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Wisconsin Electric POWER COMPANY
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November 30, 1979

Mr. J. G. Keppler, Regional Director
Office of Inspection and Enforcement,
Region III
U. S. NUCLEAR REGULATORY COMMISSION
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

DOCKET NOS. 50-266 AND 50-301
REPORT OF INSPECTION OF SAFETY RELATED
STAINLESS STEEL PIPING CONTAINING BORATED WATER
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

IE Bulletin 79-17 entitled, "Pipe Cracks in Stagnant Borated Water Systems at PWR Plants", was issued by the NRC Office of Inspection and Enforcement on July 26, 1979. This Bulletin required that we provide a written response to the NRC within 30 days, complete a series of visual, surface and volumetric examinations on safety related stainless steel piping containing borated water within 90 days, and provide a report of the results of the examinations within 120 days.

The required written response was provided to you in our letter of August 27, 1979.

The required piping examinations at the Point Beach Nuclear Plant, Units 1 and 2, were performed during September and October 1979 and completed on October 12, 1979.

Transmitted with this letter is the final report on the piping examinations performed at the Point Beach Nuclear Plant to meet the requirements of IE Bulletin 79-17. The report is entitled, "1979 IE Bulletin 79-17 Examination of Selected Class 2 and 3 Safety Related Piping, Point Beach Nuclear Plant, Units 1 and 2". The examinations were performed and report prepared by Southwest Research Institute. The report describes the areas and welds examined, the testing procedures used, and the results of the examinations.

The ultrasonic examination equipment and procedures used have been demonstrated to be effective in determining the presence of intergranular stress corrosion cracking. This effectiveness has been demonstrated in the field and laboratory

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on piping in which the stress corrosion cracking occurred naturally and on piping in which the cracking was intentionally induced.

No evidence of any unexpected leakage, abnormal buildup of boric acid crystals, or stress corrosion cracking was found during any of these examinations.

After the examinations at Point Beach had been completed, and after the deadline for completion of the testing as stated in the original Bulletin, Revision 1 to IE Bulletin 79-17 was received. Among other items, Revision 1 stated a definition of "stagnant, oxygenated borated water systems" that differed from the one used at Point Beach in implementing these examinations. Revision 1 contained a definition which stated in part, ". . . where dynamic flow conditions do not exist on a continuous basis". In planning the Point Beach examinations, piping in which the water was circulated monthly, or more frequently, during pump and valve testing was not considered stagnant and was not included in the ultrasonic and dye penetrant testing. This piping, however, was included in the visual examinations.

A total of approximately 73 welds were inspected using ultrasonic and dye penetrant examination methods. Representative samples of each size and schedule of piping were examined. Piping isometrics, marked up to indicate the location of each weld examined, and color coded flow diagrams are included in the report. Although the definition of "stagnant" used to implement these examinations differed from that in the Bulletin revision, the sample used was sufficient in size and diverse enough to accomplish the intent of the Bulletin. No pipe cracks were identified in systems which are stagnant for more than 30 days, therefore, no cracks would be expected in piping systems which are flushed more frequently.

We believe the information supplied in the attached final report is responsive to the requests made in IE Bulletin 79-17. Do not hesitate to call if you have any questions concerning this report.

Very truly yours,

C. W. Fay, Director
Nuclear Power Department

Enclosures

Copy to (Without Enclosures):

Office of Inspection and Enforcement
Washington, D. C. 20555

Mr. A. Schwencer, Chief
Operating Reactors Branch 1

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