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Detroit Edison



A DTE Energy Company

10CFR50.55a

February 28, 2002
NRC-02-0012

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 2001 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 Eighth Refueling Outage, which was completed on November 30, 2001.

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,

Enclosure

cc: T. J. Kim
M. A. Ring
NRC Resident Office
Regional Administrator, Region III
M. Wilson - ANII
R. Aben Chief Inspector, Michigan Dept. of Labor
Bureau of Construction, Codes/Boiler Division

A047

ISI SUMMARY REPORT OF THE 2001 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# 21085 (RPV)

Michigan Boiler Serial Number
M345962M

To:

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

Prepared by: M.A. Brooks 2/8/02
Marc A. Brooks
NDE Level III Engineer

Reviewed by: Richard M. Hambleton 2-25-02
Richard M. Hambleton
Lead ISI Engineer

Approved by: Tom Dong 2-25-02
Tom Dong
Manager, ISI/PEP

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. Plant Fermi-2 Nuclear Power Plant, 6400 N. Dixie Hwy., Newport MI 48166
(Name and Address of Plant)
3. 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 N/A
7. Components Inspected see attached listing in Section 7.0 and 8.0 of 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 Components (1)	Wisner & Becker Townsend & Bottom	Various	M345962M	N/A
Associated Supports	Chicago Bridge & Iron	Various	M345962M	N/A
	Reactor Controls Inc.	Various	M345962M	N/A
	Walbridge Aldinger Co.	Various	M345962M	N/A
Containment Vessel	Chicago Bridge and Iron	C-4512	N/A	N/A

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

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

FORM NIS-1 (back)

8. Examination Dates 10/22/01 to 11/30/01
9. Inspection Interval from 02/17/00 to 02/17/10
10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. (A listing of examinations completed to date for Interval 2, Period 1, Refuel Outage Eight (RF-08), is included in the ISI Summary Report of the 2001 Inservice Inspection, Section 7. A complete listing of all required examinations of the interval, is also included in Summary Report (Section 7).
11. Abstract of Conditions Noted (included as Section 5 with IWE in Section 8 of Summary Report).
12. Abstract of Corrective Measures Recommended and Taken (included as Section 5 and 8 of Summary Report).

We hereby certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date FEB 26, 2002 Signed Detroit Edison Co. By Richard M. Halston
Owner Lead ISI Engineer

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

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province Michigan of and employed by HSB CT of One State Street, Hartford, Conn 06102, have inspected the components described in this Owners Data Report during the period of 05-23-00 to 02-26-02 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Date Feb 26 2002

Signed Mark D. Wilson Commissions NB9486 NIAS 25 MI 610
Inspector's Signature State, Province
Mark D. Wilson

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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)*

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

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

- | | |
|-----------------------------|-----------------------|
| 1. First Inspection Period | (02/17/00 – 06/17/03) |
| a. Seventh Refueling Outage | (04/01/00 – 05/23/00) |
| b. Eighth Refueling Outage | (10/22/01 – 11/30/01) |

- * 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.

1.2 Examinations were performed to satisfy the requirements (or portions thereof) of the following:

- 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 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, 5.1 Snubbers
- Augmented inspection of selected components in accordance with the requirements as listed in the following Table A and Section 6 of this report
- BWROG NUREG-0619 Alternate Feedwater Nozzle Inspection Requirements, GE-NE-523-22-0292.

TABLE A

REQUIREMENT	DESCRIPTION	EXAM METHOD
<u>VESSELS</u>		
1989 Edition	Pressure Vessel (B-A, B-D, B-H, C-A, C-B)	Surface and/or Manual Volumetric or Automated 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
1992 Edition, 92 Addenda	Containment Inspection (IWE)	Visual
<u>PIPING</u>		
1989 Edition	Pressure retaining Piping Welds (B-F, B-J, C-F)	Surface and/or Manual Volumetric or Automated Volumetric
	Integral attachment for piping pumps and valves (B-K-1, C-C, Code Case N-509)	Surface and/or Volumetric
<u>OTHER</u>		
1989 Edition	Pressure retaining partial penetration welds (B-E)	Visual Examination
	Pressure retaining bolting <2" diameter (B-G-2)	Visual Examination
	Pressure retaining bolting >2" diameter (B-G-1)	Visual Examination and /or Volumetric
	Pressure boundary component supports (F-A, Code Case N491-1)	Visual Examination
	Pump and Valve Internal Surfaces (B-L-2, B-M-2)	Visual Examination

TABLE A (continued)

REQUIREMENT	DESCRIPTION	EXAM METHOD
<u>PRESSURE TEST</u>		
1989 Edition	Interval 1 Pressure Testing (B-P, C-H, and D-B, Code Case N-416-1, Code Case N-498-1)	Visual Examination
<u>AUGMENTED</u>		
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 (Nonclassified)	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	Safety Related Snubbers	Visual Examination
	Sampling of Safety Related Snubbers	Functional Testing
IE Notice 93-079	Core Shroud	Visual Examination
Generic Ltr. 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. 289, Rev.1, Supp 2	Core Spray Piping	Remote Visual Examination
SIL No. 330	Jet Pump Hold Down Beam Cracking	Remote Visual Examination
SIL No. 409	Incore Dry Tube Cracks	Remote Visual Examination
RICSIL No. 073	Incore Dry Tube Cracks	Remote Visual Examination
SIL No. 420	Jet Pump Sensing Lines and Support Brackets	Remote Visual Examination
SIL No. 433	Shroud Head Bolts	Remote Visual Examination

TABLE A (continued)

REQUIREMENT	DESCRIPTION	EXAM METHOD
<u>AUGMENTED (continued)</u>		
SIL No. 455	Additional ISI of Alloy 182 Nozzle Weldments (Rev. 2)	Volumetric Examination
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 Examinations
SIL No. 572 and supplements	Shroud	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. 605	Jet Pump Riser Welds	Remote Visual Examination
SIL No. 629	Inlet Mixer Wedge Damage in BWR Jet Pump Assemblies	Remote Visual Examination
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

TABLE A (continued)

REQUIREMENT	DESCRIPTION	EXAM METHOD
<u>AUGMENTED (continued)</u>		
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-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

SECTION 2

SUMMARY OF CLASS 1 & 2 AND AUGMENTED EXAMINATIONS

2.1 Interval 2, Period 1, RF-08 Examinations

RF-08 EXAM DATA BASE Class 1													
Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
B-A Reactor Vessel	Shell Welds		Vol										
1-308A		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	
1-308B		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	
15-308C		5360-5	UT	8	2667-62-1	14-Nov	17-Nov	19-Nov	PDI-254-C01	PDI-254-C01	R8-98	DW,262,244	
2-307A		5360-5	UT	8	2667-60-1	12-Nov	17-Jan	19-Nov	PDI-254-C02	PDI-254-C02	R8-99	DW,339,122	
B-A Reactor Vessel	Circ Head Welds		Vol										
4-319	2-319C to 2-319E 40%	5360-5	UT	6	2667-58-1	1-Nov	5-Nov	17-Nov	PDI-6-C11, C12	UT09, UT10	R8-47	Refuel Flr.	
6-306	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 Flr.	

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
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 Flr.	
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 Flr.	
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 Flr.	
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 Flr.	
1-319H	Top Head	5360-5	UT	6	2667-58-1	30-Oct	5-Nov	17-Nov	PDI-6-C03, C04	UT03, UT04	R8-43	Refuel Flr.	
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, 0deg	
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-Nov	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"	120 degrees
13-308	Partial from flange	5360-5	UT	9	CSCI-52-FER	28-Oct	30-Oct	17-Nov	ISI-54-C01	UT01	R8-12	Vessel Cav.	180 degrees
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, UT05, UT11	R8-41	Refuel Flr.	
3-319	1/3 of weld length	5360-5	MT	2		30-Oct	6-Nov	17-Nov		MT-023	R8-41	Refuel Flr.	

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
B-D Reactor Vessel	Nozzle to Vessel Welds		Vol										
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	UT14	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		IVVI	18-Nov	30-Nov		01-034		DW,71,655	
8-316-B		5361-5	UT / VT	13 or 15		IVVI	18-Nov	30-Nov		01-034		DW,109,655	

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
B-D Reactor Vessel	Nozzle Inside Radius		Vol										
4-316A		5361-5	UT	11	N/A	8-Nov	13-Nov	17-Nov	ISI-246-C01	ISI-246-C01	R8-86	DW,30,642	43.000.017
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	ISI-246-C01	R8-88	DW,210,642	
14-316B		5361-5	UT / VT	13 or 15		1-Nov	13-Nov	30-Nov		01-034		DW,240,641	
15-315		5361-5	UT / VT	13 or 15		1-Nov	13-Nov	30-Nov		01-034		DW,150,638	
13-314A		5361-5	UT / VT	13 or 15		1-Nov	18-Nov	30-Nov		01-034		DW,30,615	
13-314B		5361-5	UT / VT	13 or 15		1-Nov	18-Nov	30-Nov		01-034		DW,60,615	
13-314D		5361-5	UT / VT	13 or 15		N/A						DW,120,615	Reshceduled
13-314G		5361-5	UT / VT	13 or 15		N/A						DW,240,615	Reshceduled
13-314K		5361-5	UT / VT	13 or 15		N/A						DW,330,615	Reshceduled
5-314A		5361-5	UT / VT	13 or 15		1-Nov	18-Nov	30-Nov		01-034		DW, 0,614	
19-314B		5361-5	UT / VT	13 or 15		1-Nov	18-Nov	30-Nov		01-034		DW,280,612	
B-D Reactor Vessel	Nozzle Inner Bore 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	

	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
B-F & 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	¾	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	UT11	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,0,586	
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	Strm,F12,586	

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
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	UT15	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	UT12	R8-67	DW,30,641	
B-G-1 Bolting	Greater Than 2"												
RPV Closure Nuts	1/3 of locations	5362-5	MT	2		10-Nov	12-Nov	17-Nov		MT-027, MT-028 VT-004	R8-83	Refuel Flr.	
RPV Closure Studs	1/3 of locations in place 48-51		UT	5	RPV Stud	28-Oct 4-Nov	5-Nov	11-Nov 17-Nov	PDI-5-C01, C02 PDI-5-C03, C04	UT-01	R8-10 R8-50	RPV Cavity	
RPV Closure Studs	48-51 removed		MT	2		10-Nov	12-Nov	17-Nov		MT-026	R8-50	Refuel Flr.	
Threads in Flange	1/3 of locations		UT	10		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		10-Nov	12-Nov	17-Nov		VT-005	R8-84	Refuel Flr.	
Recirc Pump Studs	Pump A 1-16	5365-5	VT-1	16		10-Nov	17-Nov	27-Nov		01-035AP		DW,315,579	
Recirc Pump Studs	Pump A 1-16		UT	5		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-1	16	B31 Stud	10-Nov	17-Nov	27-Nov		01-035AP		DW,315,579	
RPV Spare Flange	0 deg.	5361-5	VT-1	16		10-Nov	17-Nov	27-Nov		01-035AN		Refuel Flr.	
RPV Spare Flange	180 deg.		VT-1	16		10-Nov	17-Nov	27-Nov		01-035A0		Refuel Flr.	
B-G-2 Bolting	2" and Less												
FBC-E51-2192-01	FE Flange	2192-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035A		DW,360,594	* Completed visual
FBC-B21-5352-01L	SRV Flange	5352-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035B		DW,360,594	examination of
B21-F013L-VBB	SRV Bonnet	5352-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035C		DW,39,613	bolting per surveillance

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
B-G-2 Bolting	2" and Less												
FBC-B21-5353-01K	SRV Flange	5353-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035D		DW,39,613	43.000.014.
B21-F013K-VBB	SRV Bonnet	5353-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035E		DW,70,613	
FBC-B21-5353-01G	SRV Flange	5353-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035F		DW,70,613	
B21-F013G-VBB	SRV Bonnet	5353-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035G		DW,38,613	
B21-F028B-VBB	B Line Outboard MSIV	5353-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035H		DW,38,613	
FBC-B21-5354-01B	SRV Flange	5354-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035I		DW,298,613	
B21-F013B-VBB	SRV Bonnet	5354-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035J		DW,298,613	
B21-F028D-VBB	D Line Outboard MSIV	5353-5	VT-1	16		31-Oct	17-Nov	27-Nov		01-035K		Stm,F12,599	
E21-F006A-VBB	CS Inbd Check	3052-5	VT-1	16		9-Nov	17-Nov	27-Nov		01-035L		DW,210,627	
E41-F003-VBB	HPCI Otbd ISO Valve	2297-5	VT-1	16		31-Oct	17-Nov	27-Nov		01-035M		Stm,F12,587	
G33-F001-VBB	RWCU Inbd Iso	3096-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035N		DW,229,603	
G33-F120-VBB	RWCU to FW Ck	3536-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035O		Stm,F12,587	
B21-F011A-VBB	FW A Manual Iso	3537-5	VT-1	16		1-Nov	17-Nov	27-Nov		01-035P		DW,350,603	
B-H RPV Integral Attachment Welds													
3-306/4-309 Skirt Weld	10 percent of length	5360-5	MT	2		4-Nov	6-Nov	19-Nov		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, C09	UT12	R8-52	Bio Annulus	
10-324A Stabilizer		5360-5	MT	2		13-Nov	14-Nov	16-Nov		MT-029	R8-94	DW,0,647	

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
B-H RPV Integral Attachment Welds													
B-O CRD Housing Welds													
CRDH-X02-Y27-W1	Peripheral Housing Weld		PT	1		9-Nov	10-Nov	18-Nov		PT-004	R8-80	DWUV	
CRDH-X02-Y27-W2	Peripheral Housing Weld		PT	1		9-Nov	10-Nov	18-Nov		PT-005	R8-81	DWUV	

RF-08 EXAM DATA BASE Class 2													
Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
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/ Surf										
SW-E11-D2-HX-01	Inlet Nozzle to Head	5370-5	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	MT	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,	CARD 01-20653 Reportable Ind.
SW-E11-D2-HXS-07	Support Ring		MT	2		31-Oct	1-Nov	16-Nov		MT-014	R8-21	RB1,B9,	

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
C-C Vessel	Integral Attachment		Surf										
SW-E11-D2-HXS-09	Stiffener Plate		MT	2		31-Oct	1-Nov	16-Nov		MT-015	R8-22	RB1,B9,	
SW-E11-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		MT	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		MT	2		31-Oct	1-Nov	16-Nov		MT-020	R8-27	RB1,B9,	
SW-E11-D2-HXS-23	Stiffener Plate		MT	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	RB2,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-F-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	UT01	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		

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
C-F-2 Piping	Circumferential Welds		Vol/Surf/VT										
SW-E21-3145-9WD	10" Elbow to Pipe	3145-5	VT-1	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		MT-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-1	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	MT	2		26-Oct	27-Oct	16-Nov		MT-007	R8-08	Tor,B12,575	
SW-N30-3258-13WB	26" Pipe to Sweepolet	3258-5	MT	2		29-Oct	30-Oct	16-Nov		MT-010	R8-14	Stm,F12,598	

RF-08 EXAM DATA BASE
Augumented

Sys/Comp ID	Description	ISO	Exams	Procedure	Cal Std	Comp	L III	ANII	Cal Sheet	Data Sheet	Report	Loc/Az/EI	Remarks
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	TB2,P4,623	

Procedure
39.NDE.001
39.NDE.002
PDI-UT-1
PDI-UT-2
PDI-UT-5
PDI-UT-6
ISI-UT-210
I/UX-PDI-254
GFRM2-ISI-54

Reference Code
1
2
3
4
5
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9

Procedure
ISI-UT-55
GFRM2-ISI-246
UNIXDETC
ISI-UT-211
ISI-UT-215
43.000.017
43.000.014
43.000.019

Reference Code
10
11
12
13
14
15
16
17

2.2 Interval 2, Period 1, RF-07 Examinations

Cat/Item	Component ID	DESCRIPTION	ISO	Procedure	EXAMS	CAL STD	COMP	CAL SHT	DATA SHT	Report
B-D	Reactor Vessel	Nozzle Inside Radius Section		6						
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-F	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
B5.10	N5B	Core Spray	3052-5	1	PT	N/A	11-Apr		PT-05	R7-04
B5.10	2-303H	Dissimilar Metal Nozz-SE	5356-5	5	UT	FER-54,56	10-Apr	DETC-C01,C02		R7-05
B5.10	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
B5.10	4-303A	Recirc Suction	5357-5	1	PT	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
	102-304A	Jet Pump Instrumentation	5361-5	1	PT	N/A	13-Apr	PDI-2-C07-09	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	R7-08
	5-315	Core DP and Liquid Control	R1-91	1	PT	N/A	14-Apr		PT-07	R7-08

Cat/Item	Component ID	DESCRIPTION	ISO	Procedure	EXAMS	CAL STD	COMP	CAL SHT	DATA SHT	Report
B-K-1	Integral Attach For Piping, Pumps, 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	R7-10
	SW-PS-2-A2-AA3	Pipe Lug	5352-5	2	MT	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, Pumps, 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-F	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	PT	N/A	31-Mar		PT-02	R7-16
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" tee 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 seam weld	3258-5	2	MT	N/A	7-Apr		MT-13	R7-20
	SW-N-30-3258-19WJLU	intersecting long seam 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	MT	N/A	8-Apr		MT-14	R7-21
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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Cat/Item	Component ID	DESCRIPTION	ISO	Procedure	EXAMS	CAL STD	COMP	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	MT	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	MT	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-1	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 GL 88-01	FW-N20-3107-0W17	20" safe end to pipe (dm)	3107-1	3,4	UT	FER-11, 88	10-Apr	PDI-1-C12-14 PDI-2-C04-06	UT-01 UT-01	R7-33
Augmented GL 88-01	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 PDI-2-C04-06	UT-02 UT-02	R7-34
Augmented GL 88-01	FW-N20-3105-16W0	20" elbow to safe end (dm)	3105-1	3,4	UT	FER-11, 88	6-Apr	PDI-1-C06-08 PDI-2-C01-03	UT-01 UT-01	R7-35
Augmented GL 88-01	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 PDI-2-C01-03	UT-02 UT-02	R7-36
GE recommended exam	Steam Dryer	Support Ring Indications	5364-5	9	UT	CAL-DSR01	18-Apr	PDI-2-C01-03 SDSR-CAL1/2	UT-02 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				
PDI-UT-1		3		43.000.019		7				
PDI-UT-2		4		43.000.004		8				

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SECTION 3
SUMMARY OF REACTOR INTERNAL EXAMINATIONS

3. Code Category

Code Category
B-N-1 and B-N-2 Inspections
Interval 2, Period 1, RF-08

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 (JP #7 & 8)	EVT-1	BWRVIP-41	RI (Note 2)
Risers (JP #1 & 2)	EVT-1	BWRVIP-41	NRI
Assemblies (JP #1 & 2)	EVT-1	BWRVIP-41	NRI (Note 4)
Restrainer Bracket	EVT-1 / VT-1/3	SIL 574 / SIL 629	
Assemblies (JP #1-20)			NRI
Sensing Lines	VT-3	SIL 420	NRI
Dry Tubes			
4-SRM	VT-1	SIL 409 /	NRI
8-IRM	VT-1	RICSIL-073	NRI
Top Guide / Core Plate			
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	SIL 474	No change in indications noted
Steam Separator			
Assembly 30%	VT-3		NRI
Shroud Head Bolts 50%	VT-3	SIL 433	NRI

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

Notes:

- (1) Examined accessible areas of all welds and components to the extent possible. BWRVIP baseline inspections were completed RF-06 and RF-07. Sampling inspections were performed on the spargers.
- (2) Reinspected indication adjacent to RS-1 weld (1.75") identified RF-06 (10/98) no change in length observed.
- (3) Examined approximately 22% of H-8 and H-9 at 0⁰ and 180⁰ and between Jet Pumps 2 & 3. Examined accessible areas of gussets 1, 2, 3, 11, 12, & 22.
- (4) All assembly welds visually inspected except for welds DF-3, AD-1 and AD-2, which are inaccessible for VT inspection. UT Technique not available.
- (5) Inspected accessible areas of the following nozzle inside radius areas within limits of design and geometry. Main Steam (2), Core Spray (1), CRD Hydraulic Return (1) and Reactor Recirculation (3).
- (6) Inspected top of bolts at four azimuth locations only.

Code Category
B-N-1 and B-N-2 Inspections
Interval 2, Period 1, RF-07

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 @ 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 (JP #7 & 8)	EVT-1	BWRVIP-41	RI (Note 2)
Risers (JP #11-20)	EVT-1	BWRVIP-41	NRI
Assemblies (JP #11-20)	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		NRI
Shroud Head Bolts 50%	VT-3	SIL 433	NRI

Components	Technique	Requirement	Results / Remarks
Control Rod Blade O2-39	EVT-1	CARD 98-17816	Re-look of previous indication – no significant changes.
RPV Seal Surface			
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 RF-06 (10/98) no change in length observed.
- (3) Examined H-8 and H-9 at 0° and 180° only. Examined accessible areas of gussets between Jet Pumps #11-20.
- (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. SUMMARY OF COMPONENT SUPPORT EXAMINATIONS

VT-3 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 1, Refuel-07 and Refuel-08.

CLASS	COMPONENT SUPPORTS	SNUBBERS (1)	TOTAL
1	10	99	109
2	34	284	318
3	21	166	187
Other		96	96

NOTE

- (1) All Snubbers were visually inspected to the requirements of the Technical Requirements Manual 5.1 and ASME Section XI using Level I, Level II and III, VT-3 certified inspectors.

4.2 Technical Specification Examinations

4.2.1 Refuel-08 Examinations

1. VT-3 examinations were performed on all Safety Related and Non Safety Related snubbers per Technical Requirements Manual 5.1. Total examined was 699.
2. A total of 66 safety related snubbers per the Technical Requirements Manual were initially selected at random and functionally tested. No snubbers failed functional testing.
3. Seal Life Changeout was performed on 31 Snubbers.

4.2.2 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 5.1. 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 RF-06 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.

4.2.3 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 outage RF-07 and RF-08 (includes seal life changeout).

SECTION 5

ABSTRACT OF CONDITIONS NOTED

AND CORRECTIVE ACTIONS TAKEN

ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE ACTIONS TAKEN

5.1 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.

5.1.1 RPV Internals

During RF-08 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. Fermi's 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 (#1 & #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 (#1-20) during RF-06 and RF-07, 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 RF-06 a crack approximately 1 3/4" long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pumps 7 and 8 at 120° AZ. This indication was evaluated and found acceptable for continued operation without repair. This indication was reinspected during RF-07 and again in RF-08, 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. Re-inspection of this indication will again be performed during RF-09. This crack is similar to indications identified in at least 5 other BWR plants.

Because of recent industry findings, all 20 Jet Pump 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 #15 were again unchanged, and it still has 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 the 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% 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 RF-08. Visual and ultrasonic inspections will continue to be performed during future outages.

Indications and conditions identified during previous outages were reinspected during RF-08. 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.

5.1.2 RPV External Volumetric and ASME Piping Weld Examinations

During RF-08 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 reported on CARD 01-20653 and the defect was ground out and repaired by welding. The repaired area was then re-inspected to verify defect removal.

No other service related conditions were noted during RF-08 inspections.

5.1.3 Component Supports

Several hangers were found with discrepancies between the installed condition and their configuration documents. It was determined that these conditions did not effect 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.

5.2 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.

5.2.1 RPV Internals

During RF-07 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% of the Jet Pump risers and assemblies (#11-20) to comply with BWRVIP-41 inspection recommendations. These inspection points included welds not previously inspected. During RF-06 a crack approximately 1 ¾" long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pumps 7 and 8 at 120° AZ. This indication was evaluated and found acceptable for continued operation without repair. This indication was reinspected during RF-07 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. Re-inspection of this indication will again be performed during RF-08. This crack is similar to indications identified in at least 5 other BWR plants.

All accessible and welds and locations on Jet Pumps assemblies #11-20 were inspected and no recordable indication were identified. A baseline inspection has been completed for all Jet Pump welds (#1-20) 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 RF-06. 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 RF-07. 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" 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 RF-06. 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 #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.

5.2.2 RPV External Volumetric and ASME Piping Weld Examinations

No service related defects were detected during RF-07 by nondestructive examinations performed.

5.2.3 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 did affect 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 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 did not impact component operability. The hangers were reset to their cold position.

These conditions were not reportable.

5.3.1 RPV Internals

During RF-06 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% 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 approximately 1 3/4" long was identified on the thermal sleeve to elbow weld (RS-1) on the riser of Jet Pumps 7 and 8 at 120° AZ. This indication was evaluated and found acceptable for continued operation without repair. Re-inspection of this indication will be performed during RF-07. 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 RF-06, but recommendations were made to re-inspect the non-safety related dryer assembly, both visually and ultrasonically in future outages.

Indications and conditions identified during previous outages were reinspected during RF-06. 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 #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 #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, as a result inspection of the H3, H4, H5, and H7 welds were required. Inspections were performed using focused phased array ultrasonic

techniques. This inspection identified no evidence of 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.

5.3.2 RPV External Volumetric and ASME Piping Weld Examinations

No service related defects were detected during RF-06 by nondestructive examinations performed.

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.

5.3.3 Component Supports

Eight component supports were discovered with minor service related discrepancies from the RF-06 inspection population of 138 component supports. Structural integrity evaluations were performed which concluded all component supports satisfied operability requirements. Therefore no reportable conditions exist.

