

ATTACHMENT

Consumers Power Company  
Palisades Plant  
Docket 50-255

1988 INSERVICE INSPECTION REPORT

February 10, 1989

16 Pages

OC0289-0042-NL04

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PALISADES NUCLEAR PLANT  
1988 INSERVICE INSPECTION NO 2-3

INTRODUCTION

PALISADES NUCLEAR PLANT

1988 Inservice Inspection No 2-3

The Inservice Inspection No 2-3 was conducted during the period of August 24, 1988 through November 24, 1988. Inspections were conducted in accordance with the Palisades Plant Technical Specifications, Sections 4.3 and 4.12. The ASME Boiler and Pressure Vessel Code, Section XI and the Plant Technical Specifications as follows:

<u>Item</u>	<u>Examination</u>	<u>Acceptance</u>
Class 1, 2 and 3 Piping and Components	77S78	77S78
Class 1, 2 and 3 Component Supports	77W78	77W78

The NDT examinations were performed using manual ultrasonic (UT), liquid penetrant (PT), visual (VT), and magnetic particle (MT) techniques. Indications were recorded in compliance with applicable procedures; reportable indications which were judged by the examination agencies to be relevant were documented and transmitted to CPCo, ISI personnel for evaluation. ISI evaluated all reportable indications and dispositioned each by "accepting as is" or by performing the necessary repairs and reexaminations.

Two examination agencies were utilized in onsite NDT-ISI activities. The agencies were Westinghouse and CPCo Laboratory and Field Technical Services (L&FTS).

Inspection personnel were qualified in accordance with the requirements set forth by IWA-2300, Section XI of ASME B&PV Code.

All records of procedures, personnel and equipment certifications, examination data and dispositions of all reportable indications are on file at the Palisades Nuclear Plant.



FORM NIS-1 (Back)

8. Examination Dates 8/15/88 to 11/24/88 9. Inspection Interval from 11/10/83 to 8/1/94
10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See ISI Report, Table 2.
11. Abstract of Conditions Noted  
See ISI Report, Table 1.
12. Abstract of Corrective Measures Recommended and Taken  
See ISI Report, Table 1.

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, 1977 Edition, Summer 78 Addenda  
Certificate of Authorization No. (if applicable) N/A Expiration Date N/A Winter 78 Addenda for Component Supports

Date 1/27 19 89 Signed Consumers Power Co. By J. H. Gentry  
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 Protection Mutual Ins. Co.  
Norwood, MA have inspected the components described in this Owner's Report during the period  
8/15/88 to 11/24/88, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this 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  
Date FEB. 2 19 89

Factory Mutual System  
Commissions MI. 762  
National Board, State, Province, and Endorsements

PALISADES NUCLEAR PLANT  
PLANT PROJECTS DEPARTMENT  
Review and Approval Summary

TITLE: ISI REPORT 2-3

1. Prepared

J. H. Foubly 1/24/89  
Responsible Individual Date

2. Recommend Approval

R E Osborne 1/27/89  
Responsible Dept Head Date

3. Approved

P D Berg 1/30/89  
Final Approver Date  
Engg and Maint Mgr

4. Approved

W B Malar 2/1/89  
Final Approver Date  
Plant General Manager

PALISADES NUCLEAR PLANT

1988 INSERVICE INSPECTION REPORT

Submitted in accordance with ASME Boiler and Pressure Vessel Code, Section XI, Article IWA-6000, 1977 Edition with addenda through Summer, 1978.

1. Date: January 4, 1989
2. Corporate Headquarters: Consumers Power Company  
212 West Michigan Avenue  
Jackson, MI 49201
3. Plant: Palisades Nuclear Power Plant  
27780 Blue Star Memorial Highway  
Covert, MI 49043
4. Unit No: 1
5. Commercial Service Date: December 31, 1971
6. Gross Generating Capacity: 780 Mw electric  
2530 Mw thermal
7. See attached table and the remainder of the ISI Report
8. See attached table and the remainder of the ISI Report
9. See attached table and the remainder of the ISI Report
10. See attached table and the remainder of the ISI Report
11. Completion Date for Inspections: November 24, 1988
12. Code Inspector: Kenneth L Blake
13. Authorized Inspection Agency: Protection Mutual, Norwood, MA
14. Abstract: See ISI Report

