

March 21, 2002

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

**DOCKET 50-255 - LICENSE DPR-20 - PALISADES NUCLEAR PLANT  
ASME SECTION XI INSERVICE INSPECTION 90-DAY REPORTS**

The ASME Boiler and Pressure Vessel Code, Section XI, Article IWA-6000 requires that inservice inspection reports be submitted within 90 days following the completion of the most recent refueling outage. Nuclear Management Company, LLC (NMC) is providing the reports associated with the following programs for the Palisades Plant:

1. Inservice Testing Program of Palisades Technical Specification 5.5.7.
2. Containment Structural Integrity Surveillance Program of Palisades Technical Specification 5.5.5.

The most recent refueling outage was completed on May 10, 2001. The Palisades Plant was in a forced outage beginning on June 20, 2001, and remained shut down until January 21, 2002. NMC notified the Nuclear Regulatory Commission by letter dated August 13, 2001, that the subject reports would be delayed and committed to provide them no later than 60 days following the completion of the forced outage. The commitment also included providing the results of relevant inspections or examinations completed during the forced outage. The enclosed reports satisfy this commitment.

A047

SUMMARY OF COMMITMENTS

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

*Michael Carlson* 3/21/02

FOR

Paul A. Harden  
Director, Engineering

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

Enclosures

**ENCLOSURE 1**

**NUCLEAR MANAGEMENT COMPANY  
PALISADES NUCLEAR PLANT  
DOCKET 50-255**

**March 21, 2002**

**INSERVICE INSPECTION (ISI) OF CLASS 1, 2 AND 3 SYSTEMS**

**ISI Report 3-5**

263 pages follow

**PALISADES NUCLEAR PLANT  
ENGINEERING PROGRAMS DEPARTMENT**

**Review and Approval Summary**

**TITLE: ISI REPORT 3-5**

TH Fouty                      3/8/2002  
Corrosion Programs Supervisor / THFouty                      Date

Michael Carlson                      3/8/02  
Engineering Programs Manager/ MHC Carlson                      Date

# PALISADES NUCLEAR PLANT

## 2001 INSERVICE INSPECTION REPORT

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

1. Date: March 7, 2002
2. Plant Owner: 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: April 20, 2001
8. Code Inspector: Kenneth L Blake
9. Authorized Inspection Agency: Factory Mutual Insurance Company
10. Abstract: See ISI Report

## **2001 INSERVICE INSPECTION 3-5 PALISADES NUCLEAR PLANT**

### **Summary**

Inservice Inspection 3-5 was conducted during the period of March 22, 2001 through April 20, 2001 in accordance with Section 5.5.7 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 report are two separate sections. The first section details the examinations that were performed and provides the final inspection results. The second section provides a listing of the repairs and replacements that have been performed over the last operating cycle, refueling outage and the extended forced outage which concluded on January 21, 2002. The attached NIS-2 forms document these repairs and replacements.

### **Inspection Activities**

This was the second 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 components of the primary coolant system, engineered safeguards system, main feedwater system and support systems as identified in the attached NDE Results Summary Report, were also examined.

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 (NDT) Services Department examination personnel using site approved procedures. Examinations were performed by personnel qualified in the NDT process, used in accordance with the requirements of ASME Section XI, IWA-2300.



FORM NIS-1 (Back)

8. Examination Dates 3/21/01 to 4/20/01 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 3/8 <sup>2002</sup> Signed Consumers Energy By JHL Joubert  
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 Johnston, RI have inspected the components described in this Owner's Report during the period 11/20/99 to 03/08/02, 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. 8 <sup>2002</sup>

**SECTION 1**

**EXAMINATION DETAILS AND  
FINAL INSPECTION RESULTS**

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
<b>Aug</b>	<b>ESS</b>				
		ESS-24-SIS-SH1-207	Acceptable	UT PT	
		ESS-24-SIS-SH2-207	Acceptable	UT PT	
	<b>FWS</b>				
		FWS-18-FWL-2S1-242	Acceptable	UT PT	
		FWS-18-FWL-2S1-243	Acceptable	UT PT	
<b>B-A</b>	<b>RVH</b>				
		6-118A	Acceptable	UT MT	
<b>B-B</b>	<b>PR</b>				
		2-982C	Acceptable	UT	
		5-988	Acceptable	UT	
<b>B-D</b>	<b>PR</b>				
		1-986	Acceptable	UT	
		1-986-IRS	Acceptable	UT	
		8-986	Acceptable	UT	
		8-986-IRS	Acceptable	UT	
		8-986A	Acceptable	UT	
		8-986A-IRS	Acceptable	UT	
		8-986B	Acceptable	UT	
		8-986B-IRS	Acceptable	UT	
		8-986C	Acceptable	UT	
		8-986C-IRS	Acceptable	UT	
<b>B-F</b>	<b>PCS</b>				
		PCS-12-SCS-2H1-1	Acceptable	UT PT	
		PCS-12-SCS-2H1-2	Acceptable	UT PT	

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		PCS-12-SIS-2A1-14	Acceptable	UT PT	
		PCS-12-SIS-2A1-15	Acceptable	UT PT	
		PCS-4-PSS-1P1-20	Acceptable	UT PT	
		PCS-4-PSS-1P1-21	Acceptable	UT PT	
<b>B-G-2</b>					
	<b>ESS</b>				
		CK-3103-BT	Acceptable	VT-1	
		CK-3131-BT	Acceptable	VT-1	
		CK-3132-BT	Acceptable	VT-1	
	<b>P2A</b>				
		2A-2BT-B-1-16	Acceptable	VT-1	
		2A-2BT-W-1-16	Acceptable	VT-1	
	<b>P2B</b>				
		2B-2BT-B-1-16	Acceptable	VT-1	
		2B-2BT-W-1-16	Acceptable	VT-1	
	<b>PCS</b>				
		PCS-6-PRS-1A1-1BT	Acceptable	VT-1	
		PCS-6-PRS-1B1-1BT	Acceptable	VT-1	
		PCS-6-PRS-1C1-1BT	Acceptable	VT-1	
	<b>RVH</b>				
		RPVCH PENT NO 46 NUT	Acceptable	VT-1	
		RPVCH PENT NO 47 BOLT	Acceptable	VT-1	
		RPVCH PENT NO 47 NUT	Acceptable	VT-1	
		RPVCH PENT NO 48 BOLT	Acceptable	VT-1	
		RPVCH PENT NO 48 NUT	Acceptable	VT-1	
		RPVCH PENT NO 49 BOLT	Acceptable	VT-1	
		RPVCH PENT NO 49 NUT	Acceptable	VT-1	
		RPVCH PENT NO 50 BOLT	Acceptable	VT-1	
		RPVCH PENT NO 50 NUT	Acceptable	VT-1	
		RPVCH PENT NO 51 BOLT	Acceptable	VT-1	
		RPVCH PENT NO 51 NUT	Acceptable	VT-1	
		RPVCH PENT NO 52 BOLT	Acceptable	VT-1	
		RPVCH PENT NO 52 NUT	Acceptable	VT-1	

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		RPVCH PENT NO 53 BOLT	Acceptable	VT-1	
		RPVCH PENT NO 53 NUT	Acceptable	VT-1	
		RPVCH PENT NO.46 BOLT	Acceptable	VT-1	
<b>B-N-1</b>	<b>RPV</b>				
		RPV-VESSEL INTERIOR	Acceptable	VT-3	
<b>C-F-1</b>	<b>ESS</b>				
		ESS-12-SIS-2A1-11	Acceptable	UT PT	
<b>C-F-2</b>	<b>FWS</b>				
		FWS-18-FWL-1S1-258	Acceptable	UT PT	
		FWS-18-FWL-1S1-259	Acceptable	UT PT	
		FWS-18-FWL-1S1-260	Acceptable	UT PT	
		FWS-18-FWL-1S1-261	Acceptable	UT PT	
		FWS-18-FWL-2S1-262	Acceptable	UT PT	
		FWS-18-FWL-1S1-257	Acceptable	UT PT	
	<b>MSS</b>				
		MSS-36-MSL-2S1-213	Acceptable	UT PT	
		MSS-36-MSL-2S1-213LD	Acceptable	UT PT	
		MSS-36-MSL-2S1-213LUI	Acceptable	UT PT	
		MSS-36-MSL-2S1-213LUO	Acceptable	UT PT	
		MSS-36-MSL-1S1-211/6A	Acceptable	PT	
		MSS-36-MSL-1S1-211A/6J	Acceptable	PT	
		MSS-36-MSL-2S1-212	Acceptable	UT PT	
		MSS-36-MSL-2S1-212LDI	Acceptable	UT PT	

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		MSS-36-MSL-2S1-212LDO	Acceptable	UT PT	
		MSS-36-MSL-2S1-212LU	Acceptable	UT PT	
<b>D-B</b>					
	<b>CCS</b>				
		CCS-16-CPU-1PC-PS	Acceptable	VT-3	
		CCS-20-CPU-1PC-PS	Acceptable	VT-3	
		CCS-20-SCH-1P1-PS	Acceptable	VT-3	
	<b>FWS</b>				
		FWS-6-AWS-1S1-PR-DB	Acceptable	VT-3	
		FWS-6-AWS-1S1-PS	Acceptable	VT-3	
	<b>SWS</b>				
		SWS-24-CCS-RLH-PR2-DB	Acceptable	VT-3	
		SWS-6-CRS-3R2-PS3	Acceptable	VT-3	
		SWS-6-CRS-4S2-PS2	Acceptable	VT-3	
		SWS-6-CRS-4S2-PS3	Acceptable	VT-3	
		SWS-6-EPS-SLA-PR9-DB	Acceptable	VT-3	
		SWS-6-EPS-SLB-PS	Acceptable	VT-3	
<b>F-A</b>					
	<b>CCS</b>				
		CCS-16-CPU-1PC-PSS	Acceptable	VT-3	
		CCS-18-RHC-1P1-PR3	Acceptable	VT-3	
		CCS-20-CPU-1PB-PSS	Acceptable	VT-3	
		CCS-20-CPU-1PC-PSS	Acceptable	VT-3	
		CCS-20-SCH-1P1-PSS	Acceptable	VT-3	
	<b>CVC</b>				
		CVC-2-CHL-2A1-1PR	Acceptable	VT-3	
		CVC-2-PSS-1P1-44PRB	Acceptable	VT-3	
	<b>DMW</b>				
		DMW-6-CST-AWS-PSS1	Acceptable	VT-3	
	<b>ESS</b>				
		ESS-10-SDC-XIB-204PR	Acceptable	VT-3	
		ESS-12-SIS-2A1-4PRB	Acceptable	VT-3	
		ESS-14-CSS-1PA-204PR1	Acceptable	VT-3	
		ESS-14-SDC-LPC-203PR	Acceptable	VT-3	
		ESS-14-SDC-LPD-204PR1	Acceptable	VT-3	

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		ESS-18-SIS-SH1-216PR	Acceptable	VT-3	
		ESS-18-SIS-SH1-224PR	Acceptable	VT-3	
		ESS-18-SIS-SH1-228PRA	Acceptable	VT-3	
		ESS-18-SIS-SH2-214PR	Acceptable	VT-3	
		ESS-2-SIS-1B1-7PR	Acceptable	VT-3	
		ESS-24-SIS-SH2-211PR2	Acceptable	VT-3	
		ESS-3-SIS-3HP-201PR	Acceptable	VT-3	
		ESS-3-SIS-3HP-202PS	Acceptable	VT-3	
		ESS-3-SIS-HPA-237PR	Acceptable	VT-3	
		ESS-3-SIS-HPA-238PS	Acceptable	VT-3	
		ESS-3-SIS-HPB-207PR	Acceptable	VT-3	
		ESS-3-SIS-HPB-214PR	Acceptable	VT-3	
		ESS-4-SIS-2HP-201PS	Acceptable	VT-3	
		ESS-4-SIS-HPB-204PR	Acceptable	VT-3	
		ESS-4-SIS-HPB-208PR	Acceptable	VT-3	
		ESS-4-SIS-HPB-212PR	Acceptable	VT-3	
		ESS-4-SIS-HPB-213PS	Acceptable	VT-3	
		ESS-6-SIS-2HP-236PR4	Acceptable	VT-3	
	<b>FWS</b>				
		FWS-1.5-AWS-OLA-PR	Acceptable	VT-3	
		FWS-1.5-AWS-OLB-PR	Acceptable	VT-3	
		FWS-18-FWL-1S1-249PR	Acceptable	VT-3	
		FWS-2-AWS-OLC-PR4	Acceptable	VT-3	
		FWS-4-AWS-1S3-PR1	Acceptable	VT-3	
		FWS-6-AWS-1S1-PR	Acceptable	VT-3	
		FWS-6-AWS-1S1-PSS	Acceptable	VT-3	
	<b>P2B</b>				
		2B-SS	Acceptable	VT-3	
	<b>PCS</b>				
		PCS-12-SCS-2H1-10PRB	Acceptable	VT-3	
		PCS-4-PSS-1P1-10PRA	Acceptable	VT-3	
		PCS-4-PSS-1P1-1PR	Acceptable	VT-3	
	<b>RGA</b>				
		E-56A-S-02	Acceptable	VT-3	
		E-56A-S-03	Acceptable	VT-3	
	<b>SFP</b>				

