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December 6, 1984

BECO 84-204

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

License DPR-35
Docket 50-293

Pilgrim Station Conformance to Generic Letter 84-09

Dear Sir:

Boston Edison Company (BECO) has completed a plant specific examination through the BWR Owner's Group to ensure applicability to Pilgrim Station of the generic studies submitted by the Mark I Owner's Group.

The "NUSCO Analysis" addresses NRC's concern over the potentially adverse effect of coolant impurity on radiolytic oxygen generation. The limiting iodine concentration above which radiolysis is a concern has been calculated for Pilgrim Station. The result of this analysis demonstrates that the post-design basis accident primary coolant iodine concentrations predicted, using conservative Appendix K models, is significantly less than the critical iodine concentration which would cause radiolysis to be a concern for the generation of combustible gases.

The following information is provided in response to the criteria enumerated in Generic Letter 84-09:

- 1) A Technical Specification change has been initiated (BECO Letter 84-203 to NRC dated December 6, 1984) to maintain the concentration in containment at less than 4% oxygen.
- 2) The plant has nitrogen for use in all pneumatic control systems in containment along with instrument air capability as a backup. Pilgrim Station has no recycled containment atmosphere.
- 3) A review was conducted, in conjunction with Pilgrim Station technical staff personnel, to ascertain potential sources of inleakage of air and oxygen into containment. During normal operation, the only possible source of inleakage is from the instrument air system at the tie between the nitrogen and air systems. In the event of loss of drywell instrument nitrogen supply, instrument air would be utilized until the containment oxygen content reaches 4%, or the plant would be shut down within 24 hours. The nitrogen system has been upgraded during this current outage to concur with NRC requirements. (IE Bulletin 80-25, 12/19/80)

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Mr. Darrell G. Eisenhut, Director

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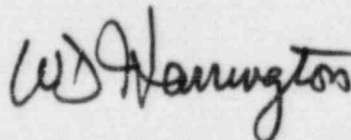
For accident conditions, Pilgrim has a seismically-designed, emergency nitrogen makeup line with the capability of accepting nitrogen delivered from an offsite source should the circumstance dictate its use. This alternate source may be utilized to maintain the oxygen content below 4% by volume inside containment under post-accident conditions.

Appropriate guidance for the management of combustible gases under all accident scenarios will be a component of the BWR Owner's Group Emergency Procedure Guidelines (EPG's, Rev. 4). Plant specific procedures based upon this guidance will be implemented following NRC approval of the EPG's.

Based upon the criteria contained in Generic Letter 84-09, it is concluded that hydrogen recombiners are not required for PNPS. In addition, PNPS does not rely upon a purge/repressurization system as the primary means of hydrogen control.

Please contact us if further information on this issue is required.

Very truly yours,

A handwritten signature in dark ink, appearing to read "W.D. Harrington". The signature is written in a cursive, flowing style with a large initial "W".

ERM/ns