ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9401030349 DOC.DATE: 93/12/21 NOTARIZED: NO DOCKET #
FACIL:50-269 Oconee Nuclear Station, Unit 1, Duke Power Co. 05000269
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
HAMPTON,J.W. Duke Power Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Submits relief request to allow delay of required surface exam until first refueling outages of third ISI interval.

DISTRIBUTION CODE: A047D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
TITLE: OR Submittal: Inservice/Testing/Relief from ASME Code

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-3 LA	1	0	PD2-3 PD	1	1
	WIENS,L	2	2			
INTERNAL:	ACRS	6	6	AEOD/DSP/ROAB	1	1
	NRR/DE/EMEB	1	1	NRR/EMCB	1	1
	NUDOCS-ABSTRACT	1	1	OC/LFDCB	1	0
	OGC/HDS2	1	0	REG FILE 01	1	1
	RES/DSIR/EIB	1	1			
EXTERNAL:	EG&G BROWN,B	1	1	EG&G RANSOME,C	1	1
	NRC PDR	1	1	NSIC	1	1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 22 ENCL 19

RIDS/ADDS

RIDS/ADDS

Duke Power Company
Oconee Nuclear Site
P.O. Box 1439
Seneca, SC 29679

J. W. HAMPTON
Vice President
(803)885-3499 Office
(803)885-3564 Fax

DUKE POWER

December 21, 1993

U.S. Nuclear Regulatory Commission
Attention Document Control Desk
Washington, DC 20555

Subject: Duke Power Company
Oconee Nuclear Station
Docket No. 50-269, 270, 287
Relief From Code Request
93-08

On September 13, 1984 Duke Power submitted a Relief from Code Request concerning the Reactor Vessel Core Flood, Inlet, and Outlet nozzle to pipe welds. This request was needed due to the unusual difficulty, without a compensating increase in quality or safety, in performing the required surface examination. This difficulty is a result of the radiation dose levels and time required to perform a surface examination of these welds. This request was to allow the use of an ultrasonic examination of the welds from the inside diameter in lieu of the required surface examination on the outside weld surface.

This request was subsequently reviewed and conditionally approved by the NRC as documented in the Oconee Safety Evaluation Report dated May 14, 1991. The Safety Evaluation Report stated as a part of the condition for approval," The ultrasonic testing instrumentation and procedure are demonstrated to be capable of detecting O.D. surface-connected defects in the circumferential orientation, in a laboratory test block. The defects should be cracks and not machined notches."

The B&W Owners Group provided a demonstration in 1989 to support a relief request of the Florida Power Company to use the volumetric examination from the ID in lieu of a surface examination. On August 11, 1993, an additional demonstration was performed and witnessed by utility, insurance, and NRC representatives. In the NRC trip report by Donald G. Naujock, dated September 29, 1993, the NRC concluded the demonstration did not show the equipment was capable of detecting flaws in stainless steel, inconel, and carbon steel at or near the Code maximum lengths for the surface examination method. On November 18, 1993, Duke submitted additional information to the NRC to address the concerns raised by the NRC.

The Oconee Unit 3 EOC 14 refueling outage is scheduled to begin December 28, 1993. The Unit 1 EOC 15 refueling outage is scheduled to start April 14, 1994. The Unit 2 EOC 14 refueling

A047

outage is scheduled to start September 20, 1994. These outages are the last scheduled outages for these Units during the current Inservice Inspection interval. In order to allow Duke Power, in conjunction with the B&W Owners Group, sufficient time to resolve the NRC concerns, the attached relief request is needed to allow the delay of the required surface examination until the first refueling outages of Oconee's Third Ten Year Inservice Inspection Interval.

If you have questions or need further information you may contact D. W. Dalton at (803) 885-3372.

Very truly yours,

J. W. Hampton
Site Vice President

Attachment

xc: Mr. L. A. Wiens
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. S. D. Ebneter
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission

Mr. P. E. Harmon
Senior NRC Resident Inspector
Oconee Nuclear Station

Mr. Heyward G. Shealy
Bureau of Radiological Health
SC Dept. of Health & Environmental Control
2600 Bull St.
Columbia, SC 29201

Serial No. 93-08

DUKE POWER COMPANY

Request for Relief From

Inservice Inspection Requirement

Station: Oconee

Unit: 1, 2, and 3

Requesting Department: Nuclear Generation

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1980 Edition through Winter 1980 Addenda

I. Component for which exemption is requested:

a. Name and Identification Number: (2) Core Flood Nozzle-to-Safe End and (2) Safe End-to-Pipe Welds; (4) Reactor Vessel Inlet Nozzle-to-Pipe Welds and (2) Outlet Nozzle-to-Pipe Welds

b. Function: The Core Flood Nozzles provides reactor vessel core flooding capability. The Reactor Vessel Inlet and Outlet Nozzles provides reactor coolant flow to the steam generators.

c. ASME Section XI Code Class: Class 1

d. Construction Code and Class (If Applicable): ASME III, Class 1

e. Valve Category (If Applicable): N/A

II. Reference Code Requirement that has been determined to be impractical:

Table IWB-2500-1; Category B-F Item B5.10, Surface Examination; Table IWB-2500-1; Category B-J Item B9.11, Surface Examination; and IWB-2412, Inspection Program B.

III. Basis for Requesting Relief:

Duke Power submitted two relief requests (serial numbers ONS-001 and ONS-002) on September 13, 1984 to use ultrasonic examination of the reactor vessel nozzles from the inside diameter in lieu of performing the surface examination on the outside diameter as required by Table IWB-2500-1 due to the high levels of radiation present in the area of these welds. This request was conditionally approved by the NRC on May 14, 1991, provided Duke demonstrate that the ultrasonic technique used is capable of detecting outside diameter surface connected defects in the circumferential orientation in a laboratory test block and that the defects be cracks and not notches.

Duke in conjunction with the B&W Owners Group, fabricated a calibration block containing cracks. A demonstration was conducted on August 11, 1993 in Lynchburg, VA by B&W to illustrate the sensitivity of the ultrasonic technique to the NRC and the Authorized Inspection Agencies. As a result of this demonstration, there were some concerns expressed by the NRC that the outside diameter cracks were too large to provide an adequate demonstration for the ultrasonic technique. Duke in association with the B&W Owners Group is working with the NRC to resolve these concerns. It is not clear sufficient time is available to resolve these concerns before the upcoming Oconee refueling outages are completed. The next cycle of refueling outages for each unit is the last scheduled refueling outage for the second ten year inspection interval.

This request is to delay the required surface examination until the first outage of the third inservice inspection interval for all three units. This will allow Duke sufficient time to resolve NRC concerns. The required volumetric examinations of the these nozzles have already been completed for Oconee units 1 and 2, and will be completed for Oconee unit 3 during the refueling outage which begins December 28, 1993

IV. Alternate Examination:

Perform the required surface examination during the first refueling outage of the third ten year inspection interval for each unit. If the NRC concerns are resolved acceptability, the surface examinations will not be performed.

V. Implementation Schedule:

Refueling Outage #16 for Unit 1, October 1995
Refueling Outage #15 for Unit 2, March 1996
Refueling Outage #15 for Unit 3, May 1995

Evaluated By: R J Rowe Date 12/16/93

Evaluated By: J O Barbour Date 12/16/93