

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**

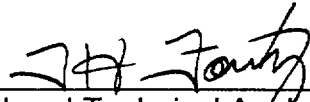
PALISADES PLANT 1999 INSERVICE INSPECTION REPORT

231 Pages

PALISADES NUCLEAR PLANT
ENGINEERING PROGRAMS DEPARTMENT

Review and Approval Summary

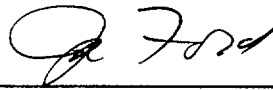
TITLE: ISI REPORT 3-4





Lead Technical Analyst / THFouty

Date





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:

<u>Component</u>	<u>Manufacturer</u>	<u>Manufacturer Serial No.</u>	<u>State No.</u>	<u>National Board No</u>
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 (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 2000 Signed Consumers Energy By JH Forty
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.

K Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements
Date Mar. 3 2000

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
Aug	ESS	ESS-24-SIS-SH1-207	Acceptable	UT	
				PT	
	ESS	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	
				UT	
				UT	
				UT	
				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 silicate. 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
C-C		CK-3116	Acceptable	VT-3	
	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:

	<u>Work Order</u>	<u>Description of Work</u>
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

	<u>Work Order</u>	<u>Description of Work</u>
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 exchanger, 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
27780 Blue Star Hwy. Covert, MI
Address

Date 11/11/99

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

Sheet 1 of 1

Unit 1

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

W.O. # 24813429
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 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	NPS 334-37-0026	n/a	PO# GØ253983	99	Replaced	No

7. Description of Work Replace Valve Disc For Rt. 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 to 2000

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# GØ253983	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.

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

Date Jan 5 2000

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. # 24813435
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)
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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 Robert E. Shush, 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 EMIC 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.

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

Date Jan 5 2000

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
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. # 24913419
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	1933	N/A	SERIAL No. 2766-65	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM 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 (Name and address of Certificate Holder) Newington, NH 03801

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, See Remarks None 1990
(Drawing no.) (Mat'l. spec. no.) (Stress strength) (Code) (Year built)

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

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

7. Remarks: SA-182-F347 Tensile 75,000
SA-182-E304 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.	MANUFACTURER Mfg. S.N.
(11) 2966-60 Assy 6	1928
(12) 2966-61 Assy 8	1929
(13) 2966-62 Assy 9	1930
(14) 2966-63 Assy 10	1931
(15) 2966-64 Assy 14	1932
(16) 2966-65 Assy 16	1933
(17)	
(18)	
(19)	
(101)	
(111)	
(112)	
(113)	
(114)	
(115)	
(116)	
(117)	
(118)	
(119)	
(120)	
(121)	
(122)	
(123)	
(124)	
(125)	

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)	

10-6 22500 500 2195 805MEN

CERTIFICATE OF DESIGN

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

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

CERTIFICATE OF SHOP COMPLIANCE

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

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

Date 9-4-90 Name Combustion Engineering Signed Gerald E. Dopp
ASME Certificate Holder Professional 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 [Signature] Commissions N.H. 350
Authorized Inspector State of and jurisdiction shall be given and not I

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
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. # 24913373
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 Fugg.	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 [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 EMIC 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 06 2000

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 (Name and address of Certificate Holder) Newington, NH 03801

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, See Remarks None 1990
(Drawing no.) (ASME Code no.) (ASME Code no.) (Year made)

5. ASME Code, Section III: 1986 1988 1 None
(Edition) (Edition) (Issue) (Case Code 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-E304 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.) *

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

See Back

Part or Appurtenance Serial Number Assembly No.	MANUFACTURER 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. Other reports: 2,500, 600, 800

This form (CG86) may be obtained from the Office of the ASME Registrar, 17, Long Circle, Fairfield, CT 06424, (203) 252-1500, (203) 252-1501, (203) 252-1502.

CERTIFICATE OF DESIGN

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

Design report certified by Responsibility of Others P.E. state _____ Reg. no. _____
(unless specified)

CERTIFICATE OF SHOP COMPLIANCE

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

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

Date 9-4-90 Name Combustion Engineering Signed Gerald L. Dopp
(ASME Certificate Holder) (Authorized Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of 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 [Signature] Commission N.H. 350
(Authorized Inspector) (Plate No. and expiration date of plate and no.)

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
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 Date 01.06.2000
Name
- 27780 Blue Star Hwy. Covert, MI Sheet 1 of 1
Address
2. Plant Palisades Nuclear Plant Unit 1
Name
- 27780 Blue Star Hwy. Covert, MI W.O. # 24913424
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
- 27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 8 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. Jantzy, 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 EMIC 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.

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

Date Jan 6 2000

FORM N-2-N ON 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

Page 1 of 1

1. Manufacturer and Division: General Electric Co., Nuclear Energy Division, 1230 Jefferson Ave., Detroit, Michigan 48207
 2. Manufacturer ID: Combustion Engineering, Inc., NPS, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

3. Section or Installation: Consumers Power Co., Palisades Plant, Michigan

4. Code: ND-5-4667

5. ASME Code, section III: 1985

6. Fabricated in accordance with ASME Code, Div. 1 part: N/A

7. Assembly: SA-182-F367

8. Material: Tensile

9. Quantity: 75,000

10. Date of Report: 1988

11. Revision: None

12. Part or Assembly: SA-182-F367

13. Material: Tensile

14. Quantity: 75,000

15. Assembly: SA-182-F304

16. Material: Tensile

17. Quantity: 75,000

18. Assembly: SA-213-F367

19. Material: Tensile

20. Quantity: 75,000

BACK

21. Name, Position and Date: John, design (Inventor) Date: 1988

22. When Issued: Confidential (This report is intended for the use of the licensee)

Part or Assembly Serial Number	ASSEMBLY NO.	Welding Material HTG. S/N	Part or Assembly Serial Number	Material Serial Number in Numerical Order
11)	2966-75 ASSV 28	2005	128)	
12)	2966-76 ASSV 31	2008	129)	
13)	2966-93 ASSV 34	2009	130)	
14)	2966-96 ASSV 35	2010	131)	
15)	2966-90 ASSV 37	2006	132)	
16)	2966-91 ASSV 19	2007	133)	
17)			134)	
18)			135)	
19)			136)	
110)			137)	
111)			138)	
112)			139)	
113)			140)	
114)			141)	
115)			142)	
116)			143)	
117)			144)	
118)			145)	
119)			146)	
120)			147)	
121)			148)	
122)			149)	
123)			150)	

19. Design pressure: 2,500 psi Temp. 500

20. Weight, total assembly: 3,125 lbs

21. Additional requirements in the form of data, drawings, or drawings data to read against (1) one of 5', 6', 8', 10', 12' dimensions in column 1 and 2 on the data report to be used for each section. (2) Each section is identified and the number of sheets is reported in the top of each sheet.

This form is provided only to the licensee upon the Order Form. Addnl. 22 (see form), Rev. 12/88, Forming of 01/89 1399

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 the finished PARTS conform to the rules of construction of the ASME Code, Section II.

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

Date 3/9/92 Name Combustion Engineering Signed Howard P. Dwyer

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Missouri of U.S.B.I. & I. Co. and employed by Combustion Engineering have inspected these items described in this report and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or components in accordance with the ASME Code, Section II. 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] Commission [Signature]

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVER (FT & IN)</u>
* 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. # 04913374
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.	1930	N/A	SERIAL No. 07966-602	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Ferry, LEAD Technical Analyst Date 1/6 2000
Owner or Owner 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.

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

Date Jan 6 2000

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 Name and address of Certificate holder
Newington, NH 03801

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, See Remarks None 1990
Rev. 05 (Drawing No.) (Spec. No.) (Code) (Year Code)

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

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

7. Remarks: SA-182-F347 Tensile 75,000
SA-182-E304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * O.d. 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.	XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX 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)	

CERTIFICATE OF DESIGN

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

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

CERTIFICATE OF SHOP COMPLIANCE

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

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

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

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 G. R. Smith Commission N.H. 350
Authorized Inspector

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERAL (FT & IN)</u>
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 Date 01-06-2000
Name
27780 Blue Star Hwy. Covert, MI
Address
2. Plant Palisades Nuclear Plant Sheet 1 of 1
Name
27780 Blue Star Hwy. Covert, MI
Address Unit 1
W.O. # 24913372
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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 Egg	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 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fouty, 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 Jan 06 2000

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
Name and address of Certificate Holder
 55 Old Dover Road Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road,
Name and address of purchaser
 Windsor, CT 06095-0500

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

4. Type CND-E-4667,
ASME Code Rev. 05 See Remarks None 1990
ASME Code ASME Code ASME Code ASME Code

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

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

7. Remarks: SA-182-P347 Tensile 75,000
SA-182-E304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) * Min. design thickness (in.) * O/s. 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.	MANUFACTURER Mfg. S.N.	Part or Appurtenance Serial Number	National Board Number In Numerical Order
(1) 2966-60 Assy 6	1928	(28)	
(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)	

CERTIFICATE OF DESIGN

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

Design report certified by Responsibility of Others P.E. STATE _____ Reg. no. _____
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

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

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

Date 9-4-90 Name Combustion Engineering Signed Herold R. Dopp
NBT Certificate Holder

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 Al. Smith Commission N.H. 350
Boiler Inspector

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
* 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-r347 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 01/06/0000
Sheet 1 of 1

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

Unit 1
W.O. # 24913381
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 1986 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 Egg.	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 [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 EMIC 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. 12 2000

SA-182-E347
 Lower Flange
 SA-182-E304
 Access Tube Flange
 SA-213-1347
 Access Tube
 SA-182-E347
 Seal Housing

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (PT & IN)	LEN. (FT & IN)
SA-182-E347	.406"	.391"	2.06"	4.0
SA-182-E304	.125	.12	2.06"	1/4
SA-213-1347	.125	.12	1.260"	39
SA-182-E347	.3135	.301	8.000"	8

CERTIFICATE OF SHOP COMPLIANCE

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

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

Name: Combustion Engineering Signed: *[Signature]* Date: July 20, 1988

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of New Jersey, and employed by H.S.A. & Co., Inc. and residing at Hartford, Ct. have inspected these items described in this data report on 02/11/92 and state that in the best of my knowledge and belief, the Certificate holder has fabricated these parts or components in accordance with the ASME Code, Section III. Each part noted has been furnished 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.

Commission Expires: 02/20/92 Signed: *[Signature]* Date: 02/11/92

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 Date 01.06.2000
Name
27780 Blue Star Hwy. Covert, MI
Address
2. Plant Palisades Nuclear Plant Sheet 1 of 1
Name
27780 Blue Star Hwy. Covert, MI
Address Unit 1
W.O. # 24913425
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fenty, 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 of 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.

