U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Reports No. 50-329/81-06; 50-330/81-06

Docket Nos. 50-329; 50-330 License Nos. CPPR-81; CPPR-82

Licensee: Consumers Power Company
1945 W. Parnell Road
Jackson, MI 49201

Facility Name: Midland Plant, Units 1 and 2

Inspection At: Midland Site, Midland, MI

Inspection Conducted: March 18, and May 12, 1981

Inspector: K. D. Ward 5/22/81
K. D. Ward

Approved By: D. H. Danielson 5/22/81
D. H. Danielson, Chief
Materials & Processes Section

Inspection Summary

Inspection on March 18, and May 12, 1981 (Report No. 50-329/81-06; 50-330/81-06)
Areas Inspected: Review of preservice inspection (PSI) procedures, work activities, nondestructive examination (NDE) personnel certifications, and data; IE Bulletin No. 81-01 activities. The inspection involved a total of 15 inspection hours onsite by one NRC inspector.
Results: No items of noncompliance or deviations were identified.

DETAILS

Persons Contacted

Consumers Power Company (CPCo)

*D. Turnbull, Sr., Superintendent Engineer
*D. Keating, Section Head, Inspection, Examination and Test Verification, (IE & TV)
*D. Vokal, Supervisor Engineer
*J. Decker, NDE/Welding Supervisor
B. Beck, Construction Supervisor
J. Walton, Senior Engineer

Babcock and Wilcox Construction Company (B&W)

*G. Navratil, Group Leader

The inspector also contacted and interviewed other licensee and contractor employees.

*Denotes those attending the final exit interview May 12, 1981.

Licensee Action on Previous Inspection Findings

(Open) Deviation (329/80-01-02; 330/80-01-03): "No positive way of tracking design changes and assuring that completed work is modified in accordance with design changes and no procedure for handling design changes made after completion of work." CPCo is working on the final presentation for closing the deviation.

(Open) Unresolved Item (329/80-17-02; 330/80-19-02): "Radiographic linear indications of welds in two borated water storage tanks." A decision has been made by CPCo to have all questionable radiographic welds reradiographed.

(Closed) Unresolved Items (329/80-20-02; 330/80-21-02): "Possible lack of fusion in borated water storage tank nozzle welds." The inspector reviewed the actions taken and based on ultrasonic examinations (UT), review of actual tank welds, design requirements and discussion with personnel involved in fabrication of the tanks, the inspector considers appropriate corrective action was taken.

Licensee Action on IE Bulletin

References:

a. NRC memorandum dated January 27, 1981, to CPCo (IE Bulletin No. 81-01) titled "Surveillance of Mechanical Snubbers."

(Closed) IE Bulletin No. 81-01, "for information only." The inspector verified that the licensee management received the IE Bulletin and that it was reviewed for applicability.

Functional or Program Areas Inspected

1. General

References:

(1) NRC Report No. 50-329/79-20; 50-330/79-21 (PSI)
(2) NRC Report No. 50-329/80-03: 50-330/80-03 (PSI)
(3) NRC Report No. 50-329/80-17; 50-330/80-18 (PSI)
(4) NRC Report No. 50-329/80-27; 50-330/80-28 (PSI)
(5) NRC Report No. 50-329/81-02; 50-330/81-02 (PSI)

CPCo received four allegations concerning B&W NDE work from an individual previously employed at the Midland Site (File 16.0, Serial 98FQA80, dated April 11, 1980). Two of the allegations were closed (Ref. NRC Report No. 50-329/80-27 and 50-330/80-28 dated December 11, 1980).

Another allegation is now closed, "Field radiographs of the feedwater nozzles do not meet the required geometric unsharpness (Ug) due to inadequate film to object contact." This allegation could not be substantiated. The inspector reviewed the final response, (Ref. B&W letter to Bechtel Power Corp. dated April 4, 1981, "Disposition on Ug of feedwater riser tube welds"), including radiography procedure NDE-PQ-RT-202, and the sketch of the actual feedwater riser tube welds configuration. The inspector considers appropriate corrective action was taken.

The fourth allegation has not been resolved to date.

