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March 8, 2000

2CAN030002

U. S. Nuclear Regulatory Commission
Document Control Desk
Mail Station OP1-17
Washington, DC 20555

Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
Technical Specification Change Request Regarding Core Alteration Definition

Gentlemen:

Attached is a proposed change to the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specification definition 1.12 for a core alteration. The proposed change revises the current definition to a definition similar to the one contained in "Standard Technical Specifications, Combustion Engineering Plants," NUREG-1432, Revision 1.

The current definition is written such that it could be interpreted to prohibit the movement of any component within the reactor vessel, including many items that have no impact on core reactivity. The ANO-2 modified definition from NUREG-1432 defines core alteration as the movement or manipulation of any fuel, sources, or reactivity control components [excluding coupling/uncoupling of CEAs] within the reactor pressure vessel with the vessel head removed and fuel in the vessel.

The proposed change has been evaluated in accordance with 10CFR50.91(a)(1) using criteria in 10CFR50.92(c) and it has been determined that this change involves no significant hazards considerations. The bases for these determinations are included in the attached submittal.

Entergy Operations requests that the effective date for this change be September 15, 2000. Although this request is neither exigent nor emergency, your prompt review is requested.

A001

Very truly yours,

CGA/nbm
Attachment

To the best of my knowledge and belief, the statements contained in this submittal are true.

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for Pope **County and the State of Arkansas, this** 8th **day of** March **, 1999.**

Notary Public
My Commission Expires 12/15/2007

"OFFICIAL SEAL"
Andrea Pierce
Notary Public, State of Arkansas
County of Pope
My Commission Exp. 12/15/2007

cc: Mr. Ellis W. Merschoff
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ATTACHMENT

TO

2CAN030002

PROPOSED TECHNICAL SPECIFICATION

AND

RESPECTIVE SAFETY ANALYSES

IN THE MATTER OF AMENDING

LICENSE NO. NPF-6

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT TWO

DOCKET NO. 50-368

DESCRIPTION OF PROPOSED CHANGES

The current ANO-2 definition for core alteration states:

> "CORE ALTERATION shall be the movement or manipulation of any component within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position."

This definition implies that movement of any component in the reactor pressure vessel is considered a core alteration, including items that do not result in reactivity changes or have the potential to cause fuel damage.

The proposed change replaces the current definition with a definition similar to the one from the "Standard Technical Specifications, Combustion Engineering Plants," (NUREG-1432, Revision 1). The NUREG-1432 definition states:

> "CORE ALTERATION shall be the movement or manipulation of any fuel, sources, or reactivity control components [excluding control element assemblies (CEAs) withdrawn into the upper guide structure], within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position."

The NUREG-1432 definition is not being utilized in its entirety because a portion of the definition is not applicable to ANO-2. CEAs cannot be physically withdrawn into the ANO-2 upper guide structure; therefore, the portion of the NUREG-1432 definition clarifying reactivity control components [excluding CEAs withdrawn into the upper guide structure] is being omitted from the ANO-2 definition.

Also, during the coupling/uncoupling of CEAs from their extension shafts, the CEAs are slightly moved in order to verify that the coupling/uncoupling is performed correctly. This is performed with the upper guide structure in place. This refueling evolution has been previously evaluated by an NRC clarification for St. Lucie in internal NRC correspondence (Memoranda between John A. Olshinski, Director, Division of Reactor Safety and Darrell G. Eisenhut, Director, Division of Licensing, NRR, dated October 3, 1984 and November 7, 1984). The NRC concluded that coupling/uncoupling of CEAs from their extension shafts with the upper guide structure in place does not constitute a core alteration. Therefore, a clarification is being added to the ANO-2 definition as follows:

> "CORE ALTERATION shall be the movement or manipulation of any fuel, sources, or reactivity control components [excluding coupling/uncoupling of CEAs], within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position."

BACKGROUND

The current definition for core alteration is written such that it could be interpreted to prohibit the movement of any component including items that have no impact on core reactivity. The ANO-2 modified NUREG-1432 definition specifically defines those activities that could have the potential for adding positive reactivity to the core while the vessel head is removed and fuel is in the vessel.

DISCUSSION OF CHANGE

The proposed change modifies the definition of core alteration similar to the definition contained in NUREG-1432. NUREG-1432 specifically defines those activities that could realistically result in reactivity changes or have the potential to cause fuel damage. Current ANO-2 procedures ensure the components and systems needed to mitigate the consequences of a fuel handling accident are available during core alterations or core alterations would be suspended as required. The proposed amendment to the Technical Specifications would eliminate possible confusion associated with the current definition.

