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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 66 TO FACILITY OPERATING LICENSE NO. DPR-23

CAROLINA POWER AND LIGHT COMPANY

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

DOCKET NO. 50-261

INTRODUCTION

Carolina Power and Light Company (the licensee) requested in their letter dated January 28, 1982, that Limiting Condition for Operation (LCO) 3.9.1.4 and its basis in Appendix A to Operating License No. DPR-23, be amended to allow the use of the H. B. Robinson, Unit No. 1, (a fossil plant) circulating water pump discharge flow as a back-up source for dilution in calculating the release rate of radioactive liquid effluent from Unit No. 2 during periods when the Unit No. 2 circulating water pumps are out of service. The main condenser circulating water intakes for Unit Nos. 1 and 2 are located on Lake Robinson, just east of the plant, and discharged via the discharge canal at a point about four miles north of the plant. Discharge flow rates are 482,000 gpm with three Unit No. 2 circulating water pumps operating and 87,000 gpm with two Unit No. 1 circulating water pumps operating. Both units share the same discharge canal. The radioactive liquid effluent from Unit No. 2 enters the Unit No. 2 circulating water discharge pipe before it reaches the discharge canal. Circulating water from both Unit Nos. 1 and 2

is dicharged into the canal through separate circulating water pipe at a close proximity to one another. The canal is approximately four miles long. The amendment requested will allow the licensee to discharge the radioactive liquid effluent from Unit No. 2 with Unit No. 1 circulating water flow for the required dilution while Unit No. 2 circulating pumps are out of service. In any given situation regarding a liquid waste release, the ratio of release rate to dilution flow will remain the same.

EVALUATION

The staff has conducted an independent review of the potential radiological impact associated with the proposed amendment to Appendix A to the license and found that the amending of LCO 3.9.1.4 and its basis, as proposed, will not result in (1) any increase of radioactivity concentration in the discharge canal or in the lake, and (2) any additional releases of radiaoctive liquid effluent. The change only allows a reduced radioactive liquid effluent discharge rate by maintaining the same ratio of discharge rate to dilution water flow rate available. The use of Unit No. 1 circulating water pump discharge (providing less dilution flow) will proportionally reduce the allowable radioactive liquid discharge rate from Unit No. 2. The annual average release rate limits of unidentified radionuclides (26 mCi/day), exclusive of tritium, and the annual average release rate of tritium (10.5 Ci/day) specified in LCO 3.9.1.1 remain the same. The licensee will revise the plant operating procedures governing radioactive liquid releases and the liquid waste release permit forms when this amendment is approved and issued.

SUMMARY

Based upon the above evaluation, the staff concludes that the health and safety of the public will not be endangered by amending LCO 3.9.1.4 and its basis. In addition, the amending of this LCO will not increase the probability or consequences of accidents and does not involve a decrease in safety margin nor involve a significant hazards consideration.

CONCLUSION

On the basis of the foregoing analysis, it is concluded that there will be no significant environmental impact attributable to the proposed action. Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared and that a negative declaration to this effect is appropriate.

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: March 17, 1982

ENVIRONMENTAL IMPACT APPRAISAL FOR
AMENDING APPENDIX A OF OPERATING LICENSE NO. DPR-23
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261

Carolina Power and Light Company is presently licensed to operate H. B. Robinson Steam Electric Plant, Unit No. 2, in Darlington County, South Carolina. There is one pressurized water reactor at the site capable of generating 2200 MWt of power. The proposed amending of Limit Condition for Operation (LCO) 3.9.1.4 and its basis of the unit's Appendix A technical specifications will not affect the reactor power level nor the fuel burnup and, therefore, not affect the benefits of the electrical power production considered in the Commission's Final Environmental Statement, Docket No. 50-261.

A. Radiological Impact

As evaluated in the associated Safety Evaluation, the proposed requests, do not affect the conclusions of the SER which were that the radioactivity release rates specified in LCO 3.9.1 would result in concentrations in the circulating water and in the lake that are well below the concntration limits of 10 CFR 20, Appendix B, Table II, Column 2.

B. Conclusion

On the basis of the foregoing evaluation, it is concluded that there would be no significant environmental impact attributable to the amending of LCO 3.9.1.4 and its basis. As a result of this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared and that a negative declaration to this effect is appropriate.