

SECTION 8

SUMMARY OF CONTAINMENT INSPECTIONS (IWE)

8. INTRODUCTION

This Section is a Summary of the IWE inspection activities completed at Fermi 2 during the seventh Refueling Outage. 10 CFR 50.55a was 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 inspection during the seventh Refuel Outage as the eighth Refuel Outage is not scheduled until October of 2001.

8.1. ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE ACTIONS TAKEN

During the general visual inspections of the containment liner several conditions were reported which required corrective action of were dispositioned by further review. The reported conditions are listed as follows:

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

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

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

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

8.2. PROGRAM STATUS, ASME SECTION XI CREDIT – IWE

8.2.1. CATEGORY: E-A Containment Surfaces
 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	100%	100%	100%
TOTALS	1	1	1	100%	100%	100%

Note: Per 10CFR50 55a 100% of the accessible surfaces of the containment are required to inspected (General Visual) by September 2001.

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 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 were identified for RF-07. After initial inspection of the moisture seal area, a decision was made to replace the seal. There was no damage to the liner in this area.

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	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

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	34%	16%	34%
TOTAL	1	1	1	34%	16%	34%

Note: After initial inspection of the moisture seal, and degradation was noted, 100% was inspected and replaced. There was no damage to the liner at this location. 34% credited for RF-07

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	30	33.7%	16%	34%
TOTAL	89	89	30	33.7%	16%	34%

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

(1) 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

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

IWE Containment Program

Component Examination Schedule

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Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2		Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12		
<i>EI.11</i>												
1	Drywell (Drywell inspections consisted of items 3 through 35.)	E-A	E1.11	VT-G	C	-	X	-	X	X	N/A	Once per Period, Prior to each Type A Test
2	Suppression Chamber (Torus) (Torus inspections consisted of items 36 through 120.)	E-A	E1.11	VT-G	C	-	X	-	X	X	N/A	Once per Period, Prior to each Type A Test
<i>EI.12</i>												
3	Drywell Interior 563' to 583' (Az 0 to 90)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
4	Drywell Interior 563' to 583' (Az 90 to 180)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
5	Drywell Interior 563' to 583' (Az 180 to 270)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
6	Drywell Interior 563' to 583' (Az 270 to 0)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
7	Drywell Interior 583' to 613' (Az 0 to 90)	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
8	Drywell Interior 583' to 613' (Az 90 to 180)	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
9	Drywell Interior 583' to 613' (Az 180 to 270)	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
10	Drywell Interior 583' to 613' (Az 270 to 0)	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
11	Drywell Interior 613' to 641' (Az 0 to 90)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
12	Drywell Interior 613' to 641' (Az 90 to 180)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
13	Drywell Interior 613' to 641' (Az 180 to 270)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

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Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
14	Drywell Interior 613' to 641' (Az 270 to 0)	E-A	E1.12	VT-3	-	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
15	Drywell Interior 641' to 659' (Az 0 to 90)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
16	Drywell Interior 641' to 659' (Az 90 to 180)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
17	Drywell Interior 641' to 659' (Az 180 to 270)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
18	Drywell Interior 641' to 659' (Az 270 to 0)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
19	Drywell Dome Interior and Exterior	E-A	E1.12	VT-3	-	-	-	-	-	X	-	N/A	
20	Drywell Exterior 563' to 583' (Az 0 to 90)	E-A	E1.12	VT-3	-	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
21	Drywell Exterior 563' to 583' (Az 90 to 180)	E-A	E1.12	VT-3	-	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
22	Drywell Exterior 563' to 583' (Az 180 to 270)	E-A	E1.12	VT-3	-	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
23	Drywell Exterior 563' to 583' (Az 270 to 0)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
24	Drywell Exterior 583' to 613' (Az 0 to 90)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
25	Drywell Exterior 583' to 613' (Az 90 to 180)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
26	Drywell Exterior 583' to 613' (Az 180 to 270)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
27	Drywell Exterior 583' to 613' (Az 270 to 0)	E-A	E1.12	VT-3	-	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
28	Drywell Exterior 613' to 641' (Az 0 to 90)	E-A	E1.12	VT-3	-	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings
29	Drywell Exterior 613' to 641' (Az 90 to 180)	E-A	E1.12	VT-3	-	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings

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Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
30	Drywell Exterior 613' to 641' (Az 180 to 270)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
31	Drywell Exterior 613' to 641' (Az 270 to 0)	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
32	Drywell Exterior 641' to 659' (Az 0 to 90)	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
33	Drywell Exterior 641' to 659' (Az 90 to 180)	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
34	Drywell Exterior 641' to 659' (Az 180 to 270)	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
35	Drywell Exterior 641' to 659' (Az 270 to 0)	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
36	Torus Interior Bay 1	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
37	Torus Interior Bay 2	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
38	Torus Interior Bay 3	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
39	Torus Interior Bay 4	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
40	Torus Interior Bay 5	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
41	Torus Interior Bay 6	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
42	Torus Interior Bay 7	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
43	Torus Interior Bay 8	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
44	Torus Interior Bay 9	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	

Component Examination Schedule

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Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
45	Torus Interior Bay 10	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
46	Torus Interior Bay 11	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
47	Torus Interior Bay 12	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
48	Torus Interior Bay 13	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
49	Torus Interior Bay 14	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
50	Torus Interior Bay 15	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
51	Torus Interior Bay 16	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
52	Torus Exterior Bay 1	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
53	Torus Exterior Bay 2	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
54	Torus Exterior Bay 3	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
55	Torus Exterior Bay 4	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
56	Torus Exterior Bay 5	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
57	Torus Exterior Bay 6	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
58	Torus Exterior Bay 7	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
59	Torus Exterior Bay 8	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	

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Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
60	Torus Exterior Bay 9	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
61	Torus Exterior Bay 10	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
62	Torus Exterior Bay 11	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
63	Torus Exterior Bay 12	E-A	E1.12	VT-3	-	-	-	-	X	-	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
64	Torus Exterior Bay 13	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
65	Torus Exterior Bay 14	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
66	Torus Exterior Bay 15	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
67	Torus Exterior Bay 16	E-A	E1.12	VT-3	-	-	-	-	-	X	N/A	Includes parts of reinforcing structure, stiffing rings, manhole covers and reinforcement around openings	
E1.20													
68	Drywell to Torus Downcomer to Bay 2	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
69	Drywell to Torus Downcomer to Bay 4	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
70	Drywell to Torus Downcomer to Bay 6	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
71	Drywell to Torus Downcomer to Bay 8	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
72	Drywell to Torus Downcomer to Bay 10	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
73	Drywell to Torus Downcomer to Bay 12	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
74	Drywell to Torus Downcomer to Bay 14	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
75	Drywell to Torus Downcomer to Bay 16	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
76	Drywell to Torus Expansion Bellows Downcomer to Bay 2	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
77	Drywell to Torus Expansion Bellows Downcomer to Bay 4	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		

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Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
78	Drywell to Torus Expansion Bellows Downcomer to Bay 6	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
79	Drywell to Torus Expansion Bellows Downcomer to Bay 8	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
80	Drywell to Torus Expansion Bellows Downcomer to Bay10	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
81	Drywell to Torus Expansion Bellows Downcomer to Bay12	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
82	Drywell to Torus Expansion Bellows Downcomer to Bay14	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
83	Drywell to Torus Expansion Bellows Downcomer to Bay16	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
84	Flow Channeling Devices (Ring Header) In Bay 1	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
85	Flow Channeling Devices (Ring Header) In Bay 2	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
86	Flow Channeling Devices (Ring Header) In Bay 3	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
87	Flow Channeling Devices (Ring Header) In Bay 4	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
88	Flow Channeling Devices (Ring Header) In Bay 5	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
89	Flow Channeling Devices (Ring Header) In Bay 6	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
90	Flow Channeling Devices (Ring Header) In Bay 7	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
91	Flow Channeling Devices (Ring Header) In Bay 8	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
92	Flow Channeling Devices (Ring Header) In Bay 9	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
93	Flow Channeling Devices (Ring Header) In Bay 10	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
94	Flow Channeling Devices (Ring Header) In Bay 11	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
95	Flow Channeling Devices (Ring Header) In Bay 12	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
96	Flow Channeling Devices (Ring Header) In Bay 13	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
97	Flow Channeling Devices (Ring Header) In Bay 14	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
98	Flow Channeling Devices (Ring Header) In Bay 15	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
99	Flow Channeling Devices (Ring Header) In Bay 16	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A	Includes all welds, reinf. plates shell surfaces on the ventline, the vent header and downcomers	
100	Drywell Penetration Expansion Bellow X-007A	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
101	Drywell Penetration Expansion Bellow X-007B	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
102	Drywell Penetration Expansion Bellow X-007C	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
103	Drywell Penetration Expansion Bellow X-007D	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
104	Drywell Penetration Expansion Bellow X-008	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
105	Drywell Penetration Expansion Bellow X-009A	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
106	Drywell Penetration Expansion Bellow X-009B	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
107	Drywell Penetration Expansion Bellow X-010	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
108	Drywell Penetration Expansion Bellow X-011	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
109	Drywell Penetration Expansion Bellow X-012	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
110	Drywell Penetration Expansion Bellow X-013A	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
111	Drywell Penetration Expansion Bellow X-013B	E-A	E1.20	VT-3	-	-	-	-	X	-	N/A		
112	Drywell Penetration Expansion Bellow X-016A	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
113	Drywell Penetration Expansion Bellow X-016B	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		
114	Drywell Penetration Expansion Bellow X-017	E-A	E1.20	VT-3	-	-	-	-	-	X	N/A		

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
115	Drywell Penetration Expansion Bellow X-035B	E-A	E1.20	VT-3	-	-	-	-	-	X	-	N/A	
116	Drywell Penetration Expansion Bellow X-035C	E-A	E1.20	VT-3	-	-	-	-	X	-	-	N/A	
117	Drywell Penetration Expansion Bellow X-036D	E-A	E1.20	VT-3	-	-	-	-	X	-	-	N/A	
118	Drywell Penetration Expansion Bellow X-035E	E-A	E1.20	VT-3	-	-	-	-	X	-	-	N/A	
119	Drywell Penetration Expansion Bellow X-035F	E-A	E1.20	VT-3	-	-	-	-	X	-	-	N/A	
120	Drywell Penetration Expansion Bellow X-043	E-A	E1.20	VT-3	-	-	-	-	-	X	-	N/A	
E4.11													
121	Drywell Interior	E-C	E4.11	VT-1	-	-	-	-	-	-	-	N/A	No areas identified for augmented exams at this time
123	Drywell Exterior	E-C	E4.11	VT-1	-	-	-	-	-	-	-	N/A	No areas identified for augmented exams at this time
125	Suppression Chamber Interior	E-C	E4.11	VT-1	-	-	-	-	-	-	-	N/A	No areas identified for augmented exams at this time
127	Suppression Chamber Exterior	E-C	E4.11	VT-1	-	-	-	-	-	-	-	N/A	No areas identified for augmented exams at this time
E4.12													
122	Drywell Interior	E-C	E4.12	VOLU	-	-	-	-	-	-	-	N/A	No areas identified for augmented exams at this time
124	Drywell Exterior	E-C	E4.12	VOLU	-	-	-	-	-	-	-	N/A	No areas identified for augmented exams at this time
126	Suppression Chamber Interior	E-C	E4.12	VOLU	-	-	-	-	-	-	-	N/A	No areas identified for augmented exams at this time
128	Suppression Chamber Exterior	E-C	E4.12	VOLU	-	-	-	-	-	-	-	N/A	No areas identified for augmented exams at this time
E5.10													
129	Drywell Head Flange Seal X-001A	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
130	South Equipment Hatch Seal X-001B	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
131	North Equipment Hatch Seal X-001C	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
132	Drywell Personnel Airlock Seals (2) X-001D	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
133	Reactor Vessel Stabilization Manhole Seal X-001E	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
134	Reactor Vessel Stabilization Manhole Seal X-001F	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
135	Reactor Vessel Stabilization Manhole Seal X-001G	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1	Period 2		Period 3			Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12		
136	Reactor Vessel Stabilization Manhole Seal X-001H	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
137	Reactor Vessel Stabilization Manhole Seal X-001J	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
138	Reactor Vessel Stabilization Manhole Seal X-001K	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
139	Reactor Vessel Stabilization Manhole Seal X-001L	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
140	Reactor Vessel Stabilization Manhole Seal X-001M	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
141	CRD Hatch Seal X-006	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
142	TIP Penetration Seal X-035A	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
143	TIP Penetration Seal (2) X-035B	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
144	TIP Penetration Seal (2) X-035C	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
145	TIP Penetration Seal (2) X-035D	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
146	TIP Penetration Seal (2) X-035E	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
147	TIP Penetration Seal (2) X-035F	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
148	Electrical Penetration Bolting X-100A (X-100A)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
149	Electrical Penetration Seal X-100B (X-102A)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
150	Electrical Penetration Seal (100C)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
151	Electrical Penetration Seal (X-100E)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
152	Electrical Penetration Seal X-100F (X-103B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
153	Electrical Penetration Seal X-100G (X-100G)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
154	Electrical Penetration Seal X-101A (X-101A)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
155	Electrical Penetration Seal X-101B (X-101B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
156	Electrical Penetration Seal X-101C (X-101C)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
157	Electrical Penetration Seal X-101D (X-101D)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
158	Electrical Penetration Seal X-101E (X-101E)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
159	Electrical Penetration Seal X-101F (X-101F)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
160	Electrical Penetration Seal X-102A (X-105B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
161	Electrical Penetration Seal X-102B (X-102B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
162	Electrical Penetration Seal X-102C (X-100B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
163	Electrical Penetration Seal X-102D (X-105C)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
164	Electrical Penetration Seal X-103A (X-103A)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
165	Electrical Penetration Seal X-103B (X-107B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
166	Electrical Penetration Seal X-104A (X-104A)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
167	Electrical Penetration Seal X-104B (X-104B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
168	Electrical Penetration Seal X-104C (X-104C)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
169	Electrical Penetration Seal X-104D (X-104D)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
170	Electrical Penetration Seal X-104E (X-104E)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
171	Electrical Penetration Seal X-104F (X-104F)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
172	Electrical Penetration Seal X-105A (X-105A)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
173	Electrical Penetration Seal X-105D (X-105D)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
174	Electrical Penetration Seal X-106A (X-100D)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
175	Electrical Penetration Seal X-106B (X-106B)	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
176	South Torus Hatch Seal Penetration X-200A	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
177	North Torus Hatch Seal Penetration X-200B	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
178	Electrical Penetration Seal X-209A	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	
179	Electrical Penetration Seal X-209C	E-D	E5.10	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program	

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
180	Vacuum Breaker-Electrical Penetration Seal X-228A	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
181	Vacuum Breaker-Electrical Penetration Seal X-228B	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
182	Vacuum Breaker-Electrical Penetration Seal X-228C	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
183	Vacuum Breaker-Electrical Penetration Seal X-228D	E-D	E5.10	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
E5.20													
184	Penetration Flange Rupture Disk Gasket X-018	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
185	Penetration Flange Rupture Disk Gasket X-019	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
186	Spectacle Flange Gasket X-020	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
187	Penetration Flange Gasket X-039A	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
188	Penetration Flange Gasket X-039B	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
189	Butterfly Valve Flange Gasket Penet. X-205C	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
190	Butterfly Valve Flange Gasket Penet. X-205D	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
191	RHR Test Line Orifice D008B Gasket Penetration X-210A	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
192	RHR Test Line Orifice D009B Gasket Penetration X-210A	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
193	Relief Valve Flange Gasket E1100F001B Penetration X-210A	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
194	Relief Valve Flange Gasket E1100F025B Penetration X-210A	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
195	RHR Blind Flange Gasket Penetration X-210A	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
196	RHR Test Line Orifice D008A Gasket Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
197	RHR Test Line Orifice D009A Gasket Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
198	Relief Valve Flange Gasket E1100F001A Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
199	Relief Valve Flange Gasket E1100F025A Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
200	Relief Valve Flange Gasket E1100F029 Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
201	RHR Blind Flange Gasket Penetration X-210B	E-D	E5.20	VT-3	-	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2		Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12		
202	TWMS Spool Gasket 4055-1 Penetration X-213A	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
203	TWMS Spool Gasket 4055-2 Penetration X-213A	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
204	TWMS Spool Gasket 4056-1 Penetration X-213B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
205	TWMS Spool Gasket 4056-2 Penetration X-213B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
206	Relief Valve Flange Gasket T4804F016A Penetration X-218	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
207	Relief Valve Flange Gasket T4804F016B Penetration X-218	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
208	Relief Valve Flange Gasket E1100F030D Penetration X-223A	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
209	Relief Valve Flange Gasket E1100F030B Penetration X-223B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
210	Relief Valve Flange Gasket E1100F030C Penetration X-223C	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
211	Relief Valve Flange Gasket E1100F030A Penetration X-223D	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
212	Relief Valve Flange Gasket E2100F011B Penetration X-227A	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
213	Relief Valve Flange Gasket E2100F012B Penetration X-227A	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
214	Relief Valve Flange Gasket E2100F032B Penetration X-227A	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
215	Relief Valve Flange Gasket E2100F011A Penetration X-227B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
216	Relief Valve Flange Gasket E2100F012A Penetration X-227B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
217	Relief Valve Flange Gasket E2100F032A Penetration X-227B	E-D	E5.20	VT-3	-	-	-	-	-	-	CISI-001	No Examinations Required, In Appendix J Program
E5.30												
218	Drywell Moisture Seal (Drywell concrete floor to metal liner)	E-D	E5.30	VT-3	34% Complete	-	50% to 67%	-	100%	-	N/A	
E8.10												
219	Drywell Head Flange Bolting X-001A	E-G	E8.10	VT-1	C	-	-	-	-	-	N/A	
220	South Equipment Hatch Bolting X-001B	E-G	E8.10	VT-1	C	-	-	-	-	-	N/A	
221	North Equipment Hatch Bolting X-001C	E-G	E8.10	VT-1	C	-	-	-	-	-	N/A	
222	Drywell Personnel Airlock Bolting X-001D	E-G	E8.10	VT-1	C	-	-	-	-	-	N/A	

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
223	Reactor Vessel Stabilization Manhole Bolting X-001E	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
224	Reactor Vessel Stabilization Manhole Bolting X-001F	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
225	Reactor Vessel Stabilization Manhole Bolting X-001G	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
226	Reactor Vessel Stabilization Manhole Bolting X-001H	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
227	Reactor Vessel Stabilization Manhole Bolting X-001J	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
228	Reactor Vessel Stabilization Manhole Bolting X-001K	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
229	Reactor Vessel Stabilization Manhole Bolting X-001L	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
230	Reactor Vessel Stabilization Manhole Bolting X-001M	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
231	CRD Hatch Bolting X-006	E-G	E8.10	VT-1	-	-	X	-	-	-	-	N/A	
232	Penetration Flange Rupture Disk Bolting X-018	E-G	E8.10	VT-1	-	-	X	-	-	-	-	N/A	
233	Penetration Flange Rupture Disk Bolting X-019	E-G	E8.10	VT-1	-	-	X	-	-	-	-	N/A	
234	Spectacle Flange Bolting X-020	E-G	E8.10	VT-1	-	-	X	-	-	-	-	N/A	
235	TIP Penetration Bolting X-035A	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
236	TIP Penetration Bolting X-035B	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
237	TIP Penetration Bolting X-035C	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
238	TIP Penetration Bolting X-035D	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
239	TIP Penetration Bolting X-035E	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
240	TIP Penetration Bolting X-035F	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
241	Penetration Flange Bolting X-039A	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
242	Penetration Flange Bolting X-039B	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
243	Electrical Penetration Bolting X-100A (X-100A)	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
244	Electrical Penetration Bolting X-100B (X-102A)	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
245	Electrical Penetration Bolting (X-100C)	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
246	Electrical Penetration Bolting (X-100E)	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
247	Electrical Penetration Bolting X-100F (X-103B)	E-G	E8.10	VT-1	-	-	-	-	X	-	-	N/A	
248	Electrical Penetration Bolting X-100G (X-100G)	E-G	E8.10	VT-1	-	-	X	-	-	-	-	N/A	

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
249	Electrical Penetration Bolting X-101A (X-101A)	E-G	E8.10	VT-1	-	-	-	-	-	X		N/A	
250	Electrical Penetration Bolting X-101B (X-101B)	E-G	E8.10	VT-1	-	-	-	-	X	-		N/A	
251	Electrical Penetration Bolting X-101C (X-101C)	E-G	E8.10	VT-1	C	-	-	-	-	X		N/A	
252	Electrical Penetration Bolting X-101D (X-101D)	E-G	E8.10	VT-1	-	-	-	-	X	-		N/A	
253	Electrical Penetration Bolting X-101E (X-101E)	E-G	E8.10	VT-1	-	-	-	-	-	X		N/A	
254	Electrical Penetration Bolting X-101F (X-101F)	E-G	E8.10	VT-1	-	-	-	-	X	-		N/A	
255	Electrical Penetration Bolting X-102A (X-105B)	E-G	E8.10	VT-1	C	-	-	-	-	-		N/A	
256	Electrical Penetration Bolting X-102B (X-102B)	E-G	E8.10	VT-1	-	-	-	X	-	-		N/A	
257	Electrical Penetration Bolting X-102C (X-100B)	E-G	E8.10	VT-1	Q	-	-	-	-	-		N/A	
258	Electrical Penetration Bolting X-102D (X-105C)	E-G	E8.10	VT-1	-	-	-	-	-	X		N/A	
259	Electrical Penetration Bolting X-103A (X-103A)	E-G	E8.10	VT-1	-	-	X	-	-	-		N/A	
260	Electrical Penetration Bolting X-103B (X-107B)	E-G	E8.10	VT-1	-	-	-	-	X	-		N/A	
261	Electrical Penetration Bolting X-104A (X-104A)	E-G	E8.10	VT-1	-	-	-	X	-	-		N/A	
262	Electrical Penetration Bolting X-104B (X-104B)	E-G	E8.10	VT-1	-	-	-	-	X	-		N/A	
263	Electrical Penetration Bolting X-104C (X-104C)	E-G	E8.10	VT-1	-	-	-	-	-	X		N/A	
264	Electrical Penetration Bolting X-104D (X-104D)	E-G	E8.10	VT-1	-	-	X	-	-	-		N/A	
265	Electrical Penetration Bolting X-104E (X-104E)	E-G	E8.10	VT-1	-	-	-	X	-	-		N/A	
266	Electrical Penetration Bolting X-104F (X-104F)	E-G	E8.10	VT-1	-	-	-	-	-	X		N/A	
267	Electrical Penetration Bolting X-105A (X-105A)	E-G	E8.10	VT-1	-	-	-	-	X	-		N/A	
268	Electrical Penetration Bolting X-105D (X-105D)	E-G	E8.10	VT-1	-	-	-	-	-	X		N/A	
269	Electrical Penetration Bolting X-106A (X-100D)	E-G	E8.10	VT-1	-	-	-	X	-	-		N/A	
270	Electrical Penetration Bolting X-106B (X-106B)	E-G	E8.10	VT-1	-	-	-	-	X	-		N/A	

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
271	South Torus Hatch Bolting Penetration X-200A	E-G	E8.10	VT-1	-	-	-	X	-	-	N/A		
272	North Torus Hatch Bolting Penetration X-200B	E-G	E8.10	VT-1	-	-	X	-	-	-	N/A		
273	Butterfly Valve Flange Bolting Penet. X-205C	E-G	E8.10	VT-1	-	-	X	-	-	-	N/A		
274	Butterfly Valve Flange Bolting Penet. X-205D	E-G	E8.10	VT-1	-	-	-	-	X	-	N/A		
275	Electrical Penetration Bolting X-209A	E-G	E8.10	VT-1	-	-	X	-	-	-	N/A		
276	Electrical Penetration Bolting X-209C	E-G	E8.10	VT-1	-	-	-	X	-	-	N/A		
277	RHR Test Line Orifice D008B Bolting Penetration X-210A	E-G	E8.10	VT-1	-	-	X	-	-	-	N/A		
278	RHR Test Line Orifice D009B Bolting Penetration X-210A	E-G	E8.10	VT-1	-	-	X	-	-	-	N/A		
279	Relief Valve Flange Bolting E1100F001B Penetration X-210A	E-G	E8.10	VT-1	-	-	-	-	-	X	N/A		
280	Relief Valve Flange Bolting E1100F025B Penetration X-210A	E-G	E8.10	VT-1	-	-	-	-	X	-	N/A		
281	RHR Blind Flange Bolting Penetration X-210A	E-G	E8.10	VT-1	-	-	-	X	-	-	N/A		
282	RHR Test Line Orifice D008A Bolting Penetration X-210B	E-G	E8.10	VT-1	-	-	X	-	-	-	N/A		
283	RHR Test Line Orifice D009A Bolting Penetration X-210B	E-G	E8.10	VT-1	-	-	X	-	-	-	N/A		
284	Relief Valve Flange Bolting E1100F001A Penetration X-210B	E-G	E8.10	VT-1	-	-	-	-	-	X	N/A		
285	Relief Valve Flange Bolting E1100F025A Penetration X-210B	E-G	E8.10	VT-1	-	-	-	X	-	-	N/A		
286	Relief Valve Flange Bolting E1100F029 Penetration X-210B	E-G	E8.10	VT-1	-	-	-	X	-	-	N/A		
287	RHR Blind Flange Bolting Penetration X-210B	E-G	E8.10	VT-1	-	-	-	-	X	-	N/A		
288	TWMS Spool Bolting 4055-1 Penetration X-213A	E-G	E8.10	VT-1	-	-	-	-	-	X	N/A		
289	TWMS Spool Bolting 4055-2 Penetration X-213A	E-G	E8.10	VT-1	-	-	-	-	X	-	N/A		
290	TWMS Spool Bolting 4056-1 Penetration X-213B	E-G	E8.10	VT-1	-	-	-	X	-	-	N/A		
291	TWMS Spool Bolting 4056-2 Penetration X-213B	E-G	E8.10	VT-1	-	-	-	X	-	-	N/A		
292	Relief Valve Flange Bolting T4804F016A Penetration X-218	E-G	E8.10	VT-1	-	-	-	-	-	X	N/A		