CATEGORY	SYSTEM	REFERENCE ID	DISPOSITION	EXAM	COMMENTS
		SFP-14-FPF-RL1-PR1	Acceptable	VT-3	
		SFP-8-FPP-1PB-PR2	Acceptable	VT-3	
	<b>SWS</b>				
		SWS-16-CRS-RH1-PR	Acceptable	VT-3	
		SWS-24-CCS-RLH-PR2	Acceptable	VT-3	
		SWS-6-CRS-2S2-PR	Acceptable	VT-3	
		SWS-6-CRS-3R2-PSS2	Acceptable	VT-3	
		SWS-6-CRS-3R2-PSS3	Acceptable	VT-3	
		SWS-6-CRS-3S1-PSS2	Acceptable	VT-3	
		SWS-6-CRS-4S2-PSS2	Acceptable	VT-3	
		SWS-6-CRS-4S2-PSS3	Acceptable	VT-3	
		SWS-6-EPS-SLA-PR9	Acceptable	VT-3	
		SWS-6-EPS-SLA-PR9A	Acceptable	VT-3	
		SWS-6-EPS-SLB-PSS	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 restart from the 2001 - 2002 maintenance outage for which NIS-2 Forms are attached:

	<u>Work Order</u>	<u>Description of Work</u>
1.	24512564	Plugged tubes and replaced fasteners on heat exchanger, E-53B
2.	24811823	Rebuild service water pump P-7B
3.	24811824	Replaced engineered safeguards room cooler, VHX-27B
4.	24811841	Replaced engineered safeguards room cooler, VHX-27A
5.	24811846	Replaced manway fasteners on pressurizer, T-72
6.	24812399	Added brace on tank T-13A, per EA-98-0453
7.	24812400	Added brace on tank T-13B, per EA-98-0453
8.	24910965	Plugged tubes and replaced fasteners on heat exchanger, E-53A
9.	24912285	Replace fasteners on spent fuel cooling pump, P-51A, inlet pipe
10.	24913131	Replaced engineered safeguards manual valve, MV-ES3179
11.	24913211	Replace fasteners on manual valve, MV-SFP106
12.	24913883	Replaced disc insert for relief valve, RV-0718
13.	24010303	Replaced chemical volume control charging pump cylinder block, on pump, P-55B
14.	24010423	Removed the internals from service water check valve, CK-SW409
15.	24010424	Removed the internals from service water check valve, CK-SW408
16.	24010425	Removed the internals from service water check valve, CK-SW407
17.	24010492	Replaced the fasteners on steam generator, E-50A manway
18.	24010493	Replaced a stud on steam generator, E-50B manway
20.	24010534	Install flanges and blank in steam pipe, EB-13-4
21.	24010610	Replaced a stud on steam generator, E-50A manway
22.	24010955	Install new control rod drive seal housings onto reactor head, N-52
23.	24010956	Install new control rod drive seal housings onto reactor head, N-52
24.	24011090	Replaced service water manual valve, MV-SW281
25.	24011231	Replaced piping snubber, SNB-71
26.	24011232	Replaced piping snubber, SNB-64
27.	24011233	Replaced piping snubber, SNB-42
28.	24012008	Replaced service water manual valve, MV-SW280
29.	24012169	Replace fasteners on manual valve, MV-SFP132
30.	24012538	Replace one nut on heat exchanger, E-54A
31.	24012596	Seal weld bonnet to valve body
32.	24012632	Plug 14 tubes in steam generator, E-50A
33.	24012633	Plug 15 tubes in steam generator, E-50B
34.	24012637	Replace steam generator secondary hand hole studs and nuts
35.	24012960	Replace high pressure safety injection pump, P-66A, recirculation check valve
36.	24013187	Replace high pressure safety injection pump, P-66B, recirculation check valve
37.	24013347	Replace service water control valve, CV-0821

38. 24014040 Replaced studs and nuts on manual valve, MV-SFP131
39. 24014811 Replaced fasteners on containment air cooler, VHX-3
40. 24014887 Replace fasteners on manual valve, MV-SFP131
41. 24110011 Replaced fasteners on containment air cooler, VHX-2
42. 24110189 Replaced fasteners on containment air cooler, VHX-1
43. 24110469 Plug worn tubes and replace south endbell on spent fuel pool cooling heat exchanger
44. 24110950 Install new control rod drive seal housings onto reactor head, N-52
45. 24110974 Install new control rod drive seal housings onto reactor head, N-52
46. 24111057 Replaced a swing-bolt on containment equipment hatch, MZ-51
47. 24111225 Replace shutdown cooling relief valve, RV-3164
48. 24111229 Replaced piping snubber, SNB-79
49. 24111288 Install new control rod drive seal housings onto reactor head, N-52
50. 24111353 Replaced piping snubber, SNB-80
51. 24111944 Install containment air cooler tube plugs
52. 24111949 Install new control rod drive seal housings onto reactor head, N-52
53. 24111996 Replace heat exchanger end bell on E-55A
54. 24112500 Replaced service water manual valve, MV-SW266
55. 24112972 Replaced reactor vessel control rod drive upper housings onto reactor head, N-52
56. 24113483 Modify packing gland on engineered safeguards check valve, CK-ES3166
57. 24113484 Modify packing gland on engineered safeguards check valve, CK-ES3181
58. 24114093 Replace fastener on pipe hanger, HGR/HC4-R87.1
59. 24114160 Install new control rod drive seal housings onto reactor head, N-52
60. 24114430 Replace studs and nuts on refrigerating condensing unit, VC-10
61. 24114431 Replace studs and nuts on refrigerating condensing unit, VC-11

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date March 11, 2002  
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.# 24512564  
Address Repair/Replacement 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 Spent Fuel (SFP)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
7/8 Studs	NOVA Mech. Prod.	HT# 15906	n/a	PO# G0305530.2	1989	Installed	NO
3/4 Studs	Cipriani Ind. Prod.	HT# K3163	n/a	PO# 2003-6914-G	1989	Installed	NO
7/8 Nuts	NOVA Mech. Prod.	HT# 46886 # 721874	n/a	PO# G0330336.2	2000	Installed	NO
3/4 Nuts	NOVA Mech. Prod.	HT# 713284	n/a	PO# G0318751.2	1997	Installed	NO
7/8 Studs	NOVA Mech. Prod.	NOTE 1	n/a	PO# G0168043.1	1995	Installed	NO
7/8 Nuts	NOVA Mech. Prod.	HT# E54410	n/a	PO# G0323617.1	2000	Installed	NO

7. Description of Work Replace Heat Exchanger 53B Fasteners

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



1) Heat Trace Nos 30300, 15091, 24127, 15906

24512564

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Michael Ock Senior Engineer Date March 12, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 03/13/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date Mar. 13, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date March 11, 2002  
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.# 24811823  
Address Repair/Replacement 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 Service Water (SWS)
5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pump	Johnston Pump Co.	96JC14075	n/a	PO# 60199135	1997	Installed	No
1" Bolts	NOVA Mech. Prod.	HT# C16113 #610A228	n/a	PO# 60273286	1998	Installed	Yes
1" Nuts	NOVA Mech. Prod.	HT# 712914	n/a	PO# 60265144	1998	Installed	No
1" Stud	Cardinal Ind. Prod.	HT# 4816D	n/a	PO# 6005-5899Q	1984	Installed	No

7. Description of Work Replace Service Water Pump TB

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 8 on this report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at the top of this form.



24811823

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Michael Cole Senior Engineer Date March 12, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 03/13/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date Mar. 13, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date February 27, 2002  
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.# 24811824  
Address Repair/Replacement 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 Engineered Safeguards Room HVAC (VAS/ESV)
5. (a) Applicable Construction Code ASME Section III 1989 Edition, NO ADDENDA Addenda, N/A Code Case  
Division 1 Year
- (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year
- (c) Applicable Section XI Code Cases N-416-1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
VHX-27B Cooling Coil	Aerofin Corp	991072	1020	PO# 60299324	1999	Installed	Yes
VHX-27B Cooling Coil	Aerofin Corp	991073	1021	PO# 60299324	1999	Installed	Yes

7. Description of Work Replace Engineering Safeguards Room Cooling Coil VHX-27B
8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24811824

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Michael Oehm Date February 27, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 03/13/02, 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. Blahut  
Inspector's Signature

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

Date Mar. 13, 2002

**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS\***  
**As Required by the Provisions of the ASME Code, Section III, Division 1**

1. Manufactured and certified by AEROFIN CORPORATION, 4621 MURRAY PLACE, LYNCHBURG, VA 24502  
(name and address of R Certificate Holder)

2. Manufactured for CONSUMERS ENERGY, JACKSON, MI, 49201  
(name and address of Purchaser)

3. Location of installation CONSUMERS POWER CO., PALISADES PLANT, COVERT, MI, 49043  
(name and address)

4. Type: HORIZ. HEAT EXCHANGER 991072 N-CP-1070 1020 1999  
(Horiz. or vert.) (tank, jacketed, heat ex.) (Cert. Holder's serial no.) (CFR) (drawing no.) (Part. Ill. No.) (year built)

5. ASME Code, Section III, Division 1: 1999 NO ADDENDA 3 --  
(edition) (addenda date) (class) (Code Case No.)

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

6. Shell: SB-466,C-70600 38,000 .300" .041" 0'-3" 1'-7"  
SB-171,C-70600 40,000 .625" .406"    
(mat'l. spec. no.) (tensile strength) (nom. thickness(in.)) (min. design thickness(in.)) (dia. ID (R & in.)) (length(overall)(ft. & in.))

7. Seams: SINGLE -- -- 65 -- -- 1  
(long.) (HT<sup>1</sup>) (RT) (eff. %) (girth) (HT<sup>1</sup>) (RT) (no. of courses)

8. Heads: SB-171,C-70600 40,000 -- --  
(a) mat'l. spec. no. (tensile strength) (b) mat'l spec. no. (tensile strength)

	Location (top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	END	.375"	FLAT	--	--	--	--	3"	FLAT
(b)									

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

9. Jacket closure: --  
(Describe as ogee & weld, bar, etc. If bar, give dimensions, describe or sketch)

10. Design Pressure <sup>2</sup> 150 at max. temp. 200 Min. pressure-test temp. 85 Pneu., hydro., or comb. test pressure 225  
(psi) (° F) (° F) (psi)

*Items 11 and 12 to be completed for tube sections.*

11. Tubesheets: -- -- -- --  
(stationary, mat'l spec. no.) (dia. in. (subject to press.)) (thickness (in.)) (attachment (welded, bolted))  
-- -- -- --  
(floating, mat'l. spec. no.) (dia. (in.)) (thickness (in.)) (attachment)

12. Tubes: SB-75,C12200 .625" .049" 110 STRAIGHT  
(mat'l. spec. no.) (OD (in.)) (thickness (inches or gage)) (no.) (type (straight or U))

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

13. Shell: -- -- -- -- -- --  
(mat'l. spec. no.) (tensile strength) (nom. thickness(in.)) (min. design thickness(in.)) (dia. ID (R & in.)) (length(overall)(ft. & in.))

14. Seams: -- -- -- -- -- -- --  
(long (welded, obl., single)) (HT<sup>1</sup> (yes or no)) (RT) (eff. %) (girth) (HT<sup>1</sup>) (RT) (no. of courses)

15. Heads: -- -- -- -- -- --  
((a) mat'l. spec. no.) (tensile strength) ((b) mat'l spec. no.) (tensile strength) ((c) mat'l. spec. no.) (tensile strength)

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

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

16. Design Pressure <sup>2</sup> -- at max. temp. -- Min. pressure-test temp. -- Pneu., hydro., or comb. test pressure --  
(psi) (° F) (° F) (psi)

<sup>1</sup> If postweld heat treated. <sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

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

Certificate Holder's Serial Number 991072

17. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	Quantity	Dia. or Size	Type	How Attached	Matl	Thickness	Reinforcement Material	Location
INLET	1	3" NPS	***	WELDED	***	.300"	NR	END
OUTLET	1	3" NPS	***	WELDED	***	.300"	NR	END
VENT/DRAIN	1/1	1/2" NPS	H. COUPLING	WELDED	SA-234, GR. WPB	3000 LB.	NR	END
VENT/DRAIN	1/1	1/2" NPS	PIPE PLUG	THREADS	SA-105	3000 LB.	NR	END
CLEAN OUTS	30	1/2" NPS	HEX HD. PLUG	THREADS	SA-182	.375"	NR	END

18. Supports: Skirt NO (yes or no) Lugs - (quantity) Legs - (quantity) Others HDR. SUPPORT TUBE SUPPORT (Describe) Attached SIDES/BOLTED (where and how)

19. Remarks: AEROFIN SO# 998298-CW-003

MARK: WEST SAFEGUARD UNIT

\*\* "U" BENDS OF SAME MATERIAL AS TUBES. "H" BENDS OF SB-171, C-70600, .065" NOM. THICK. / (3) HEX HD. PLUGS OF SA-182, GR.304

\*\*\* LAP JOINT FLANGE, 150 LB., SA-105 WITH STUB END SA-234, GR. WPB

CERTIFICATION OF DESIGN

Design specification certified by JIM ALDERINK P.E. State MI. Reg. No. 6201026473

Design report certified by NR P.E. State - Reg. No. -

CERTIFICATE OF SHOP COMPLIANCE

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

N Certificate of Authorization No. N-2814 Expires MARCH 30, 2002

Date 11/13/99 Name AEROFIN CORPORATION (N Certificate Holder) Signed [Signature] (authorized representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VA and employed by \*ALLEDALE MUTUAL INSURANCE of NORWOOD, MA have inspected the component described in this Data Report on 11.4.99 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this component in accordance with the ASME Code, Section III, Division 1.