5.4 Refuel-05

5.4.1 RPV Internals

During RF-05 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 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 RF-05. 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	RF-04, RF-05
Jet-Pump Beam replacement	RF-04
Steam Dryer End Panel repair welding	RF-03

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

No service related defects were detected during nondestructive examinations performed during RF-05. While it is still too early to draw any global conclusions about effectiveness of IGSCC mitigation treatments (IHSL 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.

5.4.3 Component Supports

Several component supports were found with discrepancies between the existing field configuration versus as-built hanger sketch. Deviation Event Reports 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.

5.5 Refuel-04

5.5.1 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's 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 Reactor Vessel. 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 RF-03 on the hood to end panel welds were re-inspected 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" in length on the vertical face of the ring, the other indication was 4" - 6" 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 BWRs (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 operation 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 the (20) Jet Pump hold down beams. This was done as a conservative measure based on recent industry experience with beam cracking and possible deleterious effects from the chemistry transient. Following replacement Detroit Edison performed a baseline pre-service examination of the installed beams prior to plant start-up using the latest available technique for detecting cracking. 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 which was removed had a camera inserted for RPV bottom area examination. No discrepancies were observed. (DER 93-0643)

5.6 Refuel-03

5.6.1 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" 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 Intergranular Stress Corrosion Cracking (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 RF-01 and RF-02 were again reinspected with no change in conditions noted. These areas in addition to the cracks identified and repairs performed during RF-03 will be monitored during further inspection of the RPV internals as required by ASME Section XI, Table IWB-2500- (B13.10).

5.6.2 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.

5.7 Refuel-02

5.7.1 RPV Internals

During inspection of the RPV Internals/Internal Components an additional indication to the ones previously identified during RF-01 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 RF-01 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)

5.7.2 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-IWH 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.

5.8 Refuel-01

5.8.1 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)

5.8.2 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

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# 21085 (RPV)

6. PROGRAM STATUS, ASME SECTION XI CREDIT - IWB, IWC, & IWF, Interval 2, Period 1, Refuel 07 and Refuel-08 (Excludes Pressure Testing)

6.1 CATEGORY B-A

6.1.1 CATEGORY: B-A Pressure Retaining Welds in Reactor Vessel
ITEM NO: B.1.11 Shell Welds-Circumferential

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	4	4 (Note 1)	0	0%
TOTALS:	4	4 (Note 1)	0	0%

NOTE

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

6.1.2 CATEGORY: B-A Pressure Retaining Welds in Reactor Vessel
ITEM NO: B.1.12 Shell Welds - Longitudinal

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	14	14	4	28.6%
TOTALS:	14	14	4	28.6%

6.1.3 CATEGORY: B-A Pressure Retaining Welds in Reactor Vessel
ITEM NO: B.1.21 Head Welds - Circumferential

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV Closure Head	2	2	.3	15%
RPV Bottom Head	2	1 (1)	.5	50%
TOTALS	4	3 (1)	.8	26.6%

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: B-A Pressure Retaining Welds in Reactor Vessel
ITEM NO: B1.22 Head Welds - Meridional

System	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV Closure Head	13	13	5	38.5%
RPV Bottom Head	17	10(1)	5	50%
TOTALS:	30	23 (1)	10	43.5%

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: B-A Pressure Retaining Welds in Reactor Vessel
 ITEM NO: B1.30 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%

NOTES

- (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: B-A Pressure Retaining Welds in Reactor Vessel
 ITEM NO: B1.40 Head-To-Flange

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	1	1	.33 (1)	33.3%
TOTALS:	1	1	.33 (1)	33.3%

CATEGORY B-A Totals

Item No.	Total Requiring Examination (3)	Examined To Date (2)	Minimum Required (1)	Maximum Allowed (2)
B1.11	4	0(0%)	N/A	N/A
B1.12	14	4 (28.6%)	N/A	N/A
B1.21	3	.8 (26.6%)	N/A	N/A
B1.22	23	10 (43.5%)	N/A	N/A
B1.30	1	.5 (50%)	N/A	N/A
B1.40	1	.33 (33.3%)	N/A	N/A
TOTALS:	46	15.63 (34%)	N/A	34%

NOTES

- (1) Table IWB-2500-1 allows deferral to the end of the inspection interval. However, maximum credited/allowed shall not exceed percentages provided in Table IWB-2412-1.
- (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.

6.2 CATEGORY B-D

6.2.1 CATEGORY: B-D Full Penetration Welds of Nozzles in Vessels
 ITEM NO: B3.90 Nozzle-To-Vessel Welds

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%) (1)
RPV	30	30	13	43.3%
TOTALS:	30	30	13	43.3%

NOTE

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

6.2.2 CATEGORY: B-D Full Penetration Welds of Nozzles in Vessels
 ITEM NO: B3.100 Nozzle Inside Radius Section

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%) (1)
RPV	30	30	14	46.6%
TOTALS:	30	30	14	46.6%

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.	Category B-D Totals Total Requiring Examination	Examined to Date	Minimum Required (1)	Maximum Allowed (1)
B3.90	30	13 (43.3%)	25%	50%
B3.100	30	14 (46.6%)	25%	50%
TOTALS:	60	27 (45%)	25%	50%

NOTE

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

6.3 CATEGORY B-F

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

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RRS	12	4	0	0%
CS	2	2	1	50%
RPV	3	2	0	0%
TOTALS:	17	8	1	12.5%

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

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

6.3.3 CATEGORY: B-F Pressure Retaining Dissimilar Metal Welds
 ITEM NO: B5.130 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	1	50%
RWCU	2	0	0	0%
TOTALS:	7	4	2	50%

CATEGORY B-F TOTALS

Item No.	Category B-F Totals Total Requiring Examination (1)	Examined to Date	Minimum Required	Maximum Allowed
B5.10	8	1 (12.5%)	(2)	(2)
B5.20	1	1 (100%)	(2)	(2)
B5.130	4	2 (50%)	(2)	(2)
TOTALS:	13	4 (30.7%)	16%	34%

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.

6.4 CATEGORY B-G-1

6.4.1 CATEGORY: B-G-1 Pressure Retaining Bolting Greater than 2" in Dia.
ITEM NO: B6.10 Closure Head Nuts

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	68	68	23	33.8%
TOTALS:	68	68	23	33.8%

6.4.2 CATEGORY: B-G-1 Pressure Retaining Bolting Greater than 2" in Dia.
ITEM NO: B6.20 Closure Studs in Place

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	68	64 (1)	19	29.6%
TOTALS:	68	64 (1)	19	29.6%

NOTES

- (1) Inspections are performed in conjunction with item No. B6.30. Four (4) studs are removed at each Reactor Refuel.

6.4.3 CATEGORY: B-G-1 Pressure Retaining Bolting Greater than 2" in Dia.
ITEM NO: B6.30 Closure Head Studs when Removed

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	68	4 (1)	4	100%
TOTALS:	68	4 (1)	4	100%

NOTES

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

6.4.4 CATEGORY: B-G-1 Pressure Retaining Bolting Greater than 2" in Dia.
ITEM NO: B6.40 Reactor Vessel Threads in Flange

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	68	68	23	33.8%
TOTALS:	68	68	23	33.8%

6.4.5 CATEGORY: B-G-1 Pressure Retaining Bolting Greater than 2" in Dia.
ITEM NO: B6.50 Reactor Vessel Closure Washers, Bushings
(When Removed)

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
Washers				
RPV	68	68	23	33.8%
Bushings				
	68	68 (1)	0	0%
TOTALS:	136	136 (1)	23	17%

NOTE

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

6.4.6 CATEGORY: B-G-1 Pressure Retaining Bolting Greater than 2" in Dia.
ITEM NO: B6.180 Pumps, Bolts and Studs

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: B-G-1 Pressure Retaining Bolting Greater than 2" in Dia.
ITEM NO: B6.200 Pumps, 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%

NOTES

- (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	23 (33.8%)	(1)	(1)
B6.20	64	18 (29.6%)	(1)	(1)
B6.30	4	4 (100%)	(1)	(1)
B6.40	68	23 (33.8%)	(1)	(1)
B6.50	136 (2)	23 (17%)	(1)	(1)
B6.180	32	16 (50%)	(1)	(1)
B6.200	32	16 (50%)	(1)	(1)
TOTALS:	404	123 (30.4%)	16%	34%

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 CATEGORY B-G-2

6.5.1 CATEGORY: B-G-2 Pressure Retaining Bolting 2" and smaller in Dia..
 ITEM NO: B7.10 Reactor Vessel-Bolts, Studs and Nuts

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	3	3 (1)	0	0%
TOTALS:	3	3 (1)	0	0%

NOTES

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

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

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
HPCI, & RCIC	2	2 (1)	1	50%
TOTALS:	2	2 (1)	1	50%

NOTES

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

6.5.3 CATEGORY: B-G-2 Pressure Retaining Bolting 2" and smaller in Dia.
ITEM NO: B7.60 Piping-Bolts, Studs and Nuts, and Seal Bolting

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RRC	2	2 (1)	0	0%
TOTALS:	2	2 (1)	0	0%

NOTES

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

6.5.4 CATEGORY: B-G-2 Pressure Retaining Bolting 2" and smaller in Dia.
ITEM NO: B7.70 Valves-Bolts, Studs and Nuts

System	Total Comp.	Total Requiring Examination (1)	Examined To Date (2)	Examined To Date (%)
MS	38	38	18	47.3%
RRS	4	4	0	0%
RHR	10	10	3	30%
CS	6	6	2	33.3%
HPCI	3	3	1	33.3%
RCIC	3	3	1	33.3%
RWCU	9	9	2	22.2%
FW	8	8	1	12.5%
TOTALS:	81	81	28	34.5%

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: B-G-2 Pressure Retaining Bolting 2" and smaller in Dia.
ITEM NO: B7.80 CRD Housings-Bolts, Studs and Nuts

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
CRD	185	185 (1)	28 sets*	15.1%
TOTALS:	185	185 (1)	28 sets*	15.1%

*100% of disassembled flange bolting.

NOTES

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

CATEGORY B-G-2 TOTALS

Item No.	Total Requiring Examination	Examined To Date (2)	Minimum Required	Maximum Allowed
B7.10	3	0 (0%)	(1)	(1)
B7.50	2	1 (50%)	(1)	(1)
B7.60	2	0 (0%)	(1)	(1)
B7.70	81	28 (34.5%)	(1)	(1)
B7.80	185 (2)	28 (15.1%)	(1)	(1)
	273	57 (20.8%)	16%	34%

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.

6.6 CATEGORY B-H

6.6.1 CATEGORY: B-H Integral Attachments for Vessels
 ITEM NO: B8.10 Reactor Vessel-Integrally Welded Attachments

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RPV	2	2	.2	10%
Support Skirt				
Stabilizer Bracket Welds	8	1	1	100%
Top Head Lifting Lugs	4	4	0	0%
TOTALS:	14	7	1.2	17.1%

6.7 CATEGORY B-J

6.7.1 CATEGORY: B-J Pressure Retaining Welds in Piping
 ITEM NO: B9.11 Circumferential Welds $\geq 4"$ Dia.

System	Total Comp.	Total Requiring Examination (1)	Examined To Date	Examined To Date (%)
MS	113	11	5	45.4%
RRS	109	15	3	20%
RHR	71	5	2	40%
CS	42	3	0	0%
HPCI	14	2	2	100%
RCIC	16	2	0	0%
RWCU	70	7	1	14.3%
FW	123	18	4	22.2%
RPV	5	0	0	N/A
TOTALS:	563	63	17	27%

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

CATEGORY B-J TOTALS

Item No.	Total Requiring Examination (1)	Examined To Date	Minimum Required (1)	Maximum Allowed (1)
B9.11	63	17 (27%)	16%	34%

NOTES

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

6.8 CATEGORY B-K-1

6.8.1 CATEGORY: B-K-1 Integral Attachments for Piping Pumps and Valves
 ITEM NO: B10.10 / B10.20 Piping-Integrally Welded Attachments

System	Total Comp. (1)	Total Requiring Examination (2)	Examined To Date	Examined To Date (%) (3)
All Class 1 Piping B10.10	13	2 locations (8 welds)	1 location (4 welds)	50%
Pumps B10.20	3	1	0	0%
TOTALS:	16	3	1	33%

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: B-M-2 Valve Bodies
 ITEM NO: B12.50 Valve Body, exceeding 4" Nominal Pipe Size

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	33.3%
CS	6	6	2	33.3%
HPCI	3	3	0	0%
RCIC	1	1	0	0%
RWCU	5	5	0	0%
FW	8	8	6	75%
TOTALS:	60	60	18	(1)

NOTE

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

6.10 CATEGORY B-O

6.10.1 CATEGORY: B-O Pressure Retaining Welds In Control Rod Housings
 ITEM NO: B14.10 (2) Reactor Vessel-Welds in CRD Housings

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Req'd (%)	Maximum Allowed (%)
RPV	40	8 (1)	2	25%	16%	34%
TOTALS	40	8 (1)	2	25%	16%	34 (3)

NOTE

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

6.11 CATEGORY C-A

6.11.1 CATEGORY: C-A Pressure Retaining Welds In Pressure Vessel
 ITEM NO: C1.10 Shell Circumferential Welds

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

6.11.2 CATEGORY: C-A Pressure Retaining Welds In Pressure Vessel
 ITEM NO: C1.20 Head Circumferential Welds

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
RHR	1	1	0	0%
TOTALS:	1	1	0	0%

CATEGORY C-A TOTALS

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

NOTES

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

6.12 CATEGORY C-B

6.12.1 CATEGORY: C-B Pressure Retaining Welds In Vessels
 ITEM NO: C2.21 Nozzle-To-Shell (or Head) Weld

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

6.12.2 CATEGORY: C-B Pressure Retaining Nozzle Welds In Vessels
 ITEM NO: C2.22 Nozzle Inside Radius Section

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

CATEGORY C-B TOTALS

Item No.	Total Requiring Examination	Examined To Date	Minimum Req'd (%)	Maximum Allowed (%) (1)
C2.21	2	1	N/A	N/A
C2.22	2	1	N/A	N/A
	4	2	N/A (1)	N/A (1)

NOTES

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

6.13 CATEGORY C-C

6.13.1 CATEGORY: C-C Integral Attachments for Vessels, Piping, Pumps and Valves
ITEM NO: C3.10 Pressure Vessels

System	Total Comp. (1)	Total Requiring Examination (2)	Examined To Date	Examined To Date (%)
RHR	5	1 (19 welds)	7 welds	36.8%
TOTALS:	5	1 (19 welds)	7 welds	36.8%

NOTES

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

6.13.2 CATEGORY: C-C Integral Attachments for Vessels, Piping, Pumps and Valves
ITEM NO: C3.20 Piping Integrally Welded Attachments

System	Total Comp. (1)	Total Requiring Examination (2)	Examined To Date	Examined To Date (%)
All Class 2 Systems	33	3	1	33.3%
TOTALS:	33	3	1	33.3%

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 Comp. Requiring Exam	Examined To Date	Minimum Req'd (%)	Maximum Allowed (%)
C3.10	1	.37 (37%)	N/A	N/A
C3.20	3	1 (33.3%)	N/A	N/A
	4	1.37 (34.2%)	16%	34%

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	5	31.2%
TOTALS:	131	16	5	31.2%

NOTES

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

6.14.2 CATEGORY: C-F-2 Pressure Retaining Welds in Carbon or Low Alloy Steel Piping
ITEM NO: C5.51 / 5.81 Piping Welds $\geq 3/8$ " in Normal Wall Thickness for Piping > NPS

System	Total Comp.	Total Requiring Examination	Examined To Date	Examined To Date (%)
MS	74	6	3	50%
CRD	34	3	0	0%
RHR	464	34	10	30.3%
CGC	113	6	2	44.4%
HPCI	154	12	1	8.3%
CS	196	15	6	40%
Containment Piping (1)	279	23	7	23.8%
TOTALS:	1314	99	29	29.3%

NOTES

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

CATEGORY C-F TOTALS

Item No.	Total Requiring Examination (1)	Examined To Date	Minimum Req'd (%) (2)	Maximum Allowed (%) (2)
C-F-1 (C5.11 Augmented)	16	5 (31.2%)	N/A	N/A
C-F-2 (C5.51 & C5.81)	99	29 (29.3%)	N/A	N/A
TOTALS:	115	34 (29.5%)	16%	34%

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: F-A Plate and Shell Type Supports
 ITEM NO: F1.10-F1.40

Section XI Class	System No.	System ID	Total Requiring Examination	Examined To Date	Examined To Date (%)
Class 1	B11	RPV	9	2	22.2%
	B21	Steam Supply	8	4	50%
	B31	Reactor Recirc	6	2	33.3%
	E11	RHR	3	0	0%
	E21	CS	3	0	0%
	E41	HPCI	1	0	0%
	E51	RCIC	1	1	100%
	G33	RWCU	4	1	25%
	N21	Feedwater	5	0	0%
CLASS 1 TOTALS			40	10	25%
Class 2	B21	SRV	6	2	33%
	C11	CRD	4	1	25%
	E11	RHR	45	14	31.1%
	E21	CS	16	4	25%
	E41	HPCI	14	4	28.5%
	N30	MS	6	3	50%
	P11	Demin	1	1	100%
	T48	GCG	16	5	31.3%
CLASS 2 TOTALS			108	34	31.5%
Class 3	E11	RHRSW	14	4	28.6%
	P44	EECW	35	10	28.6%
	P45	EESW	18	3	16.6%
	R30	DGSW	10	4	40%
CLASS 3 TOTALS			77	21	27.3%

TOTAL ALL CATEGORIES:F-A, F1.10-F1.40

	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Req'd (%)	Maximum Allowed (%)
F-A Class 1	40	10	25%	N/A	N/A
F-A Class 2	108	34	31.5%	N/A	N/A
F-A Class 3	77	21	27.3%	N/A	N/A
				N/A	N/A
TOTALS:	225	65	28.9%	16%	34%

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: is 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 acceptable volumetric exams and either PT or MT is acceptable surface exams. Unique weld joint parameters may, of course, dictate more restrictive selection criteria; e.g., high background radiation will preclude RT, stainless materials will preclude MT, etc. It is intended that the process which selects exam methods for inspections under this plan treat UT and RT as interchangeable and PT and MT as interchangeable with consideration given to past practice in light of the reproducibility of results.

7.1.1.2 List of Abbreviations: The following abbreviations are used:

Plant Identification System (PIS) - Codes for Plant Systems

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

Acronyms Used to Identify Plant Systems

CGC	- Combustible Gas Control
CRD	- Control Rod Drive
CS	- Core Spray
FPC	- Fuel Pool Cooling
HPCI	- High Pressure Coolant Injection
RCIC	- 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./Man.	- 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
A	- 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	- Control Rod Drive Housing
EXPJT	- Pipe Expansion
FBC	- Field Weld
HX	- Heat Exchanger
HXS	- Heat Exchanger Shell
IBR	- Inner Bore Region (Nozzle)
IIH	- 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

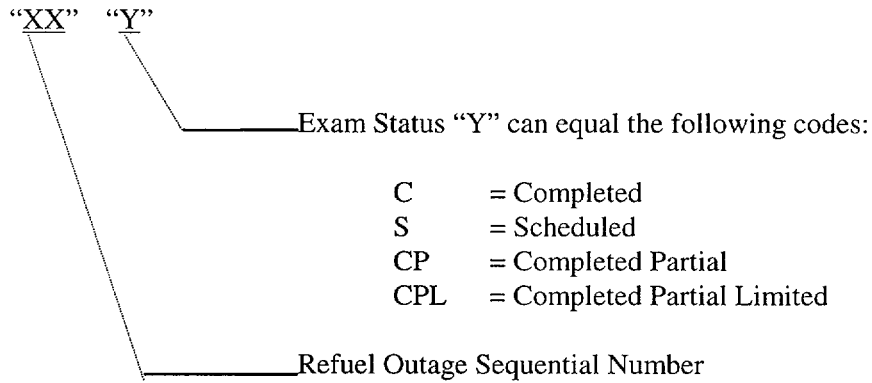
Generic Miscellaneous Abbreviations

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

A	- Anchor
C	- Constant Support
G	- Guide
R	- Rigid Support
SP	- Spring Hanger

Outage Codes



Example:	07C	= Seventh Refueling Outage, Completed Exam
	08S	= Eighth Refueling Outage, Scheduled Exam
	08CP	= Eighth Refueling Outage, Completed Exam, Partial
	08CPL	= Eighth Refueling Outage, Completed Exam, Partial Limited

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

7.1.2.3 Inservice Inspection Program (Plan) Tables (NDE)

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

7.1.3 NOTES

NOTE 1

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

NOTE 2

By Detroit Edison Documents NRC-88-0243, NRC-89-0297, and NRC-90-0103, in response to Generic Letter 88-01 and NUREG 0313 Rev. 2, Detroit Edison had committed 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 welds identified as augmented selections will only be examined by volumetric techniques (i.e. ultrasonic). All inspections will be performed utilizing procedures and personnel qualified to current Utility PDI Guidelines. In correspondence letter NRC-01-0038 Detroit Edison 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-92-090. The NRC response (TAC No. M84117, 12-18-1992) 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, during RF-04 all Jet Pump hold down beams were replaced with beam assemblies that are less susceptible to IGSCC than the original assemblies. 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 and NUREG/CR-3052.

NOTE 4

ASME Section XI Category BE requires inspection of the external surfaces of 25% 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 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.

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 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 RF-09, ASME Section XI, Appendix 8, Supplement 10 requirements as implemented by the Utility Performance Demonstration Initiative will be 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 RF-04. 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 RF-06 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 change out also included 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 the 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 will be performed on the core spray internal piping each refuel outage. Inspection points will include those specifically identified in IE Bulletin 80-13 and SIL No. 289, Revision 1, Supplement 2. The inspection plan will follow the inspection recommendations provided in BWRVIP-18.

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 re-inspections will be based on industry experience.

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 (Ref. NRC-87-0078). Beginning with RF-08, ASME Section XI, Appendix VIII, Supplement 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 is 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

Per SIL No. 551, inspection should be performed of at least 50% of the Jet Pump riser brace welds at each refueling outage. Per SIL No. 574 a visual inspection of the Jet Pump adjusting screw tack welds should be performed during each refueling outage. Based upon acceptable inspection results, future inspections of at least 50% of the tack welds each outage is sufficient. 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 per the recommendations of RICSIL-078. These inspections will be performed in conjunction with the inspection of those Jet Pump assemblies selected for examination. The extent of inspection and frequency will now follow the recommendations provided in BWRVIP-41.

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.

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, Rev 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 RF-06 a baseline inspection of the shroud welds (H-3, H-4, H-5, and H-7) was completed (approximately 90% 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 Guidelines utilizing approved techniques. Evaluation of anomalies shall be per 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.

NOTE 20

Additional augmented examinations were performed during RF-04 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 but 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.

