



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO.

ARKANSAS POWER AND LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT 2

DOCKET NO. 50-368

Introduction

By letter dated September 11, 1980, the Arkansas Power and Light Company (the licensee) proposed changes to the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications. The licensee's proposed change would specify in further detail the service water flow rate requirements for each of the four containment cooling units. The chronology of events regarding this matter and our evaluation of the licensee's proposed change to the Technical Specifications is provided below.

Discussion

The Engineered Safety Features (ESF) for the ANO-2 plant include the containment cooling system (CCS) and the containment spray system (CSS). The safety related purpose of these systems is to reduce the temperature and pressure inside the containment in the event of a loss of coolant accident (LOCA) or main steam line break. The CCS includes four containment atmosphere air cooler units. The cooling coils of these units remove energy directly from the vapor region of the containment which results in a reduced pressure and temperature within the containment. The heat loads thus picked up by the CCS cooling coils are transferred to the Service Water System (SWS).

The CCS consists of two loops, each loop having two containment cooling units (CCU). Each loop is cooled by one service water system line. The Technical Specifications include surveillance requirements on the flowrate which must be capable of being provided to each loop. The Technical Specifications do not address the flow rate requirements for single containment cooling units within the loops.

Evaluation

By letter dated September 11, 1980 the licensee informed us of problems it was encountering with regard to the adequacy of the Surveillance Requirements of Specification 4.6.2.3 in assuring that the operability requirements of specification 3.6.2.3 are met.

Specification 3.6.2.3 allows one of the two CCS loops to contain only one serviceable CCU. This allows one CCU to be out of service as is currently the case in the ANO-2 plant. However, the Surveillance Requirements of Specification 4.6.2.3.a.3 requires verification of a service water flow rate of greater than or equal to 2500 gallons per minute to each loop of containment cooling units and does not identify the flow rate requirements for the operation mode allowed by Specification 3.6.2.3 wherein one of the CCU's in one of the loops may be out of service.

The four CCU's are of the same design with each having the same heat removal capability. The licensee has verified through a review of design documents that a service water flow rate of greater than or equal to 1250 gallons per minute (i.e. one half of the 2500 gpm required for two CCU's in a loop) is adequate to ensure that the CCU can meet its design basis requirements for heat removal.

Therefore a Technical Specification change has been requested by the licensee which will include appropriate surveillance requirements for the case wherein one CCU is out of service. This change will make the surveillance requirements of specification 4.6.2.3 consistent with specification 3.6.2.3. We have reviewed the proposed change and conclude that it is acceptable.

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.

Date of Issuance: September 12, 1980