

*Reactor Facilities
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

APR 8 1976

Wisconsin Public Service Corporation
ATTN: Mr. E. W. James, Senior Vice
President
Power Generation and Engineering
P. O. Box 1200
Green Bay, Wisconsin 54305

Docket No. 50-305

Gentlemen:

This refers to the inspection conducted by Mr. W. Key of this office on February 18, and April 2, 1976, of activities at Kewaunee Nuclear Power Plant and to the discussion of our findings with R. W. Lange, G. L. Jarvela, J. S. Richmond and C. R. Luoma and other members of your staff at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

No items of noncompliance with NRC requirements were identified within the scope of this inspection.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this notice, the enclosed inspection report, and your response to this notice will be placed in the NRC's Public Document Room, except as follows. If this report contains information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty days of your receipt of this notice, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so



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Wisconsin Public Service
Corporation

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that proprietary information identified in the application
is contained in an enclosure to the application.

We will gladly discuss any questions you have concerning this
inspection.

Sincerely yours,

D. M. Hummcutt, Chief
Reactor Construction and
Engineering Support Branch

Enclosure:
IE Inspection Report
No. 050-305/76-04

bcc w/encl:
PDR
Local PDR
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TIC
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U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report of Construction Inspection

IE Inspection Report No. 050-305/76-04

Licensee: Wisconsin Public Service Corporation
P. O. Box 1200
Green Bay, Wisconsin 54305

Kewaunee Nuclear Power Plant
Kewaunee, Wisconsin

License No. DPR-43
Category: C

Type of Licensee: PWR (W) 1650 MWt

Type of Inspection: Announced, Inservice

Dates of Inspection: February 18 and April 2, 1976

Principal Inspector:

W. J. Key
W. J. Key

4/7/76
(Date)

Accompanying Inspectors: None

Other Accompanying Personnel: None

Reviewed By: *J. C. LeDoux*
J. C. LeDoux, Chief
Engineering Support Section

4/7/76
(Date)

SUMMARY OF FINDINGS

Inspection Findings

Inspection of February 18 and April 2, 1976, (Unit 1, 76-04): Review of steam generator tube eddy current inspection procedures, material certifications, equipment calibration records, personnel qualifications, and observation of Unit 1 tube data collection and interpretation.

Enforcement Items

Items of Noncompliance

A. Violations

None.

B. Infractions

None.

C. Deficiencies

None.

Licensee Action on Previously Identified Enforcement Items

None.

Other Significant Items

A. Systems and Components

There were no indications of tubes needing repair or plugging.
(Paragraph 10, Report Details)

Unresolved Items

1. Calibration documents on instruments used in the performance of ECT inspection of steam generator tubes by Westinghouse Corporation, were not available on site. (Paragraph 4, Report Details)
 2. Calibration documents on instruments used to evaluate ECT data of steam generator tubes by Zetec Corporation, were not available on site. (Paragraph 4, Report Details)
- B. Facility Items (Plans and Procedures)
- None.

C: Managerial Items

Not inspected.

D. Noncompliance Identified and Corrected by Licensee

None.

E. Deviations

None.

F. Status of Previously Unresolved Items

None inspected.

Management Exit Interview

- A. The following personnel attended the management exit interview at the conclusion of the inspection.

Wisconsin Public Service Corporation (WPS)

C. R. Luoma, Superintendent
R. W. Lange, Assistant Superintendent
J. S. Richmond, Technical Supervisor
G. L. Jarvela, Health Physics Supervisor

United States Nuclear Regulatory Commission (USNRC)

D. C. Boyd, Resident Inspector

- B. Matters discussed with management were as follows:

1. The inspector stated, that during his review of Westinghouse ECT procedures he noted a discrepancy between drawing No. Z1-88A(A1), and Procedure No. MRS 2.4.2 Gen. 9, Revision 6. (Paragraph 2, Report Details)
2. The inspector stated, that the letters from Westinghouse and Zetec concerning calibration of instruments appeared to be inadequate. (Paragraph 4, Report Details)

REPORT DETAILS

Persons Contacted

The following personnel, other than those listed under the Management Exit Interview of this report, were contacted during this inspection.