Item 7, 8, 9, 10

MAJOR COMPONENTS INSPECTED TABLE

1988 PALISADES INSERVICE INSPECTION

<u>Components or Appurtenance</u>	<u>Manufacturer</u>	<u>Manufacturer Serial No</u>	<u>State Assigned No</u>	<u>National Board No</u>
Reactor Vessel	Combustion Eng	CE-66110	M96725M	NB20827
Pressurizer	Combustion Eng	CE-66601	M96728M	NB20851
Steam Generator A (or 1)	Combustion Eng	CE-66501	M96726M	NB20849

TABLE 1  
Resolution of Reportable Indications

TABLE 1

Resolution of Reportable Indications

<u>Component</u>	<u>Examination Methods</u>	<u>Condition Reported</u>	<u>Reporting Mechanism</u>	<u>Disposition</u>	<u>Reinspection</u>
PCS-12-SCS-2H1-13PS	PT	Linear Indication	DN No DMZ-092388-1  D-PAL-88-159	Flap Indication	Acceptable After Rework  See DN No DMZ-100788-1 for Reexamination
Reactor Vessel Interior	VT-3	Foreign Parts in Vessel (Washers, Bolt and Pin)	D-PAL-88-154	Remove Parts	
FWS-18-FWL-251-257PR	VT-3	Loose Nut	D-PAL-88-122	Tighten Nut	Acceptable
PCS-2-PSS-1P1-54	PT	Linear Indication	DN No DMZ-100588-1	Accept As Is (Acceptable Per IWB-3514-3)	
2A-S-A	PT	Linear Indications	DN No DMZ-091988-1	Accept As Is (Acceptable Per IWB-3516-2)	
2A-S-B	PT	Linear Indication Rounded Indication	DN No DMZ-091988-2	Accept As Is (Acceptable Per IWB-3516-2)	

TABLE 2  
Examination Summary

OC0988-0140-NL02

TABLE 2  
PALISADES INSERVICE INSPECTION NO 2-3  
 SUMMARY OF AREAS EXAMINED AND RESULTS

<u>ASME Section XI Item No</u>	<u>ASME Section XI Cat No</u>	<u>Exam Methods</u>	<u>Component Identification</u>	<u>Final Examination Results</u>
B1.30	B-A	UT	7-112, Vessel Circ Weld	Acceptable
B3.90	B-D	UT	5-114E, Nozzle to Shell	Acceptable
B3.90	B-D	UT	5-114F, Nozzle to Shell	Acceptable
B3.10	B-D	UT	5-114E-IRS, Nozzle Inner Radius	Acceptable
B3.10	B-D	UT	5-114F-IRS, Nozzle Inner Radius	Acceptable
B6.40	B-G-1	UT	RPV - Ligaments 1-27, Flange Ligaments	Acceptable
B13.1	B-N-1	VT-3	RPV - Vessel Interior	Acceptable
B1.40	B-A	UT	6-118A 1-18, Vessel Circ Weld	Acceptable
B3.11	B-D	UT	1-986, Nozzle Weld	Acceptable
B3.11	B-D	UT	8-986A, Nozzle Weld	Acceptable
B3.12	B-D	UT	1-986-IRS, Nozzle Inner Radius	Acceptable
B3.12	B-D	UT	8-986A-IRS, Nozzle Inner Radius	Acceptable
B9.21	B-J	PT	PCS-2.5-PRS-1P1-2, Pipe to Elbow	Acceptable
B10.1	B-K-1	PT	PCS-2.5-PRS-1P1-7PS, Pipe Support	Acceptable
B9.21	B-J	PT	PCS-2.5-PRS-1P2-2, Elbow to Pipe	Acceptable
B7.50	B-G-2	VT-1	PCS-2.5-PRS-1P2-8BT, Flange Bolting	Acceptable
C2.20	C-B	PT, UT	2-2-959, Nozzle to Shell Weld	Acceptable
B2.60	B-B	UT	E-56A-03, Circ Weld	Acceptable
B2.51	B-B	UT	E-56A-04, Circ Weld	Acceptable
B3.15	B-D	UT	E-56A-05, Nozzle to Shell	Acceptable
B3.16	B-D	UT	E-56A-05-IRS, Nozzle Inner Radius	Acceptable
B2.60	B-B	UT	E-56B-03, Circ Weld	Acceptable
B2.51	B-B	UT	E-56B-04, Circ Weld	Acceptable
F-1	F-A	VT-3	E-56B-S-01, Dish Supports	Acceptable
B9.21	B-J	PT	CVC-2-LDD-2B1-1, Tee to Reducer	Acceptable
F-2	F-B	VT-3	ESS-6-SIS-1B1-5PSS, Pipe Support	Acceptable
F-3	F-C	VT-3	ESS-6-SIS-2B1-5PR, Pipe Restraint	Acceptable
F-4	F-C	VT-4		

