



# Entergy Operations

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Subject: Arkansas Nuclear One - Units 1 & 2  
Docket No. 50-313 & 50-368  
License No. DPR-51 & NPF-6  
Correction of NRC Correspondence for  
the Emergency Feedwater System

Gentlemen:

By letter dated January 31, 1980 (2CAN018024), Entergy Operations provided the responses to the Staff recommendations of NRC Letter dated November 6, 1979 (2N-79-197) regarding the Arkansas Nuclear One, Unit 2 (ANO-2) Emergency Feedwater (EFW) System. Entergy Operations has identified two aspects of our January 31, 1980 response which were not completely accurate. As discussed with the ANO-1 NRR Project Manager and other members of the NRR staff, this letter is being submitted to correct these inaccuracies and to discuss other actions taken as a result of this finding.

Enclosure 1 of the November 6, 1979 NRC letter, item X.1.3.1, recommendation GS-6, stated that:

"The licensee should propose Technical Specifications to assure that prior to plant startup following an extended cold shutdown, a flow test would be performed to verify the normal flow path from the primary AFW system water source to the steam generators. The flow test should be conducted with AFW system valves in their normal alignment."

Our January 31, 1980 response for ANO-2 stated that because the motor driven EFW pump was used to supply feedwater to the steam generators during startup, this assured the normal flow path of the "B" EFW train from the primary EFW system water source to the steam generators. This statement inferred that the recommendation would always be met for this train of EFW; therefore, no Technical Specifications were needed. During plant startups when the motor driven EFW pump is used to feed the steam generators, the

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suction source for the EFW pump is the Startup and Blowdown (SU/BD) system effluent. The primary EFW system water source is the condensate storage tank (CST), not the SU/BD effluent. After startup, the EFW pump suction source is transferred to the CST. Based on the information provided, no Technical Specification changes were proposed for the "B" EFW train. Technical Specification changes addressing the recommendation for the "A" EFW system train were submitted, approved by the Staff, and implemented by issuance of Amendment #50 to the ANO-2 Technical Specifications in December of 1983. Although the requirement to perform a flow test for the "B" EFW system train does not exist in the Technical Specifications, currently the "B" EFW train flow path is procedurally verified by testing during each cold shutdown prior to heatup and has been since the requirements of Amendment 50 were implemented into plant procedures.

Enclosure 1 of the November 6, 1979 NRC letter, item X.1.3.2, recommendation 4, stated that:

"Licensees with plants which require local manual realignment of valves to conduct periodic tests on one AFW system train, and there is only one remaining AFW train available for operation should propose Technical Specifications to provide that a dedicated individual who is in communication with the control room, be stationed at the manual valves. Upon instruction from the control room, this operator would realign the valves in the AFW system train from the test mode to its operational alignment."

Our response for ANO-2 to this recommendation provided in letter dated January 31, 1980 stated that local manual realignment of valves was not required during the performance of EFW system periodic tests. However, a review of the EFW system surveillance procedure in use in 1980 indicated that realignment of a manual valve was necessary in order to test the "A" EFW train. Currently, during the "A" train EFW pump test, an operator is stationed locally and is in communication with the control room to realign the manual valve (2EFW-11B) upon instruction from the control room. Subsequent to our 1980 response, the "B" train EFW pump test was revised to also require manual valve realignment during testing. However, testing procedures were not revised to require stationing an operator locally.

Also, ANO-2 has subsequently installed a third auxiliary feedwater pump which is now an alternate and preferred method of feeding the steam generators during plant startup instead of using the "B" train EFW pump.

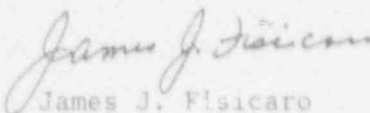
Upon discovery of these discrepancies, a Condition Report was written in order to address these concerns. The corrective actions were: (1) to review the entire January 31, 1980 letter for accuracy, (2) to revise the ANO-2 EFW system operating procedure to station an operator in communication with the control room to operate the necessary manual valves that are realigned during EFW train testing, (3) to perform a Technical Specification change evaluation for ANO-2, and (4) to conduct a review for applicability to ANO-1.

The following addresses the corrective actions taken:

- (1) In further review of our January 31, 1980 response to X.1.3.2, recommendation 1, we stated that "Should the pressure at either of these switches drop to 7 (+1,-0) psig. from its normal 10 psig, local and control room alarms will be actuated." This statement is being corrected to indicate that the normal suction pressure for the EFW pumps is approximately 25 psig with only control room alarms being actuated on low suction pressure. This correction does not change any of the conclusions reached in our response to the NRC request.
- (2) The Emergency Feedwater System Operations procedure was revised to locally maintain an operator in communication with the control room to realign the manual valve (2EFW-6) that could render the "B" train of EFW inoperable during EFW system testing.
- (3) Since procedural controls are currently in place and due to the fact that the EFW system design consists of two trains of EFW and one train of AFW, no Technical Specification changes for ANO-2 are considered necessary to address the concern of the November 6, 1979 NRC letter, Enclosure 1, item X.1.3.2 recommendation 4. The need for Technical Specifications requiring the surveillance of the "B" EFW system train was discussed with the ANO-1 NRR Project Manager and a reviewer from the Plant Systems Branch of NRR. It was concluded that since procedural requirements exist for this surveillance and all position changeable valves in this train are located outside of the containment which are verified to be in their correct position once every 31 days per Specification 4.7.1.2.a.3 that no additional specifications are required to address the concern of item X.1.3.1 recommendation GS-6.
- (4) The review for applicability to ANO-1 of the November 6, 1979 NRC letter, Enclosure 1, item X.1.3.1, recommendation GS-6 and item X.1.3.2, recommendation 4, indicated that: a) local manual valve realignment is not necessary in order to test the ANO-1 EFW trains, and b) prior to a plant startup following a refueling shutdown, a combination of EFW system tests are performed that verify the normal flow path from the CST (primary EFW system water source) to the steam generators.

If you have any further questions, please do not hesitate to contact me or my staff.

Very truly yours,



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