172	19577
G51-4055-G08	12437	20984
G51-4055-G08	8362	8984
G51-4055-G23 G51-4059-G17B	21948	23166
N21-3131-G33	9017 9011	6186 8362
N21-3131-G38		8362
N21-3536-G28	9026 11267	12821
N21-3536-G30 N21-3536-G31	11267	8738
		8339
N21-3536-G35	10337	8340
N21-3537-G26B	7021	9873
N21-3537-G28	9015	8329
N21-3537-G34	8708	9875
N21-3537-G37	8978	12792
N30-2186-G09	8501	13142
N30-2186-G13	18647	9859
N30-2186-G14	18645	19579
N30-2186-G17	27916	12988
N30-3259-G21	8719	4720
N30-3259-G31	9865	7013
N30-3259-G35	9887	9896
N30-3259-G38	1581	1579
N30-3259-G50	8725	11267
N30-3378-G27A	8954	9014
N30-3526-G51	19929	12690
P50-2163-G15B	22450	19940
P50-2163-G18	19910	22418
P50-3308-G35	23162	18654
T23-I2837-36-G32	22499	12739
T23-I2837-36-G43	13205	8480
T23-I2837-36-G81	18643	23169
T23-I2837-40-G02B	22455	22345
T23-I2837-40-G15	22427	22401
T23-I2837-41-G01	18655	18651
T23-I2837-41-G02A	23165	23162
T23-I2837-41-G07B	8477	13143
T23-I2837-41-G25	13160	8492
T23-I2837-42-G01	12726	22358
T23-I2837-42-G03	12733	22369
T23-I2837-42-G14A	12745	12758
T23-I2837-42-G20	12718	12687
T23-I2837-42-G21A	12978	22374
T23-I2837-42-G21B	27915	22399
T23-I2837-42-G26	13162	8481
T23-I2837-42-G30	13136	13201
T23-12837-42-G36	19924	22387
T23-12837-42-G53	22425	22355
T23-I2837-42-G62	22378	22445
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Mechanical Snubbers Replaced with Rebuilt Spares in RF10

NIS-2 for 04-018 and 05-001 Page 5085

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HANGER NO#		NEW SERIAL NO
T23-12837-45-G02A	13150	13130
T23-I2837-45-G03	9859	21953
T23-I2837-45-G07	21949	18645
T23-I2837-45-G12B	13188	8489
T23-I2837-46-G101	22339	22385
T23-I2837-46-G17B	12700	12684
T23-I2837-46-G17D	18649	19580
T23-I2837-46-G93	13200	13129
T23-I2837-46-G94A	12686	22384
T23-I2837-46-G94B	12732	12749
T23-12837-46-G94C	12765	22426
T23-12837-46-G94D	12764	12676
T23-12837-46-G94E	19920	22442
T23-I2837-46-G94F	12729	12748
T23-I2837-51-G43	19915	12697
T23-I2837-53-G22	19916	22368
T23-I2837-53-G31	12762	22415
T23-I2837-53-G35	22336	22367
T46-3092-G05	8967	12811
T48-2366-G25	20957	12454
T48-4061-G06	9858	23172
T48-5314-G04	13174	13144
T71-I2837-62-G39	22420	22386
T71-I2837-63-G25	19922	12714

Mechanical Snubbers Replaced with Rebuilt Spares during Forced Outage 05-01

HANGER NO#	OLD SERIAL NO	NEW SERIAL NO
N30-3526-G51	12690	22403
N30-3526-G55	13157	13150
N30-3526-G57	8486	13188

Serial Number 13150 and 13188 rebuilt and tested under A519040100 Serial Number 22403 rebuilt and tested under A498040100

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

	<u> </u>	<u></u>					<u></u>
. Owner Detroit Edison C		. <u>.</u>	_ D	2te		December 8, 2004	<u>_</u>
N 6400 North Dixie Highv	ame vav. Newport MI.	48166	S	neet 1	of	-4	
Addres		10100	-				
. Plant Fermi 2 Nuclear F			Ur	nit 2	2		
	ime		•				
6400 North Dixie Highv		48166			ECo Main		
Addres	-			•	-	ation P.O. No., Job No., etc.	
. Work Performed by Detro		ny		pe Code Symbol	Stamp	<u>N/A</u>	
6400 North Dixie Highw	me /ov. Nourport MI	10166		thorization No.		N/A N/A	
Address		40100	. <b>.</b>	pilation Date		<u>IVA</u>	
. Identification of System		ent Supports (Hvo	draulic Snub	bers)		•	
(a) Applicable Construction (b) Applicable Edition of S Identification of Components Re	Section XI Utilized f	B31.1 19 for Repairs or Repl	acements	cle <u>121</u> 1992-W'92	1-721		
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 HYDRAULIC SNUBBERS	Power Piping	Various	NA	NONE	Various	REPLACEMENTS	N
	· · ·					• •	
			·			· · ·	
·····		· • • • •				· <b></b>	
			: ••			· · · · · · · · · · · · · · · · · · ·	1
• <u></u>	Pressure Press in form of lists, rough 6 on this repo	neumatic N	lominal Opera psi ings may be t	ting Pressure	] size is 8 1	_*F Functional test & visu /2 in. X 11 in., (2)	al inspection
	·	y be obtained from	the Order De	pt., ASME, 345 E	. 47th St.,	New York, N. Y. 10017	

9. Remarks <u>Attached are listings of Hydraulic Snubbers that were refurbished and changed out during testing activities during RF10.</u> Applicable Manufacturer's Data Reports to be attached

Note: The listing of the Hydraulic Snubbers that were refurbished prior to and during RF10 includes a listing of load bearing parts installed.

Documentation satisfies requirements of Code Case N-508-1 as allowed by Relief Request RR-C4.