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
293	Relief Valve Flange Bolting T4804F016B Penetration X-218	E-G	E8.10	VT-1	-	-	-	-	X	-	-	N/A	
294	Relief Valve Flange Bolting E1100F030D Penetration X-223A	E-G	E8.10	VT-1	-	-	-	X	-	-	-	N/A	
295	Relief Valve Flange Bolting E1100F030B Penetration X-223B	E-G	E8.10	VT-1	-	-	-	-	-	X	-	N/A	
296	Relief Valve Flange Bolting E1100F030C Penetration X-223C	E-G	E8.10	VT-1	-	-	-	X	-	-	-	N/A	
297	Relief Valve Flange Bolting E1100F030A Penetration X-223D	E-G	E8.10	VT-1	-	-	-	-	X	-	-	N/A	
298	Relief Valve Flange Bolting E2100F011B Penetration X-227A	E-G	E8.10	VT-1	-	-	-	-	-	X	-	N/A	
299	Relief Valve Flange Bolting E2100F012B Penetration X-227A	E-G	E8.10	VT-1	-	-	-	-	X	-	-	N/A	
300	Relief Valve Flange Bolting E2100F032B Penetration X-227A	E-G	E8.10	VT-1	-	-	-	-	-	X	-	N/A	
301	Relief Valve Flange Bolting E2100F011A Penetration X-227B	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
302	Relief Valve Flange Bolting E2100F012A Penetration X-227B	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
303	Relief Valve Flange Bolting E2100F032A Penetration X-227B	E-G	E8.10	VT-1	C	-	-	-	-	-	-	N/A	
304	Vacuum Breaker-Electrical Penetration Bolting X-228A	E-G	E8.10	VT-1	-	-	-	-	-	-	X	N/A	
305	Vacuum Breaker-Electrical Penetration Bolting X-228B	E-G	E8.10	VT-1	-	-	-	-	X	-	-	N/A	
306	Vacuum Breaker-Electrical Penetration Bolting X-228C	E-G	E8.10	VT-1	-	-	-	X	-	-	-	N/A	
307	Vacuum Breaker-Electrical Penetration Bolting X-228D	E-G	E8.10	VT-1	-	-	-	X	-	-	-	N/A	
E8.20													
308	Drywell Head Flange Bolting X-001A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
309	South Equioment Hatch Bolting X-001B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
310	North Equioment Hatch Bolting X-001C	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
311	Drywell Personnel Airlock Bolting X-001D	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
312	Reactor Vessel Stabilization Manhole Bolting X-001E	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
313	Reactor Vessel Stabilization Manhole Bolting X-001F	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
314	Reactor Vessel Stabilization Manhole Bolting X-001G	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
315	Reactor Vessel Stabilization Manhole Bolting X-001H	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
316	Reactor Vessel Stabilization Manhole Bolting X-001J	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
317	Reactor Vessel Stabilization Manhole Bolting X-001K	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
318	Reactor Vessel Stabilization Manhole Bolting X-001L	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
319	Reactor Vessel Stabilization Manhole Bolting X-001M	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
320	CRD Hatch Bolting X-006	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
321	Penetration Flange Rupture Disk Bolting X-018	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
322	Penetration Flange Rupture Disk Bolting X-019	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
323	Spectacle Flange Bolting X-020	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
324	TIP Penetration Bolting X-035A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
325	TIP Penetration Bolting X-035B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
326	TIP Penetration Bolting X-035C	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
327	TIP Penetration Bolting X-035D	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
328	TIP Penetration Bolting X-035E	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
329	TIP Penetration Bolting X-035F	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
330	Penetration Flange Bolting X-039A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
331	Penetration Flange Bolting X-039B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
332	Electrical Penetration Bolting X-100A (X-100A)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
333	Electrical Penetration Bolting X-100B (X-102A)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
334	Electrical Penetration Bolting (100C)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
335	Electrical Penetration Bolting (X-100E)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
336	Electrical Penetration Bolting X-100F (X-103B)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2			Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12			
337	Electrical Penetration Bolting X-100G (X-100G)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
338	Electrical Penetration Bolting X-101A (X-101A)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
339	Electrical Penetration Bolting X-101B (X-101B)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
340	Electrical Penetration Bolting X-101C (X-101C)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
341	Electrical Penetration Bolting X-101D (X-101D)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
342	Electrical Penetration Bolting X-101E (X-101E)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
343	Electrical Penetration Bolting X-101F (X-101F)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
344	Electrical Penetration Bolting X-102A (X-105B)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
345	Electrical Penetration Bolting X-102B (X-102B)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
346	Electrical Penetration Bolting X-102C (X-100B)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
347	Electrical Penetration Bolting X-102D (X-105C)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
348	Electrical Penetration Bolting X-103A (X-103A)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
349	Electrical Penetration Bolting X-103B (X-107B)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
350	Electrical Penetration Bolting X-104A (X-104A)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
351	Electrical Penetration Bolting X-104B (X-104B)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
352	Electrical Penetration Bolting X-104C (X-104C)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
353	Electrical Penetration Bolting X-104D (X-104D)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
354	Electrical Penetration Bolting X-104E (X-104E)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
355	Electrical Penetration Bolting X-104F (X-104F)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
356	Electrical Penetration Bolting X-105A (X-105A)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
357	Electrical Penetration Bolting X-105D (X-105D)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	
358	Electrical Penetration Bolting X-106A (X-100D)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40	

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2		Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12		
359	Electrical Penetration Bolting X-106B (X-106B)	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
360	South Torus Hatch Bolting Penetration X-200A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
361	North Torus Hatch Bolting Penetration X-200B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
362	Butterfly Valve Flange Bolting Penet. X-205C	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
363	Butterfly Valve Flange Bolting Penet. X-205D	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
364	Electrical Penetration Bolting X-209A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
365	Electrical Penetration Bolting X-209C	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
366	RHR Test Line Orifice D008B Bolting Penetration X-210A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
367	RHR Test Line Orifice D009B Bolting Penetration X-210A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
368	Relief Valve Flange Bolting E1100F001B Penetration X-210A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
369	Relief Valve Flange Bolting E1100F025B Penetration X-210A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
370	RHR Blind Flange Bolting Penetration X-210A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
371	RHR Test Line Orifice D008A Bolting Penetration X-210B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
372	RHR Test Line Orifice D009A Bolting Penetration X-210B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
373	Relief Valve Flange Bolting E1100F001A Penetration X-210B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
374	Relief Valve Flange Bolting E1100F025A Penetration X-210B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
375	Relief Valve Flange Bolting E1100F029 Penetration X-210B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
376	RHR Blind Flange Bolting Penetration X-210B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
377	TWMS Spool Bolting 4055-1 Penetration X-213A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
378	TWMS Spool Bolting 4055-2 Penetration X-213A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
379	TWMS Spool Bolting 4056-1 Penetration X-213B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
380	TWMS Spool Bolting 4056-2 Penetration X-213B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be inspected In Accordance With E8.10 and Tested Per E9.40

Component Examination Schedule

APPENDIX 9.8

Item	Exam Area Identification	Cat.	Code	NDE Method	Period 1		Period 2		Period 3		Relief Request	Remarks
					RF07	RF08	RF09	RF10	RF11	RF12		
381	Relief Valve Flange Bolting T4804F016A Penetration X-218	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
382	Relief Valve Flange Bolting T4804F016B Penetration X-218	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
383	Relief Valve Flange Bolting E1100F030D Penetration X-223A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
384	Relief Valve Flange Bolting E1100F030B Penetration X-223B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
385	Relief Valve Flange Bolting E1100F030C Penetration X-223C	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
386	Relief Valve Flange Bolting E1100F030A Penetration X-223D	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
387	Relief Valve Flange Bolting E2100F011B Penetration X-227A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
388	Relief Valve Flange Bolting E2100F012B Penetration X-227A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
389	Relief Valve Flange Bolting E2100F032B Penetration X-227A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
390	Relief Valve Flange Bolting E2100F011A Penetration X-227B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
391	Relief Valve Flange Bolting E2100F012A Penetration X-227B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
392	Relief Valve Flange Bolting E2100F032A Penetration X-227B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
393	Vacuum Breaker-Electrical Penetration Bolting X-228A	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
394	Vacuum Breaker-Electrical Penetration Bolting X-228B	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
395	Vacuum Breaker-Electrical Penetration Bolting X-228C	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
396	Vacuum Breaker-Electrical Penetration Bolting X-228D	E-G	E8.20	Torque/Tension	-	-	-	-	-	-	CISI-007	To Be Inspected In Accordance With E8.10 and Tested Per E9.40
E9.10												
397	Pressure Retaining Boundary	E-P	E9.10	VT-2	-	-	-	-	-	-		After repair, modification or replacement.
E9.20												
398	Containment Penetration Bellows	E-P	E9.20	App. J	-	-	-	-	-	-		10CFR50.AppendixJ
E9.30												
399	Airlock	E-P	E9.30	App. J	-	-	-	-	-	-		10CFR50.AppendixJ
E9.40												
400	Seals and Gaskets	E-P	E9.40	App. J	-	-	-	-	-	-		10CFR50.AppendixJ

SECTION 9
NIS-2 FORMS

9. NIS-2 FORMS INDEX

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
98-008	000Z982289 000Z982293 000Z982290 000Z982294	E1155D003 E1155D004	3	Modify RHRSW Tower Bypass line by addition of restricting orifices to enhance system performance.
99-003	B350000100 B351000100 B352000100 B353000100 B354000100 B355000100 B356000100 B357000100 B358000100 B359000100 B360000100 B361000100 B362000100 B363000100 B364000100	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. Replace bolting damage lost during disassembly.
99-004	B273040100 B270990100	B2103F013	1	Rebuild and test SRV pilot and base bodies for future installation in RF07.
99-005	000Z993693 000Z993698	P4500F002B	3	Install replacement disc in valve and repair removed disc for installation in P4500F02A.
99-006	000Z993699	P4500F002A	3	Install refurbished/repaired disc in check valve.
99-007	000Z993715	P4500F002A	3	Repair P4500F002A disc and return to stock.
99-008A	000Z990436 000Z992391 000Z991648	P4400B001	3	Replace both Division 1 and Division 2 EECW/Heat Exchangers.
99-008B	000Z990544 000Z992392 000Z991649	P4400B002		
99-009A	VARIOUS	P44F400A P44F400B	3	Replace EESW Min Flow Valves and install new Temperature Control Valves.

9. NIS-2 FORMS INDEX (con't)

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
99-009B		P45F400 P45F401		
00-001	000Z991026 000Z991027 000Z979061 000Z991025	B3105F023A B3105F023B B3105F031A B3105F031B	N/A	Modify Packing Gland per EDP-29258
00-002	R302970307	R3000F142C	3	Replace Valve Disc with Stainless Alloy Disc
00-003	R303000100	R3000F142D	3	Replace Valve Disc with Carbon Steel Disc
00-004	R300000100	R300F142A	3	Pump A from carbon steel
00-005	R301000100	R3000F142B	3	Pump B from stainless steel
00-006	000Z000820	T4100B029	3	Plug heat exchanger tubes and install flanges on supply and return piping per EDP-31031.
00-007	000Z000979	FW-E11-3158-10WF4	2	Remove fabrication discontinuities adjacent to weld by blend grinding.
00-008	000Z001076	FW-T48-04-2097- 20W21	2	Remove fabrication discontinuities adjacent to weld by blend grinding.
00-009	000Z984276 000Z984277 000Z990704	VARIOUS	VARIOUS	Rebuild and replace hydraulic and mechanical snubbers.
00-010	000Z979249	E1100F050A	1	Replace bolting material on valve bonnet.
00-011	000Z001127	B3100F023A	1	Replace 3/4" drain connection after weld failure and remove indications in 3/4" elbow.
00-012	P426970520	E1100F185	2	Replace check valve disc.
00-013	E977940127	E4101C002	N/A	Replace HPCI Turbine casing bolts that were damaged during disassembly.

9. NIS-2 FORMS INDEX (con't)

LOG No.	WORK PKG. No.	COMPONENT No.	ASME CLASS	DESCRIPTION
00-014	000Z974526	G5100F607	2	Replace valve wedge due to abnormal seating load trace.
00-015	000Z979233	B2103F028B	1	Replace bolting material damaged during disassembly.
00-016	000Z001156	B2100F010B	1	Replace stuffing box nut that was lost.
00-018	T251941024	B2100F032B	1	Replace segmental thrust ring for valve bonnet
00-019	T250961025	B2100F032A	1	Replace bolting material damaged during disassembly
00-020	000Z001388	T4700B002	2	Plug leaking tubes in drywell cooler and install flanges in supply and return piping.
00-021	000Z979242	B2103F022D	1	Replace bonnet bolting remove seal weld from body to bonnet and re-seal weld after valve refurbishment.
00-022	000Z994469	E1150F007B	2	Replace valve stem and disc.
00-023	000Z991235	E1150F050B	1	Replace cover bolting and segmental thrust rings.
00-024	000Z990391	B2103F019	1	Replace valve disc with oversize disc.
00-025	000Z984974	E1100F031B	2	Replace valve disc due to uneven seating surface.
00-026	000Z001180	T2301A001	2	Reattach radiation shield plate in drywell penetration X-100F.
00-027	000Z001446 F009000100	T2301A001B	2	Replace swing bolt for north east Drywell hatch
00-028	F011000200	T2302X200A	2	Replace south torus hatch bolting that was lost.
00-029	000Z001744	E5150F008	1	Replace valve bonnet, segmental thrust rings and stem due to backseat overload condition.
00-032	000Z972186	P5000F402	3	Replace Valve Disc and Stem

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

1. Owner Detroit Edison Company Date August 18, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet Pg. 1 of 40 *
 Address *28 Manufacturers Valve Data Reports Attached

2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166
 Address Raytheon
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Detroit Edison Company Type Code Symbol
 Name Stamp N/A
6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Address Expiration Date N/A

4. Identification of System P44(EECW) & P45 (EESW)

5. (a) Applicable Construction Code ASME III Winter N416-1 Code Case
Class 3 19 71 Edition 1971 Addenda,
 (b) Applicable Edition/Addenda of Section XI Utilized for Repairs or Replacements 1992, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
EECW Heat Exchanger Division 1	Alpha Laval	30103-04141	540	P4400B001A	1999	Replacement	Yes
EECW Heat Exchanger Division 2	Alpha Laval	30103-04142	543	P4400B001B	1999	Replacement	Yes
See continuation pages for installed material, valves, and supports							

7. Description of Work Replaced EECW tubed heat exchangers with plate and frame heat exchangers and rerouted associated EECW and EESW piping per EDPs 29805 and 29792.

8. Tests Conducted: Hydrostatic [] Pneumatic [] Nominal Operating Pressure [X] 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.

9. Remarks EDP 29805 (P4400B001A EECW Div. 1) Work Requests: 000Z992391, 000Z991648, 000Z990436, Repair Programs 99008A/B*
EDP 29805 (P4400B001B EECW Div. 2*) Work Requests: 000Z992392, 000Z991649, 000Z990544
EDP 29792 (EECW Temperature Control Valves Division 1) Work Requests: 000Z980133, 000Z982192, 000Z982194, 000Z992905, 000Z992928
EDP 29792 (EECW Temperature Control Valves Division 2*) Work Requests: 000Z980122, 000Z982191, 000Z982193, 000Z992906,
000Z992931 Section XI Programs 99-009 A/B*. Material and valves were procured under purchase orders, 348847, 348842, 348955, 349026,
344744, 338368, 348958, 326722, 348943, 313944, 349009, 348906, 313944, 348924, 342263, 349017, 348925
 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 N/A This NIS-2 supplements the original N-5 data reports N5-0025, N5-053, N5-0056, N5 T&B 21

N5-T&B-04, and N5-0258 for the modifications performed per Section XI Programs 99-008A/B and 99-009A/B.

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

Signed M.A. Brooks, NDE Engineer Date August 18, 2000
 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 Hartford Steam Boiler Insp. & Ins. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 4-12-00 to 8-18-00, 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 NB5486 NIASBIS NIG10
 Inspector's Signature National Board, State, Province, and Endorsements

Date August 18 2000

MAY 7
FORM NPV. MANUFACTURER'S DATA REPORT FOR SUCTION PUMPS OR VALVES*

As Required by the Provisions of the ASME Code Rules

- 1. Manufactured by The Wm. Powell Co., 3233 Co'ergrain Ave, Cinti, O Order No. 226381
(Name & Address of Manufacturer)
- 2. Manufactured for Detroit Edison Co., 2000 2nd Ave, Detroit, Mich Order No. IE 86734
(Name and Address)
- 3. Owner Detroit Edison Co.
- 4. Location of Plant 400 N. Dixie Highway, Stoney Creek, Monroe County, Michigan
- 5. Pump or Valve Identification Valve Serial No, 64305-7 DECO Mark V17-2092
(Brief description of service for which equipment was designed)
1-10" F.g. 3061A W.E. Swing Check Valve
EMERGENCY EQUIPMENT SERVICE WATER SYSTEM
- (a) Drawing No. 043468-1 ^{& -1} Prep'd 11/22/75 _{CP 11/26/75} Prepared by The Wm. Powell Co., Plant #2
- (b) National Board No. N/A
- 6. Design Conditions 175 psi 125 °F or Pressure Class N/A (1)
(Pressure) (Temperature)
- 7. The material, design, construction, and workmanship complies with ASME Code Section III, Class 3
Edition 1971, Addenda Date Winter 1971, Case No. 1507

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
B ody CM 6327 Heat C1372/7	ASME SA 216 Grade WCB	Adirondack Steel Watervliet, N.Y.	
Disc CM 6729 Heat Code 30L	ASME SA 216 Grade WCB	Crucible Steel Co. Cleveland, Ohio	
(b) Forgings	N/A		

INFORMATION ONLY

(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, 3a and 3b 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.
 3/75 This form (E00037, may be obtained from the Dir: Dept., ASME, 345 E. 47 St., New York, N.Y. 10017.

ILLEGIBLE DOCUMENT

128
11
11/11/75

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Stud Lot CM 8673 / Code DV	ASME SA 193 Grade B7	Wm. H. Haskell Co. Pawtucket, R.I.	
Nuts Lot CM 8674 / Code DW	ASME SA 194 Grade 2H	Wm. H. Haskell Co. Pawtucket, R.I.	
(d) Other Parts			
Cap CM 7328	ASME SA 515	Bethlehem Steel	
Head 802K65190	Grade 70	Burns Harbor, Ind.	

ILLEGIBLE DOCUMENT

8. Hydrostatic test 1100 psi.

CERTIFICATION OF DESIGN

Design information on file at The Wm. Powell Co., Cincinnati, Ohio Plant #2

Stress analysis report on file as N/A

Design specifications certified by Sylvester H. Noetzel (1) Prof. Eng. State Mich Reg. No. 14386

Stress analysis report certified by N/A (1) Prof. Eng. State Reg. No.

(1) Signature not required. List name only.

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

Date November 26, 1975 Signed Wm. Powell Co., Plt #2 By J.C. Williams
(Manufacturer) J.C. Williams

Certificate of Authorization No. N 719 expires October 30, 1976

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 Province of Ohio and employed by Hartford Steam Boiler I. & I. Co. of Hartford, Conn. have inspected the equipment described in this Data Report on Nov 26th 19 75, 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 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 Nov. 26th 19 75

Carl E. Anderson (Inspector) Commission Ohio 8/10/73
Carl E. Anderson (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**

1. Owner Detroit Edison Company Date April 5, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System Spare Disc for stock (548-8704)
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 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)
P4500F002A	Wm. Powell	64305-7	NA	V15-2092	1975	REPAIR	Y

7. Description of Work Weld repair disc removed from P4500-F002A (CM6729) and put in stock

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other 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 The disc that was refurbished (CM6729) is to be placed in stock as a spare, DECO stock code 548-8704
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 This repair was completed per Section XI Program 99-007.

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

Signed  LEAD ISI ENGINEER Date APRIL 6, 2000
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 10-14-1999 to 4-5-2000, 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.

 Commissions NB5486 NEASBE MICH
Inspector's Signature National Board, State, Province, and Endorsements

Date April 8 20 00

(12/82)

For complete work package, see Work Request 000Z993715

As Required by the Provisions of the ASME Code Rules

1. Manufactured by The Wm. Powell Co., 3233 Colerain Ave. Cinti, O Order No. 226381
(Name & Address of Manufacturer)

2. Manufactured for Detroit Edison Co., 2000 2nd Ave, Detroit, Mich Order No. IE 86734
(Name and Address)

3. Owner Detroit Edison Co.

4. Location of Plant 400 N. Dixie Highway, Stoney Creek, Monroe County, Michigan

5. Pump or Valve Identification Valve Serial No. 64305-5 DECO Mark V15-2067
1-10" Fig. 3061A W.E. Swing Check Valve
(Brief description of service for which equipment was designed)
EMERGENCY EQUIPMENT SERVICE WATER SYSTEM

(a) Drawing No. 043468-1 ⁸⁻¹ ₉₀₂ ^{11/26/75} Prepared by The Wm. Powell Co., Plant #2
CA 11-2678

(b) National Board No. N/A

6. Design Conditions 175 psi 125 °F or Pressure Class N/A (1)
(Pressure) (Temperature)

7. The material, design, construction, and workmanship complies with ASME Code Section III, Class 3
Edition 1971, Addenda Date Winter 1971, Case No. 1507

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Body CM 6322 Heat C1372	ASME SA 216 Grade WCB	Adirondack Steel Watervliet, N.Y.	
Disc CM 6728 Heat Code 30L	ASME SA 216 Grade WCB	Crucible Steel Co. Cleveland, Ohio	
(b) Forgings			
N/A			

INFORMATION ONLY

INFORMATION ONLY

(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, 5a and 5b 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.

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Studs Lot B673 Code DW	ASME SA 193 Grade B7	Wm. H. Haskell Co. Pawtucket, R. I.	
Nuts Lot B674 Code DV	ASME SA 194 Grade 2H	Wm. H. Haskell Co. Pawtucket, R. I.	
(d) Other Parts			
See SA 7007	ASME SA 312 Grade 70	petroleum steel Burns Harbor, Ind.	

h. Hydrostatic test 1100 psi.

CERTIFICATION OF DESIGN

Design information on file at The Wm. Powell Co., Cincinnati, Ohio Plant #2
 Stress analysis report on file at N/A
 Design specifications certified by Clyde G. P. Marshall (1) Prof. Eng. State Mich Reg. No. 14386
 Stress analysis report certified by N/A (1) Prof. Eng. State _____ Reg. No. _____
 (1) Signature not required. List name only.

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

Date November 26, 1975 Signed Wm. Powell Co. Plr #2 By J. C. Williams
(Manual signature)
 Certificate of Authorization No. N 719 expires October 30, 1976 J.C. Williams

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 Province of Ohio and employed by Hartford Steam Boiler I & I. Co. of Hartford, Conn. have inspected the equipment described in this Data Report on Nov. 26th 1975 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 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 Nov. 26th 1975

Carl E. Anderson
(Inspector)
Carl E. Anderson

Commissions Ohio 8/10/73
(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**

1. Owner Detroit Edison Company Date April 5, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System T & B N5-4 Emergency Equipment Service Water (Div. I)
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 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)
P4500F002A	Wm. Powell	64305-7	NA	V15-2092	1975	REPAIR	Y

7. Description of Work Install replacement disc in check valve
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.

Form NIS-2 (Back)

9. Remarks Replacement disc, serial number CM 6728 that was installed in P4500F002A was previously removed from check valve
Applicable Manufacturer's Data Reports to be attached

P4500- F002B (V15-2067) and refurbished, per Section XI program 99-005.

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 N5-004 to be supplemented by owners Section XI program 99-006 and 99-005.

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

Signed *RM Johnston* LEAD ISI ENG Date APRIL 6 2000
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 10-12-99 to 4-7-2000, 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] Commissions NB9486 NIAS BTJ MI010
Inspector's Signature National Board, State, Province, and Endorsements

Date _____ 20 _____

(12/82)

For complete work package, see Work Request 000Z993669, 000Z993698

As Required by the Provisions of the ASME Code Rules

NIS-299-005

1. Manufactured by The Wm. Powell Co., 3233 Colerain Ave., Cinti., O Order No. 226381
(Name & Address of Manufacturer)

2. Manufactured for Detroit Edison Co., 2000 2nd Ave, Detroit, Mich Order No. IE 86734
(Name and Address)

3. Owner Detroit Edison Co.

4. Location of Plant 400 N. Dixie Highway, Stoney Creek, Monroe County, Michigan

5. Pump or Valve Identification Valve Serial No. 64305-5 DECO Mark V15-2067

1-10" Fig. 3061A W.E. Swing Check Valve

(Brief description of service for which equipment was designed)

EMERGENCY EQUIPMENT SERVICE WATER SYSTEM

(a) Drawing No. 043468⁸-1 ^{CP 11-2670} Prepared by The Wm. Powell Co., Plant #2 ^{11/24/75}

(b) National Board No. N/A

6. Design Conditions 175 psi 125 °F or Pressure Class N/A (1)
(Pressure) (Temperature)

7. The material, design, construction, and workmanship complies with ASME Code Section III, Class 3

Edition 1971, Addenda Date Winter 1971, Case No. 1507

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Body <u>CM 6322</u> Heat <u>C1372</u>	ASME SA 216 Grade WCB	Adirondack Steel Watervliet, N.Y.	
Disc <u>CM 672B</u> Heat Code <u>30L</u>	ASME SA 216 Grade WCB	Crucible Steel Co. Cleveland, Ohio	
INFORMATION ONLY			
(b) Forgings			
<u>N/A</u>	INFORMATION ONLY		

(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, 5a and 5b 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.
 1/75 This form (E00037, may be obtained from the Order Dept., ASME, 345 E. 47 St., New York, N.Y. 10017.

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Studs Lot 8673 Code DW	ASME SA 193 Grade B7	Wm. H. Haskell Co. Pawtucket, R. I.	
Nuts Lot 8674 Code DV	ASME SA 194 Grade 2H	Wm. H. Haskell Co. Pawtucket, R. I.	
(d) Other Parts			
Cap Screw	ASME SA 193 Grade 70	retention steel Burns Harbor, Ind.	

h. Hydrostatic test 1100 psi.

CERTIFICATION OF DESIGN

Design information on file at The Wm. Powell Co., Cincinnati, Ohio Plant #2
 Stress analysis report on file as N/A
 Design specifications certified by Lytle, et al (1) Prof. Eng. State Mich Reg. No. 14386
 Stress analysis report certified by N/A (1) Prof. Eng. State _____ Reg. No. _____
 (1) Signature not required. List name only.