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

Date 11.4.99 Signed [Signature] (Authorized Inspector) Commissions NB 7822 NBSI ISA VA 714 (Nat'l Board incl. endorsement, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. \_\_\_\_\_ Expires \_\_\_\_\_

Date \_\_\_\_\_ Name \_\_\_\_\_ (N Certificate Holder) Signed \_\_\_\_\_ (authorized representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_ have compared the statements in this Data report with the described component and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me on \_\_\_\_\_ and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component in accordance with ASME Code, Section III, Division 1.

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

Date \_\_\_\_\_ Signed \_\_\_\_\_ (Authorized Inspector) Commissions \_\_\_\_\_ (Nat'l Board incl. endorsement, State, Province and No.)

**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS\***  
**As Required by the Provisions of the ASME Code, Section III, Division 1**

1. Manufactured and certified by AEROFIN CORPORATION, 4621 MERRAY PLACE, LYNCHBURG, VA 24002  
(Name and address of Manufacturer)

2. Manufactured for CONSUMERS ENERGY, JACKSON, MI 48201  
(Name and address of Purchaser)

3. Location of installation CONSUMERS POWER CO., PALISADES PLANT, COVERT, MI 48043  
(Name and address)

4. Type: HORIZ HEAT EXCHANGER 981073 N-CR-1070 1021 1989  
(Type, or var.) (Part, product, heat ex.) (Contract's serial no.) (CRN) (Drawing no.) (Part. list no.) (Year built)

5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3  
(Edition) (Reference date) (Code Case no.)

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

6. Shell: SB-466, C-70800 36,000 300" .041" 0'-3" 1'-7"  
(Mater. spec. no.) (Nominal strength) (Nom. thickness) (El. R) (Min. design thickness) (I.D. or O.D. & h.) (Length/overall & h.)

7. Seams: SINGLE 65  
(Type) (Eff. %)

8. Heads: SB-171, C-70800 40,000 40,000 65 (RT) (RT) (no. of courses)  
(Mater. spec. no.) (Nominal strength) (Eff. %)

Location (top/bottom, ends)	Thickness	Crown		Knuckle		Elliptical		Conical		Hemispherical		Flat	
		Radius	Radius	Radius	Radius	Ratio	Apex Angle	Radius	Radius	Diameter	Side to Pressure (convex or concave)		
(a) END	.375"	FLAT	-	-	-	-	-	-	-	-	-	3"	FLAT
(b)													

If removable, bolts used \_\_\_\_\_ (Mater. spec. no., size, quantity) Other fastening \_\_\_\_\_ (describe or attach sketch)

9. Jacket closure: \_\_\_\_\_ (Describe as open & vent, bar, etc. if bar, give dimensions, describe or sketch)

10. Design Pressure <sup>2</sup> 150 (psi) at max. temp. 200 (°F) Min. pressure-test temp. 65 (°F) Press. hydro. or exam. test pressure 225 (psi)  
 Items 11 and 12 to be completed for tube sections.

11. Tubesheets: \_\_\_\_\_ (stationary; mater. spec. no.) [dia. in. (subject to press.)] [thickness (in.)] [attachment (welded, bolted)]  
 \_\_\_\_\_ (floating; mater. spec. no.) [dia. (in.)] [thickness (in.)]

12. Tubes: SB-75, C12200 .625" .049" 110 STRAIGHT  
(Mater. spec. no.) (OD (in.)) (Thickness (inches or gaps)) (no.) (Type (straight or U))

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

13. Shell: \_\_\_\_\_ (Mater. spec. no.) [nominal strength] [min. thickness (in.)] [dia. to R & h. (in.)] [length/overall (ft. & in.)]

14. Seams: \_\_\_\_\_ [long (welded, dt., angle)] [HT<sup>1</sup> (yes or no)] (RT) (Eff. %) (grn) (HT<sup>1</sup>) (RT) (no. of courses)  
[(a) mater. spec. no.] [nominal strength] [(b) mater. spec. no.] [nominal strength] [(c) mater. spec. no.] [nominal strength]

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

If removable, bolts used \_\_\_\_\_ (Mater. spec. no., size, quantity) Other fastening \_\_\_\_\_ (describe or attach sketch)

16. Design Pressure <sup>2</sup> \_\_\_\_\_ (psi) at max. temp. \_\_\_\_\_ (°F) Min. pressure-test temp. \_\_\_\_\_ (°F) Press. hydro. or exam. test pressure \_\_\_\_\_ (psi)

<sup>1</sup> If postheat heat treated. <sup>2</sup> List other internal or external pressure with coincident temperature when applicable.  
 \* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and number of sheets is recorded at top of the form.  
 (10/67) Aerofin Corporation, Lynchburg, Virginia

17. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	Quantity	Dia. or Size	Type	How Attached	Mat'l	Thickness	Reinforcement Material	Location
INLET	1	3" NPS	***	WELDED	***	.300"	N/R	END
OUTLET	1	3" NPS	***	WELDED	***	.300"	N/R	END
VENT/DRAIN	1/1	1/2" NPS	H. COUPLING	WELDED	SA-234, GR.WPB	3000 LB.	N/R	END
VENT/DRAIN	1/1	1/2" NPS	PIPE PLUG	THREADS	SA-105	3000 LB.	N/R	END
CLEAN OUTS	30	1/2" NPS	HEX HD. PLUG	THREADS	SA-182	.375"	N/R	END

18. Supports: Skirt NO (yes or no) Lugs - (quantity) Legs - (quantity) Others N/R. SUPPORT TUBE SUPPORT (Describe) Attached SIDES/BOLTED (where and how)

19. Remarks: AEROFIN SO# 998298-CW-004

MARK: WEST SAFEGUARD UNIT

\*\* "U" BENDS OF SAME MATERIAL AS TUBES.-"T" BENDS OF SB-171, C-70800,.085" NOM. THICK. / (3) HEX HD. PLUGS OF SA-182,GR.304

\*\*\* LAP JOINT FLANGE, 150 LB.,SA-105 WITH STUB END SA-234, GR.WPB

CERTIFICATION OF DESIGN

Design specification certified by JIM ALDERINK P.E. State MI. Reg. No. 6201026473  
 Design report certified by N/R P.E. State - Reg. No. -

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this nuclear vessel conforms to the rules for construction of the ASME Code, Section III, Division 1.  
 N Certificate of Authorization No. N-2814 Expires MARCH 30, 2002

Date 11/13/99 Name AEROFIN CORPORATION (N Certificate Holder) Signed [Signature] (authorized representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VA and employed by \*ALLENDALE MUTUAL INSURANCE of NORWOOD, MA have inspected the component described in this Data Report on 11-4-99 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this component in accordance with the ASME Code, Section III, Division 1.

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

Date 11-4-99 Signed [Signature] (Authorized Inspector) Commissions NB 7822 NBSI ISA VA 774 (Nat'l Board incl. endorsement, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. \_\_\_\_\_ Expires \_\_\_\_\_  
 Date \_\_\_\_\_ Name \_\_\_\_\_ (N Certificate Holder) Signed \_\_\_\_\_ (authorized representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_ have compared the statements in this Data report with the described component and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me on \_\_\_\_\_ and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component in accordance with ASME Code, Section III, Division 1.

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

Date \_\_\_\_\_ Signed \_\_\_\_\_ (Authorized Inspector) Commissions \_\_\_\_\_ (Nat'l Board incl. endorsement, State, Province and No.)

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date February 27, 2002  
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. # 24811824  
Address Repair/Replacement 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 Engineered Safeguards Room HVAC (VAS/ESU)

5. (a) Applicable Construction Code 331.1, 1955 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases N-416-1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
UT	NOVA Mech Products	HT# 881035	n/a	PO# G0347070	2001	Installed	No
Threaded Rod	Cardinal	HT# 8860543	n/a	PO# G0167330	1995	Installed	No
Threaded Rod	NOVA Machine Products	Lot # 35953043	n/a	PO# G0266676	1998	Installed	No
Pipe	Dubase	HT# L22569	n/a	PO# G0329555	2000	Installed	No
Elbow	Energy P Process Corp	HT# J194C	n/a	PO# G0339393	2000	Installed	No
Flange	Energy P Process Corp	HT# S1279	n/a	PO# G0339393	2000	Installed	No

7. Description of Work Replace Engineered Safeguards Room Cooling Coil VHX-27B

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24811824

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Mitchell Senior Engineer Date March 12, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 03/13/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date Mar. 13, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date March 4 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 2481841  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Engineered Safeguards Room HVAC (VAS/ESV)

5. (a) Applicable Construction Code ASME Section III 1989 Edition, NO Addenda, N/A Code Case  
Division 1 Year

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N-416-1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
VHX-27A Cooling Coil	Aerofin Corp	991070	1018	PO# G0299324	1997	Installed	Yes
VHX-27A Cooling Coil	Aerofin Corp	991071	1019	PO# G0299324	1997	Installed	Yes

7. Description of Work Replace Engineering Safeguards Room Cooling Coil VHX-27A

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.

(7/99) This form (E00030) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.



E00030

24811841

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Michael Clark Senior Engineer Date March 4, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 03/13/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date Mar. 13, 2002

**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS\***  
**As Required by the Provisions of the ASME Code, Section III, Division 1**

1. Manufactured and certified by AERON CORPORATION, 4621 MURRAY PLACE, LYNCHBURG, VA 24002  
(Name and address of U.S. Certificate Holder)

2. Manufactured for CONSUMERS ENERGY, JACKSON, MI 48201  
(Name and address of Purchaser)

3. Location of Installation CONSUMERS POWER CO., PALISADES PLANT, CONVERT, MI 49043  
(Name and address)

4. Type HORIZ HEAT EXCHANGER 991070 NCR-1070 1018 1989  
(Spec. or vert.) (Gen. Industrial, Heat Ex.) (Cert. Holder's serial no.) (Drawing no.) (Part No.) (Year built)

5. ASME Code, Section III, Division 1: 1989 NO ADDENDA 3 1989  
(Edition) (Fabricate Code) (Case)

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

6. Shell SB-498-C-70900 38,000 300" .041" 0'-3" 1'-7"  
(matl. spec. no.) (Nom. strength) (from thickness, I) (min. design thickness, I) (I.D. or O.D.) (height/length & no.)

7. Seams: SINGLE RT<sup>1</sup> RT<sup>1</sup> 65 0" 1  
(long.) (short.) (alt. %) (grn) (HT<sup>1</sup>) (RT<sup>1</sup>) (no. of courses)

8. Heads: SB-171-C-70900 40,000 40,000 0" 0" 1  
(matl. spec. no.) (Nom. strength) (alt. %) (grn) (HT<sup>1</sup>) (RT<sup>1</sup>) (no. of courses)

(a)	Location (top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
	END	.375"	FLAT	-	-	-	-	3"	FLAT

If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(matl. spec. no., size, quantity) (describe or attach sketch)

9. Jacket closure: \_\_\_\_\_  
(Describe as open & weld, bar, etc. If bar, give dimensions, describe or sketch)

10. Design Pressure? 150 at max. temp. 200 Min. pressure-test temp. 65 Press. hydro. or comb. test pressure 225  
(psi) (°F) (°F)

Items 11 and 12 to be completed for tube sections.

11. Tubesheets: \_\_\_\_\_  
(stationary, matl. spec. no.) (des. n. (subject to press.)) (thickness (in.)) (attachment (welded, bolted))

\*12. Tubes: SB-75-C12200 .625" .046" 110 STRAIGHT  
(matl. spec. no.) (des. n.) (thickness (nominal or gage)) (no.) (type design or U)

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

13. Shell: \_\_\_\_\_  
(matl. spec. no.) (nominal strength) (nom. thickness, I) (min. design thickness, I) (des. ID (ft & in.)) (length/overall (ft & in.))

