

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-266/93010(DRS); No. 50-301/93010(DRS)

Docket Nos. 50-266; 50-301

Licenses No. DPR-24; No. DPR-27

Licensee: Wisconsin Electric Power Company  
231 West Michigan - P379  
Milwaukee, WI 53201

Facility Name: Point Beach Nuclear Plant - Units 1 and 2

Inspection At: Two Rivers, WI 54241

Inspection Conducted: April 14-15, 21-22 and May 5-6, 1993

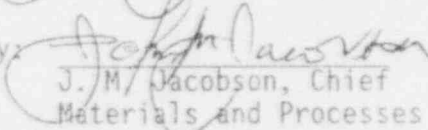
Inspector:

  
J. F. Schapker

5-12-93

Date

Approved By:

  
J. M. Jacobson, Chief  
Materials and Processes Section

5-12-93

Date

Inspection Summary

Inspection on April 14-15, 21-22 and May 5-6, 1993 (Reports No. 50-266/93010(DRS); 50-301/93010(DRS))

Areas Inspected: Routine unannounced inspection of inservice inspection (ISI) activities including review of program (73051), procedures (73052), observation of work activities (73753), data review and evaluation (73755), and inspection of modification to the CVCS-RHR cross-connect line (37700).

Results: Of the areas inspected, no violations or deviations were identified. During the course of the inspection, the following were noted:

- ° Based on the areas reviewed, the licensee appears to have an effective ISI program. The licensee contracts for some ISI services and performs ISI activities to ASME Section XI requirements, utilizing state of the art ISI equipment and procedures.
- ° The 1986 ASME Section XI Code is the applicable Code requirement. The licensee recently implemented their documented repair and replacement program as required by IWA-4130 of the 1986 Code.
- ° The Unit 1 steam generators were replaced in 1984. After nine operating cycles, eight steam generator tubes have been plugged. The licensee's operational and maintenance program and new steam generator design has been successful in reducing the degradation of steam generator tubes.

## DETAILS

### 1. Persons Contacted

#### Wisconsin Electric Power Company (WEPCo)

\*T. Koehler, Manager, Site Engineering  
\*J. Becka, Manager, Regulatory Services  
\*T. Staskal, Senior Project Engineer  
\*K. Crowley, Senior Engineer, Performance Engineering  
\*C. Prothero, Senior Engineer, Performance Engineering  
\*F. Fleutje, Regulatory Administrative Specialist  
J. Michaelson, Quality Assurance Supervisor

#### Hartford Steam Boiler Engineering and Insurance Company (HSB)

J. Gault, ANII

#### Westinghouse Electric Corporation (WEC)

D. Obuzenu, Level III Eddy Current Examiner

#### U. S. Nuclear Regulatory Commission (NRC)

J. Gadzala, Resident Inspector  
K. Jury, Senior Resident Inspector

\*Denotes those attending the exit meeting on May 6, 1993.

Other licensee and contractor personnel were contacted during the course of this inspection.

### 2. Licensee Action on Previous Inspection Findings (92701)

(Closed) Unresolved Item (266/91009-01(DRS); 301/91009-01(DRS)): The licensee's repair and replacement program did not comply with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 1986 Edition. The program previously complied with ASME Section XI, 1977 Edition, Summer 1979 Addenda, which was the Code commitment for the second ten year ISI plan. The licensee recently completed the revision to the repair and replacement program to comply with the 1986 Code. The NRC inspector reviewed the revised program and confirmed that the requirements of ASME Section XI, 1986 Edition are now included and controlled by the program procedures.

### 3. Inservice Inspection Review of Plan (73051)

- a. The NRC inspector reviewed the third ten-year inservice inspection (ISI) plan for the first period, second outage. The ISI plan conformed to the requirements of the ASME Section XI, 1986 Edition. Relief requests in accordance with 10 CFR

50.55a(G)(5)(IV) had been applied for by the licensee. NRC review of ISI examinations that the licensee was unable to perform is currently in progress. The services of an Authorized Nuclear Inservice Inspector (ANII) were procured and the ISI procedures and personnel certifications were reviewed by the ANII.

The licensee contracted EBASCO Services, Inc. and Professional Welding Associates to assist the WEPCo Quality Assurance Department in performing the ISI. WEC was contracted to perform eddy current examination (ET) of steam generator tubing.

b. ISI Documentation Review (73755)

The NRC inspector reviewed documents relating to the following:

- Nondestructive examination (NDE) procedures utilized for ISI.
- NDE personnel certifications in accordance with SNT-TC-1A.
- NDE equipment calibration and examination reports.
- Ultrasonic instruments, calibration blocks, transducers, and ultrasonic examination couplant certifications.
- Liquid penetrant material certifications.
- ET examination reports.
- ET data analysis guidelines.