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

Date November 16, 1975 Signed Wm. Powell Co., Plr #2 By J.C. Williams
(Must be typed)
 Certificate of Authorization No. N 719 expires October 30, 1976 J.C. Williams

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 Province of Ohio and employed by Hartford Steam Boiler I & I. Co. of Hartford, Conn. have inspected the equipment described in this Data Report on Nov. 26th 1975 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 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 Nov. 26th 1975

Carl E. Anderson (Inspector) Commission Ohio 8/10/73
Carl E. Anderson (National Board, State, Province and No.)

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., EF-2 Site, 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 8370B Nat'l Bd. No. ---- CRN No. ----
(a) Constructed According to Drawing No. 26-OS9865-150-02-00 Drawing Prepared by The Wm. Powell Co.

(b) Description of Part Inspected 1 - Disc for 10" Figure 3061AWE

(c) Applicable ASME Code: Section III, Edition 1971, Added 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 _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (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 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. _____ 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 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.

Items below to be completed for all vessels where applicable.

DISC CM 8370 B

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 May 31, 19 95 Signed The Wm. Powell Co. by [Signature]
(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 5-31, 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 5-31, 1995

[Signature]
Inspector's Signature

Commissions NB1094N: 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

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>April 5, 2000</u> Sheet <u>1</u> of <u>3</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>N5-0258 & T&B N5-21 Emergency Equipment Service Water (Div. II)</u>	

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 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)
P4500F002B	Wm. Powell	64305-5	NA	V15-2067	1975	REPLACEMENT	Y

7. Description of Work Install replacement stainless alloy disc in check valve

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.

Form NIS-2 (Back)

9. Remarks Replacement disc, serial number CM 8370B, procured per PO #283509. Repair of disc removed was also completed under this
Applicable Manufacturer's Data Reports to be attached
repair program per WR # 000Z993698.(CM 6728)

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 N5-021 and N5-0258 to be supplemented by owners Section XI program 99-005..

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

Signed *R.M. Hallett* LEAD ISI OIG Date APRIL 6 20 00
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 10-11-99 to 4-7-2000, 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 NB 3486 NEARBS M210
National Board, State, Province, and Endorsements

Date Apr 17 20 00

(12/82)

For complete work package, see Work Request 000Z993693

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

NIS-2 99-004
Sheet 3 of 3

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

Pg. 1 of 2

1. Manufactured and certified by Target Rock Corp., 1989E, Broadhollow Road, E. Farmingdale, NY 11735
(name and address of NPT Certificate Holder)
2. Manufactured for Public Service Electric & Gas, Alloway Creek Neck Rd., Hancocks Bridge, NJ 08038
(name and address of Purchaser)
3. Location of installation Hanna Creek Generating Station, Alloway Creek Neck Rd., Hancocks Bridge, NJ 08038
(name and address)
4. Type 300209-1 SA-105 70 ksi N/A 1988
(drawing no.) (mat'l. spec. no.) (nominal strength) (CRN) (Year built)
5. ASME Code, Section III, Division 1: 1988 Summer 1970 1 None
(edition) (addenda date) (clause) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A 0 0 0
(no.) (no.) (no.) (no.)
7. Remarks: Flt'd Body Assembly
Spares part for Assembly PL7557E-010 (PL7587E-700 Item 33)

Nom. Thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (r & in.) N/A Length overall (r & in.) N/A

8. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical Order	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) <u>388</u>		(26) _____	
(2) <u>N/A</u>		(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) _____	

Certificate Holder's Serial No. 399

CERTIFICATION OF DESIGN

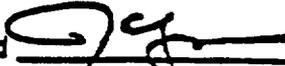
Design specifications certified by R. R. Ghosh P.E. State GA Reg. No. 16371
(when applicable)

Design report* certified by D. M. Pattarini P.E. State NY Reg. No. 029841
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Parts
 conforms to the rules for construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-1948 Expires 12/12/98

Date 10/27/98 Name Target Rock Signed 
(NPT Certificate Holder) R.E. Glieber, Manager, Q.E.
(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 of Province of New York and employed by Commercial Union Insurance Co. of Boston, MA have inspected the pump, or valve, described in this Data Report on 10/27/98 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, 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 10/27/98 Signed William A. DeLoach Commissions N. Y. STATE COMMISSION NO. 2288
(Authorized Inspector) ALSO COMMISSIONED IN PENN., OHIO & CONN.
(Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

**Pressure Retaining Parts Installed
In Pilot Cartridges During Fall 1999 Rebuilds**

NIS-2 99-001
Sheet 2 of 3

Pilot SN#	Disc Replaced Stock #548-0255	Spherical Collar Replaced Stock #548-0256
342	X	
332		
1184		X
1197		
1200		
327		X
330		X
339		X
372		X
1198	X	
328		
336		
389*		
1180		
1199	X	

*The Pilot Body Assembly on SN#389 pilot was also replaced:

Stock#480-1754
SN#399
Heat#W0635
Heat Lot#1628AC

**Pressure Retaining Parts Installed In Base Bodies
During Fall 1999 Rebuilds (Class 1 Bolting)**

Base Body SN#	Stock# 251-1210 Bolt 1-1/8-12x6-1/4, Heat code B9, Heat lot #18868610	Stock# 252-0252 Hex nut 1-1/8-12UNF Heat code #YT6, Heat lot #8097181	Stock# 489-3197 Stud 5/8-11x5- 23/32 Heat code#83768 Heat lot #35810080	Stock# 489-3197 Stud 5/8-11x5- 23/32 Heat code#8089528 and Heat Lot#77-1855.	Stock# 489-0093 Stud 5/8-11x5- 3/16 Heat code#8089528 Heat Lot #77-1855
328	(7ea.)	(4ea.)	(1ea.)	(5ea.)	(2ea.)
342	(1ea.)	(1ea.)	0	0	0
389	(4ea.)	(3ea.)	0	0	0
332	0	0	0	0	0

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

1. Owner Detroit Edison Company Date 12/16/99
 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 N/A
 Name _____ Stamp _____
6400 North Dixie Highway, Newport, MI 48166 Address _____
 Authorization No. N/A
 Expiration Date N/A
4. Identification of System (Various) Main Steam Safety Relief Valve Pilot Assemblies, and Base Assemblies
5. (a) Applicable Construction Code ASME III
 Class 1 19 68 Edition S'1970 Addenda, NA 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)
B2104F013@	Target Rock	Various	N/A	B2104F013@	N/A	Replacement	Yes

7. Description of Work Rebuilt & Tested 15 SRV's in October of 1999. All pilot disc were coated using the I-BAD process.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F
 _____ (Visual Inspection was performed)

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 valve testing was performed under Wyle P.O. #317771, and all repairs were performed under Target Rock P.O. #325608. Work request # B273040100 was used to track repairs on the Pilot assemblies, and WR# B270990100 was used to track the repairs on the base bodies.

A list of parts utilized and material traceability is detailed on the attached sheets.

Pilot bodies SN# 336, and SN# 328 were repaired by welding in new integral seats.

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 99-004 Original Code Data Report to be supplemented by Section XI Program 98-006 and TR field Service report 99Z038

Certificate of Authorization No. N/A Expiration Date N/A
Signed [Signature] LEAD ISI ENG Date JANUARY 12 2000
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 01-22-00 to 01-22-00, 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 NBIBS-NEADS-NEADS
Inspector's Signature National Board, State, Province, and Endorsements
Date Jan 22 19 2000

(10/94)

For complete work package, see Work Request # B273040100 & WR# B270990100

**2000 Refueling Outage SRV Replacement Matrix
 RF07**

Division	PIS Number	Steam Line	Isometric Drawing	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	B350000100	389 ¹	342
	B2104F013B	C	M-2591	301	1135	B351000100	331	1197
	B2104F013E	C	M-2592	309	1155	B354000100	339	336
	B2104F013H	C	M-2588	266	1155	B356000100	392	1199
	B2104F013J	C	M-2589	308	1155	B358000100	332 ¹	328
	B2104F013P	D	M-4096	322	1155	B363000100	340	389
	B2104F013R	C	M-2590	288	1155	B364000100	371	1180
II	B2104F013C	B	M-2594	291	1135	B352000100	338	1184
	B2104F013D	B	M-2593	278	1145	B353000100	328 ¹	327
	B2104F013F	B	M-2596	290	1145	B355000100	336	339
(LLS)	B2104F013G	B	M-2587	321	1135	B357000100	337	1200
	B2104F013K	B	M-2595	311	1135	B359000100	372	332
	B2104F013L	A	M-4094	313	1145	B360000100	373	330
	B2104F013M	A	M2586	268	1145	B361000100	342 ¹	1198
	B2104F013N	A	M-4093	310	1145	B362000100	333	372

NOTES: 1. Four SRV Main bodies were replaced

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

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>May 26, 2000</u> Sheet <u>1 of 12</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>
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	<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>
4. Identification of System <u>B21 Nuclear Boiler (Main Steam)</u>	
5. (a) Applicable Construction Code <u>ASME III</u> <u>Class 1</u> 19 <u>71</u> Edition <u>Winter 1971</u> Addenda, _____ Code Case	
(b) Applicable Edition/Addenda 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)
B2104F013A-R	Target Rock	Various (see attached list)	N/A	Various	N/A	Replacement	Yes

7. Description of Work RFO7 rework: Replaced SRV Pilot Cartridges on all valves. Replaced main bodies on B2104F013A, J, D, & M. Replaced damaged bolting material (SA-193/SA-194) on SRV pilot assemblies B2104F013D, J, M, and N.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1040 psi Test Temp. 201 °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 Replacement pilot cartridge assemblies were refurbished and retested per PO No. 317771. Reference Section XI Program 99-003.
The final installed pilot/body configuration is listed on the attached sheet Pilot valve discs are platinum coated.

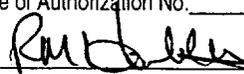
Applicable Manufacturer's Data Reports to be attached

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 N/A This NIS-2 supplements the original N-5 data reports listed on the attached sheet. Program 99-003

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

Signed  LEAD ISI ENG Date JUNE 2, 20 00
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 Hartford Steam Boiler Insp. & Ins. Co. of One State Street, Hartford, CT 06102 have inspected the components described in this Owner's Report during the period 3-13-2000 to 7-12-2000, 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.

 Commissions NB9486 NIASBIS M1610
Inspector's Signature National Board, State, Province, and Endorsements

Date July 12 20 00

ATTACHMENT 1

SHEET 2 OF 2
NIS-2 FOR
SECTION 98-000A&B

Material used for EDP-29475

Division I

- Pipe - 16", 3/8" wall, SA 106 GR B, HT #N26513, PO# 331629
- Elbow - 16", SR, 3/8" wall, SA-234 GR WPB, HT #H415C, PO #331633
- (2) Flanges - 16", 300 lb., raised face, SA-105, HT # VQA7, PO # 331634
- Plate - 1/4", SA-240, Type 304, HT #4936301, PO #331628
- (20) Studs - 1 1/4" x 8 x 7 3/4, SA-193, B7, HT #ACI, PO # 331634
- (40) Nuts - 1 1/4" x 8, HH, SA-194, G7, HT # TP L7, PO# 331634

Division II

- Pipe - 16", 3/8" wall, SA 106 GR B, HT #N26513, PO# 331629
- Elbow - 16", SR, 3/8" wall, SA-234 GR WPB, HT #H415C, PO #331633
- (2) Flanges - 16", 300 lb., raised face, SA-105, HT # RLB6, PO # 331634
- Plate - 1/4", SA-240, Type 304, HT #4936301, PO #331628
- (20) Studs - 1 1/4" x 8 x 7 3/4, SA-193, B7, HT #ACI, PO # 331634
- (40) Nuts - 1 1/4" x 8, HH, SA-194, G7, HT # TP L7, PO# 331634

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

98-008

1. Owner Detroit Edison Company Date October 21, 1999
 Name _____
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address _____
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name _____
6400 North Dixie Highway, Newport MI 48166 _____
 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 N5-3 Residual Heat Removal Service Water (Division I)
N5-22 Residual Heat Removal Service Water (Division II)
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 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)
Division I M-N-2184-1	DECO	N/A	N/A	E1155D003	99	Replacement	N
Division II M-N-2184-1	DECO	N/A	N/A	E1155D004	99	Replacement	N

7. Description of Work Modify cold weather bypass / test line on Division I & II RHRSW by installation of flanges and an orifice plate per EDP-29475.
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.

Form NIS-2 (Back)

9. Remarks See Attachment 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 Reports to be supplemented by owners Section XI Program, No. 98-008A and 098-008B

Certificate of Authorization No. N/A

Expiration Date N/A

Signed Richard M. [Signature]
Owner or Owner's Designee, Title

LEAD ISTE ENGINEER

Date OCTOBER 21 19 99

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 07-22-98 to 10-21-99, 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 ME 610

National Board, State, Province, and Endorsements

Date October 21 19 99

(12/82)

For complete work package, see Work Requests:

Div. I
000Z982293
000Z982289

Div II
000Z982294
000Z982290

Certificate Holder's Serial No. 10956-10969

8. Design conditions 175 psi 125 °F or valve pressure class 150 (1)
(pressure) (temperature)
9. Cold working pressure 275 psi at 100°F
10. Hydrostatic test 425 psi. Disk differential test pressure 325 psi
11. Remarks: Qty: 14, Eherotech Job Number: 21907
- _____
- _____
- _____

CERTIFICATION OF DESIGN

Design Specification certified by John Contoni P.E. State MI Reg. no. 21740
 Design Report certified by Ira J. Silverman P.E. State CA Reg. no. 23241

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2826 Expires 10/26/99*

Date 11/30/99 Name Enertech Signed *Paul Whittaker*
(N 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 California and employed by H.S.B.I.&I, Co. of Connecticut have inspected the pump, or valve, described in this Data Report on 11/30/99, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

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

Date 11/30/99 Signed *Vincent F. Reed* Commissions CA 15210 NB 9435N
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

*Extension of expiration date which expires on 12/24/99 issued by ASME on 10/19/99.

Certificate Holder's Serial No. 10955

8. Design conditions 175 (pressure) psi 125 (temperature) °F or valve pressure class 150 (1)
9. Cold working pressure 275 psi at 100°F
10. Hydrostatic test 425 psi. Disk differential test pressure 325 psi
11. Remarks: Qty: 1, Enertech Job Number: 21907V

CERTIFICATION OF DESIGN

Design Specification certified by John Contoni P.E. State MI Reg. no. 21740
 Design Report certified by Ira J. Silverman P.E. State CA Reg. no. 23241

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2826 Expires 10/26/99*
 Date 11/30/99 Name Enertech Signed [Signature]
 (N 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 California and employed by H.S.B.I.&I. Co. of Connecticut have inspected the pump, or valve, described in this Data Report on 11-30-99, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

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

Date 11-30-99 Signed [Signature] Commissions CA 1520 NB 9435N
 (Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

*Extension of expiration date which expires on 12/24/99 issued by ASME on 10/19/99.

FORM NI V-1 (back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Studs Lot CM 6798	ASME SA 193	Wm. H. Haskell	
Code BI Heat U2465	Grade B7	Pawtucket, R.I.	
Nuts Lot CM 6799	ASME SA 194	Wm. H. Haskell	
Code BJ Heat 15936	Grade 2H	Pawtucket, R.I.	
(d) Other Parts			
Bonnet Drain Nipple			
CM 3948	ASME SA 106	U.S. Steel Co.	
Heat D44375	Grade B	Gary, Indiana	

B. Hydrostatic test 1100 psi.

CERTIFICATION OF DESIGN

Design information on file at The Wm. Powell Co., Cincinnati, Ohio
 Stress analysis report on file at N/A
 Design specifications certified by Sylvester H. Notezel (1) Prof. Eng. State Mich Reg. No. 14360
 Stress analysis report certified by N/A (1) Prof. Eng. State _____ Reg. No. _____
 (1) Signature not required. List name only.

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

Date August 13, 1975 Signed Wm. Powell Co., Plt #2 By J.C. Williams
(Manufacturer) J.C. Williams
 Certificate of Authorization No. N 719 expires October 30, 1976

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 Province of Ohio and employed by Hartford Steam Boiler I. & I. Co. of Hartford, Conn. have inspected the equipment described in this Data Report on 8 13 19 75, 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 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 Aug 13 19 75

Carl E. Anderson Commissions Ohio 8/10/73
(Inspector) (National Board, State, Province and No.)
Carl E. Anderson

50520 8-1-15

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

As Required by the Provisions of the ASME Code Rules

1. Manufactured by The Wm. Powell Co., 3233 Colepain Ave, Cinti, Ohio Order No. 198770
(Name & Address of Manufacturer)

2. Manufactured for Detroit Edison Co., 2000 2nd Ave, Detroit, Mich Order No. IE 86734
(Name and Address)

3. Owner Detroit Edison Co.

4. Location of Plant 400 North Dixie Highway, Stoney Creek, Monroe County, Michigan

5. Pump or Valve Identification Valve Serial No. 66285-9
1-8" Fig. 1503 W.E. Gate Valve
(Brief description of service for which equipment was designed)
REACTOR BUILDING CLOSED COOLING WATER & EMERGENCY EQUIPMENT COOLING WATER SYSTEMS

(a) Drawing No. 042048-3 Prepared by The Wm. Powell Co., Plant #2

(b) National Board No. N/A

6. Design Conditions 150 psi 200 °F
(Pressure) (Temperature)

7. The material, design, construction, and workmanship complies with ASME Code Section III, Class 2
 Edition 1971, Addenda Date Winter 1971, Case No. 1507

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Body CM 4062 Heat A4947	ASME SA 216 Grade WCB	Adirondack Steel Watervliet, N.Y.	
Bonnet CM 1608A Heat 1455	ASME SA 216 Grade WCB	Howmet Corp. Milwaukee, Wisc.	
Wedge CM 1211A Heat 9987	ASME SA 216 Grade WCB	Howmet Corp. Milwaukee, Wisc.	
(b) Forgings <u>N/A</u>			

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) also in 8 1/2" x 11", (2) information in items 1, 2, 5a and 5b 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.

FORM NPV-1 (back)

Mtrl No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Studs Lot CM 6798 Code BI Heat U2465	ASME SA 193 Grade B7	Wm. H. Haskell Pawtucket, R.I.	
Nuts CM Lot 6799 Code BJ Heat 15936	ASME SA 194 Grade 2H	Wm. H. Haskell Pawtucket, R.I.	
(d) Other Parts			
Bonnet Drain Nipple CM 3943 Heat D44375	ASME SA 106 Grade B	U.S. Steel Co. Gary, Indiana	

8. Hydrostatic test 1100 psi.

CERTIFICATION OF DESIGN

Design information on file at The Wm. Powell Co., Cincinnati, Ohio
 Stress analysis report on file at N/A
 Design specifications certified by Sylvester H. Noetzel (1) Prof. Eng. State Mich Reg. No. 14360
 Stress analysis report certified by N/A (1) Prof. Eng. State _____ Reg. No. _____
 (1) Signature not required. List name only.

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

Date August 13, 1975 Signed Wm. Powell Co., Plt #2 By J.C. Williams
(Manufacturer) J.C. Williams
 Certificate of Authorization No. N 719 expires October 30, 1976

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 Ohio and employed by Hartford Steam Boiler I. & I. Co of Hartford, Conn. have inspected the equipment described in this Data Report on 8-13 19 75, 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 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 Aug 13 19 75

Carl E. Anderson
(Inspector) Commissions Ohio 8/10/73
(National Board, State, Province and No.)

1 2 3 7 0 2 1 1 5

PT

1. Manufacturer: The Wm. Powell Co., 1000 ...

2. Manufactured for: Detroit Edison Co., 200 ...
Detroit, Mich.

3. Owner: Detroit Edison Company

4. Location of Plant: 100 N. Dixie Highway, Steady Creek, Monroe County, Michigan

5. Pump or Valve Identification: Valve Serial #60293-8 Logo Mark No. VS-2371

1-6" Fig. 1503 W.E. Gate Valve

FACTORY BUILDING CLOSED DURING WATER & EMERGENCY EQUIPMENT COORDINATION MEETING

(a) Design No. 64293-3 Property of The Wm. Powell Co., Pkt. #2

(b) National Reg. No. N/A

Design Conditions: 150 200 °F or Pressure Class N/A

The material, design, construction, and workmanship complies with ASME Code Section III, Class 3

Edition: 1971, Addenda Date: Winter 1971, Case No. 1507

Mark No.	Material Spec. No.	Manufacturer	Part No.
(a) Castings			
Body Mark CM 135A Heat #45294	ASME SA 216 GR WCB	Adirondack Steel Watervliet, N.Y.	
Bonnet Mark CM 1021A Heat #1415	ASME SA 216 GR WCB	Hewlett Corp. Milwaukee, Wisc.	
Wedge Mark CM 1507A Heat #1089	ASME SA 216 GR WCB	Hewlett Corp. Milwaukee, Wisc.	
(b) Forgings			
<u>N/A</u>			

ILLEGIBLE DOCUMENT

1. This document is the property of the U.S. Nuclear Regulatory Commission and is loaned to you for your information only. It is not to be distributed outside your organization. If you have any questions regarding this document, please contact the U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, 400 ...

76320 20008

RT

(c) Bolting			
Nuts Lot 90M 6789	ASME SA 194	Ms. H.
Code BJ Heat #12-86
(d) Other Parts			
Bonnet			
Code 4458 Heat #12-86

Hydrostatic test: **425**

CERTIFICATION OF DESIGN

Design information on file at The Wm. Powell Co., Cincinnati, Ohio
 Stress analysis report on file at N/A
 Design specifications certified by Sylvester H. Moetzel (I) Prof. Eng. State Mich Reg. No. 11386
 Stress analysis report certified by N/A (I) Prof. Eng. State Mich Reg. No. ...
 (I) Signature not required. List name only.

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

Date March 9, 1976 signed The Wm. Powell Co. By J.C. Williams
 (No. design) Plt. #2 W.C. Williams
 Certificate of Authorization No. N. 719 expires October 30, 1976

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 Province of Ohio and employed by Hartford Steam Boiler I & ... of Hartford, Conn. have inspected the equipment described in this Data Report on March 11, 1976 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 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 loss of any kind arising from or connected with this inspection.

Date March 11, 1976

Carl E. ...
 ILLEGIBLE DOCUMENT

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APR 12 1985

66285-7 23

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

PAGE 15 of 49
NS SN 0025

As Required By the Provisions of the ASME Code Rules

1. Manufactured by The Wm. Powell Co. 3233 Colerain Ave., Cincinnati, Oh. Order No. 199770
(Name & Address of Manufacturer)

2. Manufactured for Detroit Edison Co. 2000 2nd Ave., Detroit, Mich. Order No. IE 86734
(Name and Address)

3. Owner Detroit Edison Company

4. Location of Plant 400 N. Dixie Highway, Stoney Creek, Monroe County, Michigan

5. Pump or Valve Identification Valve Serial No. 66285-7 DECO Mark V8-2370

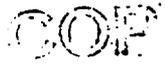
1-8" Fig. 1503 W.E. Gate Valve

(Brief description of service for which equipment was designed)

Reactor Building Closed Cooling Water System & Emergency Equipment Cooling Water System

(a) Drawing No. 042048-3 Prepared by The Wm. Powell Co. Plant #2

(b) National Board No. N/A



6. Design Conditions 150 psi 200 °F or Pressure Class N/A (1)
(Pressure) (Temperature)

7. The material, design, construction, and workmanship complies with ASME Code Section III, Class 3

Edition 1971, Addenda Date Winter 1971, Case No. 1507

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
<u>Body CM 1273</u>	<u>ASME SA 216</u>	<u>Adirondack Steel</u>	
<u>Heat AL948</u>	<u>Grade WCB</u>	<u>Watervliet, N.Y.</u>	
<u>Bonnet CM 1619A</u>	<u>ASME SA 216</u>	<u>Howmet Corp.</u>	
<u>Heat 1455</u>	<u>Grade WCB</u>	<u>Milwaukee, Wisc.</u>	
<u>Wedge CM 1218A</u>	<u>ASME SA 216</u>	<u>Howmet Corp.</u>	
<u>Heat 9987</u>	<u>Grade WCB</u>	<u>Milwaukee, Wisc.</u>	
(b) Forgings			
<u>N/A</u>			

ILLEGIBLE DOCUMENT

(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, 3a and 3b 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.

3/75

This form (E00037, may be obtained from the Order Dept., ASME, 345 E. 47 St., New York, N.Y. 10017.

56220 20008

FORM NPV-1 (back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) <u>Bolting</u>			
<u>Stud Lot CM 6798</u>	<u>ASME SA 193</u>	<u>Wm. H. Haskell Mfg.</u>	
<u>Code BI Heat U2465</u>	<u>Grade B7</u>	<u>Pawtucket, R.I.</u>	
<u>Nut Lot CM 6799</u>	<u>ASME SA 194</u>	<u>Wm. H. Haskell Mfg.</u>	
<u>Code BI Heat 15936</u>	<u>Grade 2H</u>	<u>Pawtucket, R.I.</u>	
(d) <u>Other Parts</u>			
<u>Bonnet Drain Nipple</u>	<u>ASME SA 106</u>	<u>U.S. Steel Corp.</u>	
<u>CM-4459 Heat A64871</u>	<u>Grade B</u>	<u>Gary, Ind.</u>	

8. Hydrostatic test 425 psi.

CERTIFICATION OF DESIGN

Design information on file as The Wm. Powell Company, Cincinnati, Ohio
 Stress analysis report on file as N/A
 Design specifications certified by Sylvester H. Noetzel (I) Prof. Eng. State Mich. Reg. No. 14386
 Stress analysis report certified by N/A (I) Prof. Eng. State _____ Reg. No. _____
 (I) Signature not required. List name only.

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

Date Dec. 17, 1975 Signed The Wm. Powell Co. Pltr #2 J.E. Williams
 (Manufacturer)
 Certificate of Authorization No. N719 expires October 30, 1976

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 or Province of Ohio and employed by Hartford Steam Boiler I & T Co. of Hartford, Connecticut have inspected the equipment described in this Data Report on Dec 18, 1975, 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 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 Dec 18, 1975

Carl E. Anderson Commission Ohio 8/10/73
 (Inspector) Carl E. Anderson (National Board, State, Province and No.)

