



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 38 TO

FACILITY OPERATING LICENSE NO. DPR-67

FLORIDA POWER AND LIGHT COMPANY

ST. LUCIE, UNIT NO. 1

DOCKET NO. 50-335

Introduction

By letter dated April 18, 1980, Florida Power and Light Company (FP&L or the licensee) proposed a change to the Technical Specifications for St. Lucie, Unit No. 1 (the plant). The proposal would change the limits on unfiltered secondary containment bypass leakage from 12 to 27% of the primary containment leak rate and increase the limit on control room outside air intake from 100 to 450 cubic feet per minute (cfm). These parameters are limited to assure that post-loss of coolant accident (LOCA) offsite and control room doses are within the regulatory limits of 10 CFR §100 and 10 CFR §50 General Design Criteria (GDC) 19, respectively.

Evaluation

By letter dated August 1, 1977, we presented our analysis of offsite and control room doses assuming the following:

1. the addition of heaters to the Shield Building Ventilation System filters;
2. the addition of sodium hydroxide to the containment spray system;
3. an overall control room filter iodine removal efficiency of 70%;
4. secondary containment bypass leakage of 27%; and
5. control room outside air intake of 100 cfm.

Our analysis resulted in calculated offsite doses within the guidelines of 10 CFR §100. The modifications discussed in assumptions 1 and 2 above have been installed and approved by Amendment Nos. 26 and 27 dated May 23 and 26, 1978, respectively. Therefore, the licensee's request to change the limit on secondary containment bypass leakage from 12%, the limit associated with the as-built facility before installation of the modifications discussed above, to 27%, as assumed in our analysis, is acceptable.

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Our analysis indicated that the control room operator thyroid dose might exceed our criteria (10 CFR §50, Appendix A, GDC 19 and Standard Review Plan (SRP) Section 6.4.II.8.a). Calculated control room doses were 33 rem and less than 2 rem for the thyroid and whole body respectively. Assumption 3, that control filter iodine removal efficiency was 70%, was based on our belief that provisions did not exist for proper humidity control.

By letter dated September 23, 1977, FP&L pointed out that relative humidity was maintained at less than 70% by the seismic class I air conditioning units. With this humidity control a higher filter iodine removal efficiency of 95% can be assumed. When the control room operator thyroid dose of 33 rem, as previously calculated by the staff, is corrected for a filter efficiency of 95% and an increased outside air intake of 450 cfm the calculated thyroid dose is 22 rem and the criteria of GDC-19 and SRP Section 6.4 are satisfied. Therefore, a control room outside air intake limit of 450 cfm is acceptable.

#### Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types of 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.

Date: February 25, 1981

