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 Chief Operating Officer

February 17, 1987
 BECo 87-028

U.S. Nuclear Regulatory Commission
 Attn: Document Control Desk
 Washington, DC 20555

License DPR-35
 Docket 50-293

Subject: Reactor Protection System Protective Circuitry
Technical Specification

Dear Sir:

By letter of September 24, 1980 the NRC requested Boston Edison to emplace modifications to the power supply for Pilgrim's Reactor Protection System (RPS). The modifications consisted of the installation of GE designed protection assemblies, two in each of the three sources of power to the RPS (two M-G sets and the one alternate source). Each assembly includes a circuit breaker and a monitoring module consisting of an undervoltage, overvoltage and an underfrequency sensing relay.

The design was reviewed by the NRC and its acceptance was transmitted by letter of July 28, 1982. At that time technical specifications were requested to be submitted at the conclusion of the physical modifications.

In reviewing this request, BECo has concluded that technical specifications are not appropriate for the RPS protective circuitry. Instead, this circuitry should receive a once/cycle surveillance dictated by procedure.

We have reached this conclusion by applying screening criteria to the proposed technical specification:

- 1) The RPS protective circuitry is not instrumentation that is used to detect, by indicators in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
- 2) The RPS protective circuitry does not monitor a process variable that is an initial condition of the Design Basis Accident (DBA) and transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission barrier.

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- 3) The RPS protective circuitry is only peripherally part of a primary success path designed to function so as to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

While RPS protective circuitry may offer some increase in confidence that the RPS will not be subjected to undetected undervoltage, overvoltage or underfrequency conditions, its failure is in the "safe" direction in that failure ultimately results in cold shutdown. The relay design is solid-state, which was chosen because of its inherent reliability and infrequent need for calibration. Therefore, because of this inherent reliability and stability, a once/cycle calibration is appropriate. Since it is not directly needed for the prevention or mitigation of events which reduce the margin of safety, it is not appropriate to incorporate the RPS protective circuitry into technical specification.

Boston Edison therefore proposes that RPS protective circuitry not be incorporated into Pilgrim Station's technical specifications, but rather that its calibration and maintenance be implemented by procedure.

We believe this concludes the RPS protective circuitry issue for Pilgrim Station. Should you wish further information of this submittal, please contact us.

Very truly yours,

James M Lydon

PMK/ns