14. Seams: \_\_\_\_\_  
(long. (welded, etc. single)) (HT<sup>1</sup> (yes or no)) (RT<sup>1</sup>) (alt. %) (grn) (HT<sup>1</sup>) (RT<sup>1</sup>) (no. of courses)

15. Heads: \_\_\_\_\_  
((a) matl. spec. no.] (nominal strength) [(b) matl. spec. no.] (nominal strength) [(c) matl. spec. no.] (nominal strength)

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

If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(matl. spec. no., size, quantity) (describe or attach sketch)

16. Design Pressure? \_\_\_\_\_ at max. temp. \_\_\_\_\_ Min. pressure-test temp. \_\_\_\_\_ Press. hydro. or comb. test pressure \_\_\_\_\_  
(psi) (°F) (°F) (psi)

<sup>1</sup> If postweld heat treated. <sup>2</sup> List other internal or external pressure with coincident temperature when applicable.  
<sup>3</sup> Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and number of sheets is recorded at top of this form.  
 (10/87) Aeron Corporation, Lynchburg, Virginia

Certificate Holder's Serial Number 991070

17. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	Quantity	Dia. or Size	Type	How Attached	Mat'l	Thickness	Reinforcement Material	Location
INLET	1	3" NPS	***	WELDED	***	.300"	NR	END
OUTLET	1	3" NPS	***	WELDED	***	.300"	NR	END
VENT/DRAIN	1/1	1/2" NPS	H. COUPLING	WELDED	SA-234 GR. WPB	3000 LB.	NR	END
VENT/DRAIN	1/1	1/2" NPS	PIPE PLUG	THREADS	SA-105	3000 LB.	NR	END
CLEAN OUTS	30	1/2" NPS	HEX HD. PLUG	THREADS	SA-182	.375"	NR	END

18. Supports: Skirt NO. Lugs -- Legs -- Others HD. SUPPORT TUBE SUPPORT Attached SIDEMOUNTED  
(yes or no) (quantity) (quantity) (Describe) (where and how)

19. Remarks: AEROFIN SO# 908296-CW-001

MARK: EAST SAFEGUARD UNIT

\*\* U BENDS OF SAME MATERIAL AS TUBES. - 4" BENDS OF SB-171, C-70800, .065" NOM. THICK / (3) HEX HD. PLUGS OF SA-182, GR.304

\*\*\* LAP JOINT FLANGE, 150 LB., SA-105 WITH STUB END SA-234, GR. WPB

CERTIFICATION OF DESIGN

Design specification certified by JIM ALDERINK P.E. State MI. Reg. No. 6201026473  
 Design report certified by NR P.E. State -- Reg. No. --

CERTIFICATE OF SHOP COMPLIANCE

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

N Certificate of Authorization No. N-2814 Expires MARCH 30, 2002

Date 11/3/99 Name AEROFIN CORPORATION Signed [Signature]  
(N Certificate Holder) (authorized representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VA and employed by \*ALLEDALE MUTUAL INSURANCE of NORWOOD, MA have inspected the component described in this Data Report on 11.4.99 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this component in accordance with the ASME Code, Section III, Division 1.

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

Date 11.4.99 Signed [Signature] Commissions NB 7822 NBSI ISA VA 714  
\*FACTORY MUTUAL (Authorized Inspector) (Natl Board incl. endorsement, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. \_\_\_\_\_ Expires \_\_\_\_\_

Date \_\_\_\_\_ Name \_\_\_\_\_ Signed \_\_\_\_\_  
(N Certificate Holder) (authorized representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_ have compared the statements in this Data report with the described component and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me on \_\_\_\_\_ and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component in accordance with ASME Code, Section III, Division 1.

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

Date \_\_\_\_\_ Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Authorized Inspector) (Natl Board incl. endorsement, State, Province and No.)

**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR INCULCAR VESSELS\***  
**As Required by the Provisions of the ASME Code, Section III, Division 1**

1. Manufactured and certified by: AEROSIM CORPORATION, 4871 MERRAY PLACE, LYNCHBURG, VA 24092  
(Registered address of Certificate Holder)

2. Manufactured for: CONSUMERS ENERGY, JACKSON, LA 49201  
(Name and address of Purchaser)

3. Location of Installation: CONSUMERS POWER CO. PALMBADES PLANT, CONVERT, LA 49943  
(Name and address)

4. Type: HORIZ HEAT EXCHANGER SHIRT NO-GR-1070 1010 1000  
(Type, or var.) (Part, Section, Unit, no.) (See Installation) (Class) (Drawing No.) (Date of Iss.) (Date Recd)

5. ASME Code, Section III, Division 1: 1999 NO ADDENDA 3  
(Edition) (Addenda) (Class)

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

6. Shell: SB-496, C-70800 36,000 300" 0.41" 0-3" 1-7"  
(Part, Section, Unit, no.) (Nominal strength) (From thickness, t) (Min. design thickness, t) (See ID Pt. 1 in.) (Length, overall, ft. in.)

7. Seams: SINGLE 95  
(Type) (Eff. %)

8. Heads: SB-171, C-70800 40,000 40,000 625" 4.05" RT 1  
(Part, Section, Unit, no.) (Nominal strength) (From thickness, t) (Min. design thickness, t) (See ID Pt. 1 in.) (Length, overall, ft. in.) (No. of courses)

If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_

(a) Location (top, bottom, ends)	(b) Thickness	Crown		Elliptical		Conical	Hemispherical	Flat	Slee to Pressure (convex or concave)
		Radius	Radius	Ratio	Apex Angle				
END	.375"	FLAT	-	-	-	-	-	5"	FLAT
(b)									

9. Jacket closure: \_\_\_\_\_ (Describe as open & weld, bar, etc. If bar, give dimensions, describe or sketch) \_\_\_\_\_ (describe or sketch detail)

10. Design Pressure? 150 at max. temp. 200 Min. pressure-test temp. 95 Press., hydro. or steam, test pressure 225  
(psi) (°F) (°F)

Items 11 and 12 to be completed for tube sections:

11. Tubesheets: \_\_\_\_\_ (stationary, part spec. no.) \_\_\_\_\_ (See in. (subject to press.)) \_\_\_\_\_ (thickness (in.)) \_\_\_\_\_ (thickness (welded, inside))  
(floating, part spec. no.)

12. Tubes: SB-75, C12200 625" 0.46" 110 STRAIGHT  
(Part, Section, Unit, no.) (OD (in.)) (Thickness (inches or gage)) (no.) (Type (straight or U))

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

13. Shell: \_\_\_\_\_ (part spec. no.) \_\_\_\_\_ (nom. thickness, t) \_\_\_\_\_ (min. design thickness, t) \_\_\_\_\_ (See ID Pt. 1 in.) \_\_\_\_\_ (Length, overall, ft. in.)  
(nominal strength)

14. Seams: \_\_\_\_\_ (long (welded, etc., angle)) \_\_\_\_\_ [RT (yes or no)] \_\_\_\_\_ (eff. %) \_\_\_\_\_ (girth) \_\_\_\_\_ (RT) \_\_\_\_\_ (no. of courses)  
(part spec. no.) (nominal strength) (See strength)

15. Heads:

(a) Top, bottom, ends	(b) Channel	(c) Flaring	(a) part spec. no.]			(b) part spec. no.]			(c) part spec. no.]								
			(nominal strength)	[RT (yes or no)]	(eff. %)	(girth)	(RT)	(no. of courses)	(nominal strength)	[RT (yes or no)]	(eff. %)	(girth)	(RT)	(no. of courses)			
Location	Thickness	Crown Radius	Knurled Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Slee to Pressure (convex or concave)									

If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_ (describe or sketch detail)

16. Design Pressure? \_\_\_\_\_ at max. temp. \_\_\_\_\_ Min. pressure-test temp. \_\_\_\_\_ Press., hydro. or comb. test pressure \_\_\_\_\_  
(psi) (°F) (°F) (psi)

\* If postweld heat treated. \* List other material or external pressure with coincident temperature when applicable.  
 \* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 1 through 6 on this Data Report is included on each sheet, (3) each sheet is numbered and number of sheets is recorded at top of this form.  
 (1097) Aerohm Corporation, Lynchburg, Virginia

17. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	Quantity	Dr. or Size	Type	How Attached	Material	Thickness	Reinforcement Material	Location
INLET	1	3" NPS	***	WELDED	***	3/8"	N/A	END
OUTLET	1	3" NPS	***	WELDED	***	3/8"	N/A	END
VENT/DRAIN	1/1	1/2" NPS	H. COLL. PLUG	WELDED	SA-23A GR WPB	3000 LB.	N/A	END
VENT/DRAIN	1/1	1/2" NPS	PIPE PLUG	THERMS	SA-105	3000 LB.	N/A	END
CLEAN OUTS	30	1/2" NPS	HEX HD. PLUG	TRENDS	SA-182	3/8"	N/A	END

18. Supports: Skirt  NO  YES (yes or no) Legs  (quantity) Others  HDH. SUPPORT TUBE SUPPORT (Describe) Attached  SOLE MOUNTED (where and how)

19. Remarks: AEROFIN SOW 998298-CW-002

MARK: EAST SAFEGUARD UNIT

2" TJ BENDS OF SAME MATERIAL AS TUBES, 1" BENDS OF SB-171, C-70600, .085" NOM. THICK. / (3) HEX HD. PLUGS OF SA-182 GR. 304  
 \*\*\* LAP JOINT FLANGE, 150 LB. SA-105 WITH STUB END SA-23A, GR WPB

CERTIFICATION OF DESIGN

Design specification certified by JIM ALDERINK P.E. State MI Reg. No. 6201026473  
 Design report certified by N/R P.E. State - Reg. No. -

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this nuclear vessel conforms to the rules for construction of the ASME Code, Section III, Division 1.  
 N Certificate of Authorization No. N-2914 Expires MARCH 30, 2002

Date 11/3/99 Name AEROFIN CORPORATION Signed [Signature] (Authorized Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VA and employed by ALLENDALE MUTUAL INSURANCE and state that to the best of my knowledge and belief, the Certificate the component described in this Data Report on 11.4.99 NORWOOD, MA have inspected Holder has constructed this component in accordance with the ASME Code, Section III, Division 1.

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

Date 11.4.99 Signed [Signature] NB 7822 NBSI IS 4  
 \*FACTORY MUTUAL (Authorized Representative)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division 1.  
 N Certificate of Authorization No. - Expires -

Date - Name - (N Certificate Holder) Signed - (Authorized Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of - and employed by - of - have compared the statements in this Data report with the described component and state that parts referred to as data items not included in the certificate of shop inspection, have been inspected by me on - and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component in accordance with ASME Code, Section III, Division 1.  
 By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date - Signed - Commissions - (Natl Board Incl. endorsement, State, Province and Inc.)  
 (Authorized Inspector)

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date March 8, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24811841  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Engineered Safeguards Room HVAC (VAS/ESV)

5. (a) Applicable Construction Code B31.1, 1955 Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N-416-1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Nut	NOVA Mech Prod.	HT# B87035	n/a	PO# G0347070	2001	Installed	NO
Threaded Rod	Cardinal	HT# 8860543	n/a	PO# G0167330	1995	Installed	NO
Threaded Rod	Worn Machine Products	HT# 35953043	n/a	PO# G0266676	1998	Installed	NO
Pipe	Dubere	HT# L22567	n/a	PO# G0329555	2000	Installed	NO
Elbow	Energy & Process Corp	HT# J194C	n/a	PO# G0339393	2000	Installed	NO
Flange	Energy & Process Corp	HT# 51279	n/a	PO# G0339393	2000	Installed	NO

7. Description of Work Replace Engineering Safeguards Room Cooling Coil VHX-27A

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24811841

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Engineer Date March 12, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

[Signature] have inspected the components described in this Owner's Report during the period 11/20/99 to 03/13/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Mar. 13, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date APRIL 2, 2001  
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.# 24911846  
Address Repair/Replacement 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 (PCS)

5. (a) Applicable Construction Code \_\_\_\_\_, \_\_\_\_\_ Edition, \_\_\_\_\_ Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
STUD	VITCO Nuclear Prod.	HT# 12418	n/a	PO# 2002-9916/1	1988	INSTALLED	NO
NUT	Cardinal	HT# D40637	n/a	PO# 5023-8356	1988	INSTALLED	NO

7. Description of Work REPLACE FASTENER ON PRESSURIZER TANK 72 MANWAY.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24911846

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Michael Cole Senior Engineer Date March 12, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 03/13/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements  
Date Mar. 13, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date 7/19/2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24812399  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System EMERGENCY POWER SYSTEM (EPS)

5. (a) Applicable Construction Code AWS, 1990 Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
ANGLE IRON	ENERGY STEEL	N/A	N/A	PO# 2002-5212CG	1986	INSTALLED	NO

7. Description of Work ADD BRACE TO T-13A SUPPORT PER BA-98-0453

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

Other  Pressure N/A psi Test Temp. N/A °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 number of sheets is recorded at the top of this form.



24812399

FORM NIS-2 (Back)

9. Remarks \_\_\_\_\_  
Applicable Manufacturer's Data Reports to be attached  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Dwight D. Williams SR ENGINEER Date 7/19/2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to 5-10-01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date 7/25, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date 7/19/2001  
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.# 24812400  
Address Repair/Replacement 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 EMERGENCY POWER SYSTEM (EPS)

5. (a) Applicable Construction Code AWS, 1990 Edition, N/A Addenda, N/A Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
ANGLE IRON	ENERGY STEEL		N/A	PO# 2002-521268	1986	INSTALLED	NO

7. Description of Work ADD BRACE TO T-13B SUPPORT FOR EA-98-0453

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

Other  Pressure N/A psi Test Temp. N/A °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 number of sheets is recorded at the top of this form.