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

Date Jan. 12 2000

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., NPS, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
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 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 (in. & in.) _____ Length overall (in. & in.) _____
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NO.	MANUFACTURER IDENTIFICATION MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(1) 2966-85 Assv 020	2030	(120)	
(2) 2966-86 Assv 025	2031	(121)	
(3) 2966-87 Assv 027	2032	(122)	
(4) 2966-88 Assv 029	2033	(123)	
(5) 2966-89 Assv 030	2034	(124)	
(6) 2966-96 Assv 032	2035	(125)	
(7) 2966-97 Assv 036	2036	(126)	
(8) 2966-98 Assv 040	2037	(127)	
(9) 2966-99 Assv 041	2038	(128)	
(10) 2966-100 Assv 043	2039	(129)	
(11) 2966-104 Assv 047	2040	(130)	
(12) 2966-105 Assv 044	2041	(131)	
(13) 2966-106 Assv 049	2042	(132)	
(14) 2966-107 Assv 048	2043	(133)	
(15)		(134)	
(16)		(135)	
(17)		(136)	
(18)		(137)	
(19)		(138)	
(20)		(139)	
(21)		(140)	
(22)		(141)	
(23)		(142)	
(24)		(143)	
(25)		(144)	
		(145)	
		(146)	
		(147)	
		(148)	
		(149)	
		(150)	

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

* Supplemental information in the form of Serial, Material, or Drawing may be used provided (1) use is in P, or (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 the first sheet.
This form (N-2) may be obtained from the Amer. Soc. of Mech. Engrs., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

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 UP. STATE 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 appendances 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] Commission NY 5070

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.0
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. # 04913427
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 1986 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

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

Page 1 of 1

1. Manufactured and certified by PROPER ENGINEERING, INC., 1000 PROSPECT HILL RD., WINDSOR, CT 06095-0500
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-667 See Remarks See Remarks None 1992
REV. 07
5. ASME Code, Section III: 1996 1998 None None
6. Fabricated in accordance with Const. Sect. (Div. 2 env): N/A Revision N/A Date N/A
7. Remarks: SA-182-FJ47 Tensile 75,000
SA-182-FJ04 Tensile 75,000
SA-213-TJ47 Tensile 75,000
8. Nom. thickness (in.) _____ Min. design thickness (in.) _____ O.D. (in. & in.) _____ Length overall (in. & 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.	MANUFACTURER'S IDENTIFYING MARKING MFG. S/N	Part or Appurtenance Serial Number	National Serial Number in Numerical Order
111 2966-85 Assv 020	2030	1267	
112 2966-86 Assv 025	2031	1271	
113 2966-87 Assv 027	2032	1291	
114 2966-88 Assv 029	2033	1291	
115 2966-89 Assv 030	2034	1308	
116 2966-96 Assv 032	2035	1311	
117 2966-97 Assv 036	2036	1321	
118 2966-98 Assv 040	2037	1333	
119 2966-99 Assv 041	2038	1341	
1101 2966-100 Assv043	2039	1351	
1111 2966-104 Assv043	2040	1368	
1121 2966-105 Assv044	2041	1371	
1131 2966-106 Assv045	2042	1388	
1141 2966-107 Assv046	2043	1391	
1151		1408	
1161		1417	
1171		1423	
1181		1431	
1191		1444	
1201		1451	
1211		1468	
1221		1471	
1231		1488	
1241		1491	
1251		1508	

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

*Supplemental information in the form of test sheets, or drawings may be used provided (1) use is in accordance with (2) information in parts 1 and 2 on the data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of the form.

This form (N-2) may be obtained from the Order Dept., ASME, 22 Law Center, Sec 1208, Park Ave., N.Y.C. 10017-1208

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. Dimp

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. & C. 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 components 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] Commission NY 3270

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.0
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 Date 01-06-2000
Name
27780 Blue Star Hwy. Covert, MI
Address
2. Plant Palisades Nuclear Plant Sheet 1 of 1
Name
27780 Blue Star Hwy. Covert, MI
Address Unit 1
W.O. # 24913467
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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 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 Egg	2036	NIA	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 Fuel 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 [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 EMIC 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

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 CONSUMERS POWER CO., PALISADES PLANT, MICHIGAN 450801
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 See Remarks None 1992
5. ASME Code, Section III: 1994 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.) 1/2 Min. design thickness (in.) 1/2 O.D. (in. & in.) 1/2 Length overall (in. & in.) 1/2
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

See
Back

Part or Appurtenance Serial Number ASSEMBLY NO.	MANUFACTURER'S IDENTIFICATION MFG. S/N	Part or Appurtenance Serial Number	National Grade Number in Numerical Order
(11) 2966-85 Assv 020	2030	(128)	
(12) 2966-86 Assv 025	2031	(127)	
(13) 2966-87 Assv 027	2032	(123)	
(14) 2966-88 Assv 029	2033	(129)	
(15) 2966-89 Assv 030	2034	(120)	
(16) 2966-96 Assv 032	2035	(131)	
(17) 2966-97 Assv 036	2036	(122)	
(18) 2966-98 Assv 040	2037	(133)	
(19) 2966-94 Assv 041	2038	(134)	
(10) 2966-100 Assv043	2039	(135)	
(11) 2966-104 Assv043	2040	(136)	
(12) 2966-105 Assv044	2041	(137)	
(13) 2966-106 Assv045	2042	(138)	
(14) 2966-107 Assv046	2043	(139)	
(15)		(140)	
(16)		(141)	
(17)		(142)	
(18)		(143)	
(19)		(144)	
(20)		(145)	
(21)		(146)	
(22)		(147)	
(23)		(148)	
(24)		(149)	
(25)		(150)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi Temp. 800

*Supplemental information in the form of text, sketches, or drawings may be used provided (1) two or more (2) additional sheets 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 (00048) may be obtained from the Order Dept., ASME, 22 Law Drive, Sec 2300, Fairfield, NJ 07007-7200

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. Durr

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 CT and employed by H.S.A. 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 components 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] Commission NY 5070

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.0
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 Egg	2039	NIA	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 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Joubert, 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
Inspector's Signature

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

Date Jan-12 2000

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, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
2. Manufactured for Consumers Power Co., Palisades Plant, Michigan
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 See Remarks See Remarks None 1992
5. ASME Code, Section III: 1996 1998 None 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 (in.) Length overall (in.)
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

See Back

Part or Appurtenances Serial Number ASSEMBLY NO.	XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX MFG. S/N	Part or Appurtenances Serial Number	National Board Number in Numerical Order
(11) 2966-85 Assv 020	2030	(126)	
(12) 2966-86 Assv 025	2031	(127)	
(13) 2966-87 Assv 027	2032	(128)	
(14) 2966-88 Assv 029	2033	(129)	
(15) 2966-89 Assv 030	2034	(130)	
(16) 2966-96 Assv 032	2035	(131)	
(17) 2966-97 Assv 036	2036	(132)	
(18) 2966-98 Assv 040	2037	(133)	
(19) 2966-94 Assv 041	2038	(134)	
* (10) 2966-100 Assv 043	2039	(135)	
(11) 2966-106 Assv 043	2040	(136)	
(12) 2966-105 Assv 044	2041	(137)	
(13) 2966-106 Assv 045	2042	(138)	
(14) 2966-107 Assv 046	2043	(139)	
(15)		(140)	
(16)		(141)	
(17)		(142)	
(18)		(143)	
(19)		(144)	
(20)		(145)	
(21)		(146)	
(22)		(147)	
(23)		(148)	
(24)		(149)	
(25)		(150)	

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

* Supplemental information in the form of test sheets, or drawings may be used provided (1) use is in accordance with Part 1, (2) information in parts 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 (N-2) may be obtained from the Order Dept., ASME, 22 Law St., Fairfield, NJ 07007-1200

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 <u>July 20, 1992</u>	Name <u>COMBUSTION ENGINEERING</u> Signed <u>G.R. Duff</u>
* Attach copies of reports.	
CERTIFICATE OF SHOP INSPECTION	
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Missouri of <u>WALTON, CT</u> and employed by <u>H.S. B. Ins. Co.</u>	
have inspected these items described in this data report on <u>20 JUL 92</u> and state that to the best of my knowledge and belief, the Certificate holder has fabricated these parts or components 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 statement described in this data report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.	
Date <u>20 JUL 92</u> Signed <u>[Signature]</u>	Commission <u>N13270</u>

MATERIAL

*SA-182-F347
Lower FlangeSA-182-F304
Access Tube FlangeSA-213-T347
Access TubeSA-182-F347
Seal Housing

	NOM. THICKNESS (IN)	NOM. DESIGN THICKNESS (IN)	DIA. I.D. (PT & IN)	LEN (FT & IN)
	.406"	.391"	2.06"	4.2
	.125	.12	2.06"	1/4
	.125	.12	1.260"	39
	.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 Date 01.06.2000
Name
27780 Blue Star Hwy. Covert, MI
Address
2. Plant Palisades Nuclear Plant Sheet 1 of 1
Name
27780 Blue Star Hwy. Covert, MI
Address Unit 1
W.O. # 24913463
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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 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 Egg	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Jonty, 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

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., NPB Combustion Engineering Nuclear Power, Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0600

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

4. Type CND-E-4667 See Remarks None 1986

5. ASME Code, Section III: 1986 1983 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

See Back

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

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

Part or Appurtenance Serial Number	MFG. SERIAL NO. Mfg. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(11) 2966-77 Assy 17	2019	(126)	
(12) 2966-78 Assy 18	2020	(127)	
(13) 2966-79 Assy 19	2021	(128)	
(14) 2966-82 Assy 23	2022	(129)	
(15) 2966-84 Assy 26	2023	(130)	
(16)		(131)	
(17)		(132)	
(18)		(133)	
(19)		(134)	
(110)		(135)	
(111)		(136)	
(112)		(137)	
(113)		(138)	
(114)		(139)	
(115)		(140)	
(116)		(141)	
(117)		(142)	
(118)		(143)	
(119)		(144)	
(120)		(145)	
(121)		(146)	
(122)		(147)	
(123)		(148)	
(124)		(149)	
(125)		(150)	

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

* Supplemental information in the form of data, sketches, or drawings may be used provided (1) not to exceed 1% of the total report is included on each sheet, (2) each sheet is numbered and the number of sheets is recorded at the top of the form.

(8/83-1) This form (EGG408) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2308, Fairfield, NJ 07007-2308

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 they (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 G. P. [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] Commission NH202 NBCSI

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
* 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

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

W.O. # 24913383
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 [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

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, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
2. Manufactured for Consumers 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 See Remarks None 1992
5. ASME Code, Section III: 1994 1998 None None
6. Fabricated in accordance with Const. Spec. (Div. 2 envl) 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.) 0 Min. design thickness (in.) 0 O.D. (in.) 0 Length over all (in.) 0
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

See Back

Part or Appurtenance Serial Number ASSEMBLY NO.	MANUFACTURER'S IDENTIFICATION NO. / MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(11) 2966-85 Assv 020	2030	(127)	
(12) 2966-86 Assv 021	2031	(127)	
(13) 2966-87 Assv 027	2032	(129)	
(14) 2966-88 Assv 029	2033	(129)	
(15) 2966-89 Assv 030	2034	(130)	
(16) 2966-96 Assv 032	2035	(131)	
(17) 2966-97 Assv 034	2036	(132)	
(18) 2966-98 Assv 040	2037	(133)	
(19) 2966-99 Assv 041	2038	(134)	
(101) 2966-100 Assv 043	2039	(135)	
(111) 2966-106 Assv 043	2040	(136)	
(112) 2966-105 Assv 044	2041	(137)	
(113) 2966-106 Assv 045	2042	(138)	
(114) 2966-107 Assv 046	2043	(139)	
(115)		(140)	
(116)		(141)	
(117)		(142)	
(118)		(143)	
(119)		(144)	
(120)		(145)	
(121)		(146)	
(122)		(147)	
(123)		(148)	
(124)		(149)	
(125)		(150)	

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

* Supplemental information in the form of text, sketches, or drawings may be used provided (1) and (2) in 1.121 information in comp 1 and 2 on the data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded on the end of this form.
This form (G-2040) may be obtained from the Order Dept., ASME, 22 Law St., Fairfield, NJ 07007-1308

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. Durr

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 Conn. State and employed by H.S.B.T. & L. 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 components 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] Commission NT 3070

<u>MATERIAL</u>	<u>NOM. THICKNESS (LN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN. (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.2
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 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 Egg	2030	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 Jantzy, 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.