We		FICATE OF COMPLIANCE to the report are correct and this <u>Replacement conforms</u> to the rules of the
ASME Code, Section XI.	-	repair or replacement
Type Code Symbol Starr	np_Original Code Data Reports to b	be supplemented by owners Section XI Program No. 04-019.
Certificate of Authorizatio	on NoN/A	Expiration Date N/A
Signed <u>R. M, Hambleto</u> Owner or Owne	on, Lead ISI Engineer RALE er's Designee, Title	Bullow Date JANUARY 24, 20,05
	CERTIFICATE	E OF INSERVICE INSPECTION
		•
I, the undersigned, holdin		e National Board of Boiler and Pressure Vessel Inspectors and the State
	chiganand employed	
One State Street, Ha	artford, CT 06102	have inspected the components described
		7, 2004 to Feb. 23, 2005, and state that
		ormed examinations and taken corrective measures described
	accordance with the requirements o	mployer makes any warranty, expressed or implied, concerning the
by signing uns corune		ner's Report. Furthermore, neither the Inspector nor his employer
		erty damage or a loss of any kind arising from or connected with this
examinations and correcti		
examinations and correcti		
examinations and correcti shall be liable in any mann		
examinations and correcti shall be liable in any mann inspection.	where	Commissions/LZG10
examinations and correcti shall be liable in any mann inspection.	Dector's Signature	
examinations and correcti shall be liable in any mann inspection.	where	Commissions/LZG10

(12/82)

For complete work package, see Work Request <u>A497040100</u> - <u>A514040100</u>

# Hydraulic Snubbers Rebuilt with New Load Bearing Parts

NIS-Z for 04-019 Page Z or 4

Serial	Snubber Number	Size	Description	PO	Work Package
810227	Spare	21/2 × 5	Cylinder Tube	245695	A514040100
810126	N30-3619-G16	4 x 5	Cylinder Tube	277341	A514040100
810151	E11-3185-G22	2 x 5	Rod End Bearing (snubber 810142)		A497040100
820251	E11-3151-G07	4 x 5	Cylinder Tube	277341	A497040100

This list does not include non-load bearing parts (o-rings, piston rings, seal kits, reservoir brackets, tubing). Note that these parts are non-ASME.

Hydraulic Snubbers Replaced with Rebuilt Spares

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NIS-2 for 04-019 Page 3054

	•	
HANGER NO#	OLD SERIAL NO	NEW SERIAL NO
E11-3035-G25	810066	810044
E11-3151-G07	820209	820251
E11-3151-G15	810132	820249
E11-3151-G26	810182	820077
E11-3152-G18	810208	810053
E11-3154-G11	820205	820209
E11-3154-G16	810023	820117
E11-3158-G08	820201	830035
E11-3159-G03	810076	810037
E11-3159-G05	820172	810030
E11-3159-G07	820160	820123
E11-3177-G10	810207	820250
E11-3184-G07A	810212	810150
E11-3184-G15B	810139	810097
E11-3185-G22	810148	810151
E11-3185-G37	810137	810156
E11-3185-G41	810086	810157
E11-3185-G51	810087	810087
E11-3185-G56	810221	810215
E11-3185-G57	. 810219	820008
E21-2199-G10	810105	820124
E21-2199-G11	820128	820129
E21-3144-G26	820007	820174
E21-3147-G34	820178	810197
E21-3150-G08	810072	810209
E51-3174-G34	820159	830017
E51-3174-G36	810181	820088
E51-3175-G06	810029	810210
E51-3175-G27	810193	810194
G33-3244-G37	810227	820187
G33-3244-G38	810205	. 820106
N21-3109-G68	830032	810207
N21-3109-G71A	820198	830037
N21-3109-G71B	820199	820201
N30-3618-G08	810009	810048

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Hydraulic Snubbers Rebuilt and Re-installed

NIS-2 for 04-019 Page 4054

HANGER NO#	OLD SERIAL NO	NEW SERIAL NO
E11-3151-G08	810026	810026
E11-3158-G12	820208	820208
E11-3161-G09	820125	820125
E11-3184-G25	810128	810128
E21-3145-G12	810098	810098
N21-3103-G20E	820133	820133
N21-3109-G64A	830044	830044
N21-3109-G64E	830045	830045
N21-3109-G70A	820058	820058
N21-3109-G70E	820096	820096
N21-3109-G72E	810159	810159
N21-3109-G76	810056	810056
N30-3619-G15	810127	810127
N30-3619-G16	810126	810126
N30-3619-G17	820101	820101

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

1:	Owner Detro	it Edison Company		Date	February 16, 2005
		Name			· · · · · · · · · · · · · · · · · · ·
	6400 North Di	kie Highway, Newport MI 48166		Sheet	1 of 2
	•	Address	_		
2.	Plant Fermi 2 N	luclear Power Plant		Unit	2
		Name	-		
	6400 North Div	tie Highway, Newport MI 48166			
		• • •			Deco Maintenance
		Address		Repair	Organization P.O. No., Job No., etc.
3.	Work Performed by	Detroit Edison Company		Type Code Symbol Stamp	N/A
		Name		Authorization No.	N/A
	6400 North Div	tie Highway, Newport, MI 48166		Expiration Date	N/A
		Address	<b>—</b> .	•	······································
4.	Identification of System	(N5-0260) Residual Heat Remo	oval Syst	<u>em – Shutdown Coolir</u>	g Piping From Drywell
	4	· · · · · · · · · · · · · · · · · · ·			
5.	(a) Applicable C	construction Code ASME III,		• •	
	.,	Class 2 19	71	Edition 71	Addenda N/A Code Case
	(b) Applicable E	dition/Addenda of Section XI Utilized for Repa	airs or	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
	Replacemen	ts		. 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)
E1100F029	Crosby	N55804-00-0001	N/A	V22-2033	1981	Replaced	Ŷ
E1100F029	Crosby	N56804-00-0007	N/A	V30-1577	2003	Replacement	Ŷ
· · · · · · · · · · · · · · · · · · ·							

Description

of Work 7.

Replace relief valve and associated inlet and outlet piping with a replacement valve with attached piping to expedite testing and restoration of the system and to shorten the outage duration.

Test Temp

8. **Tests Conducted:**  Hydrostatic [] Other [X] Pressure

psi

...

Pneumatic [] Nominal Operating Pressure [X]

Lift Test per Procedure 43.000.020

°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.

(10/94)

9. Remarks

Replacement components / materials installed included the following: Relief Valve procured per PO# 394732. Crosby, SN# N56804-00-0007, 2" ASME III Class 2 pipe, Schedule 80, SA106, Grade B, Heat Code # A42571, PO# 394730, Reducer 2" x 2-1/2", ASME III Class 2, Schedule 80, SA 234, Gr. WPB, Heat Code # LZEC-1, PO # 394730, 2-1/2" Flange, 150#, SA105, ASME III, Class 2, Heat Code AMEP, PO# 349730. All other material installed were 1" or smaller and were ASME III, Class 2 material.