ILLEGIBLE DOCUMENT

9 6 2 2 0 8 0 0 0 8

D. B. 349017

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder)

2. Manufactured for Tennessee Valley Authority, 400 Commerce Ave., Knoxville, Tenn.
(Name and Address of Purchaser or Owner)

3. Location of Installation Phipps Bend Nuclear Plant, Surgionsville, TN.
(Name and Address)

4. Pump or Valve Globe Nominal Inlet Size 8 Outlet Size 8
(inch) (inch)

	(a) Model No. Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	150#	71044	N/A	4811BC2-001	3	N/A	1981
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. The valves are designed to handle a fluid media which includes steam, water condensate, horated water, etc., associated with a FWR and BWR. The temperature pressure rating of the media is stated below.
(Brief description of service for which equipment was designed)

6. Design Conditions 250 150 °F or Valve Pressure Class N/A (1)
(Pressure) (Temperature)

7. Cold Working Pressure 275 psi at 100°F.

8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Body-Code 4H28	SA216 WCB	Pacific Metals	
Bonnet-Code 4K94	SA216 WCB	Pacific Metals	
Disc-Code 4K10	SA216 WCB	Pacific-Southern Forgy.	
(b) Forgings			
N/A			

(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.

P.O. # 349017

FORM NR-1 REPORT OF REPAIR MODIFICATION OR INSTALLATION OF REPLACEMENT(S)
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Flowserve Corporation E869P-1
 701 First Street, Williamsport, PA 17701 (P.O. no., job no., etc.)

2. Owner Detroit Edison
 P.O. Box 1659, Detroit, MI 48231.

3. Name, address and identification of nuclear power plant Enricho Fermi #2
 6400 Dixie Highway, Newport, MI 48166.

4. System N/A

5. a: Component repaired, modified or replaced Valve
 b: Name of manufacturer Borg-Warner
 c: Identifying nos. 64315 N/A N/A N/A 1980
 d: Construction Code Sect. III 1974 (S) 1976 N/A 3

6. ASME Code Section XI applicable for inservice inspection: N/A N/A N/A

7. ASME Code Section XI used for repairs, modifications, or replacements: 1971 (W) 1971 N/A

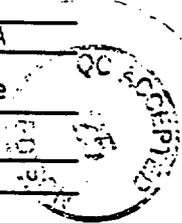
8. Construction Code used for repairs, modifications, or replacements: N/A N/A N/A

9. Design responsibilities Flowserve Corporation

10. Tests conducted: hydrostatic pneumatic design pressure pressure 425 psi Code Case(s) N/A

11. Description of work Remove (1) SA312 Ty 304L Sch. 40 Safe End and Remachine
Body to Drawing #481LBC-001 Rev. F

12. Remarks: Valve Serial Number: E869P-1-1



CERTIFICATE OF COMPLIANCE

I, Ron R. Delker certify that the statements made in this report are correct and the repair, modification or replacement of the items described above conforms to Section XI of the ASME Code and to the National Board Inspection Code "NR" rules.

National Board Certificate of Authorization No. NR 44 to use the "NR stamp expires 07/10 19 2001

Date 2/28/00 19 Signed Flowserve Corp. RR Delker Q.A. Engineer
(name of repair organization) (authorized representative) (title)

CERTIFICATE OF INSPECTION

I, Charles Young holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Pennsylvania and employed by Commercial Union Ins. Co. of Boston, MA. have inspected the repair, modification or replacement described in this report on 2-28-00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the ASME Code and the National Board Inspection Code "NR" rules.

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

Date 2-28-00 Signed Charles Young Commissions PA 2392 
(inspector) (National Board (incl. endorsement), jurisdiction, and no.)

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

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder)
2. Manufactured for Tennessee Valley Authority, 400 Commerce Ave., Knoxville, Tenn.
(Name and Address of Purchaser or Owner)
3. Location of installation Hartsville Nuclear Plant, Hartsville, Tenn.
(Name and Address)
4. Pump or Valve GATE VALVE Nominal Inlet Size 8 Outlet Size 8
(Inch) (Inch)

	(a) Model No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	150#	63861	N/A	401LBB1-002	2	N/A	1980
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. The valves are designed to handle a fluid media which includes steam, water condensate, hotated water, etc., associated with a PWR and BWR. The temperature pressure rating of the media is stated below.
(Brief description of service for which equipment was designed)

6. Design Conditions 100 * psi 250 °F or Valve Pressure Class N/A (1)
(Pressure) (Temperature)

7. Cold Working Pressure 275 psi at 100°F.

8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
BODY-N/C 4E04	SA 216 WCB	PACIFIC METALS	* Revised from 15 psi
BONNET-N/C 4B59	SA 216 WCB	PACIFIC METALS	per T.V.A. Letters BBB-13 & 14 and C.F. Braun
GATE - N/C 4B61	SA 216 WCB	PACIFIC METALS	Spec Nos. DC-400-32 Rev. 4, 400-32 Rev. 7 and 180-01 Rev. 8.
(b) Forgings			
N/A			

(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.

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder)

2. Manufactured for Tennessee Valley Authority, 400 Commerce Ave., Knoxville, Tenn.
(Name and Address of Purchaser or Owner)

3. Location of Installation Hartsville Nuclear Plant, Hartsville, Tenn.
(Name and Address)

4. Pump or Valve Gate Valve Nominal Inlet Size 8 Outlet Size 8
(inch) (inch)

	(a) Model No. Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	150#	63861	N/A	4011BB1-002	2	N/A	1980
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. The valves are designed to handle a fluid media which includes steam, water condensate, borated water, etc., associated with a FWR and BWR. The temperature pressure rating of the media is stated below.
(Brief description of service for which equipment was designed)

6. Design Conditions 15 275 psi 250 100 °F or Valve Pressure Class N/A (1)
(Pressure) (Temperature)

7. Cold Working Pressure 275 psi at 100°F.

8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Body-Code 4F04	SA 216 WCB	Pacific Metals	
Bonnet-Code 4B59	SA 216 WCB	Pacific Metals	
Gate-Code 4B61	SA 216 WCB	Pacific Metals	
(b) Forgings			
N/A			

(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.

FORM NP-1 N CERTIFICATE HOLDERS DATA REPORT FOR NUCLEAR PUMPS OR VALVES*
As Required by the Provisions of the ASME Code, Section III, Div. 1

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder)
2. Manufactured for Tennessee Valley Authority, 400 Commerce Ave., Knoxville, Tenn.
(Name and Address of Purchaser or Owner)
3. Location of Installation Hartsville Nuclear Plant, Hartsville, Tenn.
(Name and Address)

4. Pump or Valve Gate Valve Nominal Inlet Size 8 Outlet Size 8
(Inch) (Inch)

	(a) Model No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l Bd No	(g) Year Built
	(1)	150#	35748	N/A	401BCL-002	3	N/A
(2)	Gear Op.						
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. The valves are designed to handle a fluid media which includes steam, water condensate, borated water, etc., associated with a PWR and BWR. The temperature pressure rating of the media is stated below.
(Brief description of service for which equipment was designed)

6. Design Conditions 250 150 psi 275 100 °F or Valve Pressure Class N/A (1)
(Pressure) (Temperature)

7. Cold Working Pressure 275 psi at 100°F.

8. Pressure Retaining Pieces

Mark No.	Material Spec No	Manufacturer	Remarks
(a) Castings			
Body-Code 2N30	SA 216 WCB	Pacific Metals	
Bonnet-Code 3A40	SA 216 WCB	Pacific Metals	
Gate-Code 2R45	SA 216 WCB	Pacific Metals	
(b) Forgings			
N/A			

(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.

FORM NPV-1 MANUFACTURERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*
 (As Required by the Provisions of the ASME Code, Section III, Div. 1)

1. Manufactured by Nuclear Valve Div. of Borg-Warner, 7500 Tyrone Ave., Van Nuys, CA
(Name and Address of Manufacturer)
 2. Manufactured for Tennessee Valley Authority, 400 Commerce Ave., Knoxville, Tenn
(Name and Address of Purchaser or Owner)
 3. Location of Installation Hartsville Nuclear Plant, Hartsville, Tenn.
(Name and Address)
 4. Pump or Valve Gate Valve Nominal Inlet Size 8 Outlet Size 8 Inch
(inch)

	(a) Model No. Series No. or Type	(b) Manufacturers' Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l Bd. No.	(g) Year Built
(1)	<u>150#</u>	<u>35743</u>	<u>N/A</u>	<u>401LBC1-002</u>	<u>3</u>	<u>N/A</u>	<u>1978</u>
(3)	<u>Gear Op.</u>						
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. The valves are designed to handle a fluid media which includes steam, water, condensate, borated water, etc., associated with a PWR and BWR. The temperature-pressure rating of the media is stated below.
(Brief description of service for which equipment was designed)

6. Design Conditions 250 150
(Pressure) psi (Temperature) °F or Valve Pressure Class N/A (1)
 7. Cold Working Pressure 275 psi at 100°F.
 8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Body-Code <u>2W57</u>	<u>SA216 WCB</u>	<u>Pacific Metals</u>	
Bonnet-Code <u>2R59</u>	<u>SA216 WCB</u>	<u>Pacific Metals</u>	
Gate-Code <u>2R39</u>	<u>SA216 WCB</u>	<u>Pacific Metals</u>	
(b) Forgings			
<u>N/A</u>			

(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.

Certificate Holder's Serial No. 1 & 2

8. Design conditions 175 psi 125 °F or valve pressure class N/A (1)
 (pressure) (temperature)
9. Cold working pressure 285 psi at 100 °F
10. Hydrostatic test 450' psi. Disc differential test pressure N/A psi
11. Remarks: _____

CERTIFICATION OF DESIGN			
Design Specification certified by	<u>Lawrence D. Burr</u>	P.E. State	<u>MI</u> Reg. No. <u>33999</u>
Design Report certified by	<u>Not Applicable</u>	P.E. State	<u>-</u> Reg. No. <u>-</u>

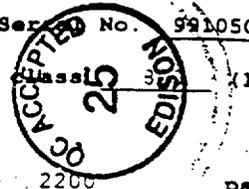
CERTIFICATE OF COMPLIANCE			
We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.			
N Certificate of Authorization No.	<u>N-1947</u>	Expires	<u>12/12/2001</u>
Date	<u>1/20/2000</u>	Name	<u>Target Rock</u> (N Certificate Holder)
		Signed	<u>[Signature]</u> R. E. Glazier, Manager, Q.E. (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 of Province of <u>New York</u> and employed by <u>Commercial Union Ins.</u> of <u>Boston, MA</u> have inspected the pump, or valve, described in this Data Report on <u>1/20/2000</u> and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.			
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.			
Date	<u>1/20/00</u>	Signed	<u>[Signature]</u> Commissions <u>NY 2597</u>
		(Authorized Inspector)	(Nat'l Bd. (incl. endorsements) and state or prov. and no)

* For manually operated valves only

Certificate Holder's Serial No. 991050

8. Design conditions 1975 psi 100 °F or valve pressure 1975 (pressure) (temperature) (1)
9. Cold working pressure 1975 psi at 100°F
10. Hydrostatic test 3000 psi. Disk differential test pressure 2200 psi
11. Remarks: MATERIALS MEET ASME SECTION II EDITION: 1989 ADDENDA: NONE



CERTIFICATE OF DESIGN

Design Specification certified by J.M. FARREL P.E. State QUE Reg. no. 30039
 Design report certified by S. ISBITSKY P.E. State QUE Reg. no. 22115

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1. N Certificate of Authorization No. N-2797-1 Expires MAY 2, 2001

Date JUN 17 99 Name VELAN INC. Signed [Signature]
 (N Certificate Holder) (authorized representative)

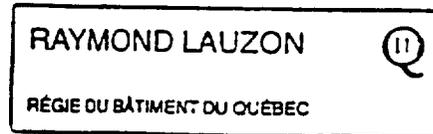
CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of QUEBEC and employed by REGIE DU BATIMENT of QUEBEC have inspected the pump, or valve, described in this Data Report on 99-06-17, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

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

Date 99-06-17 signed [Signature] Commissions QUEBEC QUE 8722
 (Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.



SUPPLEMENT SHEET

FORM NPV-1

1. MANUFACTURED BY: Kerotest Mfg. Corp., 2525 Liberty Ave., Pgh, Pa 15222 (C121065)

2. MANUFACTURED FOR: Bechtel Construction Inc., Santoga Branch, Pottstown, Pa 19464

DRAWING NUMBER: PEC1-D-20612G-(1), Rev. A TYPE: Globe

MANUFACTURER'S SERIAL NUMBERS

- 11. AOB10-11
- 12. AOB10-12
- 13. AOB10-13
- 14. AOB10-14
- 15. AOB10-15
- 16. AOB10-16
- 17. AOB10-17
- 18. AOB10-18
- 19. AOB10-19
- 20. AOB10-20
- 21. AOB10-21
- 22. AOB10-22
- 23. AOB10-23
- 24. AOB10-24
- 25. AOB10-25



BECHTEL
771

5. (SERVICE) On/Off Flow Control

SIGNED: Kerotest Manufacturing Corp. By: Gen Sheridan Date: 4/24/87
Authorized Nuclear Inspector By: Dean S. Trizik Date: 4/24/87
PA 2384 N

4

1. Manufactured by Kerotest Mfg. Corp., 2525 Liberty Ave., Pgh, Pa 15222 (C121065)
 (Name and Address of N Certificate Holder)
 2. Manufactured for Bechtel Construction Inc., Santoga Branch, Pottstown, Pa 19464
 (Name and Address of Purchaser or Owner)
 3. Location of Installation c/o Philadelphia Elec. Co., Limerick Gen. Station, Pottstown, Pa 19464
 (Name and Address)
 4. Pump or Valve Valve Nominal Inlet Size 1 1/2" Outlet Size 1 1/2"
 (inch) (inch)

(a) Model No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1) Globe	AOB10-1	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(2) Globe	AOB10-2	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(3) Globe	AOB10-3	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(4) Globe	AOB10-4	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(5) Globe	AOB10-5	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(6) Globe	AOB10-6	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(7) Globe	AOB10-7	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(8) Globe	AOB10-8	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(9) Globe	AOB10-9	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987
(10) Globe	AOB10-10	N/A	PEC1-D-20612G-(1), Rev. A	1	N/A	1987



5. On/Off Flow Control
 (Brief description of service for which equipment was designed)

777
 BECHTEL

6. Design Conditions 1030 psi 650 °F or Valve Pressure Class 600# (1)
 (Pressure) (Temperature)
 7. Cold Working Pressure 1440 psi at 100°F.
 8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			PO No. 18240-F2-05684, Rev. Item No. 8
(b) Forgings			
Body - AOB	SA105	Endicott	
Bonnet - AOC	SA105	Endicott	

(1) For manually operated valves only.
 *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 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form, and (4) each additional sheet shall be signed by the Certificate Holder and the ANI.

2

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
(d) Other Parts			
Disc - AMB	SA479, Type 316	Carpenter Tech	



9. Hydrostatic test 2150 psi. Disk Differential test pressure 1440 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, Edition 1974, Addenda Summer 1975*, Code Case No. 1796, Date 4/24/87.

Signed Kerotest Mfg. Corp. by Gene Sheridan
(IN Certificate Holder)

Our ASME Certificate of Authorization No. 1902 to use the N symbol expires 4/25/89.
(IN) (Date)

*w/Para. NB-3531.2B of the 1977 Edition, Winter 1977 Addenda
 (this does not apply to check valves - see SDDR #PF-1)

CERTIFICATION OF DESIGN

Design information on file at Kerotest Mfg. Corp.
 Stress analysis report (Class 1-only) on file at Kerotest Mfg. Corp.

Design specifications certified by (1) Roger E. Dening
 PE State CA Reg. No. 18611

Stress analysis certified by (1) R. G. Visalli
 PE State PA Reg. No. 19068-E

(1) Signature not required. List name only.

BECHTEL

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 Pennsylvania and employed by The Hartford Steam Boiler of Hartford, Connecticut have inspected the pump, or valve, described in this Data Report on 4-24- 19 87, 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 4-24- 19 87
Dean J. Ryzak (Inspector) Commissions PA 2384N
(Nat'l Bd., State, Prov. and No.)

I&I Co

FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES

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

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
 (Name and Address of NV Certificate Holder)

Crosby Factory Order No. NV0000048 Customer Order No. NR-348906

2. Manufactured for DETROIT EDISON
 (Name and Address of Purchaser)

3. Location of Installation FERMI 2
 (Name and Address)

4. Valve 9511881B Orifice size 0.328 Nom. Inlet size 1 Outlet size 2
 (Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3 --
 (Edition) (Addenda Date) (Class) (Code Case No.)

6. Type SAFETY RELIEF Valve I.D./Tag No. V30-1126
 (Spring, Pilot or Power Operated)

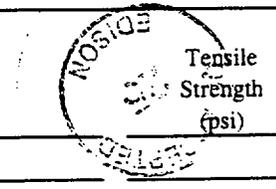
150 20% OF SP 125 425 at 70 °F
 (Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N95343-00-0008 DS-C-95343 REV.A -- 2000
 (Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (Yr. Built)

8. Control Ring Settings N/A

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	---
Nozzle	--		
Disc	N97989-NCMZ	SA479 TYPE 316	75,000
	N95899-NCKF		
Spring Washers	N95899-NCLU	SA193 GR.B6	110,000
Adjusting Bolt	N95900-72-0537	SA193 GR.B6	110,000
Spindle	N95898-75-0530	SA193 GR.B6	110,000
Spring	NX5485-0140	A313 TYPE 316	N/A
Bolting	---	---	---
Other Items			
BASE	N97985-31-0006	SA479 TYPE 316	75,000
LJSE	N97986-31-0005	SA182 GR.F316	75,000
FLANGE	N96422-52-0094	SA182 GR.F316	75,000
CYLINDER	N97987-31-0008	SA182 GR.F316	75,000
FLANGE	N97988-32-0016	SA182 GR.F316	75,000



Form NV-1 (Back)

Certificate Holder's Serial No. N95343-00-0008

10. Relieving capacity 27GPM WTR @ 70 DE @ 10 overpressure as certified by the National Board 02/14/90
(steam or fluid, lb/hr) (date)

11. Remarks: _____

CERTIFICATE OF DESIGN

Design Specification certified by LAWRENCE D. BURR PE State MI Reg. No. 33999

Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-1878 Expires Sep 30, 2001

Date 16 MAR 00 Name Anderson Greenwood Crosby
Wrentham, MA Signed [Signature]
(NV 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 Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 16, 20 00 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 3/16/2000 Signed [Signature] Commissions MA-1418 N
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES
As required by the Provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
(Name and Address of NV Certificate Holder)

Crosby Factory Order No. NV0000048 Customer Order No. NR-348906

2. Manufactured for DETROIT EDISON
(Name and Address of Purchaser)

3. Location of Installation FERMI 2
(Name and Address)

4. Valve 9511881B Orifice size 0.328 Nom. Inlet size 1 Outlet size 2
(Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3
(Edition) (Addenda Date) (Class) (Code Case No.)

6. Type SAFETY RELIEF Valve I.D./Tag No. V30-1125
(Spring, Pilot or Power Operated)

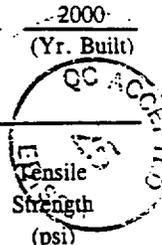
150 20% OF SP 125 425 at 70 °F
(Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N95343-00-0007 DS-C-95343 REV.A 2000
(Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (Yr. Built)

8. Control Ring Settings N/A

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	--
Nozzle	--		
Disc	N97989-NCNE	SA479 TYPE 316	75,000
	N95899-NCEP		
Spring Washers	N95899-NCJY	SA193 GR.B6	110,000
Adjusting Bolt	N95900-72-0543	SA193 GR.B6	110,000
Spindle	N95898-74-0527	SA193 GR.B6	110,000
Spring	NX5485-0146	A313 TYPE 316	N/A
Bolting	---	---	---
Other Items			
BASE	N97985-31-0003	SA479 TYPE 316	75,000
LJSE	N97986-31-0002	SA182 GR.F316	75,000
FLANGE	N96422-55-0098	SA182 GR.F316	75,000
CYLINDER	N97987-31-0002	SA182 GR.F316	75,000
FLANGE	N97988-32-0015	SA182 GR.F316	75,000



10. Relieving capacity 27GPM WTR @ 70 DE @ 10 overpressure as certified by the National Board 02/14/90
 (steam or fluid, lb/hr) (date)

11. Remarks: _____

CERTIFICATE OF DESIGN

Design Specification certified by LAWRENCE D. BURR PE State MI Reg. No. 33999

Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-1878 Expires Sep. 30. 2001

Date 16 MAR 00 Name Anderson Greenwood Crosby Signed [Signature]
Wrentham, MA (NV 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 Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 16, 20 00 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 3/16/2000 Signed [Signature] Commissions MA-1418 N
 (Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES

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

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
 (Name and Address of NV Certificate Holder)
 Crosby Factory Order No. NV0000048 Customer Order No. NR-348906

2. Manufactured for DETROIT EDISON
 (Name and Address of Purchaser)

3. Location of Installation FERMI 2
 (Name and Address)

4. Valve 9511881B Orifice size 0.328 Nom. Inlet size 1 Outlet size 2
 (Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3 -
 (Edition) (Addenda Date) (Class) (Code Case No.)

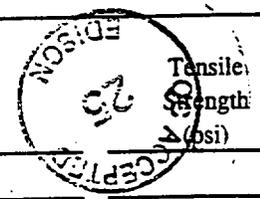
6. Type SAFETY RELIEF Valve I.D./Tag No. V30-1124
 (Spring, Pilot or Power Operated)
150 20% OF SP 125 425 at 70 °F
 (Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N95343-00-0006 DS-C-95343 REV.A - 2000
 (Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (Yr. Built)

8. Control Ring Settings N/A

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	---
Nozzle	--		
Disc	<u>N97989-NCNC</u>	<u>SA479 TYPE 316</u>	<u>75,000</u>
	<u>N95899-NCKD</u>		
Spring Washers	<u>N95899-NCKK</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Adjusting Bolt	<u>N95900-72-0545</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Spindle	<u>N95898-72-0525</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Spring	<u>NX5485-0139</u>	<u>A313 TYPE 316</u>	<u>N/A</u>
Bolting	---	---	---
Other Items			
BASE	<u>N97985-31-0007</u>	<u>SA479 TYPE 316</u>	<u>75,000</u>
LJSE	<u>N97986-31-0006</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
FLANGE	<u>N96422-56-0105</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
CYLINDER	<u>N97987-31-0001</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
FLANGE	<u>N97988-32-0010</u>	<u>SA182 GR.F316</u>	<u>75,000</u>



10. Relieving capacity 27GPM WTR @ 70 DE @ 10 overpressure as certified by the National Board 02/14/90
 (steam or fluid, lb/hr) (date)

11. Remarks: _____

CERTIFICATE OF DESIGN

Design Specification certified by LAWRENCE D. BURR PE State MI Reg. No. 33999
 Design Report certified by _____ PE State _____



CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001

Date 16 MAR 00 Name Anderson Greenwood Crosby
Wrentham, MA Signed [Signature]
 (NV 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 Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 16, 20 00 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 3/16/2000 Signed [Signature] Commissions MA-1418 N
 (Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES
As required by the Provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
(Name and Address of NV Certificate Holder)
Crosby Factory Order No. NV0000048 Customer Order No. NR-348906

2. Manufactured for DETROIT EDISON
(Name and Address of Purchaser)

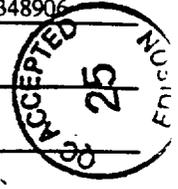
3. Location of Installation FERMI 2
(Name and Address)

4. Valve 9511881B Orifice size 0.328 Nom. Inlet size 1 Outlet size 2
(Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3
(Edition) (Addenda Date) (Class) (Code Case No.)

6. Type SAFETY RELIEF Valve I.D./Tag No. V30-1123
(Spring, Pilot or Power Operated)
150 20% OF SP 125 425 at 70 °F
(Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N95343-00-0005 DS-C-95343 REV.A -- 2000
(Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (Yr. Built)



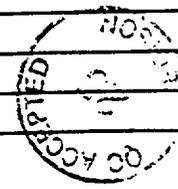
8. Control Ring Settings _____

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	--
Nozzle	--		
Disc	N97989-NCNF	SA479 TYPE 316	75,000
	N95899-NCKH		
Spring Washers	N95899-NCHR	SA193 GR.B6	110,000
Adjusting Bolt	N95900-72-0537	SA193 GR.B6	110,000
Spindle	N95898-75-0529	SA193 GR.B6	110,000
Spring	NX5485-0142	A313 TYPE 316	N/A
Bolting	---	---	---
Other Items			
BASE	N97985-31-0005	SA479 TYPE 316	75,000
LJSE	N97986-31-0004	SA182 GR.F316	75,000
FLANGE	N96422-54-0097	SA182 GR.F316	75,000
CYLINDER	N97987-31-0007	SA182 GR.F316	75,000
FLANGE	N97988-32-0013	SA182 GR.F316	75,000

10. Relieving capacity 27GPM WTR @ 70 DE @ 10 overpressure as certified by the National Board 02/14/90
 (steam or fluid, lb/hr) (date)

11. Remarks: _____



CERTIFICATE OF DESIGN

Design Specification certified by LAWRENCE D. BURR PE State MI Reg. No. 33999
 Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001
 Date 16 MAR 00 Name Anderson Greenwood Crosby
Wrentham, MA Signed [Signature]
 (NV 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 Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 16, 20 00 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 3/16/2000 Signed [Signature] Commissions MA-1418 N'
 (Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES
As required by the Provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
(Name and Address of NV Certificate Holder)

Crosby Factory Order No. NV0000048 Customer Order No. NR-348906

2. Manufactured for DETROIT EDISON
(Name and Address of Purchaser)

3. Location of Installation FERMI 2
(Name and Address)

4. Valve 9511881B Orifice size 0.328 Nom. Inlet size 1 Outlet size 2
(Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3 --
(Edition) (Addenda Date) (Class) (Code Case No.)

