

probability of an accident previously evaluated is not affected.

With respect to consequences, the only previously evaluated accident that could be affected is the Fuel Handling Accident. The Alternative Source Term is an input to calculations used to evaluate the consequences of an accident, and does not by itself affect the plant response, or the actual pathway of the radiation released from the fuel. It does however, better represent the physical characteristics of the release, so that appropriate mitigation techniques may be applied. For the Fuel Handling Accident, the AST analyses demonstrate acceptable doses, within regulatory limits, after 24 hours of radiological decay, without credit for Containment/Fuel Handling Building integrity, filtration system operability, or Control Room automatic isolation. Therefore, the consequences of an accident previously evaluated are not significantly increased.

Based on the above conclusions, this proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. This proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendment does not involve a physical alteration of the plant (no new or different type of equipment will be installed and there are no physical modifications to existing equipment associated with the proposed changes). Also, no changes are proposed to the methods governing plant/system operation during handling of recently irradiated fuel, so no new initiators or precursors of a new or different kind of accident are created. New equipment or personnel failure modes that might initiate a new type of accident are not created as a result of the proposed amendment.

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

3. This proposed amendment does not involve a significant reduction in a margin of safety.

The proposed amendment is associated with the implementation of a new licensing basis for PNPP Fuel Handling Accidents. Approval of the change from the original source term to a new source term taken from Regulatory Guide 1.183 is being requested. The results of the accident analyses, revised in support of the proposed license amendment, are subject to revised acceptance criteria. The analyses have been performed using conservative methodologies, as specified in Regulatory Guide 1.183. Safety margins have been evaluated and analytical conservatism has been utilized to ensure that the analyses adequately bound the postulated limiting event scenario. The dose consequences of the limiting Fuel Handling Accident remains within the acceptance criteria presented in 10 CFR 50.67, "Accident Source Term," and Regulatory Guide 1.183.

The proposed changes continue to ensure that the doses at the exclusion area and low population zone boundaries, as well as the Control Room, are within corresponding

regulatory limits. For the Fuel Handling Accident, Regulatory Guide 1.183 conservatively sets the Exclusion Area Boundary (EAB) and Low Population Zone (LPZ) limits below the 10 CFR 50.67 limit, and sets the Control Room limit consistent with 10 CFR 50.67.

Since the proposed amendment continues to ensure the doses at the EAB, LPZ and Control Room are within corresponding regulatory limits, the proposed license amendment does not involve a significant reduction in a margin of safety.

Therefore, the proposed amendment 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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*Florida Power Corporation, et al., Docket No. 50-302, Crystal River Unit No. 3 Nuclear Generating Plant, Citrus County, Florida*

*Date of amendment request:* October 23, 2002.

*Description of amendment request:* The proposed amendment would revise Crystal River Unit 3 Improved Technical Specifications (ITS) 4.2.1, "Fuel Assemblies," and ITS 4.2.2, "Control Rods," to permit the use of Framatome ANP M5 advanced alloy for fuel rod cladding and fuel assembly structural components.

*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:

Florida Power Corporation (FPC) has evaluated the proposed License Amendment Request (LAR), which consists of the identified Technical Specification changes and exemption requests, against the criteria of 10 CFR 50.92(c). The Technical Specification changes are categorized as follows:

1. Modification of Section 4.2.1, DESIGN FEATURES, Fuel Assemblies, and to include the M5 advanced alloy for fuel rod cladding and fuel assembly structural material[.]

2. Removal of design information such as maximum fuel enrichment, nominal active fuel length, maximum individual rod weight, and details of Control Rod content. Adopting the wording from the Standard ITS.

3. Addition to ITS 4.2.1 of the following sentence: "A limited number of lead test

assemblies that have not completed representative testing may be placed in nonlimiting core regions." Crystal River Unit 3 does not intend to load lead test assemblies in the upcoming fuel cycle (Cycle 14). This sentence is being added for consistency with NUREG 1430, Revision 2.

FPC has concluded that this proposed LAR does not involve a significant hazards consideration. The following is a discussion of how each of the criteria is satisfied.

(1) [Does not] [involve] a significant increase in the probability or consequences of an accident previously evaluated.

*M5 advanced alloy:* Topical reports BAW-10227P-A, "Evaluation of Advanced Cladding and Structural Material (M5) in PWR [Pressurized Water Reactor] Reactor Fuel," February 2000 and BAW-10179P-A, Revision 4, "Safety Criteria and Methodology for Acceptable Cycle Reload Analyses," March 2001 provide the licensing basis for the Framatome ANP (FRA-ANP) advanced cladding and structural material, designated M5. The M5 material can be used for fuel rod cladding, as well as for fuel assembly spacer grids, fuel rod end plugs, and fuel assembly guide and instrument tubes. By letter dated August 2, 2001 (Reference 4), the NRC approved BAW-10179P-A, Revision 4, for referencing in license applications. BAW-10179P-A, Revision 4 incorporates BAW-10227P-A. The M5 material was shown in these documents to have equivalent or superior properties to the current Zircaloy-4 material. The cladding itself is not an accident initiator and does not affect accident probability. The M5 cladding has been shown to meet all 10 CFR 50.46 design criteria and, therefore, will not increase the consequences of an accident.

*Removal of design parameters of maximum fuel enrichment, active fuel length, rod weight and Control Rod content:* This change moves design features from Improved Technical Specifications (ITS) to the Final Safety Analysis Report (FSAR) and other design documents and analyses. The Framatome ANP enhanced fuel design will involve increased rod weight and active fuel length. The approved Framatome ANP topical report, BAW-10179P-A, "Safety Criteria and Methodology for Acceptable Cycle Reload Analyses," will continue to be used to ensure that the required safety limits for the fuel are satisfied. Therefore, the relocation of design information does not involve a significant increase in the probability or consequences of an accident previously evaluated.

*Addition of a limited number of lead test assemblies:* This change is administrative in nature and is proposed for consistency with the ITS standard. Crystal River Unit 3 does not intend to load lead test assemblies in the upcoming fuel cycle. When lead test assemblies are to be loaded, the approved Framatome ANP topical report BAW-10179P-A will be used to ensure that all applicable limits of the safety analysis are met and that the lead test assemblies are placed in nonlimiting core locations. Applicable mixed core penalties and core operating limits will be developed and applied. Therefore, use of lead test assemblies will not involve a significant