INSERVICE INSPECTION NDE PROGRAM

TABLE A

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification		Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-A									
B1.11	Circumferential 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			10S		
15-308B		UT	All B-A Welds	5360-5			09S		
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			10S		
2-307C		UT	All B-A Welds	5360-5			09S		
2-308A		UT	All B-A Welds	5360-5			10S		
2-308B		UT	All B-A Welds	5360-5			09S		
2-308C		UT	All B-A Welds	5360-5				11S	
B1.21	Circumferential Head Weld								
4-319		UT	All B-A Welds	5360-5		08SC	09S		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				11S	
6-306		UT	All B-A Welds	5360-5		08C	10S		One sided exam 180-360 Deg, RF08, 0-180 Deg, RF10
B1.22	Meridional Head Weld								
1-306A		UT	All B-A Welds	5360-5		08C			

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification		Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-A									
B1.22	Meridional Head Weld								
1-306B		UT	All B-A Welds	5360-5			10S		
1-306C		UT	All B-A Welds	5360-5			10S		
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			09S		
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			09S		
1-319E		UT	All B-A Welds	5360-5	RR-A1		10S		
1-319F		UT	All B-A Welds	5360-5			10S		
1-319G		UT	All B-A Welds	5360-5	RR-A1			12S	
1-319H		UT	All B-A Welds	5360-5		08C			
2-306A		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306B		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306C		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306D		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306E		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306F		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
2-306G		UT	All B-A Welds	5360-5	RR-A1				Inaccessible Weld
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	

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-A								
B1.22 Meridional Head Weld								
2-319E	UT	All B-A Welds	5360-5				11S	
B1.30 Shell to Flange Weld								
13-308 (from 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 shell)	UT	All B-A Welds	5360-5	RR-A1	08CP	10SP	12SP	1/3 of weld each scheduled Inspection Period
B1.40 Head to Flange Weld								
3-319	UT/MT	All B-A Welds	5360-5		08CP	10SP	12SP	1/3 of weld each scheduled Inspection Period
B-D								
B3.100 RPV Nozzle Inside Radius Section								
13-314A IRS	VT	All BD-IRS	5361-5	RR-A32	08C			
13-314B IRS	VT	All BD-IRS	5361-5	RR-A32	08C			
13-314C IRS	VT	All BD-IRS	5361-5	RR-A32		10S		
13-314D IRS	VT	All BD-IRS	5361-5	RR-A32		09S		
13-314E IRS	VT	All BD-IRS	5361-5	RR-A32		09S		
13-314F IRS	VT	All BD-IRS	5361-5	RR-A32		09S		
13-314G IRS	VT	All BD-IRS	5361-5	RR-A32		09S		
13-314H IRS	VT	All BD-IRS	5361-5	RR-A32			12S	
13-314J IRS	VT	All BD-IRS	5361-5	RR-A32			11S	
13-314K IRS	VT	All BD-IRS	5361-5	RR-A32		09S		
14-316A IRS	VT	All BD-IRS	5361-5	RR-A32		10S	12S	
14-316B IRS	VT	All BD-IRS	5361-5	RR-A32	08C			
15-315 IRS	VT	All BD-IRS	5361-5	RR-A31	08C			
19-314A IRS	VT	All BD Nozzles	5361-5	RR-A32		10S		
19-314B IRS	VT	All BD Nozzles	5361-5	RR-A32	08C			
2-318 IRS	UT	All BD Nozzles	5361-5	RR-A31		10S		
4-316A IBR	UT	A	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	A	5361-5		08CA			NUREG-0619/GE-NE-523-A71-594

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-D								
B3.100	RPV Nozzle Inside Radius Section							
4-316B IRS	UT	All BD-IRS	5361-5		08CA			NUREG-0619/GE-NE-523-A71-594
4-316C IBR	UT	A	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	A	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	A	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	A	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		11S		
4-318B IRS	VT	All BD Nozzles	5361-5	RR-A31		11S		
5-314A IRS	VT	All BD-IRS	5361-5	RR-A31	08C			
5-314B IRS	VT	All BD-IRS	5361-5	RR-A31			12S	
8-316A IRS	VT	All BD-IRS	5361-5	RR-A31		08C		
8-316B IRS	VT	All BD-IRS	5361-5	RR-A31		08C		
8-316C IRS	VT	All BD-IRS	5361-5	RR-A31			12S	
8-316D IRS	VT	All BD-IRS	5361-5	RR-A31			12S	
B3.90	RPV Nozzle to Vessel Weld							
13-314A	UT	All B-D Nozzles	5361-5	RR-A6	08C			
13-314B	UT	All B-D Nozzles	5361-5	RR-A6	08C			
13-314C	UT	All B-D Nozzles	5361-5	RR-A6		10S		
13-314D	UT	All B-D Nozzles	5361-5	RR-A6	08C			
13-314E	UT	All B-D Nozzles	5361-5	RR-A6		09S		
13-314F	UT	All B-D Nozzles	5361-5	RR-A6		09S		
13-314G	UT	All B-D Nozzles	5361-5	RR-A6	08C			
13-314H	UT	All B-D Nozzles	5361-5	RR-A6			12S	
13-314J	UT	All B-D Nozzles	5361-5	RR-A6			11S	
13-314K	UT	All B-D Nozzles	5361-5	RR-A6	08C			

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	Period 3	Remarks
B-D								
B3.90	RPV Nozzle to Vessel Weld							
14-316A	UT	All B-D Nozzles	5361-5	RR-A6		10S		
14-316B	UT	All B-D Nozzles	5361-5	RR-A6	08C			
15-315	UT	All B-D Nozzles	5361-5	RR-A6		09S		
19-314A	UT	All B-D Nozzles	5361-5	RR-A6		10S		
19-314B	UT	All B-D Nozzles	5361-5	RR-A6	08C			
2-318	UT	All B-D Nozzles	5361-5	RR-A6		10S		
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		09S		
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			11S	
4-318B	UT	All B-D Nozzles	5361-5	RR-A6			11S	
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	09S, 10S	11S, 12S	
7-315	VT-2		5361-5		07C, 08C	09S, 10S	11S, 12S	Each Refuel Outage - Note 4 applies to all B-E Items
B4.12	Partial Penetration CRD Nozzles							

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-E								
B4.12	Partial Penetration CRD Nozzles							
1-310-X_-Y_	VT-2		5363-5		07C, 08C	09S, 10S	11S, 12S	25% Nozzles External Surfaces - Note 4
CRDH-Y_-X_	VT-2		5363-5		07C, 08C	09S, 10S	11S, 12S	
B4.13	Partial Penetration Instrumentation Nozzles							
2-315A	VT-2		5361-5		07C, 08C	09S, 10S	11S, 12S	
2-315B	VT-2		5361-5		07C, 08C	09S, 10S	11S, 12S	
2-315C	VT-2		5361-5		07C, 08C	09S, 10S	11S, 12S	
2-315D	VT-2		5361-5		07C, 08C	09S, 10S	11S, 12S	
2-315F	VT-2		5361-5		07C, 08C	09S, 10S	11S, 12S	
I1H-X__-Y__ (55)	VT-2		5363-5		07C, 08C	09S, 10S	11S, 12S	
B-F								
B5.10	Dissimilar Metal RPV Nozzle to Safe End Weld 4" NPS and Larger							
101-304E	UT	A, RI (IGSCC,CC)	5358-5	RR-A30		10S		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, CC)	5356-5	RR-A30		09S		Notes 2 & 8 Cat. B
2-303H	UT	A, RI (IGSCC, CC)	5356-5	RR-A30	07C		12S	Notes 2 & 8 Cat. B
4-303A	UT	A, RI (IGSCC)	5357-5	RR-A30	07C		12S	Notes 2 & 8 Cat. B
N-9	UT	A, RI (IGSCC)	5361-5	RR-A30		09S		Notes 2 & 8 Cat. B
N5A	UT	A, (IGSCC, CC)	3053-5			10SA		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 Piping Butt Weld 4" NPS and Larger							
SW-E11-2298-6WC	UT	A, RI (IGSCC)	2298-5		08C			Note 1 & 2, Category B

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-F								
B5.130	Dissimilar Metal Piping Butt Weld 4" NPS and Larger							
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)
SW-E21-3053-4WOX	UT	A (IGSCC)	3053-5			10S		Notes 1 , 2 & 8 Category B (IGSCC)
B5.20	Dissimilar Metal RPV Nozzle to Safe End Weld Less Than 4" NPS							
5-315	PT	A			07C			Note 18
5-315	UT	A			07C			Note 18
B-G-1								
B6.10	RPV Closure Head Nuts Greater Than 2"							
326-02, 1 through 68	MT	>2 dia."	5362-5		08C	09S	11S	1/3 Each Period
B6.180	Pump Studs Greater Than 2"							
RRC Pump A, Studs 1 through 16	UT	>2 dia."	5365-5		08C			
RRC Pump B, Studs 1 through 16	UT	>2 dia."	5365-5				11S	
B6.190	Pump Flange Surface, When Disassembled							
RRC Pump A, Flange	VT-1	>2 dia."	5365-5					Perform if disassembled
RRC Pump B, Flange	VT-1	>2 dia."	5365-5					Perform if disassembled
B6.20	RPV Closure Studs Greater Than 2", In-place							
326-01, 1 through 68	UT	>2 dia."	5362-5		08C	10S	11S	1/3 Each Period
B6.200	Pump Nuts, Bushings, and Washers							
RRC Pump A Nuts, Bushings & Washers Set 1 - 16	VT-1	>2 dia."	5365-5		08C			
RRC Pump B Nuts, Bushings & Washers Set 1 - 16	VT-1	>2 dia."	5365-5				11S	
B6.30	RPV Closure Studs Greater Than 2", When Removed							
326-01, 1 through 68	MT	>2 dia."	5362-5		08C			48-51 Removed w/refueling chute
B6.40	RPV, Threads in Flange							
1 through 68	UT	>2 dia."	5362-5		08C	09S	11S	1/3 Each Period
B6.50	RPV Closure Washers and Bushings							
326-03, Washers 1 through 68	VT-1	>2 dia."	5362-5		08C	09S	11S	1/3 Each Period

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-G-1								
B6.50	RPV Closure Washers and Bushings							
Bushings 1 through 68	VT-1	>2 dia."	5362-5			12S		Only required when studs are removed (48-51 removed with refueling shute)
B-G-2								
B7.10	RPV Bolts, Studs, and Nuts 2" and Less							
Instrumentation Nozzle	VT-1	< 2 dia."	5361-5				11S	
Spare Flange (0Deg)	VT-1	< 2 dia."	5361-5				11S	
Spare Flange (180Deg)	VT-1	< 2 dia."	5361-5				11S	
B7.50	Piping Bolts, Studs, and Nuts 2" and Less							
FBC-E41-2297-01	VT-1	< 2 dia."	2297-5			09S		
FBC-E51-2192-01	VT-1	< 2 dia."	2192-5		08C			
B7.60	Pump Bolts, Studs, and Nuts 2" and Less							
RRC Pump A Seal Bolting	VT-1	< 2 dia."	5365-5			10S		
RRC Pump B Seal Bolting	VT-1	< 2 dia."	5365-5				12S	
B7.70	Valve Bolts, Studs, and Nuts 2" and Less							
B21-F010A-VBB	VT-1	< 2 dia."	3537-5				12S	
B21-F010B-VBB	VT-1	< 2 dia."	3536-5			09S		
B21-F011A-VBB	VT-1	< 2 dia."	3537-5		08C			
B21-F011B-VBB	VT-1	< 2 dia."	3536-5			09S		
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			10S		
B21-F013D-VBB	VT-1	< 2 dia."	5353-5		07C			
B21-F013E-VBB	VT-1	< 2 dia."	5354-5			10S		
B21-F013F-VBB	VT-1	< 2 dia."	5353-5			10S		
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			

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-G-2								
B7.70 Valve Bolts, Studs, and Nuts 2" and Less								
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				12S	
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			10S		
B21-F022D-VBB	VT-1	< 2 dia."	5355-5				12S	
B21-F028A-VBB	VT-1	< 2 dia."	5352-5			10S		
B21-F028B-VBB	VT-1	< 2 dia."	5353-5	08C				
B21-F028C-VBB	VT-1	< 2 dia."	5354-5				11S	
B21-F028D-VBB	VT-1	< 2 dia."	5355-5	08C				
B21-F032A-VBB	VT-1	< 2 dia."	3537-5		09S			
B21-F032B-VBB	VT-1	< 2 dia."	3536-5				11S	
B21-F076A-VBB	VT-1	< 2 dia."	3537-5				11S	
B21-F076B-VBB	VT-1	< 2 dia."	3536-5				11S	
B31-F023A-VBB	VT-1	< 2 dia."	5357-5		09S			
B31-F023B-VBB	VT-1	< 2 dia."	5359-5				11S	
B31-F031A-VBB	VT-1	< 2 dia."	5357-5		09S			
B31-F031B-VBB	VT-1	< 2 dia."	5359-5				11S	
E11-F008-VBB	VT-1	< 2 dia."	2299-5				12S	
E11-F009-VBB	VT-1	< 2 dia."	2299-5		09S			
E11-F015A-VBB	VT-1	< 2 dia."	2298-5		07C			
E11-F015B-VBB	VT-1	< 2 dia."	2327-5				11S	
E11-F050A-VBB	VT-1	< 2 dia."	2298-5	07C				
E11-F050B-VBB	VT-1	< 2 dia."	2327-5	07C				
E11-F060A-VBB	VT-1	< 2 dia."	2298-5				12S	

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-G-2								
B7.70 Valve Bolts, Studs, and Nuts 2" and Less								
E11-F060B-VBB	VT-1	< 2 dia."	2327-5			10S		
E11-F067-VBB	VT-1	< 2 dia."	2299-5			09S		
E11-F068-VBB	VT-1	< 2 dia."	2299-5				11S	
E21-F005A-VBB	VT-1	< 2 dia."	3052-5			09S		
E21-F005B-VBB	VT-1	< 2 dia."	3053-5			09S		
E21-F006A-VBB	VT-1	< 2 dia."	3052-5		08C			
E21-F006B-VBB	VT-1	< 2 dia."	3053-5		07C			
E21-F007A-VBB	VT-1	< 2 dia."	3052-5				12S	
E21-F007B-VBB	VT-1	< 2 dia."	3053-5				12S	
E41-F002-VBB	VT-1	< 2 dia."	2297-5				11S	
E41-F003-VBB	VT-1	< 2 dia."	2297-5		08C			
E41-F006-VBB	VT-1	< 2 dia."	3537-5			10S		
E51-F007-VBB	VT-1	< 2 dia."	2192-5			09S		
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			10S		
FBC-B21-5353-01D	VT-1	< 2 dia."	5353-5		07C			
FBC-B21-5353-01F	VT-1	< 2 dia."	5353-5			10S		
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			10S		
FBC-B21-5354-01H	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	

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-G-2								
B7.70 Valve Bolts, Studs, and Nuts 2" and Less								
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			09S		
G33-F100-VBB	VT-1	< 2 dia."	5351-5			10S		
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				11S	
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			10S		
B7.80 CRD Bolts, Studs, and Nuts 2" and Less								
185 sets of Bolts, Studs and Nuts	Visual VT-1	< 2 dia."			08CP			When Disassembled (24 sets, 08)
B-H								
B8.10 RPV Integral Attachment Weld								
10-324A	MT	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			10S		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 Piping Weld 4" NPS or Larger								
3-316A	UT	RI (TASCS, CC)	3537-5		08C			
3-316D	UT	RI (TASCS, CC)	3536-5				12S	

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-J								
B9.11	Circumferential Piping Weld 4" NPS or Larger							
3-316E	UT	RI (TASCS, CC)	3536-5				11S	
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			09S		
FW-E11-2327-0W1	UT	RI	2327-5		08C			
FW-E11-2327-0W6	UT	RI	2327-5				11S	
FW-E11-2327-6W0	PT	A (IGSCC)	2327-5				11S	Note 2 Category B
FW-E21-3052-4WF1	UT	RI	3052-5				12S	
FW-E41-2297-0W4	MT	RI	2297-5		08C			
FW-E41-2297-2W3	UT	RI	2297-5		08C			
FW-G33-3096-10WF3	UT	A, RI (IGSCC)	5351-5		08C			
FW-G33-3096-6WF5	UT	RI	3096-5				11S	
FW-G33-3096-8W11	UT	R	5351-5			10S		
FW-G33-3096-8W9	UT	RI	5351-5			10S		
FW-G33-3096-9WF1	UT	RI	5351-5			10S		
FW-N21-2336-13W14	UT	RI	3537-5			10S		
FW-N21-2336-14WF1	UT	RI	3537-5			10S		
FW-N21-2336-15W0	UT	RI (TASCS)	3537-5		08C			
FW-N21-2336-16W19	UT	RI	3537-5				11S	
FW-N21-2336-3W4	UT	RI	3536-5			09S		RCIC Selection
FW-PS-2-A6	UT	RI	5352-5	RR-A30			12S	
FW-PS-2-C3	UT	RI	5354-5	RR-A30		10S		
FW-RD-2-A1-W1	UT	RI, A (IGSCC)	5357-5				12S	Note No. 2, Cat. B
FW-RD-2-A11	UT	RI, A (IGSCC)	5356-5				11S	Note 2, Category B (CRC)
FW-RD-2-A16	UT	RI, A (IGSCC)	5356-5			09S		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				11S	Note 2, Category B UFSAR 5.2.3.2

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-J								
B9.11	Circumferential Piping Weld 4" NPS or Larger							
FW-RD-2-B19	UT	A, (IGSCC)	5358-5			10SA		Note 2, Category B (CRC)
FW-RS-2-A1	UT	A (IGSCC)	5357-5				12SA	Note No. 2, Cat. B
FW-RS-2-A3	UT	RI, A (IGSCC)	5357-5			09S		Note No. 2, Cat. B
N4A	UT	RI (TASCS, CC)	3537-5		08C			
N4D	UT	RI (TASCS,CC)	3536-5				12S	
N4E	UT	RI (TASCS, CC)	3536-5				11S	
SW-E21-3053-3WN	UT	RI	3053-5			09S		
SW-E21-3053-3WP	UT	RI	3053-5			09S		
SW-E51-2192-1W2	UT	RI	2192-5			09S		
SW-E51-2192-2W3	UT	RI	2192-5			09S		
SW-G33-3096-5WD	UT	RI	3096-5				11S	
SW-G33-3096-5WH	UT	RI	3096-5				11S	
SW-N21-2335-1WD	UT		3536-5			09S		RCIC Selection
SW-N21-2336-13WC	UT	RI	3537-5			10S		
SW-N21-2336-13WE	UT	RI	3537-5			10S		
SW-N21-2336-15WP	UT	RI (TASCS)	3537-5		08C			
SW-N21-2336-1WL	UT	RI (TASCS)	3536-5			09S		
SW-N21-2336-1WU	UT	RI	3536-5			09S		RCIC Selection
SW-N21-2336-3WC	UT	RI	3536-5			09S		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		10S		
SW-PS-2-C3-C	UT	RI	5354-5	RR-A30		10S		
SW-PS-2-C3-D	UT	RI	5354-5	RR-A30		10S		
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			11S		Note 2, Category B

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-J								
B9.11	Circumferential Piping Weld 4" NPS or Larger							
SW-RD-2-A4-W2	UT	RI	5356-5				11S	Note 2, Category A
SW-RD-2-B4-W2	UT	RI, A	5358-5				12S	Note 2, Category A
SW-RD-2-B8-W1	UT	RI, A	5358-5		08C			Note 2, Category A
SW-RD-2-B8-W2	UT	RI, A	5358-5		08C			Note 2, Category A
SW-RS-2-A2-W1	UT	A (IGSCC)	5357-5			09S		Note No. 2, Cat. B
SW-RS-2-B1-W1	UT	RI, A (IGSCC)	5359-5				11S	Note 2, Category B
B-K-1								
B10.10	Piping Integral Attachment Weld							
SW-N21-2336-20WB	MT	> 5/8 T"	3537-5			10S		ISI Eval. 99-055; Code Case N-509
SW-N21-2336-20WC	MT	> 5/8 T"	3537-5			10S		ISI Eval. 99-055; Code Case N-509
SW-N21-2336-20WD	MT	> 5/8 T"	3537-5			10S		ISI Eval. 99-055; Code Case N-509
SW-N21-2336-20WE	MT	> 5/8 T"	3537-5			10S		ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA1	MT	> 5/8 T"	5352-5		07C			ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA2	MT	> 5/8 T"	5352-5		07C			ISI Eval. 99-055; Code Case N-509
SW-PS-2-A2-AA3	MT	> 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 Attachment Weld							
SW-B31-5365-Pump A-WA	PT	> 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
RRC Pump B	VT-3	Visual VT-3	5365-5					Only if Disassembled
B-M-2								
B12.50	Valve Body							
B21F010A	VT-3	>4 NPS"	3537-5		08C			Only if Disassembled
B21F010B	VT-3	>4 NPS"	3536-5		07C			Only if Disassembled
B21F011A	VT-3	>4 NPS"	3537-5					Only if Disassembled

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification		Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-M-2									
B12.50	Valve Body								
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
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			Only if Disassembled

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification		Exams Required	Selection Basis	Isometric	Relief Request	Inspection Period			Remarks
						1	2	3	
B-M-2									
B12.50	Valve Body								
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
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			Only if Disassembled
E11F050B		VT-3	>4 NPS"	2327-5		07C			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			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

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-M-2								
B12.50 Valve Body								
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.								
Access Hole Cover	VT-3 / UT	Vessel Interior, A				09S		Note No. 13
CDP and SLC Line	VT-3	Vessel Interior						Only if Accessible
Control Rod Drive Housings	VT-3	Vessel Interior						Only if Accessible
Core Shroud	VT-1	Vessel Interior, A			07CP/ 08CP			Note No. 19
Core Shroud	VT-3	Vessel Interior			07CP/ 08CP			Note No. 19
Core Shroud Welds	UT	Vessel Interior, A					12S	Note No. 19
Core Spray Sparger and Interior Piping	VT-3	Vessel Interior, A			07C/0 8CP	09SP		Note No. 12
Feedwater Sparger	VT-3	Vessel Interior			07CP/ 08CP	09SP		NUREG 0619 at least once every 4 Cycles
Flux Monitor Housings	VT-3	Vessel Interior						Only if Accessible
Guide Rod Holders / Brackets	VT-3	Vessel Interior			07CP/ 08CP		12SP	
Instrumentation Lines	VT-3	Vessel Interior, A			07CP/ 08CP	09SP		Note No. 7
Jet Pump Components	VT-3 / UT	Vessel Interior, A			07CP/ 08CP	09SP		Note No. 17
Jet Pump Hold Down Beams	VT-3	Vessel Interior			07CP/ 08CP	09SP		
Jet Pump Hold Down Beams	UT	Vessel Interior, A				09S		Note No. 3
Recirculation Inlet Nozzle	VT-3	Vessel Interior			08CP	10SP		
Sample Holders	VT-3	Vessel Interior			08CP	10SP	12SP	

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection Period	1	2	3	Remarks
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.								
Shroud Head	VT-3	Vessel Interior			07CP/ 09SP 08CP				
Shroud Head Bolts	UT	A							Note No. 9
Shroud Head Bolts	VT-3	Vessel Interior			07CP/ 09SP 08CP				
Steam Dryer Assembly / Hold Downs	VT-3	Vessel Interior			07CP/ 09SP 08CP				Note No. 11
Steam Separator Assy.	VT-3	Vessel Interior			07CP/ 09SP 08CP				
Top Guide	VT-3	Vessel Interior			07CP/ 09SP 08CP				Note No. 16
B-N-2									
B13.20	RPV Interior Welded Attachments Within Beltline Region - 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.								
Jet Pump Riser Brace Arms	VT-1	Vessel Interior, A			07CP/ 09SP 08CP				
Surveillance Specimen Bracket	VT-1	Attachment Weld			07CP/ 09SP 08CP				
B13.30	RPV Interior Welded Attachments Beyond Beltline Region - 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.								
Core Spray Piping Brackets	VT-3	Interior Attachment Beyond Beltline			07CP/ 08CP				
Feedwater Sparger Brackets	VT-3	Interior Attachment Beyond Beltline			07CP/ 08CP				
Shroud Support Welds	VT-3 / UT	Interior Attachment Beyond Beltline					11S		Note No. 19
Steam Dryer Support Lugs	VT-3	Interior Attachment Beyond Beltline			07CP/ 08CP				
B13.40	Welded Core Support Structure - 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.								

