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 50-270 Oconee Nuclear Station, Unit 2, Duke Power Co. 05000270
 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co. 05000287

AUTH. NAME AUTHOR AFFILIATION
 PARKER, W.O. Duke Power Co.
 RECIP. NAME RECIPIENT AFFILIATION
 DENTON, H.R. Office of Nuclear Reactor Regulation, Director
 STOLZ, J.F. Operating Reactors Branch 4

SUBJECT: Forwards request for relief from inservice insp requirements of Section XI of ASME Boiler & Pressure Vessel Code re piping on main steam, main feedwater & auxiliary feedwater sys. Request suppls 810601 & 0713 requests.

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DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE, PRESIDENT
STEAM PRODUCTION

March 11, 1982

TELEPHONE: AREA 704
373-4083

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. J. F. Stolz, Chief
Operating Reactors Branch No. 4

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287



Dear Sir:

Pursuant to 10 CFR 50, §50.55a, please find attached a request for relief from the inservice inspection requirements of Section XI of the ASME Boiler and Pressure Vessel Code. The attached request concerns piping on Main Steam, Main Feedwater, and Auxiliary Feedwater Systems. Consideration of this request as soon as possible would be appreciated.

This request for relief is considered to supplement the requests made by my letters of June 1, 1981 and July 13, 1981. As such, no additional license fees are provided.

Very truly yours,

A handwritten signature in cursive script, reading 'William O. Parker, Jr.' followed by a stylized flourish.

William O. Parker, Jr.

JFN/php
Attachment

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

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DUKE POWER COMPANY
OCONEE NUCLEAR STATION
REQUEST FOR RELIEF FORM ASME SECTION XI
VOLUMETRIC INSPECTION REQUIREMENTS

1. Component for Which Relief Is Requested:

(a) Name and Number

Piping on Main Steam, Main Feedwater, and Auxiliary Feedwater Systems

(b) Function

Heat removal from steam generator secondary side to turbines

(c) ASME Section III Code Class

Class 2

(d) Valve Category

N/A

2. ASME Code Section XI Requirement That Has Been Determined To Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 edition, including 1975 Summer Addenda, paragraph IWC-2430, which states:

Examinations that reveal unacceptable structural defects . . . shall be extended to include an additional number of components in the same category approximately equal to that number initially examined. In the event further unacceptable structural defects are revealed, all of the same components in the other streams of the system shall be examined.

3. Basis for Requesting Relief:

The Main Steam, Main Feedwater, and Auxiliary Feedwater piping at Oconee was originally constructed to meet the requirements of ANSI B31.1 Code. This did not require volumetric inspection of pipe welds of smaller than 0.750" wall thickness, which includes approximately 40% of the welds on these systems. Oconee began commercial operation before ASME Section XI required a preservice inspection of Quality Group B piping. Because of these combined circumstances, volumetric inspection is now being conducted for the first time on many of these welds as a part of the inservice inspection requirements.

Radiography was chosen as the method of volumetric inspection on these systems. To date, no service-related flaws have been detected on any weld

inspected on these systems. However, several welds have been found to contain fabrication flaws which do not meet the current acceptance standards. Specifically the current inservice inspection plan for the 1982 refueling outage at Oconee 2 requires the volumetric inspection of thirteen (13) welds on the Main Steam system. Seven (7) of these welds were not volumetrically inspected during construction. Three (3) welds inspected during this outage have been found to contain fabrication flaws that are not acceptable by the current inspection standards. Two (2) of these three (3) have never before been volumetrically inspected. The third was inspected by radiography during construction. The construction radiograph of this weld revealed a fabrication flaw that appeared to be acceptable, but the improved quality of the inservice radiograph showed that the original flaw was rejectable. Paragraph IWC-2430 would now require another thirteen (13) welds be inspected. If another weld is found to contain a rejectable flaw, either service-induced or originally present from fabrication, the entire main steam system (approximately 190 welds) would have to be inspected imposing a great hardship in terms of cost and manpower available to accomplish. Section XI makes no distinction in Paragraph IWC-2430 between service-related flaws and fabrication flaws in requiring additional inspection samples. We feel that the intent of Section XI is to assure that operation of the plant has not caused any degradation of the pressure boundary material. Therefore, flaws which can be characterized as fabrication flaws should not be considered in deciding whether additional inspection samples are needed.

4. Alternate Examinations:

The volumetric examination required by Table IWC-2600 will be performed. When any unacceptable indication is found, the examination will be evaluated by the Duke Power Company Level III to determine if the flaw is service-related or original fabrication. If the flaw is determined to have been produced during original fabrication, the weld will not be considered unacceptable for the purpose of choosing additional inspection samples. If the flaw is determined to be service-related, or if no determination can be made, the weld will be considered unacceptable, and all provisions of Paragraph IWC-2430 will apply.

5. Implementation:

These requirements will be implemented for all inservice inspection conducted during the remainder of the first ten-year interval at Oconee Nuclear Station.