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VICE PRESIDENT
NUCLEAR OPERATIONS

July 31, 1985

BECO 85-136

Mr. Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

License DPR-35
Docket 50-293

NUREG 0737, Item II.K.3.28: Automatic
Depressurization System (ADS)

Dear Sir:

By letter of July 31, 1984, Boston Edison (BECO) provided information which demonstrates that the safety related portion of the ADS pneumatic supply is capable of performing its function for 8 hours following an accident, thereby fulfilling the requirements of the Pilgrim Station Final Safety Analysis Report (FSAR).

The NRC, through II.K.3.28, also requested information concerning a means to depressurize during an extended period assuming that decay heat removal was impaired. The following information addresses that concern.

Long term post-accident operability of the ADS pneumatic supply would be necessary only for small breaks in containment. These breaks do not result in core damage. Large breaks will, of course, provide depressurization. In the small break accident of concern there would be no significant environmental effects on components outside primary containment. Therefore, it may be assumed that make-up nitrogen or instrument air, though non-safety related, would be available to power the ADS because of their location away from the small break. Additional features of these two systems provide further confidence of post-accident availability in that air compressors K104A, B, and C are powered from vital buses B15, B14 and B10, and the nitrogen system is fed from an outside tank, T-212, which is required by PNPS Technical Specification 3.7.A.7.b to have a minimum of 1500 gallons of liquid nitrogen.

In the unlikely event that both instrument air and nitrogen become unavailable to the ADS valves, other systems can be used to depressurize. Emergency Operating Procedure (EOP) 3 directs the operator to the Reactor Core Isolation Cooling (RCIC) system and the High Pressure Core Injection (HPCI) system, both of which include a turbine driven by reactor steam, to effect long term

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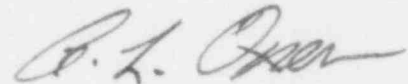
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reactor depressurization if the ADS pneumatic supply is lost. Because the accident of concern is a small break inside containment, there is no environmental threat related to that accident which would deny the long term use of the HPCI or RCIC system for depressurization. The subject small break would also allow personnel access to perform repairs to HPCI and RCIC, though individuals would be restricted to short intervals in these areas to minimize their exposure.

We believe that past BECo submittals demonstrate that Pilgrim's ADS accumulators are capable of fulfilling their designed function of providing 8 hours of valve use in the event of pneumatic supply failure. In addition, we believe that existing plant equipment provides the long term ability to depressurize should the ADS pneumatic supply fail. Based on this, we believe the concerns of II.K.3.28 are satisfactorily addressed for PNPS. Should you wish further information on this issue, please contact us.

Very truly yours,



PMK/kmc