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
B-N-2								
B13.40	Welded Core Support Structure - 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.							
Core Support Assy. & Bolts	VT-3 / UT	A			07CP/ 09SP 08CP			BWRVIP-25
Lower Core Shroud	VT-3	Core Support, A			07CP 09SP			Note No. 19
Peripheral Fuel Support	VT-3	A			07CP/ 09SP 08CP			
B-O								
B14.10	Welds in CRD Housing							
CRDH-X02-Y27-W1	PT	10% Peripheral Housing Welds	5363-5		08C			
CRDH-X02-Y27-W2	PT	10% Peripheral Housing Welds	5363-5		08C			
CRDH-X02-Y31-W1	PT	10% Peripheral Housing Welds	5363-5			10S		
CRDH-X02-Y31-W2	PT	10% Peripheral Housing Welds	5363-5			10S		
CRDH-X02-Y35-W1	PT	10% Peripheral Housing Welds	5363-5				11S	
CRDH-X02-Y35-W2	PT	10% Peripheral Housing Welds	5363-5				11S	
CRDH-X02-Y39-W1	PT	10% Peripheral Housing Welds	5363-5				12S	
CRDH-X02-Y39-W2	PT	10% Peripheral Housing Welds	5363-5				12S	
B-P								
B15.X	Class 1 Pressure Retaining Boundary							
B21, B31, C41, E11, E21, E41, E51, G33, N21, P34	VT-2	Class1 Pressure Retaining Boundary			07C, 09S, 08C 10S		11S	X Includes items - B15.10, B15.50, B15.60 and B15.70. Each Refueling Outage; Note 15
B21, B31, C41, E11, E21, E41, E51, G33, N21, P34	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

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
C-A								
C1.10	Shell Circumferential Weld							
SW-E11-D2-HX-11	UT	Gross Structural Discontinuity	5370-5		08C			
C1.20	Head Circumferential Weld							
SW-E11-D2-HX-05	UT	Gross Structural Discontinuity	5370-5				11S	
C-B								
C2.21	Nozzle to Shell (or Head) Weld							
SW-E11-D2-HX-01	MT	Shell - T >.5"	5370-5		08C			
SW-E11-D2-HX-01	UT	Shell - T >.5"	5370-5		08C			
SW-E11-D2-HX-10	UT	Shell - T >.5"	5370-5				11S	
SW-E11-D2-HX-10	MT	Shell - T >.5"	5370-5				11S	
C2.22	Nozzle Inside Radius Section							
SW-E11-D2-HX-01 IRS	UT				08C			
SW-E11-D2-HX-10 IRS	UT						11S	
C-C								
C3.10	Intregally Welded Attachment (Vessel)							
SW-E11-D2-HXS-05	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-06	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-07	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-09	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-10	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-11	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-12	MT	10%	5370-5		08C			Code Case N-509
SW-E11-D2-HXS-13	MT	10%	5370-5			09S		Code Case N-509
SW-E11-D2-HXS-14	MT	10%	5370-5			09S		Code Case N-509
SW-E11-D2-HXS-15	MT	10%	5370-5			09S		Code Case N-509
SW-E11-D2-HXS-16	MT	10%	5370-5			09S		Code Case N-509

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
C-C								
C3.10 Intregally Welded Attachment (Vessel)								
SW-E11-D2-HXS-17	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D2-HXS-18	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D2-HXS-19	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D2-HXS-20	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D2-HXS-21	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D2-HXS-22	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D2-HXS-23	MT	10%	5370-5				11S	Code Case N-509
SW-E11-D2-HXS-24	MT	10%	5370-5				11S	Code Case N-509
C3.20 Intregally Welded Attachment (Piping)								
C11-50-2113-G262A	MT	10%	5375-5				11S	Code Case N-509
C11-50-2113-G262B	MT	10%	5375-5				11S	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				11S	Code Case N-509
C11-50-2113-G262E	MT	10%	5375-5				11S	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				11S	Code Case N-509
C11-50-2113-G262H	MT	10%	5375-5				11S	Code Case N-509
PSFW-E21-3147-301	MT	10%	3147-5		07C			Code Case N-509
PSFW-E41-3167-IWE	MT	10%	3167-5			10S		Code Case N-509
PSFW-E41-3167-IWF	MT	10%	3167-5			10S		Code Case N-509
PSFW-E41-3167-IWG	MT	10%	3167-5			10S		Code Case N-509
PSFW-E41-3167-IWH	MT	10%	3167-5			10S		Code Case N-509
SW-E11-3151-4WE	MT	10%	3151-5				12S	Code Case N-509
SW-E11-3151-4WF	MT	10%	3151-5				12S	Code Case N-509
SW-E11-3151-4WG	MT	10%	3151-5				12S	Code Case N-509
SW-E11-3151-4WH	MT	10%	3151-5				12S	Code Case N-509
SW-E11-3151-4WJ	MT	10%	3151-5				12S	Code Case N-509
SW-E11-3151-4WK	MT	10%	3151-5				12S	Code Case N-509

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
C-F-1								
Augmented NRC Commitment								
FW-C41-2979-11S12	PT	A	2979-5			10S		EF2-53.873
FW-C41-2979-17S18	PT	A	2979-5				12S	EF2-53.873
FW-C41-2979-1S2	PT	A	2979-5		08C			EF2-53.873
FW-C41-2979-2S3	PT	A	2979-5		08C			EF2-53.873
FW-C41-2979-50S51	PT	A	2979-5				11S	EF2-53.873
FW-C41-2979-63S64	PT	A	2979-5			09S		EF2-53.873
FW-C41-2979-64S65	PT	A	2979-5			09S		EF2-53.873
FW-C41-2979-72S73	PT	A	2979-5		08C			EF2-53.873
FW-C41-2979-81S82	PT	A	2979-5				12S	EF2-53.873
FW-C41-2979-L	PT	A	2979-5			10S		EF2-53.873
FW-C41-2979-P	PT	A	2979-5		07C			EF2-53.873
FW-C41-3361-02W1	PT	A	3361-5		07C			EF2-53.873
FW-C41-3361-1WF22	PT	A	3361-5				12S	EF2-53.873
FW-C41-3361-1WF25	PT	A	3361-5				11S	EF2-53.873
FW-C41-5058-54S55	PT	A	5374-5			09S		EF2-53.873
FW-C41-5058-65S66	PT	A	5374-5				11S	EF2-53.873
C-F-2								
C5.51 Circumferential Weld								
FW-C11-2113-249-B	MT	R	5372-5				12S	
FW-C11-2113-249-B	UT	R	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	TE	3146-5				11S	
FW-E11-3151-10W0	MT	TE	3151-5				11S	

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	2	Period 3	Remarks
C-F-2								
C5.51	Circumferential Weld							
FW-E11-3151-10W0	UT	TE	3151-5				11S	
FW-E11-3151-3WF2	UT	MS	3151-5			09S		
FW-E11-3151-3WF2	MT	MS	3151-5			09S		
FW-E11-3151-7W11	MT	MS	3151-5			10S		
FW-E11-3151-7W11	UT	MS	3151-5			10S		
FW-E11-3154-13WO	UT	TE	3154-5			09S		
FW-E11-3154-13WO	MT	TE	3154-5			09S		
FW-E11-3154-4WO	UT	TE	3154-5				12S	
FW-E11-3154-4WO	MT	TE	3154-5				12S	
FW-E11-3157-OW6	MT	TE	3157-5		07C			
FW-E11-3157-OW6	UT	TE	3157-5		07C			
FW-E11-3158-10WF4	UT	TE	3158-5		07C			
FW-E11-3158-10WF4	MT	TE	3158-5		07C			
FW-E11-3158-1W2	UT	R	3158-5			09S		
FW-E11-3158-1W2	MT	R	3158-5			09S		
FW-E11-3158-9WF2	MT	R	3158-5			09S		
FW-E11-3158-9WF2	UT	R	3158-5			09S		
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				12S	
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		10S		Note 21
FW-E11-4612-4WF1	VT-1	R	4612-5	RR-A26			12S	Note 21

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	Period 3	Remarks
C-F-2								
C5.51	Circumferential Weld							
FW-E11-4612-7W8	VT-1	R	4612-5	RR-A26	10S			Note 21
FW-E11-4612-8WF3	VT-1	R	4612-5	RR-A26	10S			Note 21
FW-E11-4612-9WO	VT-1	R	4612-5	RR-A26			11S	Note 21
FW-E21-3144-0W4	MT	TE	3144-5		10S			
FW-E21-3144-0W4	UT	TE	3144-5		10S			
FW-E21-3144-OW1	MT	TE	3144-5		07C			
FW-E21-3145-11WO	MT	R	3145-5					
FW-E21-3147-16W17	UT	R	3147-5		07C			
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		09S			
FW-E21-3148-7W0	UT	TE	3148-5		09S			
FW-E41-3162-11WF1	VT-1	R	3162-5	RR-A26	09S			Note 21
FW-E41-3162-11WF4	VT-1	R	3162-5	RR-A26	09S			Note 21
FW-E41-3162-11WF5	VT-1	R	3162-5	RR-A26	09S			Note 21
FW-E41-3162-11WO	VT-1	R	3162-5	RR-A26	08C			Note 21
FW-E41-3162-1W2	UT	R	3162-5		10S			
FW-E41-3162-1W2	MT	R	3162-5		10S			
FW-E41-3162-9WF0	UT	TE	3162-5				12S	
FW-E41-3162-9WF0	MT	TE	3162-5				12S	
FW-E41-3163-7W0	MT	TE	3163-5		07C			
FW-E41-3163-7W0	UT	TE	3163-5		07C			
FW-E41-3163-8W0	UT	TE	3163-5				11S	
FW-E41-3163-8W0	MT	TE	3163-5				11S	
FW-E41-3167-1W2	MT	R	3167-5				12S	
FW-E41-3167-1W2	UT	R	3167-5				12S	
FW-E41-3167-9WO	MT	TE	3167-5				11S	

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
C-F-2								
C5.51 Circumferential Weld								
FW-E41-3167-9WO	UT	TE	3167-5				11S	
FW-E41-3167-OW1	MT	TE	3167-5			09S		
FW-E41-3167-OW1	UT	TE	3167-5			09S		
FW-E41-3169-2W0	UT	R	3169-5			09S		
FW-E41-3169-2W0	MT	R	3167-5			09S		
FW-E41-3172-0W1	UT	TE	3172-5			10S		
FW-E41-3172-0W1	MT	TE	3172-5			10S		
FW-E41-3172-0W8	UT	R	3172-5				12S	
FW-E41-3172-0W8	MT	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	TE	3259-5		08C			
FW-T48-04-2095-11W12	MT	R	2095-5		07C			
FW-T48-04-2095-19WO	MT	MS	2095-5	RR-A26	08C			Note 21
FW-T48-04-2095-7W8	MT	R	2095-5			10S		
FW-T48-04-2097-20W21	MT	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			09S		
SW-C11-2113-172-A	MT	R	5375-5			09S		
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			09S		
SW-E11-3146-6WE	UT	HS	3146-5			10S		
SW-E11-3146-6WE	MT	HS	3146-5			10S		
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			

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
C-F-2								
C5.51 Circumferential Weld								
SW-E11-3153-13WD	MT	R	3153-5		08C			
SW-E11-3154-4WC	MT	R	3154-5			09S		
SW-E11-3154-4WC	UT	R	3154-5			09S		
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				11S	
SW-E11-3158-8WG	UT	R	3158-5				11S	
SW-E11-3158-8WG	MT	R	3158-5				11S	
SW-E11-3161-1WH	MT	R	3161-5				12S	
SW-E11-3161-4WB	VT-1	R	3161-5	RR-A26		10S		Note 21
SW-E11-3161-4WK	VT-1	R	3161-5	RR-A26			12S	Note 21
SW-E11-3177-6WD	MT	R	3177-5				11S	
SW-E11-3177-6WD	UT	R	3177-5				11S	
SW-E11-3177-9WE	MT	R	3177-5			09S		
SW-E11-3177-9WE	UT	R	3177-5			09S		
SW-E21-3145-9WD	VT-1	R	3145-5	RR-A26	08C			Note 21
SW-E21-3147-15WF	UT	R	3147-5				11S	
SW-E21-3147-15WF	MT	R	3147-5				11S	
SW-E21-3147-15WG	MT	R	3147-5			10S		
SW-E21-3147-15WG	UT	R	3147-5			10S		
SW-E21-3147-19WB	UT	R	3147-5		08C			
SW-E21-3147-19WB	MT	R	3147-5		08C			
SW-E21-3147-5WJ	UT	R	3147-5		08C			
SW-E21-3147-5WJ	MT	R	3147-5		08C			
SW-E21-3148-5WD	MT	R	3148-5		08C			
SW-E21-3149-4WD	MT	R	3149-5		07C			
SW-E21-3149-4WD	UT	R	3149-5		07C			

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
C-F-2								
C5.51 Circumferential Weld								
SW-E21-3149-6WC	UT	R	3149-5				12S	
SW-E21-3149-6WC	MT	R	3149-5				12S	
SW-E21-3149-6WL	UT	R	3149-5				11S	
SW-E21-3149-6WL	MT	R	3149-5				11S	
SW-E41-3162-11WC	VT-1	R	3162-5	RR-A26	08C			Note 21
SW-E41-3162-1WU	MT	R	3162-5			10S		
SW-E41-3162-1WU	UT	R	3162-5			10S		
SW-E41-5373-GW3	MT	R	5373-5			09S		
SW-E41-5373-GW3	MT	R	5373-5			09S		
SW-G41-3669-3WB	MT	R	3669-5			10S		
SW-N30-3258-13WJ	UT	MS	3258-5				12S	
SW-N30-3258-13WJ	MT	MS	3258-5				12S	
SW-N30-3258-19WJ	MT	MS	3258-5		07C			
SW-N30-3258-19WJ	UT	MS	3258-5		07C			
SW-N30-3258-1WJ	MT	MS	3258-5			10S		
SW-N30-3258-1WJ	UT	MS	3258-5			10S		
SW-N30-3258-7WK	MT	MS	3258-5			09S		
SW-N30-3258-7WK	UT	MS	3258-5			09S		
SW-T48-04-2095-5WD	MT	R	2095-5				11S	
SW-T48-04-2095-WSW3	MT	R	2095-5				11S	
SW-T48-04-2097-18WC	MT	R	2097-5			10S		
SW-T48-04-2097-20WD	MT	MS	3258-5	RR-A26			11S	Note 21
SW-T48-04-2097-21WB	VT-1	R	2097-5	RR-A26	07C			Note 21
SW-T48-04-2097-25WF	VT-1	R	2097-5	RR-A26	07C			Note 21
C5.52 Longituinal Weld								
SW-E41-3162-11WOLD	VT-1	R	3162-5	RR-A26	08C			Note 21
SW-N30-3258-13WJLU	MT		3258-5				12S	
SW-N30-3258-13WJLU	UT		3258-5				12S	

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
C-F-2								
C5.52	Longituinal Weld							
SW-N30-3258-19WJLU	UT		3258-5		07C			
SW-N30-3258-19WJLU	MT		3258-5		07C			
SW-N30-3258-1WJLU	MT		3258-5			10S		
SW-N30-3258-7WKLU	UT		3258-5			09S		
SW-N30-3258-7WKLU	MT		3258-5			09S		
C5.81	Branch Connection Weld							
FW-E11-3146-15FW01	MT	MS	3146-5				12S	
FW-E11-3157-4WF01	MT	R	3157-5				12S	
SW-E11-3146-5WC	MT	MS	3146-5		07C			
SW-E11-3146-5WM	MT	HS	3146-5			10S		
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			09S		
SW-E21-3144-5WE	MT	R	3144-5				11S	
SW-N30-3258-13WB	MT	R	3258-5		08C			
C-H								
C.7X	Class 2 Pressure Retaining Boundary							
B21 Main Steam	VT-2	Class 2 Boundary	5808-1 5808-2		08C	10S		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	10S		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	10S		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	10S		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	10S		X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	Period 3	Remarks
C-H								
C.7X	Class 2 Pressure Retaining Boundary							
G51 Torus Water Management System	VT-2	Class 2 Boundary	5820		08C	10S		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	10S		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	10S		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	10S		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	10S		X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
C7.X	Class 2 Pressure Retaining Boundary							
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	10S		X includes items C7.10, C7.30, C7.50 and C7.70. Perform each Period
C11 Control Rod Drive System	VT-2	Class 2 Boundary	5810-1				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
C41 Standby liquid Control System	VT-2	Class 2 Boundary	5811		08C	10S		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 N498-1
E11 Residual Heat Removal System	VT-2	Class 2 Boundary	5813-1 5813-2 5813-3				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
E21 Core Spray System	VT-2	Class 2 Boundary	5814				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
E41 High Pressure Coolant Injection	VT-2	Class 2 Boundary	5815	RR-A19			12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
G41 Fuel Pool Cooling & Cleanup System	VT-2	Class 2 Boundary	5819				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1

FERMI 2 NUCLEAR POWER PLANT

Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
C-H								
C7.X	Class 2 Pressure Retaining Boundary							
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 N498-1
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 N498-1
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 N498-1
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 N498-1
T50 Primary Containment Monitoring System	VT-2	Class 2 Boundary	5831				12S	X includes items C7.20, C7.40, C7.60 and C7.80. Perform each Interval; Code Case N498-1
D-B								
D2.10	Pressure Retaining Components							
E11 Residual Heat Removal System Functional Boundary	Visual, VT-2	System Function	Class 3 Systems		08C	10S	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	10S	12S	Note 15 Perform Each Period; Code Case 498-1
P44 Emergency Equipment Cooling Water	Visual, VT-2	System Function	Class 3 Systems		08C	10S	12S	Note 15 Perform Each Period; Code Case 498-1
P45 Emergency Equipment Service Water	Visual, VT-2	System Function	Class 3 Systems		08C	10S	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	10S	12S	Note 15 Perform Each Period; Code Case 498-1
D2.20	Integral Attachment (Supports and Restraints)							
P45-3360-G11	VT-3	Integral Attachment Weld	3360-2				11S	
D2.40	Integral Attachment							
E11-3184-G08	VT-3	Integral Attachment Weld	3184-2			09S		
P44-3048-G10	VT-3	Integral Attachment Weld	3048-2		07C			

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Category / Item Identification	Exams Required	Selection Basis	Isometric	Relief Request	Inspection 1	Period 2	3	Remarks
N/A								
N/A		ANSI B31.1 Augmented						
FW-N20-3105-22WO	UT	NUREG 0313	3105-1			09S		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			09S		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			10S		Note 2, Category D
FW-N20-3105-OW21	UT	NUREG 0313	3105-1				11S	Note 2, Category D
FW-N20-3107-0W1	UT	NUREG 0313	3107-1			10S		Note 2, Category D
FW-N20-3107-0W17	UT	NUREG 0313	3107-1		07C			Note 2, Category D
FW-N21-3109-18W0	UT	NUREG 0313	3109-1		08C			Note 2, Category D
FW-N21-3109-29WO	UT	NUREG 0313	3109-1				11S	Note 2, Category D
SW-N20-03-B009-BWSE	UT	NUREG 0313	3105-1				11S	Note 2, Category D
SW-N20-03-B010-BWSE	UT	NUREG 0313	3105-1		08C			Note 2, Category D
SW-N20-03-B011-AWSE	UT	NUREG 0313	3105-1			09S		Note 2, Category D
SW-N20-03-B011-BWSE	UT	NUREG 0313	3105-1			09S		Note 2, Category D
SW-N20-03-B012-AWSE	UT	NUREG 0313	3105-1				12S	Note 2, Category D
SW-N20-03-B012-BWSE	UT	NUREG 0313	3105-1				12S	Note 2, Category D
SW-N20-03-B013-AWSE	UT	NUREG 0313	3105-1			10S		Note 2, Category D
SW-N20-03-B013-BWSE	UT	NUREG 0313	3107-1			10S		Note 2, Category D
SW-N20-03-B014-AWSE	UT	NUREG 0313	3105-1		07C			Note 2, Category D
SW-N20-03-B014-BWSE	UT	NUREG 0313	3107-1		07C			Note 2, Category D
SW-N21-01-B001-AWSE	UT	NUREG 0313	3109-1				11S	Note 2, Category D
SW-N21-01-B002-AWSE	UT	NUREG 0313	3109-1		08C			Note 2, Category D

INSERVICE INSPECTION NDE PROGRAM

TABLE B

FERMI 2 NUCLEAR POWER PLANT

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspection Period			Remarks
					1	2	3	
1	B11-5360-Skirt	VT-3	A		08C			RPV Skirt & Bolting
1	B11-5360-STAB-A	VT-3	G			09S		RPV Stabilizer Supports
1	B11-5360-STAB-B	VT-3	G		08C			RPV Stabilizer Supports
1	B11-5360-STAB-C	VT-3	G			10S		RPV Stabilizer Supports
1	B11-5360-STAB-D	VT-3	G			09S		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				11S	RPV Stabilizer Supports
1	B11-5360-STAB-H	VT-3	G			09S		RPV Stabilizer Supports
1	B21-2192-G02	VT-3	SP				12S	
1	B21-2192-G13	VT-3	G				12S	
1	B21-2297-G14	VT-3	G			10S		
1	B21-5352-HA1	VT-3	SP		07C			
1	B21-5353-HB2	VT-3	SP		08C			
1	B21-5354-AC1	VT-3	A			10S		
1	B21-5354-HC3	VT-3	SP		08C			
1	B21-5355-GD1	VT-3	G		07C			
1	B31-5356-HA4	VT-3	SP				12S	
1	B31-5357-HA1	VT-3	SP			10S		
1	B31-5357-HA7	VT-3	C		08C			
1	B31-5358-HB3	VT-3	SP		07C			
1	B31-5359-HB6	VT-3	C			10S		
1	B31-5359-HB7	VT-3	C			09S		
1	E11-2298-G01	VT-3	SP				11S	
1	E11-2299-G03	VT-3	SP				11S	
1	E11-2327-G03	VT-3	R			09S		
1	E21-3052-G02	VT-3	SP			09S		
1	E21-3053-G01	VT-3	SP			09S		
1	E21-3053-G03	VT-3	R				12S	

FERMI 2 NUCLEAR POWER PLANT

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

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

FERMI 2 NUCLEAR POWER PLANT

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspection Period			Remarks
					1	2	3	
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			09S		Div 2 RHR HTX Supports
2	E11-5370-G04	VT-3	G				11S	Div 2 RHR HTX Supports
2	E11-5370-G05	VT-3	A		08C			Div 2 RHR HTX Supports
2	E21-3144-G03	VT-3	SP		07C			
2	E21-3144-G06	VT-3	A				11S	
2	E21-3144-G11	VT-3	R			10S		
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			09S		
2	E21-3147-G35	VT-3	R		07C			
2	E21-3147-G39	VT-3	SP			10S		
2	E21-3148-G29	VT-3	R			09S		
2	E21-3148-G37	VT-3	SP			10S		
2	E21-3148-G48	VT-3	R				12S	
2	E21-3149-G05	VT-3	SP				11S	
2	E21-3149-G06	VT-3	R				11S	
2	E21-3150-G02	VT-3	R		07C			
2	E41-3162-G01	VT-3	SP			09S		
2	E41-3162-G03	VT-3	R			09S		
2	E41-3162-G13	VT-3	G				12S	
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	Relief Request	Inspection Period			Remarks
					1	2	3	
2	E41-3167-G01	VT-3	R		07C			
2	E41-3167-G13	VT-3	SP			10S		
2	E41-3167-G15	VT-3	R				12S	
2	E41-3169-G100	VT-3	G		08C			
2	E41-3169-G13	VT-3	SP			09S		
2	E41-3169-G17	VT-3	R			10S		
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	C		07C			
2	N30-3258-G07	VT-3	C		07C			
2	N30-3258-G17(A-D)	VT-3	R			10S		
2	N30-3259-G02	VT-3	C		07C			
2	N30-3259-G25	VT-3	R			09S		
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			10S		
2	T48-2095-G19	VT-3	G				11S	
2	T48-2095-G22	VT-3	R			09S		
2	T48-2095-G24A	VT-3	R			10S		
2	T48-2095-G25	VT-3	R		07C			
2	T48-2095-G26A	VT-3	R				12S	
2	T48-2097-G07	VT-3	R			10S		
2	T48-2097-G13B	VT-3	R		07C			
2	T48-2097-G17	VT-3	R				11S	
2	T48-2097-G19	VT-3	G				11S	
2	T48-2097-G21	VT-3	R		07C			

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Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspection 1	Period 2	3	Remarks
2	T48-2097-G22A	VT-3	R			09S		
2	T48-2097-G25A	VT-3	R		08C			
2	T48-2097-G34	VT-3	G			09S		
3	E11-2179-G20	VT-3	R		07C			
3	E11-2180-G14	VT-3	G				12S	
3	E11-2183-G07	VT-3	G			10S		
3	E11-2183-G15	VT-3	R		08C			
3	E11-2184-G12	VT-3	R			10S		
3	E11-2184-G22	VT-3	G		08C			
3	E11-3184-G04	VT-3	G				12S	
3	E11-3184-G08	VT-3	R			09S		
3	E11-3184-G10	VT-3	R				11S	
3	E11-3184-G18	VT-3	R		07C			
3	E11-3185-G40	VT-3	R			09S		
3	E11-3185-G53	VT-3	SP			09S		
3	E11-3185-G58	VT-3	SP				12S	
3	E11-3185-G60	VT-3	G			09S		
3	P42-3340-G06	VT-3	SP			09S		
3	P44-3047-G28	VT-3	G				11S	
3	P44-3048-G10	VT-3	SP		07C			
3	P44-3084-G10	VT-3	R		07C			
3	P44-3084-G15	VT-3	R			10S		
3	P44-3189-G38	VT-3	SP		08C			
3	P44-3189-G42	VT-3	R			10S		
3	P44-3189-G47	VT-3	R		07C			
3	P44-3336-G01	VT-3	A			09S		
3	P44-3336-G15	VT-3	R				11S	
3	P44-3337-G13	VT-3	R				12S	
3	P44-3337-G16	VT-3	R			10S		

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Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspection Period			Remarks
					1	2	3	
3	P44-3345-G02	VT-3	G		08C			
3	P44-3345-G08	VT-3	R			09S		
3	P44-3346-G02	VT-3	G				11S	
3	P44-3346-G12	VT-3	R				12S	
3	P44-3347-G10	VT-3	R		07C			
3	P44-3347-G14	VT-3	R				12S	
3	P44-3348-G12	VT-3	A		07C			
3	P44-3348-G29B	VT-3	R				11S	
3	P44-3351-G03	VT-3	R				12S	
3	P44-3351-G28	VT-3	R		08C			
3	P44-3351-G41	VT-3	SP				12S	
3	P44-3368-G09	VT-3	G			10S		
3	P44-3368-G31	VT-3	R				11S	
3	P44-3368-G38	VT-3	R				12S	
3	P44-3558-G14	VT-3	R				12S	
3	P44-3559-G12	VT-3	R			10S		
3	P44-4624-G01	VT-3	G				11S	
3	P44-4624-G12	VT-3	R				12S	
3	P44-4625-G03	VT-3	G				11S	
3	P44-4625-G13	VT-3	R			09S		
3	P44-4628-G02	VT-3	R			10S		
3	P44-4629-G05	VT-3	G			09S		
3	P44-4629-G08	VT-3	R		08C			
3	P44-EECW Head Tank Sprts (Div. 2)	VT-3			08C			
3	P44-EECW Htr Sprts (Div. 1)	VT-3					12S	
3	P45-2178-G09	VT-3	R			09S		
3	P45-2204-G11	VT-3	R				11S	
3	P45-3352-G02	VT-3	G				12S	
3	P45-3352-G06	VT-3	R		07C			

FERMI 2 NUCLEAR POWER PLANT

Code Class	Identification Number	Exams Method	Component Support Type	Relief Request	Inspection 1	Period 2	3	Remarks
3	P45-3353-G05	VT-3	R			10S		
3	P45-3353-G07	VT-3	SP				11S	
3	P45-3353-G26	VT-3	R		08C			
3	P45-3359-G03	VT-3	G		08C			
3	P45-3359-G11	VT-3	SP				11S	
3	P45-3360-G04	VT-3	R			10S		
3	P45-3360-G07	VT-3	G			09S		
3	P45-4626-G03	VT-3	G				12S	
3	P45-4626-G08	VT-3	A				11S	
3	P45-4627-G06	VT-3	A				12S	
3	P45-4627-G12	VT-3	R				11S	
3	P45-4630-G04	VT-3	R			09S		
3	P45-4631-G04	VT-3	R			09S		
3	P45-4632-G08	VT-3	R			10S		
3	P45-4632-G10	VT-3	G				11S	
3	R30-2176-G17	VT-3	G		07C			
3	R30-2176-G28	VT-3	A			10S		
3	R30-2176-G31	VT-3	G		08C			
3	R30-2177-G04	VT-3	R			09S		
3	R30-2177-G27	VT-3	R				11S	
3	R30-2177-G31	VT-3	G		08C			
3	R30-2181-G04	VT-3	R				11S	
3	R30-2181-G15	VT-3	R			10S		
3	R30-2182-G02	VT-3	G			09S		
3	R30-2182-G14	VT-3	R		07C			

SECTION 8

SUMMARY OF CONTAINMENT INSPECTIONS (IWE)

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# 21085 (RPV)

8. INTRODUCTION

This Section is a Summary of the IWE inspection activities completed at Fermi 2 during the eighth refueling outage. The RF-08 inspections scope was limited. This was a result of 10 CFR 50.55a being re-issued with the requirement that IWE be implemented on an expedited basis and that all of the 1st period inspections be completed by September of 2001. As a result Fermi 2 was required to complete all the 1st period inspections during RF-07. This resulted in the 2nd period consisting of three refuels, with RF-09 containing the majority of the inspections.

