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October 1, 1980

2-100-02

Mr. T. M. Novak
Operating Reactors
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Arkansas Nuclear One-Unit 2
Docket No. 50-368
License No. NPF-6
Fracture Toughness of S/G and RCP Supports,
Response to Item 3.0 Subtopics (a) and (b)
(File: 2-1510)

Gentlemen:

In our letter to you of August 19, 1980, we reported that the information to respond to Item 3.0 Subtopics (a) and (b), of your letter of August 5, 1980, would be forthcoming. The following information is provided to address these specific items.

Response:

Item 3.0 (a) Drawing 234-803

Detail 'B' (Support skirt to stay ring)

Detail 'E' (Support skirt to flange)

| | | |
|-----------------|---|---|
| Weld Process | - | Submerged Arc & Shielded Metal Arc Process |
| Electrode | - | Submerged Arc - 3/16" B-4 |
| | - | Shielded Metal Arc - 1/8" - 1/4" E-8018 C-3 |
| Flux | - | Submerged Arc - Linde 0091 |
| Weld Parameters | Submerged Arc - 1st Layer 500V AC @ 30A | |
| | | Remainder 650V AC @ 30A |
| | - | Shielded Metal Arc - 115-375 V DC (RP) @ 25A |
| Heat Treatment | - | 1) Preheat & Interpass - 250 F min. - 500 F max. |
| | | 2) PWHT 1100 F ± 25, 1 hour per inch of thickness |
| | | 3) PWHT temperatures were monitored via thermocouples attached to the weld joint. |

Detail 'G' (support skirt longitudinal welds)

| | | |
|-----------------|------------------------|--|
| Weld Process | - | Shielded Metal Arc |
| Electrode | - | 1/8 - 1/4" E-8018 C-3 |
| Weld Parameters | 115-275V DC (RP) @ 25A | |
| Heat Treatment | - | 1) Preheat & interpass - 250 F min-500 F max |
| | | -2) PWHT 1100 F ± 25, 1 hour per inch of thickness. |
| | | -3) PWHT Temperatures were monitored via thermocouples attached to the weld joint. |

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During fabrication, the following NDT was required to be performed to satisfy the Summer 1970 Addenda of the ASME Code and to comply with normal shop practice.

- 1) Detail 'B'-Mag Particle (MT) Examine a) Backchipped Root Layer
and b) Final Surface, Both sides
-Radiograph (RT) Examine a) Final Weld
- 2) Detail 'E'-MT a) Backchipped Root Layer
b) Final Surface, Both Sides
- 3) Detail 'G'-MT a) Backchipped Root Layer
b) Final Surface, Both Sides

The above mentioned support skirt to stay ring weld (Detail 'B') was included in the Inservice Inspection baseline program and was UT inspected with 0, 45 and 60 beams all with acceptable results. The remaining welds (Detail 'E' support skirt to flange and Detail 'G' support skirt longitudinal welds) did not receive any subsequent inspections as they are not required to be included in the inservice inspection program.

Item 3.0(b) Drawing 234-804

Section AA (Key to Shell)

Section CC & EE (Lug to Shell)

Weld Process -Shielded Metal Arc

Electrode -1/8 - 1/4" E-8018-C3

Weld Parameters 115-275 V DC (RP) @ 25A

Heat Treatment -1) Preheat & Interpass - 250 F min - 500 F max

2) PWHT - 1100 F \pm 25, 1 hour per inch - 1
thickness

3) PWHT temperatures were monitored via thermocouples
attached to the weld joint.

During fabrication the following NDT was required to satisfy the Summer 1970 Addenda of the ASME Code and to comply with normal shop practice.

- 1) Section AA, CC, EE - MT a) Backchipped Root
b) Final Surface, Both Sides

The above mentioned key to shell and lug to shell welds were included in the Inservice Inspection baseline program and were surface dye penetrant examined with acceptable results.

The above information represents all information available for our response to these specific topics. This concludes our effort on Item 3.0 Subtopics (a) and (b).

Very truly yours,

David C. Trimble

David C. Trimble
Manager, Licensing

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