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

Date Jan. 12 2000

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., NPS, 1000 PROSPECT HILL RD., WINDSOR, CT 06095-0500
2. Manufactured for Consumers Power Co., Palisades Plant, Michigan
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 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 N/A 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.) O.D. (in. & in.) Length overall (in. & 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.	XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX MFG. S/N	Part or Appurtenance Serial Number	National Serial Number in Numerical Order
(1) 2966-85 Assv 020	2030	(128)	
(2) 2966-86 Assv 025	2031	(127)	
(3) 2966-87 Assv 027	2032	(126)	
(4) 2966-88 Assv 029	2033	(125)	
(5) 2966-89 Assv 030	2034	(124)	
(6) 2966-96 Assv 032	2035	(123)	
(7) 2966-97 Assv 036	2036	(122)	
(8) 2966-98 Assv 040	2037	(121)	
(9) 2966-99 Assv 041	2038	(120)	
(10) 2966-100 Assv 043	2039	(119)	
(11) 2966-104 Assv 043	2040	(118)	
(12) 2966-105 Assv 044	2041	(117)	
(13) 2966-106 Assv 045	2042	(116)	
(14) 2966-107 Assv 046	2043	(115)	
(15)		(114)	
(16)		(113)	
(17)		(112)	
(18)		(111)	
(19)		(110)	
(20)		(109)	
(21)		(108)	
(22)		(107)	
(23)		(106)	
(24)		(105)	
(25)		(104)	

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

* Supplemental information in the form of Serial, Material, or Grouping may be used provided (1) use is in (1), (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 on the top of the first sheet.
This form (N-2) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2308, Fairfield, NJ 07007-1308

<p>DESIGN SPECIFICATIONS DERIVED BY _____ RESPONSIBILITY OF OTHERS _____ P. E. STATE _____ REG. NO. _____</p>	
<p>DESIGN REPORT DERIVED BY _____ RESPONSIBILITY OF OTHERS _____ P. E. STATE _____ REG. NO. _____</p>	
<p>CERTIFICATE OF SHOP COMPLIANCE</p> <p>WE CERTIFY THAT THE STATEMENTS MADE IN THIS REPORT ARE CORRECT AND THAT THIS (THESE) _____ PARTS _____</p> <p>CONFORM TO THE RULES OF CONSTRUCTION OF THE ASME CODE, SECTION III.</p> <p>NPT Certificate of Authorization No. _____ N-2041</p> <p>Expires _____ FEBRUARY 20, 1993</p> <p>Name _____ Signed _____ COMBUSTION ENGINEERING</p> <p>DATE JULY 20, 1992</p>	
<p>CERTIFICATE OF SHOP INSPECTION</p> <p>I, THE UNDERSIGNED, HOLDING A VALID COMMISSION ISSUED BY THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS AND THE STATE OF GEORGIA, AND EMPLOYED BY _____ AND EMPLOYED BY _____ HAVE INSPECTED THESE ITEMS DESCRIBED IN THIS DATA REPORT ON _____ OF _____</p> <p>DATE OF MY KNOWLEDGE AND BELIEF, THE CERTIFICATE HOLDER HAS LABELLED THESE PARTS OR EQUIPMENTS IN ACCORDANCE WITH THE ASME CODE, SECTION III. EACH PART HAS BEEN AUTHORIZED FOR STAMPING ON THE DATE SHOWN ABOVE.</p> <p>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 HELD IN ANY MANNER FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE OR LOSS OF ANY KIND ARISING FROM OR CONNECTED WITH THIS INSPECTION.</p> <p>DATE 20 JUL 92 Signed _____</p> <p>COMMISSIONER _____</p>	

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LEN. (FT & IN)
*SA-182-F347 LOWER FLANGE	.406"	.391"	2.06"	4.2
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 Date 01.06.2000
Name
27780 Blue Star Hwy. Covert, MI Sheet 1 of 1
Address
2. Plant Palisades Nuclear Plant Unit 1
Name
27780 Blue Star Hwy. Covert, MI W.O. # 24913428
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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	NIA	SERIAL No. 2966-107	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 [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

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., ASME 1000 Prospect Hill Rd., Windsor, CT 06095-0500
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 See Remarks See Remarks None 1992
5. ASME Code, Section III: 1986 1988 1 None
6. Fabricated in accordance with Const. Spec. (Div. 2 env): 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.	MANUFACTURER'S IDENTIFICATION NO. OR MFG. S/N
(11) 2966-85 Assv 020	2030
(12) 2966-86 Assv 025	2031
(13) 2966-87 Assv 027	2032
(14) 2966-88 Assv 029	2033
(15) 2966-89 Assv 030	2034
(16) 2966-96 Assv 032	2035
(17) 2966-97 Assv 036	2036
(18) 2966-98 Assv 040	2037
(19) 2966-94 Assv 041	2038
(10) 2966-100 Assv043	2039
(11) 2966-104 Assv043	2040
(12) 2966-105 Assv044	2041
(13) 2966-106 Assv045	2042
(14) 2966-107 Assv046	2043
(15)	
(16)	
(17)	
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Part or Appurtenance Serial Number	National Serial Number in Numerical Order
(26)	
(27)	
(28)	
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(31)	
(32)	
(33)	
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(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi (100% 80%)

* Supplemental information in the form of sets, sketches, or drawings may be used provided (1) no is 8", a 1, (2) information in items 1 and 2 on the 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.

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. 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 20/11/92 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 20/11/92 Signed [Signature] Commission NY 5270

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN. (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.0
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. # 24913280
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 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)
<u>HGR/EBI-HQ</u>	<u>CMS ENERGY</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>1968</u>	<u>REPAIRED</u>	<u>NO</u>

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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 John J. Lead, 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 of Province of Michigan and employed by EMIC 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 10 2000

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. # 04913416
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 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 Engineering	2031	N/A	SERIAL No. 2966-86	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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

Date Jan. 10 2000

FORM N-2 IN 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 2966-85 ASSV 020 2966-86 ASSV 025 2966-87 ASSV 027 2966-88 ASSV 029 2966-89 ASSV 030 2966-96 ASSV 032 2966-97 ASSV 036 2966-98 ASSV 040 2966-99 ASSV 041 2966-100 ASSV 042 2966-104 ASSV 043 2966-105 ASSV 044 2966-106 ASSV 049 2966-107 ASSV 048 450801
2. Manufactured for Combustion Engineering, Inc., NPB, 1000 Prospect Hill Rd., Windsor, CT 00095-0300
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 See Remarks See Remarks None 1992
5. ASME Code, Section III: 1986 1988 None None
6. Fabricated in accordance with Const. Spec. 10 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-F347 Tensile 75,000
8. Nom. thickness (in.) _____ Min. design thickness (in.) _____ Dia. O (ft & in.) _____ Length covered (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.	NUMBERS EXCLUSIVE HOLDING NUMBER MFG. S/N	Part or Appurtenance Serial Number	National Serial Number in Numerical Order
(11) 2966-85 Assv 020	2030	(126)	
(12) 2966-86 Assv 025	2031	(127)	
(13) 2966-87 Assv 027	2032	(128)	
(14) 2966-88 Assv 029	2033	(129)	
(15) 2966-89 Assv 030	2034	(130)	
(16) 2966-96 Assv 032	2035	(131)	
(17) 2966-97 Assv 036	2036	(132)	
(18) 2966-98 Assv 040	2037	(133)	
(19) 2966-99 Assv 041	2038	(134)	
(101) 2966-100 Assv 042	2039	(135)	
(111) 2966-104 Assv 043	2040	(136)	
(121) 2966-105 Assv 044	2041	(137)	
(131) 2966-106 Assv 049	2042	(138)	
(141) 2966-107 Assv 048	2043	(139)	
(151)		(140)	
(161)		(141)	
(171)		(142)	
(181)		(143)	
(191)		(144)	
(201)		(145)	
(211)		(146)	
(221)		(147)	
(231)		(148)	
(241)		(149)	
(251)		(150)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 in temp. 809

*Supplemental information in the form of test, inspection, or drawings may be used provided (1) use is 80% or 1.125 inch diameter in case 1 and 2 on the data report is indicated on each sheet, (2) each sheet is numbered and the number of sheets is recorded at the top of the first sheet.

7-86-1

This form (88940) may be obtained from the Order Dept., ASME, 22 Law Drive, Sec 2300, Fairfield, NJ 07007-2300

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 GR Durr

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 CT and employed by H.S.B.T. & 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 components 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] Commission N 15270

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.0
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. # 24913384
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 1986 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	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

Date Jan 10 2000

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

Page 1 of 1

1. Manufactured and certified by COMBUSTION ENGINEERING, INC., NPS, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
2. Manufactured for Consumers Power Co., Palisades Plant, Michigan
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 See Remarks See Remarks None 1992
5. ASME Code, Section III: 1994 1999 None
6. Fabricated in accordance with Const. Spec. (Div. 2 env): 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.) O.D. (in.) Length overall (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.	XXXXXXXXXXXXXXXXXXXX EDUCATIONAL XXXXXXXXXXXXXXXXXXXX MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(11) 2966-85 Assv 020	2030	(26)	
(12) 2966-86 Assv 023	2031	(27)	
(13) 2966-87 Assv 027	2032	(28)	
(14) 2966-88 Assv 029	2033	(29)	
(15) 2966-89 Assv 030	2034	(30)	
(16) 2966-96 Assv 032	2035	(31)	
(17) 2966-97 Assv 036	2036	(32)	
(18) 2966-98 Assv 040	2037	(33)	
(19) 2966-99 Assv 041	2038	(34)	
(10) 2966-100 Assv 042	2039	(35)	
(11) 2966-104 Assv 043	2040	(36)	
(12) 2966-105 Assv 044	2041	(37)	
(13) 2966-106 Assv 045	2042	(38)	
(14) 2966-107 Assv 046	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. 800

*Supplemental information in the form of tags, markers, or drawings may be used provided they are in full compliance with the ASME Code, Section III, Division 1. (2) Information in items 2 and 3 on this data report is included on each sheet. (3) Each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (G-2040) may be obtained from the Order Dept., ASME, 22 Law St., Box 2900, Fairfield, NJ 07007-1300

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. Davis

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. 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 components 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] Commission NY 5070

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.2
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. # 024913400
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 Egg	0030	N/A	SERIAL No. 02966-85	1992	REPAIRED	YES

7. Description of Work FLAPPED AND POLISHED A LIMITED AREA ON THE INSIDE DIAMETER OF THE MECHANICAL SEAL AND TOOL ACCESS TABES 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 H. J. Jantzi, 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