TABLE 2  
PALISADES INSERVICE INSPECTION NO 2-3  
 SUMMARY OF AREAS EXAMINED AND RESULTS

<u>ASME Section XI Item No</u>	<u>ASME Section XI Cat No</u>	<u>Exam Methods</u>	<u>Component Identification</u>	<u>Final Examination Results</u>
B9.40	B-J	PT	ESS-2-SIS-1Bl-12, Pipe to Elbow	Acceptable
B9.40	B-J	PT	ESS-2-SIS-2Bl-5, Tee to Pipe	Acceptable
F-3	F-C	VT-3	FWS-18-FWL-1Sl-248PR, Pipe Restraint	Acceptable
F-3	F-C	VT-3	FWS-18-FWL-1Sl-249PR, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
F-3	F-C	VT-3	FWS-18-FWL-1Sl-252PR, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
F-3	F-C	VT-3	FWS-18-FWL-1Sl-256PR, Pipe Restraint	Acceptable
F-3	F-C	VT-3	FWS-18-FWL-1Sl258PR1, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
F-3	F-B	VT-3	FWS-18-FWL-2Sl-249PR, Pipe Restraint	Acceptable
C5.21	C-F	PT, UT	FWS-18-FWL-2Sl-252, Elbow to Pipe	Acceptable
F-3	F-C	VT-3	FWS-18-FWL-2Sl-252PR, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
F-3	F-C	VT-3	FWS-18-FWL-2Sl-253PR, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
F-3	F-B	VT-3	FWS-18-FWL-2Sl-257PR, Pipe Restraint	Acceptable
F-3	F-C	VT-3	FWS-18-FWL-2Sl-259PR1, Pipe Restraint	Acceptable
F-3	F-C	VT-3	FWS-18-FWL-2Sl-249PR2, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
C3.40	C-E	PT	ESS-6-SIS-1Bl-1PS, Pipe Support	Acceptable
F-2	F-B	VT-3	ESS-6-SIS-1Bl-1PSS, Pipe Support Structure	Acceptable
F-3	F-C	VT-3	ESS-6-SIS-2Al-PR2, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
C3.40	C-E	PT	ESS-6-SIS-2Al-1PS, Pipe Support	Acceptable
F-2	F-B	VT-3	ESS-6-SIS-2Al-1PSS, Pipe Support Structure	Acceptable
F-3	F-C	VT-3	ESS-12-SIS-1LP-241PR, Pipe Restraint	Acceptable
F-4	F-C	VT-4		

