Consumers Energy

A CMS Energy Company

Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043

March 13, 2000

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

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT
PALISADES PLANT 1999 INSERVICE INSPECTION REPORT

Attached is the summary report of the 1999 Inservice Inspection at the Palisades Plant. This report contains the information required by the ASME Boiler & Pressure Vessel Code, Section XI, Article IWA-6220 and is submitted in accordance with Article IWA-6230.

No NRC Response is required.

SUMMARY OF COMMITMENTS

This letter contains no new commitments and no revisions to existing commitments.

Daniel G. Malone
Acting Director, Licensing

CC Administrator, Region III, USNRC
Project Manager, NRR, USNRC
NRC Resident Inspector - Palisades

Attachment

A047

ATTACHMENT

CONSUMERS ENERGY COMPANY
PALISADES PLANT
DOCKET 50-255

PALISADES PLANT 1999 INSERVICE INSPECTION REPORT

231 Pages

PALISADES NUCLEAR PLANT
ENGINEERING PROGRAMS DEPARTMENT

Review and Approval Summary

TITLE: ISI REPORT 3-4

3/2/2000

Lead Technical Analyst / THFouty Date

3/3/2000

Engineering Programs Manager/ JKFord Date

PALISADES NUCLEAR PLANT

1999 INSERVICE INSPECTION REPORT

Submitted in accordance with the ASME Boiler and Pressure Vessel Code, Section XI, Article IWA-6000, 1989 Edition.

1. Date: February 25, 2000

2. Corporate Headquarters: Consumers Energy
212 West Michigan Avenue
Jackson, Michigan 49201

3. Plant: Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, Michigan 49043

4. Unit No: 1

5. Commercial Service Date: December 31, 1971

6. Major Components Inspected:

Component	Manufacturer	Manufacturer Serial No.	State No.	National Board No
Pressurizer	Combustion Eng.	CE-66601	M96728M	NB20851
RPV Head	Combustion Eng.	CE-66110	M96725M	NB20827

7. Completion Date for Inspections: December 14, 1999

8. Code Inspector: Kenneth L Blake

9. Authorized Inspection Agency: Factory Mutual Insurance Corporation (FMIC)

10. Abstract See ISI Report

1999 INSERVICE INSPECTION 3-4
PALISADES NUCLEAR PLANT

Summary

Inservice Inspection 3-4 was conducted during the period of October 11, 1999 through November 20, 1999 in accordance with Section 6.5.7 of the Palisades Nuclear Plant Technical Specifications. The ASME Boiler and Pressure Vessel Code, Section XI 1989 Edition controlled the inspections and provided the acceptance criteria for these examinations. Included in this submittal are two separate sections. The first section details the examinations which were performed and the final inspection results. The second provides a listing of the repairs and replacements which have been performed over the last refueling cycle and the required NIS-2 Forms to document these repairs and replacements.

Inspection Activities

This was the first examination of the second period of the third inspection interval. Areas examined during this inspection included the reactor vessel head welds and the pressurizer vessel welds. Various other components of the Primary Coolant System, Engineered Safeguards System, Main Steam System and various support systems were examined as identified in the attached NDE Results Summary Report.

The examinations were performed using Ultrasonic (UT), Liquid Penetrant (PT), Magnetic Particle (MT) and Visual (VT) techniques. The examinations were conducted by Consumers Energy, Nondestructive Testing Services Department examination personnel using site approved procedures. Examinations were performed by personnel qualified in the NDT process utilized in accordance with the requirements of ASME Section XI, IWA-2300.

SECTION 1

EXAMINATION DETAILS AND FINAL INSPECTION RESULTS

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS
As required by the Provisions of the ASME Code Rules

1. Owner Consumers Energy, 212 West Michigan Ave., Jackson, MI 49201
(Name and Address of Owner)

2. Plant Palisades Nuclear Plant, 27780 Blue Star Memorial Hwy., Covert, MI 49043
(Name and Address of Plant)

3. Plant Unit 1 4. Owner Certificate of Authorization (if required) N/A

5. Commercial Service Date 12/31/71 6. National Board Number for Unit NB20827

7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Pressurizer	Combustion Eng.	CE-66601	M96728M	NB20851
RPV Head	Combustion Eng.	CE-66110	M96725M	NB20827
	SEE "NDE RESULTS SUMMARY"			
	REPORT (attached)			

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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-1 (Back)

8. Examination Dates 10/11/99 to 11/20/99 9. Inspection Interval from 5/12/95 to 5/11/05

10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See ISI Report "NDE Results Summary"

11. Abstract of Conditions Noted See ISI Report "NDE Results Summary".

12. Abstract of Corrective Measures Recommended and Taken
See ISI Report "NDE Results Summary".

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

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

Date 3/3 ~~19~~ 2000 Signed Consumers Energy By [signature]
Owner

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 10-11-99 to 11-20-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Mar. 3 ~~19~~ 2000

(12/82)

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
Aug					
	ESS				
		ESS-24-SIS-SH1-207	Acceptable	UT	
				PT	
		ESS-24-SIS-SH2-207	Acceptable	UT	
				PT	
	FWS				
		FWS-3-AWS-1S1-258	Acceptable	UT	
				PT	
		FWS-3-AWS-1S1-259	Acceptable	UT	
				PT	
		FWS-3-AWS-1S1-260	Acceptable	UT	
				PT	
		FWS-3-AWS-2S1-253	Acceptable	UT	
				PT	
		FWS-3-AWS-2S1-254	Acceptable	UT	
				PT	
		FWS-3-AWS-2S1-255	Acceptable	UT	
				PT	
		FWS-4-AWS-1S1-257	Acceptable	UT	
				PT	
		FWS-4-AWS-2S1-252	Acceptable	UT	
				PT	
B-A					
	RVH				
		6-118A	Acceptable	UT	
				MT	
B-B					
	PR				
		1-983A	Acceptable	UT	
		1-983B	Acceptable	UT	
		1-983C	Acceptable	UT	
		1-983D	Acceptable	UT	
B-F					
	PCS				
		PCS-12-PSL-1H1-1	Acceptable	UT	
				PT	

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		PCS-12-PSL-1H1-2	Acceptable	UT PT	
		PCS-12-PSL-1H1-7	Acceptable	UT PT	
		PCS-12-PSL-1H1-8	Acceptable	UT PT	
		PCS-12-SIS-1B1-15	Acceptable	UT PT	
		PCS-12-SIS-1B1-16	Acceptable	UT PT	
		PCS-2-DRL-1B1-1	Acceptable	PT	
B-G-1					
	P1A				
		1A-1BT-N-1-16	Acceptable	VT-1	
		1A-1BT-S-1-16	Acceptable	UT	
		Ligaments Flange Surface	Acceptable	VT-1	
	PCS				
		2B-1BT-N-1-16-ON	Acceptable	VT-1	
		2B-1BT-S-1-16-ON	Acceptable	UT	
	RVH				
		RPVCH S/N 19 NUT	Acceptable	MT	
		RPVCH S/N 19 STUD	Acceptable	UT MT	
		RPVCH S/N 19 WASHER	Acceptable	VT-1	
		RPVCH S/N 20 NUT	Acceptable	MT	
		RPVCH S/N 20 STUD	Acceptable	UT MT	
		RPVCH S/N 20 WASHER	Acceptable	VT-1	
		RPVCH S/N 21 NUT	Acceptable	MT	
		RPVCH S/N 21 STUD	Acceptable	UT MT	
		RPVCH S/N 21 WASHER	Acceptable	VT-1	
		RPVCH S/N 22 NUT	Acceptable	MT	
		RPVCH S/N 22 STUD	Acceptable	UT MT	
		RPVCH S/N 22 WASHER	Acceptable	VT-1	
		RPVCH S/N 23 NUT	Acceptable	MT	

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		RPVCH S/N 23 STUD	Acceptable	UT MT	
		RPVCH S/N 23 WASHER	Acceptable	VT-1	
		RPVCH S/N 24 NUT	Acceptable	MT	
		RPVCH S/N 24 STUD	Acceptable	UT MT	
		RPVCH S/N 24 WASHER	Acceptable	VT-1	
		RPVCH S/N 25 NUT	Acceptable	MT	
		RPVCH S/N 25 STUD	Acceptable	UT MT	
		RPVCH S/N 25 WASHER	Acceptable	VT-1	
		RPVCH S/N 26 NUT	Acceptable	MT	
		RPVCH S/N 26 STUD	Acceptable	UT MT	
		RPVCH S/N 26 WASHER	Acceptable	VT-1	
		RPVCH S/N 27 NUT	Acceptable	MT	
		RPVCH S/N 27 STUD	Acceptable	UT MT	
		RPVCH S/N 27 WASHER	Acceptable	VT-1	
		RPVCH S/N 28 NUT	Acceptable	MT	
		RPVCH S/N 28 STUD	Acceptable	UT MT	
		RPVCH S/N 28 WASHER	Acceptable	VT-1	
		RPVCH S/N 29 NUT	Acceptable	MT	
		RPVCH S/N 29 STUD	Acceptable	UT MT	
		RPVCH S/N 29 WASHER	Acceptable	VT-1	
		RPVCH S/N 30 NUT	Acceptable	MT	
		RPVCH S/N 30 STUD	Acceptable	UT MT	
		RPVCH S/N 30 WASHER	Acceptable	VT-1	
		RPVCH S/N 31 NUT	Acceptable	MT	
		RPVCH S/N 31 STUD	Acceptable	UT MT	
		RPVCH S/N 31 WASHER	Acceptable	VT-1	
		RPVCH S/N 32 NUT	Acceptable	MT	

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		RPVCH S/N 32 STUD	Acceptable	UT MT	
		RPVCH S/N 32 WASHER	Acceptable	VT-1	
		RPVCH S/N 33 NUT	Acceptable	MT	
		RPVCH S/N 33 STUD	Acceptable	UT MT	
		RPVCH S/N 33 WASHER	Acceptable	VT-1	
		RPVCH S/N 34 NUT	Acceptable	MT	
		RPVCH S/N 34 STUD	Acceptable	UT MT	
		RPVCH S/N 34 WASHER	Acceptable	VT-1	
		RPVCH S/N 35 NUT	Acceptable	MT	
		RPVCH S/N 35 STUD	Acceptable	UT MT	
		RPVCH S/N 35 WASHER	Acceptable	VT-1	
		RPVCH S/N 36 NUT	Acceptable	MT	
		RPVCH S/N 36 STUD	Acceptable	UT MT	
		RPVCH S/N 36 WASHER	Acceptable	VT-1	
B-G-2					
	CVC				
		CV2001-BT	Acceptable	VT-1	
		CV2002-BT	Acceptable	VT-1	
		CV2113-BT	Acceptable	VT-1	
		CV2115-BT	Acceptable	VT-1	
		CV2117-BT	Acceptable	VT-1	
		MV-2198-BT	Acceptable	VT-1	
		MV-2225-BT	Acceptable	VT-1	
	ESS				
		CK-3101-BT	Acceptable	VT-1	
		CK-3102-BT	Acceptable	VT-1	
		CK-3103-BT	Acceptable	VT-1	
		CK-3118-BT	Acceptable	VT-1	
		CK-3131-BT	Acceptable	VT-1	
		CK-3132-BT	Acceptable	VT-1	
		CK-3133-BT	Acceptable	VT-1	
		CK-3146-BT	Acceptable	VT-1	