8.1 ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE ACTIONS TAKEN

Locations where degraded coating was identified during RF-07 were re-inspected to re-assess their condition. No further degradation was identified. These areas were mapped and will be scheduled for re-coating during RF-09.

During RF-08 areas that were repaired during RF-07 were re-inspected with particular attention being 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 RF-08 the immersed areas of the Torus were desludged, after which both the immersed and vapor spaces were inspected by certified VT inspectors. All areas of coating degradation 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 inspection, locations where the protective coating was degraded were repaired.

8.2 PROGRAM STATUS, ASME SECTION XI CREDIT – IWE

8.2.1 CATEGORY: E-A Containment Surfaces (1)
 ITEM NO: E1.11 Accessible Surface Areas (each period)

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Accessible Liner Surfaces	1	1	1	3%	0%	100%
TOTALS	1	1	1	3%	0%	100%

Note:

- (1) Per 10CFR50 55a 100% of the accessible surfaces of the containment were required to be inspected (General Visual) during RF-07, and they were. During RF-08 a limited number of inspections were completed, the remainder will be completed during RF-09.

8.2.2 CATEGORY: E-A Containment Surfaces
 ITEM NO: E1.12 Accessible Surface Areas

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

NOTE

- (1) Inspections (VT-3) are required to be performed during the 3rd Period, Refuel Outages 11 and 12.

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

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

NOTE

(1) Inspections (VT-3) are required to be performed during 3rd Period, Refuel Outages 11 and 12.

8.2.4 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	0%	0%	0%
TOTAL	0	0	0	0%	0%	0%

NOTE

(1) No Visual augmented examinations have been identified.

8.2.5 CATEGORY: E-C Containment Surfaces Requiring Augmented Examination
ITEM NO: E1.12 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.

8.2.6 CATEGORY: E-D Seals, Gaskets, and Moisture Barriers
ITEM NO: E5.10 Seals (1)

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Seals	61	61	0	0%	N/A	N/A
TOTAL	61	61	0	0%	N/A	N/A

Note: 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 seal and gaskets in accordance with 10CFR50, Appendix J.

8.2.7 CATEGORY: E-D Seals, Gaskets, and Moisture Barriers
ITEM NO: E5.20 Gaskets (1)

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Gasket	31	31	0	N/A	N/A	N/A
TOTAL	31	31	0	N/A	N/A	N/A

Note: 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 seal and gaskets in accordance with 10CFR50 Appendix J.

8.2.8 CATEGORY: E-D Seals, Gaskets, and Moisture Barriers
ITEM NO: E5.30 Moisture Barrier

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 RF-07 100% of the moisture barrier was inspected and replaced. There was no damage to the liner at this location. During RF-08 100% was again inspected with no degradation identified. 67% credited for RF-08.

8.2.9 CATEGORY: E-G Pressure Retaining Bolting
ITEM NO: E8.10 Bolting Connections

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Bolting Connections	89	89	38	42.7%	34%	67%
TOTAL	89	89	38	42.7%	34%	67%

8.2.10 CATEGORY: E-G Pressure Retaining Bolting
ITEM NO: E8.20 Bolting Connections – (Note 1)

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Bolting Connections Torque	89	89	0	N/A	N/A	N/A
TOTAL	89	89	0	N/A	N/A	N/A

NOTE

- (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 10CFR50 Appendix J.

8.2.11 CATEGORY: E-P Pressure Retaining Components
ITEM NO: E9.10 Pressure Retaining Boundary

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Pressure Retaining Boundary	1	1	(Note 1)	N/A	N/A	N/A
TOTAL	1	1	(Note 1)	N/A	N/A	N/A

NOTE

- (1) Will be tested in accordance with 10CFR50 Appendix J Program

8.2.12 CATEGORY: E-P Pressure Retaining Components
ITEM NO: E9.20 Containment Penetration Bellows

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Containment Penetration Bellows	29	29	(Note 1)	N/A	N/A	N/A
TOTAL	29	29	(Note 1)	N/A	N/A	N/A

NOTE

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

8.2.13 CATEGORY: E-P Pressure Retaining Components
ITEM NO: E9.30 Airlocks

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Airlock	1	1	(Note 1)	N/A	N/A	N/A
	1	1	(Note 1)	N/A	N/A	N/A

NOTE

9. Will be tested in accordance with 10CFR50, Appendix J Program

8.2.14 CATEGORY: E-P Pressure Retaining Components
ITEM NO: E9.40 Seals and Gaskets

Description	Total Comp	Total Requiring Examination	Examined To Date	Examined To Date (%)	Minimum Required (%)	Maximum Allowed (%)
Seals And Gaskets	92	92	(Note 1)	N/A	N/A	N/A
	92	92	(Note 1)	N/A	N/A	N/A

NOTE

10. Will be tested in accordance with 10CFR50 Appendix J Program

SECTION 9

SECTION XI REPAIR/REPLACEMENT NIS-2 FORMS

11. NIS-2 DATA REPORT INDEX

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
98-027		E5100D001 E5100D002	2	Replace Rupture Discs on RCIC Turbine Steam Exhaust Line.
00-033	000Z984589	T4804F001A	2	Remove valve and section of piping and reinstall after leak check of valve.
00-034	000Z003088	R3000F083C	3	Replace disc in check valve.
00-035	B350010100 B351010100 B352010100 B353010100 B354010100 B355010100 B356010100 B357010100 B358010100 B359010100 B360010100 B361010100 B362010100 B363010100 B364010100	B2104F013A B2014F013B B2104F013C B2104F013D B2104F013E B2014F013F B2104F013G B2104F013H B2104F013J B2014F013K B2104F013L B2104F013M B2104F013N B2014F013P B2104F013R	1	Replace all SRV Pilot assemblies and 4 base/body assemblies. Pilot assemblies contain a platinum plated Disc.
00-036	B273050100	B2103F013@	1	Rebuild and test SRV pilot and base bodies for future installation in RF-08.
01-001	000Z002597	E1100F020A	3	Install replacement alloy disc in valve.
01-002	000Z002598	E1100F020B	3	Install replacement alloy disc in valve.
01-003	000Z002153	E4100F050	2	Install replacement disc in relief valve due to seat leakage.
01-004	VARIOUS	C1102D@	1	Exchanged CRDM Cap Screws, installed replacement Cap Screws, and replaced selected Control Rod Drive Mechanisms during RF-08.
01-005	000Z001945	SPARE VALVE	1	Replace Bonnet on Spare Valve and return valve to stock.

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
01-006A	000Z002030	E1100F050A	1	Replace bonnet bolting and install anti-rotation lugs on replacement disc and return disc to stock
01-006B	000Z002031	E1100F050B	1	Replace bonnet bolting and install anti-rotation lugs on replacement disc and return disc to stock
01-007	000Z013661	N30-3258-G07 N30-3258-G08	2	Replace Constant Supports on Main Steam Lines due to damaged parts.
01-008	A498010100 A519010100	VARIOUS MECHANICAL SNUBBERS	VARIOUS	Refurbish Mechanical Snubbers and install refurbished snubbers during refueling outage RF-08.
01-009	A497010100 A514010100	VARIOUS HYDRAULIC SNUBBERS	VARIOUS	Refurbish Hydraulic Snubbers and install refurbished snubbers during refueling outage RF-08.
01-011	000Z013499	E1101B001B	2	Remove indications on Heat Exchanger support ring and perform weld repair.
01-012	000Z002042	B2103F022D	1	Replace 26" valve poppet, replace bolting material, and restore body/bonnet seal weld area during refurbishment after LLRT failure.
01-013	000Z002048	B2103F028C	1	Replace 26" valve poppet and replace bolting material,
01-014	000Z002032	B2100F076A	1	Replace Bonnet Bolting.
01-015	T211020100	B2100F076B	1	Replace Bonnet bolting and actuator side pressure seal stud.
01-016A	000Z002036	B2100F010A	1	Modify indicator/actuator stuffing box covers per ERE-31714 to allow use of jacking bolts to aid in alignment of disc/hinge arm during reassembly.
01-016B	000Z002037	B2100F010B	1	Modify indicator/actuator stuffing box covers per ERE-31714 to allow use of jacking bolts to aid in alignment of disc/hinge arm during reassembly and replace bonnet bolting.

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
01-017	000Z002034	B2100F032A	1	Replace bonnet bolting material damaged during valve disassembly
01-018	000Z013661	P45-3353-G14	3	Modify / replace base plate for pipe support that was found damaged during RF-08 per RID 70971.
01-019	000Z002037	B2100F010B	1	Replace bolting material on valve bonnet.
01-020	000Z979248	C4100F007	1	Replace bonnet bolting on 1-1/2" check valve damaged during reassembly
01-021	000Z991918	E4100F020	2	Replace inlet flange bolting that was damaged during removal and machine and lap in-body seat of relief valve.
01-023	000Z991909	E1100F025B	2	Replace relief valve along with welded inlet nipple and inlet flange.
01-024	000Z002035	B2100F032B	1	Replace segmental thrust ring that was damaged during disassembly

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

98-027

1. Owner Detroit Edison Company Date 10/16/01
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
4. Identification of System (N5-0194) REACTOR CORE INSULATION COOLING (RCIC)
5. (a) Applicable Construction Code ASME III Class 2 19 71 Edition W1971 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980--W'81

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)
E5150D001	Continental Disc	92109	N/A	N/A	N/A	Replacement	No
E5150D002	Continental Disc	92109	N/A	N/A	N/A	Replacement	No

7. Description of Work Replaced Rupture Discs
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
 Other ☐ Pressure _____ psi Test Temp. _____ °F

*Operability Test: 24 205 05

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)

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

Form NIS-2 (Back)

9. Remarks Rupture Discs procured per P.O. #A012737

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 N5-0194 to be supplemented by owners Section XI Program, No.98-027

Certificate of Authorization No. N/A

Expiration Date N/A

Signed *[Signature]*
Owner or Owner's Designee, Title

LEAD ISI EXAMINER Date OCTOBER 15, 2001

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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 12-15-1988 to 10-22-2001, 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.

[Signature]
Inspector's Signature

Commissions NB9486 NIASBIS NIG10
National Board, State, Province, and Endorsements

Date OCT 22, 2001

(12 82)

For complete work package, see Work Request E315961119

FORM NR-1
DATA REPORT OF RUPTURE DISKS
As Required by the Provisions of the ASME Code Rules, Section III, Div. 1

1. Manufactured by Continental Disc Corporation - Riverside, Mo. 64150
(Name and address)

IDENTIFICATION OF RUPTURE DISK

2. Type or Style No. STD Serial No. NA Lot No. 92109

3. Disk Dimensional Characteristics:
Inlet Size 9" Outlet Size 8" Relief Area 50 sq. in.

4. Material Specification 316 Stainless Steel Rupture Disc and Vacuum Support

5. Drawing No. NA

AUTHORIZATION TEST RESULTS

6. Burst Pressure 152 (psi) Max. 137 (psi) Min.

7. Coincident Disk Temperature 240°F. (F)

8. Fluid Used in Tests Air

9. Cyclic Test Results (if required) NA

CERTIFICATION

10. Place of Test Continental Disc Corporation Date of Test 8-28-91

We certify the above data to be correct and that the requirements of the ASME Code rules have been met.

Signed Continental Disc Corp. by Dean Deckerbauer Date *1-25-91 1991

Quality Assurance Manager

* Replacement Copy for original dated 8-28-91

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

00-033

1. Owner Detroit Edison Company Date August 29, 2000
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Sheet 1 of 1
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Unit 2
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
4. Identification of System N5-307 RHR Cooling Water Supply to Division I Recombiner
5. (a) Applicable Construction Code ASME III, Class 2 19 71 Edition W'71 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
FW-E11-4003-46S47	Wisner & Becker	N/A	N/A	T4804F001A	1983	REPLACEMENT	Y

7. Description of Work Remove welds and piping to facilitate testing and repair of valve T4804F001A - reinstall after successful seat leak check
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ (Ref. Code Case N-416-1)
 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 None

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 (N5-307) to be supplemented by owners Section XI program No. 00-033

Certificate of Authorization No. N/A

Expiration Date N/A

Signed Richard M. Holton
Owner or Owner's Designee, Title

Date August 29, 20 00

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 H S B I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period August 9, 2000 to August 31, 2000, 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.

[Signature]
Inspector's Signature

Commissions NB9486 NIA815 NEWID
National Board, State, Province, and Endorsements

Date August 31, 20 00

(12.82)

For complete work package, see Work Request: 0002984589

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

00-034

1. Owner Detroit Edison Company Date January 24, 2001
 6400 North Dixie Highway, Newport MI 48166
 Name Address Sheet 1 of 2
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 6400 North Dixie Highway, Newport MI 48166
 Name Address DECo Maintenance
 Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Name Address Expiration Date N/A
4. Identification of System (T & B No. 6) EDG #12 Fuel Oil System
5. (a) Applicable Construction Code ASME III, Class 3 19 71 Edition W71 Addenda, N-240 Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992 - 92 addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
R3000F083C	Rockwell Edwards	MA-157	NA	V14-2037	1974	REPLACEMENT	Y

7. Description of Work Replace existing Disc with replacement due to seat leakage failure
8. Tests Conducted Hydrostatic ☐ Pneumatic ¹ ☐ Nominal Operating Pressure ☒
 Other ¹ Pressure _____ psi Test Temp. _____ °F (Not Applicable)

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 1 1/2" disc procured per PO #332510, A565GR616, Serial No. 21861-1486-1
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 (T&B No.6) to be supplemented by Owners Section XI Program 00-034.

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] LEAD ISI ENGINEER Date January 24 2001
 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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 09-21-00 to 01-25-01, 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.

[Signature] Commissions NB9486 NIASRTS MIG10
 Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 25 2001

(12/82)

For complete work package, see Work Request 0002003088

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

As Required by the Provisions of the ASME Code, Section III
Not To Exceed One Day's Production

NIS-2 FOR
00-034
SHEET 2 OF 2

Pg. 1 of 2

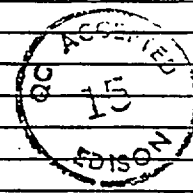
1. Manufactured and certified by EDWARD VALVES INC. 1900 S. SAUNDERS ST. RALEIGH, NC 27603
(Name and address of NPT Certificate holder)
2. Manufactured for DETROIT EDISON CO. 2000 SECOND AVE. DETROIT MI 48226
(Name and address of purchaser)
3. Location of installation DETROIT EDISON CO. FERM 2, 6400 NDIXIE HWY NEWPORT MI
(Name and address)
4. Type C-475201RA A565GR616 N/A N/A 1998
(drawing no.) (mat'l. spec. no.) (tensile strength) (ICRN) (year built)
5. ASME Code, Section III: 1971 WINTER '71 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks: DISK FOR 1 1/2" CHECK VALVE

SD. 36-49781

8. Nom. thickness (in.) N/A Min. design thickness (in.) PER #4 Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
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
(1) <u>21861-1A/86-1</u>	<u>N/A</u>
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	



10. Design pressure 940 psi. Temp. 700 °F. Hydro. test pressure N/A at temp. °F
(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.

(12/86)

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



2

FORM N-2 (back)

Item 1, Pg. 1, Mfr. Serial No. 21861-1486-1

CERTIFICATION OF DESIGN

Design specifications certified by T J O KEEFE P.E. State MI Reg. no. 24359
(when applicable)
 Design report* certified by _____ P.E. State _____ Reg. no. _____
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this (these) PARTS
 conforms to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization No. N1563 Expires 11/26/00
 Date 3/31/98 Name EDWARD VALVES, INC Signed [Signature]
(NPT Certificate Holder) (Authorized representative)

CERTIFICATE OF SHOP 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 NORTH CAROLINA and employed by HSBT & I Co.
 of HARTFORD, CT have inspected these items described in this Data Report on 3-31-98, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 3-31-98 Signed [Signature] Commissions NC1083
(Authorized Inspector) (Nat'l. Bd. Incl. endorsements, state or prov. and no.)



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

00-035

1. Owner Detroit Edison Company Date 12/12/01
Name
6400 North Dixie Highway, Newport MI 48166
Address
2. Plant Fermi 2 Nuclear Power Plant Sheet 1 of 2
Name
6400 North Dixie Highway, Newport MI 48166
Address
3. Work Performed by Detroit Edison Company Unit 2
Name
6400 North Dixie Highway, Newport, MI 48166
Address
4. Identification of System B21Nuclear Boiler, Main Steam 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 Replacements 1992, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
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)	N/A	B2104F013A-R Various	N/A	Replacement	Yes

7. Description of Work RF08. Replaced all 15 SRV Pilot Assemblies Replaced Main Bodies on B2104F013F,K,N&C.
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
Other ☒ Pressure ps: 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.

Form NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached

All 15 SRV Pilots, and 4 Main Bodies were replaced using station Work Requests B350010100 thru B364010100. See attached. SRV Pilots were refurbished per Section XI Program 00-036, and Work Request B273050100.

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 Reports to be supplemented by Section XI Program 00-035 and TR Field Service Report Number 01Z-008

Certificate of Authorization No. N/A

Expiration Date N/A

Signed Paul H. Cullen UND IS ORIGINAL Date December 13, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Feb 14, 2001 to Dec 27, 2001, 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.

Mark D. Sullivan
Inspector's Signature

Commissions NB9486 NIBS BIS MI610
National Board, State, Province, and Endorsements

Date Dec 27 2001

(10/94)

For complete work package, see Work Request # B350010100 thru B364010100

2001 Refueling Outage SRV Replacement Matrix RF08

Division	PIS Number	Steam Line	Isometric Draing	Code Data Report N-5	Set Point psig-	Work Request	Valve/ Body S/N	Pilot S/N
I (LLS)	B2104F013A	D	M-4095	265	1135	B350010100	389	331
	B2104F013B	C	M-2591	301	1135	B351010100	331	340
II	B2104F013C	B	M-2594	291	1135	B352010100	391	391
	B2104F013D	B	M-2593	278	1145	B353010100	328	371
	B2104F013E	C	M2592	309	1155	B354010100	339	334
	B2104F013F	B	M-2596	290	1145	B355010100	327	338
(LLS)	B2104F013G	B	M-2587	321	1135	B357010100	337	341
	B2104F013H	C	M2588	266	1155	B356010100	392	333
	B2104F013J	C	M2589	308	1155	B358010100	332	1182
	B2104F013K	B	M2595	311	1135	B359010100	330	373
	B2104F013L	A	M-4094	313	1145	B360010100	373	388
	B2104F013M	A	M-2586	268	1145	B361010100	342	1178
	B2104F013N	A	M-4093	310	1145	B362010100	341	337
	B2104F013P	D	M-4096	322	1155	B363010100	340	390
	B2104F013R	C	M-2590	288	1155	B364010100	371	335

All 15 SRV Pilots were replaced, and the 4 Shaded Bodies were replaced as well

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

00-036

1. Owner Detroit Edison Company Date 09/04/01
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
 Repair Organization P.O. No., Job No., etc.
 Type Code Symbol N/A
 Stamp
 Authorization No. N/A
 Expiration Date N/A
3. Work Performed by Detroit Edison Company
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
4. Identification of System B21 Nuclear Boiler, Main Steam Safety Relief Valve Pilot Assemblies, and Main Bodies.
5. (a) Applicable Construction Code ASME III
 Class 1 19 71 Edition S'1970 Addenda, NA Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
SRV Pilot Assemblies	Target Rock	Various, See attached list	N/A	B2104F013A-R	N/A	Replacement	Yes
SRV Main Body Assemblies	Target Rock	Various, See attached list	N/A	B2104F013A-R	N/A	Replacement	Yes

7. Description of Work Rebuild & Test 15 SRV Pilot Assemblies, and 4 SRV Main Bodies as required.
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal 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

(10/94)

Form NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached where required.

All 15 SRV Pilot Assemblies, and 4 main Bodies were rebuilt and tested as necessary under Target Rock P.O. NS-325608, and NWS P.O. NS-325650. All Parts used are recorded in Work Request B273050100, as well as the Target Rock final document package from refurbishment activities. See attachment (1) list of SRV Pilot and Main Body Serial Numbers, and list of Pressure Retaining Parts used. No welding repairs were performed.

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 to be supplemented by Section XI Program 00-036 and TR field Service report

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Date September 25, 2001
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 H. S. B. I. Co of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period FEB. 14, 2001 to SEPT. 25, 2001 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.

[Signature] Commissions NB3456 NEABIS NE613
Inspector's Signature National Board, State, Province, and Endorsements

Date Sept 25, 2001

(10/94)

Pressure Retaining Parts Installed in Pilot Assemblies During Rebuild

Pilot S/N#	Guide Assembly Bolt 3/8-16x1-1/8 Stock#489-0094	P.O. #, Lot#, or HT#
337	1ea.	P.O.#204460 Lot#01

Pressure Retaining Parts Installed in SRV Main Bodies

Main Valve Body S/N#	Pilot Base to body Nut 1-1/8-12 unf. Stock#252-0252	P.O. #, Lot#, or HT#
327	4ea.	HT#G9C. P.O.# 273590

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

01-001

1. Owner Detroit Edison Company Date 11/17/01
Name
6400 North Dixie Highway, Newport MI 48166
Address
2. Plant Fermi 2 Nuclear Power Plant Sheet 1 of 2
Name
6400 North Dixie Highway, Newport MI 48166
Address
3. Work Performed by Detroit Edison Company Unit 2
Name
6400 North Dixie Highway, Newport, MI 48166
Address
4. Identification of System N5-0282 and N5-285, RHRSW HX Service Water Return Check Valve, E1100F020A
5. (a) Applicable Construction Code ASME III, Class 3 19 71 Edition W'71 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
E1100F020A	Wm. Powel	36870-1	N/A	V15-2021	1975	Replacement	Y

7. Description of Work Installed new corrosion resistant alloy disc (SA217 GR CA15). Reference CARD 99-18162
8. Tests Conducted Hydrostatic ☐ Pneumatic : Nominal 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

Form NIS-2 (Back)

9. Remarks Replaced disc in E1100F020AV15-2021 with a new disc from Wm. Powel, 24" Figure 1561AWE, P/N 26-141780-150-02-00. Code CM 8964B, procured per PO# 375650.

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 Reports(N5-0282 and N5-285) to be supplemented by owners Section XI Program.
No. 01-001

Certificate of Authorization No. N/A Expiration Date N/A

Signed Richard M. Decker Date November 17, 2001
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 H S B I & I Co of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 10-27-01 to 11-19-01, 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

Richard M. Decker Commissions NB 486 NIASBLS M1010
Inspector's Signature National Board, State, Province, and Endorsements

Date Nov. 19 20 01

(1282)

For complete work package, see Work Request 000Z002597

1. (a) Manufactured by The Wm. Powell Company, 3233 Colerain Avenue, Cincinnati, OH 45225
(Name and address of NPT Certificate Holder)
(b) Manufactured for Detroit Edison, 6400 Dixie Highway, Newport, MI 48166
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. Part CM 8964B Nat'l Bd. No. N/A CRN No. N/A
(a) Constructed According to Drawing No. P/N 26-141780-15002-00 Drawing Prepared by The Wm. Powell Co.
(b) Description of Part Inspected 1 - Disc for 24" Figure 1561 AWE Check Valve
(c) Applicable ASME Code: Section III, Edition 1971; Addenda date Winter 71 Case No. N/A Class 3
3. Remarks Tag: v15-2020 & 21
(Brief description of service for which component was designed.)