6. Type SAFETY RELIEF Valve I.D./Tag No. V30-1130
(Spring, Pilot or Power Operated)

150 20% OF SP 125 425 at 70 °F
(Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N95343-00-0004 DS-C-95343 REV.A -- 2000
(Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (Yr. Built)

8. Control Ring Settings _____

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	---
Nozzle	--		
Disc	N97989-NCND	SA479 TYPE 316	75,000
	N95899-NCHC		
Spring Washers	N95899-NCKS	SA193 GR.B6	110,000
Adjusting Bolt	N95900-71-0534	SA193 GR.B6	110,000
Spindle	N95898-71-0518	SA193 GR.B6	110,000
Spring	NX5485-0123	A313 TYPE 316	N/A
Bolting	---	---	---
Other Items			
BASE	N97985-31-0004	SA479 TYPE 316	75,000
LJSE	N97986-31-0003	SA182 GR.F316	75,000
FLANGE	N96422-54-0096	SA182 GR.F316	75,000
CYLINDER	N97987-31-0003	SA182 GR.F316	75,000
FLANGE	N97988-32-0012	SA182 GR.F316	75,000

10. Relieving capacity 27GPM WTR @ 70 DE @ 10 overpressure as certified by the National Board 02/14/90
(steam or fluid, lb/hr) (date)

11. Remarks: _____

CERTIFICATE OF DESIGN

Design Specification certified by LAWRENCE D. BURR PE State MI Reg. No. 33999

Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001

Date 16 MAR 00 Name Anderson Greenwood Crosby
Wrentham, MA Signed [Signature]
(NV 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 Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 16, 20 00 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 3/16/2000 Signed [Signature] Commissions MA-1418 N
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES

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

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
 (Name and Address of NV Certificate Holder)
 Crosby Factory Order No. NV0000048 Customer Order No. NR-348906
2. Manufactured for DETROIT EDISON
 (Name and Address of Purchaser)
3. Location of Installation FERMI 2
 (Name and Address)
4. Valve 9511881B Orifice size 0.328 Nom. Inlet size 1 Outlet size 2
 (Model No./Series No.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3 --
 (Edition) (Addenda Date) (Class) (Code Case No.)
6. Type SAFETY RELIEF Valve I.D./Tag No. V30-1129
 (Spring, Pilot or Power Operated)
150 20% OF SP 125 425 at 70 °F
 (Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)
7. Ident. N95343-00-0003 DS-C-95343 REV.A -- 2000
 (Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (Yr. Built)
8. Control Ring Settings _____

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	---
Nozzle	--	--	
Disc	<u>N97989-NCNA</u>	<u>SA479 TYPE 316</u>	<u>75,000</u>
	<u>N95899-NCLY</u>		
Spring Washers	<u>N95899-NCKG</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Adjusting Bolt	<u>N95900-71-0532</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Spindle	<u>N95898-69-0500</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Spring	<u>NX5485-0119</u>	<u>A313 TYPE 316</u>	<u>N/A</u>
Bolting	---	---	---
Other Items			
BASE	<u>N97985-31-0008</u>	<u>SA479 TYPE 316</u>	<u>75,000</u>
LJSE	<u>N97986-31-0007</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
FLANGE	<u>N96422-56-0099</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
CYLINDER	<u>N97987-31-0005</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
FLANGE	<u>N97988-32-0014</u>	<u>SA182 GR.F316</u>	<u>75,000</u>

10. Relieving capacity 27GPM WTR @ 70 DE @ 10 overpressure as certified by the National Board 02/14/90
(steam or fluid, lb/hr) (date)

11. Remarks: _____

CERTIFICATE OF DESIGN

Design Specification certified by LAWRENCE D. BURR PE State MI Reg. No. 33999
Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001

Date 16 MAR 00 Name Anderson Greenwood Crosby
Wrentham, MA Signed [Signature]
(NV 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 Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 16, 20 00 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 3/16/2000 Signed [Signature] Commissions MA-1418 'N'
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES

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

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
(Name and Address of NV Certificate Holder)
- Crosby Factory Order No. NV0000048 Customer Order No. NR-348906
2. Manufactured for DETROIT EDISON
(Name and Address of Purchaser)
3. Location of Installation FERMI 2
(Name and Address)
4. Valve 9511881B Orifice size 0.328 Nom. Inlet size 1 Outlet size 2
(Model No./Series No.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3 --
(Edition) (Addenda Date) (Class) (Code Case No.)
6. Type SAFETY RELIEF Valve I.D./Tag No. V30-1128
(Spring, Pilot or Power Operated)
- 150 20% OF SP 125 425 at 70 °F
(Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)
7. Ident. N95343-00-0002 DS-C-95343 REV.A -- 2000
(Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (Yr. Built)
8. Control Ring Settings _____

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	---
Nozzle	--		
Disc	N97989-NCNB	SA479 TYPE 316	75,000
	N95899-NCHQ		
Spring Washers	N95899-NCHA	SA193 GR.B6	110,000
Adjusting Bolt	N95900-71-0528	SA193 GR.B6	110,000
Spindle	N95898-71-0520	SA193 GR.B6	110,000
Spring	NX5485-0120	A313 TYPE 316	N/A
Bolting	---	---	---
Other Items			
BASE	N97985-31-0002	SA479 TYPE 316	75,000
LJSE	N97986-31-0001	SA182 GR.F316	75,000
FLANGE	N96422-53-0095	SA182 GR.F316	75,000
CYLINDER	N97987-31-0006	SA182 GR.F316	75,000
FLANGE	N97988-32-0009	SA182 GR.F316	75,000

10. Relieving capacity 27GPM WTR @ 70 DE @ 10 overpressure as certified by the National Board 02/14/90
(steam or fluid, lb/hr) (date)

11. Remarks: _____

CERTIFICATE OF DESIGN

Design Specification certified by LAWRENCE D. BURR PE State MI Reg. No. 33999

Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001

Date 16 MAR 00 Name Anderson Greenwood Crosby
Wrentham, MA Signed [Signature]
(NV 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 Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 16, 20 00 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 3/16/2000 Signed [Signature] Commissions MA-1418 N
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES
 As required by the Provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
 (Name and Address of NV Certificate Holder)
 Crosby Factory Order No. NV0000048 Customer Order No. NR-348906

2. Manufactured for DETROIT EDISON
 (Name and Address of Purchaser)

3. Location of Installation FERMI 2
 (Name and Address)

4. Valve 9511881B Orifice size 0.328 Nom. Inlet size 1 Outlet size 2
 (Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3 --
 (Edition) (Addenda Date) (Class) (Code Case No.)

6. Type SAFETY RELIEF Valve I.D./Tag No. V30-1127
 (Spring, Pilot or Power Operated)
150 20% OF SP 125 425 at 70 °F
 (Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N95343-00-0001 DS-C-95343 REV.A -- 2000
 (Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (Yr. Built)

8. Control Ring Settings _____

9. Pressure Retaining Items:	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	---
Nozzle	--		
Disc	<u>N97989-NCNG</u>	<u>SA479 TYPE 316</u>	<u>75,000</u>
	<u>N95899-NCHO</u>		
Spring Washers	<u>N95899-NCHE</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Adjusting Bolt	<u>N95900-71-0535</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Spindle	<u>N95898-71-0519</u>	<u>SA193 GR.B6</u>	<u>110,000</u>
Spring	<u>NX5485-0137</u>	<u>A313 TYPE 316</u>	<u>N/A</u>
Bolting	---	---	---
Other Items			
BASE	<u>N97985-32-0009</u>	<u>SA479 TYPE 316</u>	<u>75,000</u>
LJSE	<u>N97986-31-0008</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
FLANGE	<u>N96422-56-0101</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
CYLINDER	<u>N97987-31-0004</u>	<u>SA182 GR.F316</u>	<u>75,000</u>
FLANGE	<u>N97988-32-0011</u>	<u>SA182 GR.F316</u>	<u>75,000</u>

10. Relieving capacity 27GPM WTR @ 70 DE @ 10 overpressure as certified by the National Board 02/14/90
(steam or fluid, lb/hr) (date)

11. Remarks: _____

CERTIFICATE OF DESIGN

Design Specification certified by LAWRENCE D. BURR PE State MI Reg. No. 33999

Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001

Date 16 MAR 00 Name Anderson Greenwood Crosby
Wrentham, MA Signed [Signature]
(NV 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 Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 16, 20 00 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 3/16/2000 Signed [Signature] Commissions MA-1418 N
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS*

as required by the provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Alfa Laval Thermal AB, Rudeboksvägen, S-221 00 Lund, Sweden
(name and address of manufacturer)
2. Manufactured for Alfa Laval Thermal Inc., 5400 International Trade Drive, Richmond, VA 23231 USA
(name and address of purchaser)
3. Location of installation Detroit Edison, Fermi 2, 6400 North Dixie Highway, Newport, MI 48166, USA
(name and address)
4. Type HORIZONTAL PLATE TYPE HEAT EXCH. 30103-04143 N/A 32299-1862 Rev.2 542 1999
(horiz. or vert.) (tank, jacketed, heat ex.) (Cert. Holders serial no.) (CRN) (drawing no.) (Mat'l. Sd. No.) (year built)
5. ASME Code, Section III, Division 1, 1989 Ed. No Add. N/A 3
(edition) (addenda date) (Code Case no.) (class)

Items 6-10 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

6. Shell: SA240-316 75 ksi 0.0197 0.0181 N/A N/A
(mat'l. spec. no.) (tensile strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))
7. Seams: N/A N/A N/A N/A N/A N/A N/A N/A
(long) (HT¹) (RT) (w/l. %) (girth) (HT¹) (RT) (no. of courses)
8. Heads: SA516-70 70 SA516-70 70
(a) (mat'l. spec. no.) (tensile strength) (b) (mat'l. spec. no.) (tensile strength)

	Location (top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Fixed head	3.94"	Flat	N/A	N/A	N/A	N/A	N/A	N/A
(b)	Movable head	3.94"	Flat	N/A	N/A	N/A	N/A	N/A	N/A

If removable, bolts used SA193-B7, Metric M48 Nos. 16 Other fastening N/A
(mat'l. spec. no., size, quantity) (describe or attach sketch)

9. Jacket closure N/A
(describe as open & weld, bar, etc. If bar give dimensions, describe or sketch)
10. Design pressure 150/175 at max. temp. 150 Min. pressure-test temp. 60.8 Pneu., hydro., or comb. test pressure 225 / 262.5
(psf) (°F) (°F) (psf)

Items 11 and 12 to be completed for tube sections.

11. Tubesheets: N/A N/A N/A N/A
(stationary, mat'l. spec. no.) (dia. in. subject to press.) (thickness (in.)) (attachment (welded, bolted))
- N/A N/A N/A N/A
(floating, mat'l. spec. no.) (dia. in.) (thickness (in.)) (attachment)
12. Tubes: N/A N/A N/A N/A
(mat'l. spec. no.) (O.D. (in.)) (thickness (inches or gage)) (no.) (type (straight or U))

Items 13 to 16 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

13. Shell: N/A N/A N/A N/A N/A N/A N/A
(mat'l. spec. no.) (tensile strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))
14. Seams: N/A N/A N/A N/A N/A N/A N/A N/A
(long (welded, sbl, single)) (HT¹ (yes or no)) (RT) (w/l. %) (girth) (HT¹) (RT) (no. of courses)
15. Heads: N/A N/A N/A N/A N/A N/A N/A
(a) (mat'l. spec. no.) (tensile strength) (b) (mat'l. spec. no.) (tensile strength) (c) (mat'l. spec. no.) (tensile strength)

	Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Top, bottom, ends	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(b)	Channel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(c)	Floating	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

If removable, bolts used N/A Other fastening N/A
(mat'l. spec. no., size, quantity) (describe or attach sketch)

16. Design pressure N/A at N/A Min. pressure-test temp. N/A Pneu., hydro., or comb. test pressure N/A
(psf) (°F) (°F) (psf)

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

* Supplemental information in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information on items 1 through 4 on this data report is included on each sheet, (3) each sheet is numbered and number of sheets is recorded at top of this form.

17. Nozzles, inspection and safety valve openings:

Purpose (Inlet, outlet, drain, etc.)	Quantity	Dia. or Size	Type	How Attached	Mat'l.	Thickness	Reinforcement Material	Location
Prim. inlet	1	10"	Flanged	Integrated	SA516-70	Integrated	None	Fixed
Prim. outlet	1	10"	Flanged	with	SA516-70	with	None	Head
Sec. Inlet	1	10"	Flanged	Fixed	SA516-70	Head	None	Fixed
Sec. outlet	1	10"	Flanged	Head	SA516-70	Thickness	None	Head
Insp. opening	4	10"	Flanged	Integrated	SA516-70	(3.94")	None	Movable
-	-	-	-	with	-	-	-	Head
-	-	-	-	Movable Hd	-	-	-	-

18. Supports: Skirt No Legs None Legs 4 Other N/A Attached See remarks
(yes or no) (quantity) (quantity) (describe) (where & how)

19. Remarks: 6. The heat exchanger is of single pass and counter current type with a total number of 263 pcs. Channel Plates
 8. Flat dimension: (a) 8 ft 11.28 in. X 3 ft 4.55 in. (Fixed Head)
 (b) 8 ft 8.33 in. X 3 ft 4.55 in. (Movable Head)
 18. Attached: Bolted; 2 legs on Fixed Head and 2 legs on Movable Head (each leg consisting of 2 parts)
 19. Distance between Flat Heads: 2 ft 7.69 in.; Overpressure protection to be provided by others.

CERTIFICATION OF DESIGN

Design specification certified by John Conton P.E. State Michigan Reg. no. 21740
 Design report certified by Walter B. Grossman P.E. State N.Y. Reg. no. 036871-1

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this nuclear vessel conforms to the rules for construction of the ASME Code, Section III, Division 1. N-2967
 N Certificate of Authorization No. Alfa Laval Thermal AB expires February 16, 2002
 Date 1/28/00 Name Alfa Laval Thermal AB Signed [Signature]
(N 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 New Jersey and employed by LR Insurance Inc. of Delaware have inspected the component described in this data report on Dec. 15, 1999 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this component in accordance with the ASME Code, Section III, Division 1.
 By signing this certificate the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this data report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
 Date 28-1-2000 Signed [Signature] Commissions 10362 A N; PA 2486
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and no.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division 1.
 N Certificate of Authorization no. _____ expires _____
 Date _____ Name _____ Signed _____
(N Certificate Holder) (authorized representative)

CERTIFICATE OF FIELD ASSEMBLY 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 _____ and employed by _____ of _____ have compared the statements in this data report with the described component and state that parts referred to as data items _____ not included in the certificate of shop inspection have been inspected by me on _____ and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component in accordance with the ASME Code, Section III, Division 1.
 By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this data report. Furthermore, neither the inspector 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 _____ Signed _____ Commissions _____
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and no.)

FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS*
as required by the provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Alfa Laval Thermal AB, Rudboksvagen, S-221 00 Lund, Sweden
(name and address of manufacturer)
2. Manufactured for Alfa Laval Thermal Inc., 5400 International Trade Drive, Richmond, VA 23231 USA
(name and address of purchaser)
3. Location of installation Detroit Edison, Fermi 2, 6400 North Dixie Highway, Newport, MI 48166, USA
(name and address)
4. Type HORIZONTAL PLATE TYPE HEAT EXCH. 30103-04141 N/A 32299-1862 Rev.2 540 1999
(type or vert.) (tank, jacketed, heat ex.) (Cert. Holders serial no.) (CRN) (drawing no.) (mat'l. spec. no.) (year built)
5. ASME Code, Section III, Division 1, 1989 Ed. No Add. N/A 3
(edition) (addenda rate) (Code Case no.) (class)

Items 6-10 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

6. Shell: SA240-316 75 ksi 0.0197 0.0181 N/A N/A
(mat'l. spec. no.) (tensile strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length overall) (ft. & in.)
7. Seams: N/A N/A N/A N/A N/A N/A N/A N/A
(long) (RT¹) (RT) (ell. %) (girth) (RT¹) (RT) (no. of courses)
8. Heads: SA516-70 70 SA516-70 70
(a) (mat'l. spec. no.) (tensile strength) (b) (mat'l. spec. no.) (tensile strength)

	Location (top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Fixed head	3.94"	Flat	N/A	N/A	N/A	N/A	N/A	N/A
(b)	Movable head	3.94"	Flat	N/A	N/A	N/A	N/A	N/A	N/A

- If removable, bolts used SA193-B7, Metric M48 Nos. 16 Other fastening N/A
(mat'l. spec. no., size, quantity) (describe or attach sketch)
9. Jacket closure N/A
(describe as open & weld, bar, etc. If bar give dimensions, describe or sketch)
10. Design pressure 150/175 at max. temp. 150 Min. pressure-test temp. 60.8 Pneu., hydro., or comb. test pressure 262.5
(psia) (°F) (°F) (psia)

Items 11 and 12 to be completed for tube sections.

11. Tubesheets: N/A N/A N/A N/A
(stationary, mat'l. spec. no.) (dia. in. subject to stress) (thickness (in.)) (attachment (welded, bolted))
12. Tubes: N/A N/A N/A N/A N/A
(mat'l. spec. no.) (O.D. (in.)) (thickness (wheels or gages) (no.) (type (straight or U))

Items 13 to 16 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

13. Shell: N/A N/A N/A N/A N/A N/A
(mat'l. spec. no.) (tensile strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length overall) (ft. & in.)
14. Seams: N/A N/A N/A N/A N/A N/A N/A N/A
(long (welded, bolt., single)) (RT¹ (yes or no)) (RT) (ell. %) (girth) (RT¹) (RT) (no. of courses)
15. Heads: N/A N/A N/A N/A N/A N/A
(a) (mat'l. spec. no.) (tensile strength) (b) (mat'l. spec. no.) (tensile strength) (c) (mat'l. spec. no.) (tensile strength)

	Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Top, bottom, ends	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(b)	Channel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(c)	Floating	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

- If removable, bolts used N/A Other fastening N/A
(mat'l. spec. no., size, quantity) (describe or attach sketch)
16. Design pressure N/A at N/A Min. pressure-test temp. N/A Pneu., hydro., or comb. test pressure N/A
(psia) (°F) (°F) (psia)

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

* Supplemental information in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information on items 1 through 4 on this data report is included on each sheet, (3) each sheet is numbered and number of sheets is recorded at top of this form.

This form may be obtained from The National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Ave., Col'a. OH 43229 NB-43 Rev. 2

17. Nozzles, inspection and safety valve openings:

Purpose (Inlet, outlet, drain, etc.)	Quantity	Dia. or Size	Type	How Attached	Matl.	Thickness	Reinforcement Material	Location
Prim. Inlet	1	10"	Flanged	Integrated	SAS16-70	Integrated	None	Fixed
Prim. outlet	1	10"	Flanged	with	SAS16-70	with	None	Fixed
Sec. Inlet	1	10"	Flanged	Fixed	SAS16-70	Head	None	Fixed
Sec. outlet	1	10"	Flanged	Head	SAS16-70	Thickness	None	Head
Insp. opening	4	10"	Flanged	Integrated	SAS16-70	(3.94")	None	Movable
-	-	-	-	with	-	-	-	Head
-	-	-	-	Movable HB	-	-	-	-

18. Supports: Skin No Lugs None Legs 4 Other N/A Attached See remarks
(yes or no) (quantity) (describe) (where & how)

19. Remarks: 6. The heat exchanger is of single pass and counter current type with a total number of 263 pcs. Channel Plates
8. Flat dimension: (a) 8 ft 11.28 in. X 3 ft 4.55 in. (Fixed Head)
(b) 8 ft 8.33 in. X 3 ft 4.55 in. (Movable Head)
18. Attached: Bolted; 2 legs on Fixed Head and 2 legs on Movable Head (each leg consisting of 2 parts)
19. Distance between Flat Heads: 2 ft 7.18 in.; Overpressure protection to be provided by others.

CERTIFICATION OF DESIGN

Design specification certified by John Connor P.E. State Michigan Reg. no. 21740
 Design report certified by Walter H. Grossman P.E. State N.Y. Reg. no. 036871-1

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this nuclear vessel conforms to the rules for construction of the ASME Code, Section III, Division 1. N-2967
 N Certificate of Authorization No. N-2967 expires February 16, 2002
 Date 1/28/00 Name Alfa Laval Thermal AB Signed [Signature]
(N 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 New Jersey and employed by LRI Insurance Inc. of Delaware have inspected the component described in this data report on Dec. 15, 1999 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this component in accordance with the ASME Code, Section III, Division 1.
 By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this data report. Furthermore, neither the inspector 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 28-1-2000 Signed [Signature] Commission 10362 AN; PA 2486
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and no.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division 1.
 N Certificate of Authorization no. _____ expires _____
 Date _____ Name _____ Signed _____
(N Certificate Holder) (authorized representative)

CERTIFICATE OF FIELD ASSEMBLY 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 _____ and employed by _____ of _____ have compared the statements in this data report with the described component and state that parts referred to as data items _____ not included in the certificate of shop inspection have been inspected by me on _____ and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component in accordance with the ASME Code, Section III, Division 1.
 By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this data report. Furthermore, neither the inspector 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 _____ Signed _____ Commission _____
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and no.)

Installed Material, Valves, and Supports EDP-29805

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)
MK-P44-4624-1	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P44-4624-2	Installed by Raytheon	C5964E	N/A	10" X 8" Reducer	N/A	Replacement	No
MK-P44-4624-3	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-4	Installed by Raytheon	J259A-28	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-5	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-6	Installed by Raytheon	J259A-29	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-7	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-8	Installed by Raytheon	J259A-17	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-9	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-10	Installed by Raytheon	H985A	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-11	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-12	Installed by Raytheon	J259A-14	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-13	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-14	Installed by Raytheon	J259A-30	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-15	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-16	Installed by Raytheon	J259A-12	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-17	Installed by Raytheon	C67480	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-18	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-19	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-20	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-21	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-22	Installed by Raytheon	J259A-19	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-23	Installed by Raytheon	C44766	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-24	Installed by Raytheon	J259A-13	N/A	8"-90 Deg. Elbow	N/A	Replacement	No

Installed Material, Valves, and Supports EDP 29805

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)
MK-P44-4624-25	Installed by Raytheon	C67428	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-26	Installed by Raytheon	H650A-1	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-27	Installed by Raytheon	C67482	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-28	Installed by Raytheon	H560A-2	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-29	Installed by Raytheon	C67482	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-30	Installed by Raytheon	J337B-4	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-31	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-32	Installed by Raytheon	J337B-1	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-33	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-34	Installed by Raytheon	C44766	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-35	Installed by Raytheon	J259A-21	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-36	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-37	Installed by Raytheon	J259A-15	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-38	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4624-39	Installed by Raytheon	J259A-6	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-40	Installed by Raytheon	J377B-3	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4624-41	Installed by Raytheon	DZL9	N/A	8" WNR Flange	N/A	Replacement	No
13	Installed by Raytheon	363	N/A	8"x1 1/2" Sol	N/A	Replacement	No
2	Installed by Raytheon	361WF1	N/A	8"x1 1/2" Sol	N/A	Replacement	No
P4400F1039	Framatome	991050-2 (V30-1140)	N/A	1 1/2" Valve	1999	Replacement	Yes
P4400F1040	Framatome	991050-3 (V30-1141)	N/A	1 1/2" Valve	1999	Replacement	Yes
P44-4624-G01	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4624-G02	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4624-G03	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4624-G04	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No

Installed Material, Valves, and Supports EDP 29805

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)
MK-P44-4625-1	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P44-4625-2	Installed by Raytheon	C5964E	N/A	10" X 8" Reducer	N/A	Replacement	No
MK-P44-4625-3	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-4	Installed by Raytheon	J259A-2	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-5	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-6	Installed by Raytheon	J259A-18	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-7	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-8	Installed by Raytheon	H226E	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-9	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-10	Installed by Raytheon	H226E	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-11	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-12	Installed by Raytheon	J259A-39	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-13	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-14	Installed by Raytheon	J259A-40	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-15	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-16	Installed by Raytheon	J259A-34	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-17	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-18	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-19	Installed by Raytheon	X63294	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-20	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-21	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-22	Installed by Raytheon	J259A-22	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-23	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-24	Installed by Raytheon	J259A-35	N/A	8"-90 Deg. Elbow	N/A	Replacement	No

Installed Material, Valves, and Supports EDP 29805

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)
MK-P44-4625-25	Installed by Raytheon	C67482	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-26	Installed by Raytheon	H650A-3	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-27	Installed by Raytheon	C44766	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-28	Installed by Raytheon	J259A-16	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-29	Installed by Raytheon	C44766	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-30	Installed by Raytheon	J259A-44	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-31	Installed by Raytheon	C44766	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-32	Installed by Raytheon	C44766	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-33	Installed by Raytheon	J259A-1	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-34	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-35	Installed by Raytheon	J259A-38	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-36	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-37	Installed by Raytheon	J259A-42	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-38	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-43	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-39	Installed by Raytheon	H226E	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-40	Installed by Raytheon	H226E	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4625-41	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4625-42	Installed by Raytheon	DZL9	N/A	8" WNRF Flange	N/A	Replacement	No
1	Installed by Raytheon	361	N/A	1 1/2" Sol	N/A	Replacement	No
2	Installed by Raytheon	263444	N/A	1 1/2" Sol	N/A	Replacement	No
13	Installed by Raytheon	361	N/A	1 1/2" nipple	N/A	Replacement	No
14	Installed by Raytheon	263444	N/A	1 1/2" nipple	N/A	Replacement	No
P44-4625G01	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No

Installed Material, Valves, and Supports EDP 29805

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)
MK-P45-4626-1	Installed by Raytheon	EAEF	N/A	10" WRNF Flange	N/A	Replacement	No
MK-P45-4626-2	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-3	Installed by Raytheon	J277C-42	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-4	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-5	Installed by Raytheon	J277C-3	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-6	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-7	Installed by Raytheon	J277A-10	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-8	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-9	Installed by Raytheon	J277C-41	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-10	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-11	Installed by Raytheon	J277C-13	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-12	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-13	Installed by Raytheon	J355C-2	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-14	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-15	Installed by Raytheon	J277A-15	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-16	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-17	Installed by Raytheon	J277A-16	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-18	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-19	Installed by Raytheon	J277C-23	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-20	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-21	Installed by Raytheon	J277C-23	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-22	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-23	Installed by Raytheon	J277D-11	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-24	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No

Replacement NIS-2

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Installed Material, Valves, and Supports EDR 29805

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)
MK-P45-4626-25	Installed by Raytheon	J277A-14	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-26	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-27	Installed by Raytheon	J277C-21	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-28	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-29	Installed by Raytheon	J277C-32	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-30	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-31	Installed by Raytheon	J277C-40	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-32	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-33	Installed by Raytheon	J277C-36	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-34	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-35	Installed by Raytheon	J277C-11	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4626-36	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4626-37	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
1	Installed by Raytheon	361	N/A	1 1/2" Sol	N/A	Replacement	No
2	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
8	Installed by Raytheon	361	N/A	1 1/2" Sol	N/A	Replacement	No
9	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
P4500F190	Kerotest	A0B10-1 (V30-1212)	N/A	1 1/2" valve	1987	Replacement	Yes
P4500F191	Kerotest	A0B10-11 (V30-1213)	N/A	1 1/2" valve	1987	Replacement	Yes
P45-4626-G02	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4626-G03	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4626-G04	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4626-G05	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4626-G06	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4626-G07	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No