2. Preservice Inspection

a. Procedure Review

The inspector reviewed the following procedures:

(1) B&W, Technical Procedure Describing the Use of the Eddy Current Data and Calibration Sheets, Revision 1, February 24, 1981

(2) B&W, Administrative Procedure for Preventive Maintenance of Nondestructive Exmaination Equipment, ISI-81, Revision 5, February 24, 1981

(3) B&W, Eddy Current Examination of OTSG Tubing in 177 Steam Generators, ISI-401, Revision 12, September 12, 1980

(4) B&W, Multifrequency Eddy Current Examination of OTSG Tubing in 177 Steam Generators, ISI-406, Revision 2, February 24, 1981.

(5) B&W, Technical Procedure for the Evaluation of Eddy Current Data of Nuclear Grade Steam Generator Tubing, ISI-460, Revision 2, January 6, 1981.

b. Material and Equipment Certification

The inspector reviewed the certification documents relative to the following items.

(1) Ultrasonic instruments, calibrations blocks, transducers and couplant.

(2) Eddy current, equipment.

c. NDE Personnel Certification

The inspector reviewed the following NDE personnel certifications in accordance with SNT-TC-1A, 1975 Edition:

B&W

Name	PT	MT	UT	ET
G. Alberti	I	I	I	II
G. Dies	II	I	I	
M. Farrington	II	II	I	IT (trainee)
T. Richards	IT	IT		IT
T. U'ren	II	II	I	II

d. Observation of Work Activities

The inspector observed the work and had discussions with personnel during review of the following activities. These observations included calibrations, performance of the examinations and the documentation.

(1) Ultrasonic examination of main steam weld No. 2-ELB-10-13L Unit 2 and main steam weld No. 1-ELB-9-17 Unit 1.

(2) Eddy current examination of several steam generator tubes in SG 2A.

e. Review of Data Reports and Audits

The inspector reviewed data reports demonstrating that the QA/QC requirements were met.

Steam Generator 1A has no tubes with reportable conditions in accordance with B&W ET Procedure ISI-460 Revision 2, however, tubes 40-7 and 57-1 have weld spatter on the tube ID.

Steam Generator 2A has the following tubes with wall degradation that is equal to or greater than 20% but less than 40% thru wall by ET.

ROW-TUBE	ROW-TUBE	ROW-TUBE
[redacted]5-116	29-46	27-42
[redacted]3-95	27-56	13-69
13-63	12-50	63-60
128-59	146-27	147-35

Steam Generator 2B has the following tubes with wall degradation that is equal to or greater than 20% but less than 40% thru wall by ET.

ROW-TUBE	ROW-TUBE	ROW-TUBE
5-1	33-16	88-1
9-20	34-95	117-21
23-20	73-87	123-70
		120-30

Steam Generator 2B also has the following tubes with wall degradation that is greater than 40% thru wall by ET and requires tube plugging.

ROW-TUBE - % Thru WALL		ROW-TUBE - % Thru Wall	
18-24	67	75-1	45
21-51	41	77-1	62
35-38	49	82-79	67

Steam Generator 1B had not been completely ET prior to the inspector leaving the site.

The inspector also reviewed the following Audits:

(1) CPCo audit of B&W PSI
(2) B&W audit of B&W PSI

No items of noncompliance or deviations were identified.

2. Independent Inspection

The inspector reviewed radiographs and reports of the following field welds in accordance with ASME Section III, 1971 Edition, Summer 1973 Addenda.

System	Welds	Diameter	Thickness	Date RT
2CCA-43-1	5B	1"	0.219"	7/28/80
2CCA-49	4	1"	0.219"	6/20/80
2CCA-49	18	1"	0.219"	8/5/80
2CCA-49	13	1"	0.219"	8/4/80
2CCA-49	12	1"	0.219"	8/5/80
2CCA-49	11	1"	0.219"	6/19/80
2CCA-45	9	3/4"	0.192"	7/3/80
2CCA-45	10	1"	0.219"	7/2/80
2CCA-45	28	1"	0.219"	8/4/80
2CCA-42	26	1"	0.219"	6/16/80
2CCA-42	25A	1"	0.219"	8/11/80
2CCA-42	24	1"	0.219"	7/31/80
2CCA-42	23	1"	0.219"	7/31/80
2CCA50-1	4A	1"	0.219"	5/2/80
2CCA-43-1	1A	1"	0.219"	9/17/80
2CCA-43-1	2	1"	0.219"	7/29/80
2CCA-43-1	3A	1"	0.219"	8/27/80

No items of noncompliance or deviations were identified.

Exit Interview

The inspector met with site representatives (denoted in Persons Contacted paragraph) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection noted in this report.