0
NIS-2
SECTION VI
01-001
Sheet
2 of 2

Items 4-8 inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell Material T.S. (Kind & Spec. No.) (Min. of range specified) Nom. Thk. in. Corr. Allow. in. Diam. ft. in. Length ft. in.
5. Seams Long HT RT Efficiency %
Girth HT RT No. of Courses
6. Heads (a) Material T.S. (b) Material T.S.
Location (top, bottom, ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diam. Side to Pressure (convex or concave)
(a)
(b)
If removable, bolts used (Material) Spec. No. T.S. Size, Number Other fastening Describe or attach sketch
7. Jacket Closure
(Describe as cage and weld, bar, etc. If bar, give dimensions. If bolted, describe or sketch)
8. (a) Design Pressure psi at ° F (b) Min. Pressure-Test Temp. ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets Stationary Material (Kind & Spec. No.) Diam. in. Thk. in. Attachment (Welded, bolted)
Floating Material Diam. in. Thk. in. Attachment
10. Tubes Material O.D. in. Thk. in. or gage Number Type (Straight or U)

Items 11-14 inclusive to be completed for inner chambers of jacketed vessels or channels of heat exchangers

11. Shell Material T.S. (Kind & Spec. No.) (Min. of range specified) Nom. Thk. in. Corr. Allow. in. Diam. ft. in. Length ft. in.
12. Seams Long HT RT Efficiency %
Girth HT RT No. of Courses
13. Heads (a) Material T.S. (b) Material T.S.
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diam. Side to Pressure (convex or concave)
(a) Top, bottom, ends
(b) Channel
If removable, bolts used (a) (b) (c) Other fastening (Describe or attach sketch)
14. (a) Design Pressure psi at ° F (b) Min. Pressure-Test Temp. ° F

¹ If postweld heat-treated. ² List other internal or external pressures with coincident temperature when applicable.

*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 and 2 of this Data Report is included on each sheet; and (3) each sheet is numbered and number of sheets is recorded in item 3, Remarks.

(12/80)

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

LINE:1

FORM N-2 (Back)

2

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (inlet, outlet, drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection: Manholes: No. _____ Size _____ Location _____
Openings: Handholes: No. _____ Size _____ Location _____
Threaded: No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____ (Where & how)

We certify that the statements made 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 Design Specification and Design Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Design Report if the appurtenance is not included in the component Design Specification and Design Report.)

Date 10-31-01, 19____ Signed The Wm. Powell Co. By Gerald B. [Signature]
(NPT Certificate Holder)

Certificate of Authorization Expires 12/13/03 Certificate of Authorization No. N1579

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at _____

Stress analysis report on file at _____

Design specifications certified by _____ Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by _____ Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP 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 Ohio and employed by H.S.B.I. & I Co. of Hartford, CT have inspected the part of a pressure vessel described in this Partial Data Report on October 31, 2001 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 this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 10-31-2001

[Signature]
Inspector's Signature

Commissions NBOSH 1 Ohio Com
National Board, State, Province and No.



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

01-002

1. Owner Detroit Edison Company Date 11/10/01
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
 Sheet 1 of 2
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
 DECo Maintenance
 Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
 Authorization No. N/A
 Expiration Date N/A
4. Identification of System N5-0285, RHRSW HX Service Water Return Check Valve, E1100F020B
5. (a) Applicable Construction Code ASME III, Class 3 19 71 Edition W'71 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
E1100F020B	Wm. Powel	36870-1	N/A	V15-2020	1975	Replacement	Y

7. Description of Work Installed new corrosion resistant alloy disc (SA217 GR CA15). Reference CARD 99-18162
8. Tests Conducted Hydrostatic ☐ Pneumatic ☒ Nominal 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

Form NIS-2 (Back)

9. Remarks Replaced disc in E1100F020B/V15-2020 with a new disc from Wm. Powel, 24" Figure 1561AWE, P/N 26-141780-150-02-00. Code CM 8387B, American Foundry Group Heat Letter 1BB06, Heat Number D3686. Disc procured per PO# 283511
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 Reports(N5-0285) to be supplemented by owners Section XI Program, No. 01-002

Certificate of Authorization No. N/A Expiration Date N/A

Signed R. M. Johnston LEAD ISC ENGINEER Date November 10, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 10-27-2001 to 11-15-2001, 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

[Signature] Commissions NB9486 NAIS 615 NCB 10
Inspector's Signature National Board, State, Province, and Endorsements

Date Nov 15 20 01

(12/82)

For complete work package, see Work Request: 000Z002596

NIS-2 FOR
E1100P020B
SHEET 2 OF 2
01-002 ①

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

As Required by the Provisions of the ASME Code Rules, Section III, Div. 1

1. (a) Manufactured by The Wm. Powell Co., 3233 Colerain Avenue, Cincinnati, Ohio 45225
(Name and address of NPT Certificate Holder)
(b) Manufactured for Detroit Edison Co., 6400 Dixie Hwy., Newport, MI 48166
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. Part CM 8387B Nat'l Bd. No. ---- CRN No. ----
(a) Constructed According to Drawing No. 261417801500200 Drawing Prepared by The Wm. Powell Co.
(b) Description of Part Inspected 1 - Disc for 24" Figure 1561AWE
(c) Applicable ASME Code: Section III, Edition 1971; Addenda date Winter 71; Case No. --- Class 3
3. Remarks: _____
(Brief description of service for which component was designed.)

Item 4-8 inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of range specified)
5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (top, bottom, ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diam. Side to Pressure (convex or concave)
(a) _____
(b) _____
If removable, bolts used _____ (Material, Spec. No., T.S., Size, Number) Other fastening _____ (Describe or attach sketch)
7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar, give dimensions, if bolted, describe or sketch)
8. (a) Design Pressure² _____ psi at _____ ° F (b) Min. Pressure-Test Temp. _____ ° F

Items 9 and 10 to be completed for tube sections.

9. Tube Sheets: Stationary: Material _____ Diam. _____ in. Thk. _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pres.) (Welded, bolted)
Floating: Material _____ Diam. _____ in. Thk. _____ in. Attachment _____
10. Tubes: Material _____ O.D. _____ in. Thk. _____ in. or pipe Number _____ Type _____
(Straight or U)

Items 11-14 inclusive to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of range specified)
12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diam. Side to Pressure (convex or concave)
(a) Top, bottom, ends _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____ (Describe or attach sketch)
14. (a) Design Pressure² _____ psi at _____ ° F (b) Min. Pressure-Test Temp. _____ ° F

¹ If postweld heat-treated. ² List other internal or external pressures with coincident temperature when applicable.

*Supplemental sheets in form of lists, sketches, or drawings may be used provided: (1) size is 8½ in. x 11 in.; (2) information on each sheet is included on each sheet; and (3) each sheet is numbered and number of sheets is recorded in Item 3, Remarks.



(2)

Items below to be completed for all vessels where applicable.

DISC CM 8387B

15. Safety Valve Outlets: Number _____ Size _____ Location _____
16. Nozzles:
- | Purpose (inlet, outlet, drain) | Number | Diam. or Size | Type | Material | Thickness | Reinforcement Material | How Attached |
|--------------------------------|--------|---------------|------|----------|-----------|------------------------|--------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
17. Inspection Manholes: No. _____ Size _____ Location _____
- Openings: Handholes: No. _____ Size _____ Location _____
- Threaded: No. _____ Size _____ Location _____
18. Supports: Skirt _____ Lugs _____ (Yes or no) (Number) _____ Legs _____ (Number) _____ Other _____ (Describe) _____ Attached _____ (Where & how)

We certify that the statements made 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 Design Specification and Design Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Design Report if the appurtenance is not included in the component Design Specification and Design Report.)

Date February 23, 19 95 Signed The Wm. Powell Co. By Richard Kunk
(NPT Certificate Holder)

Certificate of Authorization Expires 12/23/97 Certificate of Authorization No. N-1579

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at _____

Stress analysis report on file at _____

Design specifications certified by _____ Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by _____ Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP 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 Ohio and employed by H.S.B.I. & I Co. of Hartford, CT have inspected the part of a pressure vessel described in this Partial Data Report on Feb 23, 1995, 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 this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 2-23, 1995

[Signature]
Inspector's Signature

Commissions NB10901N OHIO
National Board, State, Province and No.



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

01-003

1. Owner Detroit Edison Company Date January 24, 2001
 6400 North Dixie Highway, Newport MI 48166
 Name Address
 6400 North Dixie Highway, Newport MI 48166
 Name Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 6400 North Dixie Highway, Newport MI 48166
 Name Address
 6400 North Dixie Highway, Newport MI 48166
 Name Address
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Name Address Expiration Date N/A
 Address
4. Identification of System N5-0331 HPCI Turbine Lube Oil Cooler
5. (a) Applicable Construction Code ASME III, Class 2 19 71 Edition S'72 (Valve) Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992 - 92 addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
E4100F050	Crosby Valve	N65626-00-0001	NA	V22-2586	1982	REPLACEMENT	Y

7. Description of Work Replacement Disc installed due to seat leakage.
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
 Other ☒ Pressure _____ psi Test Temp. _____ °F Set Point Test
 per 43.000.002

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 disc procured per PO #247113, 304/304LSS, Trace #K57212-42-014C
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 to be supplemented by Owners Section XI Program 01-003

Certificate of Authorization No. N/A

Expiration Date N/A

Signed [Signature] Lead ISI Engineer Date January 24, 2001
 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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 01-09-01 to 01-25-01, 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.

[Signature]
 Inspector's Signature

Commissions NB9486 NIAJBIS MI610
 National Board, State, Province, and Endorsements

Date Jan. 25, 2001

(12/82)

For complete work package, see Work Request 000Z002153

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

Q.C.-70-58

CROSBY FACTORY ORDER NO.: N1593400
CROSBY ITEM NO.: 001
CUSTOMER ORDER NO.: NM-247113
CUSTOMER ITEM NO.: 001

CERTIFICATE OF AUTHORIZATION
NO. N-1877 EXPIRES: 9/30/92

CERTIFICATE OF COMPLIANCE

The Crosby Valve & Gage Company hereby certifies that

Part Disc Assy, Part No. K57212,

Serial No. (if applicable) K57212-42-0014, meets the

requirements of the Customer Purchase Order, Item Description,

Material Specification, Customer Specification, applicable Code

Edition and Addenda, Class, applicable drawing; and that all

required tests, and inspections, have been performed; and the item

is interchangeable with the same item supplied in the original

equipment. Edison Original P. O. No. 1E-87808.

Applicable Code

ASME Section III 1971 Edition Summer 1972 Addenda, Class 2



Kymne Karczew
Crosby QA Records Specialist

March 21, 1991
Date

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

01-004

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>11/29/01</u> Sheet <u>1</u> of <u>2</u> Unit <u>2</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	DECo Maintenance Repair Organization P.O. No., Job No., etc.
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>(N5-J120-N5-1) Control Rod Drive System</u>	

5. (a) Applicable Construction Code ASME III, Class 1 19 71 Edition W'71 Addenda. N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992--W'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)
CRD Housing Bolting	RCI	N5-J120-N5-1	N/A	See Matrix	N/A	Replacement	No
Control Rod Drive Mechanism	General Electric	See Matrix	N/A	See Matrix	Unk.	Replacement	Yes

7. Description of Work Replaced Control Rod Drive Mechanisms at various locations and installed Replacement cap screws & exchanged CRD Bolting (cap screws) on various drives.

8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
 Other ☒ Pressure _____ psi Test Temp. _____ °F (VT-1 Examination)

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 Exchanged existing CRD cap screws, installed replacement cap screws and replaced Control Rod Drive Mechanisms at selected locations during RF08 (see attached matrix).

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 Report N5-J120-N5-1 to be supplemented by the owners Section XI program 01-004

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] LEAD TEST ENGINEER Date November 29, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period OCT. 27, 2001 to NOV. 29, 2001, 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.

[Signature] Inspector's Signature Commission NB9486 NIASRIS MICHIGAN
National Board, State, Province, and Endorsements
Date Nov. 29 20 01

(10 34)

For complete work package, see Work Requests in ATTACHED MATRIX RF08-2401

NIS-2 Attachment for Section XI Program No. 01-004 - RF08 CRDM EXCHANGE

- Replacement bolting (Cap Screws) were replaced in addition to the refurbished drive mechanism. Two (2) new cap screws were installed on each drive worked during RF-08. Replacement cap screws for sequence numbers 1 through 19 were procured per P.O. #295084, Marking "B7". Replacement cap screws for sequence 20 through 24 were procured per P.O. #363784, Marking "B7-SRK-2". Six (6) of the original cap screws at each of the CRDM locations were reused.
- The Work Request for 18-47 removes the drive, replaces the CRDM flange O-rings, then reinstalls the same drive mechanism (Serial Number 6334).
- New serial numbers are based on installation locations requested on 10/19/01 and were verified during installation.

Sequence	CRDM	Old Serial No.	New Serial No.	Exchange WR	CRDM Location
1	34-35	4558	4100	000Z991676	C1102D153
2	38-35	4524	4296	000Z991705	C1102D169
3	42-35	4580	3521	000Z991690	C1102D170
4	50-39	3180	6388	000Z991686	C1102D151
5	38-31	3931	3163	000Z003982	C1102D163
6	46-27	4362	6199	000Z991693	C1102D101
7	42-27	4508	6316	000Z003988	C1102D102
8	42-11	4408	4182	000Z003996	C1102D141
9	34-03	4512	5266	000Z991682	C1102D093
10	30-11	4006	5994	000Z991695	C1102D185
11	30-27	4307	4599	000Z003998	C1102D127
12	22-07	3954	4771	000Z991699	C1102D023
13	30-43	4092	3966	000Z975643	C1102D115
14	26-47	4511	4588	000Z003985	C1102D043
15	18-59	4569	6321	000Z991678	C1102D008
16	22-43	4526	4291	000Z991680	C1102D038
17	18-47	N/A	N/A	000Z003926	C1102D036
18	10-51	3152	6382	000Z991703	C1102D040
19	06-43	4406	6508	000Z991688	C1102D050
20	14-31	3528	3170	000Z003994	C1102D088
21	18-27	6475	5963	000Z991701	C1102D015
22	22-27	6412	4324	000Z991667	C1102D014
23	18-23	4590	6115	000Z991697	C1102D031
24	10-19	3339	2530	000Z991684	C1102D073

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

01-005

1. Owner Detroit Edison Company Date 1/24/02
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
4. Identification of System NA - Spare Valve
- ASME III
- 5 (a) Applicable Construction Code Class 1 19 71 Edition W '71 Addenda. 1388-2 Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Spare Valve 480-4224	William Powell	96367-2	N A	V30-0131	1995	Replacement	Y

7. Description of Work Replace bonnet on spare valve
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
 Other ☒ Pressure _____ ps 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 Original bonnet removed and installed on E5150F007 per Section XI 00-029. Valve V30-0131, Serial 96367-2, procured per
PO 275070 Valve Bonnet, Seral No. CM8892B procured per PO# 351112 (Data reports 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 for valve to be supplemented by Owners Section XI Program 01-005

Certificate of Authorization No. _____ Expiration Date _____

Signed [Signature] Date JANUARY 29, 2002
 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 H S B CT of
One State Street, Hartford, CT 06102 have inspected the components described
 in this Owner's Report during the period DEC. 27, 2001 to JAN. 29, 2002 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.

[Signature] Inspector's Signature Commissions NB94486 NIASBIS MT610
 National Board, State, Province, and Endorsements
 Date JAN 29 20 02

(1282)

For complete work package, see Work Request 0002001345

1. Manufactured by The W. Ponsell Co., 3233 Caterin Ave., Cincinnati, OH 45202
 (Name and Address of Manufacturer)
 2. Manufactured for Detroit Edison Co., P.O. Box 1659, Detroit, MI 45231
 (Name and Address of Purchaser or Owner)
 3. Location of Installation EF 2 Site, 5400 Dixie Hwy, Newport, RI 04816
 (Name and Address)
 4. Pump or Valve Gate Valve Nominal Inlet Size 4 Outlet Size 4
 (Inch) (Inch)

	(a) Model No. (Serial No. or Type)	(b) Manufacturer's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Mark No.	(g) Date
(1)	E1g 190234E	96367-2	N/A	061493 Re: 0	1	N/A	1978
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

Mark No. V30-0131

(Brief description of service for which equipment was designed)

6. Design Conditions 1250 psi 575 °F or Valve Pressure Class 150
 (Pressure) (Temperature)
 7. Cold Working Pressure 2160 psi at 100°F.
 8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Body CM 82918	ASME SA216 Gr. WCB	American Foundry	
Heat D3602	(special)	Tulsa, OK	
Disc CM 82988	ASME SA216 Gr. WCB	American Foundry	
Heat A0354	(special)	Tulsa, OK	
(b) Forgings			
Bonnet CM 82298	ASME SA105 Gr. 2	Galt Forge	
Heat T0212	(special)	Cambridge, Ontario	
Stem CM 82508	ASTM A564 Type 630	Galt Forge	
Heat H8664	Cond H1075 (special)	Cambridge, Ontario	
Seg. T. Ring CM 83888	ASTM A564 Type 630	Galt Forge	
Heat ZVA36027	Cond H1075 (special)	Cambridge, Ontario	

(1. For manually operated valves only.)

* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

(R&M/77)

This form (860087) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y.

Report No.

(a) Building

Material Spec. No.

Remarks

Stud CM 82158

ASME SA193 Gr. B7

Vitco Inc.

Heat 8095383

Mentor, OH

Code A11

Stud CM 84758

ASME SA194 Gr. 2H

Texas Bell Co.

Heat 146048

Houston, TX

Code P52

Capstud CM 84348

ASME SA193 Gr. B7

Vitco Inc.

Heat 8076061

Mentor, OH

Code A31

(a) Other Parts

B. Hydrostatic test 3250 psi. Disk Differential test pressure 2200 psi.

CERTIFICATE OF COMPLIANCE

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. 1 Ed. on 1971

Addenda Winter 71 Code Case No. 1388-2Date June 16, 1993Signed The Wm. Powell Co.

(a) Certificate Holder

by Robert L. ...Our ASME Certificate of Authorization No. N1578

to use the

N

symbol expires

12/23/97

(b) Date

CERTIFICATION OF DESIGN

Design information on file at The Wm. Powell Co., Plant 2, Cincinnati, Ohio 45225Stress analysis report (Class 1 only) on file at John Powell Co., Cincinnati, Ohio 45225Design specifications certified by (1) Sylvester H. Noetzelat State Mich. Reg. No. 14386Stress analysis certified by (1) Jim Hengstholdat State Ohio Reg. No. 48592

(1) Signature not required. List name only.



CERTIFICATE OF SHOP 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 Ohio and employed by H.S.B.I. & Co.

of Hartford, CT have inspected the pump, or valve, described in this Data Report on June 16, 1993, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, 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 equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date June 16, 1993

Commissioner Robert H. ... Ohio (Part III, Blank, Print and Sign)

1 (a) Manufactured by The Wm. Powell Company, 3233 Colerain Avenue, Cincinnati, OH 45225
(Name and address of NPT Certificate Holder)

NIS-2 P&C

#01-005

SHEET 3 of 3

(b) Manufactured for Detroit Edison, 6400 Dixie Highway, Newport, MI 48166
(Name and address of N Certificate Holder for completed nuclear components)

2. Identification Certificate Holder's Serial No. Part CM 8892B Nat'l Bd No. N/A CRN No. N/A
(a) Constructed According to Drawing No. P/N 26-139879-19510-34 Drawing Prepared by The Wm. Powell Company
(b) Description of Part Inspected 1 - Bonnet for 4" Figure 19023WE Gate Valve
(c) Applicable ASME Code Section III, Edition 1971 Addenda date Winter 71 Case No. N/A Class 1
3. Remarks Tag: V30-0130
(Brief description of service for which component was designed.)



Item 4-8 inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers

4. Shell Material TS (Kind & Spec. No.) (Min. or range specified) Nom. Thk. in Corr. Allow. in Diam. ft. Length ft. in
5. Seams Long HT RT Efficiency %
Girth HT RT No. of Courses
6. Heads (a) Material TS (b) Material TS
Location: Top, Bottom, End Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diam. Side to Pressure (convex or concave)
(a)
(b)
If removable bolts used Material Spec. No. TS Size Numbers Other fastening (Describe or attach sketch)
7. Jacket Closure (Describe as above and add details of design dimensions if needed; describe or sketch)
8. (a) Design Pressure psia (b) Min. Pressure Test Temp. F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets Stationary Material TS (Kind & Spec. No.) Diam. in Thk. in Attachment (Welded bolted)
Floating Material TS (Kind & Spec. No.) Diam. in Thk. in Attachment
10. Tubes Material TS O.D. in Thk. in A or gage Number Type (Straight or U)

Items 11-14 inclusive to be completed for inner chambers of jacketed vessels or channels of heat exchangers

11. Shell Material TS (Kind & Spec. No.) (Min. or range specified) Nom. Thk. in Corr. Allow. in Diam. ft. Length ft. in
12. Seams Long HT RT Efficiency %
Girth HT RT No. of Courses
13. Heads (a) Material TS (b) Material TS
Location: Top, Bottom, End Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diam. Side to Pressure (convex or concave)
(a) Top/bottom ends
(b) Channel
If removable bolts used (a) (b) (c) Other fastening (Describe or attach sketch)
14. (a) Design Pressure psia (b) Min. Pressure Test Temp. F

* If postweld heat treated. † List other internal or external pressures with correspondent temperature when applicable.

* 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 and 2 of this Data Report is included on each sheet; and (3) each sheet is numbered and number of sheets is recorded in item 3, Remarks.

(12/80)

This form (E000401) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets. Number _____ Size _____ Location _____

16. Nozzles

Purpose (Inlet, outlet, drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes No _____ Size _____ Location _____

Openings Handholes No _____ Size _____ Location _____

Threaded No _____ Size _____ Location _____

18. Supports Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____ (where & how)

(Type or No.) (Number) (Number) (Describe)

We certify that the statements made 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 Design Specification and Design Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Design Report if the appurtenance is not included in the component Design Specification and Design Report.)

Date March 23 2001 Signed The Wm. Powell Co. By [Signature]
(NPT Certificate Holder)

Certificate of Authorization Expires 5/25/01 Certificate of Authorization No. N1579

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at _____

Stress analysis report on file at _____

Design specifications certified by _____ Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by _____ Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP 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 OHIO and employed by H.S.B.I. & I Co.

of Hartford, CT have inspected the part of a pressure vessel described in this Partial Data Report on March 27 and state that, to the best of my knowledge and belief, the NPT Certificate Holder has constructed it 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 this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-27 2001

Inspector's Signature [Signature] Commission No. NB10547N Ohio Comm. [Signature]
National Board State, Province and No.

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

01-006A

1. Owner Detroit Edison Company Date 12/6/01
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Sheet 1 of 1
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Unit 2
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
4. Identification of System N5-094 Residual Heat Removal (LPCI) Division 1
5. (a) Applicable Construction Code ASME III, Class 1 19 71 Edition W'71 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
E1100F050A	Anchor Darling	IN-069	N/A	V8-2163	1974	Replacement	Y

7. Description of Work Install replacement bolting material on valve bonnet as directed by maintenance.
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
 Other ☐ Pressure _____ ps. 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

Form NIS-2 (Back)

9. Remarks Replaced bonnet booting as follows:

(4) - 1-1/4 - 8UN-2A X 6 studs, SA 193-GR B7, Heat # 79450, PO #739671

(4) - 1-1/4 - 8UN-2A X 7 studs, SA 193-GR B7, Heat #B31653, PO #194688

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 (N5-094) to be supplemented by owners section XI Program 01-006A.

Certificate of Authorization No. N/A Expiration Date N/A

Signed PM H. H. H. H. H. LEAD IST 005 Date December 11, 20 01
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Oct. 27, 2001 to Dec. 11, 2001, 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

Paul W. W. Commissions NB 9486 NIASRTS MT610
Inspector's Signature National Board, State, Province, and Endorsements
Date Dec 11 20 01

(12/82)

For complete work package, see Work Request 000Z002030

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

01-006A

1. Owner Detroit Edison Company Date 12-6-01
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Sheet 1 of 2
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Unit 2
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
4. Identification of System Spare disc - stock code 489-0664, PO # 279604
5. (a) Applicable Construction Code ASME III, Class I 19 80 Edition S '82 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
24" Disc 489-0664	Anchor Darling	1	N/A	SPARE	1993	Replacement	Y

7. Description of Work Modify disc by the installation of anti-rotation lugs (Ref. EDP 11460).
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Liquid Penetrant ☒
 Other ☒ Pressure _____ ps 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

Form NIS-2 (Back)

9. Remarks Replacement disc procured per PO #NM-279604, Heat #C1788.

SA-105

(2) Anti-rotation lugs - PO #357114, SA 516-GR 70, 1" Thick Ht # E02444

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 Reports from vendor to be supplemented by owners Section XI Program 01-006A.

Certificate of Authorization No. N/A Expiration Date N/A

Signed Rm [Signature] LEAD IST ENGINEER Date December 11, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Sept 4, 2001 to Dec 11, 2001, 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.

