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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 128 TO FACILITY OPERATING LICENSE NO. DPR-66

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

BEAVER VALLEY POWER STATION, UNIT NO. 1

DOCKET NO. 50-334

1.0 INTRODUCTION

By letter dated December 7, 1987, Duquesne Light Company (the licensee, acting as agent for the utilities named above), requested a change to Technical Specification 4.2.1.4 for Beaver Valley Power Station, Unit No. 1. The change would require determination of the target flux difference by interpolating to the design end-of-cycle value.

2.0 DISCUSSION AND EVALUATION

The current surveillance requirement 4.2.1.4 requires update of the target flux difference at least once per 31 days by either measurement in accordance with 4.2.1.3 or by linear interpolation between the most recently measured value and 0% at the end of cycle life. Surveillance requirement 4.2.1.3 requires a target flux difference measurement at least once per 92 days. The measurement method requires full-power equilibrium xenon, the all-rods-out condition and little or no rod movement for at least 48 hours prior to the measurement.

Since the equilibrium conditions are difficult to maintain for the 48-hour period, the target flux difference update (specification 4.2.1.4) is usually obtained by interpolating from the latest measurement. The target flux difference obtained by interpolating to the design end-of-cycle value will more closely reflect actual core conditions, and will aid the operator in maintaining reactor operation within the $\pm$7% target band.

In order to show the effect, the licensee provided data from Cycles 4 and 5, comparing the target flux differences obtained by the current specification, with those obtained using the proposed specification. For Cycle 4, 10 points were compared. The average of the absolute difference between the measured value and interpolated value was 1.11% for the present specification versus 0.46% for the proposed specification. For Cycle 5, 16 points were compared. The average of the absolute differences were 0.72% versus 0.4%, using the present and the proposed specifications, respectively. The proposed specification provides a closer fit with measured data.

Based on our review of the licensee's analysis, we conclude that the requested change to the Technical Specifications is acceptable.

ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 50.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact have been prepared and published in the Federal Register on July 13, 1988 (53 FR 26516). Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of this amendment will not have a significant effect on the quality of the human environment.

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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: July 13, 1988

Principal Contributor:

Margaret Chatterton