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#### Applicable Manufacturer's Data Reports to be attached

• •	CERTIFICATE OF	COMPLIANCE	
We certify that the statements made in	the report are correct and this F	Replacement conforms to the r	ules of the ASME Code, Section XI.
Type Code Symbol Stamp Original Co	ode data report N5-0260 to be su	pplemented by Owners Section	n XI Program 04-020
Certificate of Authorization No.	N/A	Expiration Date	N/A
Signed R.M. Hambleton Lead IS	SI Engineer BAD	·	BRUNDY 17 2005

	_
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 <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 components described in this Owner's Report during the period <u>M-+++-O++</u> to <u>O2-+2+-O+5</u> , 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	
Data February 21 20 05	
(10/94)	

For complete work package, see Work Request B937040100

#### E1100 FOZY Q.C.-44C-1)=04-020 ZOFZ Sheet 1 of 2 FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES As required by the Provisions of the ASME Code Rules DATA REPORT 1. Manufactured By Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093 Name and Address Model No. JMB-WR-C Order No. U832660000 Contract Date 6/02/04 National Board No. DTE ENERGY Order No. NR-394732 2. Manufactured For Name and Address 3. Owner DTE ENERGY Name and Address ENRICO FERMI UNIT 2 4. Location of Plant Serial No. N56804-00-0007 Drawing No. DS-C-56804REV. A 5. Valve Identification V30-1577 SAFETY RELIEF _____Orifice Size _____Inlet ____ Outlet Туре Safety, Safety Relief, Pilot, Power Actuated Inch 6. Set Pressure (PSIG) 140 ÷/- 1.4 335 ~ Rated Temperature Stamped Capacity 20 GPM WATER @ 70°F @ 10 % Overpressure - Blowdown (psig) 10% OF S.P. Hydrostatic Test (PSIG) Inlet 210 Complete Valve 225 7. The material, design, construction and workmanship comply with ASME Code, Section III. Class 2 Edition 1971 Addenda Date Summer 1972 Case No. n/z Pressure Containing or Pressure Retaining Components Serial No. Material Specification Identification Including Type or Grade a. Castings Body Bonnet b.Bar Stock and Forgings Support Rods Nozzle N90386-81-0282 ASTM A479 TYPE 304 Disc N89056-64-0238 N89056-65-0255 ASTM A193 GR. B5 Spring Washers N89057-59-1337 Adjusting Bolt ASTM A193 GR. B6 ASTM A193 GR. B6 N90221-89-1028

Spindle

1.1

NIS-ZFOR

orm NV-I (Back)	Certificate Holder's Serial No.	N56804-00-0007	Sheet 2 o
CEP	Serial No G Identificati		Material Specification Including Type or Grade
Spring	NX2797-1169	1	229 CL. 1
Bolting The ED!			
Other Parts such as Pilot	Components		
Base	N90584-39-0024	ASTM A4	79 TYPE 304
Adapter	N90585-60-0105		
Cylinder	N92045-36-0014	ASTM A2	16 GR. WCB
certify that the statement	s made in this report are correct.		
II-AUG-OI	Anderson Greenwood 20 Signed Wrentham, M/ Manufacturer	By D.En	
II-AUG-OI	Anderson Greenwood 20 Signed Wrentham, M/ Manufacturer	By D. E	
tificate of Authorization I	Anderson Greenwood 20 Signed Wrentham, M/ Manufacturer No. <u>N-1878</u> Expla- <u>CERTIFICATE OF SHOP</u> ing a valid commission issued by the National <u>2KA-</u> and employed by	Board of Boiler and Pressure V	essel Inspectors and the
tificate of Authorization I I, the undersigned, hold State or Province of	Anderson Greenwood 20 Signed Wrentham, M/ Manufacturer No. N-1878 Expin <u>CERTIFICATE OF SHOP</u> pg a valid commission issued by the National	Board of Boiler and Pressure V	essel Inspectors and the
tificate of Authorization I I, the undersigned, holdi State or Province of have inspected the equ knowledge and belief,	Anderson Greenwood 20 Signed Wrentham. M/ Manufacturer No. N-1878 Expin- CERTIFICATE OF SHOP and employed by ABS Group Inc., House and employed by ABS Group Inc., House S-/2- 20 the Manufacturer has constructed this equ	By D. E of Tes Sep. 30, 2004 Date <i>Date</i> <i>INSPECTION</i> Board of Boiler and Pressure V ton, Texas <u>04</u> and state that to the	best of my
tificate of Authorization I I, the undersigned, holdi State or Province of have inspected the equ knowledge and belief, Subsections of ASME By signing this certific concerning the equipm	Anderson Greenwood 20 Signed Wrentham. M/ Manufacturer No. N-1878 Expin- Signed CERTIFICATE OF SHOP CERTIFICATE OF SHOP and employed by ABS Group Inc., Hous signment described in this Data Report on S-1/2-20 the Manufacturer has constructed this equi- Section III. Cate, neither the Inspector nor his employed nent described in this Data Report. Further nanner for any personal injury or property	By D. E of Tes Sep. 30, 2004 Date Date <i>Dispection</i> Board of Boiler and Pressure V ton, Texas <u>04</u> and state that to the tipment in accordance with the remakes any warranty, exp permore, neither the Inspector	best of my he applicable ressed or implied, r nor his employer
tificate of Authorization I I, the undersigned, holdi State or Province of have inspected the equ knowledge and belief, Subsections of ASME By signing this certific concerning the equipm shall be liable in any r	Anderson Greenwood 20 Signed Wrentham. M/ Manufacturer No. N-1878 Expin- Signed CERTIFICATE OF SHOP CERTIFICATE OF SHOP and employed by ABS Group Inc., Hous and employed by ABS Group Inc., Hous and employed by ABS Group Inc., Hous Section III. Cate, neither the Inspector nor his employed the Manufacturer has constructed this equilater Section III.	By D. E of Tes Sep. 30, 2004 Date Date <i>Dispection</i> Board of Boiler and Pressure V ton, Texas <u>04</u> and state that to the tipment in accordance with the remakes any warranty, exp permore, neither the Inspector	best of my he applicable ressed or implied, r nor his employer
tificate of Authorization I I, the undersigned, holdi State or Province of have inspected the equ Inowledge and belief, Subsections of ASME By signing this certific concerning the equipm shall be liable in any r connected with this in:	Anderson Greenwood 20 Signed Wrentham, M/ Manufacturer No. N-1878 Expin- CERTIFICATE OF SHOP ing a valid commission issued by the National $\mathbb{E} \mathbb{A} = \mathbb{A}$ and employed by ABS Group Inc., Hous ipment described in this Data Report on $\mathbb{S} = \mathbb{A} = \mathbb{A}$ 20 the Manufacturer has constructed this equ Section III. cate, neither the Inspector nor his employed the manner for any personal injury or property spection.	By D. E of Tes Sep. 30, 2004 Date Date <i>Dispection</i> Board of Boiler and Pressure V ton, Texas <u>04</u> and state that to the tipment in accordance with the remakes any warranty, exp permore, neither the Inspector	best of my he applicable ressed or implied, r nor his employer and arising from or