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		CK-3147-BT	Acceptable	VT-1	
		CK-3148-BT	Acceptable	VT-1	
		CK3116-BT	Acceptable	VT-1	Bolting Replaced
		CK3117-BT	Acceptable	VT-1	Evaluation determined residue was calcium cilicate. No evidence of leakage.
	PCS				
		CV1057-BT	Acceptable	VT-1	
		CV1059-BT	Acceptable	VT-1	
		MO-3015-BT	Acceptable	VT-1	
		MO-3016-BT	Acceptable	VT-1	
		MV-1172-BT	Acceptable	VT-1	
		MV-1173-BT	Acceptable	VT-1	
		MV-1174-BT	Acceptable	VT-1	
		MV-1175-BT	Acceptable	VT-1	
B-J					
	ESS				
		ESS-12-SIS-1B1-13	Acceptable	UT PT	
		ESS-12-SIS-1B1-14	Acceptable	UT PT	
		ESS-6-SIS-1A1-3/2	Acceptable	PT	
		ESS-6-SIS-1B1-3/2	Acceptable	PT	
		ESS-6-SIS-2A1-4/2	Acceptable	PT	
		ESS-6-SIS-2B1-4/2	Acceptable	PT	
	PCS				
		PCS-12-SCS-2H1-11	Acceptable	UT PT	
		PCS-30-RCL-1A-11/12	Acceptable	UT PT	
B-L-1					
	PCS				
		1A-02	Acceptable	VT-1	Examination of bottom weld only
B-L-2					
	PCS				
		1A-C	Acceptable	VT-3	
B-M-2					
	ESS				

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		CK-3116	Acceptable	VT-3	
C-C					
	ESS				
		ESS-12-SIS-1A1-3PL1-4	Acceptable	PT	
		ESS-6-LTC-1A-203-PL1-4	Acceptable	PT	
		ESS-6-LTC-1A-218-PL1-4	Acceptable	PT	
		ESS-6-SIS-1HP-208PL5	Acceptable	PT	
		ESS-6-SIS-1HP-208PL6	Acceptable	PT	
		ESS-6-SIS-1HP-208PL7	Acceptable	PT	
		ESS-6-SIS-1HP-208PL8	Acceptable	PT	
		ESS-6-SIS-2HP-216-PL5-8	Acceptable	PT	
	FWS				
		FWS-18-FWL-1S1-256PL1	Acceptable	PT	
		FWS-18-FWL-1S1-256PL2	Acceptable	PT	
		FWS-18-FWL-1S1-256PL3	Acceptable	PT	
		FWS-18-FWL-1S1-256PL4	Acceptable	PT	
	MSS				
		MSS-36-MSL-1S1-206PL1	Acceptable	PT	
		MSS-36-MSL-1S1-206PL2	Acceptable	PT	
		MSS-36-MSL-1S1-206PL3	Acceptable	PT	
		MSS-36-MSL-1S1-206PL4	Acceptable	PT	
		MSS-36-MSL-2S1-206PL1	Acceptable	PT	
		MSS-36-MSL-2S1-206PL2	Acceptable	PT	
		MSS-36-MSL-2S1-206PL3	Acceptable	PT	
		MSS-36-MSL-2S1-206PL4	Acceptable	PT	
		MSS-36-MSL-2S1-207PS	Acceptable	PT	
C-F-1					
	ESS				
		ESS-12-SIS-1B1-12	Acceptable	UT PT	
		ESS-14-SIS-HPA-207/6	Acceptable	PT	
		ESS-18-SIS-SH1-210/3	Acceptable	PT	
		ESS-6-SDC-RE1-213/2	Acceptable	PT	
C-F-2					
	FWS				
		FWS-18-FWL-1S1-246A/6	Acceptable	PT	
	MSS				

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		MSS-36-MSL-1S1-210	Acceptable	UT	
				PT	
		MSS-36-MSL-1S1-210LDI	Acceptable	UT	
				PT	
		MSS-36-MSL-1S1-210LDO	Acceptable	UT	
				PT	
		MSS-36-MSL-1S1-210LU	Acceptable	UT	
				PT	
		MSS-36-MSL-1S1-211	Acceptable	UT	
				PT	
		MSS-36-MSL-1S1-211LD	Acceptable	UT	
				PT	
		MSS-36-MSL-1S1-211LUI	Acceptable	UT	
				PT	
		MSS-36-MSL-1S1-211LUO	Acceptable	UT	
				PT	
D-B					
	SWS				
		SWS-10-CRS-RL3-PS1	Acceptable	VT-3	
		SWS-10-CRS-RL4-PS4	Acceptable	VT-3	
		SWS-10-CRS-RL4-PS5	Acceptable	VT-3	
		SWS-10-CRS-SL3-PS2	Acceptable	VT-3	
		SWS-10-CRS-SL3-PS3	Acceptable	VT-3	
		SWS-6-CRS-4R1-PS1	Acceptable	VT-3	
F-A					
	CCS				
		CCS-14-ARH-1P1-PR1	Acceptable	VT-3	
		CCS-14-ARH-1P1-PR3	Acceptable	VT-3	
		CCS-18-RHC-1P1-PR1A	Acceptable	VT-3	
		CCS-18-RHC-1P1-PR3	Acceptable	VT-3	
		CCS-20-CHX-1PC-PR3	Acceptable	VT-3	
		CCS-24-CPU-1PA-PRA	Acceptable	VT-3	
	CVC				
		CVC-2-PSS-1P1-12PRA	Acceptable	VT-3	
		CVC-2-PSS-1P1-20PRB	Acceptable	VT-3	
		CVC-2-PSS-1P1-26PR	Acceptable	VT-3	
		CVC-2-PSS-1P1-4PRB	Acceptable	VT-3	
	ESS				

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		ESS-12-SIS-1B1-1PRA	Acceptable	VT-3	
		ESS-2-LTC-1B-20PR	Acceptable	VT-3	
		ESS-3-SIS-3HP-201PR	Acceptable	VT-3	
		ESS-6-SIS-HPB-218PR	Acceptable	VT-3	
	FWS				
		FWS-6-AWS-2S1-211PR1	Acceptable	VT-3	
	MSS				
		MSS-36-MSL-1S1-211PRB	Acceptable	VT-3	
		MSS-8-MSV-1S1-208PR	Acceptable	VT-3	
	PCS				
		PCS-3-PSS-2A1-5PRA	Acceptable	VT-3	
	SWS				
		SWS-10-CRS-RL3-PSS1	Acceptable	VT-3	
		SWS-10-CRS-RL4-PSS4	Acceptable	VT-3	
		SWS-10-CRS-RL4-PSS5	Acceptable	VT-3	
		SWS-10-CRS-SL3-PSS2	Acceptable	VT-3	
		SWS-10-CRS-SL3-PSS3	Acceptable	VT-3	
		SWS-16-CRS-RH1-204PR1	Acceptable	VT-3	
		SWS-16-CRS-RH1-204PR1A	Acceptable	VT-3	
		SWS-16-SWP-OLC-PR	Acceptable	VT-3	
		SWS-24-CSW-SH2-PR1	Acceptable	VT-3	
		SWS-6-CRS-4R1-PSS1	Acceptable	VT-3	

SECTION 2

ASME SECTION XI
REPAIRS AND REPLACEMENTS

ASME Section XI Repairs and Replacements

The following is a list of repairs or replacements which have been performed through the end of the 1999 refueling outage for which NIS-2 Forms are attached:

	Work Order	Description of Work
1.	24813429	Replace valve disc on relief valve, RV-0706
2.	24813431	Replace valve disc on relief valve, RV-0705
3.	24813435	Replace spindle on relief valve, RV-0721
4.	24913419	Repair control rod drive seal housing #2966-65
5.	24913373	Repair control rod drive seal housing #2966-61
6.	24913424	Repair control rod drive seal housing #2966-93
7.	24913374	Repair control rod drive seal housing #2966-62
8.	24913372	Repair control rod drive seal housing #2966-60
9.	24913381	Repair control rod drive seal housing #2966-89
10.	24913425	Repair control rod drive seal housing #2966-98
11.	24913427	Repair control rod drive seal housing #2966-106
12.	24913467	Repair control rod drive seal housing #2966-97
13.	24913468	Repair control rod drive seal housing #2966-100
14.	24913463	Repair control rod drive seal housing #2966-79
15.	24913383	Repair control rod drive seal housing #2966-99
16.	24913464	Repair control rod drive seal housing #2966-87
17.	24913428	Repair control rod drive seal housing #2966-107
18.	24913280	Repair welded lug on support, HGR/EB1-H2
19.	24913416	Repair control rod drive seal housing #2966-86
20.	24913384	Repair control rod drive seal housing #2966-105
21.	24913422	Repair control rod drive seal housing #2966-85
22.	24913466	Repair control rod drive seal housing #2966-96
23.	24913426	Repair control rod drive seal housing #2966-104
24.	24913415	Repair control rod drive seal housing #2966-84
25.	24913418	Repair control rod drive seal housing #2966-95
26.	24913413	Repair control rod drive seal housing #2966-76
27.	24913382	Repair control rod drive seal housing #2966-92
28.	24913375	Repair control rod drive seal housing #2966-63
29.	24913465	Repair control rod drive seal housing #2966-91
30.	24913423	Repair control rod drive seal housing #2966-90
31.	24913417	Repair control rod drive seal housing #2966-94
32.	24913376	Repair control rod drive seal housing #2966-64
33.	24813096	Retired Containment Penetration MZ-39
34.	24813095	Retired Containment Penetration MZ-38
35.	24911020	Rebuild Servicewater Check Valve, CK-SW409
36.	24810405	Replaced fasteners and valve seat ring on MV-SFP107
37.	24812670	Replaced key shaft on five seal housings
38.	24911021	Rebuild Servicewater Check Valve, CK-SW407
39.	24913115	Replace manual valve and attaching hardware on MV-SW136
40.	24913172	Repair gouge on interior of Servicewater Check Valve, CK-SW409

	Work Order	Description of Work
41.	24811687	Retired Containment Penetration MZ-28
42.	24913461	Repair control rod drive seal housing #2966-73
43.	24913377	Repair control rod drive seal housing #2966-66
44.	24913420	Repair control rod drive seal housing #2966-67
45.	24913378	Repair control rod drive seal housing #2966-68
46.	24913459	Repair control rod drive seal housing #2966-69
47.	24913421	Repair control rod drive seal housing #2966-70
48.	24913379	Repair control rod drive seal housing #2966-71
49.	24913380	Repair control rod drive seal housing #2966-80
50.	24913414	Repair control rod drive seal housing #2966-81
51.	24911739	Replaced seal weld on valve, CV-0510
52.	24910439	Replaced fasteners on Spent Fuel Pool Pump, P-51B
53.	24710568	Replaced fasteners on Steam Generator, E-50B
54.	24812611	Replaced fasteners on Steam Generator, E-50B
55.	24813165	Replaced fastener on Steam Generator, E-50B
56.	24912968	Replaced fasteners on check valve, CK-ES3116
57.	24812619	Replaced fasteners on Steam Generator, E-50A
58.	24811556	Replaced associated piping for motor operated valve, MO-0510
59.	24913046	Replaced studs and nuts on valve, CV-2117
60.	24913370	Repair control rod drive seal housing #2966-13
61.	24913429	Repair control rod drive seal housing #2966-01
62.	24913430	Repair control rod drive seal housing #2966-16
63.	24913431	Repair control rod drive seal housing #2966-26
64.	24913371	Repair control rod drive seal housing #2966-32
65.	24913432	Repair control rod drive seal housing #2966-34
66.	24812240	Replaced hydraulic snubber, SNB-29
67.	24812241	Replaced hydraulic snubber, SNB-63
68.	24812239	Replaced hydraulic snubber, SNB-70
69.	24711918	Repair channel heads on heat exhcanger, E-22A
70.	24910261	Rebuild Primary Coolant Pump, P-50A

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

1. Owner Consumers Energy Company (Name) — Date 11/11/99
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # Z4813429 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Main Steam System
5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, n/a Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Disc	Crosby	N95334-37-0026	n/a	PO# G0253983	99	Replaced	No

7. Description of Work Replace Valve Disc For Rv. 0706.
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 8½ 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.