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

Page 1 of 1

1. Manufactured and certified by COMBUSTION ENGINEERING, INC., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
2. Manufactured for Consumers Power Co., Palisades Plant, Michigan
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-4667 See Remarks See Remarks None 1992
REV. 07
5. ASME Code, Section III: 1996 1988 None
6. Fabricated in accordance with Const. Spec. IDiv. 1 envt: 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. (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.	XXXXXX EQUIVALENT XXXXXXXXXXXXXXX MFG. S/N	Part or Appurtenance Serial Number	National Seed Number in Numerical Order
(11) 2966-85 Assv 020	2030	(128)	
(12) 2966-86 Assv 025	2031	(129)	
(13) 2966-87 Assv 027	2032	(130)	
(14) 2966-88 Assv 029	2033	(131)	
(15) 2966-89 Assv 030	2034	(132)	
(16) 2966-96 Assv 032	2035	(133)	
(17) 2966-97 Assv 036	2036	(134)	
(18) 2966-98 Assv 040	2037	(135)	
(19) 2966-94 Assv 041	2038	(136)	
(10) 2966-100 Assv042	2039	(137)	
(11) 2966-104 Assv043	2040	(138)	
(12) 2966-105 Assv044	2041	(139)	
(13) 2966-106 Assv045	2042	(140)	
(14) 2966-107 Assv046	2043	(141)	
(15)		(142)	
(16)		(143)	
(17)		(144)	
(18)		(145)	
(19)		(146)	
(20)		(147)	
(21)		(148)	
(22)		(149)	
(23)		(150)	
(24)			
(25)			

10. Design pressure 2,500 psi Test pressure 600 psi Hydro. test pressure 3,125 psi at temp. 300

* Supplemental information in the form of test sheets, or drawings may be used provided (1) use is in accordance with ASME Code, Section III, Division 1, (2) information is given in items 1 and 2 on this data report and (3) each sheet is numbered and the number of sheets is recorded in the top of this report.

This form and 000400 may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2900, Fairfield, NJ 07007-2900

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. Davis

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 NY, York and employed by H.S.B. & 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 repairments 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] Commission NY 5270

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.0
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. # 24913466
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 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	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Jentz, 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. Blah Commissions MI-762 ABNI
 Inspector's Signature National Board, State, Province, and Endorsements

Date Jan 10 19 2000

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, 1000 Prospect Hill Rd., Windsor, CT 06095-0500
2. Manufactured for Consumers Power Co., Palisades Plant, Michigan
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-667 See Remarks See Remarks None 1992
5. ASME Code, Section III: 1996 1988 None 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-F347 Tensile 75,000
8. Nom. thickness (in.) _____ Min. design thickness (in.) _____ Dia. (in.) _____ Length overall (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.	MANUFACTURER'S IDENTIFICATION MFG. S/N	Part or Appurtenance Serial Number	National Serial Number in Numerical Order
(11) 2966-85 Assv 020	2030	(128)	
(12) 2966-86 Assv 025	2031	(127)	
(13) 2966-87 Assv 027	2032	(126)	
(14) 2966-88 Assv 029	2033	(125)	
(15) 2966-89 Assv 030	2034	(124)	
(16) 2966-96 Assv 032	2035	(123)	
(17) 2966-97 Assv 036	2036	(122)	
(18) 2966-98 Assv 040	2037	(121)	
(19) 2966-99 Assv 041	2038	(120)	
(101) 2966-100 Assv043	2039	(119)	
(111) 2966-104 Assv047	2040	(118)	
(121) 2966-105 Assv044	2041	(117)	
(131) 2966-106 Assv049	2042	(116)	
(141) 2966-107 Assv048	2043	(115)	
(151)		(114)	
(161)		(113)	
(171)		(112)	
(181)		(111)	
(191)		(110)	
(201)		(109)	
(211)		(108)	
(221)		(107)	
(231)		(106)	
(241)		(105)	
(251)		(104)	

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

* Supplemental information in the form of sketches, drawings may be used provided (1) they are in accordance with the ASME Code, Section III, Division 1, (2) information in parts 2 and 3 on this data report is contained on each sheet, (3) each sheet is numbered and the number of sheets is reported at the top of the first sheet.

This form (N-2) may be obtained from the Order Dept., ASME, 22 Law Drive, Sec 2308, Fairfield, NJ 07007-1308

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 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 JUL 92 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or components 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] Commission NY 3070

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LEN (FT & IN)</u>
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.0
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)
Central Rod Drive Seal housing	Combustion Egg	0040	N/A	SERIAL NO. 0966-104	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

Date Jan. 10 2000

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

As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Page 1 of 1

1. Manufactured and certified by COMBUSTION ENGINEERING, INC., NPB, 1000 PROSPECT HILL RD., WINDSOR, CT 06095-0500
2. Manufactured for Consumers Power Co., Palisades Plant, Michigan
3. Location of installation Consumers Power Co., Palisades Plant, Michigan
4. Type CND-E-667 See Remarks See Remarks None 1992
5. ASME Code, Section III: 1994 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. (in.) _____ Length overall (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.	CERTIFICATE HOLDERS' IDENTIFICATION MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(11) 2966-85 Assv 020	2030	(126)	
(12) 2966-86 Assv 025	2031	(127)	
(13) 2966-87 Assv 027	2032	(128)	
(14) 2966-88 Assv 029	2033	(129)	
(15) 2966-89 Assv 030	2034	(130)	
(16) 2966-96 Assv 032	2035	(131)	
(17) 2966-97 Assv 036	2036	(132)	
(18) 2966-98 Assv 040	2037	(133)	
(19) 2966-99 Assv 041	2038	(134)	
(10) 2966-100 Assv 043	2039	(135)	
* (11) 2966-106 Assv 043	2040	(136)	
(12) 2966-105 Assv 044	2041	(137)	
(13) 2966-106 Assv 045	2042	(138)	
(14) 2966-107 Assv 046	2043	(139)	
(15)		(140)	
(16)		(141)	
(17)		(142)	
(18)		(143)	
(19)		(144)	
(20)		(145)	
(21)		(146)	
(22)		(147)	
(23)		(148)	
(24)		(149)	
(25)		(150)	

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 psi Temp. 800 °F

* Supplemental information in the form of test reports, drawings, or drawings may be used provided (1) use is in accordance with (2) information in parts 1 and 2 on this data report is reflected on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of the first sheet.

325-1

This form (325-1) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

CERTIFICATE OF DESIGN

Design Specification certified by _____
 P. E. State _____
 Reg. No. _____

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 item(s) conforms to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization No. _____
 N-2041

Issued _____
 February 20, 1993

Name _____
 Combustion Engineering

Signed _____
 G.P. [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 of Nevada at _____, and employed by _____, have inspected these items described in this data report on _____, and state that to the best of my knowledge and belief, the Certificate holder has indicated these items in accordance with the ASME Code, Section III. Each item noted has been authorized for stamping on the data 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 93 Signed _____
 [Signature]

COMMISSIONER

MATERIAL	NOM. THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (PT 6 IN)	LEN. (PT 6 IN)
*SA-182-F347 Lower Flange	.406"	.391"	2.06"	4.0
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 Date 01-07-2000
Name
27780 Blue Star Hwy. Covert, MI
Address
2. Plant Palisades Nuclear Plant Sheet 1 of 1
Name
27780 Blue Star Hwy. Covert, MI
Address Unit 1
W.O. # 24913415
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name
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 Egg	2003	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fenty, 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 EMIC 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 10 2000

FORM N-2-N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR CENTRAL
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 Consumers Power Co., Palisades Plant, Michigan
CND-2-4667
 2. Manufactured for Consumers Power Co., Palisades Plant, Michigan
1986

3. Location of installation Consumers Power Co., Palisades Plant, Michigan
 4. Type SA-182-T347 Name Tensile
 5. ASME Code, Section III: 1986
 6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Section N/A Date 1986
 7. Remarks: SA-182-T347 Tensile 75,000
SA-182-T304 Tensile 75,000
SA-213-T347 Tensile 75,000

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

See Back

Part or Appearance Serial Number	ASSEMBLY NO.	MFG/DATA EXCERPT	Part or Appearance Serial Number	NATIONAL BOARD NUMBER in Numerical Order
(11) 2966-77 Assy 17	2019	Mfg. S/N	(126)	
(12) 2966-78 Assy 18	2020		(127)	
(13) 2966-79 Assy 19	2021		(128)	
(14) 2966-82 Assy 23	2022		(129)	
(15) 2966-84 Assy 26	2023		(131)	
(16)			(132)	
(17)			(133)	
(18)			(134)	
(19)			(135)	
(110)			(136)	
(111)			(137)	
(112)			(138)	
(113)			(139)	
(114)			(140)	
(115)			(141)	
(116)			(142)	
(117)			(143)	
(118)			(144)	
(119)			(145)	
(120)			(146)	
(121)			(147)	
(122)			(148)	
(123)			(149)	
(124)			(150)	
(125)				

10. Design pressure 2,500 psia Temp. 500 °F Hydro. test pressure 3,125 psia

* Supplemental information in the form of test, material, or drawings may be used provided (1) data is (P), (T), (D) information in reports 1 and 2 on the data report is reflected on each sheet, (2) each sheet is numbered and the number of sheets is reflected at the top of the sheet.
 This form (NCP-2004) may be obtained from the Order Dept., ASME, 22 Law Center, Boston, MA 02100-1500 (617) 852-1100

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

Title 255192 Name Combustion Engineering Signed G.P.T. [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 appendances 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] Commission NH202 NBCSE

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
* 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 01-07-2000

Sheet 1 of 1

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

Unit 1

W.O. # 24913418
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 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 FUGG	02011	N/A	SERIAL NO. 0966-95	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 GLAWS.

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

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

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

Date Jan 10 2000

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., 1033 COMBUSTION ENGINEERING NUCLEAR
POWER, NEWINGTON OPERATIONS, NEWINGTON, NH 03801

2. Manufactured for COMBUSTION ENGINEERING, INC., NPS, 1000 PROSPECT HILL RD., WINDSOR, CT
06095-0500

3. Location of installation Comanche 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 Code, Sec. III, Div. 2 subsec. N/A None N/A N/A

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

SA-182-F304 Tensile 75,000

SA-213-T347 Tensile 75,000

8. Nom. thickness (in.) 2 Min. design thickness (in.) 2 Dia. ID (in.) 2 Length covered (in.) 1

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

See Back

Part or Appurtenance Serial Number	Material MFG. S/N	Part or Appurtenance Serial Number	Nominal Serial Number in Numerical Order
(11) 2966-95 ASSY 39	2011	(126)	
(12)		(127)	
(13)		(128)	
(14)		(129)	
(15)		(130)	
(16)		(131)	
(17)		(132)	
(18)		(133)	
(19)		(134)	
(20)		(135)	
(21)		(136)	
(22)		(137)	
(23)		(138)	
(24)		(139)	
(25)		(140)	
(26)		(141)	
(27)		(142)	
(28)		(143)	
(29)		(144)	
(30)		(145)	
(31)		(146)	
(32)		(147)	
(33)		(148)	
(34)		(149)	
(35)		(150)	

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

*Essential information in the form of text, sketches, or drawings may be used provided (1) size is 8" x 11" (2) information on each 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 end of the form.
This form (N-200) may be obtained from the Order Dept., ASME, 12 Law Drive, Sec 2308, Fairfield, NJ 07007-2300

CERTIFICATE OF DESIGN

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

Design report* certified by Responsibility of Others P.E. state _____ Reg. no. _____
(When applicable)

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Parts 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 Signed General R. D. Dapp
(NPT Certificate Holder) (Authorized Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of N.H. and employed by H.S.B.I. & I. Co. of Hartford, 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] Commissions NH 319
(Authorized Inspector) (NH 185 and other jurisdictions state to space and no 1)

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
* 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 01-07-2000

Sheet 1 of 1

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

Unit 1

W.O. # 024913413
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	0005	N/A	SERIAL No. 0966-76	1990	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Jantzy, 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.

