

SUPPLEMENTAL EVALUATION OF BIG ROCK POINT PHYSICS METHODOLOGY(TACS 49168)

By letter dated November 4, 1982 the Consumers Power Company submitted an addendum to the Big Rock Point Physics Methodology Report (Revision 1). This addendum contains a correction to one of the uncertainty factors previously reported. In addition a new section on the uncertainty in the calculation of the MCPR for the core was included.

The Physics Methodology Report has been previously reviewed and approved (Memorandum, Rubenstein to Ippolito, dated August 18, 1982). Our evaluation of the addendum follows.

1. Local Peaking Factor Uncertainty.

In determining the uncertainty to be applied to the calculated value of the local peaking factor one of its components was inadvertently omitted. That component was the uncertainty in the CASMO-PDQ7 comparison. Including this component increases the uncertainty in the local peaking factor determination from 5.65 to 6.49 percent. It should be noted that this component was correctly included in the determination of the uncertainty in the total peaking factor.

2. MCPR Uncertainty

Operational surveillance of the Big Rock Point plant, including the margin to thermal limits, is performed by doing periodic power distribution calculations. The uncertainties in these calculations is reflected in an uncertainty in the Minimum Critical Power Ratio (MCPR) of the plant. The MCPR uncertainty has been obtained by a statistical combination of errors analysis. Conservative conditions (which tend to maximize the uncertainty) have been used in the analysis. This is an acceptable procedure. The value of the uncertainty obtained is 0.153 in MCPR Units.

3. Conclusion

We conclude that the Big Rock Point Physics Methodology Report, including the Revision 3 pages, may be referenced in licensing actions by Consumers Power Company. Such reference may be for description of the methods employed and for uncertainties presented on Page 52, Revision 3.

4. Acknowledgement

This evaluation was prepared by W. Brooks.

Date: FEB 9 1983