24813429

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Prog. Eng. Date November 11, 19 99
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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 5 2000

(12/82)

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 11/11/99

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # Z4813431
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Main Steam System

5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, n/a Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Disc	Crosby	N95334-37-0028	n/a	PO# G0253983	99	Replaced	No

7. Description of Work Replace Valve Disc for RV-0705

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 8½ 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

24813431

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed George E. Schneider, Prog. Eng. Date November 11, 19 99
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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K B Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan 5 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 11/11/99
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24813435 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Main Steam System
5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, n/a Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Spindle	Crosby	n/a	n/a	PO# G0224319	99	Replaced	No

7. Description of Work Replaced Spindle on Valve RV-0721.
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 8½ 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.

24813435

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Proj. Eng. (Owner or Owner's Designee, Title) Date November 11, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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 MI-762 ABNI (National Board, State, Province, and Endorsements)

Date Jan 5 2000

(12/82)

24913419

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name) — Date 01·06·2000

27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name) — Unit 1

27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913419 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A

4. Identification of System Primary Coolant System

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Engg	1933	N/A	Serial No. 2966-65	1990	Repaired	Yes

7. Description of Work Flapped And Polished A limited AREA on the inside diameter of the mechanical Seal And Tool Access tubes to Remove flaws.

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 8½ 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.

2491 3419

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/6, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K S Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 6, 19 2000

(12/82)

C686 1202

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., N.P.B., Newington Operations, 55 Old Dover Road, Newington, NH 03801 (Name and address of Certificate Holder)
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500 (Name and address of purchaser)
3. Location of installation Consumers Power Co., Palisades Plant, Michigan (Name and address)
4. Type CND-E-4667, Rev. 05 (drawing no.) | See Remarks (mat'l. spec. no.) | (tensile strength) | None (CAN) | 1990 (year built)
5. ASME Code, Section III: 1986 (edition) | 1988 (addenda) | 1 (issue) | None (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number Assembly No.	Mfg. S.N.
(1) 2966-60 Assy 6	1928
(2) 2966-61 Assy 8	1929
(3) 2966-62 Assy 9	1930
(4) 2966-63 Assy 10	1931
(5) 2966-64 Assy 14	1932
* (6) 2966-65 Assy 16	1933
(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 2,500 psi, gal/min 600 [illegible] 80°F MIN

[illegible]

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

09/27/1995 [120

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others (Person applicable) P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others (Person applicable) 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-4-90 Name Combustion Engineering (NPT Certificate Holder) Signed Gerald R. Dopp (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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/5/90, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/5/90 Signed [illegible] (Authorized inspector) Commissions N.H. 350 (State or prov. and no.)

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913373 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg.	1929	N/A	Serial No. 2966-61	1990	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameters of the tool Access and Mechanical Seal tubes to remove flaws.
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 8½ 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.

24913373

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/6 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K L Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan 06 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., N.P.B., Newington Operations, 55 Old Dover Road, Newington, NH 03801 (Name and address of Certificate Holder)
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500 (Name and address of purchaser)
3. Location of installation Consumers Power Co., Palisades Plant, Michigan (Name and address)
4. Type CND-E-4667, Rev. 05 (Drawing no.) | See Remarks (Mat'l. spec. no.) | (Nominal thickness) | None (CRN) | 1990 (Year built)
5. ASME Code, Section III: 1986 (Edition) | 1988 (Addenda) | 1 (Issued) | None (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (No.) Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-B304 Tensile 75,000
   SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number Assembly No.	Mfg. S.N.	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(1) 2966-60 Assy 6	1928	(26)	
* (2) 2966-61 Assy 8	1929	(27)	
(3) 2966-62 Assy 9	1930	(28)	
(4) 2966-63 Assy 10	1931	(29)	
(5) 2966-64 Assy 14	1932	(30)	
(6) 2966-65 Assy 16	1933	(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2,500 psi at 600 °F

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others (Delete inapplicable) P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others (Delete inapplicable) 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-4-90 Name Combustion Engineering (NPT Certificate Holder) Signed Gerald R. Dopp (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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/5/90, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/5/90 Signed [illegible] (Authorized inspector) Commissions N.H. 350 (Plus I.D. and jurisdiction of state or prov. and no.)

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERAL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913424 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal Housing	Combustion Engg.	2009	N/A	Serial No. 2966-93	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameters of the mechanical seal and tool access tubes to remove indications.
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 8½ 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.

24913424

FORM NIS-2 (Back)

9. Remarks See Attached N-2 data Report

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 N/A

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

Signed H. Fourty, Lead Technical Analyst Date 1/6 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K.E. Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 6 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., NSS Combustion Engineering Nuclear Power, Newington Operations, Rt. 1, Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 See Remarks None 1992

5. ASME Code, Section III: 1986 1988 1 None

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

7. Materials SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

Back 8. Nom. thickness (in.) * Max. design thickness (in.) * Dia. (O.D. or I.D.) (in.) * Length overall (in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report.

Part or Appurtenance Serial Number ASSEMBLY NO.	National Board Number in Numerical Order MFG. S/N
(1) 2966-75 Assy 28	2004
(2) 2966-76 Assy 31	2005
(3) 2966-92 Assy 33	2008
* (4) 2966-93 Assy 34	2009
(5) 2966-94 Assy 35	2010
(6) 2966-90 Assy 37	2006
(7) 2966-91 Assy 38	2007
(8)	
(9)	
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Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(42)	
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(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi Temp. 80 °F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in line one of this form.

(10/90)

This form (000242) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back)

MH Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 3/9/92 Name Combustion Engineering 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 _____ and employed by H.S.B.I.&I. Co. of Hartford, CT have inspected these items described in this data report on 3-2-92 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 3-11-92 Signed [signature] Commissions [illegible]

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVER (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.39"

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913374 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System PRIMARY COOLANT SYSTEM
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal Housing	Combustion Engg.	1930	N/A	Serial No. 29666-602	1990	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameters of the mechanical seal and tool access tubes to preclude cracking.
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 8½ 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.

24913374

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed H. Fouty, Lead Technical Analyst Date 1/6 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K F Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 6 2000

(12/82)

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

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

Not To Exceed One Day's Production

1. Manufactured and certified by Combustion Engineering, Inc., N.P.B., Newington Operations, 55 Old Dover Road, Newington, NH 03801 (Name and address of Certificate Holder)
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500 (Name and address of purchaser)
3. Location of installation Consumers Power Co., Palisades Plant, Michigan (Name and address)
4. Type CND-E-4667, Rev. 05 (Drawing no.) | See Remarks (Mat'l. spec. no.) | (Remote transport) | None (Class) | 1990 (Year built)
5. ASME Code, Section III: 1986 (Edition) | 1988 (Addenda) | 1 (Class) | None (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (No.) Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000

   SA-182-B304 Tensile 75,000

   SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number Assembly No.	~~[illegible]~~ Mfg. S.N.
(1) 2966-60 Assy 6	1928
(2) 2966-61 Assy 8	1929
(3) 2966-62 Assy 9	1930
(4) 2966-63 Assy 10	1931
(5) 2966-64 Assy 14	1932
(6) 2966-65 Assy 16	1933
(7)	
(8)	
(9)	
(10)	
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(23)	
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(25)	

Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(49)	
(50)	

10. [illegible] 2,500 [illegible] 600 [illegible] 80 [illegible]

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

"NPT" Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-4-90 Name Combustion Engineering Signed Gerald R. Dopp

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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/5/90 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/5/90 Signed [illegible] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERAL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 02913372 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	1928	N/A	Serial No. 2966-60	1990	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameters of the mechanical seal and tool access tubes to remove flaws.
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 8½ 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.

24913372

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed H H Fouty, Lead Technical Analyst Date 1/6 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K L Blake Commissions MI-762, ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan 06 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., N.P.B., Newington Operations, 55 Old Dover Road, Newington, NH 03801 (Name and address of Certificate Holder)
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500 (Name and address of purchaser)
3. Location of installation Consumers Power Co., Palisades Plant, Michigan (Name and address)
4. Type CND-E-4667, Rev. 05 (Drawing no.) — See Remarks (Mat'l spec. no.) — (Nominal thickness) — None (Code) — 1990 (Year built)
5. ASME Code, Section III: 1986 (Edition) — 1988 (Addenda) — 1 (Section) — None (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (No.) Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000

   SA-182-F304 Tensile 75,000

   SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number Assembly No.	~~[illegible]~~ Mfg. S.N.
* (1) 2966-60 Assy 6	1928
(2) 2966-61 Assy 8	1929
(3) 2966-62 Assy 9	1930
(4) 2966-63 Assy 10	1931
(5) 2966-64 Assy 14	1932
(6) 2966-65 Assy 16	1933
(7)	
(8)	
(9)	
(10)	
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(20)	
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(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(49)	
(50)	

10. [illegible] 52,500 [illegible] 600 [illegible] 80 [illegible]

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-4-90 Name Combustion Engineering Signed Gerald R. Dopp

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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/5/90, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/5/90 Signed [illegible] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERAL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01/06/2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913381 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg.	2034	N/A	Serial No. 2966-89	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the tool access tube to remove flaws and on the mechanical seal tube to preclude cracking.
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 8½ 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.

24913381

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/11 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 12 2000

(12/82)

FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICA
NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 03801
(Name and address of Certificate Holder)

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
(Name and address of Purchaser)

3. Location of installation Consumers Power Co., Palisades Plant, Michigan
(Name and address)

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1993
(Drawing No.) | (Mat'l Spec. No.) | (Grade) | (Class) | (Year Built)

5. ASME Code, Section III: 1986 | 1988 | | None
(Edition) | (Addenda) | (Code Case No.)

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
(10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
(12) 2966-105 Assy044	2041
(13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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)	
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(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

This form (E00468) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

236-1

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed GR Dupp

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 York and employed by H.S.B.I.&I. Co. of Hartford, CT have inspected these items described in this data report on 20 JUL 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 JUL 92 Signed [signature] Commissions NY 3270

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913425 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2037	N/A	Serial No. 2966-98	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the tool access tube to remove flaws and on the mechanical seal tube to preclude cracking
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 8½ 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.

24913425

FORM NIS-2 (Back)

9. Remarks See Attached N-2 data Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/11 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

[illegible] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 12 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992

5. ASME Code, Section III: 1986 | 1988 | | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O.D. (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	National Board Number MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
* (8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
(10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
(12) 2966-105 Assy044	2041
(13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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)	
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(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

This formal [illegible] may be obtained from the [illegible], ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dopp

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 York and employed by H.S.B.I.S.I. Co. of Hartford, CT have inspected these items described in this data report on 20 JUL 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 JUL 92 Signed _____ Commissions NY 3070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913427 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg.	2042	N/A	Serial No. 2966-106	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the tool Access tube to Remove flaws and on the mechanical seal tube to preclude cracking.
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 8½ 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.

24913427

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/11, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 12, 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992

5. ASME Code, Section III: 1986 | 1988 | | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O (ft & in.) * Length overall (ft & in.) *

See Back 9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
(10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
(12) 2966-105 Assy044	2041
* (13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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)	
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(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

This form (00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

P-2(b)

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G R Dorr

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 York and employed by H.S.B.I.S.I. Co. of Hartford, CT have inspected these items described in this data report on 20 Jul 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 Jul 92 Signed [signature] Commissions NY 3270

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913467 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal housing	Combustion Eng	2036	N/A	Serial No. 2966-97	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal tube to remove flaws and on the tool access tube to preclude cracking.
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 8½ 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.

24913467

FORM NIS-2 (Back)

9. Remarks See Attached N-2 data Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/11 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

[illegible] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 12 2000

(12/82)

FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 03801
2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992
5. ASME Code, Section III: 1986 | 1988 | | None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000
8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O (ft & in.) * Length overall (ft & in.) *
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

See Back

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
X (7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
(10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
(12) 2966-105 Assy044	2041
(13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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)	
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(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

This form (00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

P-1

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dopp

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 York and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 20 July 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 July 92 Signed [illegible] Commissions NY 3270

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·06·2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24913468
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Primary Coolant System

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod Drive Seal housing	Combustion Engg	2039	N/A	Serial No. 2966-100	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical seal tube to remove flaws and on the tool access tube to preclude cracking.