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

Date Jan. 10 2000

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., 1000 Prospect Hill Rd., Windsor, CT 06095-0500

2. Manufactured for Consumers Power Co., Palisades Plant, Michigan

3. Location of installation CND-E-4667

4. Type 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.) 1 Min. design thickness (in.) 1 Dia. (in. & in.) 1 Length covered (ft. & in.) 1

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

Back

Part or Appurtenance Serial Number	MANUFACTURER MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
ASSEMBLY NO.			
(11) 2966-75 ASSV 281	2004	(126)	
(12) 2966-76 ASSV 311	2005	(127)	
(13) 2966-97 ASSV 331	2008	(128)	
(14) 2966-93 ASSV 341	2009	(129)	
(15) 2966-94 ASSV 351	2010	(130)	
(16) 2966-90 ASSV 371	2006	(131)	
(17) 2966-91 ASSV 381	2007	(132)	
(18)		(133)	
(19)		(134)	
(20)		(135)	
(21)		(136)	
(22)		(137)	
(23)		(138)	
(24)		(139)	
(25)		(140)	
(26)		(141)	
(27)		(142)	
(28)		(143)	
(29)		(144)	
(30)		(145)	
(31)		(146)	
(32)		(147)	
(33)		(148)	
(34)		(149)	
(35)		(150)	

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

* Supplemental information in the form of text, sketches, or drawings may be used provided they are in accordance with the provisions of the ASME Code, Section III, Division 1, Part UG-117. Information in items 2 and 3 on this data report is intended to help users, but each user is responsible for the accuracy of the data reported in the use of this form.
 This form is available from the Great Books, ASME, 22 Law Drive, Box 1300, Fairfield, NJ 07007-1300

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 fitness Part 3
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. 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 of province of _____ and employed by H.S.B.I. & I. Co.
of Hammond, IN have inspected these items described in the data report and 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 3-11-92 Signed [Signature] Commissioner AH 116

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
* 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 Date 01.07.2000
Name
27780 Blue Star Hwy. Covert, MI
Address
2. Plant Palisades Nuclear Plant Sheet 1 of 1
Name
27780 Blue Star Hwy. Covert, MI
Address Unit 1
W.O. # 24913382
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fenty, 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 Blake
Inspector's Signature

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

Date Jan. 7 2000

FORM N-27-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, 1000 PROSPECT HILL RD., WINDSOR, CT 06095-0500

2. Manufactured for Consumers Power Co., Palisades Plant, Michigan

3. Location of installation CND-E-4667

4. Year 1986 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 (in. & in.) Length over (in. & in.)

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

Back

Part or Appurtenance Serial Number	MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
ASSEMBLY NO.			
(11) 2966-75 Assv 28	2004	(125)	
(12) 2966-76 Assv 311	2005	(127)	
(13) 2966-97 Assv 331	2008	(128)	
(14) 2966-93 Assv 341	2009	(129)	
(15) 2966-94 Assv 351	2010	(130)	
(16) 2966-90 Assv 371	2006	(131)	
(17) 2966-91 Assv 38	2007	(132)	
(18)		(133)	
(19)		(134)	
(20)		(135)	
(21)		(136)	
(22)		(137)	
(23)		(138)	
(24)		(139)	
(25)		(140)	
(26)		(141)	
(27)		(142)	
(28)		(143)	
(29)		(144)	
(30)		(145)	
(31)		(146)	
(32)		(147)	
(33)		(148)	
(34)		(149)	
(35)		(150)	

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

* Substantial alterations in the form of face, diameter, or drawings may be used provided (1) use of 3" x 1 1/2" information in items 1 and 2 on the data report is retained on each stamp, (2) each stamp is numbered and the number of stamps is recorded on the top of the form.
 This form is 6894-01 and is obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07001-2300 (4095)

CERTIFICATE OF DESIGN
 Design responsibilities certified by RESPONSIBILITY OF OTHERS P. Title _____ Reg. No. _____
 Design report certified by RESPONSIBILITY OF OTHERS P. Title _____ Reg. No. _____

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made on this report are correct and that we have inspected PARTS
 equipment in the field at construction of the ASME Code, Section III.

NYC Certificate of Authorization No. N-2061 (Issue) FEBRUARY 20, 1993

Date 3/9/92 Name COBUSTION ENGINEERING Signed Alfredo P. Lopez

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of New York of COBUSTION ENGINEERING and employed by COBUSTION ENGINEERING have inspected these items described in the title report and 2-29 and state that on the basis of my knowledge and study, the Certificate number has indicated these parts or assemblies in accordance with the ASME Code, Section III. Each unit listed has been subjected for attention on the date shown above.
 By signing this certificate, however, the inspector may not vouch for the accuracy, completeness or sound construction of the equipment described in this data report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any failures which do not result directly or in part of any time arising from or resulting from the work shown on this certificate.
 Date 3/9/92 Signed [Signature] Commission No. 1116

MATERIAL	NOM. THICKNESS (IN)	NOM. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVER (FT & IN)
* SA-182-F367 Lower Flange	.406"	.391"	2.06"	4.25"
SA-182-F304 Access Tube Flange	.125	.12	2.06"	1/4"
SA-213-T367 Access Tube	.125	.12	1.260"	39.500"
SA-182-F367 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

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. # 24913375
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 Eggs	1931	N/A	SERIAL No. 29660-63	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

Date Jan. 7 2000

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
(Name and address of Certificate Holder)
 55 Old Dover Road Newington, NH 03801

2. Manufactured for Combustion Engineering, Inc., N.P.B., 1000 Prospect Hill Road,
(Name and address of purchaser)
 Windsor, CT 06095-0500

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

4. Type CND-E-4667, See Remarks None 1990
(Drawing no.) (ASME Sect. III) (ASME Sect. III) (ASME Sect. III) (Year built)

5. ASME Code, Section III: 1986 1988 1 None
(Edition) (Edition) (Edition) (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-E304 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.) *

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

See Back

Part or Appurtenance Serial Number Assembly No.	MANUFACTURER 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)	

CERTIFICATE OF DESIGN

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

Design report certified by Responsibility of Others P.E. state _____ Reg. no. _____
(person responsible)

CERTIFICATE OF SHOP COMPLIANCE

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

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

Date 9-4-90 Name Combustion Engineering Signed Merrill R. Dopp
NPT Commission Member

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 Alfred J. Smith Commission N.H. 350
Boiler Inspector Plate for use on construction data or spec and etc.

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
* 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-r347 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 Date 01.07.2000
Name
27780 Blue Star Hwy. Covert, MI
Address
2. Plant Palisades Nuclear Plant Sheet 1 of 1
Name
27780 Blue Star Hwy. Covert, MI
Address Unit 1
W.O. # 24913465
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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 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 Egg	2007	N/A	SERIAL No. 0966-91	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 EMIC 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, 2000

**FORM N-27-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., NPS COMBUSTION ENGINEERING, Nuclear
2085, Newington Ave., 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 See Remarks None 1992

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

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

7. Remarks: SA-182-T3347 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T3347 Tensile 75,000

8. Nom. thickness (in.) Min. design thickness (in.) Dia. (O.D. or I.D.) Length overall (in. & in.)

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

Back

Part or Appurtenance Serial Number	MFG. MANUFACTURER MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(11) 2966-75 Assv 28	2004	(125)	
(12) 2966-76 Assv 311	2005	(127)	
(13) 2966-92 Assv 331	2008	(128)	
(14) 2966-93 Assv 341	2009	(129)	
(15) 2966-94 Assv 351	2010	(130)	
(16) 2966-90 Assv 371	2006	(131)	
(17) 2966-91 Assv 381	2007	(132)	
(18)		(133)	
(19)		(134)	
(110)		(135)	
(111)		(136)	
(112)		(137)	
(113)		(138)	
(114)		(139)	
(115)		(140)	
(116)		(141)	
(117)		(142)	
(118)		(143)	
(119)		(144)	
(120)		(145)	
(121)		(146)	
(122)		(147)	
(123)		(148)	
(124)		(149)	
(125)		(150)	

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

* Submittal drawings in the form of lists, sketches, or drawings may be used provided (1) and (2) of 1. (2) information in parts 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 end of this form.
This form of N-27-N may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2308, Fairfield, NJ 07007-2308

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 they (insert 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 H. Harold 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 of Missouri of Missouri and employed by H.S.B.I. & I. Co. and state that to the best of my knowledge and belief, the Certificate holder has fabricated these parts or repairwork 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 report.
 Date 3-11-92 Signed [Signature] Commission 14916

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
* 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 Date 01-07-2000
Name
27780 Blue Star Hwy. Covert, MI
Address
2. Plant Palisades Nuclear Plant Sheet 1 of 1
Name
27780 Blue Star Hwy. Covert, MI
Address Unit 1
W.O. # 24913423
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address
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 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	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fawcett, 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 EMIC 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. 7 2000

FORM N-27-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., NPB, 1000 Prospect Hill Rd., Windsor, CT 06095-0500

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 Cap Assembly None 1992

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

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

7. Assemblies SA-182-F347 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T347 Tensile 75,000

8. Nom. thickness (in.) 0 Min. design thickness (in.) 0 Dia. (in.) 0 Length over (in.) 0

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

Back

*

Part or Appurtenance Serial Number	MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
ASSEMBLY NO.			
(11) 2966-75 Assv 28	2004	(126)	
(12) 2966-76 Assv 311	2005	(127)	
(13) 2966-97 Assv 331	2008	(128)	
(14) 2966-93 Assv 341	2009	(129)	
(15) 2966-94 Assv 351	2010	(130)	
(16) 2966-90 Assv 371	2006	(131)	
(17) 2966-91 Assv 381	2007	(132)	
(18)		(133)	
(19)		(134)	
(20)		(135)	
(21)		(136)	
(22)		(137)	
(23)		(138)	
(24)		(139)	
(25)		(140)	
(26)		(141)	
(27)		(142)	
(28)		(143)	
(29)		(144)	
(30)		(145)	
(31)		(146)	
(32)		(147)	
(33)		(148)	
(34)		(149)	
(35)		(150)	

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

* Substantial alterations in the form of size, location, or drawings may be used provided (1) they do not affect the design as shown on the data report or (2) they do not affect the number of items as recorded on the tag of the item.
 This form (N-27-N) may be obtained from the Green Book, ASME, 22 Law Drive, Box 1200, Fairfield, NJ 07007-1200

CERTIFICATE OF DESIGN

Design responsibilities assigned by Responsibility of Others P.E. State Reg. No.
 Design responsibilities assigned 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 they (insert) PTCCB
 conform to the rules of construction of the ASME Code, Section III.
 NPT Certificate of Authorization No. N-2041 Expires February 30, 1993
 Date 3/9/92 Name Combustion Engineering Signed Richard C. Long

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Minnesota of and employed by H.S.E.I. & I. CO. and title that is the have inspected these items described in the data report and and this is that the best of my knowledge and belief, the Certificate holder has fabricated these parts or components in accordance with the ASME Code, Section III. Each part listed has been examined for compliance with the data report on the data report sheet.
 By signing this Certificate, neither the inspector nor the employer makes any warranty, expressed or implied, concerning the statements contained in this data report. Furthermore, neither the inspector nor the employer shall be liable in any manner for any damages that may be properly claimed as a result of any loss arising from or connected with the inspection.
 Date 3/11/92 Signed Comments

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"	8.59"

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 12/14/99
Sheet 1 of 1

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

Unit 1
W.O. # 24913417
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fawcett, Lead Technical 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 EMIC 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.