24812400

FORM NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for handwritten remarks.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] SR. BUG ANALYST Date 7/19/01  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 5-10-01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date 7/25, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date APRIL 2, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24910965  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System SPENT FUEL POOL (SFP)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

*Added*  
*(12)*

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
<del>5/8 Rod</del>	<del>Novak Mach. Prod.</del>	<del>HT# L26665</del>	<del>n/a</del>	<del>PO# G0223310/1</del>		<del>Installed</del>	<del>No</del>
7/8 Rod	Novak Mach. Prod.	HT# 15906	n/a	PO# G0305530/2	89	Installed	No
5/8 Rod	Accutech	HT# L26665	n/a	PO# G0223310/1	97	INSTALLED	No

7. Description of Work PLUGGED TUBES; REPLACED FASTENERS ON HEAT EXCHANGER 53A.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24910965

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature], SENIOR ENL. Date APRIL 2, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 3, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 3, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code, Section XI**

1. Owner Consumers Energy Company Date APRIL 2, 2001  
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.# 24912285  
Address Repair/Replacement 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 SPENT FUEL POOL (SFP)

5. (a) Applicable Construction Code B31.1, ASS Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Studs	Nova Mach. Prod.	HT# 712917	n/a	PO# GØ242425/6	97	INSTALLED	NO
Nuts	Nova Mach. Prod.	HT# 41442	n/a	PO# GØ239844/1	96	INSTALLED	NO

7. Description of Work REPLACE FASTENERS ON SFP COOLING PUMP SIA INLET PIPE FLANGE

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24912285

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] SEVIDE ENG. Date APRIL 2, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 3, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 3, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date May 11, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24913131  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Engineered Safeguards

5. (a) Applicable Construction Code ASAB31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N.416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
PIPE	Chicago Tube	HE# 462865	n/a	PO# 5029-836B	91	Installed	NO
Valve	CONVAL, INC.	HE# 50# 49609Q	n/a	PO# GØ 334042	99	Installed	NO
Coupling	Chicago Tube	HE# IFT/AH662Q	n/a	PO# GØ 347619	00	Installed	NO
Elbow	Tigon Pipe Supply	HE# 39144	n/a	PO# GØ 224250	97	Installed	NO

7. Description of Work Replace Pump GGB MiniFlow Valve Mt. ES3179.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of Rets, 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 number of sheets is recorded at the top of this form.

(7/99) This form (E00030) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

1 Energy & Process Corporation



E00030

24913131

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Engineer Date March 8, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 03/08/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Mar. 8, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date April 5, 2001  
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.# 24913211  
Address Repair/Replacement 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 Spent Fuel Pool (SFP)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
NUT	Nova Mach. Prod.	HT# 1G1650	n/a	PO# G0292634/1	99	Installed	No
NUT	Nova Mach. Prod.	HT# ES4410	n/a	PO# G0323617/1	00	Installed	No
NUT	Nova Mach. Prod.	HT# 707864	n/a	PO# G0315674/3	00	Installed	No
ROD	Nova Mach. Prod.	HT# 9E6377	n/a	PO# G0301439/1	99	Installed	No

7. Description of Work Replace Fasteners For Valve MA-SFP 106

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24913211

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Date April 5, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to April 6, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]  
Inspector's Signature

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

Date April 6, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date April 20, 2001  
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.# 24913883  
Address Repair/Replacement 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 Main Steam (MSS)

5. (a) Applicable Construction Code ASME III, 1977 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Disc Insert	Crosby	N95334-37-0025	n/a	PO# G0253983	98	Installed	No

7. Description of Work Replaced disc insert for RV-0718

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24913883

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Schuch Senior Eng. Date October 11, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 10/12/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date 10/12, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date 2/16/00  
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.# 24010303  
Address Repair/Replacement 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 Chemical and Volume Control (CVC)
5. (a) Applicable Construction Code \* NIA, NIA Edition, NIA Addenda, NIA Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases NIA

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
CYLINDER BLOCK	APF GAULIN, INC	878035	NIA	PO# 1007.2869	1986	INSTALLED	NO

7. Description of Work REPLACE CHARGING Pump 55B CYLINDER BLOCK WITH NEW.
8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.

(7/99) This form (E00030) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.



E00030

\* CYLINDER ASSEMBLY MANUFACTURED PER ORIGINAL C-E SPECIFICATION NUMBER P70.016, Rev. 2.

24010303

FORM NIS-2 (Back)

9. Remarks CYLINDER BLOCK SUPPLIED IN ACCORDANCE WITH THE  
REQUIREMENTS OF TITLE 10 OF THE CODE OF  
FEDERAL REGULATIONS PART 21

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Schaefer, SENIOR ENG. Date MARCH 31, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 3, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 3, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date April 21, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24010423  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
<u>Valve Internals</u>	<u>Velan</u>	<u>101</u>	<u>n/a</u>	<u>PO# 2004-7753</u>	<u>90<sup>HW</sup> 78<sup>4</sup></u>	<u>Removed</u>	<u>No</u>

7. Description of Work Removed CK. SW409 Internals

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24010423

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Edmund, Senior Eng. Date April 23, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 24, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 24, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date April 9, 2001  
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.# 24010424  
Address Repair/Replacement 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 Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Disc	AT&T	n/a	n/a	n/a	n/a	Removed	No
	Anchor-Darling	E-6161-138-9			1996		

7. Description of Work Remove valve CK-SW408 disc.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24010424

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed George E. Johnson Senior Eng. Date April 9, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to April 10, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APR 10, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date April 21, 2001  
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.# 24010425  
Address Repair/Replacement 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 Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve Internals	Anchor-Darling	E-6318-59-2	n/a	PO# 6168549	95	Removed	No

7. Description of Work Remove CR-SW407 internals.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24010425

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed George E. Shueh Senior Eng. Date April 23, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described

in this Owner's Report during the period 11/20/99 to April 23, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

R. H. Blake  
Inspector's Signature

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

Date April 23, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date APRIL 2, 2001  
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.# 24010492  
Address Repair/Replacement 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 (PCS)

5. (a) Applicable Construction Code ASME III, 77 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
STUD	ABB COMB. ENG.	276-103	n/a	PO# G4201602/1	96	Installed	No
NUT	ABB COMB. ENG.	276-104	n/a	G4030032/2	92	INSTALLED	No

7. Description of Work REPLACE FASTENERS ON STEAM GENERATOR SDA OUTBOARD MANWAY

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24010492

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Eng. Date April 2, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

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

of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to April 3, 2001, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date April 3, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date APRIL 2, 2001  
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.# 24010493  
Address Repair/Replacement 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 (PCS)

5. (a) Applicable Construction Code ASME III, <sup>4-2.01</sup> 74100 Edition, n/a Addenda, n/a Code Case  
Year

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
STUD	ASB COMB ENG	276-103	n/a	12011 GQZ0602/1	96	INSTALLED	NO

7. Description of Work REPLACE STUD ON STEAM GENERATOR SDB MANWAY.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24010493

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Wayne E. Shrad, Service Eng Date APRIL 2, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 3, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 3, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date March 8, 2002

27780 Blue Star Hwy Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy Covert, MI  
Address

W.O.# 24010534  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Man Steam (MSS)

5. (a) Applicable Construction Code B31.1, 55 Edition, n/a Addenda, n/a Code Case  
Year

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N-416-1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Flange	Coffin Corp	## DN19	n/a	PO# G0317311	2000	Installed	NO
Nut	NOVA Machine Prod.	## 8077124	n/a	PO# G0259637	1998	Installed	NO
Rod	NOVA Machine Prod.	## 55051	n/a	PO# G0266861	1998	Installed	NO
Blind Flange	Coffin Corp	## DN19	n/a	PO# G0317311	2000	Installed	NO

7. Description of Work Install Flanges and Blank in Steam Pipe EB-13.4

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24010534

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Engineer Date March 8, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 03/08/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date Mar. 8, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date April 3, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24010610

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam (mss)

5. (a) Applicable Construction Code ASME III, 1977 Edition, n/a Addenda, n/a <sup>(N)</sup> ATA 499 Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases ATA 499 <sup>(N)</sup> N.496

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
STUD	ABB COMB ENG	276-103	n/a	PO# G0201602/1	96	Installed	No
Nut	ABB COMB ENG	276-206	n/a	PO# G0030032/1	92	Installed	No
Heli-Coil	ABB COMB ENG	HT# PA0595	n/a	PO# CP11- 3916/2	86	Installed	No

7. Description of Work Install new manway stud on S/G SDA manway.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24010610

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Shueh Senior Eng Date April 3, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 19, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 19, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date February 19, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24010955  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant (PCS)

5. (a) Applicable Construction Code ASME III, 1986 Edition, 1988 Addenda, None Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N.416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
CRO Seal Housing	Comb. Eng. Nuclear	216	2898	PO# G0321653	01	Installed	Yes
CRO Seal Housing	Comb. Eng. Nuclear	217	2899	PO# G0321653	01	Installed	Yes
CRO Seal Housing	Comb. Eng. Nuclear	243	2920	PO# G0321653	01	Installed	Yes

219.02

7. Description of Work Install new CRO Upper Housings onto Reactor Vessel N-52.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24010955

FORM NIS-2 (Back)

9. Remarks See manufacturer's data report attached.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Schuch, Senior Engineer Date February 19, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 02/28/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 28, 2002

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

1. Manufactured and certified by CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.
2. Manufactured for CE Nuclear Power LLC., 2000 Day Hill Road, Windsor, CT 06095-0500.
3. Location of installation Consumers Energy Company, Palisades Station, Michigan
4. Type CND-E-4996 Rev. 05  
(Drawing no.)      \* SEE BACK (mat'l spec. no.)      \* SEE BACK (tensile strength)      N/A (cm)      2001 (year built)
5. ASME Code, Section III: 1986 (edition)      1988 (addenda)      I (class)      NB (subsection)      None (code case)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A      Revision N/A      Date N/A
7. Remarks: CRDM Seal Housing Assemblies
8. Nom. thickness (in) \* See Back      min. design thickness (in.) \* See Back      Dia. ID (ft & in.) \* See Back      length overall (ft & in.) \* See Back
9. When applicable, Certificate Holders' data reports are for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 216	2898	(18)	
(2) 217	2899	(19)	
(3) 218	2900	(20)	
(4) 219	2901	(21)	
(5) 220	2902	(22)	
(6) 231	2903	(23)	
(7) 232	2904	(24)	
(8) 235	2905	(25)	
(9)		(26)	
(10)		(27)	
(11)		(28)	
(12)		(29)	
(13)		(30)	
(14)		(31)	
(15)		(32)	
(16)		(33)	
(17)		(34)	

10. Design pressure 2500 psi      Temp 600 °F      Hydro. test pressure 3125 psi at temp 70 °F

# CE Nuclear Power LLC

2000 Day Hill Road  
Windsor, CT 06095-0500

## CERTIFICATE OF CONFORMANCE

### CUSTOMER

Name: <u>Consumers Energy</u>			CENP		
Plant Site: <u>Palisades Generating Plant</u>			Certificate No.: <u>2</u> Page 1 of <u>1</u>		
Order No.: <u>G0321653</u>			Certificate is: <u>Conditional</u> [ ] Order is: <u>Incomplete</u> [X]		
Latest Rev.: <u>001- dated 5/24/00</u>			<u>Unconditional</u> [X] <u>Complete</u> [ ]		
			CENP Project No.: <u>2010009</u> Supp. <u>NA</u>		
			[X] Additional Records Attached		

Customer	CENP	Quantity		Part Number	Description
Item	Item	Order	Ship		
001	1	45	8	CND-E-4688 (T0463)	CRDM Seal Housing Assembly
				Items #7, 9, 13	*Alloy - 600 CRDM Seal Housing*
				Consumers Energy Stock No.	S/N's 216, 217, 218, 219, 220, 231, 232, 235
				2402451	

This order has been processed in accordance with the CE Nuclear Power (CENP) Quality Assurance Manual (QAM-100), Fifth Edition, Rev. 1, dated 12/11/00; and other controls as indicated:

Additionally, the above items were processed under ASME Certificate of Authorization N-2037, which expires February 13, 2002. The above item(s) comply with ASME BP&V Code Section III, Subsection NB, Class 1, 1988 Edition including Addenda

- Quality Procedures Manual (QPM-101, Revision 5)
- System Staging Group Quality Assurance Program (QAM-400), Revision \_\_\_\_\_
- Other \_\_\_\_\_

The above item(s) has satisfactorily passed final product acceptance by CENP as follows:

- Source Verification;  Drop Ship/Receiving Insp.;  Post Assy Test/ Inspection;  Document review

CENP hereby certifies that the item(s) and/or service(s) described herein meet the technical requirements, including referenced codes, specifications and standards, of the referenced customer order. Any exceptions to said requirements have been documented and evaluated by properly executed deviation notices.

Shipment of this item(s) is from CENP or from a supplier approved by CENP.

Quality Control Representative: [Signature] Date: 2-21-01

Cognizant Engineer: [Signature] Date: 2-21-01

Distribution	Comments / Notes
Quality Control (ORP)	
File Copy	
Project/Task Manager (Cert Pkg)	1. Items supplied per the requirements of Spec. No. P-NOME-SP-0078 Rev. 00 and Drawings:
D.L. Sibiga	CND-E-4688, Rev. 09
Purchasing (Cert Pkg)	CND-E-4688, Rev. 05
T.J. Henchey	
Cognizant Engineer (Cert Pkg)	2. The provisions of 10CFR Part 21 and 10CFR Part 50, Appendix B applies.
S.T. Slowik	
Palisades (Cert Pkg)	3. Items fabricated per the requirements of CENP Windsor PO No. 20002289 to CENP Newington Operations.