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 8½ 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.

24913468

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/11, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K L Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 12, 2000

(12/82)

FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 53801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1993

5. ASME Code, Section III: 1986 | 1988 | | | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
* (10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
(12) 2966-105 Assy044	2041
(13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

P-2-5

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dupe

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 York and employed by H.S.B.I.S.I. Co. of Hartford, CT have inspected these items described in this data report on 20 JUL 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 JUL 92 Signed _____ Commissions NY 5070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39
SA-182-F347 Seal Housing	.3135	.301	8.000"	8

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913463 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2001	N/A	Serial No. 2966-79	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal tube to remove flaws and on the tool access tube to preclude cracking.
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 8½ 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.

24913463

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed H. Fanty, Lead Technical Analyst Date 1/11 ,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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

T. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 12 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., NPB Combustion Engineering Nuclear Power, Newington Operations, 2000 Day Hill Road, Windsor, CT 06095-0500, Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | | None | 1990

5. ASME Code, Section III: 1986 | 1988 | 1 | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report

Part or Appurtenance Serial Number Assembly No.	Mfg. S/N
(1) 2966-77 Assy 17	2019
(2) 2966-78 Assy 18	2020
* (3) 2966-79 Assy 19	2021
(4) 2966-82 Assy 23	2022
(5) 2966-84 Assy 26	2023
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
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(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)	
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(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80 °F

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(9/89-1) This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back)

Job Control No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 2/26/92 Name Combustion Engineering Signed [illegible]

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 _____ and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2/26/92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2/26/92 Signed [illegible] Commissions NH202 NBCSE

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·06·2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24913383
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Primary Coolant System

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Engg	2038	N/A	Serial No. 2966-99	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the tool access tube to remove flaws and on the mechanical seal tube to preclude cracking.

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 8½ 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.

24913383

FORM NIS-2 (Back)

9. Remarks See Attached N-2 data Report

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 N/A

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

Signed H L Fouty, Lead Technical Analyst Date 1/11, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

L G Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 12, 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 53801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992

5. ASME Code, Section III: 1986 | 1988 | 1 | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	~~[illegible]~~ MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
* (9) 2966-94 Assy 041	2038
(10) 2966-100 Assy 042	2039
(11) 2966-104 Assy 043	2040
(12) 2966-105 Assy 044	2041
(13) 2966-106 Assy 045	2042
(14) 2966-107 Assy 046	2043
(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)	
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(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 2 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

P-2(b)-1

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design reports* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G R Dyer

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 York and employed by H.S.B.I.S.I. Co. of Hartford, CT have inspected these items described in this data report on 20 July 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 July 92 Signed _____ Commissions NY 3070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39
SA-182-F347 Seal Housing	.3135	.301	8.000"	8

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·06·2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24913464
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Primary Coolant System

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Engg	2032	N/A	Serial No. 2966-87	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical Seal and Tool Access tubes to remove flaws.

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 8½ 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

24913464

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 (repair or replacement) conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst (Owner or Owner's Designee, Title) Date 1/11, 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI

Inspector's Signature — National Board, State, Province, and Endorsements

Date Jan. 12, 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992

5. ASME Code, Section III: 1986 | 1988 | | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

	Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N		Part or Appurtenance Serial Number	National Board Number in Numerical Order
(1)	2966-85 Assy 020	2030	(26)		
(2)	2966-86 Assy 025	2031	(27)		
(3)	2966-87 Assy 027	2032	(28)		
(4)	2966-88 Assy 029	2033	(29)		
(5)	2966-89 Assy 030	2034	(30)		
(6)	2966-96 Assy 032	2035	(31)		
(7)	2966-97 Assy 036	2036	(32)		
(8)	2966-98 Assy 040	2037	(33)		
(9)	2966-99 Assy 041	2038	(34)		
(10)	2966-100 Assy043	2039	(35)		
(11)	2966-104 Assy043	2040	(36)		
(12)	2966-105 Assy044	2041	(37)		
(13)	2966-106 Assy045	2042	(38)		
(14)	2966-107 Assy046	2043	(39)		
(15)			(40)		
(16)			(41)		
(17)			(42)		
(18)			(43)		
(19)			(44)		
(20)			(45)		
(21)			(46)		
(22)			(47)		
(23)			(48)		
(24)			(49)		
(25)			(50)		

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

This Manual 000040 may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G R Dick

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 York and employed by H.S.B.I.S.I. Co. of Hartford, CT have inspected these items described in this data report on 20 JUL 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 JUL 92 Signed _____ Commissions NY 5070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39
SA-182-F347 Seal Housing	.3135	.301	8.000"	8

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913428 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg.	2043	N/A	Serial No. 29466-107	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameters of the mechanical seal and tool access tubes to remove flaws.
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 8½ 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.

24913428

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed H. Fonty, Lead Technical Analyst Date 1/11 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 12 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 03801

2. Manufactured for Combustion Engineering, Inc., NPS, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992

5. ASME Code, Section III: 1986 | 1988 | 1 | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(1) 2966-85 Assy 020	2030	(26)	
(2) 2966-86 Assy 025	2031	(27)	
(3) 2966-87 Assy 027	2032	(28)	
(4) 2966-88 Assy 029	2033	(29)	
(5) 2966-89 Assy 030	2034	(30)	
(6) 2966-96 Assy 032	2035	(31)	
(7) 2966-97 Assy 036	2036	(32)	
(8) 2966-98 Assy 040	2037	(33)	
(9) 2966-99 Assy 041	2038	(34)	
(10) 2966-100 Assy042	2039	(35)	
(11) 2966-104 Assy043	2040	(36)	
(12) 2966-105 Assy044	2041	(37)	
(13) 2966-106 Assy045	2042	(38)	
* (14) 2966-107 Assy046	2043	(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 2 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form is [illegible] from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dopp

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 York and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 20 JUL 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 JUL 92 Signed [signature] Commissions NY 3070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

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

1. Owner Consumers Energy Company (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
2. Plant Palisades Nuclear Plant (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
3. Work Performed by Consumers Energy (Name)
   27780 Blue Star Hwy. Covert, MI (Address)

Date 01·07·2000
Sheet 1 of 1
Unit 1
W.O. # 24913280 (Repair Organization P.O. No., Job No., etc.)
Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System MAIN STEAM SYSTEM

5. (a) Applicable Construction Code B31.1 19 86 Edition, N/A Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
HGR/EBI-H2	CMS Energy	N/A	N/A	N/A	1968	Repaired	No

7. Description of Work Rewelding After indication removal

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ VT/PT
   Other ☒ Pressure _____ psi Test Temp. _____ °F

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

24913280

FORM NIS-2 (Back)

9. Remarks N/A

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 N/A

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

Signed H. Fouty, Lead Technical Analyst Date 1/7 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 FMIC Norwood, MA of have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. J. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 10 2000

(12/82)

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
2. Plant Palisades Nuclear Plant (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
3. Work Performed by Consumers Energy (Name)
   27780 Blue Star Hwy. Covert, MI (Address)

Date 01·06·2000

Sheet 1 of 1

Unit 1

W.O. # 04913416
Repair Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System PRIMARY COOLANT SYSTEM

5. (a) Applicable Construction Code Section III 1986 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

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)
Control Rod drive Seal housing	Combustion Engg	2031	N/A	Serial No. 2966-86	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical Seal and Tool Access tubes to preclude cracking.

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 8½ 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.

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

24913416

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/7 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 10 2000

(12/82)

FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICA
NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 03801
(Name and address of Certificate Holder)

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
(Name and address of purchaser)

3. Location of installation Consumers Power Co., Palisades Plant, Michigan
(Name and address)

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992
(Drawing no.) | (Model or type no.) | (Serial number) | (Class) | (Year built)

5. ASME Code, Section III: 1986 | 1988 | | | None
(Edition) | (Addenda) | (Date) | (Code Case no.)

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O.D. (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
(10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
(12) 2966-105 Assy044	2041
(13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

This form (00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

236-1

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dyce

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 York and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 20 11. 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or assemblies in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20/11/92 Signed [signature] Commissions NY 3270

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913384 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Eng	2041	N/A	Serial No. 2966-105	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal and tool access tubes to remove flaws.
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 8½ 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.

24913384

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/7, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

[illegible] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 10, 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 53801
(Name and address of Certificate Holder)

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
(Name and address of purchaser)

3. Location of installation Consumers Power Co., Palisades Plant, Michigan
(Name and address)

4. Type CND-E-4667 Rev. 07 (Drawing no.) | See Remarks (Model or type no.) | See Remarks (Serial number) | None (Class) | 1993 (Year built)

5. ASME Code, Section III: 1996 (Edition) | 1998 (Addenda) | (Date) | None (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (No.) Revision N/A Date N/A

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	~~XXXXXXXX~~ ~~XXXXXXXX~~ ~~XXXXXXXXXXXX~~ MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
(10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
* (12) 2966-105 Assy044	2041
(13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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)	
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(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

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

P-2 (6)

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dropp

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 York and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 20 / 7 / 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20/7/92 Signed [illegible] Commissions NY 3070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913422 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2030	N/A	Serial No. 2966-85	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical seal and tool access tubes to remove flaws.
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 8½ 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.

24913422

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/6 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date 1-10 2000

(12/82)

FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992

5. ASME Code, Section III: 1986 | 1988 | | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	[illegible] MFG. S/N
* (1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
(10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
(12) 2966-105 Assy044	2041
(13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

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

P-1

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dyer

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 York and employed by H.S.B.I.&I. Co. of Hartford, Ct have inspected these items described in this data report on 20 July 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 July 92 Signed [illegible] Commissions NY 3070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39
SA-182-F347 Seal Housing	.3135	.301	8.000"	8

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

1. Owner Consumers Energy Company (Name) — Date 01·07·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913466 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2035	N/A	Serial No. 2966-96	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical Seal and Tool Access tube to remove flaws.
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 8½ 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.

24913466

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed J H Fanty, Lead Technical Analyst Date 1/7, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K L Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 10, 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 50801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1992

5. ASME Code, Section III: 1986 | 1988 | | | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Diam. (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N
(1) 2966-85 Assy 020	2030
(2) 2966-86 Assy 025	2031
(3) 2966-87 Assy 027	2032
(4) 2966-88 Assy 029	2033
(5) 2966-89 Assy 030	2034
(6) 2966-96 Assy 032	2035
(7) 2966-97 Assy 036	2036
(8) 2966-98 Assy 040	2037
(9) 2966-99 Assy 041	2038
(10) 2966-100 Assy042	2039
(11) 2966-104 Assy043	2040
(12) 2966-105 Assy044	2041
(13) 2966-106 Assy045	2042
(14) 2966-107 Assy046	2043
(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)	
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(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

This form (E00448) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dopp

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 York and employed by H.S.B.I.&I. Co. of Hartford, CT have inspected these items described in this data report on 20 July 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 July 92 Signed [signature] Commissions NY 3070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·07·2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24913426 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Primary Coolant System

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Engg	2040	N/A	Serial No. 2966-104	1992	Repaired	Yes

7. Description of Work Flapped And Polished A limited AREA on the inside diameter of the tool Access tube to Remove flaws And on the Mechanical Seal tube to preclude cracking.

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 8½ 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.