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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 Ec	lison Company	•	Date	•	Der	cember 16, 2004	
		Name	· · · · ·		<del></del>			
	6400 North Dixie H	lighway, Newport N	1 48166	She	et .	10	f 2	
		Address ·					· · ·	
2	Plant Fermi 2 Nucle	ear Power Plant		Unit			2 .	
-		Name	· · · · · · ·			<u> </u>		
	6400 North Dixie H	lighway, Newport M	48166					
						Deco Ma	intenance	
		Address			Repair O		P.O. No., Job No., etc.	
З.	Work Performed by	Detroit Edison Con	npany	Type Starr	Code Symbol		N/A	
	-	Name	· · ·		orization No.	· · ·	N/A	
	.6400 North Dixie H		148166	Expir	ration Date		N/A	
		Address						
4.	Identification of System	•	ine Drains System, B	<u>31.1 Class [</u>	)+ Piping Systen	<u>(B2100F</u>	080D / V10-2009)	
5.	(a) Applicable Const	Cla	51 B31.1, ss D+ 19		No	Addenda	N/A	Code Case
	(b) Applicable Edition Replacements	VAddenda of Section	XI Utilized for Repairs o		992-92 Addenda	-	· · ·	
6.	Identification of Component	nts Repaired or Replac	ced and Replacement C	Components				
~	Name of	Name of	Manufacturer Serial	National	Other	Year	Repaired,	ASME
	Component	Manufacturer	No	Board	Identification	Built	Replaced,	Code
	•	· ·	,	No.			or Replacement	Stamped
	•	·	• • • •				-	(Yes
		· · · · ·	• •			<u> </u>	. :	or No)
	20100E000D	Eicher Controle	EN00053 .	NI/A	V10 2002	1078	Doplogomont	ו זא נ

 B2100F080D
 Fisher Controls
 6488863
 N/A
 V10-2009
 1976
 Replacement
 N

 Image: Second control of the second con

7. of Work Install replacement stem and plug asssembly as well as seat ring and cage.

8.	Tests Conducted:	Hydrostatic []	Pneumatic []	Nominal O	perating Pressure [X]	•
•••		Other[] Pressi	••	psi	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.

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(10/94)

#### 9. Remarks

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Replaced stem and plug assembly, seat ring and cage in control valve. Replace parts procured per PO# 394592, Heat Code for stem is #AF0711, plug Ht# AG0711-1, Cage Ht. # 040928-8, and Seat Ring Ht # 040928-10. 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.

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE OF COMPLIANCE
We cert	fy that the statements made in the report are correct and this Replacement_conforms to the rules of the ASME Code, Section XI.
Туре Сс	de Symbol Stamp Valve records to be supplemented by Owners Section XI Program 04-021
Certifica	e of Authorization NoN/AExpiration DateN/A
Signed	R.M. Hambleton Lead ISI Engineer and the Date Downson 16, 20 04

Province of <u>Michigan</u> and employed by <u>HSB_CT</u> components described in this Owner's Report during the peri	National Board of Boiler and Pressure Vessel Inspectors and the State or $T_of One State Street, Hartford, CT 06102 have inspected the iod //-//-04/10_02-22-05_, and state that to the best of my is and taken corrective measures described in this Owner's Report in m XI.$
	Commissions ////CG/O National Board, State, Province, and
Date February 22 2005	Endorsements

For complete work package, see Work Request # H606040100

04-0	150	
SHEET	ZOF	Ζ

	. FO	As Required by th	PARTS AND A	PPURTEN/ be ASME C	ANCES* lode, Section III	t	of
011-A0321 I Manufactu	19710 IT. 3 ed and cenifed by	FISHER CONTROLS INT'L	LLC, 205 SOUTH C	ENTER STREE	ET, MARSHALLTO	WN, IA. 5015E Cor)	3
2 Manufactur	ed for	DETROIT EDISON CO.,P.O			1,48231 ess of purchaser)		
3. Location of	installation	FERMI U POWER PLANT, A	5400 N. DIXIE HIGH		DRT, ML, 48166 d address)		·
4 Туре	1U4615 REV. B (drawing no.)	SB165 N05600 (mat'i. spec. no	BOKS ) (tensile	l strength)	(CRN)		2004 (year built)
5. ASME Cod	e, Section Ill	1971 (edition)	WINTER 1971 (addenda da		2 (class)		N/A (Code Case no.)
6 Fabricated i	n accordance with Const. S		I/A Rev	ision	N/A	Date	N/A
7 Remarks		LPVC, SECT. III, 1971 EDITIC LPVC, SECT. III, 1989 EDITIC			ASS 2		
······	Parl or Appurtenance Serial Number AG0711-1 - AG0711-2 - AG0711-3 -	Data Reports are attached for e Heat Number 44830 - 44830 - 44830 - 44830 - - - - - - - - - - - - - -	acb item of this report (26) (27) (26) (27) (26) (30) (31) (32) (33) (34) (35) (36) (35) (36) (37) (38) (39) (40) (41) (41) (42) (42) (43) (44) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (45) (46) (47) (46) (47) (46) (47) (46) (47) (47) (46) (47) (47) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50) (50)	Part or Ser	r Appurtériánce rial Number		Hest Number
10 Design Pre			547	•F Hyd	iro, 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 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.