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

Date 12-14 19 99

**FORM N-21M 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., 1000 PROSPECT HILL RD., WINDSOR, CT 06095

2. Manufactured for COMBUSTION ENGINEERING, INC., 1000 PROSPECT HILL RD., WINDSOR, CT 06095-0500

3. Location of installation CONSUMERS POWER CO., PALISADES PLANT, MICHIGAN

4. Part CND-E-4667 Cap Assembly None 1992

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

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

7. Assembly 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. (in.) Length (in.)

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

Back

Part or Appurtenance Serial Number	MFG. MFG. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(11) 2966-75 Assv 28	2004	(128)	
(12) 2966-76 Assv 31	2005	(127)	
(13) 2966-92 Assv 33	2008	(126)	
(14) 2966-93 Assv 34	2009	(125)	
(15) 2966-94 Assv 35	2010	(124)	
(16) 2966-90 Assv 37	2006	(123)	
(17) 2966-91 Assv 38	2007	(122)	
(18)		(121)	
(19)		(120)	
(20)		(119)	
(21)		(118)	
(22)		(117)	
(23)		(116)	
(24)		(115)	
(25)		(114)	
(26)		(113)	
(27)		(112)	
(28)		(111)	
(29)		(110)	
(30)		(109)	
(31)		(108)	
(32)		(107)	
(33)		(106)	
(34)		(105)	
(35)		(104)	
(36)		(103)	
(37)		(102)	
(38)		(101)	
(39)		(100)	
(40)		(99)	
(41)		(98)	
(42)		(97)	
(43)		(96)	
(44)		(95)	
(45)		(94)	
(46)		(93)	
(47)		(92)	
(48)		(91)	
(49)		(90)	
(50)		(89)	

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

* Submittal requirements in the form of test, chemical, or drawings data to used stamped (1) and (2) or (3) 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 on the top of the first sheet.
This form (N-21M) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2900, Fairfield, CT 06424-0290

CERTIFICATE OF DESIGN

Design identification 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 (insert) 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 Hewitt 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 of Maryland of Howard and employed by H.S.B.I. & I. Co.

of Howard have inspected these items described in this date 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 date report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 3-11-92 Signed [Signature] Commission 14910

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERA (FT & IN)</u>
* 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. # 24913376
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.	1932	N/A	SERIAL No. 2966-64	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 8 1/2 in. x 11 in., (2) information in Items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fouty, 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.

R Blake
Inspector's Signature

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

Date Jan 06 2000

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 Name and address of Certificate Holder
Newington, NH 03801

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, See Remarks None 1990
(Drawing no.) (ASME Code, Sec. III) (ASME Code) (Year built)

5. ASME Code, Section III: 1986 1988 1 None
(Edition) (Edition) (Code) (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-P347 Tensile 75,000
SA-182-E304 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.) *

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

See Back

Part or Appurtenance Serial Number Assembly No.	XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX 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)	

CERTIFICATE OF DESIGN

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

Design report* certified by Responsibility of Others P.E. state _____ Reg. no. _____
(written explanation)

CERTIFICATE OF SHOP COMPLIANCE

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

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

Date 9-4-90 Name Combustion Engineering Signed Herold R. Dopp
NPT Certificate Holder Authorized Representative

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of N.H. and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on 9/3/90 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 [Signature] Commission N.H. 350
Authorized Inspector Part 1 of this certificate shall be filed with the

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERAL (FT & IN)</u>
* 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 01.10.2000

Sheet 1 of 1

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

Unit 1

W.O. # 24813096
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 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 (MR-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 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. J. J. J. J. Lead Technical Analyst Date 1/14 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.

K. Blake
Inspector's Signature

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

Date Jan. 17 2000

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. # 24813095
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 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)
2" x 2 1/2 Sch. 80 NIPPLE	Consolidated Power Supply	N/A	N/A	PO# 6117905	1994	REPLACED	No
2" FITE CAPS	Consolidated Power Supply	N/A	N/A	PO# 6117905	1994	REPLACED	No

7. Description of Work REPAIRING CONTAINMENT PENETRATION (M2-38)

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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 1/14 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 EMIC 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

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 November 28, 1999
Sheet 1 of 1

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

Unit 1
W.O. # 24911020
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 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	Required, 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 ~~AW~~ 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 EMIC 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. 13 19 2000

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 November 28, 1999
Sheet 1 of 1

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

Unit 1
W.O. # 24810405
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 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# G0229637	98	Replaced	No
Seat Ring	AL Service & Repair	n/a	n/a	PO# G02265832	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 (28)
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 EMIC 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. 13 to 2000

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. # 24812670
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 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 Egg	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 1/18, 192000
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 EMIC 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. 18 19 2000

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 December 2, 1999

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

Sheet 1 of 1

Unit 1

W.O. # 249110Z1
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 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	Required, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Disc Nut	Flowservco FCO Corp.	n/a	n/a	PO# G0298790	99	Replaced	No
Disc Washer	Flowservco FCO Corp.	n/a	n/a	PO# G0298790	99	Replaced	No
Disc	Flowservco FCO Corp.	n/a	n/a	PO# G0298790	99	Replaced	No
Disc Pin	Flowservco FCO Corp.	n/a	n/a	PO# G0298790	99	Replaced	No
Set Screw, Cap Screw & Bushing	Flowservco FCO 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 Morgan E. Shrad Senior Engineer Date 01-17-00 MS
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 EMIC 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 13 2000

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 November 28, 1999
Sheet 1 of 1

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

Unit 1
W.O. # 24913115
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 Service Water System

5. (a) Applicable Construction Code B31.1 19 55 Edition, na 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	Novamach. Prod. Inc.	na	na	PO# G0309687	99	Replaced	No
4"-SCH 40 Flange	Energy Steel	na	na	PO# G0309415	99	Replaced	No
5/8"-11UNC Nuts	Novamach. Prod. Inc.	na	na	PO# G0303628	99	Replaced	No
5/8"-11UNC Nuts	Acutech	na	na	PO# G0198450	99	Replaced	No
Valve	Cranz Nuclear, Inc	na	na	PO# G0309185	99	Replaced	No

7. Description of Work Replace valve and attaching hardware
M# 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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. Shrad, Senior Engineer Date 11-28, 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 EMIC 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. 18 2000

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 November 28, 1999

Sheet 1 of 1

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

Unit 1

W.O. # 24913172
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 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	01-18-00 Replaced	N
						Repaired	

7. Description of Work Ret 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 Greg E. Shrad Program Engineer 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 EMIC 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. 18 19 2000

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 January 18, 2000

Sheet 1 of 1

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

Unit 1

W.O. # 24811687
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 Ray E. Shue, Senior Engineer Date January 18 2000
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by EMIC 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

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. # 04913461
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 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 Egg	1980	N/A	SERIAL No. 0966-73	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

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, 65-019 Power Road, Newington, N.J. 03801

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

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

4. Type REV. 05 See Remarks None 1990

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

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

7. Remarks: SA-182-F147 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) 0 Min. design thickness (in.) 0 Dia. ID (in.) 0 Length overall (ft & in.) 0

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

Part or Appurtenance Serial Number	MANUFACTURER'S Mfg. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(1) 2966-72 Assy 1	1979	(20)	
(2) 2966-73 Assy 7	1980	(21)	
(3) 2966-74 Assy 15	1981	(22)	
(4)		(23)	
(5)		(24)	
(6)		(25)	
(7)		(26)	
(8)		(27)	
(9)		(28)	
(10)		(29)	
(11)		(30)	
(12)		(31)	
(13)		(32)	
(14)		(33)	
(15)		(34)	
(16)		(35)	
(17)		(36)	
(18)		(37)	
(19)		(38)	
(20)		(39)	
(21)		(40)	
(22)		(41)	
(23)		(42)	
(24)		(43)	
(25)		(44)	
(26)		(45)	
(27)		(46)	
(28)		(47)	
(29)		(48)	
(30)		(49)	
(31)		(50)	

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

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

This form N2B04C may be obtained from the Order Dept. ASME, 33 Lum Drive, Box 7300 Fairfield, NJ 07007-7300

S/N's 72-74

FORM N-2 (back)

Mr. 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 this report are correct and that the material Parts conform to the rules of construction of the ASME Code, Section II.

NPT Certificate of Authorization no. N-2041 Expires February 20, 1993
 Date 6/27/91 Name ABB CE Nuclear Power Signed [Signature]
 Combustion Engineering, Inc.

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 date report on 27 June 91 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 II. Each part listed has been authorized for stamping on the date shown above.
 By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this date report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with the inspection.

Date 27 June 91 Signed [Signature] Commission [Signature]

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 Support Ring	.3125"	.301"	9.000"	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. # 24913377
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 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	1934	N/A	SERIAL No. 2966-66	1990	REPAIRED	Yes

7. Description of Work Flapped and polished a limited AREA on the inside diameter of the Tool Access tube to remove 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fouty, 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.

LB Blake

Inspector's Signature

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

Date Jan. 21 2000

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, 55 Old Dover Road, Newington, NH 03801 (Name and address of Certificate Holder) Newington Operations

2. Manufactured for Combustion Engineering, Inc., N.P.R., 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 See Remarks None 1990 (Drawing No. (ASME Code No.)) (ASME Code No.) (Year Built)

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

6. Fabricated in accordance with Code Spec. (Div. 3 only) N/A N/A Date N/A (ASME Code No.) (ASME Code No.) (Date)

7. Remarks: SA-182-F347 Tensile 75,000
SA-182-F304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back

8. Non. thickness (in.) 0 Min. design thickness (in.) 0 Dia. ID (in. & in.) 0 Length overall (ft & in.) 0
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	Manufacturer's Mfg. S.N.	Part or Appurtenance Serial Number	National Board Number in Numerical Order
111 2966-66 Assy 2	1934	1281	
112 2966-67 Assy 4	1935	1271	
113 2966-68 Assy 5	1936	1281	
114 2966-69 Assy 1	1937	1287	
115 2966-70 Assy 1	1938	1301	
116 2966-71 Assy 1	1939	1311	
117		1321	
118		1341	
119		1351	
120		1361	
121		1371	
122		1381	
123		1391	
124		1401	
125		1411	
126		1421	
127		1431	
128		1441	
		1451	
		1461	
		1471	
		1481	
		1491	
		1501	

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

* Supplemental information in the form of text, sketches, or drawings may be used provided (1) size is 8" x 11" (2) interchange on items 2 and 3 on this data report is indicated on each sheet, (3) each sheet is numbered and the number of sheets is recorded in the top of the form.

