

NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 12 TO FACILITY LICENSE NO. R-78

THE UNIVERSITY OF KANSAS

DOCKET NO. 50-148

Introduction

By letter dated March 24, 1978, The University of Kansas (the Licensee) requested an amendment to Facility License No. R-78. The amendment would delete a requirement in the Technical Specifications for The University of Kansas pool-type nuclear reactor relating to the surveillance of control rod magnets.

Discussion and Evaluation

The current Technical Specifications require that control rod magnet resistance be measured and the values recorded every two months. The proposed amendment would delete the requirement from the Technical Specifications.

The control rods are electromagnetically coupled to the rod drive mechanisms and are automatically decoupled and dropped into the core upon detection of excess power level or of reactor periods less than a preselected value by the reactor safety channels. The rods may also be decoupled by the manual scram buttons.

A review by the licensee of the surveillance records covering the last 14 years has shown no significant changes in magnet coil resistance, which indicates that the magnets are highly reliable. In addition, the magnets' functions are tested more frequently than once every two months because of other surveillance requirements related to the daily operation of the reactor. Any deterioration in a magnet would decrease the hold the magnet has on a rod which is a fail safe conditon. Therefore, we find that the proposed deletion of the resistance measurements on control rod magnets would not reduce reliability or the margin of safety and is acceptable.

Environmental Consideration

We have determined that the amendment will not result in any significant environmental impact and that it does not constitute

a major Commission action significantly affecting the quality of the human environment. We have also determined that this action is not one of those covered by 10 CFR § 51.5 (a) or (b). Having made these determinations, we have further concluded, that 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.

Dated: November 16, 1978