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

24913426

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed H L Fouty, Lead Technical Analyst Date 1/7 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K B Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 10 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by [illegible] 50801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 | See Remarks | See Remarks | None | 1993

5. ASME Code, Section III: 1986 | 1988 | | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. O (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(1) 2966-85 Assy 020	2030	(26)	
(2) 2966-86 Assy 025	2031	(27)	
(3) 2966-87 Assy 027	2032	(28)	
(4) 2966-88 Assy 029	2033	(29)	
(5) 2966-89 Assy 030	2034	(30)	
(6) 2966-96 Assy 032	2035	(31)	
(7) 2966-97 Assy 036	2036	(32)	
(8) 2966-98 Assy 040	2037	(33)	
(9) 2966-99 Assy 041	2038	(34)	
(10) 2966-100 Assy042	2039	(35)	
* (11) 2966-104 Assy043	2040	(36)	
(12) 2966-105 Assy044	2041	(37)	
(13) 2966-106 Assy045	2042	(38)	
(14) 2966-107 Assy046	2043	(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp. 80 °F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 2 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This formal [illegible] may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back)

Mfr. Serial No. 2030 thru 2043

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date July 20, 1992 Name Combustion Engineering Signed G.R. Dyce

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 York and employed by H.S.B.I.&I. Co. of Hartford, CT have inspected these items described in this data report on 20 Jul 92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 20 Jul 92 Signed [signature] Commissions NY 3070

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS(IN)	DIA. I.D. (FT & IN)	LEN (FT &
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4
SA-213-T347 Access Tube	.125	.12	1.260"	39.
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.

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

1. Owner Consumers Energy Company (Name) — Date 01·07·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913415 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System PRIMARY Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2023	N/A	Serial No. 2966-84	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical seal tube to remove flaws and on the tool access tube to preclude cracking.
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 8½ 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.

24913415

FORM NIS-2 (Back)

9. Remarks See Attached N-2 data Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/7 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K B Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 10 19 2000

(12/82)

FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR CENTRICAL
NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., NPD Combustion Engineering Nuclear Power, Hartford Operations, Hartford, CT 06101
2. Manufactured for Combustion Engineering, Inc., NPD, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 Rail OT | See Remarks | None | 1001
5. ASME Code, Section III: 1986 | 1988 | 1 | None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000
8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. (O (ft & in.) * Length overall (ft & in.) *
9. When applicable, Certificate Holders' data reports are attached for each item of this report

See Back

Part or Appurtenance Serial Number Assembly No.	Mfg. S/N
(1) 2966-77 Assy 17	2019
(2) 2966-78 Assy 18	2020
(3) 2966-79 Assy 19	2021
(4) 2966-82 Assy 23	2022
* (5) 2966-84 Assy 26	2023
(6)	
(7)	
(8)	
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(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp. 80 °F

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 2 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(6/84-1) This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back)

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

"N" Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 2/26/92 Name Combustion Engineering 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 _____ and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2/26/92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2/26/92 Signed [signature] Commissions NH202 NBCSE

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·07·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913418 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal housing	Combustion Engg	2011	N/A	Serial No. 29666-95	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical seal and tool access tube to remove flaws.
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 8½ 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.

24913418

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/7 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. R. Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 10 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations, 2000 Day Hill Road, Windsor, CT 06095-0500 Newington, NH 03801
2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 Rev. 07 See Remarks None 1992
5. ASME Code, Section III: 1986 1988 1 None
6. Fabricated in accordance with Cert. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Materials SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000
8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. (O.D. (ft & in.) * Length overall (ft & in.) *
9. When applicable, Certificate Holders' data reports are attached for each item of this report

See Back

Part or Appurtenance Serial Number	[redacted]
ASSEMBLY NO.	MFG. S/N
(1) 2966-95 Assy 38	2011
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
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(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

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

10. Design pressure 2,500 psi Temp. 500 °F Hydro. test pressure 3,125 psi temp. 50 °F

*If supplemental information in the form of lists, sketches, or drawings are to be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others (review agency) P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others (review agency) 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 3-17-92 Name Combustion Engineering (NPT Certificate Holder) Signed [signature] (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 N.H. and employed by H.S.B.I. & I. Co. of Harrford, CT have inspected these items described in this data report on 3-17-92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 3-17-92 Signed [signature] (Authorized Inspector) Commissions NH 319 (Nat'l Bd. and/or jurisdictional state or province and no.)

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·07·2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913413 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2005	N/A	Serial No. 2966-76	1972	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical seal tube to remove flaws and on the tool access tube to preclude cracking.
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 8½ 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.

24913413

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/7 ,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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

[illegible] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 10 ,19 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Hematite Div., Hematite Rd., Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., NPS, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 (Drawing No.) See Remarks (Serial No.) None (Code) 1992 (Year Built)

5. ASME Code, Section III: 1986 (Edition) 1988 (Addenda) 1 (Class) None (Code Case No.)

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

7. Materials SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

8. Nom. thickness (in.) * Max. design thickness (in.) * Dia. (D (ft & in.)) * Length overall (ft & in.) *

Back 9. When applicable, Certificate Holders' data reports are attached for each item of this report

Part or Appurtenance Serial Number ASSEMBLY NO.	National Board Number in Numerical Order MFG. S/N
(1) 2966-75 Assy 28	2004
(2) 2966-76 Assy 31	2005
(3) 2966-92 Assy 33	2008
(4) 2966-93 Assy 34	2009
(5) 2966-94 Assy 35	2010
(6) 2966-90 Assy 37	2006
(7) 2966-91 Assy 38	2007
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
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(16)	
(17)	
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(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)	
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(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi at temp. 80 °F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

Form 1

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

FORM N-2 (back)

Job Order no. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that the items Parts conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 3/9/92 Name Combustion Engineering 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 _____ and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2-7-92 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2-7-92 Signed [signature] Commissions [illegible]

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERA (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·07·2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913382 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2008	N/A	Serial No. 2966-92	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical Seal and Tool Access tube to Remove flaws.
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 8½ 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.

24913382

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA Report

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/7 ~~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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 7 ~~19~~ 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations, 2000 Day Hill Rd., Newington, NH 03801
2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 See Remarks None 1992
5. ASME Code, Section III: 1986 1988 1 None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000
8. Nom. thickness (in.) " Min. design thickness (in.) " Dia. (O.D. & in.) " Length overall (ft & in.) "
9. When applicable, Certificate Holders' data reports are attached for each item of this report

Back

Part or Appurtenance Serial Number ASSEMBLY NO.	National Board Number in Numerical Order MFG. S/N
(1) 2966-75 Assy 28	2004
(2) 2966-76 Assy 31	2005
* (3) 2966-92 Assy 33	2008
(4) 2966-93 Assy 34	2009
(5) 2966-94 Assy 35	2010
(6) 2966-90 Assy 37	2006
(7) 2966-91 Assy 38	2007
(8)	
(9)	
(10)	
(11)	
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(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
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(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 60 °F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 2 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

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

(Rev. 1)

FORM N-2 (back)

MW Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design reports certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in the reports are correct and that the (items) Parts conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 3/9/92 Name Combustion Engineering 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 _____ and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2-7-92 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or assemblies in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2-12-92 Signed [signature] Commissions [illegible]

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERA (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.39"

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
2. Plant Palisades Nuclear Plant (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
3. Work Performed by Consumers Energy (Name)
   27780 Blue Star Hwy. Covert, MI (Address)

Date 01.07.2000

Sheet 1 of 1

Unit 1

W.O. # 24913375
Repair Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Primary Coolant System

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Engg	1931	N/A	Serial No. 29666-63	1990	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical Seal and Tool Access tube to Remove flaws.

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 8½ 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.

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

24913375

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed JH Fouty, Lead Technical Analyst Date 1/7, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K G Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 7, 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., N.P.B., Newington Operations 55 Old Dover Road Newington, NH 03801 (Name and address of Certificate Holder)
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500 (Name and address of purchaser)
3. Location of installation Consumers Power Co., Palisades Plant, Michigan (Name and address)
4. Type CND-E-4667, Rev. 05 (Drawing no.) | See Remarks (Shell, spec. no.) | (Nominal strength) | None (CRN) | 1990 (Year built)
5. ASME Code, Section III: 1986 (Edition) | 1988 (Addendum) | 1 (Class) | None (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number Assembly No.	~~[illegible]~~ Mfg. S.N.
(1) 2966-60 Assy 6	1928
(2) 2966-61 Assy 8	1929
(3) 2966-62 Assy 9	1930
* (4) 2966-63 Assy 10	1931
(5) 2966-64 Assy 14	1932
(6) 2966-65 Assy 16	1933
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
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(16)	
(17)	
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(22)	
(23)	
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Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
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(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi at temperature 600 °F 11. Hydrostatic test 3,125 psi 12. Cal. lamp 80 °F MIN

[illegible]

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

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-4-90 Name Combustion Engineering Signed Gerald R. Dopp

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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/5/90 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/5/90 Signed [illegible] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·07·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913465 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2007	N/A	Serial No. 2966-91	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical seal and tool access tube to remove flaws.
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 8½ 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.

24913465

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/7, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K G Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 7, 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Hematite Rd., Newington, NH 03801
2. Manufactured for Combustion Engineering, Inc., NPS, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 Date 87 See Remarks None 1992
5. ASME Code, Section III: 1986 1988 1 None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000
8. Nom. thickness (in.) * Max. design thickness (in.) * Dia. (O.D. in. & in.) * Length overall (ft & in.) *
9. When applicable, Certificate Holders' data reports are attached for each item of this report

Back

Part or Appurtenance Serial Number ASSEMBLY NO.	National Board Number in Numerical Order MFG. S/N
(1) 2966-75 Assy 28	2004
(2) 2966-76 Assy 31	2005
(3) 2966-92 Assy 33	2008
(4) 2966-93 Assy 34	2009
(5) 2966-94 Assy 35	2010
(6) 2966-90 Assy 37	2006
X (7) 2966-91 Assy 38	2007
(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)	
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(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi Temp. 80 °F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

(N-2 N)

This form of [illegible] may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back)

NB Serial no. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design reports certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in the report are correct and that the (items) Parts conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 3/9/92 Name Combustion Engineering 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 _____ and employed by H.S.B.I. & I. Co. of Hartford, Conn. have inspected these items described in this data report on 2-7-92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or assemblies in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2-11-92 Signed [signature] Commissions [illegible]

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERA (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.39"

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

1. Owner Consumers Energy Company (Name) — Date 01·07·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913423 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	2006	N/A	Serial No. 2966-90	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal and tool access tube to remove flaws.
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 8½ 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.

24913423

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed J H Fanty, Lead Technical Analyst Date 1/7 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K L Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 7 19 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations, 2000 Day Hill Rd., Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 See Remarks None 1992

5. ASME Code, Section III: 1986 1988 1 None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

8. Nom. thickness (in.) * Max. design thickness (in.) * Dia. (O.D. & in.) * Length overall (ft & in.) *

Back

9. When applicable, Certificate Holders' data reports are attached for each item of this report

Part or Appurtenance Serial Number ASSEMBLY NO.	MFG. S/N
(1) 2966-75 Assy 28	2004
(2) 2966-76 Assy 31	2005
(3) 2966-92 Assy 33	2008
(4) 2966-93 Assy 34	2009
(5) 2966-94 Assy 35	2010
* (6) 2966-90 Assy 37	2006
(7) 2966-91 Assy 38	2007
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
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(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)	
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(44)	
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(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi Temp. 80 °F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

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

(Rev. 1)

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 3/9/92 Name Combustion Engineering 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 _____ and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2-7-92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or assemblies in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 3-10-92 Signed [signature] Commissions [illegible]

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERA (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 12/14/99
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913417 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal Housing	Combustion Engineering	2010	N/A	Serial # 2966-94	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameters of the mechanical seal and tool access tubes to preclude cracking.
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 8½ 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.