### CERTIFICATE OF CONFORMANCE

PROJECT INFORMATION	NEWINGTON INFORMATION
PROJECT NAME: Consumers Energy Company	JOB NO. 5596 Shipment No. 2
CONTRACT NO.: N/A	P.O./M.O. NO.: 20002289
CUSTOMER ORDER NO.: G0321653	SUPPLEMENT NO.: 9

DOR #	P.O. ITEM	QUANTITY		PART NUMBER	DESCRIPTION/IDENTIFICATION.
		ORDER	SHIP		
N/A	1.0	45	8	T0463	CRDM Seal Housing Assembly, consisting of: CND-E-4688, Rev. 09, Items 7, 9, and 13 (Dowel Pin, Dwg. CND-E-4996 Item 5, included not assembled) Ident.: S/N's 216 thru 220 & 231, 232, 235

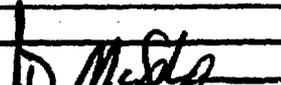
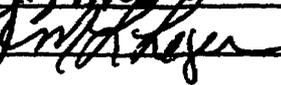
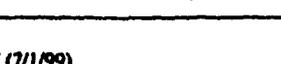
DEVIATION OF CONTRACT REQUIREMENTS (DCR)	TECHNICAL CHANGE REQUESTS (TCR)
DCR No.: 20002289-1 thru 19	TCR No. 1

NOTES

To Whom it May Concern:

We hereby certify that the item(s) described was fabricated, tested, examined and meets the requirements of the contract. Any exceptions to the above requirements have been documented by properly executed Deviation of Contract Requirements (DCR) and Technical Change Requests (TCR) approved by the Customer.

This order was manufactured in accordance with the CE Nuclear Power LLC, Quality Assurance Manual, Revision 00, Dated July 17, 2000. Material supplied is in accordance with the Quality Assurance Manual and, if applicable, upgraded per ASME Section III, NCA-3855.5 ASME Certificate of Authorization N-2041, Expires 2/20/02. The provisions of 10CFR Part 21 and 10CFR Part50, Appendix B Apply.

CERTIFIED BY	
Quality Assurance: 	Date: 2-21-01
Project Engineering: 	Date: 2-21-01
Design Engineering:  N/A	Date:

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

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

1. Manufactured and certified by CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.

2. Manufactured for CE Nuclear Power LLC, 2000 Day Hill Road, Windsor, CT 06093-0500.

3. Location of Installation Consumers Energy Company, Palisades Station, Michigan

4. Type CND-E-4996 Rev. 05      \* SEE BACK      \* SEE BACK      N/A      2001  
(Drawing no.)      (mat'l spec. no.)      (tensile strength)      (cm)      (year built)

5. ASME Code, Section III: 1986      1988      1      NB      None  
(edition)      (addenda)      (class)      (subsection)      (code case)

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

7. Remarks: CRDM Seal Housing Assemblies

8. Nom. thickness (in) \* See Back      min. design thickness (in.) \* See Back      Dia. ID (ft & in.) \* See Back      length overall (ft & in.) \* See Back

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

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 224	2906	(18) 246	2923
(2) 225	2907	(19) 247	2924
(3) 226	2908	(20)	
(4) 227	2909	(21)	
(5) 228	2910	(22)	
(6) 229	2911	(23)	
(7) 230	2912	(24)	
(8) 236	2913	(25)	
(9) 237	2914	(26)	
(10) 238	2915	(27)	
(11) 239	2916	(28)	
(12) 240	2917	(29)	
(13) 241	2918	(30)	
(14) 242	2919	(31)	
(15) 243	2920	(32)	
(16) 244	2921	(33)	
(17) 245	2922	(34)	

10. Design pressure 2500 psi

Temp 600 °F

Hydro. test pressure 3125 psi at temp 70 °F

# CE Nuclear Power LLC

2000 Day Hill Road  
Windsor, CT 06095-0500

## CERTIFICATE OF CONFORMANCE

### CUSTOMER

Name: <u>Consumers Energy</u>				CENP Certificate No.: <u>3</u> Page 1 of <u>1</u>	
Plant Site: <u>Palisades Generating Plant</u>				Certificate is: <input type="checkbox"/> Conditional <input type="checkbox"/> Order is: <input type="checkbox"/> Incomplete <input type="checkbox"/>	
Order No.: <u>G0321853</u>				Unconditional <input checked="" type="checkbox"/> Complete <input checked="" type="checkbox"/>	
Latest Rev.: <u>001- dated 5/24/00</u>				CENP Project No.: <u>2010009</u> Supp. <u>NA</u>	
				[ X ] Additional Records Attached	

Customer	CENP	Quantity		Part Number	Description
Item	Item	Order	Ship		
001	1	45	19	CND-E-4688 (T0463)	CRDM Seal Housing Assembly
				Items #7, 9, 13	"Alloy - 600 CRDM Seal Housing"
				Consumers Energy Stock No.	S/N's 224, 225, 226, 227, 228, 229, 230, 236,
				2402451	237, 238, 239, 240, 241, 242, 243, 244,
					245, 246, 247

This order has been processed in accordance with the CE Nuclear Power (CENP) Quality Assurance Manual (QAM-100), Fifth Edition, Rev. 1, dated 12/11/00; and other controls as indicated:

Additionally, the above items were processed under ASME Certificate of Authorization N-2037, which expires February 13, 2002. The above item(s) comply with ASME BP&V Code Section III, Subsection NB, Class 1, 1988 Edition including Addenda through 1988 Addenda.

- Quality Procedures Manual (QPM-101, Revision 5)
- System Staging Group Quality Assurance Program (QAM-400), Revision \_\_\_\_\_
- Other \_\_\_\_\_

The above item(s) has satisfactorily passed final product acceptance by CENP as follows:

- Source Verification;  Drop Ship/Receiving Insp.;  Post Assy Test/ Inspection;  Document review

CENP hereby certifies that the item(s) and/or service(s) described hereon meet the technical requirements, including referenced codes, specifications and standards, of the referenced customer order. Any exceptions to said requirements have been documented and evaluated by properly executed deviation notices.

Shipment of this item(s) is from CENP or from a supplier approved by CENP.

Quality Control Representative: [Signature] Date: 3-12-01

Cognizant Engineer: [Signature] Date: 3-12-01

Distribution	Comments / Notes
Quality Control (ORP) File Copy	1. Items supplied per the requirements of Spec. No. P-NOME-SP-0078 Rev. 00 and Drawings: CND-E-4688, Rev. 09 CND-E-4986, Rev. 05
Project/Task Manager (Cert Pkg) D.L. Sibiga	
Purchasing (Cert Pkg) T.J. Henchey	
Cognizant Engineer (Cert Pkg) S.T. Slowik	2. The provisions of 10CFR Part 21 and 10CFR Part 50, Appendix B applies.
Palisades (Cert Pkg)	3. Items fabricated per the requirements of CENP Windsor PO No. 20002289 to CENP Newington Operations.

**CERTIFICATE OF CONFORMANCE**

PROJECT INFORMATION	WESTINGHOUSE INFORMATION
CUSTOMER/PROJECT: Consumers Energy Company	CERTIFICATE NO.: 01-002
CONTRACT NO.: N/A	JOB NO.: 5596 Shipment No. 3
CUSTOMER ORDER NO.: G0321653	P.O./M.O. NO.: 20002289
ASME CODE EDITION: 1986	SUPPLEMENT NO.: 9
ADDENDA: 1988	
SUBSECTION: NB	

DOR #	P.O. ITEM	QUANTITY		PART NUMBER	DESCRIPTION/IDENTIFICATION.
		ORDER	SHIP		
N/A	1.0	45	19	T0463	CRDM Seal Housing Assembly, Consisting of : CND-E-4688 Rev. 09, Items 7, 9, and 13 (Dowel Pin, DWG. CND-E-4996 Item 5, included not assembled) Ident.: S/N's 224 thru 230 & 236 thru 247

DEVIATION NOTICES	
DEVIATION OF CONTRACT REQUIREMENTS	TECHNICAL CHANGE REQUESTS
DCR No.: 20002289-1 thru 19	TCR No. 1

NOTES

We hereby certify that the materials, items and/or services described hereon meet the quality and technical requirements, including referenced codes, specifications and standards, of the referenced customer order. Any exceptions to said requirements have been documented and evaluated by properly executed deviation notices.

This order was manufactured in accordance with the CE Nuclear Power LLC, Newington Operations, Quality Assurance Manual, Revision 00, Dated July 17, 2000. Material supplied is in accordance with the Quality Assurance Manual and, if applicable, upgraded per ASME Section III, NCA-3855.5 ASME Certificate of Authorization N-2041, Expires 2/20/02.

CERTIFIED BY	
Quality Assurance: <i>James D. McLean</i>	Date: 3-12-01
Project Engineering: <i>Jim Prosser</i>	Date: 3-12-01
Design Engineering: <i>N/A</i>	Date:

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date FEBRUARY 19, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24010956  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant (PCS)

5. (a) Applicable Construction Code ASME III, 86 Edition, 1988 Addenda, None Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N-416-1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
CRD Seal Housing	Comb. Eng. Nuclear	208	2887	PO# G0321653	01	Installed	Yes
CRD Seal Housing	Comb. Eng. Nuclear	213	2892	PO# G0321653	01	Installed	Yes
CRD Seal Housing	Comb. Eng. Nuclear	222	2896	PO# G0321653	01	Installed	Yes
CRD Seal Housing	Comb. Eng. Nuclear	223	2897	PO# G0321653	01	Installed	Yes

7. Description of Work Install new CRD seal housings onto Reactor Vessel N-52.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24010956

FORM NIS-2 (Back)

9. Remarks See manufacturer's data reports attached  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Eng. Date February 19, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described

in this Owner's Report during the period 11/20/99 to 02/25/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 25, 2002

**FORM N-2 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 CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.

2. Manufactured for CE Nuclear Power LLC., 2000 Day Hill Road, Windsor, CT 06095-0500.

3. Location of installation Consumers Energy Company, Palisades Station, Michigan

4. Type CND-E-4996 Rev. 05      \* SEE BACK      \* SEE BACK      N/A      2001  
(Drawing no.)      (mat'l spec. no.)      (tensile strength)      (cm)      (year built)

5. ASME Code, Section III: 1986      1988      I      NB      None  
(edition)      (addenda)      (class)      (subsection)      (code case)

6. Fabricated in accordance with Const. Spec. (Div. 3 only) N/A      Revision N/A      Date N/A

7. Remarks: CRDM Seal Housing Assemblies

8. Nom. thickness (in.) \* See Back      min. design thickness (in.) \* See Back      Dia. ID (ft & in.) \* See Back      length overall (ft & in.) \* See Back

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

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 201	2880	(18) 223	2897
(2) 202	2881	(19)	
(3) 203	2882	(20)	
(4) 204	2883	(21)	
(5) 205	2884	(22)	
(6) 206	2885	(23)	
(7) 207	2886	(24)	
(8) 208	2887	(25)	
(9) 209	2888	(26)	
(10) 210	2889	(27)	
(11) 211	2890	(28)	
(12) 212	2891	(29)	
(13) 213	2892	(30)	
(14) 214	2893	(31)	
(15) 215	2894	(32)	
(16) 221	2895	(33)	
(17) 222	2896	(34)	

10. Design pressure 2500 psi      Temp 600 °F      Hydro. test pressure 3125 psi      at temp 70 °F

CERTIFICATE OF DESIGN

Design specification certified by N/A P.E. state N/A Reg. no. N/A  
 (when applicable)  
 Design report certified by N/A P.E. state N/A Reg. no. N/A  
 (when applicable)

CERTIFICATE OF SHOP INSPECTION

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 2002

Date 2/16/02 Name CE Nuclear Power LLC  
 (NPT Certificate Holder)

Signed [Signature]  
 (Inspector/Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of New Hampshire and employed by H. S. B. I. & I. Co. of Haverhill, CT have inspected these items described in this data report on 2/16/02 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or apparatuses in accordance with the ASME Code, Section III. Each part listed 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 2/16/02 Signed [Signature] Commission NR202 "N"  
 (N.B. endorsement(s) state or prov. and no.)

MATERIAL	TENSILE	NOMINAL THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
SB-166 NO6600 Access Tube Flange	80,000	.120"	.115"	1.26"	2"
SB-167 NO6600 Access Tube	80,000	.120"	.108"	1.26"	39.54"
SB-166 NO6600 Seal Housing	80,000	.28	.26	2.06	11.38

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date January 14, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24011090  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N.416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Nut	Nova Mach. Prod	HE# 8868157	N/A	PO# G0313446/3	92	Installed	No
GATE VALVE	Velan Valve Corp	SN 12131	N/A	PO# G0341850/1	99	INSTALLED	NO <sup>YES</sup>
PIPE	DuBois Nat. Energy	HE# 283164	N/A	PO# G0354959/1	99	INSTALLED	No
ELBOW	DuBois Nat. Energy	HE# J202E	N/A	PO# G0363249/1	99	INSTALLED	No
CONNECTION	DuBois Nat. Energy	HE Code 468	N/A	PO# G0307601/1	99	INSTALLED	No
PIPE	Consolidated Power Supply	HE# V67155	N/A	PO# G0334938/3	98	INSTALLED	No

7. Description of Work REPLACE VALVE MV. SW 281 AND REMOVE TEMPORARY MODIFICATION.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24011090

FORM NIS-2 (Back)

9. Remarks <sup>(10)</sup> None, <sup>01.28.02</sup> NPX-1 attached

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Shue, Senior Engineer Date January 28, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 01/29/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 29, 2002



**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
**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 JULY 26, 2001  
 Sheet 1 of 1

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

Unit 1  
 W.O.# 24011231  
Repair/Replacement 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 SYSTEM (ESS)

5. (a) Applicable Construction Code ANSI B31.1, 1973 Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
Year

(c) Applicable Section XI Code Cases NA

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
SNUBBER	BASIC PSA-INC.	41454	N/A	PO# G0341883	2000	INSTALLED	N/A

7. Description of Work REPLACED SNUBBER SNB-71 WITH NEW UNIT.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 Other  Pressure N/A psi Test Temp. N/A °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 number of sheets is recorded at the top of this form.



