Wisconsin Electric POWER COMPANY
231 W. MICHIGAN, P.O. BOX 2046, MILWAUKEE, WI 53201

July 2, 1981



Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
Washington, D. C. 20555

Dear Mr. Denton:

DOCKET NOS. 50-266 AND 50-301
TECHNICAL SPECIFICATION CHANGE REQUEST NO. 69
STEAM GENERATOR TUBE SLEEVING
POINT BEACH NUCLEAR PLANT UNITS 1 AND 2

In accordance with the provisions of 10 CFR Section 50.59, Wisconsin Electric Power Company (Licensee) hereby requests amendments to Facility Operating Licenses DPR-24 and DPR-27 for the Point Beach Nuclear Plant Units 1 and 2 respectively. The purpose of these license amendments is to incorporate certain changes into the Point Beach Nuclear Plant Technical Specification to permit repair of degraded or defective steam generator tubes by sleeving. Specifics of these Technical Specification changes and a discussion of the steam generator tube sleeving process are provided below and in the attachments.

A degraded tube is defined in the Technical Specifications as a tube that contains imperfections caused by degradation greater than 20% of the nominal wall thickness. Degradation which exceeds 50% of the nominal tube wall thickness is defined as a defect. The present Technical Specifications require that all tubes that leak or have degradation exceeding 40% of the nominal tubewall thickness, which is defined as the plugging limit, shall be plugged prior to returning to power from the refueling or inservice inspection condition. A tube is plugged by placing a plugging device which may be secured by explosive, mechanical, or welding processes in both the hot leg and cold leg ends of the tube. Plugging removes a tube from service.

Methods have recently been developed to repair steam generator tubes by inserting sleeves inside the steam generator tubes. These sleeves bridge the degraded or defective portion of the original tube and provide an effective means of repairing the tube rather than removing the tube from service. Sleeving techniques have been used in the repair of the San Onofre Unit 1 steam generators and at the R. E. Ginna plant.

During the fall 1981 Point Beach Nuclear Plant Unit 1 refueling outage, Licensee is planning to insert sleeves into several steam generator

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tubes as a demonstration of the sleeving process at Point Beach. To provide a thorough demonstration of the ability of the sleeving process to repair tubes and to affirm the integrity of the primary to secondary boundary, it is appropriate to insert sleeves into several defective tubes during this program. Such a demonstration of the sleeving program can only be accomplished if the subject Technical Specification changes are granted.

The sleeves proposed for use in the Point Beach Nuclear Plant Unit 1 sleeving demonstration will be designed and analyzed to the latest edition of Section III of the ASME Boiler and Pressure Vessel Code as well as applicable Regulatory Guides. The associated materials and processes will also meet the requirements of the Code. Table 1 presents the specific requirements being addressed. The sleeves provided will span the degraded or defective area of the original tube from the tube end to above the steam generator tube-sheet beyond the degraded or defective area. The sleeve will also limit the leakage from the primary to secondary should the original tube be penetrated in the region spanned by the sleeve or contain a preexisting leaking defect.

The joints between the sleeve and the original tube at both the top and bottom of the sleeve will be formed by a brazing, mechanical, or combination process. The sleeve and joints to be used for the Point Beach Unit 1 demonstration program will be of the same or similar design as the sleeves and joints that have been installed at Southern California Edison's San Onofre Nuclear Generating Station Unit 1. In a letter from Mr. D. M. Crutchfield of your Staff to Mr. R. Dietch of Southern California Edison dated June 8, 1981, the NRC Staff reported on its review and approval of this sleeving process. Confirmatory testing will be performed with the Point Beach size steam generator tubing to demonstrate that data developed for San Onofre are applicable to the Point Beach steam generators. This will include leak rate testing and load carrying capability.

The sleeve and original tube will be inspectable using eddy current techniques. The corrosion resistance of the sleeve material, thermally treated Inconel 600, exceeds that of the original tube material. We anticipate that during this demonstration twelve tubes will be sleeved. Approximately half of these tubes will contain degradation exceeding the Technical Specification plugging limit. All previous steam generator primary to secondary leakage rate monitoring commitments and permissible leakage allowance criteria, including those requirements from the November 30, 1979 Confirmatory Order for Point Beach Unit 1, as modified, would remain in effect.

Licensee has reviewed the requirements of 10 CFR Part 170 regarding the payment of fees for NRC license amendment reviews. We have determined that for Point Beach Unit 1 this amendment request involves a Class III fee in that a single safety issue is involved for which an NRC position has been previously established. Since a second essentially identical unit is involved, a Class I fee is applicable for the Point Beach Unit 2 license review. Accordingly, we have enclosed herewith a check in the amount of $4,400 for these amendment approval fees.

As required by the Commission regulations, we have enclosed three signed originals and forty additional copies of this amendment request.

Attached to each copy of the request are proposed Technical Spec fication page changes which reflect the change to the corrective action for tube degradation which exceeds the plugging limit as discussed in this letter. We request your approval of this amendment request so that a sleeving demonstration program, including defective tubes, may be accomplished during the Point Beach Unit 1 fall refueling outage.

Very truly yours,

Sol Burstein

Executive Vice President

Enclosure (Check No. 625653)

Subscribed and sworn to before me
This 2nd day of July, 1981

Dorothy Kleczkowski
Notary Public State of Wisconsin

My Commission Expires July 1, 1984.

Copy to: NRC Resident Inspector
Mr. C. F. Riederer - (PSCW)
Mr. Peter Anderson - (WED)

TABLE 1

ASME CODE AND REGULATORY REQUIREMENTS

| ITEM | APPLICABLE CRITERIA | REQUIREMENT |
|---|---|---|
| Sleeve Design | Section III | NB-3200, Analysis |
| | Operating Condition | Operating and Transient Conditions |
| | Reg. Guide 1.83 | S/G Tubing Inspectability |
| | Reg. Guide 1.121 | Plugging Margin |
| Sleeve Material | Section II | Material Composition |
| | Section III | NB-2000, Identification, Tests, and Examinations |
| | Code Case 1484-3 | Mechanical Properties |
| Sleeve Joint | 10CFR100 | Plant Technical Specification and License Requirements |