



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 144 TO FACILITY OPERATING LICENSE NO. DPR-32
AND AMENDMENT NO. 141 TO FACILITY OPERATING LICENSE NO. DPR-37

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-280 AND 50-281

1.0 INTRODUCTION

By letter dated June 25, 1990, the Virginia Electric and Power Company, the licensee for operation of Surry Power Station, Units 1 and 2, requested amendments to the Technical Specifications of Surry Units 1 and 2 to extend operation to Cycle 11 with the pressurizer safety valve (PSV) setpoint of 2485 psig and a tolerance of +5/-1 percent, which is currently allowed for Cycle 10 operation. Specifically, the request would modify the footnote of TS 3.1-4 to read: "For the remainder of Cycle 10 and Cycle 11 operation for both units, the valve lift settings shall be maintained at 2485 psig (+5,-1 percent.)"

2.0 EVALUATION

The Surry Units 1 and 2 PSVs are installed downstream of loop seals which are filled with 300°F water. The lift setpoints of the PSVs were set with steam conditions. In October 1989, the licensee was informed by Westinghouse of a finding that the actual PSV lift setpoint could shift by 4 to 8 percent under a condition different from that used to establish the setpoint. The licensee's test results of the Unit 2 PSVs in October 1989 also showed an increase of lift setpoint of 3.5 to 5 percent from the as-found setpoint established with steam due to the loop seals. By a letter of November 10, 1989, the licensee requested amendments to the Surry Units 1 and 2 TS 3.1.A.3.c to allow Cycle 10 operation of Units 1 and 2 with the PSV lift setting of 2485 psig and a tolerance increased from +1/-1 percent to +5/-1 percent. This TS change was supported by a safety analysis assuming a 5.4 percent increase in the PSV lift pressure. The results indicated that the reactor coolant system pressure in the limiting overpressurization events would remain below the acceptance criterion of 2750 psia (110 percent of design pressure). In addition, the licensee proposed compensatory measures to maintain operability of at least one power-operated relief valve (PORV) and the anticipatory reactor trip on turbine trip circuit.

Based on the licensee's analysis and proposed compensatory actions, NRC approved the TS change which allowed operation with an increased PSV setpoint tolerance of +5/-1 percent for the remainder of Cycle 10 (Amendment Nos. 135 and 135 dated November 16, 1989). The staff also indicated that it was evaluating the PSV setpoint problem on a generic basis, and that the outcome of the staff generic

evaluation for a long-term solution would also apply to Surry Units 1 and 2. Since a generic resolution to this issue has not yet been completed by industry and the NRC, and since the licensee has decided to continue to take the same compensatory measures to provide added assurance that the primary pressure will remain below 2750 psia, we conclude that the continued operation with increased PSV setpoint tolerance of +5/-1 percent for the remainder of Cycle 10 and Cycle 11 operation is acceptable.

3.0 SUMMARY

The staff has reviewed the licensee's request for the Surry Units 1 and 2 TS change to extend the allowable operation from Cycle 10 to Cycle 11 with the current PSV setpoint of 2485 psig +5/-1 percent, and finds it acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of facility components located within the restricted areas as defined in 10 CFR Part 20. The staff has determined that these 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. 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.

5.0 CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: October 5, 1990

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