24011231

FORM NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for handwritten remarks.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] SR. ENGINEERING ANALYST Date 7/26/2001
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 5/10/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions MI-762 ABNT
Inspector's Signature National Board, State, Province, and Endorsements
Date 7/26, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date April 12, 2001

27780 Blue Star Hwy Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy Covert, MI  
Address

W.O.# 24011232  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Engineered Safeguards (ESS)

5. (a) Applicable Construction Code B31.1, 1955-67 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Anchor-Darling	ADH-1000-1746	n/a	PO# G0015981	92	Removed	No
Snubber	Anchor-Darling	ADH-1000-2484	n/a	PO# G0284322	99	Installed	No

7. Description of Work Remove snubber SNB-64 and replace with new.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt  4-12-01

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 number of sheets is recorded at the top of this form.

(7/99) This form (E00030) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.



E00030

24011232

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed George E. Shueh Senior Eng Date April 12, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to July 17, 2000, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 13, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date APRIL 20, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24011233  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System LPSI PUMP DISCHARGE (ESS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989

(c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
ARRESTOR	ANCHOR-DARLING	ADH-1000-2450	N/A	PO# G0275491/1	AK/98	INSTALLED	NO
BOLT, HEX	NOVA MACHINE PROD	RR43023	N/A	PO# G0347585/1	01	INSTALLED	NO
ARRESTOR	ANCHOR-DARLING	ADA-1000-1744	N/A		1092	REMOVED	NO

7. Description of Work REMOVED AND REPLACED SNUBBER SNB-42

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24011233

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] SR TECH ANALYST Date 4/20/2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 23, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]  
Inspector's Signature

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

Date APRIL 23, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date January 14, 2002

27780 Blue Star Hwy Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy Covert, MI  
Address

W.O.# 24012008  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N.416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipe	Consolidated Power Supply	H## Y67155	n/a	PO# G0334938/3	98	Installed	No
Valve	Velan Valve Corp	SN 012131	n/a	PO# G0341850/1	99	Installed	No

7. Description of Work Replace condensing unit valve Mt. SW 280

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24012008

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Engineer Date January 17, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 01/18/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan. 18, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date APRIL 2, 2001  
Name  
27780 Blue Star Hwy. Covert, MI  
Address

2. Plant Palisades Nuclear Plant Unit 1  
Name  
27780 Blue Star Hwy. Covert, MI  
Address W.O.# 24012169  
Repair/Replacement 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 SPENT FUEL POOL (SFP)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
NUT	NOVA MACH. PROD.	HT# 717604	n/a	PO# GØ306511/2	99	INSTALLED	NO
BOLT	NOVA MACH. PROD.	HT# 714533	n/a	PO# GØ329622/1	00	INSTALLED	NO

7. Description of Work REPLACE GASKET & FASTENERS ON VALVE M.V. SFP 132

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24012169

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

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**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] SENIOR ENG. Date APRIL 2, 2001  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 3, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 3, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date April 21, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24012538  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Component Cooling (CCS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Nut	Cardinal Industries	H6II 8860932	n/a	PO# G170920	97	Installed	No

7. Description of Work Replace one nut on heat exchanger S4A.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24012538

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed George E. Schindler, Senior Engineer Date August 21, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 5-10-01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date SEPT. 4, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date JULY 27/2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of \_\_\_\_\_

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24012596  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System AUX FEEDWATER SYSTEM (FWS)

5. (a) Applicable Construction Code B31.1, 1986 Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989

(c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
WELD ROD	WELDSTAR	N/A	N/A	1077 G026A/34/2	1998	INSTALLED	N/A

7. Description of Work SEAL WELD BONNET TO VALVE BODY

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24012596

9. Remarks \_\_\_\_\_

Applicable Manufacturer's Data Reports to be attached

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**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed William S. BENDERIG-ANALYST Date 7/27/2001  
 Owner or Owner's Designee, This

**CERTIFICATE OF RESERVE INSPECTION**

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 Factory Mutual Insurance Company

of Johnston, R.I. in this Owner's Report during the period 11/20/99 to 5/10/01 have inspected the components described 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.

William S. Benderig Commissions MI-762 ABNT  
 Inspector's Signature National Board, State, Province, and Endorsements

Date 7/30, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date April 26, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24012632  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant (PCS)

5. (a) Applicable Construction Code ASME III, 65 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Tube Plugs	Westinghouse	9L376 to	n/a	POII C0018844/1	01	Installed	No
		9L383 &					
		9L385 to					
		9L390					

7. Description of Work Plug 14 tubes in Steam Generator SOA.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24012632

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Eng Date April 26, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

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

of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to April 26, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]  
Inspector's Signature

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

Date APRIL 26, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date April 26, 2001  
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.# 24012633  
Address Repair/Replacement 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 (PCS)

5. (a) Applicable Construction Code ASME III, 65 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Tube PLUGS	Westinghouse	9L391	n/a	PO# C0018341/1	01	Installed	No
		to 9L405					

7. Description of Work Plug 15 tubes in Steam Generator 50B.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24012633

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Shuck, Senior Eng. Date April 26, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 26, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date April 26, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date February 15, 2002  
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.# 24012637  
Address Repair/Replacement 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 Man Steam System (MSS)

5. (a) Applicable Construction Code ASME III, 1977 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Studs	ABB Combustion	HT# 85689	n/a	PO# G0272138	98	Installed	No
Nuts	ABB Combustion	HT# 11472	n/a	PO# G0309529	99	Installed	No

7. Description of Work Replace Secondary Handhole Studs and Nuts

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24012637

FORM NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Michael O'Leary, Senior Engineer Date February 15, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 03/07/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Inspector's Signature R. Blake Commissions MI -762 ABNT  
National Board, State, Province, and Endorsements  
Date Mar. 07, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date April 3, 2001  
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.# 24012960  
Address Repair/Replacement 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 Engineered Safeguards (ESS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, N-416.1 Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases N-416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
valve	Anchor Darling	ET. 550.40.2	n/a	PO# G0328481	93	Installed	Yes

7. Description of Work Replace pump 66A recirculation check valve.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.





**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code, Section XI**

1. Owner Consumers Energy Company  
Name

Date May 16, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of \_\_\_\_\_

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O. # 24013187  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Engineered Safeguards (ESS)

5. (a) Applicable Construction Code ASME III, 1989 Edition, 1990 Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N-416-1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Check Valve	Anchor-Porting	E2854-1-1	1969	PO# G0334φ41.1	97	Installed	Yes

7. Description of Work Replace HPSI Pump 66B miniFlow check valve.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.

(7/99) This form (E00030) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.



24013187

FORM NIS-2 (Back)

9. Remarks Manufactures Data Report is attached.  
Applicable Manufacturer's Data Reports to be attached

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Wayne E. Schneider, Senior Eng. Date May 16, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

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

of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to MAY 16, 2001, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]  
Inspector's Signature

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

Date MAY 16, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company

Date June 5, 2001

27780 Blue Star Hwy. Covert, MI

Sheet 1 of 1

2. Plant Palisades Nuclear Plant

Unit 1

27780 Blue Star Hwy. Covert, MI

W.O.# 24013347  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Nut	Nova Mach. Prod.	HT# 8098740	n/a	PO# G0369989/2	99	Installed	No
Rod	Nova Mach. Prod.	HT# 67375	n/a	PO# G022646/1	97	Installed	No
Valve	Fisher	SN 15742186	n/a	PO# G0333748	00	Installed	No

7. Description of Work Replace heat exchanger valve CV-0821

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24013347

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Horizontal lines for additional remarks or attachments.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature], Senior Engineer Date June 5, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

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

of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to June 6, 2001, and state that

to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date June 6, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date March 7, 2002

27780 Blue Star Hwy Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy Covert, MI  
Address

W.O.# 24014040  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System SPENT FUEL POOL (SFP)

5. (a) Applicable Construction Code B31.1, 1995 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Bolts	Nova Mech. Prod	HT # 714533	n/a	PO # G0329622	2000	Installed	NO
Nuts	Nova Mech. Prod	HT # 720147	n/a	PO # G0306511	1999	Installed	NO

7. Description of Work REPLACED STUDS AND NUTS ON MV-SFA131.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24014040

FORM NIS-2 (Back)

9. Remarks NONE  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Michael Cole Senior Engineer Date March 7, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 03/07/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Mar 07 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date February 18, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24014811  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases None

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Nuts	Nova Mach. Products	HE# B87035	n/a	PO# G0340745.4	00	Installed	No
Nuts	Nova Mach. Products	HE# 8077124	n/a	PO# G0303628.1	95	Installed	No
Nuts	Accutech	HE# 8860543	n/a	PO# G0347070.4		Installed	No
Studs	Accutech	HE# 8860543	n/a	PO# G028783.1	96	Installed	No
Studs	Nova Mach. Products	HE# 99694	n/a	PO# G0347070.3	99	Installed	No
Nuts	Nova Mach. Products	HE# B87035	n/a	PO# G0347070.4	00	Installed	No

7. Description of Work Clean Containment Air Cooler VHX-3 tubes.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24014811

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Eng. Date February 21, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to 02/25/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Inspector's Signature [Signature] Commissions MI -762 ABNT  
National Board, State, Province, and Endorsements  
Date Feb. 25, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date APRIL 2, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24014887  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System SPENT FUEL POOL (SFP)

5. (a) Applicable Construction Code B31.1, 55 Edition, n/a Addenda, n/a Code Case  
Year

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
BOLT	NOVA MACH. PROD.	HT# 714533	n/a	PO# GP 329622/1	00	INSTALLED	NO
NUT	NOVA MACH. PROD.	HT# 717604	n/a	PO# GP 306511/2	99	INSTALLED	NO

7. Description of Work REPLACE VALVE MD. SFP 131 BOWNET GASKET AND FASTENERS.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24014887

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] SENIOR ENG. Date APRIL 2, 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to APRIL 3, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date APRIL 3, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date April 30, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1 1013061

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 240110011  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Nuts	NovaMach Products	HE# B87035	n/a	PO# G0340745.4	00	Installed	No
Bolts	Accutech	HE# B860543	n/a	PO# G0218783.1	96	Installed	No
Nuts	NovaMach Products	HE# B077124	n/a	PO# G0303628.1	95	Installed	No
Nuts	NovaMach Products	HE# B87035	n/a	PO# GO 347347070.4	00	Installed	No
Bolts	NovaMach Products	HE# 99694	n/a	PO# G0347070.3	99	Installed	No

7. Description of Work Clean ~~HT~~ Containment Air Cooler THX-2 Tubes

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24110011

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Schuch Senior Eng. Date February 21 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 02/25/02, 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 MT-762 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 25, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date February 21, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24110189  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Nut	Nova Mach. Products	HE# 1387035	n/a	PO# G0347070.4	00	Installed	No
Stud	Nova Mach. Products	HE# 99694	n/a	PO# G0347070.3	99	Installed	No

7. Description of Work Clean Containment Air Cooler AHX-1 tubes.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24110189

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for entering manufacturer's data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph P. Schmid Senior Eng. Date February 21, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 02/25/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 25, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date April 5, 2001  
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.# 24110469  
Address Repair/Replacement 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 Spent Fuel Pool (SFP)

5. (a) Applicable Construction Code ASAB31.1, 1955 Edition, n/a Addenda, n/a Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year  
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Endbell	BOS-HATTEN	92187A1	n/a	PO# G0325315	00	Installed	Yes
Tube Plugs	ACCUTECH	HT# L26665	n/a	PO# G022330/1	97	Installed	No

7. Description of Work Plug worn tubes; replace South Endbell with new.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24110469

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Shradh Senior Engineer Date August 21, 2001  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to 5-10-01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date SEP. 4, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date March 4, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24110950  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant (PCS)

5. (a) Applicable Construction Code ASME III, 1981 Edition, 1988 Addenda, None Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N-416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
CRD Seal Housing	Comb. Eng. Nuclear	232	2904	PO# 60321653	01	Installed	Yes

7. Description of Work Install new CRD Seal Housing onto Reactor Vessel N-52

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
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 number of sheets is recorded at the top of this form.



