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U. S. Nuclear Regulatory Commission
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Subject: Arkansas Nuclear One - Unit 1
Docket No. 50-313
License No. DPR-51
Summary Report of the Code Case N-481
Evaluation for All Four RCPs and Visual
Inspection Results of the "D" Reactor
Coolant Pump

Gentlemen:

During the recently completed Arkansas Nuclear One, Unit 1 (ANO-1) refueling outage (1R10), the "D" reactor coolant pump (RCP) was disassembled. This disassembly was to inspect the RCP for damage due to potential motor thrust bearing failure and was not a planned outage evolution.

In letter dated March 26, 1992 (1CAN039211), information was submitted to the NRC to revise an Entergy Operations commitment to perform single-wall radiography of the pump casing and instead conduct RCP casing structural integrity examinations and evaluations using the methodology contained in ASME Code Case N-481. In the March 26, 1992, letter Entergy Operations committed to submit a report of the Code Case evaluation.

During a March 30, 1992, telephone conference call, the NRC requested the results of the VT-1 and VT-3 examination of the "D" RCP. Also requested was a comparative analysis between the Code Case postulated flaw evaluation and the "A" and "B" RCP previous fracture mechanics and stress analysis evaluations. This information was submitted to the NRC in our letter dated April 13, 1992 (1CAN049202).

The Code Case also requires that a VT-2 visual examination of the exterior of all pumps be performed during a hydrostatic pressure test. Entergy Operations committed to perform this examination prior to returning ANO-1 to power operations.

The purpose of this submittal is to provide the results of the VT-2 examination and the ASME Code Case N-481 evaluation.

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Results of the VT-2 Examination

A VT-2 examination of the exterior surface of all four RCPs ("A", "B", "C", and "D") was performed prior to returning the unit to power operations. No leaks were identified during the examinations.

Code Case N-481 Evaluation

Attached is the summary report of the evaluation for all four ANO-1 RCPs per the requirements of ASME Code Case N-481. This report discusses the results of previous examinations, the background of the code case, and the associated fracture mechanics evaluations. Based on these evaluations, it was concluded that the ANO-1 RCP pump casings satisfy the safety and serviceability requirements of the code case.

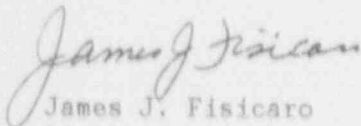
As stated in our letter dated March 26, 1992 (1CAN039211), Entergy Operations changed its augmented inservice inspection commitment of performing single-wall radiography of RCP casing welds in the event any pump is completely disassembled for maintenance, repair or examination. Our present commitment is to conduct RCP casing structural integrity examinations and evaluations using the methodology contained in Code Case N-481. This letter completes our actions regarding the structural integrity examinations and evaluations.

Using the methodology contained in Code Case N-481 in lieu of single-wall radiography, Entergy Operations believes that the intent of the augmented inservice inspection plan described in the NRC April 25, 1989, Safety Evaluation has been met. Entergy Operations will continue to perform the remaining portions of the augmented plan described in the April 25, 1989, Safety Evaluation. Entergy Operations intends to apply this code case to other RCP inspections for the remaining portion of the second 10-year inservice inspection interval for ANO-1.

Eight pages of the report contain information that was previously submitted to the NRC as proprietary under letter dated October 27, 1988 (1CAN108805). These eight pages have been noted as proprietary in the attached report and they will be submitted under a separate cover letter.

Should you have any questions regarding this issue, please contact me.

Very truly yours,


James J. Fisicaro
Director, Licensing

JJF/RWC/sjf
Attachment

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