Installed Material, Valves, and Supports EDP 29805

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)
MK-P45-4627-1	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4627-2	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-3	Installed by Raytheon	J277D-4	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-4	Installed by Raytheon	J277D-1	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-5	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-6	Installed by Raytheon	J277C-16	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-7	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-8	Installed by Raytheon	J277A-3	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-9	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-10	Installed by Raytheon	J277A-7	N/A	10"- 90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-11	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-12	Installed by Raytheon	J277A-1	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-13	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-14	Installed by Raytheon	J277A-2	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-15	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-16	Installed by Raytheon	J277C-35	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-17	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-18	Installed by Raytheon	J277C-34	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-19	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-20	Installed by Raytheon	J277D-2	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-21	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-22	Installed by Raytheon	J277A-17	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-23	Installed by Raytheon	J277D-6	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-24	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No

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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)
MK-P45-4627-25	Installed by Raytheon	J277C-13	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-26	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-27	Installed by Raytheon	J277C-15	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-28	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-29	Installed by Raytheon	J277C-4	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-30	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-31	Installed by Raytheon	J277D-5	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-32	Installed by Raytheon	J277D-3	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-33	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-34	Installed by Raytheon	J277C-28	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-35	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-36	Installed by Raytheon	J277C-26	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-37	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4627-38	Installed by Raytheon	J277C-30	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4627-39	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
1	Installed by Raytheon	361	N/A	1 1/2" Sol	N/A	Replacement	No
2	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
P4500F198	Kerotest	A0B10-13 (V30-1215)	N/A	1 1/2" valve	1987	Replacement	Yes
P45-4627-G01	Installed by Raytheon	N/A	N/A	N/A	N/A	Replacement	No
P45-4627-G02	Installed by Raytheon	N/A	N/A	N/A	N/A	Replacement	No
P45-4627-G03	Installed by Raytheon	N/A	N/A	N/A	N/A	Replacement	No
P45-4627-G04	Installed by Raytheon	N/A	N/A	N/A	N/A	Replacement	No
P45-4627-G05	Installed by Raytheon	N/A	N/A	N/A	N/A	Replacement	No
P45-4627-G06	Installed by Raytheon	N/A	N/A	N/A	N/A	Replacement	No

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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)
MK-P44-4628-1	Installed by Raytheon	DZL9	N/A	8" WNRF Flange	N/A	Replacement	No
MK-P44-4628-2	Installed by Raytheon	H226E	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-3	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-4	Installed by Raytheon	J259A-31	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-5	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-6	Installed by Raytheon	C358	N/A	8" Dia. Tee	N/A	Replacement	No
MK-P44-4628-7	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-8	Installed by Raytheon	See valve info.	N/A	See valve info.	N/A	Replacement	No
MK-P44-4628-9	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-10	Installed by Raytheon	J259A-20	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-11	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-12	Installed by Raytheon	J259A-9	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-13	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-14	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-15	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-16	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-17	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-18	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-19	Installed by Raytheon	J259A-45	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-20	Installed by Raytheon	X63924	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-21	Installed by Raytheon	H226E	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-22	Installed by Raytheon	C5964E	N/A	10" X 8" Reducer	N/A	Replacement	No
MK-P44-4628-23	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P44-4628-24	Installed by Raytheon	J259A-27	N/A	8"-90 Deg. Elbow	N/A	Replacement	No

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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)
MK-P44-4628-25	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-26	Installed by Raytheon	J259A-10	N/A	8"-90 Deg. Elbow.	N/A	Replacement	No
MK-P44-4628-27	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4628-28	Installed by Raytheon	J259A-3	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4628-29	Installed by Raytheon	See valve info.	N/A	See valve info.	N/A	Replacement	No
MK-P44-4628-30	Installed by Raytheon	FJK9	N/A	8" WNRF Flange	N/A	Replacement	No
MK-P44-4628-31	Installed by Raytheon	EPA-9	N/A	8" Blind Flange	N/A	Replacement	No
1	Installed by Raytheon	361	N/A	1 1/2" Sol	N/A	Replacement	No
2	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
20	Installed by Raytheon	999YNB	N/A	1 1/2" Elbolet	N/A	Replacement	No
21	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
25	Installed by Raytheon	361	N/A	1 1/2" Nipple	N/A	Replacement	No
26	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
27	Installed by Raytheon	77835	N/A	1 1/2" SwEl	N/A	Replacement	No
28	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
P4400F617B	Powell	66285-8 (V8-2371)	N/A	8" valve	1984	Replacement	Yes
P4400F1047	Framatome	991050-6 (V30-1160)	N/A	1 1/2" valve	1999	Replacement	Yes
P4400F1048	Framatome	991050-7 (V30-1161)	N/A	1 1/2" valve	1999	Replacement	Yes
P4400F1049	Framatome	991050-8 (V30-1162)	N/A	1 1/2" valve	1999	Replacement	Yes
P4400F619B	Powell	66285-7 (V8-2370)	N/A	8" Valve	1975	Replacement	Yes
P44-4628-G01	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4628-G02	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4628-G03	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4628-G04	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No

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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)
MK-P44-4629-1	Installed by Raytheon	DZL9	N/A	8" WNRF Flange	N/A	Replacement	No
MK-P44-4629-2	Installed by Raytheon	C67482	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-3	Installed by Raytheon	J259A-11	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-4	Installed by Raytheon	C67482	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-5	Installed by Raytheon	H226E	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-6	Installed by Raytheon	J259A-37	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-7	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-8	Installed by Raytheon	H986D	N/A	8"-45 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-9	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-10	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-11	Installed by Raytheon	J259A-24	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-12	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-13	Installed by Raytheon	J259A-4	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-14	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-15	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-16	Installed by Raytheon	J259A-2	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-17	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-18	Installed by Raytheon	J259A-5	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-19	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-20	Installed by Raytheon	J259A-7	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-21	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-22	Installed by Raytheon	J259A-32	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-23	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-24	Installed by Raytheon	J313B	N/A	8"-90 Deg. Elbow	N/A	Replacement	No

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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)
MK-P44-4629-25	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-26	Installed by Raytheon	J313B	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-27	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-28	Installed by Raytheon	H545C	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-29	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-30	Installed by Raytheon	J259A-8	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-31	Installed by Raytheon	J313B	N/A	8"-90 Deg. Elbow	N/A	Replacement	No
MK-P44-4629-32	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P44-4629-33	Installed by Raytheon	8151A	N/A	10" X 8" Reducer	N/A	Replacement	No
MK-P44-4629-34	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
1	Installed by Raytheon	361	N/A	1 1/2" Sol	N/A	Replacement	No
2	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
3	Installed by Raytheon	77835	N/A	1 1/2" SwEl	N/A	Replacement	No
4	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
8	Installed by Raytheon	99YNB	N/A	1 1/2" Sw Elbolet	N/A	Replacement	No
9	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
P4400F1050	Kerotest	A0B10-14 (V30-1216)	N/A	1 1/2" valve	1987	Replacement	Yes
P4400F1051	Kerotest	A0B10-15 (V30-1217)	N/A	1 1/2" valve	1987	Replacement	Yes
P44-4629-G01	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4629-G02	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4629-G03	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4629-G04	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4629-G05	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4629-G06	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P44-4629-G07	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No

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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)
MK-P45-4630-1	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4630-2	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-3	Installed by Raytheon	J277C-5	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-4	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-5	Installed by Raytheon	J277A-4	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-6	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-7	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-8	Installed by Raytheon	J277A-5	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-9	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-10	Installed by Raytheon	J277C-6	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-11	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-12	Installed by Raytheon	J277A-6	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-13	Installed by Raytheon	J277A-8	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-14	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-15	Installed by Raytheon	J277C-8	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-16	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-17	Installed by Raytheon	J277C-38	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-18	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-19	Installed by Raytheon	J277C-17	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4630-20	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4630-21	Installed by Raytheon	EAF9	N/A	10" WNRF Flange	N/A	Replacement	No
P4500F200	Installed by Raytheon	A0B10-19 (V30-1221)	N/A	1-1/2"	1987	Replacement	No
P4500F185	Installed by Raytheon	A0B10-16 (V30-1218)	N/A	1-1/2"	1987	Replacement	No
9	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No

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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)
MK-P45-4631-1	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4631-2	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-3	Installed by Raytheon	J277C-10	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-4	Installed by Raytheon	RY2705	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-5	Installed by Raytheon	J277C-33	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-6	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-7	Installed by Raytheon	J277C-2	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-8	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-9	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-10	Installed by Raytheon	J277C-31	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-11	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-12	Installed by Raytheon	J277C-22	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-13	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-14	Installed by Raytheon	J277C-9	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-15	Installed by Raytheon	H307G	N/A	10"X10"X8" Reducer	N/A	Replacement	No
MK-P45-4631-16	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	Yes
MK-P45-4631-17	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-18	Installed by Raytheon	J355C-6	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-19	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-20	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	Yes
MK-P45-4631-21	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-22	Installed by Raytheon	J355C-5	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-23	Installed by Raytheon	A82326	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-24	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	Yes

Replacement NIS-2

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Installed Material, Valves, and Supports EDP 29805

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)
MK-P45-4631-25	Installed by Raytheon	H307G	N/A	10"X10"X8" Reducer	N/A	Replacement	No
MK-P45-4631-26	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-27	Installed by Raytheon	J077B-1	N/A	10"X10"X10" Tee	N/A	Replacement	No
MK-P45-4631-28	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-29	Installed by Raytheon	J277C-37	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-30	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-31	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	No
MK-P45-4631-32	Installed by Raytheon	J355C-3	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-33	Installed by Raytheon	J355C-4	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-34	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-35	Installed by Raytheon	J277C-12	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-36	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-37	Installed by Raytheon	J277C-29	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-38	Installed by Raytheon	J277D-13	N/A	10"-45 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-39	Installed by Raytheon	J277C-1	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-40	Installed by Raytheon	J277C-14	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4631-41	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4631-42	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-43	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	No
MK-P45-4631-44	Installed by Raytheon	B87102	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P45-4631-45	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	Yes
MK-P45-4631-46	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4631-47	Installed by Raytheon	DNH9	N/A	10" Blind Flange	N/A	Replacement	No
MK-P45-4631-48	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No

Installed Material, Valves, and Supports EDP 29805

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)
MK-P45-4631-49	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4631-50	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4631-51	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4631-52	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4631-53	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
1	Installed by Raytheon	361	N/A	1 1/2" Sol	N/A	Replacement	No
2	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
19	Installed by Raytheon	999YNB	N/A	1 1/2" Elbolet	N/A	Replacement	No
20	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
P4500F188	Kerotest	A0B10-17 (V30-1219)	N/A	1 1/2" valve	1987	Replacement	Yes
P4500F199	Kerotest	A0B10-18 (V30-1220)	N/A	1 1/2" valve	1987	Replacement	Yes
P4500F146B	Enertech	10969 (V30-1176)	N/A	10" valve	1999	Replacement	Yes
P4500F400B	CCI	708741-1-2 (V30-1036)	N/A	10" valve	1999	Replacement	Yes
P4500F144B	Enertech	10967 (V30-1174)	N/A	10" valve	1999	Replacement	Yes
P4500F012B	Enertech	10960 (V30-1121)	N/A	10"	1999	Replacement	Yes
P4500F147B	Borg Warner	71044 (V30-1230)	N/A	8"	1981	Replacement	Yes
P4500F013B	Enertech	10961 V30-1122	N/A	10"	1999	Replacement	Yes
P45-4631-G01	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4631-G02	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4631-G03	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4631-G04	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4631-G05	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4631-G06	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4631-G07	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No
P45-4631-G08	Installed by Raytheon	N/A	N/A	Support	N/A	Replacement	No

Installed Material, Valves, and Supports EDP 29805

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)
MK-P45-4632-1	Installed by Raytheon	J277C-24	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4632-2	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-3	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-4	Installed by Raytheon	J105B	N/A	10"X10"X10" Tee	N/A	Replacement	No
MK-P45-4632-5	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-6	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-7	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-8	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	No
MK-P45-4632-9	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-10	Installed by Raytheon	J277D-9	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4632-11	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-12	Installed by Raytheon	J277D-8	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4632-13	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-14	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-15	Installed by Raytheon	J105B	N/A	10"X10"X10" Tee	N/A	Replacement	No
MK-P45-4632-16	Installed by Raytheon	H/C5964E	N/A	10"X8" Reducer	N/A	Replacement	No
MK-P45-4632-17	Installed by Raytheon	C67482	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-18	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	Yes
MK-P45-4632-19	Installed by Raytheon	C67482	N/A	8" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-20	Installed by Raytheon	H/C5964E	N/A	10"X8" Reducer	N/A	Replacement	No
MK-P45-4632-21	Installed by Raytheon	J077B-2	N/A	10"X10"X10" Tee	N/A	Replacement	No
MK-P45-4632-22	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-23	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-24	Installed by Raytheon	J277C-39	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4632-25	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No

Replacement NIS-2

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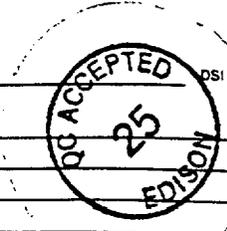
Installed Material, Valves, and Supports EDP 29805

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)
MK-P45-4632-26	Installed by Raytheon	DNH9	N/A	10" Blind Flange	N/A	Replacement	No
MK-P45-4632-27	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-28	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-29	Installed by Raytheon	J277C-18	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4632-30	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-31	Installed by Raytheon	J277C-27	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4632-32	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-33	Installed by Raytheon	J277C-29	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4632-34	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-35	Installed by Raytheon	J277C-43	N/A	10"-90 Deg. Elbow	N/A	Replacement	No
MK-P45-4632-36	Installed by Raytheon	A82324	N/A	10" Dia. Pipe	N/A	Replacement	No
MK-P45-4632-37	Installed by Raytheon	DWD9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-38	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	No
MK-P45-4632-39	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-40	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	No
MK-P45-4632-41	Installed by Raytheon	XVG8	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-42	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-43	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	No
MK-P45-4632-44	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-45	Installed by Raytheon	FGZ9	N/A	10" WNRF Flange	N/A	Replacement	No
MK-P45-4632-46	Installed by Raytheon	See valve Info.	N/A	See valve Info.	N/A	Replacement	Yes
15	Installed by Raytheon	361	N/A	1 1/2" Sol	N/A	Replacement	No
16	Installed by Raytheon	263444	N/A	1 1/2" Nipple	N/A	Replacement	No
P4500F197	Kerotest	A0B10-12 (V30-1214)	N/A	1-1/2" valve	1987	Replacement	Yes
P4500F183A	Enertech	10964 (V30-1133)	N/A	10" valve	1999	Replacement	Yes

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

Certificate Holder's Serial No. 708741-1-1 THRU -2

8. Design conditions 175 psi 125 Deg. F or Valve pressure class N/A (1)
 (pressure) (temperature)
9. Cold working pressure 285 psi at 100 Deg. F
10. Hydrostatic test 450 psi Disk differential pressure NOT APPLICABLE
11. Remarks
PRESSURE BOUNDARY BOLTING BREAKDOWN
STUDS TRACE CODE J589
NUTS TRACE CODE J266



CERTIFICATE OF DESIGN

Design Specification certified by NOT APPLICABLE P.E. State _____ Reg. no. _____

Design Report certified by NOT APPLICABLE P.E. State _____ Reg. no. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Div. 1.

N Certificate of Authorization No. N-2695 Expires JUNE 7, 2000

Date 2/20/99 Name CCI Signed [Signature]
 (N 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 CALIFORNIA and employed by HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY of HARTFORD, CONNECTICUT have inspected the pump, or valve, described in this Data Report on 11/24/99 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump or valve, in accordance with ASME Section III, Division 1.

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

Date 11/24/99 Signed [Signature] Commissions Ca 1494
 (Authorized Inspector) (Nat'l Bd. (including endorsement) and state or prov., and no.)

(1) For manually operated valves only.

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

00-001

1. Owner Detroit Edison Company Date July 13, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System N5-0250 Reactor Recirculation Loops
5. (a) Applicable Construction Code ASME III, Class 1 19 71 Draft (valve) piping 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)
B3105F023A	Lunkenheimer	69-GE-14123-32	N/A	V8-2001	1971	REPLACEMENT	N
B3105F023B	Lunkenheimer	69-GE-14123-33	N/A	V8-2002	1971	REPLACEMENT	N
B3105F031A	Lunkenheimer	69-GE-14123-31	N/A	V8-2003	1971	REPLACEMENT	N
B3105F031B	Lunkenheimer	69-GE-14123-30	N/A	V8-2004	1971	REPLACEMENT	N

7. Description of Work Modify packing gland configuration per EDP-29258 from 3 tier to single tier arrangement. Remove packing leak off lines (see remarks) and replace drain nipple on B3105F023A and remove indication in elbow and build up drain line welds to 2:1 taper.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174 °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 NOTE: 28" valves are not stamped components, new packing gland procured per PO # 350560. SA 479. Type 316L.
Applicable Manufacturer's Data Reports to be attached

In addition all bottom drain line welds on F023A and F023B were built up to a 2:1 taper. A nipple was replaced and an indication repaired on
F023A drain line.

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 No. 00-001 & 00-011

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

Signed Richard M. H. Hites Lead ISI Eng Date JULY 24 2000
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 March 16, 2000 to July 24, 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.

Mark Seely Commissions NB9486 NIASBI MD010
Inspector's Signature National Board, State, Province, and Endorsements

Date July 24 2000

(12/82)

For complete work package, see Work Request 000Z991026, F023A Gland
000Z991027, F023B Gland
000Z979061, F031A Gland
000Z991025, F031B Gland
000Z001127, F023A Repair & Build-up Welds
000Z001189, F023B Build-up Welds

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

00-002

1. Owner Detroit Edison Company Date April 5, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System T & B N5-5 Diesel Generator Service Water (Div. I)
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 - 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)
R3000F142C	Wm. Powell	66171-9	NA	V15-2102	1976	REPLACEMENT	Y

7. Description of Work Install replacement stainless steel disc in check valve
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.

Form NIS-2 (Back)

9. Remarks Replacement disc, serial number CM 8532B, procured per PO #296750.
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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-002.

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

Signed *R.M. Holston* LEAD ISI ENG Date APRIL 6 2000
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 2-9-2000 to 4-8-2000, 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] Commissions NB3486 NEARBY NEG13
Inspector's Signature National Board, State, Province, and Endorsements

Date April 8 2000

(12/82)

For complete work package, see Work Request R302970307

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

Sheet 2 of 2
NIS-2 00-007

1. (a) Manufactured by The Wm. Powell Co., 3233 Colerain Avenue, Cincinnati, OH 45225
(Name and address of NPT Certificate Holder)
- (b) Manufactured for Detroit Edison Co., EF 2 Site, Newport, MI 48166
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. Part CM 8532B Nat'l Bd. No. ---- CRN No. ----
- (a) Constructed According to Drawing No. 26-085524-150-02-00 Drawing Prepared by The Wm. Powell Co.
- (b) Description of Part Inspected 1 - Disc for 8" Figure 3061AWE
- (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 _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (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 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. _____ 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 9 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.



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 _____
 (Yes or no) (Number) (Number) (Describe) (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 September 20 19 95 Signed Tile Wal. Powell Co. By [Signature]
 (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 9-30, 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 9-30, 1995

[Signature]
 Inspector's Signature

Commissions NB10904N, OK10904N
 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

00-003

1. Owner Detroit Edison Company Date April 5, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System T & B N5-20 Diesel Generator Service Water (Div. II)
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 - 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)
R3000F142D	Wm. Powell	66171-7	NA	V15-2078	1976	REPLACEMENT	Y

7. Description of Work Install replacement carbon steel disc in check valve

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 Replacement disc, serial number CM 7264B, procured per PO #239725.
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 N5-20 (T&B) to be supplemented by owners Section XI program No. 00-003.

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

Signed *RM [Signature]* LEAD INST ENGR Date APRIL 6 2000
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 2-22-2000 to 4-8-2000, 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] Commissions NB 9486 NEASBI MI 10
Inspector's Signature National Board, State, Province, and Endorsements

Date April 8 2000

(12/82)

For complete work package, see Work Request R303000100 R303000100 Req [Signature]

Reviewed To - 2/2/92

FORM 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 Ave., Cincinnati, Ohio 45225
(Name and address of NPT Certificate Holder)

(b) Manufactured for Detroit Edison Co., P.O. Box 1659, Detroit, MI 48231
(Name and address of N Certificate Holder for completed nuclear component)

2. Identification: Certificate Holder's Serial No. CM 7264B Nat'l Bd. No. N/A CRN No. N/A

(a) Constructed According to Drawing No. P/N 6-109986-2000-19 Drawing Prepared by The Wm. Powell Co.

(b) Description of Part Inspected 1 - Disc for 8" Figure 3061AWE Swing Check Valve

(c) Applicable ASME Code: Section III, Edition 1971 Addenda date Winter 71 Case No. N/A 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. _____ (Min. of range specified) Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.

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 open and closed, 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 _____ (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. _____ (Min. of range specified) Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.

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.
³ 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.

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 _____
 (Yes or no) (Number) (Number) (Describe) (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 Nov. 26, 19 91 Signed The Wm. Powell Co. By [Signature]
 (NPT Certificate Holder)

Certificate of Authorization Expires 12/23/91 Certificate of Authorization No. 11-1579

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.E.I. & I Co. of Hartford, CT have inspected the part of a pressure vessel described in this Partial Data Report on _____, 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 loss of any kind arising from or connected with this inspection.

Date 11/26, 19 91
[Signature] Inspector's Signature Commissions OHIO COMMISSION
 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

1. Owner Detroit Edison Company Date April 5, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System T & B N5-5 Diesel Generator Service Water (Div. I)
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 1992-92 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)
R3000F142A	Wm. Powell	66171-8	NA	V15-2096	1976	REPLACEMENT	Y

7. Description of Work Install replacement carbon steel disc in check valve
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.

Form NIS-2 (Back)

9. Remarks Replacement disc, serial number CM 7262B, procured per PO #239725.
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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-004.

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

Signed *RM H. Holston* LEAD ISE ENG Date APRIL 6, 2000
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 3-1-2000 to 4-5-2000, 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.

Paul D. ... Commissions NB 5486 NEAS BES ME 110
Inspector's Signature National Board, State, Province, and Endorsements

Date April 8 20 00

(12/82)

For complete work package, see Work Request R300000100

REVIEW TA 2/8/70
Sheet 2 of 2

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 Ave., Cincinnati, Ohio 45225
(Name and address of NPT Certificate Holder)

(b) Manufactured for Detroit Edison Co., P.O. Box 1659, Detroit, MI 48231
(Name and address of N Certificate Holder for completed nuclear component)

2. Identification-Certificate Holder's Serial No. Part CM 7262B Nat'l Bd. No. N/A CRN No. N/A

(a) Constructed According to Drawing No. P/N 6-109986-20000-19 Drawing Prepared by The Wm. Powell Co.

(b) Description of Part Inspected 1 - Disc for 8" Figure 3061AWE Swing Check Valve

(c) Applicable ASME Code: Section III, Edition 1971; Addenda date Winter 71; Case No. N/A 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 _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (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 _____ (Welded, bolted)
(Kind & Spec. No.) (Subject to pres.)

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. _____ 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 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.

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 (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 Nov. 26, 19 91 Signed The Wm. Powell Co. By [Signature]
 (NPT Certificate Holder)

Certificate of Authorization Expires 12/23/91 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 11/26, 19 91, 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 11/26, 19 91
Patrick T. Donoran Inspector's Signature Commissions OHIO COMMISSION
 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

1. Owner Detroit Edison Company Date April 5, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System T & B N5-20 Diesel Generator Service Water
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 1992-92 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)
R3000F142B	Wm. Powell	66171-6	NA	V15-2071	1976	REPLACEMENT	Y

7. Description of Work Install replacement stainless alloy disc in check valve
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.

Form NIS-2 (Back)

9. Remarks Replacement disc, serial number CM 8527B, procured per PO #283508.
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 N5-20 (T&B) to be supplemented by owners Section XI program No. 00-005.

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

Signed *Paul H. [Signature]* HEAD ISC ENGINEER Date APRIL 6 20 00
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 3-14-2000 to 4-8-2000, 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] Commissions NB9486 NEAS BS MI 610
Inspector's Signature National Board, State, Province, and Endorsements

Date April 8 20 00

(12/82)

For complete work package, see Work Request R301000100

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

SHEET 2 OF 2

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., EF 2 Site, Newport, MI 48166
(Name and address of NPT Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. Part CM 8527B Nat'l Bd. No. ---- CRN No. ----
- (a) Constructed According to Drawing No. 26-085524-150-02-00 Drawing Prepared by The Wm. Powell Co.
- (b) Description of Part Inspected 1 - Disc for 8" Figure 3061 WE
- (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 or 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. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ 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 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 _____ Diam. _____ in. Thk. _____ in. Attachment _____ (Welded, bolted)
(Kind & Spec. No.) (Subject to pres.)
- 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. _____ Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of range specified)
12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ 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 Pressure? _____ psi at _____ ° F (b) Min. Pressure-Test Temp. _____ ° F

* If post-weld heat-treated. † 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.

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 _____ (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 Sept 14, 1995 by The Wm. Powell Co. (NPT Certificate Holder) By [Signature]

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

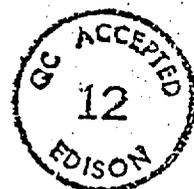
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Ohio and employed by H.S.B.I & I Co. of Hartford, CT have inspected the part of a pressure vessel described in this Partial Data Report on 9-20, 1995, and 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 9-20, 1995

[Signature]
Inspector's Signature

Commissions NBICRCH N 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

00-006

1. Owner Detroit Edison Company Date June 13, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System N5-0363 Emergency Equipment Cooling Water
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)
T4100B029	CTI Nuclear	1	1306	N/A	1976	REPAIRED	Y

7. Description of Work Repair cooling coil leak by seal welding tubes to tube sheet and install flanges on supply and return piping.
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.

Form NIS-2 (Back)

9. Remarks _____
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 Report N5-5 (T&B) to be supplemented by owners Section XI program No. 00-006.