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FORM N-2 (back)

				Mfr.	Serial No,	AG0711-1,2 &3
	CERTIFIC	ATION OF DE	SIGN			
Design specifications certified by	SYLVESTER H. NOETZEL (when applicable)	P.E. State	ML	Reg. no.	1438	5
Design report [®] certified by <u>N//</u>		P E. State	N/A	Reg no.	N/A	
	CERTIFICATE	of shop com	IPLIANCE		···	
We certify that the statements made in conforms to the rules of construction o	this report are correct and that this (these) I the ASME Code, Section III	_PLUG/S	STEMS	······		<u> </u>
NPT Certificate of Authorization No.	1930	Expires _		11-11-20	04	
Date 11-5-04 Name FI	ISHER CONTROLS INT'L LLC (NPT Certificate Holder)			Signed	(authorized r	
	CERTIFICATE	TE SHOP INSP	FCTION			
and employed by Hartford Steam	mission issued by the National Board of Bo Boiler of CT	oiler and Pressu	re Vessel Inspector	s and the state or Prov	יחכד סר	lowa
best of my knowledge and belief, the Co been authorized for stamping on the dat By signing this certificate, neither the in	have inspected these stems described in this stificate Holder has fabricated these parts is shown above, sspector nor his employer makes any warra is employer shall be limble in any manner f	or appunchance inty, expressed o	s in accordance wi or implied, concern	ing the equipment des	cribed in this I	Data Report.
Date 1-05-04 Signed	(Authorized Inspector)	Commissions	X	2 IA. Bd. (incl. endorsemen	LS) state or pro	v and no.)

2-36-6.doc



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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

. <b>1.</b>	Owner Detroit	Edison Company	· ·	Date	December 13, 2004	
		Name				
	6400 North Dixi	e Highway, Newport MI 48166	<b>j</b> -	Sheet	1 of 2	
		Address				
2.	Plant Fermi 2 Nu	iclear Power Plant	• • • •	Unit	2	•
		Name			· · · · · · · · · · · · · · · · · · ·	
	6400 North Dixi	e Highway, Newport MI 48166	5			
		5 , , ,	• .		Deco Maintenance	
		Address		Repair O	rganization P.O. No., Job No., etc.	
З.	Work Performed by	Detroit Edison Company	• • • • • • •	Type Code Symbol Stamp	N/A	
		Name		Authorization No.	N/A	
	6400 North Dixie	e Highway, Newport, MI 48166	3	Expiration Date	N/A	
•	•	Address	·	•		·
4.	Identification of System		leat Removal - Re	elief lines from RHR supp	bly	-
5.	(a) Applicable Co	nstruction Code ASME III, Class 2	19 71	Edition 71	Addenda N/A Code Cas	20
	(b) Applicable Ed Replacements	ition/Addenda of Section XI Utilize				•

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)
E1100 F030D	Crosby	N56804-00-0003	N/A	V22-2035	1975	Replacement	Y
						• •	
<u>e</u>		19 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -		-			

Description

of Work 7.

Install replacement disc assembly and lap seats to provide for acceptable set-point testing and seat leakage.

8. Tests Conducted:

Hydrostatic [] Pneumatic [] Other [X] Pressure

Nominal Operating Pressure [X] psi

°F Test 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.

9. Remarks

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Replacement disc procured per PO# 301308, Heat Code N90386-71-0250 Set-point testing and seat leakage performed per procedure 43.000.020. Relief valve was built to ASME III. Class2, 1971 Edition, 72 Addenda.

Applicable Manufacturer's Data Reports to be attached

	CERTIFICATE O	FCOMPLIANCE	
We certify that the statements made in the	report are correct and this i	Replacement_conforms to the ru	iles of the ASME Code, Section XI.
Type Code Symbol Stamp Original Code	data report N5-0260 to be s	upplemented by Owners Section	XI Program 04-022
Certificate of Authorization No	N/A	Expiration Date	N/A
Signed R.M. Hambleton Lead ISI E	ingineer RUHau	Date Decen	NBER 14,20 04

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 <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 components described in this Owner's Report during the period <u>//-/.3-016</u> <u>O/-044-05</u> , and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Inspector's Signature Commissions National Board, State, Province, and Endorsements
Date <u>Jan. 04</u> 20 <u>05</u>
(10/94)

For complete work package, see Work Request # E940090100"

		NISZFOR = 04-022
•	· · ·	steer ZoFZ
	CDOCDV THENT & CH	CECOMPANY
	CROSBY VALVE & GA	GELEUMFANY
CROSBY.	WRENTHAM	MA
CAUSDI,		Q.C392
		SHEET 1 OF 2
	RS' DATA REPORT FOR IDENTICAL NUCLEA ASME Code, Section III, Division I - Not to Exceed	
	ASME COUL, SELIM III, DIMAN 1 - NOTO EXCEL	
1. Manufactured and certified by Crost	by Valve & Gage Company 43 Kendrick St. Wr	
	Name and Address of N Certificate H	folder)
DETROIT ED	SON_COMPANY_DETROIT_,MI 48231	
	nd Address of Purchaser or Owner)	
3. Location of Installation NOS-EMM-PR	SD-EF2 SITE , 6400 DIXIE HIGHWAY, NEW	VPORT.MI
	(Name and Address)	
	EREMARKS	1994
(CRN) (Diaw	ing No.)	(Year Built)
5. ASME SA479 TYPE 304		
(Material Spec No.)	(rensue Strengtn)	
6 Nom. Thickn	ess(in.)	ess
Dia, ID Length Overall	Inch	Inch
7.		- °F
Design Pressure(PSI)	Temperature	
1. Hýdrostatic Test (psig)	at °F.	
/When applic	able	
8. Fabricated in accordance with Const. Spe	c.(Div. 2 only) Revision Date	
	(No.)	
S. ASME Code, Section III. Division 1:_ 197	1 SUMMER 1972 2	
(Editi	on) (Addenda Date) . (Class)	(Code Case No.)
10. Remarks DS-C-56800 REV.0 .DS-C	-56804 REV.A	
DS-C-56806 REV.A .DS-C	2-57868 REV.8	EI
11. When applicable, Certificate Holders' data	reports are attached for each item of this tend	
	Vational Part or Appurtenance	National
	oard No. Serial Number	Board No.
Sun Nun	nerical Order	Numerical Order
(1) <u>N90385-71-0250</u>	(11)	
(2) <u>N90386-71-0252</u>	(12)	
(3)	(13)	
(4)		
	(15)	
(6)	(16)	
	(17)	
(8)	(19)	
(10)	(20)	
j		
(1)       N90386-71-0250          (2)       N90386-71-0252          (3)           (3)           (5)           (5)           (5)           (6)           (7)           (8)           (10)		
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HE LOUIS CONTRACTOR 0.6.-392 N90386-71-0250 Manufacturer Serial No._ SHEET 2 OF 2 CERTIFICATE OF SHOP COMPLIANCE te certify that the statements made in this report are correct and that this(these) DISC anform to the rules of construction of the ASME Code, Section III. 94 Signed Crosby Valve & Gage Company (NotCertificate Holder) (Authorized Representative) V Certificate of Authorization No. <u>N-1877</u> Expires 30 SEP 95 (Date) CERTIFICATE OF DESIGN Design specification certified by* ____SYLVESTER NAITZET Reg No. 14386 PE State____MI_ Design Repoi . Certified by* PE State___ ? Reg No. *Signature not required - list name only. CERTIFICATE OF SHOP INSPECTION If the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel inspectors and the State or Province of _Massachusetts_ and employed by .* Arkwright Mutual Insurance Co. of <u>Norwood</u>. Massachusetts have inspected these items described in this Data Report on DeL 1954 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtent nees 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 warrant, expressed or implied, concerning the component 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 a loss of any kind arising from or connected with this inspection. Factory Mutual Systems Bote Commissions 14.41755 Nat'l. Bd., State, Prov. and No.) Factory Mutual System

