



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

August 4, 1997

Mr. C. Randy Hutchinson
Vice President, Operations ANO
Entergy Operations, Inc.
1448 S. R. 333
Russellville, AR 72801

**SUBJECT: LICENSE AMENDMENT 184 CLARIFICATION-ARKANSAS NUCLEAR ONE, UNIT 2,
(TAC NO. M97292)**

Dear Mr. Hutchinson:

This letter is written as a response to questions from your staff related to the safety evaluation (SE) that was issued as part of License Amendment No. 184 for Arkansas Nuclear One, Unit 2 (ANO-2). The license amendment was forwarded to you by letter dated May 20, 1997. The amendment involves acceptance criteria and surveillance requirements for steam generator tubes. This letter documents telephone discussions between our respective technical staffs to clarify portions of the Amendment 184 SE.

ANO-2 is licensed to use two types of Combustion Engineering designed sleeves: an expansion transition zone (ETZ) sleeve and a tube support (TS) sleeve. The ETZ sleeve is hard rolled into the tube sheet at the lower end and welded to join the sleeve to the parent tube at the upper (freelspan) end while the TS sleeve is welded at both the upper and lower ends. The centerline of the weld forms the pressure boundary transition between the sleeve and the tube.

The staff accepts leaving in service those eddy current test (ET) indications located outside the sleeve pressure boundary as long as ultrasonic test (UT) requirements are also met. In section 3.2 of the safety evaluation for Amendment No. 184, the staff wrote, "ET indications located above the weld centerline that meet UT requirements can be left in service. Any ET indication found below the weld centerline requires the tube to be plugged." This statement is correct for the ETZ sleeve which has only the upper joint welded since ET indications found above the weld centerline are outside the sleeve pressure boundary. This statement does not apply to the TS sleeve which has both the upper and lower joints welded because ET indications located above the weld centerline in the lower joint would not be outside the sleeve pressure boundary. Any ET indication found within the sleeve pressure boundary requires the tube to be plugged.

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August 4, 1997

The above discussion is our summary of previous verbal clarifications that were made relative to the License Amendment 184 SE. Please telephone if any addition discussion is necessary concerning this issue.

Sincerely,

Orig. signed by
George Kalman, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-368

cc: See next page

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Document Name: AR97292.LTR

OFC	PM/PD4-1	LA/PD4-1	(A)PD4-1
NAME	GKalman:sp	CHawes CMH	JClifford
DATE	7/25/97	7/22/97	8/4/97
COPY	YES/NO	YES/NO	YES/NO

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The above discussion is our summary of previous verbal clarifications that were made relative to the License Amendment 184 SE. Please telephone if any addition discussion is necessary concerning this issue.

Sincerely,

A handwritten signature in black ink, appearing to read "George Kalman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

George Kalman, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-368

cc: See next page

Mr. C. Randy Hutchinson
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Arkansas Nuclear One, Unit 2

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