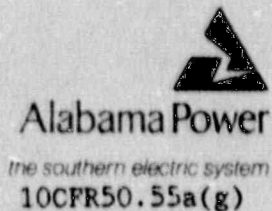


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W. G. Hairston, III
Senior Vice President
Nuclear Operations



September 12, 1990

Docket No. 50-364

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Joseph M. Farley Nuclear Plant - Unit 2
Second Ten-Year Interval Inservice Inspection Program
for ASME Code Class 1, 2 and 3 Components

By letter dated August 15, 1990, Alabama Power Company submitted Revision 1 of the subject Inservice Inspection Program to the NRC. During the final review process of an extensive calibration block evaluation effort, it was determined that several corrections to three relief requests submitted with Revision 1 were necessary to reflect latest examination practices.

Relief request RR-1 was revised to include calibration block ALA-RV-5, which has been determined to be the appropriate standard for examination of the reactor vessel shell and flange-to-shell welds, instead of ALA-RV-3 as previously indicated. Descriptions of areas examined utilizing ALA-RV-3 and ALA-RV-5 were revised for relief requests RR-1, RR-2 and RR-3. Information previously supplied to the NRC (reference letters to the NRC dated October 5 and December 7, 1989, Enclosure Item J) for calibration block ALA-RV-3 is also applicable to ALA-RV-5. Relief request RR-3 was also revised to indicate that calibration block APR-7 is utilized for examination of all pressurizer circumferential shell welds, not just the upper-to-middle shell weld as previously stated.

Enclosed herewith for use in correcting the Revision 1 submittal are revised pages which include the required changes, a revised summary of changes sheet

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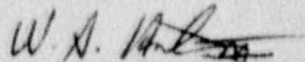
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and insertion instructions. If there are any questions or if additional information is needed, please advise.

Respectfully submitted,

ALABAMA POWER COMPANY


W. G. Hairston, III

WGH/DEM/STB:cht-nrc.8.38

Enclosure

cc: Mr. S. D. Ebnetter
Mr. S. T. Hoffman
Mr. G. F. Maxwell
Mr. B. Brown

INSERTION INSTRUCTIONS
FNP-2-M-068

<u>Page</u>	<u>Title</u>	<u>Instruction</u>
1 of 3	Summary of Revision 3	Remove existing Page 1 of 3, Replace with revised Page 1 of 3
6-5	RR-1	Remove existing Page 6-5, Replace with revised Page 6-5
6-7	RR-2	Remove existing Page 6-7 Replace with revised Page 6-7
6-8	RR-3	Remove existing Page 6-8 Replace with revised Page 6-8

Summary of Revision 1 to the J. M. Farley Nuclear Power Plant Unit 2
Ten-Year Inservice Inspection Program for ASME Code
Class 1, 2, and 3 Components

Page No./Description/Reason for Change

1. Page 1-2, Section 1.2: Deleted second paragraph. No longer applicable.
2. Page 1-3, Section 1.7.1: Revised to clarify requirements for performing ultrasonic examinations, including incorporation of Code Case N-435-1. Per APCo letter to NRC dated 10/5/89, Enclosure 2, Item J.
3. Page 1-6, Section 1.12: Revised to reflect listing of ASME Code Cases from Regulatory Guide 1.147 applicable for the second 10-year inspection interval. Reference APCo letter to NRC dated 10/5/89, Enclosure 2, Item H.
4. Pages 3-3A and 3-3B, Residual Heat Exchangers: Revised to reflect correct configuration and examination requirements. Editorial correction
5. Page 6-1: Revised "Examination Area" description for RR-2 thru RR-6 to reflect required changes to relief requests. Editorial.
6. Page 6-3: Revised "Examination Area" description for RR-24 to reflect required changes to relief request. Editorial.
7. Page 6-4: Revised "Examination Area" description for RR-45 to reflect required changes to relief request and RR-46 from "(7)" system hydrostatic tests to "(3)". Editorial.
8. Page 6-5: For relief request RR-1, revised description of welds examined using calibration block ALA-RV-3 and ALA-RV-5. Editorial correction.
9. Page 6-7: For RR-2, revised descriptions of welds examined using all three calibration blocks. Editorial correction.
10. Page 6-8: Issued relief request RR-3. Reference APCo letters to NRC dated 10/5/89 and 12/7/89, Enclosure 2, Item J.
11. Page 6-9: Previous relief request RR-4 was no longer applicable and was rewritten to allow the use of Code Case N-461 where the thickness difference between calibration blocks and the component exceeds Section XI, Appendix III allowances. Per APCo letter to NRC dated 12/7/89, Enclosure 2, Item J.
12. Page 6-10: Added page in conjunction with rewrite of RR-4 and renumbered following pages as required. Editorial.

