U.S. Department of Energy

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Dr. William Kerr
Advisory Committee on Reactor Safeguards
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Dr. Kerr:

Subject: Review of Arkansas Nuclear One Unit 2 Experience with Core Protection Calculators as Related to San Onofre Unit 2 and 3 Operations

The presentations made by Arkansas Power and Light at the February 24, 1981 meeting of the ACRS Electrical Systems Subcommittee on the operational experience with the core protection calculators at ANO-2 were enlightening. As stated at the subcommittee meeting, software changes were made to improve the performance of the CPCs. Not all of the changes were in the safe direction, i.e., (1) a software change was made in the rod position input circuit to reject a spurious open wire condition, and (2) the time constant of a lead-lag network algorithm was reduced because of noise imposed on the measured signal.

My current concern is with the software change procedure. What changes can the licensee make without requiring NRC review?

The original Combustion Engineering design of the CPCs was reviewed in considerable detail before it became operational at ANO-2. I would like an opportunity to review the ANO-2 start-up report and software change procedures to determine whether the system as changed and the procedures which cover future changes insure that ANO-2 is operated in a safe manner.

San Onofre Units 2 and 3 will utilize CPCs and the software improvements implemented at ANO-2. The NRC staff review of the application of the CPCs at San Onofre Units 2 and 3 is still in progress and a staff report will be issued covering their review. It is recommended that the ACRS Electrical Systems Subcommittee maintain cognizance of the work of the NRC staff in this review.

Sincerely,

Walter C Lipinski

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cc: R. Savio, ACRS

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