

UNITED STATES ATOMIC ENERGY COMMISSION  
HAZARDS ANALYSIS BY THE RESEARCH AND POWER REACTOR SAFETY BRANCH  
DIVISION OF LICENSING AND REGULATION  
IN THE MATTER OF  
YANKEE ATOMIC ELECTRIC COMPANY  
PROPOSED CHANGE NO. 19  
DOCKET NO. 50-29

Introduction

Pursuant to the provisions of paragraph 3.A. of License No. DPR-3, as amended, Yankee Atomic Electric Company in Proposed Change No. 19 dated February 13, 1962 requested a temporary waiver of a provision of Section 509 of their license application which was incorporated by reference into the technical specifications of its operating license. This provision requires a measurement of certain reactivity coefficients at 2,000 hour intervals during core life. Such measurements were made at the start of Core I life, and at approximately 2,000, 4,000 and 6,000 equivalent full power hours. The 8,000 hour test with Core I is due to be conducted on approximately February 23, 1962, and Yankee has requested that this test be deferred until the end of core life, which is presently estimated to be at approximately 9,000 equivalent full power hours.

Discussion

It has been Yankee's recent experience that whenever their reactor has been shut down or scrammed, a reactivity loss of approximately .3% to .5% has occurred on the return to power. Although this loss has been subsequently regained during power operation, Yankee is concerned that if they are required to shut the reactor down for the 8,000 hour test, a loss of reactivity might be experienced which would prevent returning to any substantial power level.

The 2,000 hour tests of reactor coefficient were originally specified because of concern regarding the effect on reactivity coefficients of plutonium buildup in the core. From the results of the information obtained during the tests conducted to date, Yankee has concluded that plutonium buildup in the core has no significant effect on these coefficients. It is our opinion that the data which has been presented by Yankee to the Commission