TABLE 2

PALISADES INSERVICE INSPECTION NO 2-3

SUMMARY OF AREAS EXAMINED AND RESULTS

<u>ASME Section XI Item No</u>	<u>ASME Section XI Cat No</u>	<u>Exam Methods</u>	<u>Component Identification</u>	<u>Final Examination Results</u>
C5.11	C-F	PT	ESS-12-SIS-1LP-242, Pipe to Elbow	Acceptable
C5.11	C-F	PT	ESS-6-SIS-1HP-223A, Pipe to Tee	Acceptable
C3.40	C-E	PT	ESS-6-SIS-1HP-227PS, Pipe Support	Acceptable
B10.1	B-K-1	PT	PCS-12-PSL-1H1-3PS, Pipe Support	Acceptable
F-2	F-B	VT-3	PCS-12-PSL-1H1-3PSS, Pipe Support Structure	Acceptable
F-3	F-C	VT-3	PCS-12-PSL-1H1-5PR-B, Pipe Restraint	Acceptable
B10.1	B-K-1	PT	PCS-12-SCS-2H1-10PSB, Pipe Support	Acceptable
F-2	F-B	VT-3	PCS-12-SCS-2H110PSSB, Pipe Support Structure	Acceptable
B10.1	B-K-1	PT	PCS-12-SCS-2H1-13PS, Pipe Support	Acceptable
F-2	F-B	VT-3	PCS-12-SCS-2H1-13PSS, Pipe Support Structure	Acceptable
B9.11	B-J	PT, UT	PCS-4-PSS-1P1-1, Reducer to Pipe	Acceptable
B9.11	B-J	PT, UT	PCS-4-PSS-1P1-12, Elbow to Pipe	Acceptable
B9.11	B-J	PT, UT	PCS-4-PSS-1P1-15, Pipe to Elbow	Acceptable
F-3	F-B	VT-3	PCS-3-PSS-1B1-4PR-A, Pipe Restraint	Acceptable
F-3	F-B	VT-3	PCS-3-PSS-1B1-6PR, Pipe Restraint	Acceptable
F-3	F-B	VT-3	PCS-3-PSS-1B1-14PR-B, Pipe Restraint	Acceptable
F-3	F-C	VT-3	PCS-3-PSS-1B1-14BPR, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
B9.21	B-J	PT	PCS-3-PSS-1B1-15, Pipe to Elbow	Acceptable
B9.21	B-J	PT	PCS-3-PSS-2A1-13, Elbow to Pipe	Acceptable
B9.21	B-J	PT	PCS-3-PSS-2A1-14, Pipe to Elbow	Acceptable
B9.21	B-J	PT	PCS-3-PSS-2A1-19, Pipe to Elbow	Acceptable
B9.21	B-J	PT	PCS-3-PSS-2A1-20, Elbow to Pipe	Acceptable
B9.40	B-J	PT	PCS-2-DRL-1H1-3, Pipe to Tee	Acceptable
F-3	F-B	VT-3	PCS-2-LDL-2B1-14PR-B, Pipe Restraint	Acceptable
B9.40	B-J	PT	PCS-2-LDL-2B1-17, Pipe to Valve	Acceptable
B9.11	B-J	PT, UT	ESS-6-SIS-1A1-12, Pipe to Elbow	Acceptable
B10.1	B-K-1	PT	ESS-6-SIS-2B1-15PL-1, Pipe Lug	Acceptable

TABLE 2  
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SUMMARY OF AREAS EXAMINED AND RESULTS

<u>ASME Section XI Item No</u>	<u>ASME Section XI Cat No</u>	<u>Exam Methods</u>	<u>Component Identification</u>	<u>Final Examination Results</u>
B10.1	B-K-1	PT	ESS-6-SIS-2B1-15PL-2, Pipe Lug	Acceptable
B10.1	B-K-1	PT	ESS-6-SIS-2B1-15PL-3, Pipe Lug	Acceptable
B10.1	B-K-1	PT	ESS-6-SIS-2B1-15PL-4, Pipe Lug	Acceptable
F-3	F-B	VT-3	ESS-6-SIS-2B1-19PR-C, Pipe Restraint	Acceptable
B9.40	B-J	PT	ESS-2-LTC-1A-21, Pipe to Tee	Acceptable
B9.40	B-J	PT	ESS-2-LTC-1B-19, Tee to Pipe	Acceptable
B9.40	B-J	PT	ESS-2-LTC-1B-20, Tee to Pipe	Acceptable
F-3	F-B	VT-3	ESS-2-LTC-1B-20PR, Pipe Restraint	Acceptable
F-3	F-B	VT-3	ESS-2-LTC-1B-34PS, Pipe Support	Acceptable
B9.40	B-J	PT	CVC-2-CHL-1A1-4, Pipe to Tee	Acceptable
F-3	F-B	VT-3	CVC-2-CHL-2A1-15PR, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-CHL-2A1-23PR-A, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-CHL-2A1-23PR-B, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-CHL-2A1-23PR-C, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-CHL-2A1-23PR-D, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-CHL-2A1-27PR-A, Pipe Restraint	Acceptable
B9.40	B-J	PT	CVC-2-CHL-2A1-46, Pipe to Valve	Acceptable
B9.40	B-J	PT	CVC-2-LDL-2B1-26, Pipe to Elbow	Acceptable
B9.40	B-J	PT	CVC-2-LDL-2B1-27, Elbow to Pipe	Acceptable
B9.40	B-J	PT	CVC-2-LDL-2B1-28, Pipe to Elbow	Acceptable
B9.40	B-J	PT	CVC-2-LDL-2B1-29, Elbow to Pipe	Acceptable
B9.40	B-J	PT	CVC-2-LDL-2B1-30, Pipe to Elbow	Acceptable
B9.40	B-J	PT	CVC-2-LDL-2B1-31, Elbow to Pipe	Acceptable
B9.40	B-J	PT	CVC-2-LDL-2B1-33, Elbow to Pipe	Acceptable
F-3	F-B	VT-3	CVC-2-LDL-2B2-11PR, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-LDL-2B2-13PR, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-LDL-2B2-27PR-1, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-LDL-2B2-27PR-2, Pipe Restraint	Acceptable

