



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 143 AND 83

TO FACILITY OPERATING LICENSE NO. DPR-67 AND NO. NPF-16

FLORIDA POWER AND LIGHT COMPANY, ET AL.

ST. LUCIE PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-335 AND 50-389

1.0 INTRODUCTION

By letter dated January 4, 1996, Florida Power and Light Company (FPL) requested that Appendix A of Facility Operating License DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 be amended to revise the Technical Specifications (TS) involving Emergency Core Cooling System (ECCS) subsystems during shutdown. The proposed amendments will change the APPLICABILITY statement for TS 3.5.3 to be consistent with the administrative controls on High Pressure Safety Injection (HPSI) pumps that were implemented to assure adequate Low Temperature Overpressure Protection (LTOP) at each St. Lucie unit. The changes consist of extending the stated APPLICABILITY to the lower operational modes and thereby assure that the technical requirements located within the LCO remain effective for the entire LTOP range.

2.0 BACKGROUND

Technical Specification 3.5.3 provides the limiting conditions for operation (LCO) for ECCS subsystems during shutdown.

St. Lucie Unit 1: The LTOP range is defined in Specification 1.16, and includes all reactor coolant system (RCS) temperatures $\leq 304^{\circ}\text{F}$ (during heatup) or $\leq 281^{\circ}\text{F}$ (during cooldown), when the RCS has pressure boundary integrity. To provide assurance that assumptions used in the analysis for low temperature overpressure mitigation remain valid, certain restrictions on HPSI pump operability are established in LCO 3.5.3. Specification 3.5.3.b allows a maximum of only one HPSI pump to be OPERABLE prior to decreasing the RCS temperature below 270°F . Specification 3.5.3.c requires that all HPSI pumps be disabled prior to decreasing the RCS temperature below 236°F .

St. Lucie Unit 2: The LTOP range is defined in Specification 1.16, and includes all RCS temperatures $\leq 247^{\circ}\text{F}$ (during heatup) and $\leq 230^{\circ}\text{F}$ (during

cooldown), when the RCS is not vented to containment by an opening of at least 3.58 square inches. Similar to Unit 1, a restriction on HPSI pump operability is established in LCO 3.5.3 to assure that assumptions used in the analysis for low temperature overpressure mitigation remain valid. A footnote (#) is appended to the LCO that requires one HPSI pump to be rendered inoperable prior to entering MODE 5.

3.0 DESCRIPTION OF PROPOSED CHANGES

For Unit 1, LCO 3.5.3: The APPLICABILITY statement is revised to read,

MODES 3* and 4.
MODES 5 and 6 when the Pressurizer manway cover is in place
and the reactor vessel head is on.

For Unit 2, LCO 3.5.3: The following statement is added to the APPLICABILITY statement,

Footnote # shall remain applicable in MODES 5 and 6 when the
Pressurizer manway cover is in place and the reactor vessel
head is on.

The Bases section which discusses HPSI pump operability limitations in the LTOP range is also updated by adding a summary statement.

4.0 EVALUATION

Specification 3.0.1 establishes the Applicability statement within each individual specification as the requirement for when (i.e., in which operational MODES or other specified conditions) conformance to an LCO is required for safe operation of the facility.

In the case of Specification 3.5.3, conditions within the LCO provide restrictions on HPSI pump operability that were established as administrative controls to limit the potential for a low temperature overpressure transient, and preserve the validity of assumptions used in the low temperature overpressure analysis for each St. Lucie unit. However, the APPLICABILITY statement does not include the full range of operational modes and conditions that require these restrictions, e.g., the LTOP range includes MODES 5 and 6. This inconsistency creates an ambivalent specification in that the APPLICABILITY statement is in conflict with the technical requirements within the LCO, as well as the LTOP safety analysis.

The proposed revision to the APPLICABILITY statement for Specification 3.5.3 clearly shows that conformance to the LCO is required for plant conditions that cover the entire LTOP range, including MODES 5 and 6 when the Pressurizer manway cover is in place and the reactor vessel head is on. LTOP events from

the use of HPSI pumps when the Pressurizer manway cover or the reactor vessel head is removed are not credible. Thus, assurance is provided that the effectiveness of administrative controls established in the LCO to limit the number of OPERABLE HPSI pumps will not be diminished.

5.0 TECHNICAL FINDING

The staff has reviewed the FPL proposed changes and concludes that the revision to Specification 3.5.3 for each St. Lucie unit rectifies an error in the APPLICABILITY statement. The ECCS subsystem limiting conditions for operation remain the same as previously approved. Additionally, the proposed changes are consistent with the Standard Technical Specifications. Based on the above evaluation, the staff has determined that St. Lucie, Units 1 and 2, can be operated safely without undue risk to the health and safety of the public and there is reasonable assurance that the RCS will not be overpressurized when the plant is operated in accordance with the LCO. For those reasons the staff finds the proposed changes acceptable.

6.0 STATE CONSULTATION

Based upon the written notice of the proposed amendments, the Florida State official had no comments.

7.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding (61 FR 5813). Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

8.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: May 30, 1996