24913417

FORM NIS-2 (Back)

9. Remarks See ATTACHED N-2 DATA REPORT

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 N/A

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

Signed [signature], Lead Techical Analyst Date 12/14, 19 99
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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-14, 19 99

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., NPS Combustion Engineering Nuclear Power, Newington Operations, 1 Rue de Vert, Rte., Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., NPS, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Year CND-E-4667 | See Remarks | None | 1992

5. ASME Code, Section III: 1986 | 1988 | 1 | None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. (O.D. & in.) * Length overall (ft & in.) *

Back

9. When applicable, Certificate Holders' data reports are attached for each item of this report

Part or Appurtenance Serial Number ASSEMBLY NO.	~~NATIONAL BOARD NUMBER~~ MFG. S/N
(1) 2966-75 Assy 28	2004
(2) 2966-76 Assy 31	2005
(3) 2966-92 Assy 33	2008
(4) 2966-93 Assy 34	2009
* (5) 2966-94 Assy 35	2010
(6) 2966-90 Assy 37	2006
(7) 2966-91 Assy 38	2007
(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 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp. 80 °F

*Supplementary information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 2 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of this form.

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

(E00040)

FORM N-2 (Back)

NB Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 3/9/92 Name Combustion Engineering Signed Howard R. Lipps

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 _____ and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2-2-92 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or assemblies in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2-12-92 Signed _____ Commissions _____

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERA (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·06·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913376 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System PRIMARY Coolant System
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal Housing	Combustion Engg.	1932	N/A	Serial No. 29666-64	1990	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the tool access tube to remove flaws and on the mechanical seal tube to preclude cracking.
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 8½ 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.

24913376

FORM NIS-2 (Back)

9. Remarks See Attached N-2 data Report

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/6 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 FMIC Norwood, MA of have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K L Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan 06 2000

(12/82)

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

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

Not To Exceed One Day's Production

1. Manufactured and certified by Combustion Engineering, Inc., N.P.B., Newington Operations, 55 Old Dover Road, Newington, NH 03801 (Name and address of Certificate Holder)
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500 (Name and address of purchaser)
3. Location of installation Consumers Power Co., Palisades Plant, Michigan (Name and address)
4. Type CND-E-4667, Rev. 05 (Drawing no.) | See Remarks (Mat'l. spec. no.) | (Remote transport) | None (CRN) | 1990 (Year built)
5. ASME Code, Section III: 1986 (Edition) | 1988 (Addenda) | 1 (Class) | None (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number Assembly No.	National Board Number in Numerical Order Mfg. S.N.
(1) 2966-60 Assy 6	1928
(2) 2966-61 Assy 8	1929
(3) 2966-62 Assy 9	1930
(4) 2966-63 Assy 10	1931
* (5) 2966-64 Assy 14	1932
(6) 2966-65 Assy 16	1933
(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 2,500 psi, Test pressure 3,600 psi, Design temperature 80°F

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-4-90 Name Combustion Engineering Signed Gerald R. Dopp

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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/5/90, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/5/90 Signed [illegible] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERAL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·10·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24813096 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Containment Isolation System
5. (a) Applicable Construction Code B31.1 1986 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989
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)
4" Pipe Cap	Energy Steel And Supply	N/A	N/A	PO No. G 0309442	1999	Replaced	No
Blank flange	Energy Steel And Supply	N/A	N/A	PO No. G 0292633	1999	Replaced	No

7. Description of Work Retiring Containment Penetration (MZ-39)
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 8½ 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.

24813096

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst (Owner or Owner's Designee, Title) Date 1/14, 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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 MI-762 ABNI (National Board, State, Province, and Endorsements)

Date Jan. 17 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 01/10/2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24813095 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Containment Isolation System
5. (a) Applicable Construction Code B31.1 19 86 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
2" x 2 1/2 Sch. 80 Nipple	Consolidated Power Supply	N/A	N/A	PO # 6117925	1994	Replaced	No
2" Pipe Caps	Consolidated Power Supply	N/A	N/A	PO # 6117925	1994	Replaced	No

7. Description of Work Retiring Containment Penetration (MZ-38)
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 8½ 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.

24813095

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst (Owner or Owner's Designee, Title) Date 1/14, 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI

Inspector's Signature — National Board, State, Province, and Endorsements

Date Jan. 17, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date November 28, 1999

27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name) — Unit 1

27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24911020 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A

4. Identification of System Service Water System

5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, n/a Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Valve Disc	Velan Valve Corp	n/a	n/a	PO# G0293501	99	Replacement	No
Disc Nut	Velan Valve Corp	n/a	n/a	PO# G0294005	99	Replacement	No
Hanger	Velan Valve Corp	n/a	n/a	PO# G0293665	99	Replacement	No
Bushings	Velan Valve Corp	n/a	n/a	PO# G0294005	99	Replacement	No
Hinge Pin	Velan Valve Corp	n/a	n/a	PO# G0294005	99	Replacement	No

7. Description of Work Replace worn parts for ~~MV~~ CK-SW409.

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 8½ 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.

24911020

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed _____ Date _____, 19 _____
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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 5/8/98 to 12-14-99, 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.

K. Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 18 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date November 28, 1999
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24810405 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Spent Fuel Pool System
5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, n/a Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
7/8"-9 x 2 1/2" Bolt	Energy Steel	n/a	n/a	PO# G0220472	98	Replaced	No
7/8"-9 Nuts	Energy Steel	n/a	n/a	PO# G0259637	98	Replaced	No
Seat Ring	AC Service & Repair	n/a	n/a	PO# G0265832	98	Replaced	No

7. Description of Work Replaced nuts and bolts at valve flanges. Replaced valve seat ring. MT-SFP-107
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 8½ 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.

24810405

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature] Date 01.18.00, 19 (18)
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 FMIC Norwood, MA of have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 18 ~~19~~ 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 01·13·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24812670 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System PRIMARY COOLANT
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Seal housing Key Shaft	Combustion Engg	N/A	N/A	P.O. No. G0196798	1995	Replaced	No

7. Description of Work Replaced Key Shaft on Seal housing's (5 total)
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ RT-71A
Other ☐ Pressure _____ psi Test Temp. _____ °F

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

24812670

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed H H Fanty, Lead Technical Analyst (Owner or Owner's Designee, Title) Date 1/18, 19 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K S Blake (Inspector's Signature) Commissions MI-762 ABNI (National Board, State, Province, and Endorsements)

Date Jan. 18 19 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date December 2, 1999

27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name) — Unit 1

27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24911021 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A

4. Identification of System Service Water System

5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, _____ Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Disc Nut	Flowserve FCD Corp.	n/a	n/a	PO# G0298790	99	Replaced	No
Disc Washer	Flowserve FCD Corp	n/a	n/a	PO# G0298790	99	Replaced	No
Disc	Flowserve FCD Corp	n/a	n/a	PO# G0298790	99	Replaced	No
Disc Pin	Flowserve FCD Corp	n/a	n/a	PO# G0298790	99	Replaced	No
Set Screw, Cap Screw & Bushing	Flowserve FCD Corp	n/a	n/a	PO# G0298790	99	Replaced	No

7. Description of Work Repair Service Water System Valve CK. SW407

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 8½ 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.

24911021

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Senior Engineer (Owner or Owner's Designee, Title) Date 01-17-00, 19

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 FMIC Norwood, MA of have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K B Blake (Inspector's Signature) Commissions MI-762 ABNI (National Board, State, Province, and Endorsements)

Date Jan. 18 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date November 28, 1999
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913115 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Service Water System
5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, N-416-1 Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
5/8"-11UNC Studs	Nova Mach. Prod. Inc.	n/a	n/a	PO# G0309687	99	Replaced	No
4"-SCH 40 Flange	Energy Steel	n/a	n/a	PO# G0309415	99	Replaced	No
5/8"-11UNC Nuts	Nova Mach. Prod. Inc.	n/a	n/a	PO# G0303628	99	Replaced	No
5/8"-11UNC Nuts	Accutech	n/a	n/a	PO# G0198450	99	Replaced	No
Valve	Crane Nuclear, Inc	n/a	n/a	PO# G0309185	99	Replaced	No

7. Description of Work Replace valve and attaching hardware MV-SW136.
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 8½ 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.

24913115

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Senior Engineer (Owner or Owner's Designee, Title) Date 11-28, 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 FMIC Norwood, MA of have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. L. Blake (Inspector's Signature) Commissions MI-762 ABNI (National Board, State, Province, and Endorsements)

Date Jan. 18 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date November 28, 1999
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913172 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Service Water System
5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, N-416-1 Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
8 inch Check Valve	Velan	101	n/a		90	~~Replaced~~ 01-18-00 Repaired	N

7. Description of Work ~~Rep~~ Repair gouge on interior of valve. CK-SW-409
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 8½ 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.

24913172

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature] Program Engineer (Owner or Owner's Designee, Title) Date November 11, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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 MI-762 ABNI (National Board, State, Province, and Endorsements)

Date Jan. 18 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date January 18, 2000

27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name) — Unit 1

27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24811687 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A

4. Identification of System Containment Isolation System

5. (a) Applicable Construction Code B31.1 19 55 Edition, n/a Addenda, N-416-1 Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Cap	Grand Rapids Valve and Fitting	n/a	n/a	PO# G0301951	99	Replacement	No

7. Description of Work Cut and cap containment penetration MZ-28.

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 8½ 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.

24811687

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed Troy E. Schmidt, Senior Engineer Date January 18 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 5/8/98 to 12-14-99, 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.

K. B. Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 18 19 2000

(12/82)

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
2. Plant Palisades Nuclear Plant (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
3. Work Performed by Consumers Energy (Name)
   27780 Blue Star Hwy. Covert, MI (Address)

Date 01·13·2000

Sheet 1 of 1

Unit 1

W.O. # 02913461
Repair Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System PRIMARY COOLANT

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Engg	1980	N/A	Serial No. 2966-73	1991	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal and tool access tube to remove flaws

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 8½ 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.

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

24913461

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/21, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 21, 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power Newington Operations, ~~65 Old Power Road~~, Newington, NH 03801
2. Manufactured for ABB Combustion Engineering, Inc., 1000 Prospect Hill Road, Windsor, CT 06095-0500 (name and address of purchaser)
3. Location of installation Consumers Power Co., Palisades Plant, Michigan (name and address)
4. Type Rev. 05 (drawing no.) — See Remarks (serial or tag no.) — (national insignia) — None (CRN) — 1990 (year built)
5. ASME Code, Section III: 1986 (edition) — 1988 (addenda) — 1 (class) — None (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000

   SA-182-F304 Tensile 75,000

   SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. (O.D. (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	[redacted] Mfg. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(1) Assembly No. 2966-72 Assy 1	1979	(26)	
(2) 2966-73 Assy 7	1980	(27)	
(3) 2966-74 Assy 15	1981	(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 (system test pressure) at temp 80 °F Min.

*Supplementary information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 3 and 7 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

S/N's 72-74

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 6/27/91 Name Combustion Engineering, Inc. ABB CE Nuclear Power (NPT Certificate Holder) Signed _____ (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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 27 June 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 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 27 JUN 91 Signed _____ (Authorized inspector) Commissions _____ (Nat'l Bd. and state or prov. inspector)

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 [illegible]	.3135"	.301"	8.000"	8.59"

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
2. Plant Palisades Nuclear Plant (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
3. Work Performed by Consumers Energy (Name)
   27780 Blue Star Hwy. Covert, MI (Address)

Date 01.13.2000

Sheet 1 of 1

Unit 1

W.O. # 24913377
Repair Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant

5. (a) Applicable Construction Code Section III 1986 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

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)
Control Rod drive Seal housing	Combustion Engg	1934	N/A	Serial No. 29666-66	1990	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the Tool Access tube to remove welds and on the Mechanical Seal tube to preclude cracking

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 8½ 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.