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

Signed Richard M. [Signature] LEAD INST ENGR Date JUNE 14, 2000
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 03-30-2000 to 6-15-2000, 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] Commissions NB9486 NEASBIS NE610
Inspector's Signature National Board, State, Province, and Endorsements

Date June 15 20 00

(12/82)

For complete work package, see Work Request 000Z000820

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

00-007

1. Owner Detroit Edison Company Date May 16, 2000
 Name _____
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address _____
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name _____
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address _____ Repair Organization P.O. No., Job No., etc. _____
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name _____ Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address _____
4. Identification of System N5-0307 Residual Heat Removal (Division 2)
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-E11-3158-10WF4	Wisner & Becker	N5-307	N/A	PIPING WELD	1982	REPLACEMENT	Y

7. Description of Work Remove surface material processing imperfections adjacent to weld FW-E11-3158-10WF4 by blend grinding.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other 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.

(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 No welding required – surface indications only – Ref CARD 00-14396
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 report N5-5 (T&B) to be supplemented by owners Section XI program No. 00-007.

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

Signed RM [Signature] LEAD IST ENGINEER Date MAY 18 2000
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 April 20, 2000 to May 19, 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] Commissions NB 5486 NH 525 ME 610
Inspector's Signature National Board, State, Province, and Endorsements

Date May 19 20 00

(12/82)

For complete work package, see Work Request 000Z000979

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

1. Owner Detroit Edison Company Date May 16, 2000
 Name :
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System N5-0432 Hydrogen Recombiner Return to Torus
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)
<i>2017 Reg</i> FW-T48-04- 287 -20W21	Wismer & Becker	N5-0432	N/A	PIPING SPOOL	1983	REPAIR	Y

7. Description of Work Remove manufacturing discontinuities adjacent to weld FW-T48-04-1097-20W21 by blend grinding.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other 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 No welding required – surface indications only – Ref CARD 00-14383
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 report N5-5 (T&B) to be supplemented by owners Section XI program No. 00-008.

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

Signed *Richard M. Walker* LEAD ISI ENGINEER Date MAY 19 2000
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 April 6, 2000 to May 9, 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.

Frank S. ... Commissions NBS486 NIPASSE NIP610
Inspector's Signature National Board, State, Province, and Endorsements

Date May 19 2000

(12/82)

For complete work package, see Work Request 000Z001076

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

00-009

- | | |
|---|---|
| 1. Owner <u>Detroit Edison Company</u>
Name
<u>6400 North Dixie Highway, Newport MI 48166</u>
Address | Date <u>July 24, 2000</u>
Sheet <u>1</u> of <u>2</u> RBE |
| 2. Plant <u>Fermi 2 Nuclear Power Plant</u>
Name
<u>6400 North Dixie Highway, Newport MI 48166</u>
Address | Unit <u>2</u>

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>Various Component Supports (Snubbers)</u> | |

- | | | | | | |
|---|-----------|-----------|----------|--------------------------|--|
| 5. (a) Applicable Construction Code <u>ANSI B31.7</u> | <u>19</u> | <u>69</u> | Articles | <u>1-720 & 1-721</u> | |
| (b) Applicable Edition of Section XI Utilized for Repairs or Replacements <u>ANSI B31.1</u> | <u>19</u> | <u>67</u> | 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 SNUBBERS	Detroit Edison	Various	NA	NONE	Various	REPLACEMENTS	N

7. Description of Work Refurbish and Re-install Snubbers during testing activities and for future installation
8. Tests Conducted:
 Hydrostatic
 Pneumatic
 Nominal Operating Pressure
 Other Pressure _____ psi
 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.

(12/82)

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

Form NIS-2 (Back)

9. Remarks Attached are listings of Snubbers that were refurbished and changed out during testing activities during RF07.
Applicable Manufacturer's Data Reports to be attached

In addition, a listing of the Snubbers that were refurbished prior to RF07 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. 00-009.

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

Signed *Richard M. [Signature]* LEAD IST ENG Date August 9 20 00
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 April 12, 2000 to August 17, 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] Commissions NB 9480 NIAS 815 MI 610
Inspector's Signature National Board, State, Province, and Endorsements

Date August 17 20 00

(12/82)

For complete work package, see Work Request 000Z990704
000Z984276
000Z984277

Snubbers Replaced with Rebuilt Spares

NIS-2 00-009
Sheet 2 of 8

Hanger Number	Old Serial Number	New Serial Number
B21-2187-G81	22340	12685
B21-2590-G07	12816	12791
B21-2593-G04	9875	4715
B21-4093-G12	8340	9020
B21-4094-G09	9843	7011
B21-4096-G11	8966	6182
B21-E213-SSD1	4718	8716
B31-5065-G39C	22368	12130
B31-E215-SSA7	4708	8730
C41-2340-G08	8498	6828
E11-3146-G08	7016	9851
E11-3146-G23	10334	9018
E11-3146-G37B	8962	8996
E11-3151-G08	820250	810026
E11-3151-G17	20967	20978
E11-3152-G32	8985	8323
E11-3154-G19	9000	12801
E11-3158-G16	820200	820013
E11-3158-G20	820224	820194
E11-3160-G17	830033	830055
E11-3164-G14	820174	820176
E11-3164-G24	810204	810046
E11-3164-G26	810206	810202
E11-3177-G27	810173	810161
E11-3185-G32B	8328	8325
E11-3185-G55	810149	830025
E11-3519-G14	12453	20974
E11-4011-G09S	12699	22448
E11-4612-G04B	810164	810169
E21-3150-G07	810148	810054
E21-3150-G09	810035	810107
E41-3162-G20	820252	810136
E41-3162-G26	8969	8331
E41-3172-G11	810016	810131
E41-3172-G20	810050	820080
E41-5256-G20SB	22449	12677
E41-5256-G22S	13161	13133
E51-3175-G21	820179	820252
E51-3175-G22	810167	810177
G33-3245-G47	7013	9876
G51-4056-G03	21950	9855
G51-4056-G20	20989	15282

Snubbers Replaced with Rebuilt Spares

Hanger Number	Old Serial Number	New Serial Number
N21-3109-G62	820195	830039
N21-3109-G63A	820132	830033
N21-3109-G77B	830043	820250
N21-3131-G33	12817	9021
N21-3131-G38	8979	8951
N21-3536-G32	10354	8991
N21-3536-G38A	12822	12798
N21-3536-G38B	12823	12800
N21-3536-G40	12792	9881
N21-3537-G27	7021	9885
N21-3537-G29A	10348	8364
N21-3537-G38A	10340	12810
N21-3537-G38B	9021	8984
N30-2186-G16	8509	13129
N30-2186-G18	8507	8478
N30-3259-G24	9873	9882
N30-3259-G68	1584	1580
N30-3259-G84	11282	9899
P11-3156-G05	22391	12684
P11-3566-G09	820083	820064
P42-4357-G22A	27917	12704
P50-2163-G17	22412	22453
T23-I2837-40-G09A	8495	8481
T23-I2837-41-G07A	13152	8490
T23-I2837-42-G17	8469	8502
T23-I2837-42-G23B	22419	12719
T23-I2837-45-G04	21954	18644
T23-I2837-45-G11B	13155	8503
T23-I2837-46-G42	13154	13118
T23-I2837-48-G08A	19902	12720
T23-I2837-51-G19	22371	19911
T23-I2837-51-G28	12733	12715
T23-I2837-51-G29	22436	22386
T23-I2837-51-G33	22417	22403
T23-I2837-51-G43	12701	12766
T23-I2837-51-G61	8470	8510
T23-I2837-51-G62	22424	22375
T23-I2837-51-G141	12750	22411
T23-I2837-51-G142	13147	13108
T23-I2837-51-G144	22406	22349
T48-2366-G25	12434	20957
T48-5314-G07	12734	12755
T50-7431-G03B	22341	12756
T71-I2837-64-G48	12707	12994

Snubbers Rebuilt and Re-installed

Hanger Number	Serial Number
E11-3146-G17	830046
E11-3152-G30	820254
E11-3158-G15	820217
E11-3160-G10	820193
E11-3185-G23	820219
N21-3109-G71B	820199
N21-3109-G76	810056
T46-3093-G10	820100

Snubber Refurbishment Inventory

Safety Related Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
20974	E11-3519-G14	PSA 3	000Z984277	Bearing Screw Assembly Retaining Ring Thrust Bearing Kit Retaining Ring
20978	E11-3151-G17	PSA 3	000Z984277	Bearing Screw Assembly Retaining Ring Thrust Bearing Kit Washers
820254	E11-3152-G30	Power Piping 4 x 5	000Z990704	Piston Rings Seal Kit O-Rings Bolts/Nuts/Angle Iron/Flat Bar (Bracket Mod)
830046	E11-3146-G17A	Power Piping 5 x 5	000Z990704	Paddle from snubber serial number 90017 Seal Kit O-Rings Bolts/Nuts/Angle Iron (Bracket Mod)
820219	E11-3185-G23	Power Piping 4 x 5	000Z990704	Piston Rings Seal Kit O-Rings Bolts/Nuts/Angle Iron/Flat Bar (Bracket Mod)
820100	T46-3093-G10	Power Piping 4 x 5	000Z990704	Piston Rings O-Rings Bolts/Nuts/Angle Iron (Bracket Mod) Seal Kit
820252	E51-3175-G21	Power Piping 2 x 5	000Z990704	Piston Rings O-Rings Bolts/Nuts/Flat Bar (Bracket Mod) Seal Kit

Snubber Refurbishment Inventory

Safety Related Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
820217	E11-3158-G15	Power Piping 2 ½ x 5	000Z990704	Piston Rings Seal Kit Bolts/Nuts/Angle Iron/Flat Bar (Bracket Mod)
820193	E11-3160-G10	Power Piping 2 1/2 x 5	000Z990704	Seal Kit O-Rings Bolts/Nuts/Angle Iron (Bracket Mod)
810169	E11-4612-G04B	Power Piping 1 ½ x 5	000Z984276	Seal Kit O-Rings Piston Rings
810177	E51-3175-G22	Power Piping 1 ½ x 5	000Z984276	Piston Rings Seal Kit O-Rings
810161	E11-3177-G27	Power Piping 1 ½ x 5	000Z984276	Piston Rings Seal Kit O-Rings
810107	E21-3150-G09	Power Piping 1 ½ x 5	000Z984276	Seal Kit O-Rings Piston Rings
820080	E41-3172-G20	Power Piping 1 ½ x 5	000Z984276	Seal Kit O-Rings Piston Rings
820064	P11-3566-G09	Power Piping 1 ½ x 5	000Z984276	Seal Kit O-Rings Piston Rings Poppet
810026	E11-3151-G08	Power Piping 4 x 5	000Z984276	Piston Rings Seal Kit O-Rings Front Ferrule Back Ferrule Elbow Swagelock ¼ Nut
820013	E11-3158-G16	Power Piping 4 x 10	000Z984276	Piston Rings Seal Kit O-Rings Spring

SHEET 6 of 8

Snubber Refurbishment Inventory

Safety Related Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
830055	E11-3160-G17	Power Piping 4 x 5	000Z984276	Flat Bar/Angle Iron/Nuts/Bolts(Bracket Mod) Piston Rings O-Rings Seal Kit
820194	E11-3158-G20	Power Piping 4 x 5	000Z984276	Flat Bar/Angle Iron/Nuts/Bolts(Bracket Mod) Piston Rings O-Rings Seal Kit
820176	E11-3164-G14	Power Piping 2 x 10	000Z984276	Connector Tubing Swagelok ¼ Nut Front Ferrule Back Ferrule Angle Iron/Nuts/Bolts (Bracket Mod) Piston Rings O-Rings Seal Kit
810131	E41-3172-G11	Power Piping 2 ½ x 5	000Z984276	Piston Rings Seal Kit O-Rings
810046	E11-3164-G24	Power Piping 2 x 5	000Z984276	Piston Rings Seal Kit O-Rings
830025	E11-3185-G55	Power Piping 2 x 5	000Z984276	Piston Rings Seal Kit O-Rings
810136	E41-3162-G20	Power Piping 2 x 5	000Z984276	Piston Rings Seal Kit O-Rings
810202	E11-3164-G26	Power Piping 2 x 5	000Z984276	Piston Rings Seal Kit O-Rings
810054	E21-3150-G07	Power Piping 2 x 5	000Z984276	Piston Rings Seal Kit O-Rings Poppet

Sheet 7 of 8

Snubber Refurbishment Inventory

Spare Snubbers

Serial Number	Snubber location	Size	Work Package	Parts Replaced
22358	Spare	PSA ¼	000Z984277	Screw Shaft
22415	Spare	PSA ¼	000Z984277	Screw Shaft
18651	Spare	PSA 1	000Z984277	Bearing Screw Assembly Retaining Ring Thrust Bearing Kit
20988	Spare	PSA 3	000Z984277	Thrust Bearing Kit Retaining Ring
8328	Spare	PSA 10	000Z984277	Ball Bearing Screw Assembly
810180	Spare	Power Piping 1 1/2 x 5	000Z984276	O-Rings
820079	Spare	Power Piping 1 ½ x 5	000Z984276	Seal Kit O-Rings Piston Rings Connector Front Ferrule Back Ferrule Swagelock ¼ Nut Poppet
810133	Spare	Power Piping 2 ½ x 5	000Z984276	Piston Rings Seal Kit O-Rings
810134	Spare	Power Piping 2 ½ x 5	000Z984276	Piston Rings Seal Kit O-Rings
810048	Spare	Power Piping 2 ½ x 5	000Z984276	Piston Rings Seal Kit O-Rings
810087	Spare	Power Piping 2 x 5	000Z984276	Piston Rings Seal Kit O-Rings
810029	Spare	Power Piping 2 x 5	000Z984276	Piston Rings Seal Kit O-Rings Cylinder Tube Poppet

8 # 8 JANK
 1-00-00 7-51N

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

1. Owner Detroit Edison Company Date May 16, 2000
 Name _____
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address _____
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name _____
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address _____ Repair Organization P.O. No., Job No., etc. _____
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name _____ Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address _____
4. Identification of System N5-094 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
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174°F

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

Form NIS-2 (Back)

9. Remarks Replacement Bolting -- (8) studs 1 1/4-8 UNC-2A x 6, SA-193 GR B7, PO #247193-01, Heat #AUG.
Applicable Manufacturer's Data Reports to be attached

(8) Nuts 1 1/4 -8 UNC-2B, SA-194, Grade 7, PO #850524-01, Heat # 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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-010.

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

Signed [Signature] LEAD ISI ENGINEER Date MAY 16 20 00
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 April 11, 2000 to May 30, 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] Commissions NB9486 NIASRES M2610
Inspector's Signature National Board, State, Province, and Endorsements

Date May 30 20 00

(12/82)

For complete work package, see Work Request 000Z979249

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

1. Owner Detroit Edison Company Date July 13, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System N5-0250 Reactor Recirculation Loops
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)
B3105F023A	Lunkenheimer	69-GE-14123-32	N/A	V8-2001	1971	REPLACEMENT	N
B3105F023B	Lunkenheimer	69-GE-14123-33	N/A	V8-2002	1971	REPLACEMENT	N
B3105F031A	Lunkenheimer	69-GE-14123-31	N/A	V8-2003	1971	REPLACEMENT	N
B3105F031B	Lunkenheimer	69-GE-14123-30	N/A	V8-2004	1971	REPLACEMENT	N

7. Description of Work Modify packing gland configuration per EDP-29258 from 3 tier to single tier arrangement. Remove packing leak off lines (see remarks) and replace drain nipple on B3105F023A and remove indication in elbow and build up drain line welds to 2:1 taper.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174 °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 NOTE: 28" valves are not stamped components. new packing gland procured per PO # 350560. SA 479. Type 316L.
Applicable Manufacturer's Data Reports to be attached

In addition all bottom drain line welds on F023A and F023B were built up to a 2:1 taper. A nipple was replaced and an indication repaired on
F023A drain line.

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 No. 00-001 & 00-011

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

Signed Richard M. Hutton Lead ISI Eng Date JULY 24 2000
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 March 16, 2000 to July 24, 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] Commissions NB9486 NIASBIS N2010
Inspector's Signature National Board, State, Province, and Endorsements

Date July 24 2000

(12/82)

For complete work package, see Work Request 000Z991026, F023A Gland
000Z991027, F023B Gland
000Z979061, F031A Gland
000Z991025, F031B Gland
000Z001127, F023A Repair & Build-up Welds
000Z001189, F023B Build-up Welds

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

00-012

1. Owner Detroit Edison Company Date May 16, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address

2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.

3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name
6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Address Expiration Date N/A

4. Identification of System N5-0307 Residual Heat Removal (Division 1)

5. (a) Applicable Construction Code ASME III, Class 2 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)
E1100F185	Rockwell Edwards	LA-102	N/A	V8-2492	1974	REPLACEMENT	Y

7. Description of Work Replace Disc and Spring in 2" Lift Check Valve

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.

Form NIS-2 (Back)

9. Remarks Replacement 2" Disc procured per PO #243141, Part Serial No. 20287A-49, A 565 GR 616
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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-012.

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

Signed Richard M. Walter LEAD IST ENGINEER Date MAY 16, 2000
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 April 14, 2000 to May 30, 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.

Yonah D. S. [Signature]
Inspector's Signature

Commissions NBS#86 NEASBES MI610
National Board, State, Province, and Endorsements

Date May 30 2000

(12/82)

For complete work package, see Work Request P426970520

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

1. Manufactured and certified by EDWARD VALVES INC., 1900 S. SAUNDERS ST., RALEIGH, NC 27603

2. Manufactured for DETROIT EDISON COMPANY, 2000 SECOND AVE., DETROIT MI 48226

3. Location of installation FRM 2 6400N DIXIE HWY., NEWPORT MI 48166

4. Type D475201 A565CR616 N/A N/A 1991

5. ASME Code, Section III: 1971 WINTER 1971 2 N/A

6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A

7. Remarks: DISK FOR 2" CHECK VALVE

SO. 36-17805

8. Nom. thickness (in.) N/A Min. design thickness (in.) FRM 4 O.D. 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) 20287A-48	N/A
(2) 20287A-49	N/A
(3) 20287A-50	N/A
(4) 20287A-51	N/A
(5) 20287A-52	N/A
(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

*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)

ITEM No. 1, Serial No. 20287A-48

CERTIFICATION OF DESIGN

Design specifications certified by T J O'KEEFE P E State MI Reg no 24359

Design report certified by P E State Reg. no.

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 11/26/91

Date 7/26/91 Name EDWARD VALVES INC Signed [Signature]

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&T Co. of HARTFORD, CT have inspected these items described in this Date Report on 7-26-91 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 7-26-91 Signed [Signature] Commissions NC 1083

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

1. Owner Detroit Edison Company Date May 25, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System HPCI Steam Turbine (N5-0325) Piping Ssystem (Steam Supply)
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)
E4101C002	Terry Turbine	4-36688-A	N/A	HPCI TURBINE	1974	REPLACEMENT	N

7. Description of Work Replace studs damaged during turbine disassembly
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F 42.202.001

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.

* HPCI TURBINE IS NOT A STAMPED COMPONENT

Form NIS-2 (Back)

9. Remarks Replacement studs 1 - 1" bar stock ASTM A193 GR B7, PO # 286181-01, Heat # M53278
Applicable Manufacturer's Data Reports to be attached

2 - 1 1/4" 7 UNC-2A-6", SA 193 GR B7, PO # 854826, HEAT # PRK

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-013.

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

Signed *R. M. Holts* LEAD ISE ENGINEER Date MAY 26, 2000
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 April 14, 2000 to May 26, 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.

Mark D. ... Commissions NB9486 NEASBES NE 610
Inspector's Signature National Board, State, Province, and Endorsements

Date May 26 2000

(12/82)

For complete work package, see Work Request E977940127

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

00-014

1. Owner Detroit Edison Company Date May 31, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name
6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Address Expiration Date N/A
4. Identification of System N5-302 Torus Water Management
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)
G5100F607	Wm. Powell	92950-4	N/A	V8-4682	1991	REPLACEMENT	Y

7. Description of Work Replace disc and stem and clean-up inbody seats.
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 Replacement disc procured per PO # NM-204194, Serial No. Code CM 6157. Valve was previously replaced in 1994
Applicable Manufacturer's Data Reports to be attached
and was reworked due to a degraded dynamic test result per GL 96-05 testing.

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-014.

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

Signed  LEAD IPI ENGINEER Date JUNE 7 20 00
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 April 16, 2000 to July 10, 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.

 Commissions NBS486 NIABTS N6010
Inspector's Signature National Board, State, Province, and Endorsements

Date July 10 20 00

(12/82)

For complete work package, see Work Request 000Z974526

THE WM. POWELL COMPANY, 3233 COLERAIN AVE., CINCINNATI, OHIO 45225

1. (a) Manufactured by THE WM. POWELL COMPANY, 3233 COLERAIN AVE., CINCINNATI, OHIO 45225
 (Name and address of NPT Certificate Holder)
- (b) Manufactured for DETROIT EDISON CO. 2000 SECOND AVE. DETROIT, MICHIGAN 48226
 (Name and address of N Certificate Holder for completed nuclear component)
2. Identification Certificate Holder's Serial No. Part CM 6157 Nat'l Bd. No. N/A CRN No. N/A
 (a) Constructed According to Drawing No. P/N 6-084454-53200-17 Drawing Prepared by THE WM. POWELL COMPANY
 (b) Description of Part Inspected 1-WEDGE FOR A 4" FIG. 3003 W.E.
 (c) Applicable ASME Code: Section III, Edition 1971; Addenda dated WINTER 71; Case No. N/A Class 2
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. _____ (Min. of range specified) Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
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 edge 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 _____ (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. _____ (Min. of range specified) Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
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 post-weld heat treated. ² List other internal or external pressures with coincident temperature when applicable.
³ 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.

Items below to be completed for all vessels where applicable.

CM6157

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 _____
 (Yes or no) (Number) (Number) (Describe) (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 November 29, 19 90 Signed THE WM POWELL CO By Hudson Knecht
(NPT Certificate Holder)

Certificate of Authorization Expires 12-23-91 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, CONN. have inspected the part of a pressure vessel described in this Partial Data Report on 11/29, 1990, 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 11/29, 19 90
[Signature]
Inspector's Signature

Commissions Ohio C. 23277
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

00-015

1. Owner Detroit Edison Company Date July 13, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System (N5-0245) Main Steam Lines
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)
B2103F028B	Atwood Morrell	3-682	N/A	V17-2005	1972	REPLACEMENT	Y

7. Description of Work Replace 2 body to bonnet studs and lap and polish poppet and main seats
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174 °F

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

Form NIS-2 (Back)

9. Remarks Replacement material stock # 489-9916, 2" - 8UN2A, SA-193 GR B7 Heat #89712, PO # 722636
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 No. 00-015

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

Signed *Richard M. [Signature]* Date JULY 13, 2000
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 April 17, 2000 to August 14, 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 NEASBES MI610
National Board, State, Province, and Endorsements

Date August 14, 2000

(12/82)

For complete work package, see Work Request 000Z979233

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

1. Owner Detroit Edison Company Date May 16, 2000
 Name :
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System N5-0214 Reactor Feedwater (North Side) / RWCU
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	I-263	N/A	V12-2007	1974	REPLACEMENT	Y

7. Description of Work Install replacement stuffing box nut.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174°F

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

Form NIS-2 (Back)

9. Remarks Replacement nut procured per PO 850524. 1 1/4 - 8 UNC-2B, SA 194 Grade 7, Heat No. FSD
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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-016.

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

Signed *R.M. Bullock* LEAD ISE ENGINEER Date MAY 16, 2000
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 April 17, 2000 to May 30, 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.

Mark Sewell Commissions NB5486 NIASBS MI610
Inspector's Signature National Board, State, Province, and Endorsements

Date May 30 2000

(12/82)

For complete work package, see Work Request 000Z001156

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

1. Owner Detroit Edison Company Date June 15, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System N5-0214 Reactor Feedwater Lines
5. (a) Applicable Construction Code ASME III, Class 1 19 71 Edition W'71 Addenda, 1516 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)
B2100F032B	Anchor Darling	IN-081	N/A	V12-2003	1974	REPLACEMENT	Y

7. Description of Work Replace segmental thrust ring for valve bonnet
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174°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 Segmental retaining ring, Stock # 548-2671, procured per PO # 270923, Heat #330002
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 No. 00-018.

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

Signed *RMF L. Blanton* LEAD ISI ENGINEER Date JUNE 16, 2000
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 4-21-2000 to 7-13-2000, 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.

M. J. [Signature] Commissions NB9486 NIASBIS MICHIO
Inspector's Signature National Board, State, Province, and Endorsements

Date July 13 2000

(12/82)

For complete work package, see Work Request T251941024

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

1. Owner Detroit Edison Company Date May 25, 2000
 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
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 N5-0187 Reactor Feedwater
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)
B2100F032A	Anchor Darling	IN-080	N/A	V12-2004	1974	REPLACEMENT	Y

7. Description of Work Replace valve bonnet bolting that was damaged during disassembly
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174°F

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

Form NIS-2 (Back)

9. Remarks Replacement Bolting Stud from all thread (1) 1 1/4-5", SA-193 GR B7, PO #753633, Heat #N1B and
Applicable Manufacturer's Data Reports to be attached
- 2 Nuts. 1 1/4"-8UN-2B. SA 194 GR 7, PO #739669, Heat # RH98

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-019.

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

Signed *RM [Signature]* LEAD INST ENG Date MAY 30, 2000
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 April 24, 2000 to July 27, 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] Commissions NB9486 NIAJBS MIA10
Inspector's Signature National Board, State, Province, and Endorsements

Date July 24 2000

(12/82)

For complete work package, see Work Request T250961025

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

1. Owner Detroit Edison Company Date June 13, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name
6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Address Expiration Date N/A
4. Identification of System N5-091 Drywell Cooling System (T4700B002) EECW System
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)
T4700B002	CTI Nuclear	SN # 3 / SN #4	1182 / 1178	Outboard Coil	1975	REPLACEMENT	Y

7. Description of Work Install flanges on inlet and outlet piping and lifting lugs to drywell cooler T4700B002 and install welded plugs in leaking tubes.
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.

Form NIS-2 (Back)

9. Remarks 5/8" bar, ASTM A276, Type 304, PO #341403, HT TR #13020
 Applicable Manufacturer's Data Reports to be attached
-
- (4) 1 1/2" flanges, SA-105, PO #307975, Heat # GCXB
-
- 1/2" studs, SA-193 GR B7, PO #860291, Heat #RPH
-
- 1/2" nuts, SA-194 GR 2H, PO #862093, Heat # B807035 RQM
-
- (8) Tube plugs, SA479, TYPE 304, PO #331773 & 338107, HT #CHY, A8023H, CMC, Stock Code 480-0431
-
- (6) Tube Plugs, SA479, Type 304, PO #327261, HT #820XNA/WFI, Stock Code 480-0431
-

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-020.

