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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
Additional Information Related To Proposed Technical Specification Change
Revising Engineered Safeguards Actuation Low Reactor Coolant System
Pressure Setpoint (TAC No. MA6401)

Gentlemen:

By letter dated August 18, 1999 (1CAN089903), Entergy Operations, Inc. (EOI) proposed changes to the Arkansas Nuclear One - Unit 1 (ANO-1) Technical Specifications (TSs) revising the setpoint for the low reactor coolant system (RCS) pressure actuation of the Engineered Safeguards Actuation System (ESAS). During subsequent conversations with the ANO-1 project manager, ANO agreed to provide additional information discussing the methodology used in deriving the proposed setpoint. This letter provides the additional information.

Revisions to existing setpoint calculations for limiting safety system settings (LSSS) and new setpoint calculations for LSSS are performed in accordance with the guidelines set forth in EOI Design Guide IDG-001, "Instrument Loop Error and Setpoint Methodology Manual." Although ANO is not committed to strict compliance with the Instrument Society of America Standard, ISA-S67.04 - 1982, "Setpoints for Nuclear Safety Related Instrumentation Used in Nuclear Power Plants," the requirements of S67.04 were used as a guide for IDG-001 and is an integral part of the ANO setpoint program.

For LSSS calculations performed in accordance with IDG-001, the statistical method of the square root of the sum of the squares (SRSS) is used to determine the random error on a component level and for the instrument loop. Non-random errors are combined algebraically with the random error term to establish total error. In addition, these calculations are performed assuming a 95/95 tolerance limit. The proposed setpoint has been verified to be conservative with respect to the IDG-001 guidance.

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This information is consistent with information describing the ANO instrument uncertainty methodology previously provided in correspondence associated with setpoint changes in the ANO-2 TS. These discussions are contained in ANO correspondence dated July 9, 1992 (2CAN079207), July 22, 1992 (2CAN079202), and September 23, 1997 (2CAN099703). Previous NRC acceptance of the ANO methodology can be found in two Safety Evaluations dated October 5, 1992 (ANO-2 Amendment 137 and Amendment 138).

Very truly yours,

Jimmy D. Vandergrift
Director, Nuclear Safety

JDV/cws

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