



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 106 TO FACILITY OPERATING LICENSE NO. NPF-30

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT NO. 1

DOCKET NO. 50-483

1.0 INTRODUCTION

By letter dated April 26, 1995, Union Electric Company (the licensee) submitted a request for changes to the Callaway Plant, Unit 1 Technical Specifications (TS). The requested amendment would modify TS 3/4.7.6 to reduce the upper limit on the flow rate through the control room filtration subsystem and would adopt American Society for Testing and Materials (ASTM) D-3803-1989 as the laboratory testing standard for control room filtration and control building pressurization charcoal adsorber. The amendment would also revise the Bases for TS 3/4.7.6 to reflect the changes.

2.0 BACKGROUND

By letter dated August 4, 1994, the licensee submitted an amendment application to replace the containment spray additive system with a passive recirculation fluid pH control system consisting of trisodium phosphate dodecahydrate (TSP-C) inside stainless steel baskets in the containment recirculation sumps. In letters dated March 14, 1995, and March 28, 1995, the licensee submitted supplementary information to support the issuance of the amendment (Amendment No. 96, dated March 30, 1995). However, the amendment was issued with a commitment from the licensee to pursue a TS change to reduce the upper limit on the flow rate through the control room filtration subsystem and adopt ASTM D-3803-1989 as the laboratory testing standard for control room filtration and control building pressurization charcoal adsorber. By letter dated April 26, 1995, the licensee proposed the TS changes to satisfy the commitment.

3.0 EVALUATION

As indicated above, Amendment No. 96 approved the retirement of the containment spray additive system. One of the key accident analysis assumptions approved in the amendment was a change in the filter decontamination efficiency from 90 percent to 95 percent for the calculation of doses to the control room personnel. Staff approval of this change was contingent on (1) the assurance of a 0.25-second average atmosphere residence time in the control room filtration and control building pressurization filter adsorber units, per Position C.3.i of Regulatory Guide (RG) 1.52, "Design,

Testing, and Maintenance Criteria for Postaccident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants," and (2) a change in the testing protocol for the charcoal adsorber samples to reflect testing per ASTM D-3803-1989 at 30 degrees C and 70 percent relative humidity (RH) for a methyl iodide penetration not to exceed 2 percent.

In the amendment application dated April 26, 1995, the licensee submitted the changes to TS 3/4.7.6 to reduce the upper limit on the flow rate through the control room filtration subsystem and adopt ASTM D-3803-1989 as the laboratory testing standard for control room filtration and control building pressurization charcoal adsorber. In addition, the proposed amendment revised the Bases for TS 3/4.7.6 to reflect the changes. The staff has concluded that the proposed amendment incorporates the required modifications as established in the safety evaluation for Amendment No. 96, dated March 30, 1995, and is therefore acceptable.

In the staff's SE to Amendment 96, it was stated that the licensee's existing TSs had an allowable flow rate for the control room pressurization system of 500 cfm +500/-50 cfm. The SE also stated that the licensee claimed that the control room pressurization system capacity was 1,000 cfm. In the SE the staff did not disagree with the licensee's claim. For this assessment the staff's position has not changed. However, in the review of the proposed change associated with this amendment request the staff has noted that the existing TS 3/4.7.6 has several surveillance requirements where the flow rates are stated as 2,200 cfm +800/-400 for the pressurization system with 500 cfm +500/-50 through the pressurization system filter adsorber unit. Such information seems to be conflicting. Based upon discussions with the licensee, it was determined that the pressurization flow rate of 2,200 cfm +800/-200 is only associated with the flow through a pressurization fan and includes some recirculation flow that has not passed through the filter adsorber unit. This flow rate of 2,200 cfm has no bearing on the staff's accident analyses for the control room operator doses. The only number of concern to the staff for the pressurization systems is the 450-1,000 cfm passing through the pressurization system filter adsorber unit. However, in the opinion of the staff, the inclusion in the TSs of the 2,200 cfm value only obfuscates the TS. Therefore, the staff recommended to the licensee that they remove from the TSs the pressurization system flow rates associated with the 2,200 cfm since its value has no safety significance with respect to the CREVS. In a telephone call with the licensee they agreed to address the removal of the reference to the 2,200 cfm value in their conversion to the ISTS. This commitment addresses the staff's concern with respect to the clarity of TS 3/4.7.6.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Missouri official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 27345). Accordingly, the amendment meets 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 the amendment.

6.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: K. Thomas

Date: December 20, 1995