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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: Clarifies util 810601 request for relief from volumetric exam of reactor vessel support skirt-to-vessel weld,in response to NRC 820408 ltr.Surface exam of outside surface equivalent to inside surface exam.

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373-4083

June 15, 1982

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, by letter dated June 1, 1981 Duke Power submitted several requests for relief from the inservice inspection requirements of Section XI of the ASME Boiler and Pressure Vessel Code. One of the requests concerned the requirement for a volumetric examination of the reactor vessel support skirt-to-vessel weld. By letter dated April 8, 1982 the Staff agreed that the volumetric examination of this weld is impractical but imposed an alternative surface examination of the inner surface instead of the requested visual examination of the inner surface. A surface examination of the inner surface of this weld is not practical due to the geometric configuration of the weld, but a surface examination of the outside of the support weld is practical. Discussions with the Staff have indicated that the specification of the inner surface as the area for the surface examination was influenced by the expected radiation exposures of ID versus OD visual inspections provided in our request.

To help resolve this matter, Duke has examined the various inspection methods for the reactor vessel support skirt and the anticipated total radiation exposures are as follow:

1) Ultrasonic examination of three areas from the OD surface of the weld = 15 to 20 REM.

2) Visual inspection of 100% of the OD surface of the weld = 25 to 30 REM.

3) Liquid Penetrant inspection of three areas on the ID surface of the weld = 12 to 15 REM.

4) Magnetic Particle inspection of three areas on the OD surface of the weld = 3 to 5 REM.

To perform our desired inspection, Option 4, insulation could be removed in three areas, approximately 120 degrees apart to allow magnetic particle inspection of the OD surface of the weld. By comparison, Option 1, ultrasonic examination,

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would require more insulation removal, more extensive weld preparation, and more inspection time. Option 2, visual inspection, would require that insulation be removed from the entire skirt circumference. Option 3, liquid penetrant inspection, would require that insulation be removed from the reactor vessel lower head. The radiation intensities in the area are 1 to 3 R/HR outside the support skirt, 3 to 4 R/HR inside the skirt, and up to 10 R/HR contact at the insulation surface.

We feel that our proposed surface examination on the outside surface of the support skirt attachment weld is equivalent to the inside surface examination requirement imposed by the Staff. Your consideration and concurrence in this position is requested.

This request is considered to supplement and clarify our June 1, 1981 submittal and as such no fees are necessary.

Very truly yours,

William O. Parker, Jr.

JFN/php