24913377

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed H. Fouty, Lead Technical Analyst Date 1/21 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

G. Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 21 19 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations
55 Old Dover Road Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500

3. Location of Installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667, Rev. 05 | See Remarks | None | 1990

5. ASME Code, Section III: 1986 | 1988 | 1 | None

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

7. Remarks: SA-182-F347 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

	Part or Appurtenance Serial Number Assembly No.	Mfg. S.N.
* (1)	2966-66 Assy 2	1934
(2)	2966-67 Assy 4	1935
(3)	2966-68 Assy 5	1936
(4)	2966-69 Assy 1	1937
(5)	2966-70 Assy 12	1938
(6)	2966-71 Assy 13	1939
(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)		
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(39)		
(40)		
(41)		
(42)		
(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp 80 °F MIN.

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 1 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of the form.

10/86-1 This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

S/N's 66-71

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-13-90 Name Combustion Engineering 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 N.H. and employed by H.S.B.I. & I. Co. at Hartford, CT have inspected these items described in this data report on 9/13/90 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/13/90 Signed [signature] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
• SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·13·2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24913420
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Primary Coolant

5. (a) Applicable Construction Code Section III 1986 Edition, 1988 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

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)
Control Rod drive Seal housing	Combustion Engg	1935	N/A	Serial No. 2966-67	1990	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal and Test Access tube to Remove flaws

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 8½ 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.

24913420

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/21 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 21 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations
55 Old Dover Road Newington, NH 03801
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500
3. Location of Installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667, Rev. 05 | See Remarks | None | 1990
5. ASME Code, Section III: 1986 | 1988 | 1 | None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	Mfg. S.N.
Assembly No.	
(1) 2966-66 Assy 2	1934
* (2) 2966-67 Assy 4	1935
(3) 2966-68 Assy 5	1936
(4) 2966-69 Assy 11	1937
(5) 2966-70 Assy 12	1938
(6) 2966-71 Assy 13	1939
(7)	
(8)	
(9)	
(10)	
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(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)	
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(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp 80 °F MIN.

* Supplemental information in the form of text, plot/sketch, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 3 and 5 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.

S/N's 66-71

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-13-90 Name Combustion Engineering 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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected the parts described in this data report on 9/13/90 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/13/90 Signed [signature] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
2. Plant Palisades Nuclear Plant (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
3. Work Performed by Consumers Energy (Name)
   27780 Blue Star Hwy. Covert, MI (Address)

Date 01·13·2000

Sheet 1 of 1

Unit 1

W.O. # 02913378
Repair Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Eng	1936	N/A	Serial No. 29666-68	1990	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal and tool access tube to preclude cracking

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 8½ 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.

24913378

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/21 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 21 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations
55 Old Dover Road Newington, NH 03801
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667, Rev. 05 | See Remarks | None | 1990
5. ASME Code, Section III: 1986 | 1988 | 1 | None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	Mfg. S.N.
Assembly No.	
(1) 2966-66 Assy 2	1934
(2) 2966-67 Assy 4	1935
(3) 2966-68 Assy 5	1936
(4) 2966-69 Assy 11	1937
(5) 2966-70 Assy 12	1938
(6) 2966-71 Assy 13	1939
(7)	
(8)	
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(17)	
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(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)	
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(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp 80 °F MIN.

*Supplemental information in the form of text, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

10/86-1 This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

S/N's 66-71

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-13-90 Name Combustion Engineering 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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/13/90 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/13/90 Signed [signature] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name) — Date 01·13·2000

27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name) — Unit 1

27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913459 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A

4. Identification of System PRIMARY Coolant

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod Drive Seal housing	Combustion Engg	1937	N/A	Serial No. 2966-69	1990	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the Mechanical Seal to remove flaws and on the tool Access tube to preclude cracking

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 8½ 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.

24913459

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed H. Fouty, Lead Technical Analyst Date 1/21 ,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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. L. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 25 ,19 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations
55 Old Dover Road Newington, NH 03801
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667, Rev. 05 — See Remarks — None — 1990
5. ASME Code, Section III: 1986 — 1988 — 1 — None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number (Assembly No.)	Mfg. S.N.
(1) 2966-66 Assy 2	1934
(2) 2966-67 Assy 4	1935
(3) 2966-68 Assy 5	1936
* (4) 2966-69 Assy 11	1937
(5) 2966-70 Assy 12	1938
(6) 2966-71 Assy 13	1939
(7)	
(8)	
(9)	
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(14)	
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(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)	
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(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp 80 °F MIN.

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 3 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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S/N's 66-71

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report[1] certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that the items[2] Parts conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 7-13-90 Name Combustion Engineering 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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/13/90 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 on 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 9/13/90 Signed [signature] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
2. Plant Palisades Nuclear Plant (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
3. Work Performed by Consumers Energy (Name)
   27780 Blue Star Hwy. Covert, MI (Address)

Date 01·13·2000

Sheet 1 of 1

Unit 1

W.O. # 24913421
Repair Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Engg	1938	N/A	Serial No. 2966-70	1990	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the Mechanical Seal and Tool Access tube to Remove flaws.

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 8½ 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.

24913421

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA REPORT

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 N/A

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

Signed [illegible], Lead Technical Analyst Date 1/21 ~~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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K L Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 25 ~~19~~ 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations
55 Old Dover Road Newington, NH 03801
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667, Rev. 05 | See Remarks | None | 1990
5. ASME Code, Section III: 1986 | 1988 | 1 | None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number Assembly No.	Mfg. S.N.
(1) 2966-66 Assy 2	1934
(2) 2966-67 Assy 4	1935
(3) 2966-68 Assy 5	1936
(4) 2966-69 Assy 11	1937
* (5) 2966-70 Assy 12	1938
(6) 2966-71 Assy 13	1939
(7)	
(8)	
(9)	
(10)	
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(23)	
(24)	
(25)	

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

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp 80 °F MIN.

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 3 and 5 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.

S/N's 66-71

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-13-90 Name Combustion Engineering 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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected the parts described in this data report on 9/13/90 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/13/90 Signed [signature] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·13·2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913379 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod drive Seal housing	Combustion Engg	1939	N/A	Serial No. 2966-71	1990	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the Tool Access tube to remove flaws and on the Mechanical Seal tube to preclude cracking
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 8½ 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.

24913379

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed H. Fanty, Lead Technical Analyst Date 1/21 ~~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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 25 ~~19~~ 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations, 55 Old Dover Road, Newington, NH 03801
2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road, Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667, Rev. 05 | See Remarks | None | 1990
5. ASME Code, Section III: 1986 | 1988 | 1 | None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000

See Back 8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number (Assembly No.)	Mfg. S.N.
(1) 2966-66 Assy 2	1934
(2) 2966-67 Assy 4	1935
(3) 2966-68 Assy 5	1936
(4) 2966-69 Assy 11	1937
(5) 2966-70 Assy 12	1938
* (6) 2966-71 Assy 13	1939
(7)	
(8)	
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(22)	
(23)	
(24)	
(25)	

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

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 at temp 80°F MIN.

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 3 and 5 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.

10/86-1 This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

S/N's 66-71

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others P.E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in the report are correct and that the lifeset Parts conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 9-13-90 Name Combustion Engineering 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 N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/13/90 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 on 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 9/13/90 Signed [signature] Commissions N.H. 350

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125"	.12"	2.06"	1/4"
SA-213-T347 Access Tube	.125"	.12"	1.260"	39.500"
SA-182-F347 Seal Housing	.3135"	.301"	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·13·2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 04913380 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant
5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal housing	Combustion Engg	2016	N/A	Serial No. 2966-80	1992	Repaired	Yes

7. Description of Work Flapped and Polished a limited area on the inside diameter of the mechanical seal and tool access tube to remove flaws
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 8½ 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.

24913380

FORM NIS-2 (Back)

9. Remarks See Attached N-2 Data Report

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 N/A

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

Signed [signature], Lead Technical Analyst Date 1/21 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 25 ~~19~~ 2000

(12/82)

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations, 2000 Day Hill Road, Windsor, NH 03801
2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 Rev. 07 See Remarks None 1992
5. ASME Code, Section III: 1986 1988 1 None
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: SA-182-F347 Tensile 75,000
   SA-182-F304 Tensile 75,000
   SA-213-T347 Tensile 75,000
8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

See Back

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board Number in Numerical Order
Assembly No.	Mfg. S/N
* (1) 2966-80 Assy 21	2016
(2) 2966-81 Assy 22	2017
(3) 2966-83 Assy 24	2018
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
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(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

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

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi at temp. 80 °F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 6 and 9 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

FORM N-2 (back) S/N'S ~~21-24~~ 81-83

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 2/05/92 Name Combustion Engineering Signed G.R. [illegible]

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 _____ and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2/25/92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2/25/92 Signed [illegible] Commissions NB02 NBCSE

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.59"

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name) — Date 01·13·2000

27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name) — Unit 1

27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913414 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A

4. Identification of System Primary Coolant

5. (a) Applicable Construction Code Section III 19 86 Edition, 1988 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Control Rod drive Seal housing	Combustion Engg	2017	N/A	Serial No. 29666-81	1992	Repaired	Yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal to remove flaws and on the tool access tube to preclude cracking

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 8½ 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.

2491 3414

FORM NIS-2 (Back)

9. Remarks See Attached N-2 DATA Report

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 N/A

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

Signed H. Fanty, Lead Technical Analyst Date 1/21 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 21 2000

(12/82)

1282

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

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

Not To Exceed One Day's Production

Pg. 1 of 1

1. Manufactured and certified by Combustion Engineering, Inc., ABB Combustion Engineering Nuclear Power, Newington Operations, 2000 Day Hill Rd., Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Location of installation Consumers Power Co., Palisades Plant, Michigan

4. Type CND-E-4667 Rev. 07 See Remarks None 1992

5. ASME Code, Section III: 1986 1988 1 None

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

7. Remarks: SA-182-F347 Tensile 75,000

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * Dia. ID (ft & in.) * Length overall (ft & in.) *

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number Assembly No.	[redacted] Mfg. S/N
(1) 2966-80 Assy 21	2016
* (2) 2966-81 Assy 22	2017
(3) 2966-83 Assy 24	2018
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
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(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
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(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi temp. 80 °F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 6 and 9 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (000040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (back) S/N'S ~~21-24~~ 81-83

Mfr. Serial No.

CERTIFICATE OF DESIGN

Design specifications certified by Responsibility of Others P.E. state _____ Reg. no. _____

Design report* certified by Responsibility of Others 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 conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993

Date 2/05/92 Name Combustion Engineering 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 _____ and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2/25/92, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2/25/92 Signed [signature] Commissions NB02 NBCSI

MATERIAL	NOM. THICKNESS(IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
* SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T347 Access Tube	.125	.12	1.260"	39.500"
SA-182-F347 Seal Housing	.3135	.301	8.000"	8.59"

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

1. Owner Consumers Energy Company (Name) — Date 01·11·2000

27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name) — Unit 1

27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24911739 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam

5. (a) Applicable Construction Code B31.1 19 86 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Valve CV-0510	Consumers Energy	N/A	N/A	Seal weld	1999	Replaced	No

7. Description of Work Replaced Seal weld on Valve CV-0510

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 8½ 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.

24911739

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [illegible], Lead Technical Analyst (Owner or Owner's Designee, Title) Date 1/14, 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K. Blake (Inspector's Signature) Commissions MI-762 ABNI (National Board, State, Province, and Endorsements)

Date Jan. 27, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 01·11·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24910439 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Spent Fuel Pool System
5. (a) Applicable Construction Code Section III 19 77 Edition, Winter 1979 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Studs	Cardinal Industrial	N/A	N/A	PO# 2003-6914	1989	Replaced	No
Nuts	Nova Machine	N/A	N/A	PO # G242425	1997	Replaced	No

7. Description of Work Replaced Studs and Nuts on P-518 Suction Flange
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 8½ 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.