No violations or deviations were identified.

c. Observation of Work Activities (73753)

The NRC inspector observed the following work activities in progress:

- ET examination of steam generator (SG) tubes.
- Ultrasonic examination (UT) of reactor vessel (RV) closure head studs.
- Mechanized UT used with the Enhanced Data Acquisition System (EDAS) of RV outlet nozzle welds and the flange to shell weld.
- Liquid penetrant examination of the 1-CV-369A check valve to piping welds.
- Visual examination of reactor vessel upper internals.

Work activities were performed in accordance with approved procedures, utilizing calibrated NDE equipment, and certified personnel. Detection and evaluation of flaws were completed in accordance with ASME Code and regulatory requirements.

No violations or deviations were identified.

4. Eddy Current Examination of Unit 1 Steam Generator Tubes (73753, 73755)

a. General

The licensee employed WEC to perform ET of the SG tubes as required by the Point Beach Technical Specifications (TS). WEC utilized the Zetec MIZ digital multifrequency acquisition and analyzer system to conduct the examinations. Inspection of the SG tubes included:

- Full-length inspection of 588 "A" SG tubes and 591 "B" SG tubes (random periphery of tubesheet).
- Hot leg to tube support plate number one: "A" SG - 202 tubes; and "B" SG - 206 tubes (SG tubesheet periphery).
- Hot leg "U" bends: "A" SG 55 tubes and "B" SG 55 tubes (Rows 1, 2, and 3).

Inspection of the "A" SG detected 78 manufacturing burnish marks (MBMs) in the hot leg and 66 in the cold leg. Eight multiple manufacturing burnish marks were found in the hot leg and eight in the cold leg. Two tubesheet indications and one indication in the anti-vibration bar (AVB) region was detected (20-29% thru wall). No tubes exceeding the tube plugging criteria were identified.

The "B" SG inspection detected 71 MBMs in the hot leg and 52 in the cold leg. One 20-29% thru wall indication and one 30-39% thru wall indication was found in the hot leg 5th support plate and AVB region respectively, with no tubes exceeding the tube plugging criteria.

b. Inspection

The NRC inspector observed the ET of the SG tubes in progress, verified calibration/certification of ET equipment and calibration standards, and reviewed the examiners/analyst qualification certifications. The NRC inspector also reviewed the ET Data Analyst Guidelines for the Unit 1 SGs and observed the analyst's evaluations of indications in progress.

The licensee's ET program and tube degradation preventive maintenance program appear to be conservative in assuring the safe operation of the SGs for Unit 1. The increased number of MBM's reported this outage is due to enhanced reporting criteria for

these type of indications. Due to recent tube failures in the free span area of the SG tubes at other plants, the ET examiners have scrutinized these indications to assure they do not degrade.

No violations or deviations were identified.

5. Modification of CVCS/RHR Second Isolation Valve

Modification to the 1-CV-369B second isolation valve for the CVCS/RHR cross-connect line was required to resolve a deficiency in the valve design which had a 1/16 inch diameter hole in the disc. The modification also included a new section of 2 inch diameter pipe where a crack was identified upstream of the 1-CV-369A valve. The existing piping was designed, and installed to USAS B31.1-67. The replacement piping was designed and installed in accordance with ANSI B31.1-89. The 2 inch piping between 1-CV-369A and 1-CV-369B was replaced and a 3/4 inch test connection was installed to enable independent testing of the two valves.

After installation, the 1CV-369A and B valves were tested for leak tightness. Although the 1CV-369B valve was replaced with the correct type, leak tightness was not achieved during testing. The 1CV-369A, a manual operated valve (normally locked closed), passed the containment leak testing. The Point Beach FSAR, Figure 5.2-10 lists 3 valves on this line as containment isolation valves; CV-371A, a normally open, air actuated valve, inside containment and CV-369A and CV-369B, outside containment. The licensee concluded that the CV-369B valve is not required to assure containment integrity. The installation of the test connection enables the testing of the CV-371A and CV369A valves to assure leak tightness of both valves. The licensee committed to revise the FSAR and procedures to reflect these changes and is in the progress of initiating a LER to report these changes (LER 50-266/93006).

Through observations of fitup, welding, and nondestructive examinations, the NRC inspector concluded that the licensee's procedures were adequate and implemented by qualified personnel. The NDE contractor performing the weld PT, demonstrated good work practices.

No violations or deviations were identified.

6. Exit Meeting

The NRC inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on May 6, 1993. The inspector summarized the purpose and findings of the inspection. The licensee representatives acknowledged this information. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed during the inspection. The licensee representatives did not identify any such documents or processes as proprietary.