

1. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes do not involve a change in the operational limits or physical design of the electrical power systems, particularly the emergency power systems. The proposed changes do not change the function or operation of plant equipment or affect the response of that equipment if called upon to operate. The proposed AOT extensions to allow for additional operational flexibility will not cause a significant increase in the probability or consequences of an accident previously evaluated. In actuality, the installation of the SEPS will have an overall net reduction in core damage frequency. The AOT extensions will lessen the burden of time pressure to quickly determine the cause of failure and perform corrective actions without needing to place the plant in a transient to shutdown because of a short allotted AOT.

A Probabilistic Risk Assessment (PRA) has been performed to quantitatively assess the risk impact of an increase in the Allowed Outage Time. The proposed change results in a significant decrease in core damage frequency (CDF). Large Early Release Frequency (LERF) is dominated by containment bypass and containment isolation failures and remains relatively unchanged by the addition of the SEPS combined with a 14-day AOT.

Based on the above, the proposed changes will not significantly increase the probability or consequences of an accident previously evaluated.

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

The proposed changes do not involve a change in the operational limits or physical design of the electrical power systems, particularly the emergency power systems. The proposed changes do not change the function or operation of plant equipment or introduce any new failure mechanisms. The SEPS and interfacing components with the safety-related busses have been designed to ensure independence and separation, particularly during faulted conditions. As such, no new failure modes are being introduced. The plant equipment will continue to respond per the design and analyses and there will not be a malfunction of a new or different type introduced by the proposed changes.

The proposed amendment extends the Allowed Outage Times for restoring an inoperable EDG to OPERABLE status and extends the period for operability verification of redundant features to allow for minor repair prior to placing the plant in a shutdown transient. The proposed amendment will not result in changes to the type of corrective or preventive maintenance activities associated with the EDGs. Plant operating procedures and the procedures used to respond to abnormal or emergency conditions will be enhanced with the option to use the SEPS when deemed necessary. Assumptions made in the safety analysis related to EDG availability will also remain unchanged. Performance of certain

maintenance activities at power requires an evaluation to assure plant safety is maintained or enhanced, which would include evaluation for new or different plant conditions. Therefore, the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed changes do not involve a significant reduction in the margin of safety.

The proposed changes do not involve a change in the operational limits. The proposed changes do not change the function or operation of plant equipment or affect the response of that equipment if it is called upon to operate. The performance capability of the emergency diesel generators will not be affected. Installation of the SEPS will have an overall net reduction in core damage frequency. Emergency diesel generator reliability and availability will be improved by implementation of the proposed changes. In addition, administrative controls will ensure there are adequate compensatory measures that can be and will be taken during extended EDG maintenance activities to reduce overall risk. The results of the PRA performed to quantitatively assess the risk impact of an increase in the Allowed Outage Time indicate the proposed change results in a significant decrease in core damage frequency (CDF) by up to 30 percent. Therefore, the proposed changes do not involve a significant reduction in the 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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*FPL Energy Seabrook, LLC, Docket No. 50-443, Seabrook Station, Unit No. 1, Rockingham County, New Hampshire*

*Date of amendment request:* October 6, 2003.

*Description of amendment request:* The proposed amendment would revise the Seabrook Station licensing basis to implement the alternative source term (AST) methodology of Regulatory Guide (RG) 1.183 through reanalysis of the radiological consequences of a number of the Updated Final Safety Analysis Report Chapter 15 accidents. Further, having revised the licensing basis, the amendment would also revise the definition of dose equivalent I-131 in Technical Specifications Section 1.12.

*Basis for proposed no significant hazards consideration determination:* As required by Title 10 of the Code of Federal Regulations (10 CFR) Section 50.91(a), the licensee has provided its

analysis of the issue of no significant hazards consideration, which is presented below:

1. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

Alternative source term calculations have been performed that demonstrate the dose consequences remain below limits specified in NRC [Nuclear Regulatory Commission] Regulatory Guide 1.183 (July 2000) and 10CFR50.67. The proposed change does not modify the physical design or operation of the plant. The use of AST changes only the regulatory assumptions regarding the analytical treatment of the design basis accidents and has no direct effect on the probability of the accident. AST has been utilized in the analysis of the limiting design basis accidents listed above. The results of the analyses, which include the proposed change to the Technical Specifications, demonstrate that the dose consequences of these limiting events are all within the regulatory limits. The proposed Technical Specification change to the definition of dose equivalent I-131 is consistent with the implementation of AST and the requirements of RG 1.183 (July 2000).

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

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

The proposed change does not affect any plant structures, systems, or components. The operation of plant systems and equipment will not be affected by this proposed change. The alternative source term and the dose equivalent I-131 definition change do not have the capability to initiate accidents. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed changes do not involve a significant reduction in the margin of safety.

The proposed implementation of the alternative source term methodology is consistent with NRC RG 1.183 (July 2000). The Technical Specification change to the definition of dose equivalent I131 is consistent with the implementation of AST and the requirements of RG 1.183 (July 2000). Conservative methodologies, per the guidance of RG 1.183 (July 2000), have been used in performing the accident analyses. The radiological consequences of these accidents are all within the regulatory acceptance criteria associated with use of the alternative source term methodology.

The proposed changes continue to ensure that the doses at the exclusion area and low population zone boundaries and in the Control Room are within the corresponding regulatory limits of RG 1.183 (July 2000) and 10CFR50.67. The margin of safety for the radiological consequences of these accidents is considered to be that provided by meeting the applicable regulatory limits, which are set at or below the 10CFR50.67 limits. An acceptable margin of safety is inherent in these limits.