24910439

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst (Owner or Owner's Designee, Title) Date 1/26, 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI

Inspector's Signature — National Board, State, Province, and Endorsements

Date Jan. 27, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·10·2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24710568
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Main Steam System

5. (a) Applicable Construction Code Section III 1977 Edition, Winter 1979 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

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)
1" SA193 Stud	Combustion Engg	N/A	N/A	PO No. G272138	1998	Replaced	No
1" SA193 Nut	Combustion Engg	N/A	N/A	PO No. G268511	1998	Replaced	No

7. Description of Work Replaced Stud & Nut No. 1 on E-50B Steam Generator Secondary Handhole

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 8½ 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.

24710568

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [illegible], Lead Technical Analyst Date 1/26, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

[illegible] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 27, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 01·10·2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 02481261 1 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 77 Edition, Winter 1979 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
1-5/8" SA194 Nut	Combustion Engg	N/A	N/A	P.O. No. G0078217	1993	Replaced	No
1-3/4" SA194 Washer	Combustion Engg	N/A	N/A	P.O. No. G1915026	1996	Replaced	No

7. Description of Work Replaced Nuts 1, 8 and 13 and Washer No. 8 on Steam Generator E-50B Primary Manway
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 8½ 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.

24812611

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed H. Fenty, Lead Technical Analyst (Owner or Owner's Designee, Title) Date 1/26 2000 ~~19~~

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

Inspector's Signature Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Jan. 27 ~~19~~ 2000

(12/82)

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
2. Plant Palisades Nuclear Plant (Name)
   27780 Blue Star Hwy. Covert, MI (Address)
3. Work Performed by Consumers Energy (Name)
   27780 Blue Star Hwy. Covert, MI (Address)

Date 01·10·2000

Sheet 1 of 1

Unit 1

W.O. # 24813165
Repair Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam System

5. (a) Applicable Construction Code Section III 19 77 Edition, Winter 1979 Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
1½" SA 540 Stud	ABB Combustion Engg	N/A	N/A	PO No. 36368	1993	Replaced	No

7. Description of Work Replaced stud No. 8 on inboard secondary manway cover on steam generator E-50B

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 8½ 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.

24813165

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst Date 1/27 ~~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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 27 ~~19~~ 2000

(12/82)

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·11·2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24912968
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Engineered Safeguards

5. (a) Applicable Construction Code Section III 19 89 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
2" SA564 Studs	Nova Machine	N/A	N/A	PO No. 685354	1993	Replaced	No
2" SA194 Nuts	Cardinal Industrial	N/A	N/A	PO No. 685140	1993	Replaced	No

7. Description of Work Replaced Studs / Nuts on Valve CK-ES3116

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 8½ 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.

24912968

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [illegible], Lead Technical Analyst Date 1/27 ~~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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

[illegible] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 27 ~~19~~ 2000

(12/82)

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name) — Date 01·10·2000

27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name) — Unit 1

27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24812610 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A

4. Identification of System Primary Coolant System

5. (a) Applicable Construction Code Section III 19 77 Edition, Winter 1979 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
1-5/8" SA194 Nut	Combustion Engg	N/A	N/A	P.O. No. G 0078217	1993	Replaced	No

7. Description of Work Replaced Nuts 2 and 7 on Steam Generator E-50A Primary Manway

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 8½ 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

24812610

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [illegible], Lead Technical Analyst Date 1/27 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

[illegible] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 27th 2000

(12/82)

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As Required by the Provisions of the ASME Code Section XI

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·10·2000

Sheet 1 of

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24811556
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Main Steam System

5. (a) Applicable Construction Code B31.1 19 86 Edition, N/A Addenda, ~~N/A~~ N-416-1 Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
3" Sch 40 Piping	Tioga Pipe	N/A	N/A	PO No. 6294761	1999	Replaced	No
3" Elbows	Tioga Pipe	N/A	N/A	PO No. 6294761	1999	Replaced	No

7. Description of Work Replaced Associated Piping for MO-0510

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 8½ 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.

24811556

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [illegible], Lead Technical Analyst Date 1/27 ~~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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K B Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 27 ~~19~~ 2000

(12/82)

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 01·13·2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24913046
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Chemical And Volume Control

5. (a) Applicable Construction Code Section III 19 77 Edition, Winter 1979 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
Studs	Cardinal Industrial	N/A	N/A	P.O. No. 5025-3554	1989	Replaced	No
Nuts	Energy Steel	N/A	N/A	P.O. No. 5027-7757	1989	Replaced	No
Nuts	Energy Steel	N/A	N/A	P.O. No. 5021-1472	1987	Replaced	No

7. Description of Work Replaced Studs And Nuts on Valve CV-2117

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 8½ 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.

24913046

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst Date 1/27 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 27 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 1-13-2000
   27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
   27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913370 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
   27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant
5. (a) Applicable Construction Code Section III 19 65 Edition, N/A Addenda, N/A Code Case
   (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal Housing	Combustion Engineering	N/A	N/A	Serial # 2966-13	1968	Repaired	yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal to remove flaws and on the tool access tube to preclude cracking.
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 8½ 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.

24913370

FORM NIS-2 (Back)

9. Remarks None.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst Date 2/21, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

L.L. Blake
Inspector's Signature

Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Feb. 23, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 1-13-2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913429 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant
5. (a) Applicable Construction Code Section III 19 65 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal Housing	Combustion Engineering	N/A	N/A	Serial # 2966-01	1968	Repaired	yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal and tool access tube to remove flaws.
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 8½ 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.

24913429

FORM NIS-2 (Back)

9. Remarks None.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst Date 2/14, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 23, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 1-13-2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913430 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant
5. (a) Applicable Construction Code Section III 19 65 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal Housing	Combustion Engineering	N/A	N/A	Serial # 2966-16	1968	Repaired	yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal tube to remove flaws and on the tool access tube to preclude cracking.
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 8½ 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.

24913430

FORM NIS-2 (Back)

9. Remarks None.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst Date 2/21, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 23, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 1-13-2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913431 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant
5. (a) Applicable Construction Code Section III 19 65 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal Housing	Combustion Engineering	N/A	N/A	Serial # 2966-26	1968	Repaired	yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the of the mechanical seal to remove flaws and on the tool access tube to preclude cracking.
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 8½ 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.

24913431

FORM NIS-2 (Back)

9. Remarks None.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst Date 2/23 ~~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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 23 ~~19~~ 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 2-23-2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913371 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A — Expiration Date N/A
4. Identification of System Primary Coolant
5. (a) Applicable Construction Code Section III 19 65 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal Housing	Combustion Engineering	N/A	N/A	Serial # 2966-32	1968	Repaired	yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal tube to remove flaws and on the tool access tube to preclude cracking.
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 8½ 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.

24913371

FORM NIS-2 (Back)

9. Remarks None.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed J.H. Fenty, Lead Technical Analyst Date 2/23 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

K.S. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 23 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 2/23/2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24913432 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant
5. (a) Applicable Construction Code Section III 19 65 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Control Rod Drive Seal Housing	Combustion Engineering	N/A	N/A	Serial # 2966-34	1968	Repaired	yes

7. Description of Work Flapped and polished a limited area on the inside diameter of the mechanical seal and tool access tube to remove flaws.

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 8½ 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

24913432

FORM NIS-2 (Back)

9. Remarks None.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst (Owner or Owner's Designee, Title) Date 2/23 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI

Inspector's Signature — National Board, State, Province, and Endorsements

Date Feb. 23 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 2/14/00
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24812240 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System CHEMICAL AND VOLUME CONTROL (CVC)
5. (a) Applicable Construction Code B31.1 1989 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989
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)
SNUBBER	ANCHOR/DARLING	ADH-1000 2341	N/A	PO# G0284322	1998	REPLACED	NO

7. Description of Work REPLACED HYDRUALIC SNUBBER SNB-29 WITH NEW
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 8½ 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.

24812240

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed SR. TECHNICAL ANALYST Owner or Owner's Designee, Title Date 2/14 ~~19~~ 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

Inspector's Signature Commissions MI-762 ABNI
National Board, State, Province, and Endorsements

Date Feb. 16 ~~19~~ 2000

(12/82)

24

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

1. Owner Consumers Energy Company (Name) — Date 2/14/00
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24812241 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System ENGINEERED SAFEGUARDS (ESS)
5. (a) Applicable Construction Code B31.1 19 89 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
SNUBBER	ANCHOR/ DARLING	ADH-1000, 2485	N/A	PO # GD-28A322-1	1998	REPLACED	NO

7. Description of Work REPLACED HYDRAULIC SNUBBER SNB-63 WITH NEW
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 8½ 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

2481221

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed SR. TECHNICAL ANALYST [signature] Date 2/14/00 ~~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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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.

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[signature] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 16 ~~19~~ 2000

(12/82)

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 2/14/00

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24812239
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System ENGINEERED SAFEGAURDS (ESS)

5. (a) Applicable Construction Code ASME SECTION III 19 74 Edition, W 1975 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
MECHANICAL SNUBBER	PACIFIC SCIENTIFIC	18867	N/A	PO# G0261163-1	1981	REPLACED	YES

7. Description of Work REPLACE MECHANICAL SNUBBER SNB-70 WITH ~~NEW~~ REBUILT

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 8½ 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.

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

24812239

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed SR. TECHNICAL ANALYST [signature] Date 2/14, 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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 16, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Date 2/24/2000

Sheet 1 of 1

2. Plant Palisades Nuclear Plant (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Unit 1

W.O. # 24711918
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy (Name)
27780 Blue Star Hwy. Covert, MI (Address)

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Diesel Generator Jacket Water Cooling

5. (a) Applicable Construction Code B31.1 19 55 Edition, N/A Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

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)
E-22A Channel Heads	American Standard Inc.	6-00194-03-2	N/A	P.O. 5935-m12 E-22A	1968	Repaired	No

7. Description of Work Repair Channel heads for E-22A and replace.

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

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2471918

FORM NIS-2 (Back)

9. Remarks None.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst (Owner or Owner's Designee, Title) Date 2/24, 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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] Commissions MI-762 ABNI

Inspector's Signature — National Board, State, Province, and Endorsements

Date Feb. 28, 2000

(12/82)

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

1. Owner Consumers Energy Company (Name) — Date 2/24/2000
27780 Blue Star Hwy. Covert, MI (Address) — Sheet 1 of 1
2. Plant Palisades Nuclear Plant (Name) — Unit 1
27780 Blue Star Hwy. Covert, MI (Address) — W.O. # 24910261 (Repair Organization P.O. No., Job No., etc.)
3. Work Performed by Consumers Energy (Name) — Type Code Symbol Stamp N/A
27780 Blue Star Hwy. Covert, MI (Address) — Authorization No. N/A
Expiration Date N/A
4. Identification of System Primary Coolant System
5. (a) Applicable Construction Code Section III 19 65 Edition, W/65 Addenda, None Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89
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)
Primary Coolant Pump Studs (3)	Byron Jackson	N/A	N/A	P.O. 1006-0488	1985	Replaced	No
Primary Coolant Pump Studs (2)	Byron Jackson	N/A	N/A	P.O. 93282	1978	Replaced	No
Primary Coolant Pump Studs (2)	Byron Jackson	N/A	N/A	P.O. 47943	1969	Replaced	No
Primary Coolant Pump Nuts (5)	BG&E	N/A	N/A	P.O. 60294719	1980	Replaced	No
Primary Coolant Pump Cover	Flowserve Red Corp.	661-N-0764	N/A	P.O. 60294251	1999	Replaced	No

7. Description of Work Rebuild Primary Coolant Pump, P-50A.

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

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24910261

FORM NIS-2 (Back)

9. Remarks None.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [signature], Lead Technical Analyst (Owner or Owner's Designee, Title) Date 2/24, 2000

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 FMIC of Norwood, MA have inspected the components described in this Owner's Report during the period 6/8/98 to 12-14-99, 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 MI-762 ABNI (National Board, State, Province, and Endorsements)

Date March 3, 2000

(12/82)