TABLE 2  
PALISADES INSERVICE INSPECTION NO 2-3  
 SUMMARY OF AREAS EXAMINED AND RESULTS

ASME Section XI Item No	ASME Section XI Cat No	Exam Methods	Component Identification	Final Examination Results
F-3	F-B	VT-3	CVC-2-LDL-2B2-31PR, Pipe Restraint	Acceptable
F-3	F-B	VT-3	CVC-2-LDL-2B2-34PR, Pipe Restraint	Acceptable
B9.32	B-J	PT	PCS-2-PSS-1P1-54, Valve to Pipe	Acceptable
B9.32	B-J	PT	PCS-2-PSS-1P1-55, Pipe to Reducer	Acceptable
B10.2	B-K-1	PT	1B-S-A, Pump Support	Acceptable
B10.2	B-K-1	PT	1E-S-B, Pump Support	Acceptable
B10.2	B-K-1	PT	1B-S-C, Pump Support	Acceptable
B10.2	B-K-1	PT	1B-S-D, Pump Support	Acceptable
F-2	F-B	VT-3	1B-SS, Pump Support	Acceptable
B10.2	B-K-1	PT	2A-S-A, Pump Support	Acceptable
B10.2	B-K-1	PT	2A-S-B, Pump Support	Acceptable
B10.2	B-K-1	PT	2A-S-C, Pump Support	Acceptable
B10.2	B-K-1	PT	2A-S-D, Pump Support	Acceptable
F-2	F-B	VT-3	2A-SS, Pump Support	Acceptable
B7.70	B-G-2	VT-1	CK3102-BT, Valve Bolting	Acceptable
B7.70	B-G-2	VT-1	CK3132-BT, Valve Bolting	Acceptable
F-2	F-B	VT-3	ESS-14-SCS-2H1-204SS, Support Structure	Acceptable
C5.12	C-F	PT	ESS-14-SCS-2H1-206LI, Longitudinal Weld	Acceptable
F-3	F-B	VT-3	ESS-6-SIS-2HP-226PR1B, Pipe Restraint	Acceptable
F-3	F-C	VT-3	ESS-6-SIS-2HP-232PR, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
F-3	F-B	VT-3	PCS-4-PSS-1P1-4PR, Pipe Restraint	Acceptable
F-3	F-B	VT-3	PCS-4-PSS-1P1-10PR-B, Pipe Restraint	Acceptable
F-3	F-C	VT-3	PCS-4-PSS-1P1-10PR-C, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
F-3	F-C	VT-3	PCS-4-PSS-1P1-12PR-A, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
F-3	F-B	VT-3	CVC-2-PSS-1P1-50PR, Pipe Restraint	Acceptable

TABLE 2  
PALISADES INSERVICE INSPECTION NO 2-3  
SUMMARY OF AREAS EXAMINED AND RESULTS

<u>ASME Section XI Item No</u>	<u>ASME Section XI Cat No</u>	<u>Exam Methods</u>	<u>Component Identification</u>	<u>Final Examination Results</u>
C5.12	C-F	PT	ESS-14-SDC-LPC-202LO, Longitudinal Weld	Acceptable
C5.11	C-F	PT	ESS-10-SIS-LPA-230, Elbow to Pipe	Acceptable
C5.12	C-F	PT	ESS-10-SIS-LPA-230LW, Longitudinal Weld	Acceptable
F-3	F-C	VT-3	ESS-14-SDC-LPD213PRA, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
C5.11	C-F	PT	ESS-14-SDC-LPD-220, Tee to Valve	Acceptable
C5.11	C-F	PT	ESS-12-SIS-LPB-231, Reducer to Tee	Acceptable
C5.21	C-F	PT, RT, UT	MSS-36-MSL-1S1-210, Pipe to Elbow	Acceptable
F-3	F-C	VT-3	MSS-8-MSV-1S1-210PR1, Pipe Restraint	Acceptable
F-4	F-C	VT-4		
C5.11	C-F	PT	MSS-6-RVR-2S2-203, Elbow to Flange	Acceptable
F-3	F-B	VT-3	FWS-6-AWS-2S1211PR-1, Pipe Restraint	Acceptable
F-3	F-B	VT-3	FWS-6-AWS-2S1211PR-2, Pipe Restraint	Acceptable
F-3	F-B	VT-3	FWS-6-AWS-2S1-200-PR, Pipe Restraint	Acceptable