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

Signed *Richard M. Walsh* LEAD INST ENG Date JUNE 14, 2000
 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 4-23-2000 to 6-15-2000, 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.

Mark Surin Commissions NB9486 NIAS RES NIGU10
 Inspector's Signature National Board, State, Province, and Endorsements

Date June 15 20 00

(12/82)

For complete work package, see Work Request 000Z001388

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

1. Owner Detroit Edison Company Date July 13, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System (N5-0245) Main Steam Lines
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 Morrell	5-682	N/A	V17-2004	1972	REPLACEMENT	Y

7. Description of Work Replace bolting damaged during disassembly, lapped in body seat and seal welded bonnet
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174 °F

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

Form NIS-2 (Back)

9. Remarks Replacement (2) step studs 482-5344, SA 193, GR B7, PO # 234849
Applicable Manufacturer's Data Reports to be attached
- (2) studs, 489-9916, 2"-SUN2A, SA 193 GR B7, HT # 89712, PO # 722636
- (4) nuts (3) 2"-8 SA194 GR 7, HT# 9271, PO # 686172
- (1) 2"-8 SA194 GR7, HT# JBX, PO # 951605

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 No. 00-021

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

Signed *Richard M. [Signature]* Date JULY 13, 2000
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 May 2, 2000 to August 10, 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] Commissions NB9486 NIASBO NIAIC
Inspector's Signature National Board, State, Province, and Endorsements

Date August 10 2000

(12/82)

For complete work package, see Work Request 000Z979242

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

1. Owner Detroit Edison Company Date July 13, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name
6400 North Dixie Highway, Newport, MI 48166 Authorization No. N/A
 Address Expiration Date N/A
4. Identification of System (N5-0259) (N5-0307) Residual Heat Removal Division 2
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)
E1150F007B	Wm. Powell	65864-2	N/A	V8-2134	1978	REPLACEMENT	Y

7. Description of Work Install replacement wedge and stem assembly
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.

Form NIS-2 (Back)

9. Remarks Replacement wedge procured per PO # 269762. Trace serial # CM 5438B / 64662
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 No. 00-022.

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

Signed Richard M. Hallett LEAD ISTE OWNER Date JULY 13, 2000
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 April 17, 2000 to July 14, 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] Commissions NB9486 NIAS&IS MI610
Inspector's Signature National Board, State, Province, and Endorsements

Date July 14 2000

(12/82)

For complete work package, see Work Request 000Z994469

1. (a) Manufactured by The Wm. Powell Co., 3233 Colerain Ave., Cincinnati, Ohio 45225 Sheet 2 of 2
(Name and address of NPT Certificate Holder)
 (b) Manufactured for Detroit Edison Co., 2000 Second Ave., Detroit, Michigan 48226
(Name and address of N Certificate Holder for completed nuclear component)
 2. Identification-Certificate Holder's Serial No. Part CM 5436B Nat'l Bd. No. N/A CRN No. N/A
(Name and address of NPT Certificate Holder)
 (a) Constructed According to Drawing No. P/N 6-023786-532-00-17 Drawing Prepared by The Wm. Powell Co.
 (b) Description of Part Inspected 1 - Wedge for 4" Figure 300SNE Gate Valve
 (c) Applicable ASME Code: Section III, Edition 1971; Addenda date Winter 71; Case No. N/A Class III
 3. Remarks: _____
(Brief description of service for which component was designed.)

S/N 64662

Item 4-3 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 _____ 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 eggs and weld, bar, etc. If bar, give dimensions, if bolted, describe or sketch)
 8. (a) Design Pressure ² _____ 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. (Subject to pres.) 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 _____ 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 Drum	Side to Pressure (convex or concave)
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____
(b) Girth	_____	_____	_____	_____	_____	_____	_____	_____

 If removable; bolts used (a) _____ (b) _____ Other fastening _____ (Describe or attach sketch)
 14. (a) Design Pressure ² _____ psi at _____ ° F (b) Min. Pressure-Test Temp. _____ ° F

¹ If pressure is heat treated, give either in tank or extra heat treatment, or both, that temperature when applicable.
² Applicable design stress for the material, see code or design stress tables. For design stress tables, see ASME Section III, Div. 1, Appendix 2, Table 2-1.1 and 2-1.2. The design stress for the material is included in items 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.

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 _____
 (Yes or no) (Number) (Number) (Describe) (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 Dec. 23, 19 82 Signed Wm. Powell Co. By Hubert J. ...
 (NPT Certificate Holder)

Certificate of Authorization Expires 12/23/89 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, Conn. have inspected the part of a pressure vessel described in this Partial Data Report on _____, 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 Part of 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 _____, 19 _____

Inspector's Signature _____ Commission No. _____
 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

00-023

1. Owner Detroit Edison Company Date May 16, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System N5-0312 Residual Heat Removal (LPCI) Division 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 Replace Valve Valve Cover Bolting and Segmental Thrust Rings

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174°F

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

Form NIS-2 (Back)

9. Remarks Replacement Bolting -- (8) studs 1 1/4 x 5 1/2, SA-193 GR B7, PO #753633, Heat #N1B,
Applicable Manufacturer's Data Reports to be attached
(8) Nuts 1 1/4 -8, SA-193, Grade 7, PO #739669, Heat # RH98 Segmental Thrust Retaining Rings PO # 230662-01, Heat # AB181

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-023.

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

Signed RML [Signature] LEAD ISE ENGINEER Date MAY 16, 20 00
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 Apr 12, 2000 to May 19, 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] Commissions NB 9486 NEAS 25 NTC 10
Inspector's Signature National Board, State, Province, and Endorsements
Date May 19 20 00

(12/82)

For complete work package, see Work Request 0007991235

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

00-024

1. Owner Detroit Edison Company Date June 12, 2000
 Name _____
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address _____
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name _____
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address _____ Repair Organization P.O. No., Job No., etc. _____
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name _____ Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address _____
4. Identification of System N5-0304 Main Steam Line Drains
5. (a) Applicable Construction Code ASME III, Class 1 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)
B2103F019	Wm. Powell	64066-1	N/A	V17-2010	1974	REPLACEMENT	Y

7. Description of Work Install a replacement Disc that was built up to an oversize condition.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174°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 # NR-204445, CM 7070B stellite hard facing was machined off replacement disc and
Applicable Manufacturer's Data Reports to be attached
- new stellite was applied so as to build it up to an oversize condition to allow for final machining to assure leakage integrity.

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-024.

Certificate of Authorization No. 1 N/A Expiration Date N/A

Signed Richard M. Halston LEAD ITC 009 Date JUNE 14 2000
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 04-27-2000 to 06-14-2000, 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 NBS486 NIAS 825 N2610
National Board, State, Province, and Endorsements

Date June 14 2000

(12/82)

For complete work package, see Work Request 000Z990391

U

1. (a) Manufactured by The Wm. Powell Co., 3233 Colerain Avenue, Cincinnati, OH 45225
(Name and address of NPT Certificate Holder)
- (b) Manufactured for Detroit Edison Co., 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 CM 7070E Nat'l Bd No. N/A CRN No. N/A
(a) Constructed According to Drawing No. P/N 6-061785-2000E-17 Drawing Prepared by The Wm. Powell Co.
(b) Description of Part Inspected: 1 - Wedge for 3" Figure 19023WF
(c) Applicable ASME Code: Section III, Edition 1971; Addenda dated Winter 71; Case No. N/A Class 1
3. Remarks: _____
(Brief description of service for which component was designed.)

NIS-2 00-024
Sheet 2 of 2

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. _____ (Min. of range specified) Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.)
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 Flt. 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 open end, weld, bolt, etc. If bolt, 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 _____ (Welded, bolted)
(Kind & Spec. No.) (Subject to pres.)
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. _____ (Min. of range specified) Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.)
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 Flt. 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.
³ 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.

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets Number _____ Size _____ Location _____

16. Nozzles:

Purpose (inlet; outlet, drain)	Number	Diem. 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 _____
 (Yes or no) (Number) (Number) (Describe) (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 Stress 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 Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date May 22, 19 91 Signed The Wm. Powell Co. By [Signature]
 (NPT Certificate Holder)

Certificate of Authorization Expires 12/23/91 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 5/31, 19 91, 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 5/31, 19 91

[Signature]
 Inspector's Signature

Commissions OHIO Commission _____
 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

00-025

1. Owner Detroit Edison Company Date May 31, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 2
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System N5-307 Residual Heat Removal System (Division II)
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)
E1100F031B	Wm. Powell	63872-2	N/A	V8-2104	1975	REPLACEMENT	Y

7. Description of Work Replace valve disc due to uneven seating surface
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F
 43.204.02

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 # 278412. Stainless Steel faced A216WCB carbon steel. CM 4932B previous rework had
Applicable Manufacturer's Data Reports to be attached
tapered inbody seat and disc to reduce leakage.

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-025.

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

Signed [Signature] LEAD INST ENGINEER Date JUNE 7 2000
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 April 27, 2000 to July 14, 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] Commissions NB9486 NIASBIS NIG10
Inspector's Signature National Board, State, Province, and Endorsements

Date July 14 2000

(12/82)

For complete work package, see Work Request 000Z984974

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 NIS-2 00-025

Sheet 2 of 2

1. (a) Manufactured by The Wm. Powell Co., 3233 Colerain Ave., Cincinnati, Ohio 45225
 (Name and address of NPT Certificate Holder)
- (b) Manufactured for Detroit Edison Co., 2000 Second Ave., Detroit, Michigan 40226
 (Name and address of N Certificate Holder for completed nuclear component)
2. Identification Certificate Holder's Serial No. Part Q1 4932B Nat'l Bd. No. N/A CRN No. N/A
 (a) Constructed According to Drawing No. N/A Drawing Prepared by N/A
 (b) Description of Part Inspected 1 - Disc for a 20" Fig. 3061WE Swing Check Valve
 (c) Applicable ASME Code Section III, Edition 1971 Addenda date Winter 71 Case No. N/A Class 2
3. Remarks: Tag V8-2103
 (Brief description of service for which component was designed.)

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. _____ Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
 (Kind & Spec. No.) (Min. of range specified)
5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____
6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
 Location (top, 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: _____ Other fastening: _____
 (Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)
7. Jacket Closure _____
 (Describe as apex and weld, bar, etc. If bar, give dimensions, if bolted, describe or sketch)
8. (a) Design Pressure _____ psia at _____ °F (b) Min. Pressure-Test Temp. _____ °F

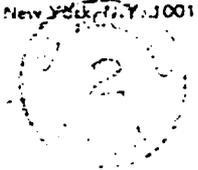
Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary Material _____ Diam. _____ in. Thk. _____ in. Attachment _____ (Welded, bolted)
 (Kind & Spec. No.) (Subject to pres.)
 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. _____ Nom. Thk. _____ in. Corr. Allow. _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
 (Kind & Spec. No.) (Min. of range specified)
12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ 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 Pressure _____ psia at _____ °F (b) Min. Pressure-Test Temp. _____ °F

* If postweld heat treated. † List other internal or external pressures with coincident temperature when applicable.
 *Supplemental sheets in form of lists, schedules, 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.



Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____
16. Nozzles:
- | Purpose (Inlet, outlet, drain) | Number | Diarn. 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 _____ Lug _____ (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 27 May 21 19 84 Signed Van. Pow. & Co. Plt. 2 By [Signature]
 (NPT Certificate Holder)
 Certificate of Authorization Expires 12/23/85 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, Conn. have inspected the part of a pressure vessel described in this Partial Data Report on 5-22, 1984, 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 5-22, 19 84

Louise R. Burton _____ Commissions Ohio
 Inspector's 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

00-026

1. Owner <u>Detroit Edison Company</u>	Date <u>May 12, 2000</u>
Name <u>6400 North Dixie Highway, Newport MI 48166</u>	Sheet <u>1</u> of <u>1</u>
Address	
2. Plant <u>Fermi 2 Nuclear Power Plant</u>	Unit <u>2</u>
Name	
<u>6400 North Dixie Highway, Newport MI 48166</u>	<u>DECo Maintenance</u>
Address	Repair Organization P.O. No., Job No., etc.
3. Work Performed by <u>Detroit Edison Company</u>	Type Code Symbol Stamp <u>N/A</u>
Name	Authorization No. <u>N/A</u>
<u>6400 North Dixie Highway, Newport, MI 48166</u>	Expiration Date <u>N/A</u>
Address	
4. Identification of System <u>Containment Vessel (C-4512)</u>	

5. (a) Applicable Construction Code ASME III, Class 2 19 68 Edition S'69 Addenda, 1177-6, 1330-2, 1431 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)
DRYWELL PENET. X-100F	CB & I	C-4512	N/A	N/A	1973	REPLACEMENT	Y

7. Description of Work Reattach Radiation Shield Plug in Spare Penetration X-100F

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F
 (MT surface exam)

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 Existing plate re-welded per WPCS #000Z001180-1. Pressure test deferred until next scheduled Type "A" test.
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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-026.

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

Signed [Signature] LEAD TEST ENG Date MAY 12 2000
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 4-28-2000 to 5-12-2000, 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] Commissions NB9486 NEASBIS H2010
Inspector's Signature National Board, State, Province, and Endorsements

Date May 12 2000

(12/82)

For complete work package, see Work Request 000Z001180

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

00-027

1. Owner Detroit Edison Company Date May 12, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 1
 Address
2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address
4. Identification of System Containment System - Drywell (C-4512)
5. (a) Applicable Construction Code ASME III, Class 2 19 68 Edition S'69 Addenda, 1177-6, 1330-2, 1431 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)
DRYWELL HATCH T2301A001B	CB & I	C-4512	N/A	X-001B	1973	REPLACEMENT	Y

7. Description of Work Rplace Hatch Bolt that had unusual wear pattern at base of threads.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F
 (LLRT 43.401.205, Visual Inspection 43.000.019)

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)

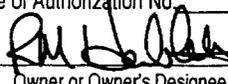
9. Remarks Replacement Bolting procured per PO 357983, 1 1/4 x 1'-5" - " TPI, ASME SA 320 GR LH3. Heat # RVQ
Applicable Manufacturer's Data Reports to be attached

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-027.

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

Signed  LEADIST ENG Date MAY 12, 2000
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 4-28-2000 to 5-12-2000, 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.

 Commissions NB9486 NEASBS MI610
Inspector's Signature National Board, State, Province, and Endorsements

Date May 12 2000

(12/82)

For complete work package, see Work Request 000Z001446, F00900100



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

00-028

1. Owner Detroit Edison Company Date May 12, 2000
 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
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 Authorization No. N/A
 Address Expiration Date N/A
4. Identification of System Torus Suppression Chamber (C-4512)
5. (a) Applicable Construction Code ASME III, Class 2 19 68 Edition S'69 Addenda, 1177-6, 1330-2, 1431 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)
S/E TORUS HATCH T2302X200A	CB & I	C-4512	N/A	X-200A	1973	REPLACEMENT	Y

7. Description of Work Replace SE Torus Hatch Bolting Material that was lost.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F
 (Type B LLRT)

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)

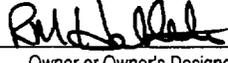
9. Remarks Replacement material -- (6) 5/8" - 11 x 6". Heat # EQD. PO 861698-01; (8) 5/8" - 11 unc. Heat # RFP. PO 860873.
Applicable Manufacturer's Data Reports to be attached

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 N5-5 (T&B) to be supplemented by owners Section XI program No. 00-028.

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

Signed  LEAD ISI ENG Date MAY 12, 2000
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 May 3, 2000 to May 12, 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.

 Commissions NB9486 NIASBES HI1010
Inspector's Signature National Board, State, Province, and Endorsements

Date May 12, 2000

(12/82)

For complete work package, see Work Request F011000200

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

00-029

1. Owner Detroit Edison Company Date June 19, 2000
 Name
6400 North Dixie Highway, Newport MI 48166 Sheet 1 of 3
 Address

2. Plant Fermi 2 Nuclear Power Plant Unit 2
 Name
6400 North Dixie Highway, Newport MI 48166 DECo Maintenance
 Address Repair Organization P.O. No., Job No., etc.

3. Work Performed by Detroit Edison Company Type Code Symbol Stamp N/A
 Name Authorization No. N/A
6400 North Dixie Highway, Newport, MI 48166 Expiration Date N/A
 Address

4. Identification of System (N5-0151) RCIC Turbine Steam Supply

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)
E5150F008	Wm. Powell	64006-1	N/A	V17-2031	1975	REPLACEMENT	Y

7. Description of Work Replace valve bonnet, stem and segmental thrust rings due to high backseat loading.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 174 °F

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

Form NIS-2 (Back)

9. Remarks Replacement valve bonnet from V30-0131 procured per PO 275070, SN 96367-2. Bonnet Trace CM 8229B. Heat T0212.
Applicable Manufacturer's Data Reports to be attached

Segmental Thrust Ring procured per PO 278403. Heat/Trace CM4990B

Stem procured per PO 176385, CM 6170B, HT # J6796

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 No. 00-029.

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

Signed [Signature] LEAD ISI Rtg Date JUNE 19 20 00
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 May 5, 2000 to July 13, 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] Commissions NB9486 NIAS BIS NIG10
Inspector's Signature National Board, State, Province, and Endorsements

Date July 13 20 00

(12/82)

For complete work package, see Work Request 000Z001744

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

①

1. Manufactured by The Wm. Powell Co., 3233 Colerain Avenue, Cincinnati, OH 45225
(Name and Address of N Certificate Holder)
 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, 6400 Dixie Hwy, Newport, MI 48166
(Name and Address)
 4. Pump or Valve Gate Valve Nominal Inlet Size 4 Outlet Size 4
(inch) (inch)

NISZ 00-029
 SHEET 2 OF 3

(a) Model No. (Serial No. or Type)	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l Std. No.	(g) Year Built
(1) <u>Fig 10023KE</u>	<u>36357-2</u>	<u>N/A</u>	<u>061493 Rev. 0</u>	<u>1</u>	<u>N/A</u>	<u>1995</u>
(2) _____	_____	_____	_____	_____	_____	_____
(3) _____	_____	_____	_____	_____	_____	_____
(4) _____	_____	_____	_____	_____	_____	_____
(5) _____	_____	_____	_____	_____	_____	_____
(6) _____	_____	_____	_____	_____	_____	_____
(7) _____	_____	_____	_____	_____	_____	_____
(8) _____	_____	_____	_____	_____	_____	_____
(9) _____	_____	_____	_____	_____	_____	_____
(10) _____	_____	_____	_____	_____	_____	_____

5. Mark No. V30-0131
(Brief description of service for which equipment was designed)

6. Design Conditions 1250 psi 575 °F or Valve Pressure Class _____ (1)
(Pressure) (Temperature)
 7. Cold Working Pressure 2160 psi at 100°F.
 8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
<u>Body CM 8291B</u>	<u>ASME SA216 Gr. WCB</u>	<u>American Foundry</u>	
<u>Heat D3602</u>	<u>(special)</u>	<u>Tulsa, OK</u>	
<u>Disc CM 82983</u>	<u>ASME SA216 Gr. WCB</u>	<u>American Foundry</u>	
<u>Heat A0354</u>	<u>(special)</u>	<u>Tulsa, OK</u>	
(b) Forgings			
<u>Bonnet CM 8229B</u>	<u>ASME SA105 Gr. 2</u>	<u>Galt Forge</u>	
<u>Heat T0213</u>	<u>(special)</u>	<u>Cambridge, Ontario</u>	
<u>Stem CM 825FB</u>	<u>ASTM A564 Type 630</u>	<u>Galt Forge</u>	
<u>Heat H8664</u>	<u>Cond H1075 (special)</u>	<u>Cambridge, Ontario</u>	
<u>Seg. 7. Ring CM 8388B</u>	<u>ASTM A564 Type 630</u>	<u>Galt Forge</u>	
<u>Heat 2VA36027</u>	<u>Cond H1075 (special)</u>	<u>Cambridge, Ontario</u>	



(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.

Mark No	Material Spec No	Manufacturer	Remarks
STUC CH 82158	ASME SA193 GR. B7	Vitco Inc. Mentor, OH	
Heat 2095363			
Code A11			
WT CM 84758	ASME SA194 GR. 2H	Texas Bolt Co. Houston, TX	
Heat HA6048			
Code P52			
CASCREW CN 84328	ASME SA193 GR. B7	Vitco Inc. Mentor, OH	
Heat 8076061			
Code A01			
(1) Other Parts			

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, Edition, 1971.

Address: Winter, J. Code Case No. 1388-2 Date: *Jan 14, 1975*

Signed: *[Signature]* by *[Signature]* The Wm. Powell Co. in certificate number: 11578

Our ASME Certificate of Authorization is No. 11578 to use the symbol expires 12/23/97

CERTIFICATION OF DESIGN

Design information on file at: The Wm. Powell Co., Plant 2, Cincinnati, Ohio 45225

Stress analysis report (Class 1 only) on file at: The Wm. Powell Co., Cincinnati, Ohio 45225

Design specifications certified by (1): SYLVESTER H. KOETZEL Reg. No. 14376 Mich.

Stress analysis certified by (1): JIM HENGEHOLD Reg. No. 45592 Ohio

(1) Signature not required. List as no 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 of Province of Ohio, and employed by H.S.B. I & L Co., have inspected the pump, or valve, described in this Data Report and state that to the best of my knowledge and belief, the Certificate Holder has conformed to this portion of 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.

Commission: *WALTER N. DEWITT* Date: *1/15/75*

1. (a) Manufactured by The Wm. Powell Co., Plt. 2, 3233 Colerain Ave., Cincinnati, Ohio 45225
 (Name and address of NPT Certificate Holder)
 (b) Manufactured for Detroit Edison Co., 2000 Second Ave., Detroit, Michigan 48226
 (Name and address of N Certificate Holder for completed nuclear component)

NIG-2
00-029
SHEET 3 OF 3

2. Identification-Certificate Holder's Serial No. Part CM 4991B Nat'l Bd. No. N/A CRN No. N/A
 (a) Constructed According to Drawing No. See Below Drawing Prepared by The Wm. Powell Co.
 (b) Description of Part Inspected 2 (sets) Segmental Thrust Rings for a 4" Fig. 19023WE Gate Valve
 (c) Applicable ASME Code: Section III, Edition 1971; Addenda date Winter 71; Case No. N/A Class 1

3. Remarks: _____
 (Brief description of service for which component was designed.)
Tags V17-2031, V8-2254, V17-2030
Dwg Nos. 040286-8-9 & 040314-10-11

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 _____ Other fastening _____
 (Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)

7. Jacket Closure: _____
 (Describe as ogree 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 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. _____ 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 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.

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 _____
 (Yes or no) (Number) (Number) (Describe) (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 June 21, 19 84 Signed Wm. Powell Co. Plt. 2 By [Signature]
 (NPT Certificate Holder)

Certificate of Authorization Expires 12/23/85 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, Conn. have inspected the part of a pressure vessel described in this Partial Data Report on 6-21, 1984, 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 6-21, 19 84

Lowell R. Burton Commissions Ohio
 Inspector's 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

00-032

1. Owner <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Date <u>August 10, 2000</u>
2. Plant <u>Fermi 2 Nuclear Power Plant</u> Name <u>6400 North Dixie Highway, Newport MI 48166</u> Address	Sheet <u>1</u> of <u>2</u> Unit <u>2</u>
3. Work Performed by <u>Detroit Edison Company</u> Name <u>6400 North Dixie Highway, Newport, MI 48166</u> Address	<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>
4. Identification of System <u>N5-047 / 0716 P50 Station and Control Air System</u>	

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)
P5000F402	Wm. Powell	193648-40-1	N/A	V5-2523	1976	REPLACEMENT	Y

7. Description of Work Install replacement valve disc and stem and plug packing leak off line

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)

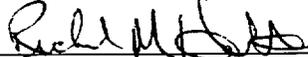
9. Remarks Replacement disc procured per PO # 269746, stellite faced A351 GR CA15 stainless steel, CM5051B.
Applicable Manufacturer's Data Reports to be attached
-
-
-

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 No. .00-032

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

Signed  Date AUGUST 10, 2000
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 August 9, 2000 to August 14, 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.

 Commissions NB9486 NIASBIS MICHIO
Inspector's Signature National Board, State, Province, and Endorsements

Date August 14 2000

(12/82)

For complete work package, see Work Request 000Z972186

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

NIS-2 RL 00-032

P5000F402

1. (a) Manufactured by The Wm. Powell Co., 3233 Colerain Ave., Cincinnati, Ohio 45225
(Name and address of NPT Certificate Holder)

(b) Manufactured by Detroit Edison Co., 2000 Second Ave., Detroit, Michigan 48226
(Name and address of N Certificate Holder for completed nuclear component)

2. Identification Certificate Holder's Serial No. Part CM 5051B Nat'l Bd. No. N/A CRN No. N/A
(a) Constructed According to Drawing No. P/N 6-026662-557-00-17 Drawing Prepared by The Wm. Powell Co.

(b) Description of Part Inspected 1 - Wedge for 3" Fig. 300322 Gate Valve
(c) Applicable ASME Code: Section III, Edition 1971; Addenda date Winter 71; Case No. N/A Class 2

3. Remarks: _____
(Brief description of service for which component was designed.)
Tags: V5-2524, V5-2529, V5-2530, V5-2531, V5-2532, V5-2533, V5-2538, V5-2539, V8-2377, V8-2379, V8-2382, V8-2389, V8-2411, V8-2412, V8-2413, V8-2415, V8-2419, V8-3033, V8-2130, V8-2131, V8-2132, V8-2094, V11-2003, V9-2044, V5-2542, V5-2543, V5-2525, V5-2526

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 _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as open 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 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. _____ 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 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.

FORM N-2 (Back)

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number 1 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 (Yes or no) _____ Lugs (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 March 27, 19 85 Signed Wm. Powell Co. Flt. 2 By [Signature]
 (NPT Certificate Holder)
 Certificate of Authorization Expires 12/23/85 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, Conn. have inspected the part of a pressure vessel described in this Partial Data Report on 4-23, 1985, 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 4-23, 19 85
Donald E. McIntyre Commissions OHIO Comm.
 Inspector's Signature National Board, State, Province and No.