

May 23, 1995

2CAN059505

U. S. Nuclear Regulatory Commission  
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Subject: Arkansas Nuclear One - Unit 2  
Docket No. 50-368  
License No. NPF-6  
Revised First 10-Year Interval Inservice Inspection Relief Request B-J/B4.5

Gentlemen:

Entergy Operations has revised the attached relief request based upon not achieving the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI requirements for examination coverage of piping weld 25-017 during the tenth refueling outage (2R10) for Arkansas Nuclear One, Unit 2 (ANO-2). The history and justification for submitting this relief request are described below.

By letter dated August 31, 1989 (2CAN088915), Entergy Operations submitted inservice inspection (ISI) relief requests for the ANO-2 first 10-year interval, which ended March 26, 1990. These requests were for relief from certain ASME Code requirements because only limited examinations could be performed. On December 30, 1992 (2CNA129205), the NRC provided its evaluation of these relief requests. In three requests, relief was fully or partially denied. For these three cases, Entergy Operations was given the option of performing the appropriate inspections at the next scheduled outage or resubmitting the requests with additional information.

In a submittal dated November 3, 1993 (2CAN119302), Entergy Operations provided its proposed resolution for the three denied relief requests. As a resolution to the partially denied Relief Request B-J/B4.5 (for which the NRC had approved relief for two of the three requested welds), Entergy Operations proposed to perform an axial scan of piping weld 25-017 during the next refueling outage (2R10). Specifically, it was stated that: "An attempt will first be made to perform the required examination from the tee side of the weld with a sufficiently long metal path to enable the accomplishment of two-directional axial coverage from the tee side. If the examination is prohibited or limited by the configuration of the tee, the pipe clamp will be removed to enable the performance of the required axial scan from the

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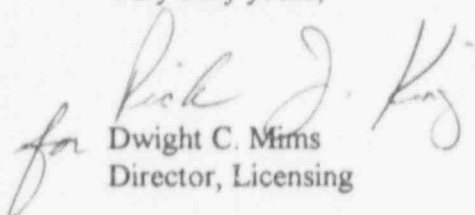
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pipe side of the weld." In a safety evaluation dated March 25, 1994 (2CNA039402), the staff agreed to Entergy Operations' proposed resolution.

During the 2R10 refueling outage (completed April 24, 1994), examination of piping weld 25-017 was attempted as described in letter 2CAN119302. However, the axial scan direction examination was limited to 56%. The reasons for obtaining limited coverage and justification for acceptance of reduced coverage is described in the attached revision to Relief Request B-J/B4.5, which is submitted for your review.

Should you have any questions concerning this submittal, please contact me.

Very truly yours,

  
Dwight C. Mims  
Director, Licensing

DCM/jjd

attachment

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**ANO-2 Inservice Inspection  
Relief Request B-J/B4.5 - Revision 1**

**Applicable Interval:**

First

**Applicable Edition and Addenda of ASME Section XI:**

1974 Edition with Addenda through Summer 1975 (74S75)

**Code Class:**

1

**Code Examination Category:**

B-J

**Code Item No.:**

B4.5

**Code Required Examination:**

Volumetric Examination of Pressure-Retaining Welds in Piping

**Component(s) or Relief Area(s):**

25-017 Tee-to-Pipe Circumferential Weld	2CCA-25-14" Shutdown Cooling	Relief Requested (See Basis Below)
08-015 Safe End-to-Pump Circumferential Weld	2CCA-5-30" Reactor Coolant	Relief Granted December 30, 1992 (2CNA129205)
09-009 Pump-to-Safe End Circumferential Weld	2CCA-6-30" Reactor Coolant	Relief Granted December 30, 1992 (2CNA129205)

**Requirement from which Relief is Requested:**

Tables IWB-2500 and IWB-2600, Examination Category B-J, Item No. B4.5, of the 74S75 Code, require a volumetric examination of 25% of the Class 1 circumferential pressure-retaining welds in piping.

**Basis for Relief:**

The axial scan direction examination performed during 2R10 was limited to 56% coverage of the examination volume. After an examination was determined to be impracticable from the tee side of this weld because of the configuration, an effort was made to remove the pipe clamp located adjacent to the weld on the pipe side. However, due to the design of the support, only the bottom half of the clamp could be removed.

A short tube steel stanchion is welded to the top half of the clamp. The top of the stanchion is welded to a plate. An approximately 1/16" gap exists between this plate and the bottom of the support member directly above. This design feature prohibited the removal of the clamp because: a) the clamp and attached stanchion could not be lifted out and away from the pipe due to insufficient clearance, and b) the clamp and attached stanchion could not be slid down the length of the pipe due to the proximity of a 3/4" pressure point line welded to the main run piping pressure boundary immediately downstream of the examination area. Therefore, removal of the clamp could not be achieved without taking destructive action. This action would have entailed cutting the stanchion to facilitate clamp removal. If this had been performed, the subsequent restoration of the support would have required welding. The required cutting and welding were not deemed appropriate due to ALARA considerations.

Entergy Operations believes that the maximum, reasonably achievable coverage was attained on this weld. The 56% axial scan direction coverage obtained in 2R10, coupled with the 100% circumferential scan direction coverage previously obtained in 2R6, yields an overall average coverage of 78%. Entergy Operations believes this provides sufficient evidence to substantiate the integrity of this weld. Furthermore, this weld is only one of a large sampling of B-J/B4.5 circumferential piping welds examined per 74S75 Code requirements during the first inspection interval. When viewed collectively, the overall integrity of this category of piping circumferential welds has been adequately demonstrated.

**Alternative Examinations:**

None.