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Alabama Power
the southern electric system

April 17, 1981

Docket No. 50-348

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U.S. NUCLEAR REGULATORY COMMISSION

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: S. A. Varga

JOSEPH M. FARLEY NUCLEAR PLANT - UNIT #1
INSERVICE INSPECTION PROGRAM FOR ASME
CODE CLASS 1, 2, AND 3 COMPONENTS

Gentlemen:

The provisions of 10 CFR 50.55a(g), "Inservice Inspection Requirements", stipulates that specific written relief must be requested from the Nuclear Regulatory Commission whenever the requirements of Section XI of the ASME Code cannot be met.

By our letter dated March 30, 1978, Alabama Power Company submitted the J. M. Farley Unit 1 Inservice Inspection Program. In your letter dated December 7, 1979, the NRC approved our Inservice Inspection Program including the relief requests submitted at that time. Subsequently, one additional area has been identified where the requirements of Section XI cannot be fulfilled. Consequently, Alabama Power Company hereby submits to the NRC for approval the attached relief request which identifies the applicable code requirements, justification for the relief request, and the testing method to be used as an alternative.

Yours truly,

F. L. Clayton Jr.

F. L. Clayton, Jr.

WGW:bs

Enclosure

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge
Mr. L. L. Kintner
Mr. W. H. Bradford

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J. M. Farley - Unit 1
Request for Relief from
ASME Code Section XI

Note 17 to the Class 1 Table

Component:

Reactor Pressure Vessel Closure Head Cladding

Examination Requirement:

Table IWB-2600 Item B1.13 Category B-I-1 requires either (1) visual and surface or (2) volumetric examination of at least six patches (each 36 sq. in.) evenly distributed in the closure head during each 10-year interval.

Basis for Relief:

The preservice inspection was performed using the visual and surface methods. The inservice inspections were scheduled to be performed using the same methods. However, due to high radiation level on the interior of the vessel head, these examinations cannot be performed. The radiation dose rate on the clad surface is approximately 25 Rem/Hour. The minimum amount of time required to examine one clad patch is approximately one hour. Therefore, the minimum radiation exposure dose would be approximately 25 man-Rem. In order to comply with the NRC's ALARA requirements on radiation as stated in Regulatory Guide 8.8 and 8.10, these examinations will be deleted per 10 CFR 50.55a(g)(5)(iii).

In addition, the latest NRC-approved ASME Section XI, the 1977 Edition with Addenda through Summer 1978, deletes the requirement for examination of Reactor Pressure Vessel closure head cladding.

Alternative Examination:

The Reactor Pressure Vessel closure head welds are volumetrically examined per Table IWB-2600, Item B1.2 Category B-B and Item B1.3 Category B-C. The closure head cladding adjacent to the welds is also examined volumetrically since Section XI requires that the base material for one wall thickness on each side of the weld also be examined. Although the clad areas adjacent to the welds are not "evenly distributed" as required in Category B-I-1, the total area of examinations as required by Categories B-B and B-C far exceed those of Category B-I-1. Therefore, the weld examinations per Items B1.2 and B1.3 will be used to satisfy the requirements of Item B1.13.