

the minimum boron concentration in the SFP to 2000 parts per million (ppm), and (4) reduce the fresh fuel assembly initial enrichment to less than or equal to 4.55 ± 0.05 weight percent uranium-235 (U-235).

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The fuel handling accidents described below can be postulated to increase reactivity. However, for these accident conditions, the double contingency principle of ANS [American Nuclear Society] N16.1-1975 is applied. This states that it is unnecessary to assume two unlikely, independent, concurrent events to ensure protection against a criticality accident. Thus, for accident conditions, the presence of soluble boron in the storage pool water can be assumed as a realistic initial condition since its absence would be a second unlikely event.

Three types of drop accidents have been considered: a vertical drop accident, a horizontal drop accident, and an inadvertent drop of an assembly between the outside periphery of the rack and the pool wall.

- A vertical drop directly upon a cell will cause damage to the racks in the active fuel region. The proposed 2000 ppm soluble boron concentration will ensure that K_{eff} does not exceed 0.95.

- A fuel assembly dropped on top of the rack that comes to rest horizontally will not deform the rack structure such that criticality assumptions are invalidated. The rack structure is such that an assembly positioned horizontally on top of the rack results in a minimum separation distance from the upper end of the active fuel region of the stored assemblies. This distance is sufficient to preclude interaction between the dropped assembly and the stored fuel.

- An inadvertent drop of an assembly between the outside periphery of the rack and the pool wall is bounded by the worst case fuel misplacement accident condition.

The fuel assembly misplacement accident was considered for all storage configurations. An assembly with high reactivity is assumed to be placed in a storage location which requires a fuel assembly with a lower reactivity. The presence of soluble boron in the pool water assumed in the analysis has been shown to offset the worst case reactivity effect of a misplaced fuel assembly for any configuration. This soluble boron requirement is less than the proposed 2000 ppm that will be required by the ANO-2 [Arkansas Nuclear One, Unit No. 2] TS [Technical Specifications]. Thus, a five percent subcriticality margin can be easily met for postulated accidents, since any

reactivity increase will be much less than the negative worth of the dissolved boron.

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

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change will define several acceptable 2×2 loading patterns and acceptable interfaces between the patterns. In addition, the proposed change will credit soluble boron to assure a five percent subcriticality margin is maintained during normal conditions and in the event of a postulated accident. The soluble boron concentration assumed in the analyses for a postulated accident is less than the proposed TS change of 2000 ppm. Thus, a five percent subcriticality margin can easily be met for postulated accidents, since any reactivity increase will be much less than the negative worth of the dissolved boron.

No new or different types of fuel assembly drop scenarios are created by the proposed change. The presence of soluble boron in the SFP water assures a subcriticality margin is maintained in the event of fuel assembly misplacement.

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

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

With the presence of a nominal boron concentration, the fuel storage patterns are designed to assure that fuel assemblies of less than or equal to 4.55 ± 0.05 weight percent U-235 enrichment when loaded in accordance with the proposed loading patterns will be maintained within a subcritical array with a five percent subcritical margin (95% probability at the 95% confidence level). This has been verified by criticality analyses.

Credit for soluble boron in the SFP water is permitted under accident conditions as well as in non-accident conditions. Criticality analyses have been performed to determine the required boron concentration that would ensure a subcriticality margin of at least five percent. By increasing the minimum boron concentration to greater than 2000 ppm, the margin of safety currently defined by taking credit for soluble boron will be maintained.

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

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

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Entergy Operations, Inc., Docket No. 50-368, Arkansas Nuclear One, Unit No. 2, Pope County, Arkansas

Date of amendment request: June 30, 2003.

Description of amendment request:

The proposed amendment would (1) reorganize the Arkansas Nuclear One, Unit No. 2 (ANO-2) Technical Specifications (TSs) Section 6.0, Administrative Controls, (2) modify the ANO-2 Facility Operating License, and actions and surveillance requirements (SRs) of various other TSs, to support the reorganization of Section 6.0, and (3) modify several actions and SRs that are related to systems that are shared by ANO-2 and Arkansas Nuclear One, Unit No. 1 (ANO-1). These changes are being proposed so that the philosophy and location of the TSs in Section 6.0 reflect the recently approved conversion of the ANO-1 TSs to the Improved Technical Specifications (ITS) and the subsequent amendments to the ANO-1 ITS. This amendment request supersedes the previous application related to the revision of TS Section 6.0 dated January 31, 2002, as supplemented on June 26 and July 18, 2002. The January 31, 2002, application was previously noticed in the **Federal Register** on March 19, 2002 (67 FR 12602).

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

Administrative Changes

The proposed changes involve reformatting and rewording of the existing TSs. The reformatting and rewording process involves no technical changes to existing requirements. As such, the proposed changes are administrative in nature and do not impact initiators of analyzed events or assumed mitigation of accident or transient events.

Less Restrictive—Administrative Deletion of Requirements

The proposed changes relocate requirements from the TSs to other license basis documents which are under licensee control. The documents containing the relocated requirements will be maintained using the provisions of applicable regulatory requirements.