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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 31 TO FACILITY OPERATING LICENSE NO. DPR-67

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT, UNIT NO. 1

DOCKET NO. 50-335

Introduction

By application dated March 10, 1978, as revised April 3 and 19, 1978, and March 8, 1979, Florida Power and Light Company (FPL) requested an amendment to Facility Operating License No. DPR-67 to allow the replacement of certain hydraulic snubbers with mechanical snubbers and to delete Technical Specification (TS) testing requirements for those snubbers. By application dated November 16, 1978, FPL requested an amendment to Facility Operating License No. DPR-67 to relocate sample lines for the safety injection tanks and to add TS surveillance requirements for containment isolation valves in the new sample lines.

Discussion and Evaluation

Mechanical Snubbers

Forty-two hydraulic snubbers would be replaced with mechanical snubbers. Twenty-two of the hydraulic snubbers to be replaced are rated at 10,000 inch-pounds (10 kips) and 20 are rated at 3,000 inch-pounds (3 kips). All of these snubbers are used for seismic restraints. The proposed mechanical snubbers have ratings equivalent to the corresponding hydraulic snubbers. The mechanical snubbers have an activation level of 0.02 g in both directions and will, therefore, limit seismic induced acceleration to 0.02 g. The mechanical snubbers allow less total movement than the hydraulic snubbers with a peak-to-peak axial displacement of less than 0.12 inches under a seismic load. The performance of these snubbers has been verified by a test in a working range of 3 to 33 hz. Also, reliability of these mechanical snubbers has been demonstrated through experience at other reactors.

By letter dated March 8, 1978, FPL committed to visual inspection of linkages and anchorage of the mechanical snubbers at least once every 18 months. The NRC is developing Standard Technical Specifications (STS) for mechanical snubber testing and surveillance. During 1979 FPL will be requested to propose surveillance TS for mechanical snubbers that are consistent with STS. We have determined that the inspection commitment as stated in FPL letter of March 8, 1978, will provide adequate assurance of mechanical snubber operability in the interim until STS surveillance requirements

7905070277

have been established because of the demonstrated performance and reliability of the proposed snubbers.

Therefore, the use of mechanical snubbers as proposed by FPL will not result in any decrease in safety margin or result in any increase in accident consequences or an introduction of any new accidents.

Safety Injection Tank Sample Line Relocation

Each safety injection tank sample line presently terminates in a sample sink inside the reactor containment building. Therefore, there are considerable man hours and significant radiation exposure associated with containment entries to take samples. The proposed change involves routing these sample lines through electrically operated valves to a manifold. A single line would then go through an existing containment penetration to the reactor auxiliary building.

Penetration through containment will be through two isolation valves which will both be normally closed. These isolation valves will fail closed on loss of power and also close on a containment isolation signal. Therefore, no single failure of the proposed system would jeopardize plant safety. Any sampling line failure inside containment would be detected by a low level indication on a safety injection tank or by increased flow rate to the sump. Line size would limit the maximum leakage rate to 1.5 gpm for any sampling line failure. A single active failure in one of the containment isolation valves would not cause a leakage path since the other isolation valve would be closed. The containment isolation valves are added to the TS surveillance requirements by the proposed change. We have determined that the proposed surveillance requirements are adequate to assure isolation valve operability.

Therefore, the proposed change to the sampling lines and the additional surveillance requirements will not result in any decrease in safety margin, any increase in accident consequences, or introduction of any new accidents. In addition, the proposed action will result in a decrease in potential radiation exposure to employees.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: April 5, 1979