

May 15, 2000

MEMORANDUM TO: File

FROM: M. Christopher Nolan, Project Manager, Section 1 */RA/*
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: ARKANSAS NUCLEAR ONE, UNITS 1 AND 2, FACSIMILE
TRANSMISSION, ISSUES TO BE DISCUSSED IN AN UPCOMING
CONFERENCE CALL (TAC NO. MA8206 AND MA8207)

The attached information was transmitted by facsimile on May 9, 2000, to Mr. Steve Bennett of Entergy Operations, Inc. (the licensee). This information was transmitted to facilitate an upcoming conference call in order to clarify the licensee's submittal dated January 27, 2000, which requested a revision to the Technical Specifications for Arkansas Nuclear One, Units 1 and 2 to revise the bases and requirements for the condensate storage tanks. This memorandum and attachment do not convey a formal request for information or represent a Nuclear Regulatory Commission staff position.

Docket Nos. 50-313 and 50-368

Attachment: Issues for Discussion in Upcoming Telephone Conference

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DATE	5/10/00	5/9/00	5/15/00

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Discussion Points Regarding the Arkansas Condensate Storage Tank Requirements
(TAC Nos. MA8206 & MA8207)

In order to evaluate the proposed changes, it is necessary to understand Arkansas Nuclear One's, Units 1 and 2 (ANO-1 and ANO-2) current licensing basis with respect to station blackout (SBO), the diversity of auxiliary feedwater (AFW) power supplies, and the licensing requirements (limiting event) that resulted in the current sizing of the AFW condensate storage tanks (CSTs). We have developed the following specific discussion points.

- This technical specification (TS) amendment will permit ANO-2 AFW pumps to be aligned to ANO-1 CSTs. Please show that this sharing of the CSTs will not significantly impair the AFW systems ability to perform all safety functions, including, in the event of an accident in one unit, an orderly shutdown and cooldown of the remaining unit. Describe how you comply with General Design Criterion 5.
- Please describe the worst case design basis event (worst case from a condensate inventory standpoint) that is the basis for the required 32,300 gallons of water for CST 241B and explain why it is the worst case. Are there any design basis accidents or transients (including single failures) that would result in more than 32,300 gallons (enough water to increase level to the emergency feedwater (EFW) initiation and control setpoint in addition to decay heat) of water to be pumped from the tank?
- Please explain how you have verified that there will be adequate service water flow during the worst case design basis event (worst case from a service water standpoint) given that service water will also be supplying the EFW system.
- Please describe any changes to the SBO coping analysis as a result of the reduction in the required CST volume. If there are no changes, please describe why and where in the Final Safety Analysis Report the revised SBO analyses are described.
- The submittal states that the 32,300 gallons of water is an analytical limit and that instrument uncertainties are not included. The TS value should not represent an analytical limit. It should represent the actual amount of water needed to mitigate the design basis accidents. As a result, please account for uncertainties in either the limit or the analysis (assume events occur with tank level indicators and power level at their extreme).
- Please evaluate the quality of the essential service water during normal and upset conditions, and determine if there will be enough build-up (precipitate from boiling dirty water) in the generators to prevent effective cooling.
- How is the flow path from the service water system to the AFW system tested and demonstrated to be free of blockages or silting during normal operation? How are the valves cycled to demonstrate that they will be capable of performing their intended function. How frequently are they tested? Please evaluate the need for additional surveillances to demonstrate that this flow path is available (or justify why additional surveillances are not needed).

- How have you demonstrated that 30 minutes will be enough time for operators to re-align the AFW pump suction for all design basis accidents or transients that initiate EFW (currently required only for seismic or turbine missile events)?
- It is our understanding that your plant licensing bases includes consideration of Branch Technical Position ASB 10-1, which states that the AFW pumps be designed with diverse power sources and that other powered components should also use the concept of separate and multiple sources of motive energy. Can the service water be supplied to the AFW pumps using a diverse motive energy? If not, why is this acceptable?

Please consider the Three Mile Island Nuclear Power Plant (TMI) action item recommendation (AFW reliability recommendation GL-3) that there be two hours of alternating current (AC) power-independent AFW. Provide references for your resolution of TMI Action Item II.E.1-1 and describe how you comply with the requirement that there be two hours of AC-independent AFW. If you no longer meet this requirement, provide the references that describe the plant changes and the staff appraisal of those changes.