



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION REPORT BY THE OFFICE OF NUCLEAR REACTOR
REGULATION REVISED CALCULATIONAL METHOD FOR SETPOINT CALCULATION

SOUTHERN CALIFORNIA EDISON COMPANY

SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 & 3

DOCKET NOS. 50-361 AND 362

1.0 INTRODUCTION

By letter dated January 8, 1990, Southern California Edison Company, (SCE or the licensee) proposed an increase in the surveillance interval because of the refueling outage change from 18 months to 24 months, and by letter dated June 8, 1992, the staff accepted the licensee's proposed change and issued a license amendment. By letter dated September 28, 1992, Southern California Edison (SCE) submitted a new calculational method for determining changes in transmitter calibration frequency and SCE plans to use this revised method for future setpoint calculations. On a June 2, 1993 conference call with the licensee, the staff became aware that the licensee's new calculational method for determining changes in transmitter calibration frequency does not consider the instrument drift as a time dependent variable and the licensee was asked to justify its method. On August 16, 1993, the licensee submitted calculation No. J-ZZZ-019 for staff review.

2.0 EVALUATION

The licensee submittal identified five major differences between the old method, which was previously approved by the staff, and the new method proposed by letter dated September 28, 1992. The differences are as follows:

(1) All five calibration data points are used in the new method, while the old method used the maximum of one five points.

(2) The new method does not annualize the drift data, while the old method annualized the drift data.

(3) The new method does not apply any test for outliers, while the old method used the T-test to identify outliers and remove them from the sample population.

(4) The new method does not apply any test for normality because the technique does not depend upon the normal distribution of drift data. The old method applied a Chi-Square test for normality.

(5) The new method uses the F Distribution for determining the 95 percent confidence interval, while the old method selected an appropriate standard deviation multiplier based on the sample size.

We have reviewed the information submitted by the licensee in its letter of September 28, 1992, and in calculation J-ZZZ-019, and concluded that the licensee has adequately justified the differences between the old and new methods, except for Item (2) above. We disagree with the licensee's assumption that there is no time dependency on the instrument drift during a 30-month interval because the data presented in calculation J-ZZZ-019, were collected for a maximum duration of 630 days. The staff agrees with the licensee that for this duration the drift data shows that the instrument drift is independent of time. However, the licensee has not provided any basis for extrapolating this information to 30 months. Without this basis, the staff cannot accept the licensee's assumption that the instrument drift is independent of time for the entire 30-month period.

3.0 CONCLUSION

Based on our evaluation of the licensee's submittal, we have concluded that the proposed changes to instrument setpoint calculation related to the instrument drift data is not acceptable at this time. One method that the staff would find acceptable would be to annualize the instrument drift data and use the data for instrument setpoint calculation based on the desired calibration frequency.

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