#### 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	· · · ·	Date	December 13, 2004
		Name	· · · ·		
	6400 North Dix	ie Highway, Newport MI 48166		Sheet	1 of 1
		Address			
2.	Plant Fermi 2 Nu	uclear Power Plant		Unit	2
		Name			······································
	6400 North Dixi	e Highway, Newport MI 48166			
					Deco Maintenance
		Address		Repa	ir Organization P.O. No., Job No., etc.
3.	Work Performed by	Detroit Edison Company		Type Code Symbol Stamp	N/A
		Name		Authorization No.	N/A
	6400 North Dixi	e Highway, Newport, MI 48166		Expiration Date	N/A
	•	Address	<u> </u>	• •	
4.	Identification	(N5-0214) Reactor Fer	edwater Svstem -	- North Side	
	of System		· · · ·	•	· · · · · · · · · · · · · · · · · · ·
			· · · · · · · · · · · · · · · · · · ·	· · ·	
5.	(a) Applicable Co	Instruction Code ASME III,	· · · · · · · · ·		
		Class 1		Edition 71	_ AddendaN/A Code Case
		ition/Addenda of Section XI Utilize	d for Repairs or		
	Replacements	5		1992-92 Addeno	
		-		•	

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)
B2100F010B	Atwood & Morrill	I-763	. N/A	V12-2007	1974	Replaired	Y
			,		••		
,		,					

Description

7. of Work

Repaired Acturator side stuffing, by performing weld repair to restore an interference fit for the hardened bushing.

8. Tests Conducted:

Hydrostatic []

Pneumatic [] Nominal Operating Pressure [X]

Other [X] Pressure _____ psi 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.

9. Remarks

Stuffing box was weld repaired and machined to provide for an interference fit of the integral hardened bushing. Final machined surface was examined by the liquid penetrant method.

Applicable Manufacturer's Data Reports to be attached

Ci	ERTIFICATE OF COM	PLIANCE	
We certify that the statements made in the report are	correct and this Repair_c	onforms to the rules of t	he ASME Code, Section XI.
Type Code Symbol Stamp Original Code data report	N5-0214 to be suppleme	nted by Owners Section	XI Program 04-023
Certificate of Authorization No	N/A	_Expiration Date	N/A
Signed R.M. Hambleton Lead ISI Engineer	ilbeo	Date Detou	SER 14 20 04

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 <u>Michigan</u> and employed by <u>HSB_CT_of One State Street. Hartford, CT_06102</u> have inspected the components described in this Owner's Report during the period
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.
Markhund Commissions NETG10
Inspector's Signature National Board, State, Province, and
C Endorsements
Date February 22 2005
(10/94)

For complete work package, see Work Request 000Z032755

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

04-026

Owner Detroit Edison Company	Date	12	2/14/04	<u>.</u>
Name				
6400 North Dixie Highway, Newport MI 48166	Sheet 1	of	1	
Address	•			
Plant Fermi 2 Nuclear Power Plant	Unit 2			
Name				-
6400 North Dixie Highway, Newport MI 48166	· DEC	o Maintenance	•	
Address	Repair (	Organization P.O. N	o., Job No., etc.	
Work Performed by Detroit Edison Company	Type Code Symbol S	Stamp N//	<b>۹</b> ·	
Name	Authorization No.	N//	A	
6400 North Dixie Highway, Newport, MI 48166	Expiration Date	N//	٩	
Address	•			
Identification of System N5-0214, Feedwater Line "B Outboa	rd Containment Isolation C	heck Valve		

5.	(a)	Applicable Construction Code	ASME III, Class 1 1	9 <u>71</u>	Edition	<u>W71</u>	Addenda,	<u>N/A</u>	Code Case
	(b)	Applicable Edition of Section XI	Utilized for Repairs or R	eplaceme	nts <u>199</u>	2W92			

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)
B2100F076B	Anchor Darling	IN-062	N/A	V12-2001	1972	Replacementair	Y
· ·							
						•	
	•						
				·		÷ .	

7. Description of Work <u>Replaced retainer stud and nuts (pieces 10A and 10B on P1-13620)</u> Replaced cover retainer stud and nut that had damaged threads. Threads damaged during valve disassembly.

8. Tests Conducted:

			•			
Hydrostatic	F F	Pneumatic 🔲	Nominal C	Operating Pressure		
Other	Pressure		psi	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.