This form (N-2) may be obtained from the Order Dept., ASME, 27 Law Drive, Box 7388, Fairfield, NJ 07007 2380

S/N's 66-71

FORM N-2 (back)

Mr. 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 listed Parts conform to the rules of construction of the ASME Code, Section II.

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

Date 7-13-90 Name Combustion Engineering Signed Stewart P. Dapp

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 those 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 components in accordance with the ASME Code, Section II. 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] Commission N.H. 350

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
• 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. # 24913400
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Jantz, 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 EMIC 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.

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

Date Jan. 21 2000

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,
55 Old Dover Road (Name and address of manufacturer) Newington, NH 03801 (City and state) Operations

2. Manufactured for Combustion Engineering, Inc., N.P.R., 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, See Remarks None 1990
(Drawing No.) (ASME Code Section III, Div. 1) (ASME Code Section III, Div. 1) (Year built)

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

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

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.) 0 Min. design thickness (in.) 0 Dia. ID (in. & in.) 0 Length overall (ft. & in.) 0

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

Part or Appurtenance Serial Number	ASME Code Section III, Div. 1, Part No. & S.N.	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(11) 2966-66 Assy 2	1934	(128)	
(12) 2966-67 Assy 4	1935	(129)	
(13) 2966-68 Assy 5	1936	(130)	
(14) 2966-69 Assy 1	1937	(131)	
(15) 2966-70 Assy 1	1938	(132)	
(16) 2966-71 Assy 1	1939	(133)	
(17)		(134)	
(18)		(135)	
(19)		(136)	
(20)		(137)	
(21)		(138)	
(22)		(139)	
(23)		(140)	
(24)		(141)	
(25)		(142)	
(26)		(143)	
(27)		(144)	
(28)		(145)	
(29)		(146)	
(30)		(147)	
(31)		(148)	
(32)		(149)	
(33)		(150)	

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 test, photos, or drawings may be used provided (1) see to 2' x 1' (2) information in some 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 the form.

Fig. Form 458848 may be obtained from the Order Dept., ASME, 37 Law Drive, Box 2308, Fairfield, NJ 07007 2300 458848

S/N's 66-71

FORM N-2 (back)

Mr. 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 Edward P. Dapp

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 the data report on 9/13/90 and state that in the best of my knowledge and belief, the Certificate Holder has fabricated these parts or components 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 Ed Smith Commission No. N.H. 350

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
• 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. # 24913378
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	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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]
Inspector's Signature

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

Date Jan 21 2000

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., ABB Combustion Engineering Nuclear Power, 55 Old Dover Road, Newington, NH 03801, Operations

2. Manufactured for Combustion Engineering, Inc., N.P.R., 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 Code, 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.) 0 Min. design thickness (in.) 0 Dia. ID (ft & in.) 0 Length overall (ft & in.) 0

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

Part or Appurtenance Serial Number	Manufacturer's Serial Number	Part or Appurtenance Serial Number	National Board Number in Numerical Order
Assembly No.	Mfg. S.N.		
(11) 2966-66 Assy 2	1934	(128)	
(12) 2966-67 Assy 4	1935	(127)	
(13) 2966-68 Assy 5	1936	(126)	
(14) 2966-69 Assy 1	1937	(125)	
(15) 2966-70 Assy 1	1938	(124)	
(16) 2966-71 Assy 1	1939	(123)	
(17)		(122)	
(18)		(121)	
(19)		(120)	
(10)		(119)	
(11)		(118)	
(12)		(117)	
(13)		(116)	
(14)		(115)	
(15)		(114)	
(16)		(113)	
(17)		(112)	
(18)		(111)	
(19)		(110)	
(20)		(109)	
(21)		(108)	
(22)		(107)	
(23)		(106)	
(24)		(105)	
(25)		(104)	
(26)		(103)	
(27)		(102)	
(28)		(101)	
(29)		(100)	

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

* Supplemental information in the form of test, photos, or drawings may be used provided (1) one to 2 1/2" x 1, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of the first sheet.

This form (N-2004) may be obtained from the Dept. of Energy, ASME, 22 Law Drive, Box 2900, Fairfield, NJ 07007 2004

S/N's 66-71

FORM N-2 (back)

Mr. 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 Parts conform to the rules of construction of the ASME Code, Section II.

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

Date 7-13-90 Name Combustion Engineering Signed Stanley P. Papp

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 those items described in this data report on 9/13/90 and found them to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or components in accordance with the ASME Code, Section II. 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 Stanley P. Papp Commission N.H. 350

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
• 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. # 24913459
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 Egg	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 [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 2000

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
55 Old Dover Road Newington, NH 03801 Newington Operations

2. Manufactured for Combustion Engineering, Inc. N.P.R. 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 NGDG

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

7. Remarks: SA-182-F347 Tensile 75,000
SA-182-P304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) 0 Min. design thickness (in.) 0 O.d. ID (in & in.) 0 Length overall (ft & in.) 0

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

Part or Appurtenance Serial Number	MANUFACTURER'S MARK Mfg. S.N.	Part or Appurtenance Serial Number	National Board Number in Numerical Order
111 2966-66 Assy 2	1934	1281	
121 2966-67 Assy 4	1935	1271	
131 2966-68 Assy 5	1936	1281	
141 2966-69 Assy 1	1937	1291	
151 2966-70 Assy 1	1938	1201	
161 2966-71 Assy 1	1939	1311	
171		1271	
181		1231	
191		1341	
1101		1291	
1111		1361	
1121		1371	
1131		1381	
1141		1291	
1151		1401	
1161		1411	
1171		1421	
1181		1441	
1191		1451	
1201		1461	
1211		1471	
1221		1481	
1231		1491	
1241		1501	
1251			

10. Design pressure 2,500 psi Temp. 600 °F Hydro. test pressure 3,125 or 100% 80 MIN.

* Substitution of information in the form of text, sketches, or drawings may be used provided (1) use is in 2 1/2 x 1 1/2 inch information in items 2 and 3 on this data report is included on each sheet, (2) each sheet is numbered and the number of sheets is recorded at the top of the form.
 The form (N-2004) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 3288, Fairfield, NJ 07007 2288 10-1964-1

FORM N-2 (back)

S/N's 66-71

Mr. Serial No. _____

CERTIFICATE OF DESIGN	
Design specifications certified by <u>Responsibility of Others</u>	P. E. state _____ Reg. no. _____
Design report certified by <u>Responsibility of Others</u>	P. E. state _____ Reg. no. _____
CERTIFICATE OF SHOP COMPLIANCE	
We certify that the statements made in the report are correct and that the (these) <u>Parts</u> conform to the rules of construction of the ASME Code, Section III.	
NPT Certificate of Authorization no. <u>N-2041</u>	Expires <u>February 20, 1993</u>
Date <u>7-13-90</u> Name <u>Combustion Engineering</u>	Signed <u>Edward P. Dapp</u>
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 <u>N.H.</u> and employed by <u>H.S.B.I. & I. Co.</u> of <u>Hartford, CT</u> have inspected these items described in the data report on <u>9/13/90</u> 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 <u>9/13/90</u> Signed <u>Ed Smith</u> Commission No. <u>N.H. 350</u>	

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
• 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

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

Sheet 1 of 1

Unit 1

W.O. # 24913421
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 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)
Central Rod Drive Seal housing	Combustion Egg	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 GLAWS.

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

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

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 [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 EMIC 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 2000

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,
55 Old Dover Road (Name and address of Certificate holder) Newington, NH 03801 Newington Operations

2. Manufactured for Combustion Engineering, Inc. N.P.R. 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, See Remarks None 1990
ASME Code Section III, Div. 1 (Code Case 2091) (Material Group) (ASME Code Section III, Div. 1)

5. ASME Code, Section III: 1986 1988 1 None
(ASME Code Section III, Div. 1) (ASME Code Section III, Div. 1) (Code Case 2091)

6. Fabricated in accordance with Code, Spec. (Div. 1 only) N/A N/A Date N/A
(ASME Code Section III, Div. 1) (ASME Code Section III, Div. 1)

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.) 0 Min. design thickness (in.) 0 Dia. ID (in & in.) 0 Length overall (ft & in.) 0

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

Part or Appearance Serial Number	ASME Code Section III, Div. 1, Part 1, Subpart 1, Table UC-100, Material Group 1, N/A	Part or Appearance Serial Number	National Board Number in Numerical Order
111 2966-66 Assy 2	1934	(128)	
(12) 2966-67 Assy 4	1935	(127)	
(13) 2966-68 Assy 5	1936	(126)	
(14) 2966-69 Assy 1	1937	(125)	
(15) 2966-70 Assy 1	1938	(124)	
(16) 2966-71 Assy 1	1939	(123)	
(17)		(122)	
(18)		(121)	
(19)		(120)	
(110)		(119)	
(111)		(118)	
(112)		(117)	
(113)		(116)	
(114)		(115)	
(115)		(114)	
(116)		(113)	
(117)		(112)	
(118)		(111)	
(119)		(110)	
(120)		(109)	
(121)		(108)	
(122)		(107)	
(123)		(106)	
(124)		(105)	
(125)		(104)	

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

* Supplemental information in the form of test, sketches, or drawings may be used provided (1) use is in accordance with the ASME Code, Section III, Division 1, (2) information in items 2 and 3 on this data report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of the form. The form 3.000-1 may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007 2300 01-00-1

S/N's 66-71

FORM N-2 (back)

Mr. Serial No. _____

CERTIFICATE OF DESIGN

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

Design report covered 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 they (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 Michael P. Papp

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 parts described in the 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 Ed Smith Commission N.H. 350

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
• 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

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

Sheet 1 of 1

Unit 1

W.O. # 24913379
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 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	NIA	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 [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 2000

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, NH 03801 Operations
55 Old Dover Road

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 Code, Spec. (Div. 3 only) - N/A N/A Date N/A

7. Remarks: SA-182-F347 Tensile 75,000
SA-182-P304 Tensile 75,000
SA-213-T347 Tensile 75,000

See Back

8. Nom. thickness (in.) 0 Min. design thickness (in.) 0 Dia. ID (in & in.) 0 Length covered (ft & in.) 0
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	ASME Code Serial Number Mfg. S.N.	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(11) 2966-66 Assy 2	1934	(128)	
(12) 2966-67 Assy 4	1935	(127)	
(13) 2966-68 Assy 5	1936	(126)	
(14) 2966-69 Assy 1	1937	(125)	
(15) 2966-70 Assy 1	1938	(124)	
(16) 2966-71 Assy 1	1939	(123)	
(17)		(122)	
(18)		(121)	
(19)		(120)	
(20)		(119)	
(21)		(118)	
(22)		(117)	
(23)		(116)	
(24)		(115)	
(25)		(114)	
(26)		(113)	
(27)		(112)	
(28)		(111)	
(29)		(110)	
(30)		(109)	
(31)		(108)	
(32)		(107)	
(33)		(106)	
(34)		(105)	
(35)		(104)	
(36)		(103)	
(37)		(102)	
(38)		(101)	
(39)		(100)	
(40)		(99)	
(41)		(98)	
(42)		(97)	
(43)		(96)	
(44)		(95)	
(45)		(94)	
(46)		(93)	
(47)		(92)	
(48)		(91)	
(49)		(90)	
(50)		(89)	

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

* Substantial information in the form of text, sketches, or drawings may be used provided (1) one in 2's, (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 in the top of the form. This form (ASME) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2900, Fairfield, NJ 07007 2360 40-100-1

FORM N-2 (back)

5/1's 66-71

Mr. Serial No. _____

CERTIFICATE OF DESIGN	
Design specifications certified by <u>Responsibility of Others</u>	P. E. state _____ Reg. no. _____
Design report certified by <u>Responsibility of Others</u>	P. E. state _____ Reg. no. _____
CERTIFICATE OF SHOP COMPLIANCE	
We certify that the statements made in the report are correct and that the (insert) <u>Parts</u> conform to the rules of construction of the ASME Code, Section III.	
NPT Certificate of Authorization no. <u>N-2041</u>	Expires <u>February 20, 1993</u>
Date <u>9-13-90</u> Name <u>Combustion Engineering</u>	Signed <u>Edward P. Dapp</u>
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 <u>N.H.</u> and employed by <u>H.S.B.I. & I. Co.</u> of <u>Hartford, CT</u> have inspected these items described in the data report on <u>9/13/90</u> and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or components 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 <u>9/13/90</u> Signed <u>Ed Smith</u> Commission No. <u>N.H. 350</u>	

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
• 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. # 04913380
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 19 84 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Farley, 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 EMIC 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.