RELIEF REQUESTS

FNP-2RR-1

Component or
Relief Area:

Relief from the material requirements for calibration blocks used to perform ultrasonic examination of the following:

- APR-6: Steam generator channel head-to-tubesheet welds.
- APR-7: Boron injection tank head-to-shell circumferential welds and nozzle-to-head welds.
- ALA-RV-1: Reactor vessel lower head-to-lower shell weld and all lower head welds. Boron injection tank head-to-shell circumferential welds.
- ALA-RV-3: Reactor vessel top head weld.
- ALA-RV-5: Reactor vessel shell welds.

Requirement from
which Relief is
Requested:

Section XI, 1983 Edition with Addenda through Summer 1983, paragraph IWA-2232 requires that ultrasonic examination of vessel welds in ferritic materials greater than 2 in. in thickness be performed in accordance with Article 4, Section V. Paragraph T-434.1.1(3), Article 4, requires that the material from which calibration blocks are fabricated be of the same material specification, product form, and heat treatment as one of the materials being joined.

Basis for Relief: During fabrication of the Farley Unit 2 nuclear steam supply system vessels, the calibration blocks used to perform examinations by the vessel manufacturer were fabricated to the requirements of American Society of Mechanical Engineers (ASME) Section III. When ASME Section XI was issued for inservice inspection, the new requirements for vessel calibration blocks rendered the existing blocks unacceptable for use. The original blocks had to be replaced but some vessel materials were no longer available. The vessel calibration blocks had to be refabricated to the Section XI requirements applicable at that time.

RELIEF REQUESTS

FNP-2RR-2Component or
Relief Area:

Relief from notch location requirements for calibration blocks used to perform the following:

ALA-RV-1: Boron injection tank head-to-shell circumferential welds. Reactor vessel lower head-to-lower shell weld and all lower head welds.

ALA-RV-3: Reactor vessel top head weld.

ALA-RV-5: Reactor vessel flange-to-shell weld and shell welds.

Requirement from
which Relief is
Requested:

Section XI, 1983 Edition with Addenda through Summer 1983, paragraph IWA-2232, requires that ultrasonic examination of vessel welds in ferritic materials greater than 2 in. in thickness be conducted in accordance with Article 4, Section V, 1983 Edition. Figure T-434.1, Article 4, requires that the minimum distance from the ends of the 2 in. long 2-percent T notches to the edges of the block be 3 in.

Basis for
Relief:

Figure T-546.1, Article 5, Section V, 1983 Edition, is a similar calibration block; however, the clearance required from the ends of the 2-percent notches is 2 in. instead of the 3 in. required by Figure T-434.1, Article 4. Experience performing calibrations using these blocks has proven fully satisfactory.

Alternate
Examination:

The above calibration blocks are in compliance with the clearance dimensions required for notches by Figure T-546.1, Article 5, Section V, 1983 Edition.

RELIEF REQUEST

FNP-2RR-3Component or
Relief Area:

Relief from hole location requirements for calibration blocks used to perform the following:

- ALA-RV-1: Reactor vessel lower head-to-lower shell weld, all lower head welds and boron injection tank head circumferential welds.
- ALA-RV-5: Reactor vessel flange-to-shell weld and shell welds.
- APR-5: Steam generator stub barrel-to-upper tubesheet weld, lower shell-to-stud barrel weld, transition cone-to-lower shell weld, upper shell-to-transition cone weld, and feedwater nozzle-to-upper shell weld.
- APR-7: Pressurizer top head-to-nozzle welds, top head-to-upper shell, all circumferential shell welds, lower-to-bottom head weld, all longitudinal shell welds, and bottom head-to-nozzle weld.

Requirement from
which Relief is
Requested:

Section XI, 1983 Edition with Addenda through Summer 1983, paragraph IWA-2232 requires that ultrasonic examination of vessel welds in ferritic materials greater than 2 inches in thickness be conducted in accordance with Article 4, Section V, 1983 Edition. Figure T-434.1 of Article 4 requires the aligned side-drilled holes to be located a minimum distance of T/2 from the end of the block. The aligned holes in ALA-RV-1 and ALA-RV-5 are .25 and .50 inches less than the required distance, respectively. The non-aligned holes are to be located a minimum of 1.5 inches from the end of the block. The non-aligned holes on ALA-RV-1, APR-5 and APR-7 are .25, .625 and .625 inches less than the required distance, respectively.

Basis for
Relief:

Experience performing calibrations using the blocks mentioned above has proven fully satisfactory.

Alternate
Examination:

None; the calibration blocks are acceptable for use as is.