(12/82)

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

9. Remarks

Replacements due to minor galling which occurred during disassembly phase, Replacement stud (1) 5/8"-11 x 3" UNC-2A, SA 193 Grade B7, PO # 898850, Trace # P123, (4) Replacement Nuts 5/8"-11 UNC-2B, SA 194 Grade 2H, PO # 975830, Trace # P217. Replacement Cover Bolting (1) 1-1/4" – 8 UNC-2A, SA-193 Grade B7, PO # 965330, Ht Trace #F556, (1) 1-1/4"-8 UNC-2B, SA-194 Grade 7, PO # 974800, Heat Trace #A201

Applicable Manufacturer's Data Reports to be attached

We certify that the	CERTIFICATE OF COMPLIANCE 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 Cod	de Data Report (N5-0214) to be supplemented by owners Section XI Programs, No. 04-024 & 026
. , pe eese e j	
Certificate of Authorization No	· · · · · · · · · · · · · · · · · · ·

#### 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 <u>Michigan</u> and employed by <u>HSBCT</u> of <u>One State Street</u>, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period  $\frac{1-16-04}{10-04}$  to 02-22-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Inspector's Signature Commissions_/126/0 National Board, State, Province, and Endorsements Date February 22 20 05

(12/82)

For complete work package, see Work Request T211040100

#### 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	ite .		02/22/05		
•		ame	<u> </u>	•				<u> </u>	
	6400 North Dixie High	way, Newport MI	48166	Sh	eet 1	of	1		
	Addres	S							
2.	Plant Fermi 2 Nuclear			Un	it <u>2</u>				
		ame							
	6400 North Dixie High		48166			Co Mainte			
	Addres		Repair Organization P.O. No., Job No., etc.						
3.		it Edison Compar	<u>iy</u>		pe Code Symbol	Stamp _	<u>N/A</u>		
	N			thorization No.		N/A			
	6400 North Dixie High		48166	Ex	piration Date	. <u> </u>	N/A		
	Addres								
4.	Identification of System	N5-0187, Feedwa	ter Line "A" Outb	oard Isolatic	on Check Valve	<u>}</u>			
5. 6.	(a) Applicable Construct (b) Applicable Edition of Identification of Components R	Section XI Utilized f	or Repairs or Repla		1992-W'92	 	Addenda, <u>N/A</u>	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)	
	B2100F032A	Anchor Darling	IN-080	N/A	V12-2004	1974	Repair	Y	
	:		•						
			-	•					
7. 8.	·	laced 5 retainer s		ominal Opera	ating Pressure				

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.

: psi

(12/82)

Other

Pressure

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

Test Temp._

,

۴F

9. Remarks <u>Replacement bolting installed due to minor galling which occurred during disassembly phase</u>, <u>Replace bolting material</u> installed included (5) 1-1/4" – 8 UNC-2A Studs, SA-193 Grade B7, PO# 965330, Heat Trace #F556 and (5) 1-1/4"- 8 Nuts, SA-194 Grade 7, PO # 974800, Heat Trace 201

Applicable Manufacturer's Data Reports to be attached

ASME Code, Section XI.	ents made in the report are correct and this <u>Replacement</u> conforms to the rules of the repair or replacement			
Type Code Symbol Stamp: Original Code Data	Report (N5-0187) to be supplemented by owners Section XI Program, No. 04-025			
Certificate of Authorization NoNA				
	IST BRINER Date DEPONDER 14, 20 04			

CEDTIEICATE OF COMPLIANCE

#### 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 <u>Michigan</u> and employed by <u>HSBCT</u> of <u>One State Street</u>, <u>Hartford</u>, <u>CT 06102</u> have inspected the components described in this Owner's Report during the period // - / 7 - 04 to 02 - 22 - 05, 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.

Marksudie	Commissions NITGIO
Inspector's Signature	National Board, State, Province, and Endorsements
Date February 22 2005	• · · ·

(12/82)

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

1. Owner Detroit Edis	on Company Name		- D	ate	<u>-</u>	12/14/04	
6400 North Divie	Highway, Newport MI	48166	S	neet 1	of	1	
	ddress	40100	. 0	<u> </u>	_ " _		
	ear Power Plant		Ur	nit 2			
	Name		•			· · · · ·	
6400 North Dixie I	Highway, Newport MI	48166	-	. DE	Co Mainte	enance	
A	dress			Repa	ir Organizat	ion P.O. No., Job No., etc.	
3. Work Performed by	Detroit Edison Compa	ny 👘 🛄		pe Code Symbo	I Stamp	N/A	
	Name	2	Au	thorization No.		N/A	
6400 North Dixie H	lighway, Newport, MI	48166	E	piration Date		N/A	
	Idress						
4. Identification of System	N5-0214, Feedwa	ater Line "B Outbo	pard Isolatio	n Check Valve			
	truction Code <u>ASME</u> n of Section XI Utilized I					Addenda, <u>N/A</u>	Code Case -
	n of Section XI Utilized I	for Repairs or Repl	acements	1992 <b></b> W'92		Addenda, <u>N/A</u>	Code Case -
(b) Applicable Edition	n of Section XI Utilized I	for Repairs or Repl	acements	1992 <b></b> W'92	Year Built	Addenda, <u>N/A</u> Repaired, Replaced, or Replacement	ASME Code Stamped (Yes
<ul><li>(b) Applicable Editic</li><li>6. Identification of Component</li></ul>	n of Section XI Utilized f ts Repaired or Replaced Name of	for Repairs or Repla d and Replacement Manufacturer	acements Components National Board	1992-W'92 Other		Repaired, Replaced,	ASME Code Stamped
(b) Applicable Editio 6. Identification of Componen Name of Component	n of Section XI Utilized f ts Repaired or Replaced Name of Manufacturer Anchor	for Repairs or Repla d and Replacement Manufacturer Serial No	acements Components National Board No.	0ther Identification	Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
(b) Applicable Editio 6. Identification of Componen Name of Component	n of Section XI Utilized f ts Repaired or Replaced Name of Manufacturer Anchor	for Repairs or Repla d and Replacement Manufacturer Serial No	acements Components National Board No.	0ther Identification	Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
(b) Applicable Editio 6. Identification of Componen Name of Component	n of Section XI Utilized f ts Repaired or Replaced Name of Manufacturer Anchor	for Repairs or Repla d and Replacement Manufacturer Serial No IN-081	acements Components National Board No.	0ther Identification	Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
(b) Applicable Editio 6. Identification of Componen Name of Component	n of Section XI Utilized f ts Repaired or Replaced Name of Manufacturer Anchor	for Repairs or Repla d and Replacement Manufacturer Serial No IN-081	acements Components National Board No.	1992–W'92 Other Identification V12-2003	Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)

Description of Work 7. Replaced retainer studs and nuts -

Tests Conducted: 8.

.

Hydrostatic Other 🗌 Pressure

Nominal Operating Pressure Pneumatic psi Test 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.