24110950

FORM NIS-2 (Back)

9. Remarks See n. 2 Data Report attached.  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Eng. Date March 4, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to 03/05/02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date Mar. 5, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code, Section XI**

1. Owner Consumers Energy Company  
Name

Date March 01, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24110974  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant (PCS)

5. (a) Applicable Construction Code ASME III, <sup>ASME</sup> ~~ASME~~ 1986 Edition, 1988 Addenda, None Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N-416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
CRD Seal Housing	Comb. Eng. Nuclear	219	2901	IPD # 60321653	01	Installed	Yes

7. Description of Work Install CRD Seal Housings onto Reactor Vessel N.52

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24110974

FORM NIS-2 (Back)

9. Remarks See manufacturers data report attached.  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Eng. Date March 01, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 11/20/99 to 03/05/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Mar. 5, 2002

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

1. Manufactured and certified by CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.
2. Manufactured for CE Nuclear Power LLC., 2000 Day Hill Road, Windsor, CT 06095-0500.
3. Location of installation Consumers Energy Company, Falisades Station, Michigan
4. Type CND-E-4926 Rev. 05      \* SEE BACK      \* SEE BACK      N/A      2001  
 (Drawing no.)      (mat'l spec. no.)      (tensile strength)      (cm)      (year built)
5. ASME Code, Section III: 1986      1988      I      NB      None  
 (edition)      (addenda)      (class)      (subsection)      (code case)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A      Revision N/A      Date N/A
7. Remarks: CRDM Seal Housing Assemblies
8. Nom. thickness (in.) \* See Back      min. design thickness (in.) \* See Back      Dia. ID (in. & in.) \* See Back      length overall (in. & in.) \* See Back
9. When applicable, Certificate Holders' data reports are for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 216	2898	(18)	
(2) 217	2899	(19)	
(3) 218	2900	(20)	
(4) 219	2901	(21)	
(5) 220	2902	(22)	
(6) 231	2903	(23)	
(7) 232	2904	(24)	
(8) 235	2905	(25)	
(9)		(26)	
(10)		(27)	
(11)		(28)	
(12)		(29)	
(13)		(30)	
(14)		(31)	
(15)		(32)	
(16)		(33)	
(17)		(34)	

10. Design pressure 2500 psi      Temp 600 °F      Hydro. test pressure 3125 psi at temp 70 °F

FORM N-2 (Back)

Part Serial No. 216 thru 220 & 231, 232, 235

CERTIFICATE OF DESIGN

Design specification certified by N/A P.E. state N/A Reg. no. N/A  
 (where applicable)  
 Design report certified by N/A P.E. state N/A Reg. no. N/A  
 (where applicable)

CERTIFICATE OF SHOP INSPECTION

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

NPT Certificate of Authorization no. N-2041

Expires February 20, 2002

Date 2/16/02 Name CE Nuclear Power LLC  
 (NPT Certificate Holder)

Signed J.M.R.  
 (authorizing representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of New Hampshire and employed by H.S.E.I. & I. Co. of Hartford, CT have inspected these items described in this report on 2/16/02 and state that to the best of my knowledge and belief the Certificate Holder has fabricated these parts or assemblies in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 2/16/02 Signed J.M.R. Commission NH202 7<sup>th</sup>  
 (in the endorsement(s) state or prov and no.)

MATERIAL	TENSILE	NOMINAL THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
SB-166 NO6600 Access Tube Flange	80,000	.120"	.115"	1.26"	2"
SB-167 NO6600 Access Tube	80,000	.120"	.108"	1.26"	39.50"
SB-166 NO6600 Seal Housing	80,000	.28	.26	2.06	11.38

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date January 18, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24111057  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Containment Isolation (CIS)

5. (a) Applicable Construction Code ASME III, 1965 Edition, None Addenda, None Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases None

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Swing Bolt	Nova Mach. Prod.	HE # 69731	N/A	PO# GD 286382	99	Installed	No
Washer	Trentec Inc.	<del>HE # 68345</del>	N/A	<del>PO# GD 287355</del>	99	Installed	No
Nut	Nova Mach. Prod.	HE # 68395	N/A	PO# GD 301688	99	Installed	No
Washer	Trentec Inc.	Part 30087-9	NA	PO# GD 287355	99	Installed	No

7. Description of Work Replace galloped swing-bolt on Equipment Hatch MZ-51.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24111057

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Eng. Date January 18, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 02/05/02, 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 ARNT  
National Board, State, Province, and Endorsements

Date Feb. 05, 2002

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code, Section XI**

1. Owner Consumers Energy Company Date 8/15/2001  
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.# 2411225  
Address Repair/Replacement 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 ENGINEERED SAFEGUARDS SYSTEM (ESS)

5. (a) Applicable Construction Code ASME SEVIII 68 Edition, N/A Addenda, N/A Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
Year  
 (c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
RELIEF VALVE	FARRIS	432398-1-A15	N/A	PO# G0352165CQ	2001	INSTALLED	NO

7. Description of Work REPLACE SHUTDOWN COOLING RELIEF VALVE RV-3164.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 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 number of sheets is recorded at the top of this form.



24111225

FORM NIS-2 (Back)

9. Remarks NONE Applicable Manufacturer's Data Reports to be attached

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CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Bill Williams, B. Engineering Analyst Date 8/15/2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by FACTORY MUTUAL INSURANCE COMPANY of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 5/12/01 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.  
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions MI-763 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Aug. 20, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date 7/25/2001  
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.# 24111229  
Address Repair/Replacement 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 ENGINEERED SAFE GUARDS SYSTEM (ESS)

5. (a) Applicable Construction Code ANSI B31.1, 1973 Edition, N/A Addenda, N/A Code Case  
Year  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
Year  
 (c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
SNUBBER	BASIC-PSA, INC	41420	N/A	PO# 60352177	2001	INSTALLED	N/A

7. Description of Work REPLACED SNUBBER SNB-79 WITH NEW UNIT.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt   
 Other  Pressure N/A psi Test Temp. N/A °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 number of sheets is recorded at the top of this form.



24111229

FORM NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for handwritten remarks.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] SR. ENGINEERING ANALYST Date 7/25/2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 5/10/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date 7/26, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code, Section XI**

1. Owner Consumers Energy Company

Date March 01, 2002

27780 Blue Star Hwy. Covert, MI

Sheet 1 of 1

2. Plant Palisades Nuclear Plant

Unit 1

27780 Blue Star Hwy. Covert, MI

W.O.# 24111288  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant (PCS)

5. (a) Applicable Construction Code ASME III, 1986 Edition, 1988 Addenda, None Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89

(c) Applicable Section XI Code Cases N.416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
CRD Seal Housing	Comb. Eng. Nuclear	209	2888	ID# G0321653	01	Installed	Yes
CRD Seal Housing	Comb. Eng. Nuclear	211	2890	ID# G0321653	01	Installed	Yes
CRD Seal Housing	Comb. Eng. Nuclear	224	2906	ID# G0321653	01	Installed	Yes

7. Description of Work Install CRD Seal Housings onto Reactor Vessel N.52.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24111288

FORM NIS-2 (Back)

9. Remarks See manufacturer's data report attached.  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph P. Shuck, Senior Eng. Date March 01, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 03/05/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Mar. 5, 2002

**FORM N-2 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 CE Nuclear Power LLC, 55 OM Dover Road, Newington, NH 03901.

2. Manufactured for CE Nuclear Power LLC, 2000 Day Hill Road, Windsor, CT 06093-0500.

3. Location of installation Consumers Energy Company, Palisades Station, Michigan

4. Type CND-E-4996 Rev. 05 (Drawing no.) • SEE BACK (min'l spec. no.) • SEE BACK (scale strength) • N/A (cm) 2001 (year built)

5. ASME Code, Section III: 1986 (edition) 1988 (addenda) 1 (class) NB (subsection) None (code case)

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

7. Remarks: CRDM Seal Housing Assemblies

8. Nom. thickness (in.) • See Back min. design thickness (in.) • See Back Dia. ID (R & in.) • See Back length overall (R & in.) • See Back

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

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 201	2880	(18) 223	2897
(2) 202	2881	(19)	
(3) 203	2882	(20)	
(4) 204	2883	(21)	
(5) 205	2884	(22)	
(6) 206	2885	(23)	
(7) 207	2886	(24)	
(8) 208	2887	(25)	
(9) 209	2888	(26)	
(10) 210	2889	(27)	
(11) 211	2890	(28)	
(12) 212	2891	(29)	
(13) 213	2892	(30)	
(14) 214	2893	(31)	
(15) 215	2894	(32)	
(16) 221	2895	(33)	
(17) 222	2896	(34)	

10. Design pressure 2500 psi

Temp 600 °F

Hydro. test pressure 3125 psi at temp 70 °F

CERTIFICATE OF DESIGN

Design specification certified by N/A P.E. state N/A Reg. no. N/A  
 (where applicable)  
 Design report certified by N/A P.E. state N/A Reg. no. N/A  
 (where applicable)

CERTIFICATE OF SHOP INSPECTION

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 2002

Date 2/10/01 Name CE Nuclear Power LLC  
 (NPT Certificate Holder)

Signed [Signature]  
 (Authorized Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of New Hampshire and employed by H.S.B.L. & I. Co. 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 2/10/01 Signed [Signature] Commission NE002 7<sup>th</sup>  
 No. of endorsement(s) state or prov. and no)

MATERIAL	TENSILE	NOMINAL THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
SB-166 NO6600 Access Tube Flange	80,000	.120"	.115"	1.26"	2"
SB-167 NO6600 Access Tube	80,000	.120"	.108"	1.26"	39.50"
SB-166 NO6600 Seal Housing	80,000	.28	.26	2.06	11.38

**FORM N-2 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 CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.

2. Manufactured for CE Nuclear Power LLC, 2000 Day Hill Road, Windsor, CT 06095-0500.

3. Location of installation: Consumers Energy Company, Palisades Station, Michigan

4. Type CND-E-4996 Rev. 05 \* SEE BACK \* SEE BACK N/A 2001  
(Drawing no.) (mat'l spec. no.) (tensile strength) (cm) (year built)

5. ASME Code, Section III: 1986 1988 I NB None  
(edition) (addenda) (class) (subsection) (code case)

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

7. Remarks: CRDM Seal Housing Assemblies

8. Nom. thickness (in.) \* See Back min. design thickness (in.) \* See Back Dia. ID (R & in.) \* See Back length overall (R & in.) \* See Back

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

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 224	2906	(18) 246	2923
(2) 225	2907	(19) 247	2924
(3) 226	2908	(20)	
(4) 227	2909	(21)	
(5) 228	2910	(22)	
(6) 229	2911	(23)	
(7) 230	2912	(24)	
(8) 236	2913	(25)	
(9) 237	2914	(26)	
(10) 238	2915	(27)	
(11) 239	2916	(28)	
(12) 240	2917	(29)	
(13) 241	2918	(30)	
(14) 242	2919	(31)	
(15) 243	2920	(32)	
(16) 244	2921	(33)	
(17) 245	2922	(34)	

10. Design pressure 2500 psi

Temp 600 °F

Hydro. test pressure 3125 psi at temp 70 °F

Part Serial No. 224 thru 230 & 236 thru 247

**CERTIFICATE OF DESIGN**

Design specification certified by N/A P.E. stamp N/A Reg. no. N/A  
 (when applicable)  
 Design report certified by N/A P.E. stamp N/A Reg. no. N/A  
 (when applicable)

**CERTIFICATE OF SHOP INSPECTION**

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

NPT Certificate of Authorization no. N-2041 Expires February 20, 2002  
 Date 3/2/01 Name CE Nuclear Power LLC Signed [Signature]  
 (NPT Certificate Holder) (authorized representative)

**CERTIFICATE OF SHOP INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or provinces of New Hampshire and employed by H. S. B. I. & I. Co. of Hartford, CT have inspected these items described in this data report on March 2, 2001 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 3/2/01 Signed [Signature] Commissioner NH202 "N"  
 (N.B. endorsement(s) state or prov and no)

MATERIAL	TENSILE	NOMINAL THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
SB-166 NO6600 Access Tube Flange	80,000	.120"	.115"	1.26"	2"
SB-167 NO6600 Access Tube	80,000	.120"	.108"	1.26"	39.50"
SB-166 NO6600 Seal Housing	80,000	.28	.26	2.06	11.38

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date JULY 24, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O. # 2411353  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System ENGINEERED SAFEGUARDS SYSTEM (ESS)

5. (a) Applicable Construction Code ANSI B31.1, 1973 Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
Year

(c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
SNUBBER	BASIC PSA INC	41422	N/A	PO# 60352945Q	2001	INSTALLED	N/A

7. Description of Work REPLACE SNUBBER GNB-80 WITH NEW UNIT.

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

Other  Pressure N/A psi Test Temp. N/A °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 number of sheets is recorded at the top of this form.



2411353

FORM NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for handwritten remarks.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Ed Williams SR ENGINEERING ANALYST Date 7/24/2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to MAY 10, 2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

R. J. Blake  
Inspector's Signature

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

Date 7/25, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date SEPTEMBER 11, 2001

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24111944  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System SERVICE WATER SYSTEM (SWS)

5. (a) Applicable Construction Code ASA B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
TUBE PLUG	HEAT EXCH. PROD. CORP.	PN 518" SS. D	NIA	PN# 60358444	Ø 1	INSTALLED	NO

7. Description of Work INSTALL CONTAINMENT AIR COOLER TUBE PLUGS

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24111944

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

Horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed Joseph E. Ahmed SENIOR ENGINEER Date SEPTEMBER 11 2001  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 9/11/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date 9/11, 2001

**FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company  
Name

Date February 19, 2002

27780 Blue Star Hwy. Covert, MI  
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant  
Name

Unit 1

27780 Blue Star Hwy. Covert, MI  
Address

W.O.# 24111949  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy  
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI  
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Primary Coolant (PCS)

5. (a) Applicable Construction Code ASME III, 1986 Edition, 1988 Addenda, None Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89  
Year

(c) Applicable Section XI Code Cases N.416-1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
CRD Seal Housing	Comb. Eng Nuclear	243	2920	PO# G0321653	01	Installed	Yes
CRD Seal Housing	Comb. Eng Nuclear	244	2921	PO# G0321653	01	Installed	Yes

7. Description of Work Install CRD Seal Housings onto Reactor Vessel N-52

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure  Exempt

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 number of sheets is recorded at the top of this form.



24111949

FORM NIS-2 (Back)

9. Remarks See manufacturer's data report attached.  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Eng. Date February 19, 2002  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to 03/05/02, 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 ABNT  
Inspector's Signature National Board, State, Province, and Endorsements

Date Mar 5, 2002