KJ Blake
Inspector's Signature

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

Date Jan. 25 2000

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 Office, 1000 Prospect 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 None 1997

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

6. Fabricated in accordance with Const. Spec. (Div. 3 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. Min. thickness (in.) 2 Min. design thickness (in.) 2 Dia. ID (in.) 6 Length overall (in.) 8

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

See Back

Part or Appurtenance Serial Number	MANUFACTURER SERIAL NUMBER Mfg. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
* 111 2966-80 ASBY 21	2016	1269	
112 2966-81 ASBY 22	2017	1271	
113 2966-83 ASBY 24	2018	1281	
141		1291	
151		1301	
161		1311	
171		1321	
181		1331	
191		1341	
1101		1351	
1111		1361	
1121		1371	
1131		1381	
1141		1391	
1151		1401	
1161		1411	
1171		1421	
1181		1431	
1191		1441	
1201		1451	
1211		1461	
1221		1471	
1231		1481	
1241		1491	
1251		1501	

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

*Supplemental information in the form of test, chemical, or drawings may be used provided (1) that it is 1, (2) information in items 5 and 6 on this data report is retained in each sheet, (3) each sheet is numbered and the number of sheets is recorded on the top of the first sheet. This form (N-200-4) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 1308, Fairfield, NJ 07007 7300

FORM N-2 (back)

S/N'S ~~21-24~~ 81-83

Mfr. Serial No.

CERTIFICATE OF DESIGN	
Design specifications certified by <u>Responsibility of Others</u>	P.E. 61018 Reg. no.
Design reports certified by <u>Responsibility of Others</u>	P.E. 61018 Reg. no.
CERTIFICATE OF SHOP COMPLIANCE	
We certify that the statements made in this report are correct and that this (these) <u>PARTS</u>	
conform to the rules of construction of the ASME Code, Section III.	
NPT Certificate of Authorization no. <u>N-2041</u>	Expires <u>February 20, 1993</u>
Date <u>2/05/92</u> Name <u>Combustion Engineering</u>	Signed <u>G.R. Duff</u>
CERTIFICATE OF SHOP INSPECTION	
I, the undersigned, having a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of <u>H.S.R.I. & I. Co.</u>	
and employed by <u>H.S.R.I. & I. Co.</u>	
of <u>Hartford, CT</u> have inspected those items described in this data report on <u>2/5/92</u> and state that to the best of my knowledge and belief, the Certificate Holder has fabricated those 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 resulting from or connected with this inspection.	
Date <u>2/5/92</u> Signed <u>G.R. Duff</u>	Commission No. <u>1102 NRCSE</u>

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	.381	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. # 24913414
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 Engineering	2017	N/A	SERIAL No. 2966-81	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Jantzi 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. Blah Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan 21 2000

JAP2

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 created by COMBUSTION ENGINEERING, INC., 100 COMBUSTION ENGINEERING, Nuclear Power, Newington Open Center, 3000 Newington 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 Convel. Spec. IDV. 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. Min. thickness (in.) 2 Min. design thickness (in.) 2 Dia. ID (in.) 2 Length overall (in.) 2

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

See Back

Part or Appurtenance Serial Number	MANUFACTURER'S MARKING Mfg. S/N	Part or Appurtenance Serial Number	National Board Number in Numerical Order
111 2966-80 ARRY 21	2016	126	
112 2966-81 ARRY 22	2017	127	
113 2966-83 ARRY 24	2018	128	
114		129	
115		130	
116		131	
117		132	
118		133	
119		134	
120		135	
121		136	
122		137	
123		138	
124		139	
125		140	
126		141	
127		142	
128		143	
129		144	
130		145	
131		146	
132		147	
133		148	
134		149	
135		150	

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

*Supplemental information in the form of test, chemical, or drawings may be used provided (1) test is 1, (2) information on items 8 and 9 on this report is retained on test sheet, (3) each item of marking and the number of items is retained at the top of the form. This form (N-2000-01) may be obtained from the Steel Deck, ASME, 22 Law Center, Box 2300, Fairfield, NJ 07007 7300

FORM N-2 (back)

S/N'S ~~21-024~~ 81-83

Mr. 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 this report are correct and that this (these) Pages 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. Duff

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, having 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.R.I. & I. Co. of Hartford, CT have inspected those items described in this data report on 2/05/92 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated those 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 resulting from or connected with this inspection.

Date 2/05/92 Signed [Signature] Commission No. 1102 NRCSE

<u>MATERIAL</u>	<u>NOM. THICKNESS (IN)</u>	<u>MIN. DESIGN THICKNESS (IN)</u>	<u>DIA. I.D. (FT & IN)</u>	<u>LENGTH OVERALL (FT & IN)</u>
• 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 01-11-2000
Sheet 1 of 1

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

Unit 1
W.O. # 24911739
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

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)
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 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 1/14, 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 Jan. 27, 2000

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. # 24910439
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 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	NIA	NIA	Po # 2003-6914	1989	REPLACED	No
Nuts	NOVA MACHINES	NIA	NIA	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 Forty, 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.

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

Date Jan. 27 2000

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 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" SA193 Stud	COMBUSTION ENGINE	N/A	N/A	PO No. G272138	1998	REPLACED	NO
1" SA193 Nut	COMBUSTION ENGINE	N/A	N/A	PO No. G268511	1998	REPLACED	NO

7. Description of Work REPLACED Stud & Nut No. 1 on E-508 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Joubert, 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.

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

Date Jan. 27 2000

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. # 04812611
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 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 Egg	N/A	N/A	P.O. No. G0078217	1993	REPLACED	No
1-3/4" SA194 WASHER	Combustion Egg	N/A	N/A	P.O. No. G191526	1996	REPLACED	No

7. Description of Work REPLACED NUTS 1, 8 AND 13 AND WASHER NO. 8 ON STEAM GENERATOR E-508 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 1/26 2000
Owner or Owner's Designee, Title 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.

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

Date Jan 27 15 2000

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. # 24813165

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 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)
<u>1/8" SA 540 Stud</u>	<u>ABB Combustion Engg</u>	<u>N/A</u>	<u>N/A</u>	<u>Po No. 36368</u>	<u>1993</u>	<u>REPLACED</u>	<u>NO</u>

7. Description of Work REPLACED Stud No. 8 ON INBOARD SECONDARY MAJWAY 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Joubert, LEAD Technical Analyst Date 1/27 2006
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. 27 2006

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" SA 564 Studs	NOVA MACHINE	N/A	N/A	PO No. 685354	1993	REPLACED	No
2" SA 194 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Family, 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.

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

Date Jan. 27 2000

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. # 24812610
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 1977 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fenty, Lead Technical Analyst Date 1/27 2000
Owner or Owner's Designee, Title 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.

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

Date Jan. 27, 2000

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

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

Sheet 1 of _____

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 1986 Edition, N/A Addenda, N-416-1
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989 Code Case

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. G294761	1999	REPLACED	NO
3" Elbows	Tioga Pipe	N/A	N/A	PO No. G294761	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 J. J. Fauth, 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 EMIC 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. 27 2000

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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Joubert, 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 EMIC 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.

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

Date Jan. 27 2000

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 1-13-2000

Sheet 1 of 1

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

Unit 1

W.O. # 24913370

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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fortz, 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.

K Blake
Inspector's Signature

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

Date Feb. 23 2000

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 1-13-2000
Sheet 1 of 1

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

Unit 1
W.O. # 24913429
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Jantzy, 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.

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

Date Feb. 23 2000

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 1-13-2000
Sheet 1 of 1

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

Unit 1
W.O. # 24913430
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 JH Fordy, 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.

K Blake
Inspector's Signature

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

Date Feb. 23 2000

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 1-13-2000
Sheet 1 of 1

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

Unit 1
W.O. # 24913431
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 1965 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)
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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 EMIC 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

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 2-23-2000
Sheet 1 of 1

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

Unit 1
W.O. # 24913371
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 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 # 2466-32	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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

Date Feb. 23 2000

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 2/23/2000

Sheet 1 of 1

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

Unit 1

W.O. # 24913432
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 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 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 Jantz, 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 EMIC 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 Feb. 23, 2000

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. # 248/2240
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 (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 HYDRAULIC 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.

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

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
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. # 2482241
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 (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-284322-1	1998	REPLACED	NO

7. Description of Work REPLACED HYDRAULIC SNUBBER SNUB-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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

24812241

FORM NIS-2 (Back)

9. Remarks NCNE

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 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

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

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

Sheet 1 of 1

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 SAFEGUARDS (ESS)

ASME
5. (a) Applicable Construction Code SECTION III 1974 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 SNOBBER	PACIFIC SCIENTIFIC	18867	N/A	PO# 60-261163-1	1981	REPLACED	YES

7. Description of Work REPLACE MECHANICAL SNOBBER SNB-70 WITH ^{SNB 213ND} 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 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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 J. D. Williams 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.

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

Date Feb. 16 2000

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 1955 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)
<u>E-22A Channel Heads</u>	<u>AMERICAN STANDARD INC.</u>	<u>6-00194-08-2</u>	<u>N/A</u>	<u>Pa. 5935-mia E-22A</u>	<u>1968</u>	<u>Repaired</u>	<u>NO</u>

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

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

24711918

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 JH Joubert, Lead Technical Analyst Date 2/24 2000
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by 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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L. Blake Commissions MI-762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 28 2000

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. # 24910261
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 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)	BGE	N/A	N/A	P.O. 60294719	1980	Replaced	No
Primary Coolant Pump Cover	Flowserve Red Corp.	661-N-0761	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

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

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 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 2/24 2000
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by 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 March 3 2000