[Signature] Commissions NB9486 NIASBIS NCB10
Inspector's Signature National Board, State, Province, and Endorsements

Date Dec 11 20 01

(12/82)

For complete work package, see Work Request 000Z002030

FORM N-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES

As required by the Provisions of the ASME Code Rules, Section III, Div. 1

NJS-2 01-006A
 PD# 279604
 STK NO
 489-0664
 SHEET 2 of 2

1. (a) Manufactured by Anchor/Darling Valve Co., 701 First St., Williamsport, PA 17701
(Name and address of NPT Certificate Holder)
 (b) Manufactured for Detroit Edison, P.O. Box 1659, Detroit, MI 48231
(Name and address of NPT Certificate Holder for component nuclear component)

2. Identification-Certificate Holder's Serial No. of Part 1 Next Ed. No. N/A

(a) Component According to Drawing No. D11726 R/A Drawing Prepared by Anchor/Darling Valve Company

(b) Description of Part Inspected Disc, Heat No. C1788 Material: SA105

(c) Applicable ASME Code Section III, Edition 1980, Addenda date Sum '82, Case No. ---, Class 1

3. Remarks: Spare Part for 24"-900#-Exercisable Swing Check Valve, Dwg. 2229-3, Rev. M
(Brief description of service for which component was designed)
S.O. E3039-1; SJO 3020-5, -6; Detroit Edison P.O. NO-279604;
A/DV S.O. P-W102-1
N: Hydro Performed

We certify that the statements made 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 Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for providing a complete Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date 3-6-93 Signed Anchor/Darling Valve Co., *W. H. Larson*
NPT Certificate Holder
 Certificate of Authorization Expires 4/15/95 Certificate of Authorization No. N1713

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file as _____

Stress analysis report on file as _____

Design specifications certified by _____ Prof. Reg. State _____ Reg. No. _____

Stress analysis report as filed by _____ Prof. Reg. State _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Pennsylvania and employed by Commercial Union Insurance Company of Boston, Mass. have inspected the part of a pressure vessel described in this Partial Data Report on 3-2-93 and 3-4-93 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 this Partial Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-9-93
Charles Young
 Charles Young

Commission Pennsylvania 2392
 National Board, State, Province and Co.

Registration, renewal or loss of commission of inspectors due to non-payment of fees is the responsibility of the holder of the commission. The National Board of Boiler and Pressure Vessel Inspectors is not responsible for the actions of its members.

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

01-006B

1. Owner Detroit Edison Company Date 12/6/01
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Sheet 1 of 1
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Unit 2
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
4. Identification of System N5-0312 residual heat removal (LPC1) Div. 2.
5. (a) Applicable Construction Code ASME III, Class 1 19 71 Edition W '71 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
E1100F050B	Anchor Darling	IN-077	N/A	V8-2164	1974	Replacement	Y

7. Description of Work Install replacement bolting on valve bonnet as directed by maintenance.
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nomina. 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 Replaced bonnet bolting as follows:

4 - 1-1/4" - 8UN-2A X 6" studs, SA193-GR B7, Heat #79450, PO #739671

3 - 1-1/4" - 8UN-2A X 7" studs, SA193-GR B7, Heat #79450, PO #739671

1 - 1-1/4" - 8UN-2A X 7" studs, SA193-GR B7, Heat #B31653, PO #739671

8 - 1-1/4" - 8UN-2B nuts, SA P4GR, Heat #RH98, PO #739661

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 (N5-0312) to be supplemented by owners section XI program 01-006B.

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Lead ISI Engineer Date December 11, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Sept. 4, 2001 to Dec. 11, 2001, 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.

[Signature] Commissions NB 9484 NIASBIS NIGIO
Inspector's Signature National Board, State, Province, and Endorsements
Date Dec. 11 20 01

(12/82)

For complete work package, see Work Request: 000Z002031

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

01-006B

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>12-6-01</u> Sheet <u>1</u> of <u>2</u> Unit <u>2</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	DECo Maintenance Repair Organization P.O. No., Job No., etc.
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>Spare disc – stock code 489-0664, PO #351655</u>	

5. (a) Applicable Construction Code ASME III, Class 1 19 80 Edition S '82 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
24" Disc 489-0664	Flowserve FCD	2	N/A	SPARE	2001	Replacement	Y

7. Description of Work Modify disc by the installation of anti-rotation lugs (Ref. EDP-10893).
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Liquid Penetrant ☒
 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

Form NIS-2 (Back)

9. Remarks Replacement disc procured per PO #NM-357655, Heat #44460, SA105

(2) Anti-rotation lugs - PO #357114, SA 516-GR70, 1" thick, Heat #E02444.

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 Reports from vendor to be supplemented by owners Section XI Program 01-006B.

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Date December 11, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Sept. 4, 2001 to Dec. 11, 2001, 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.

[Signature] Commissions NB 9486 NIASBIS NISG10
Inspector's Signature National Board, State, Province, and Endorsements
Date Dec 11 20 01

(12/82)

For complete work package, see Work Request 000Z002031

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* NIS-2 FOR

As required by the Provision of the ASME Code Rules, Section III, Div. 1

PD # 351655

STK NO 48A-066H

1. (a) Manufactured by Flowserve Corporation, 701 First Street, Williamsport, PA 17701 01-006B
(Please add address of NPT Certificate Holder) 2 of 2
- (b) Manufactured for Detroit Edison, P.O. Box 1659, Detroit, MI 48231
(Name and address of NPT Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. of Part 2 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No. D11726 R/A Drawing Prepared by Flowserve Corp. ✓
- (b) Description of Part Inspected Swing Check Disc w/Stellite less Res. Seat, Ht. #H4460 SA105 ✓
- (c) Applicable ASME Code: Section III, Edition 1980, Addenda date Summer '82, Case No. N/A Class 1
3. Remarks: Spare Part(s) for 24"-900# Swing Check Valve (without Resilient Seat) ✓
(Brief description of service for which component was designed)
- Flowserve S.O. and Item No: P932G-1

NOTE: No Hydrotesting Performed

Enrico Fermi 2 Site

We certify that the statements made 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 Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a schematic Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date 7/30/2001 Signed Flowserve Corporation By [Signature]
(NPT Certificate Holder)

Certificate of Authorization Expires 4/15/04 Certificate of Authorization No. N1713

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at _____

Stress analysis report on file at _____


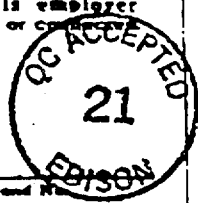
Design specifications certified by _____ Prof. Eng. Seal _____ Reg. No. _____

Stress analysis report certified by _____ Prof. Eng. Seal _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Pennsylvania and employed by Commercial Union Insurance Company of Boston, Mass. have inspected the part of a pressure vessel described in this Partial Data Report on 7-116-01 thru 7-3001 19____ 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 this Partial Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 7-30-01  Charles Young 
Inspector's Signature Commission Pennsylvania 2392
National Board, State, Province and Country

*Supplemental sheets in form of lists, drawings or diagrams may be used provided (1) each is 8 1/2" x 11", (2) information on items 1-2 on this Data Report is attached to each sheet, and (3) each sheet is numbered and includes a listing of sheets in Part 2. "Remarks".

01-007

6. Identification of Components Repaired or Replaced and Replacement Components

7 Description of Work Replace existing Steam Line "A" Constant Supports N30-3258-G07 and G08 in RB/AB Steam Tunnel

8 Tests Conducted ** Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Pressure _____ ps Test Temp. _____ °F

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

Form NIS-2 (Back)

9. Remarks As a result of the evaluation done by DECo engineering per CARD 00-20908, Steam Line 'A' Constant Supports N30-3258-G07 and G08 were replaced per WR# 000Z003887. Replacement supports procured on PO# 351263
Applicable Manufacturer's Data Reports to be attached

N30-3258-G07 - Bergen Power Size 914, S/N 010611

N30-3258-G08 - Bergen Power Size 916, S/N 010612

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: Construction records for Steam Line 'A' Constant Supports N30-3258-G07 and G08 to be supplemented by owners Section XI Program, No. 01-007 and WR# 000Z003887

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] LOW ISF ENGINEER Date NOVEMBER 27, 2001
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Michigan and employed by H. S. B. I. & I. Co of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period OCT 27, 2001 to NOV. 29, 2001, 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 loss of any kind arising from or connected with this inspection.

[Signature] Commission NB9486 NIASBIS NIG13
Inspector's Signature National Board, State, Province, and Endorsements

Date Nov 29 20 01

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

01-008

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>December 3, 2001</u> Sheet <u>1</u> of <u>8</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Unit <u>2</u> <u>DECo Maintenance</u> Repair Organization P.O. No., Job No., etc.
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>Various Component Supports (Mechanical Snubbers)</u>	
5. (a) Applicable Construction Code <u>ANSI B31.7</u> 19 69 Articles <u>1-720 & 1-721</u> (b) Applicable Edition of Section XI Utilized for Repairs or Replacements <u>ANSI B31.1</u> 19 67 Article <u>121</u> <u>1992-W'92</u>	

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

7. Description of Work	<u>Refurbish Mechanical Snubbers for future installation</u>
8. Tests Conducted	Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Minimum Operating Pressure <input type="checkbox"/> Other <input checked="" type="checkbox"/> Pressure Test Temp _____ °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.

Form NIS-2 (Back)

9. Remarks Attached are listings of Mechanical Snubbers that were refurbished and changed out during testing activities during RF08

Applicable Manufacturer's Data Reports to be attached

Note that shaded snubbers are Non-Safety Related. In addition, a listing of the Mechanical Snubbers that were refurbished prior to RF08

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

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp Original Code Data Reports to be supplemented by owners Section XI Program No. 01-008.

Certificate of Authorization No. N/A Expiration Date N/A

Signed Richard M. Wallen Lead ISI Engineer Date January 15th 2002
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State
of 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 April 15, 2001 to Jan 15, 2002, 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 loss of any kind arising from or connected with this
inspection.

Inspector's Signature VB 9486 VIASRTS MI 10
National Board, State, Province, and Endorsements
Date Jan 15 2002

11262

For complete work package, see Work Request: A446010101

A446010101 (No records were performed per this Work Request)

Snubbers Replaced with Rebuilt Spares

Sheet 2 of 8

Snubber Number	Old Serial Number	New Serial Number
B21-2187-G81	12685	12710
B21-2594-G10	9890	7015
B21-4093-G06	8334	10356
B21-7195-G01B	12758	22414
B21-E213-SSB2	6178	8981
B21-E213-SSB5	4721	9895
B31-5239-G06	6827	13198
B31-E215-SSA5	4716	11274
B31-E215-SSB6	9854	8707
C41-2340-G17	8460	13171
E11-2299-G05	12748	22363
E11-3151-G33	8345	8954
E11-3154-G13	8356	8953
E11-3157-G16	9892	8729
E11-3160-G16	12445	12434
E11-3184-G24	20972	20989
E11-4004-G22	22456	12992
E21-3053-G04	10349	6179
E41-3162-G24	9014	12777
E41-3172-G19	10355	10357
E41-5256-G02	12744	22372
G11-3659-G46	18656	23163
G33-3245-G49B	23166	23172
G51-4055-G20	15287	20979
N21-3131-G33	9021	8328
N21-3131-G38	8951	9005
N21-3536-G34	11287	9904
N21-3536-G36	10330	10350
N21-3537-G26A	9896	7010
N21-3537-G32	10343	8327
N30-0181-S1A	12446	20980
N30-0181-S1B	12450	15284
N30-0181-S1C	12451	20967
N30-0181-S1D	20977	12453
N30-2186-G11	22387	12739
N30-2186-G18	8478	13128
N30-3259-G22	9849	8721
N30-3259-G44	9884	9862
N30-3259-G48	8735	8742
N30-3259-G54	1579	1585
N30-3259-G56	2008	2007
N30-3259-G78	8744	4719
N30-3526-G53	22458	19909

Snubbers Replaced with Rebuilt Spares

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Sheet 3 of 8

Snubber Number	Old Serial Number	New Serial Number
N30-3526-G54	16236	16235
P34-7405-G05	12673	11975
P50-2163-G15A	22418	12759
T23-I2837-36-G54	22400	12708
T23-I2837-41-G02B	19580	23168
T23-I2837-41-G10B	13169	8464
T23-I2837-42-G23A	19926	12674
T23-I2837-45-G19	13131	13206
T23-I2837-46-G78	13156	13122
T23-I2837-48-G08B	19917	19903
T23-I2837-51-G43	12766	19915
T23-I2837-51-G61	8510	13201
T48-4062-G01	22405	12683
T48-5314-G05	19908	22388
T71-I2837-63-G20	8489	13189
T71-I2837-64-G51	13109	13134

Snubber Refurbishment Inventory

Safety Related Mechanical Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
1585	N30-3259 G54	PSA 100	A498010100	Ball (0.872) Ball (0.874) Locking Washer Cotter Pin
9862	N30-3259 G44	PSA 35	A498010100	Ball (0.624) Ball (0.622) Locking Washer Cotter Pin
8742	N30-3259 G48	PSA 35	A498010100	Ball (0.624) Ball (0.622) Setscrew Locking Washer Cotter Pin Thrust Bearing Assembly Recirculating Shaft
8729	E11-3157 G16	PSA 35	A498010100	Ball (0.624) Ball (0.622) Setscrew Locking Washer Cotter Pin

Sheet 4 of 8
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Snubber Refurbishment Inventory

Spare Mechanical Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
9847	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Cotter Pin Locking Washer
4708	Spare	PSA 35	A498010100	Filister Head Screw Ball (0.624) Ball (0.622) Setscrew Cotter Pin Locking Washer
7013	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Setscrew Locking Washer
7016	Spare	PSA 35	A498010100	Cotter Pin Ball (0.624) Ball (0.622) Locking Washer
7021	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Setscrew Cotter Pin Locking Washer Ring Gear from Serial number 7009
8708	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Setscrew Locking Washer Cotter Pin
8731	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Setscrew Locking Washer Cotter Pin

Snubber Refurbishment Inventory

Spare Mechanical Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
8748	Spare	PSA 35	A498010100	Filister Head Screw Cotter Pin Thrust Bearing Assembly Recirculating Shaft Setscrew Locking Washer
9843	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Filister Head Screw Locking Washer Cotter Pin Recirculating Shaft
9848	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Filister Head Screw Locking Washer Cotter Pin Thrust Bearing Assembly Recirculating Bearing Assembly
9850	Spare	PSA 35	A498010100	Recirculating Bearing Assembly Thrust Bearing Assembly Ball (0.624) Ball (0.622) Locking Washer Cotter Pin
9861	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Locking Washer Cotter Pin Thrust Bearing Assembly Recirculating Bearing Assembly
11281	Spare	PSA 35	A498010100	Ball (0.624) Ball (0.622) Locking Washer Cotter Pin Thrust Bearing Assembly Recirculating Bearing Assembly Housing from serial number 7009

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 Sheet 6 of 8

Snubber Refurbishment Inventory

Spare Mechanical Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
12977	Spare	PSA 1/4	A498010100	Retaining Ring Capstan Spring Rod and Bearing Assembly Torque Carrier and Shaft Assembly
19933	Spare	PSA 1/4	A498010100	Anti-rotation key Retaining Ring
13190	Spare	PSA 1/2	A498010100	Anti Rotation Key Washer Retaining Ring Rod and Bearing Assembly
12724	Spare	PSA 1/4	A498010100	Capstan Spring Retaining Ring Washer
12738	Spare	PSA 1/4	A498010100	Torque Carrier and Shaft Assembly Washer Retaining Ring
19907	Spare	PSA 1/4	A498010100	Capstan Spring Torque Carrier and Shaft Assembly Retaining Ring
22430	Spare	PSA 1/4	A498010100	Retaining Ring Rod and Bearing Assembly
21954	Spare	PSA 1	A498010100	Thrust Bearing Kit Retaining Ring Washer Machine Screw
12435	Spare	PSA 3	A498010100	Thrust Bearing Kit Retaining Ring Machine Key Keeper Ring Bearing Screw Assembly
12447	Spare	PSA 3	A498010100	Screw Assembly Retaining Ring
12448	Spare	PSA 3	A498010100	Screw Assembly Retaining Ring

Snubber Refurbishment Inventory

Spare Mechanical Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
9019	Spare	PSA 10	A498010100	Thrust Bearing Assembly Filister Head Screw Retaining Ring Washer
8985	Spare	PSA 10	A498010100	Filister Head Screw Thrust Bearing Assembly Retaining Ring
10345	Spare	PSA 10	A498010100	Thrust Bearing Assembly Filister Head Screw Retaining Ring
8342	Spare	PSA 10	A498010100	Retaining Ring Thrust Bearing Assembly Filister Head Screw
8959	Spare	PSA 10	A498010100	Retaining Ring Thrust Bearing Assembly Filister Head Screw
8961	Spare	PSA 10	A498010100	Filister Head Screw Washer Retaining Ring Thrust Bearing Assembly

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

01-009

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>December 3, 2001</u> Sheet <u>1</u> of <u>11</u> Unit <u>2</u> <u>DECo Maintenance</u> Repair Organization P.O. No., Job No., etc Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	
4. Identification of System <u>Various Component Supports (Hydraulic Snubbers)</u>	
5. (a) Applicable Construction Code <u>ANSI B31.7</u> 19 69 Articles <u>1-720 & 1-721</u> (b) Applicable Edition of Section XI Utilized for Repairs or Replacements <u>ANSI B31.1</u> 19 67 Article <u>121</u> <u>1992-W'92</u>	

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 HYDRAULIC SNUBBERS	Power Piping	Various	NA	NONE	Various	REPLACEMENTS	N

7. Description of Work Refurbish Hydraulic Snubbers during testing activities and for future installation

8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Normal Operating Pressure ☐
 Other ☒ Pressure _____ ps Test Temp _____ °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.

Form NIS-2 (Back)

9. Remarks Attached are listings of Hydraulic Snubbers that were refurbished and changed out during testing activities during RF08.
Applicable Manufacturer's Data Reports to be attached

Note that shaded snubbers are Non-Safety Related. In addition, a listing of the Hydraulic Snubbers that were refurbished prior to RF08 including
a listing of parts installed. Documentation satisfies requirements of Code Case N-508-1 as allowed by Relief Request RR-C4.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp Original Code Data Reports to be supplemented by owners Section XI Program No. 01-009

Certificate of Authorization No. N/A Expiration Date N/A

Signed Richard M. [Signature] Lead ISI Eng Date January 15th 20 02
 Owner or Owner's Designee Title

CERTIFICATE OF INSERVICE INSPECTION

The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State
 of 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 May 25, 2001 to Jan 15, 2002, 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.

[Signature] Commission NB9486 NIASBIS MI410
 Inspector's Signature National Board, State, Province, and Endorsements

Date Jan 15 20 02

11262

For complete work package, see Work Request A43701000
A51451000

Snubbers Replaced with Rebuilt Spares

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Sheet 2 of 11

Snubber Number	Old Serial Number	New Serial Number
E11-3151-G32	820218	820200
E11-3152-G20	820202	820132
E11-3152-G21	820220	830043
E11-3152-G29A	830040	820195
E11-3157-G15	810090	820224
E11-3158-G22	810215	820104
E11-3159-G11	830024	810204
E11-3160-G18	810222	820103
E11-3184-G07A	810138	810212
E11-3185-G22	810199	810148
E11-3185-G41	810097	810086
E11-3185-G48	810175	820228
E11-3185-G51	810213	810153
E11-4611-G14	810210	820119
E11-4612-G04A	810163	810173
E21-3144-G30	810209	820181
E21-3145-G08	810151	810206
E21-3145-G17	810102	810050
E21-3147-G28	820068	820122
E21-3147-G29	810053	810079
E21-3147-G30	810197	810149
E41-3162-G22	820112	820113
E41-3163-G18	810220	810229
E41-3165-G18	820078	820156
E41-3165-G26	820168	820094
E41-3172-G12	810047	810187
E51-3174-G21	820117	820186
E51-3174-G34	810061	820159
E51-3175-G06	810157	810029
E51-3175-G07	810156	820180
T46-3093-G15A	820189	810133

Snubbers Rebuilt and Re-installed

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Sheet 3 of 11

Snubber Number	Serial Number
E51-3175-G24	810144
E11-3146-G17B	830047
T46-3093-G15B	820190
N21-3109-G65A	820053
N21-3109-G65B	820109
N21-3109-G66A	820197
N21-3109-G66B	820206
N21-3109-G71B	820199
N21-3109-G76	810056
N21-3109-G77A	830042
N21-3109-G77B	820250

Snubber Refurbishment Inventory

Safety Related Hydraulic Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
820094	E41-3165-G26	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810187	E41-3172-G12	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings Connectors
810173	E11-4612-G04A	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810050	E21-3145-G17	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Flat and Angle Bar Front and Back Ferrule 1/4" SS tubing Cylinder Tube
820228	E11-3185-G18	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
820159	E51-3174-G34	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings Sightgauge Assembly
820156	E41-3165-G18	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
820122	E21-3147-G28	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings

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Snubber Refurbishment Inventory

Safety Related Hydraulic Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
820186	E51-3174-G21	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle Bar Front and Back Ferrule ¼" SS tubing
820180	E51-3175-G07	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cylinder Tube
820119	E11-4611-G14	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle Bar
820113	E41-3162-G22	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings
820181	E21-3144-G30	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cylinder Tube
810212	E11-3184-G07A	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810206	E21-3145-G08	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810204	E11-3159-G11	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings

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Snubber Refurbishment Inventory

Safety Related Hydraulic Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
810153	E11-3185-G51	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle Bar Front and Back Ferrule 1/4" SS tubing
810149	E21-3147-G30	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle Bar Front and Back Ferrule 1/4" SS tubing Cylinder Tube
810148	E11-3185-G22	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810079	E21-3147-G29	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings Poppet
820132	E11-3152-G20	Power Piping 4 x 5	A497010100	Piston Rings Seal Kit O-Rings Front and Back Ferrule 1/4" SS Tubing
820195	E11-3152-G29A	Power Piping 4 x 5	A497010100	Piston Rings Seal Kit O-Rings
820224	E11-3157-G15	Power Piping 4 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle Bar Front and Back Ferrule 1/4" SS tubing

11-10-9 12:15
600-10 2-5-2
01-009

Snubber Refurbishment Inventory

Safety Related Hydraulic Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
830043	E11-3152-G21	Power Piping 4 x 5	A497010100	Piston Rings Seal Kit O-Rings
820200	E11-3151-G32	Power Piping 4 x 10	A497010100	Piston Rings Seal Kit O-Rings
810029	E51-3175-G06	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810086	E11-3185-G44	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810133	E46-3093-G15A	Power Piping 2 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810229	E41-3163-G18	Power Piping 2 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
820104	E11-3158-G22	Power Piping 2 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
820103	E11-3160-G18	Power Piping 2 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle and Flat Bar Front and Back Ferrule 1/4" SS tubing
810144	E51-3175-G24	Power Piping 2 x 5	A514010100	Piston Rings Seal Kit O-Rings
830047	E11-3146-G17B	Power Piping 5 x 5	A514010100	Piston Rings Seal Kit O-Rings

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 Sheet 7 of 11

Snubber Refurbishment Inventory

Safety Related Hydraulic Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
820190	E46 3093 G15B	Power Piping 2 1/2 x 5	A514010100	Piston Rings Seal Kit O-Rings Angle and Flat Bar Cap screws

Snubber Refurbishment Inventory

Spare Hydraulic Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
820173	Spare	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cylinder Tube
810135	Spare	Power Piping 2 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle and Flat Bar Front and Back Ferrule 1/4" SS tubing Rod Bearing
810016	Spare	Power Piping 2 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle and Flat Bar Front and Back Ferrule 1/4" SS tubing Rod Bearing
810037	Spare	Power Piping 2 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810048	Spare	Power Piping 2 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810049	Spare	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Angle and Flat Bar Front and Back Ferrule 1/4" SS tubing Rod Bearing
820179	Spare	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings

Snubber Refurbishment Inventory

Spare Hydraulic Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
820227	Spare	Power Piping 2 x 5	A497010100	Piston Rings Seal Kit O-Rings
820161	Spare	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810162	Spare	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings
810164	Spare	Power Piping 1 1/2 x 5	A497010100	Piston Rings Seal Kit O-Rings Cap Screws Flat and Angle Bar Front and Back Ferrule 1/4" SS tubing Piston Rod

Snubber Refurbishment Inventory

Non-Safety Related Hydraulic Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
820053	N21-3109-G65A	Power Piping 4 x 5	A514010100	Piston Rings Seal Kit O-Rings Cap Screws Flat and Angle Bar
820109	N21-3109-G65B	Power Piping 4 x 5	A514010100	Piston Rings Seal Kit O-Rings
820197	N21-3109-G66A	Power Piping 4 x 5	A514010100	Piston Rings Seal Kit O-Rings
820206	N21-3109-G66B	Power Piping 4 x 5	A514010100	Piston Rings Seal Kit O-Rings
820199	N21-3109-G71B	Power Piping 4 x 5	A514010100	Piston Rings Seal Kit O-Rings Cap Screws Flat and Angle Bar
810056	N21-3109-G76	Power Piping 4 x 5	A514010100	Piston Rings Seal Kit O-Rings
830042	N21-3109-G77A	Power Piping 4 x 5	A514010100	Piston Rings Seal Kit O-Rings
820250	N21-3109-G77B	Power Piping 4 x 5	A514010100	Piston Rings Seal Kit O-Rings

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

01-011

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>11/09/01</u> Sheet <u>1</u> of <u>2</u> Unit <u>2</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	DECo Maintenance Repair Organization P.O. No., Job No., etc.
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>N5-0261 and N5-294, Residual Heat Removal (RHR) South Heat Exchanger</u>	

5. (a) Applicable Construction Code ASME III, Class 2 19 71 Edition W'71 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
E1101B001B	FROMSON LTD.	70-756-A	1	RHR HEAT EXCH. DIV 2	1971	REPAIRED	Y

7. Description of Work Removed indication in stiffener plate by grinding and weld repaired the ground out area. MT examined both the removal area and final weld

8. Tests Conducted Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐
 Other X Pressure _____ psi Test Temp. _____ °F

Surface Exam – Magnetic Particle

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 Indication removed by grinding and ground out area weld repaired (Reference CARD 01-20653).
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. repair or replacement

Type Code Symbol Stamp: Original Code Data Reports (N5-261 and N5-294) to be supplemented by owners Section XI Program, No. 01-011

Certificate of Authorization No. N/A

Expiration Date N/A

Signed Richard M. Hall
Owner or Owner's Designee, Title

Date November 9, 2001

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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 11-02-01 to 11-14-01, 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.