Wisconsin Public Service Corporation (WPS)

C. McVicker, Corporate QA Manager
G. Fitzpatrick, Corporate QA
E. Mitchal, Corporate QA Manager
W. Stizman, Plant Maintenance Coordinator
J. Ruege, Plant Performance Engineer
L. Arno, Assistant Instrument and Control Supervisor

Westinghouse Electric Corporation (W)

V. P. Burke, Coordinator

Zetec, Inc. (Zetec)

E. O. McKee, Nondestructive Testing Technician

Results of Inspection

1. The inspector reviewed (W) procedures for eddy current inspection of steam generator tubes, personnel qualifications, material certification, and equipment for calibration stickers.
2. During procedure review, the inspector noted a discrepancy between drawing No. Z1-88A (A1) showing the location and size of manufactured defects in the calibration standard and in procedure No. MRS-2.4.2 Gen-9, Revision 6, Section 5.2.6. The drawing, Z88A-(A1), shows the 100% defect as being 0.052" diameter. Procedure MRS 2.4.2, Revision 6, states that this defect should be 0.067" diameter. The Westinghouse Coordinator had the 100% defect drilled in accordance with the drawing, this being determined by measurement of the manufactured defect.

Under Section 15 of Westinghouse procedure No. FO 6.2, Control of Field Service Activities, the coordinator is authorized to make field changes to procedures. Field Change Sheet No. 1 to procedure No. MRS 2.4.2 Gen-9, Revision 6, was generated, approved and inserted in the steam generator tube inspection report.

3. The inspector observed the collection of eddy current inspection data on steam generator "A" (reference generator), and determined that the inspection was being performed in accordance with the approved procedures.

4. Calibration documents for Westinghouse and Zetec instruments used to perform ECT of steam generator tubes, were not available for review.

A letter from Westinghouse Corporation file No. 9.2.3 stating that calibration records on this equipment were available at the Westinghouse Electronic Corporation Nuclear Service Division, Waltz Mill Facility, were available.

A letter from Zetec Corporation dated December 11, 1975, stated only that the instruments used to interpret the data collected had been calibrated. These items will remain unresolved and will be reviewed during a subsequent inspection.

5. The inspector reviewed the following Westinghouse documents and determined them to meet the requirements of Regulatory Guide 1.83, and approved by Wisconsin Public Service on February 17, 1976.

MRS-2.4.2 Gen-9,	Revision 6
MRS-2.4.2 Gen-11,	Revision 0
MRS-2.4.2 Gen-5,	Revision 0
MRS-2.2.2 WPS-1,	Revision 0
NPT-33	Revision 5
F.O. 6.2	Revision 0
MRS-2.2.2 Gen-6,	Revision 1

6. The following Westinghouse equipment was on site for the collection of steam generator tube data during this inspection.

Zetec-EM 3300	S/N 0013
Tektronix 5103 Mainframe	S/N 0005
Zetec Teac FM 2300S	S/N 0153
Zetec Brush Recorder MK 220	S/N 0061
Zetec EM 330	S/N 0038
Tektronic 5103	S/N 0009
Zetec Teac 2300S	S/N 0018
Zetec Brush Recorder MK220	S/N 0037

7. The following equipment was used by the Zetec Level II Technician to interpret steam generator tube data collected by Westinghouse personnel.

FM 2300S	S/N 004
5103N Oscilloscope	S/N B042 736
Victor Analyzer	S/N 006

8. The inspector reviewed material certification on inconel tube standard No. 41 from heat 6456 finding it to meet requirements.

9. The personnel qualifications of (8) Westinghouse and (1) Zetec NDE technicians were reviewed by the inspector and found to be in accordance with the requirements of ASNT-TC-1A.

10. Steam Generator Tube Condition

Eddy current testing, (ECT) oscilloscope traces from a sampling of tubes in the "A" steam generator were examined with the Zetec Level II technician. These traces were from the hot leg side.

During the inspector's review, no defective tubes were identified in this steam generator, nor was there any indications of tube wall degradation.

No large dent signals were detected during the inspection, some permeability variations signals, and some small dent signals were noted, almost all of which were recorded during the last ECT of the steam generator and which could be attributed to generator manufacture.

A telecommunication with the USNRC resident inspector, revealed that the condition observed by this inspector on the "A" generator tubes prevailed in the remaining tubes examined on both the A and B steam generators.

11. Sludge Level Measurements

Telecommunication with NRC Resident inspector. Sludge level measurement for the "A" steam generator hot leg were reviewed, the maximum height recorded in this generator was 2" above the tube sheets. The sludge level on the cold leg of both A and B generators was 2.5". The area of highest sludge in the "A" generator was bounded by Rows 7, 18 and 28 and Columns 34, 54 and 68. The licensee performed a sludge lancing operation of both generators. It is estimated that 90% to 95% of the sludge in both generators was removed.