October 26, 2005

MEMORANDUM TO: Biweekly Notice Coordinator

FROM: G. Edward Miller, Project Manager, Section 2 */RA/*
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: REQUEST FOR PUBLICATION IN BIWEEKLY FR NOTICE - NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING (TAC NO. MC8434)

FPL Energy Seabrook, LLC, Docket No. 50-443, Seabrook Station, Unit No. 1, Rockingham County, New Hampshire

Date of amendment request: September 22, 2005

Description of amendment request: The proposed amendment would revise the Seabrook Station, Unit No. 1 operating license and the Technical Specifications to increase the licensed core rated thermal power by 1.7 percent.

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. The proposed change will not involve a significant increase in the probability or consequences of an accident previously evaluated.

   Seabrook Station performed evaluations of the Nuclear Steam Supply System (NSSS) and balance of plant systems, components, and analyses that could be affected by the proposed change. A power uncertainty calculation was performed, and the effect of increase core thermal power by 1.7 percent to 3648 MWt [megawatts thermal] on the Seabrook Station design and licensing basis was evaluated. The result of the evaluations determined that all systems and components continue to be capable of performing their design function at the MUR [measurement uncertainty recapture] core power level of 3648 MWt. An evaluation of the accident analyses demonstrates that the applicable [analyses acceptance] criteria continue to be met. No accident initiators are affected by the MUR power uprate and no challenges to any plant safety barriers are created by the proposed change.

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The proposed change does not affect the release paths, the frequency of release, or the analyzed source term for any accidents previously evaluated in the Seabrook Station Updated Final Safety Analysis Report (UFSAR). Systems, structures, and components required to mitigate transients continue to be capable of performing their design functions, and thus were found acceptable. The reduced uncertainty in the feedwater flow input to the power calorimetric measurement ensures that applicable accident analyses acceptance criteria continue to be met, to support operation at the MUR core power level of 3648 MWt. Analyses performed to assess the effects of mass and energy remain valid. The source term used to [assess] radiological consequences have been reviewed and determined to bound operation at the MUR core power level.

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

2. The proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

No new accident scenarios, failure mechanisms, or single failures are introduced as a result of the proposed change. The installation of the Caldon LEFM CheckPlus™ System has been analyzed, and failures of the system will have no adverse effect on any safety-related system or any systems, structures, and components required for transient mitigation. Systems, structures, and components previously required for the mitigation of a transient continue to be capable of fulfilling their intended design functions. The proposed change has no adverse affect on any safety-related system or component and does not change the performance or integrity of any safety-related system.

The proposed change does not adversely affect any current system interfaces or create any new interfaces that could result in an accident or malfunction of a different kind than previously evaluated. Operating at a core power level of 3648 MWt does not create any new accident initiators or precursors. The reduced uncertainty in the feedwater flow input to the power calorimetric measurement ensures that applicable accident analyses acceptance criteria continue to be met, to support operation at the MUR core power level of 3648 MWt. Credible malfunctions continue to be bounded by the current accident analyses of record or evaluations that demonstrate that applicable criteria continue to be met.

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

3. The proposed change will not involve a significant reduction in a margin [of] safety.

The margins of safety associated with the MUR are those pertaining to core thermal power. These include those associated with the fuel cladding, Reactor Coolant System pressure boundary, and containment barriers. An engineering evaluation of the 1.7 percent increase in core thermal power from 3587 MWt to 3648 MWt was performed. The current licensing bases analyzed core power is 3659 MWt. The analyzed core power level of 3659 MWt bounds the NSSS thermal and hydraulic parameters at the MUR core power level of 3648 MWt. The NSSS systems and components were evaluated at the MUR core power level and it was determined that the NSSS systems and components continue to operate satisfactorily at the MUR power level. The NSSS accident analyses were evaluated at the MUR core power level of 3648 MWt. In all cases, the accident analyses at the MUR core power level of 3648 MWt were bounded by the current licensing bases analyzed core power level of 3659 MWt. As such, the margins of safety continue to be bounded by the current analyses of record for this change.

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

The NRC staff has reviewed the licensees 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.

Attorney for licensee: M. S. Ross, Florida Power & Light Company, P.O. Box 14000, Juno Beach, FL 33408-0420

NRC Section Chief: Darrell J. Roberts

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