[Signature]
 Inspector's Signature

Commissions NB3486 NEANSIS MICH
 National Board, State, Province, and Endorsements

Date Nov. 14 2001

(1282)

For complete work package, see Work Request 000Z013499

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

01-012

1. Owner Detroit Edison Company Date 11/27/01
 6400 North Dixie Highway, Newport MI 48166
 Name Address
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 6400 North Dixie Highway, Newport MI 48166
 Name Address
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Name Address Expiration Date N/A
4. Identification of System N5-0245, Nuclear Boiler System MainSteam Line 'D' Inboard Primary Containment Isolation Valve (A.O.)
5. (a) Applicable Construction Code ASME III, Class 1 19 71 Edition W'71 Addenda. N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
B2103F022D	Atwood & Morrill	5-682	N/A	V17-2004	1972	Repair / Replacement	Y

7. Description of Work Replaced 26" Poppet, (6) studs and (6) nuts and made a base metal repair of the body-to-cover seal weld removal area
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
 Other : Pressure _____ ps 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 Replaced 26" Poppet, (6) studs and (6) nuts and made base metal repair of the body-to-cover seal weld removal area
Applicable Manufacturer's Data Reports to be attached

(1) 26" Replacement Poppet, Heat Number 243921, P.O.# 342041-02, Stock Code 547-0306

(6) 2" Heavy Hex Nuts, Heat Number JBX, P.O. # 951605-01, Stock Code 482-5341

(4) 2"-8 UN - 2A Studs, Heat Number RNW, P.O.# 951606-01, Stock Code 489-9916

(2) 2"-2 1/4" Step Studs, Heat Number A294, P.O.# 368826-01, Stock Code 251-1347

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp Original Code Data Report (N5-0245) to be supplemented by owners Section XI Program, No. 01-012

Certificate of Authorization No. N/A Expiration Date N/A

Signed R. J. [Signature] LEAD IST INSPECTOR Date November 30, 20 01
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 H S B I & I Co of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 11-5-01 to 12-27-01 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.

[Signature] Commissions NB9480 NIASBES ME610
Inspector's Signature National Board, State, Province, and Endorsements

Date Dec 27 20 01

12.82

For complete work package, see Work Request: 000Z002042

**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**

*Corrected Copy

12/14/01
12/14/01

Pg. 1 of 2

1. Manufactured and certified by Atwood & Morrill Co., Inc., 285 Canal St., Salem, MA 01970
(Name and address of NPT Certificate Holder)
2. Manufactured for Detroit Edison, Detroit, MI 48226
(Name and address of Purchaser)
3. Location of installation Fermi 2 Nuclear Plant, Newport, MI 48166
(Name and address)
4. Type: *32467-622 Rev. 4 SA105 75,600 PSI N/A 1999
(drawing no.) (material spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1968 N/A -N/A *1 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks *Dwg, prepared by A&M. A&M S.O.W. 26560-01. (1) Poppet for Modified 26" MSIV on A&M Assy. Dwg. 21150-H-M Rev. 8. A&M P/N 32467-622-2974-121. This certification meets the requirements of ASME 1968 Pump & Valve Code. Material supplied to ASME 1974 Edition, No Addenda.
8. Nom. thickness (in.) 7.5 Min. design thickness (in.) 7.47 Dis. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

NIS-2
FOR
01-D12
SHEET 2 OF 2

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) HT. #243921	N/A	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 1250 psi Temp 575 °F Hydro. test pressure N/A at temp. °F
(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.

(12/88) This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

Reprint (7/91)

Certificate Holder's Serial Nos. HT. #243921 through _____

CERTIFICATION OF DESIGN

Design specifications certified by Boyd P. Brooks P.E. State CA Reg. no. 13655
(when applicable)Design report* certified by Herbert Cook P.E. State MA Reg. no. 10981
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Poppet
conforms to the rules of construction of the ASME Code, Section III, Division 1.NPT Certificate of Authorization No. N-2607 Expires 6-13-01Date 2/4/99 Name Atwood & Morrill Co., Inc. Signed Brian D. Sullivan
(NPT Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by H.S.B.I. & I. Co.of Hartford, CT have inspected these items described in this Data Report on FEB 4, 1999 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

Date 2/4/99 Signed William W. Wall Commissions MA-1337
(Authorized Inspector) (Not a B.I. Ins. endorsement) and state or prov. and no.

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

01-013

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>11/30/01</u> Sheet <u>1</u> of <u>2</u> Unit <u>2</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	DECo Maintenance Repair Organization P.O. No., Job No., etc.
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>N5-0245, Main Steam Line 'C' Outboard Primary Containment Isolation Valve (A.O.)</u>	
5. (a) Applicable Construction Code <u>ASME III, Class 1</u> <u>19</u> <u>71</u> Edition <u>W'71</u> Addenda. <u>N/A</u> Code Case (b) Applicable Edition of Section XI Utilized for Repairs or Replacements <u>1992-W'92</u>	

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)
B2103F028C	Atwood & Morrill	4-682	N/A	V17-2006	1972	Repair / Replacement	Y

7. Description of Work	<u>Machine to recenter valve body seating area and machine replacement poppet taken from B2103F022D per vendor direction</u>
8. Tests Conducted	Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Other : Pressure _____ ps 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

Form NIS-2 (Back)

9. Remarks Machine to recenter valve body seating area and machine replacement poppet taken from B2103F022D and installed in B2103F028C.

Applicable Manufacturer's Data Reports to be attached

(1) Poppet from B2103F022D, Atwood & Morrill, Heat Number 235032, SA-105, Class 1, Built 1989 (previously installed in B2103F028C per Section XI Program 89-022)

(1) Poppet from B2103F028C, Atwood & Morrill, Heat Number 243569, SA-105, Class 1, Built 1990 (Referb per CARD 01-20933 for future use)

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 (N5-0245) to be supplemented by owners Section XI Program, No. 01-013

Certificate of Authorization No. N/A Expiration Date N/A

Signed: [Signature] Date November 30, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period NOV. 3, 2001 to DEC. 3, 2001, 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.

[Signature] Commissions NB9486 NIASBIS MIG10
Inspector's Signature National Board, State, Province, and Endorsements

Date December 3, 2001

For complete work package, see Work Request 000Z002048

V17-2004 RO

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 ProductionNIS-2 FOR
B2103F028C
SHEET 2 OF 2
SECTION III-01-013

Pg. 1 of 1

1. Manufactured and certified by Atwood & Morrill Co., Inc., 285 Canal Street, Salem, MA 01970
(Name and address of NPT Certificate holder)
2. Manufactured for Detroit Edison, Detroit Michigan 48166
(Name and address of purchaser)
3. Location of installation Fermi -2 Nuclear Plant, Newport, Michigan 48166
(Name and address)
4. Type *F22590 Rev. 0 SA105-Gr. II 82,000 Psi N/A 1989
(Drawing no.) (Mat'l. spec. no.) (Nominal strength) (CRN) (Year built)
5. ASME Code, Section III: 1968 N/A 1 N/A
(Edition) (Addenda date) (Class) (Loop Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks: *Dwg. prepared by A&M. A&M S.O.W. 30481-03, (1) Cover for Modified 26" MSIV on
A&M Valve Assembly Dwg. H-21150M, Rev. 08. This certification meets the requirements of
ASME Section III 1968 Edition, No. Addenda.
8. Nom. thickness (in.) 5.625 Min. design thickness (in.) 5.095 Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate of Compliance must be attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 235032	N/A
(X) S/N 1	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
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(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 1250 psi. Temp. 575 °F. Hydro. test pressure N/A at temp. °F.
(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.

FORM N-2 (back)

Mfr. Serial No. 235032, S/N 1

CERTIFICATION OF DESIGN

Design specifications certified by Boyd I. Brooks P.E. State CA Reg. no. 13655
(when applicable)

Design report* certified by Herbert Cook P.E. State MA Reg. no. 10981
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this (these) COVER
 conforms to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization No. N2607 Expires 6-13-90

Date Oct. 15, 1989 Name Atwood & Morrill Co., Inc. Signed Samuel N. Shields VPEng
(NPT Certificate Holder) (Authorized Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Massachusetts
Massachusetts and employed by H.S.B. I. & I. Co.
 of Hartford, CT have inspected these items described in this Data Report on 10/15/89, and state that to the
 best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
 III. Each part listed has been authorized for stamping on the date shown above.

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

Date 10/15/89 Signed [Signature] Commissions MA 1404
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and no.)

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

01-014

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>1/24/02</u> Sheet <u>1</u> of <u>1</u> Unit <u>2</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	DECo Maintenance Repair Organization P.O. No., Job No., etc
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>Nuclear boiler Feedwater South Side (N5-0187)</u>	

5. (a) Applicable Construction Code ASME III Class 1 19 71 Edition W '71 Addenda N A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
B2100F076A	Anchor Darling	1N-076	N A	V12-2002	1974	Replacement	Y

7. Description of Work Replace bolting material for valve bonnet that was damaged during disassembly

8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Normal Operating Pressure ☒
 Other ☐ Pressure _____ ps 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

Form NIS-2 (Back)

9. Remarks Replaced (8) - 1 1/4" - 8 UNC 2A x 5" studs. SA-193-B7, PO# 741359, Heat 79450, Code G9L and
(8) - 1 1/4" - 8 UNC 2B nuts. SA194-GR7, PO# 850524, Heat 68395, Mark FSD

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 N5-0187 to be supplemented by Owners Section XI Program 01-014

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Date January 29 20 02
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State
of Province of Michigan and employed by H.S.B. CT of
One State Street, Hartford, CT 06102 have inspected the components described
in this Owner's Report during the period Nov 5, 2001 to Jan 30, 2002 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.

[Signature] Inspector's Signature Commission NB 9486 NIBSB MI 410
National Board, State, Province, and Endorsements
Date Jan 30 20 02

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

01-015

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>1/24/02</u> Sheet <u>1</u> of <u>1</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Unit <u>2</u> <u>DECo Maintenance</u> Repair Organization P.O. No., Job No., etc
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>Nuclear Boiler – Feedwater North Side (N5-0214)</u>	
5. (a) Applicable Construction Code <u>ASME III</u> Class <u>1</u> 19 <u>71</u> Edition <u>W '71</u> Addenda. <u> </u> Code Case <u> </u> (b) Applicable Edition of Section XI Utilized for Repairs or Replacements <u>1992-92 Addenda</u>	

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	1N-062	N A	V12-2001	1974	Replacement	Y

7. Description of Work	<u>Replace bonnet bolting and pressure seal stud that was damaged during disassembly</u>
8. Tests Conducted	Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Other <input type="checkbox"/> Pressure <u> </u> ps Test Temp <u> </u> °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

Form NIS-2 (Back)

9. Remarks (8) - 1 1/4 - 8UNC 2A X 5" studs, SA193-B7, PO# 741359, Heat 79450, Code G9L

(8) - 1 1/4 - 8UNC 2B nuts, SA194 GR7, PO# 850524, Heat 68395, Code FSD

(1) - 5/8 - 11UNC 2A x 3 1/2" SA193-7B, PO# 952355, Heat 99694, Code RZE

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 (N5-0245) to be supplemented by Owners Section XI Program 01-015

Certificate of Authorization No. _____ Expiration Date _____
 Signed Richard M. DeLoe Lead ISI Eng Date January 29 20 02
 Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Michigan and employed by H.S.B. CT of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Nov 5, 2001 to Jan 30, 2002 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.

[Signature]
 Inspector's Signature

Commission VB9456 NIASB MEWID
 National Board State Province, and Endorsements

Date Jan 30 20 02

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

01-016A

1. Owner Detroit Edison Company Date 12/5/01
Name
6400 North Dixie Highway, Newport MI 48166
Address
2. Plant Fermi 2 Nuclear Power Plant Sheet 1 of 1
Name
6400 North Dixie Highway, Newport MI 48166
Address
3. Work Performed by Detroit Edison Company Unit 2
Name
6400 North Dixie Highway, Newport, MI 48166
Address
4. Identification of System N5-0187 / Feedwater to Reactor Vessel
5. (a) Applicable Construction Code ASME III, Class 1 19 71 Edition W '71 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992

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)
B2100F010A	Atwood Morrill	2-763	N/A	V12-2008	1974	Replacement	Y

7. Description of Work Modify indicator/actuator stuffing box covers per ERE-31714 to provide for the use of jacking bolts to facilitate alignment of disc hinge arm assembly during valve reassembly.
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒
Other ☐ Pressure _____ ps. 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 None**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 Reports (N5-0187) to be supplemented by owners Section XI Program 01-016A.

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] LEAD ISI Inspector Date December 7, 20 01
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Nov. 6, 2001 to Dec. 7, 2001, 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.

[Signature] Commissioner NB4400 NICHOLS NIC/D
Inspector's Signature National Board, State, Province, and Endorsements
Date December 7, 20 01

(12 62)

For complete work package, see Work Request 0002000035

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

01-019
01-016B

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>12/5/01</u> Sheet <u>1</u> of <u>1</u> Unit <u>2</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	DECo Maintenance Repair Organization P.O. No., Job No., etc.
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>N5-0214 Reactor Feedwater</u>	

5 (a) Applicable Construction Code ASME III Class 1 19 71 Edition W '71 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
B2100F010B	Atwood Morrill	1-763	N/A	V12-2007	1974	Replacement	Y

7 Description of Work Modify indicator/actuator stuffing box covers per ERE-31714 to provide for the use of jacking bolts to facilitate alignment of disc/hinge assembly during valve reassembly.

8 Tests Conducted Hydrostatic ☐ Pneumatic ☐ Normal Operating Pressure ☒
 Other ☐ Pressure _____ ps. 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

Form NIS-2 (Back)

9. Remarks In addition, bonnet bolting was replaced that was damaged during disassembly as follows:

1 nut - 1" - 8UNC - 2B, SA 194-GR 2H, HT # HDF, PO # 877192

1 stud - 1" - 8UNC - 2A X 6", SA193-GR B7, HT# RTQ, PO #951993

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 Reports (N5-0214) to be supplemented by owners Section XI Programs 01-016B and 01-019

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Lead ISI Engineer Date December 7, 20 01
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Nov. 6, 2001 to Dec. 7, 2001, 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.

[Signature] Commissions NB 9460 NIASSIS NIB 10
Inspector's Signature National Board, State, Province, and Endorsements
Date December 7, 20 01

(12 82)

For complete work package, see Work Request: 000Z0C2037

01-017

6. Identification of Components Repaired or Replaced and Replacement Components

7 Description of Work Replace bonnet bolting that was damaged during disassembly

8 Tests Conducted Hydrostatic ☐ Pneumatic ☐ Normal Operating Pressure ☒
Other ☐ Pressure _____ ps Test Temp _____ °F

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

Form NIS-2 (Back)

9. Remarks Replacement bolting material installed as detailed below:

(4) studs – 1-1/4" – 8UN-2A X 5", SA193, GR B7, Heat # G9L, PO #741359

(4) nuts – 1-1/4" – 8UN-2B, SA194, GR7, Heat #RH98, PO #739669

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 Reports (N5-0197) to be supplemented by owners Section XI Procedure 01-017.

Certificate of Authorization No. _____ Expiration Date _____

Signed *[Signature]* LEAD ISI ENGINEER Date December 5, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Nov. 7, 2001 to Dec. 5, 2001, 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.

[Signature] Commissions V09486 NIA 875 NIA 110
Inspector's Signature National Board, State, Province, and Endorsements
Date Dec 5 20 01

For complete work package, see Work Request: 0002002034

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

01-018

1. Owner Detroit Edison Company Date 11/10/01
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Address Expiration Date N/A
4. Identification of System EESW pipe support P45-3353-G14
5. (a) Applicable Construction Code ASME III, Class 3 19 71 Edition W'71 Addenda. N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
Hanger / Support	Daniel Int'l	N/A	N/A	P45-3353-G14	1981	Repaired	N

7. Description of Work Modify base plate for P45-3353-G14 per RID 70971
8. Tests Conducted ** Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
 Pressure _____ ps Test Temp. _____ °F

**** No pressure testing required for this modification**

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 As a result of the evaluation done by DECo engineering per CARD 01-17693, a modification to the base plate of support P45-3353-G14 was made per RID 70971

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. repair or replacement

Type Code Symbol Stamp: Construction records for hanger P45-3353-G14 to be supplemented by owners Section XI Program, No. 01-018 and WR# 000Z013661

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Lead ISE Eng Date November 10, 2001
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 H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Nov 7, 2001 to Dec 5, 2001, 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.

[Signature] Commissions VB4480 NI 4585 NTC 0
Inspector's Signature National Board, State, Province, and Endorsements

Date December 5 2001

(12.82)

For complete work package, see Work Request: 000Z013661

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

01-020

1. Owner Detroit Edison Company Date 11/26/01
 6400 North Dixie Highway, Newport MI 48166
 Name Address
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
 DECo Maintenance
 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 N5-0356, Standby Liquid Control
5. (a) Applicable Construction Code ASME III, Class 3 19 71 Edition W71 Addenda N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 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)
C4100F007	Anchor Darling	E3062-1-2	N/A	VR4-2037	1982	Replacement	Y

7. Description of Work Replace one stud and nut damaged during reassembly
8. Tests Conducted Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☒
 Other : Pressure _____ ps 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

Form NIS-2 (Back)

9. Remarks Replaced one 3/8"-16 stud and one 3/8"-16 nut
Applicable Manufacturer's Data Reports to be attached

(1) 3/8" - 16 UNC 2AX2", SA-193, Grade B7, Heat# 65445 (SDH) Stud from P.O. 863302

(1) 3/8" - 16UNC 2B, SA-194, Grade 2H, Heat# 8868448 (RPC) Nut from P.O. 951235

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 Reports to be supplemented by owners Section XI Program, No.01-020

Certificate of Authorization No. N/A Expiration Date N/A

Signed: [Signature] LEAD ISI BYG Date NOVEMBER 27, 20 01
 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 H. S. B. I. & I. Co of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 11-11-01 to 11-27-01, 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.

[Signature] Commissions NB 5486 NIA BCS NI 610
 Inspector's Signature National Board, State, Province, and Endorsements
 Date Nov 27 20 01

For complete work package, see Work Request: 0002979245

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

01-021

1. Owner Detroit Edison Company Date 11/30/01
 6400 North Dixie Highway, Newport MI 48166
 Name Address
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
 DECo Maintenance
 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 High Pressure Coolant Injection System-Suction Piping (N5-0331 & N5-601)
5. (a) Applicable Construction Code ASME III, Class 2, 19 71 Edition W'71 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992--W'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)
E4100F020	Crosby	N56805-00-0001	N/A	V22-2044	1976	Replacement	Y

7. Description of Work Replace relief valve E4100F020 flange bolting material that was damaged during removal.
8. Tests Conducted Hydrostatic ☐ Pneumatic ☐ Normal Operating Pressure ☒
 Other : Pressure _____ ps. 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

Form NIS-2 (Back)

9. Remarks Replacement bolting material (4)-5/8"-UNC-2A x 2-1/2", SA193-GRB7, PO #955760, Heat code C223.(5) - 5/8" - 8 UNC-2B
SA-194-GR 2H, PO #955785, Heat C240. In addition, the valve was sent to NWS and refurbished per PO #NR-368299 - During refurbishment
the inbody seat was lightly machined and the disc/inbody seats were lapped.

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 Reports N5-0331 & N5-0601 to be supplemented by owners Section XI Program 01-021.

Certificate of Authorization No. N/A Expiration Date N/A
 Signed [Signature] Date November 30, 2001
 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 H.S.B.I. Co. of Hartford, CT One State Street 06102 have inspected the components described in this Owner's Report during the period Nov. 15, 2001 to Dec. 3, 2001 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.

[Signature] Date Dec 3, 2001
 Inspector's Signature
 Commission NB9486 NIASBIS MI610
 National Board, State, Province, and Endorsements

For complete work package, see Work Request: 0002991218

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

01-023

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>12/4/01</u> Sheet <u>1</u> of <u>2</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Unit <u>2</u> <u>DECo Maintenance</u> Repair Organization P.O. No., Job No., etc.
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	Type Code Symbol Stamp <u>N/A</u> Authorization No. <u>N/A</u> Expiration Date <u>N/A</u>
4. Identification of System <u>Residual Heat Removal System Division 2 (N5-0246 & N5-0307)</u>	
5. (a) Applicable Construction Code <u>ASME III, Class 2</u> <u>71</u> S '72 (valve) <u>1567</u> Code <u>ASME III, Class 2</u> <u>19</u> <u>71</u> piping Edition <u>W'71</u> Addenda <u>N/A</u> Case (b) Applicable Edition of Section XI Utilized for Repairs or Replacements <u>1992 - W'92</u>	

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)
E1100F025B	Crosby Valve	N57381-00-0002	N/A	V22-2041	1978	Replaced	Y
E1100F025B	Crosby Valve	N57381-00-0003	N/A	V22-2025	1993	Replacement	Y

7. Description of Work	<u>Replaced existing relief valve with tested spare with a new inlet nipple and inlet flange.</u>
8. Tests Conducted	Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Nominal Operating Pressure <input checked="" type="checkbox"/> Other <input type="checkbox"/> Pressure _____ ps 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

Form NIS-2 (Back)

9. Remarks Replacement relief valve (Serial No. N57381-00-0003) procured for PO #NR-267203.

Replacement inlet pipe procured per PO #315530, HT #455364, SA 106-SCH 80.

Replacement inlet flange procured per PO #371436, HT #51238, SA-105, 300#.

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 Reports (N5-0246 and N5-0307) to be supplemented by owners' Section XI Program 01-023

Certificate of Authorization No. N/A

Expiration Date N/A

Signed [Signature]
Owner or Owner's Designee, Title

LEAD ISL GNG

Date December 5, 2001

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Michigan and employed by H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Nov 15, 2001 to Dec 5, 2001, 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.

[Signature]
Inspector's Signature

Commissions NBPT&W NIASSES MICH
National, Board, State, Province, and Endorsements

Date Dec 5 20 01

For complete work package, see Work Request: 2002991909

C.C. - 440 - 1

DATA REPORT
Safety and Safety Relief Valves

	Serial No. Lot Number	Material Specification Designation Type or Grade
ASTM A 216 Gr. WCB	N92052-32-0004	ASTM A 216 Gr. WCB
ASTM A 216 Gr. WCB	N92057-32-0117	ASTM A 216 Gr. WCB
ASTM A 479 Type 304	N92072-34-0110	ASTM A 479 Type 304
ASTM A 479 Type 304	N92074-42-0119	ASTM A 479 Type 304
ASTM A 193 Gr. B6	N80613-68-0049	ASTM A 193 Gr. B6
ASTM A 193 Gr. B6	N80613-69-0071	ASTM A 193 Gr. B6
ASTM A 193 Gr. B6	N92061-65-0117	ASTM A 193 Gr. B6
ASTM A 193 Gr. B6	N92077-65-0117	ASTM A 193 Gr. B6

	Serial No. Identification	Material Specification Including Type or Grade
c. Springs	NX2802-0019	ASTM A 638 Gr. 660
d. Bolting	---	---
Bonnet Stud	N95882	ASTM A 193 Gr. B7
Bonnet Nut	N95881	ASTM A 194 Cl. 2H
Adapter K57223-34-0005	N90573-35-0008	ASTM A 105 Gr. 11

We certify that the statements made in this report are correct.

Date: 1-26 1993 Signed: Cresby Valve & Pipe Co.
Manufacturer

By: Lawrence P. Pina

Certificate of Authorization No. 1079 expires September 30, 1995

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Mass. and employed by Everett-Boston Manufacturers Mutual Insurance Company have inspected the equipment described in this Data Report of 1-26 1993 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date Jan 26 1993

Factory Mutual System

[Signature]
(Inspector)

Serial No. MA 1307
(City, State, Province and No.)

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

01-024

1. Owner Detroit Edison Company Date 11/28/01
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
2. Plant Fermi 2 Nuclear Power Plant Sheet 1 of 1
 Name
 6400 North Dixie Highway, Newport MI 48166
 Address
3. Work Performed by Detroit Edison Company Unit 2
 Name
 6400 North Dixie Highway, Newport, MI 48166
 Address
4. Identification of System N5-0214, Outboard Feedwater Primary Containment Isolation Check Valve B2100F0323B
5. (a) Applicable Construction Code ASME III, Class 3 19 71 Edition W71 Addenda N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-W92

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)
B2100F032B	Anchor Darling	1N-081	N/A	V12-2003	1974	Replacement	Y

7. Description of Work Replaced segmental thrust ring
8. Tests Conducted Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☒
 Other : Pressure _____ ps 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

Form NIS-2 (Back)

9. Remarks Replaced B2100F032B segmental thrust ring. Part Number C18698, Heat Number 207S261, DECo Stock Code 548-2671 procured on P.O. 338130-01.

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.01-024

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Lead ISI Engineer Date November 30 2001
Owner or Owner's Designee Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Michigan and employed by H. S. B. I. & I. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period Nov 29, 2001 to Nov 30, 2001 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.

[Signature] NB9486 NTA85 M1010
Inspector's Signature National Board, State, Province, and Endorsements

Date Nov 30 2001

For complete work package, see Work Request: 0002002035