(12/82)

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

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9. Remarks <u>Replacement due to minor galling which occurred during disassembly phase Replacement Bolting (6) 1-1/4" – 8 UNC-2A, studs, SA-193 Grade B7, PO# 965330, Ht Trace #F556, (6) 1-1/4"-8-UNC-2B nuts, SA-194 Grade 7, PO# 974800, Heat Trace #201. ASME III, Class 1 material.</u>

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. repair or replacement Type Code Symbol Stamp; Original Code Data Report (N5-0214) to be supplemented by owners Section XI Program, No. 04-027 N/A Expiration Date Certificate of Authorization No N/A IST Ereinder Li-AD Signed 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 and employed by HSBCT of One State Street, Hartford, CT 06102 have Michigan or Province of inspected the components described in this Owner's Report during the period //-/7-04 to 02-22-05 . and state thatto 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. Commissions_ MIZG10 Inspector's Signature National Board, State, Province, and Endorsements Ebruary 22 2005 Date

(12/82)

For complete work package, see Work Request <u>T251040100</u>

#### 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		Date		December 13,	2004
		Name					
	6400 North Dix	ie Highway, Newport MI 48166		Sheet		1 of 1	
	<u></u>	Address		•			
2.	Plant Fermi 2 N	uclear Power Plant		Unit		2	
		Name		•			
	6400 North Dix	ie Highway, Newport MI 48166	- •		<b>.</b> .		
	•		• •			Deco Maintenance	
•		Address			Repair Org	janization P.O. No., Job N	lo., etc.
3.	Work Performed by	Detroit Edison Company		Type Code S	Symbol	N/A	
	•		• •	Stamp			
		Name		Authorization	n No	N/A	
	6400 North Dix	ie Highway, Newport, MI 48166		Expiration D	ate	N/A	
		Address			-		
4.	Identification	(N5-0265) Main Steam Relief Disc	charge i	Piping to Sup	ression Ch	amber & B21-4095	•
	of System	· · ·		• ·			
	•				· ·		
5.	(a) Applicable C	onstruction Code ASME III,					
				Edition 7	<u>1 A</u>	Addenda <u>N</u> /	A Code Case
		dition/Addenda of Section XI Utilized for Repairs	or	1000.00	A 1.1		
	Replacement	S		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)
B2100F037P	Crosby	N58071-00-022	N/A .	V22-2110	1979	Repair	Y
<u> </u>							
	· · · · · ·		• •				
	-			-			

Description

7. of Work Repaired damage to inbody and disc seating surfaces (dents/nicks) and replaced Spring washer that had damaged threads

**Tests Conducted:** 8.

Hydrostatic [] Other [X] Préssure

Pneumatic []

Nominal Operating Pressure [X]

psi

Test Temp.

Lift Test per Procedure 24.201.01

0_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.

(10/94)

9. Remarks

Seating surfaces repaired by performing a licalized weld repair followied by machining. A liquid penetrant examination was performed of the final machined surfaces. Replacement spring washed procured per PO# 406109. Crosby part No. N90959-37-0027, Heat No. 36620

Applicable Manufacturer's Data Reports to be attached

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	CERTIFICATE OF COMPLIANCE
We cer	tify that the statements made in the report are correct and this <u>Repair</u> conforms to the rules of the ASME Code, Section XI.
Гуре С	ode Symbol Stamp Original Code data report N5-0265 to be supplemented by Owners Section XI Program 04-028
Certific	ate of Authorization NoN/AExpiration DateN/A
Signed_	R.M. Hambleton Lead ISI Engineer Rubballis

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 <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 components described in this Owner's Report during the period $\frac{1-21-24}{1000}$ to <u>02-07-05</u> , 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	
Date Feb. 07 20.05	
(10/94)	

For complete work package, see Work Request D648040100

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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.	1. Owner Detroit Edison Company Name				te	January 18, 2005		
	6400 North Dixie Highway, Newport MI 48166				eet	<u>1 of 1</u>		
2.	Address 2. Plant Fermi 2 Nuclear Power Plant				Unit		2	
		Name	10100	•			- 1. <u></u>	
	6400 North Dixie Highway, Newport MI 48166				•	DECo Maintenance		
_		Address	• , •	· · · -		Organization	P.O. No., Job No., etc.	
3.	Work Performed by	Detroit Edison Com	pany	••	pe Code Symbol		N/A	
		Name	· .	Aut	horization No.		N/A	
	6400 North Dixie I	Highway, Newport, Mi	48166	'Exp	piration Date			
	. <u></u>	Address		-			N/A	
4.	Identification of System E41 F	•	Unication (LIDOI)					
	Ci System <u>E41 F</u>	ligh Pressure Coolan	(Injection (HPUI)	<u> </u>	<u></u>			
5.	(a) Applicable Cons	struction Code ASM Člas		71 Editio	Winter on 1971	Addenda.	N/A	Code Case
		on/Addenda of Section >		sor	•	• • • •		0000 0230
	Replacements		•	-	1992, 92 Addenda	<u> </u>		
6.	Identification of Component	ents Repaired or Replac	ed and Replacemer	t Components				
<b></b>	<u></u> .		· · ·	<b>j</b>				1
	Name of Component	Name of Manufacturer	Manufacturer Serial No	, National Board No.	Other Identification	Year Built	Repaired, Replaced,	ASME Code
							or Replacement	Stamped
								(Yes or No)
F	Piece MK-E41-3162-2	Dravo Corp	4257	N/A	SW-E41- 3162-2WC	N/A	Repair	Yes
	•		· · · · · ·			· ·	<u> </u>	
							· ·	
7.	Description of Work	RF10 rework was to weld. SW-E41-3162-		face base m	aterial imperfecti	on that wa	s adjacent to circun	ferential
	•				······			
8.	Tests Conducted:		Pneumatic []		rating Pressure [ Test Temp	} °F	•	
		N/A - The flaw was a		•		·		e the
		pressure boundary.						

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 <u>The repair was performed in accordance with Work Request A560040100 and Section XI Program 04-029.</u> Final acceptance by nondestructive examinations are documented in RF-10 NDE summary report RF10-96.

Applicable Manufacturer's Data Reports to be attached

#### CERTIFICATE OF COMPLIANCE

We certify that 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 N/A _______ This NIS-2 supplements original N-5-0333 data reports as listed in Section XI Program 04-029.

Certificate of Authorization No. N/A Expiration Date N/A NDE LOVE IL Signe 20 05 Date 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 05102 have inspected the components described in this Owner's Report during the period 11-21-04 to 02-04-05, 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. MIG10 Commissions_ Inspector's Signature National Board, State, Province, and Endorsements Date FE6. 04 2005 (5/00)