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

Entergy Operations is proposing that the ANO-2 Technical Specifications be amended to include a definition of core alteration similar to that contained in NUREG-1432.

An evaluation of the proposed change has been performed in accordance with 10CFR50.91(a)(1) regarding no significant hazards considerations using the standards in 10CFR50.92(c). A discussion of these standards as they relate to this amendment request follows:

Criterion 1 - Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated.

The intent of the definition is to ensure that activities which could result in reactivity changes or have the potential to cause fuel damage are considered a core alteration. The current definition could be intrepreted to apply to other activities that would not result in reactivity changes or have the potential to cause fuel damage. Thus, the modification of the definition clarifies the wording such that movement of only those components that result in reactivity changes or have the potential to cause fuel damage are specified. The modified NUREG-1432 definition was derived to limit those actions that could cause reactivity changes and potentially affect the probability or consequences of fuel handling accidents. Therefore, changing the definition of a core alteration to movement of those components that directly affect reactivity will not result in an increase in the probability or consequences associated with a fuel handling accident.

Therefore, this change does not involve a significant increase in the probability or consequences of any accident previously evaluated.

Criterion 2 - Does Not Create the Possibility of a New or Different Kind of Accident from any Previously Evaluated.

The proposed definition identifies specific components that if moved or manipulated would result in reactivity changes. The movement or manipulation of items such as lights, video cameras, and reactor vessel material specimen capsules within the reactor vessel will not result in changes in reactivity. Additionally, no reactivity change would result with the withdrawal and insertion of incore detectors or the movement of the reactor vessel upper internals within the reactor vessel with fuel in the vessel.

Therefore, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

Criterion 3 - Does Not Involve a Significant Reduction in the Margin of Safety.

The core alteration definition is based on the need for control of reactivity changes and the consequences of fuel handling accidents. The proposed change provides clarity as to what component movement or manipulation results in reactivity changes. The proposed change is in accordance with the guidance provided in NUREG-1432 for a core alteration.

Therefore, this change does not involve a significant reduction in the margin of safety.

Therefore, based upon the reasoning presented above and the previous discussion of the amendment request, Entergy Operations has determined that the requested change does not involve a significant hazards consideration.

ENVIRONMENTAL IMPACT EVALUATION

10CFR51.22(c) provides criteria for and identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant hazards consideration, (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released off-site, or (3) result in a significant increase in individual or cumulative occupational radiation exposure. Entergy Operations has reviewed this license amendment and has determined that it meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22(c)(9). Pursuant to 10CFR51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the proposed license amendment. The basis for this determination is as follows:

1. The proposed license amendment does not involve a significant hazards consideration as described previously in the evaluation.

2. As discussed in the significant hazards evaluation, this change does not result in a significant change or significant increase in the radiological doses for any design basis accident. The proposed license amendment does not result in a significant change in the types or a significant increase in the amounts of any effluents that may be released off-site.

3. The proposed license amendment does not result in a significant increase to the individual or cumulative occupational radiation exposure because this change is administrative in nature and does not change the assumptions related to the release of radioactive material from the fuel as a result of a fuel handling accident.

PROPOSED TECHNICAL SPECIFICATION CHANGES

CHANNEL FUNCTIONAL TEST

1.11 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - The injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY including alarm and/or trip functions.

b. Bistable channels - The injection of a simulated signal into the sensor to verify OPERABILITY including alarm and/or trip functions.

c. Digital computer channels - The exercising of the digital computer hardware using diagnostic programs and the injection of simulated process data into the channel to verify OPERABILITY.

CORE ALTERATION

1.12 CORE ALTERATION shall be the movement or manipulation of any fuel, sources, or reactivity control components [excluding coupling/uncoupling of CEAs] within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position.

SHUTDOWN MARGIN

1.13 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all control element assemblies are fully inserted except for the single assembly of highest reactivity worth which is assumed to be fully withdrawn.

IDENTIFIED LEAKAGE

1.14 IDENTIFIED LEAKAGE shall be:

a. Leakage (except CONTROLLED LEAKAGE) into closed systems, such as pump seal or valve packing leaks that are captured, and conducted to a sump or collecting tank, or

b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or

c. Reactor coolant system leakage through a steam generator to the secondary system.

MARKUP OF CURRENT ANO-2 TECHNICAL SPECIFICATIONS

(FOR INFO ONLY)

CHANNEL FUNCTIONAL TEST

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