ATTACHMENT TO LER 79-029/01T-0

BOSTON EDISON COMPANY
GENERAL OFFICES 800 BOYLSTON STREET
BOSTON, MASSACHUSETTS 02199

G. CARL ANDOGNINI
SUPERINTENDENT
NUCLEAR OPERATIONS DEPARTMENT

August 17, 1979

BECo. Ltr. #79-163

Mr. Boyce H Grier, Director
Office of Inspection and Enforcement
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA. 19406

License No. DPR-35
Docket No. 50-293

Dear Mr. Grier:

With reference to the telephone conversation between Mr. D. Caphton of your office and Mr. A. F. Corry, Senior Vice President Boston Edison Company, on August 10, 1979 and your letter dated August 10, 1979 relative to degradation of primary containment integrity on June 12, 1979 at Pilgrim Station, Boston Edison Company offers the following:

I. Review the sequence of events leading to the violation of the primary containment integrity, determine the safety significance of each of these events and define specific measures to prevent recurrence;

Sequence of Events and comments

a. May 30, 1979

(1) HPCI Gland Exhauster upper and lower diaphram gaskets blew during operability test. (No safety significance since loss of Gland Exhauster does not prevent HPCI from fulfilling its safety function).

(2) Conducted surveillances required by Technical Specifications prior to isolating HPCI for maintenance. Core Spray Pump "A" did not meet pressure and flow acceptance criteria. (No safety significance at this time since HPCI is still operable and all other ECCS functioning.)

(3) ORC Meeting was called to discuss operability of Core Spray Pump "A".

Surveillance Procedure 8.5.1.1 (Core Spray Pump Operability) was performed several times and each time the flows and pressures were different. Each time the full flow test valve (MO-1401-4) was stroked the flows and pressures changed and since this was the only component being cycled it was concluded that it must be restricting the flow in some manner.

The flows and pressures obtained compared satisfactorily to the pump curves and since the full flow test line is not in the flow path for emergency core cooling, it was concluded that core spray pump "A" could meet its safety requirements and was, therefore, operable.

(4) A Maintenance Request was issued to investigate and repair as necessary. (The wording of the problem description was vague and ambiguous which could have contributed to this event, and could have safety significance.)

(5) The Maintenance Staff Engineer reviewed the MR and filled out the Maintenance Summary and Control Form specifying the maintenance to be performed.

(There were three specific maintenance activities associated with the one Maintenance Request, two of which would not have violated primary containment. This could have degraded the quality of review for Technical Specification compliance.) (Item Nos. 4 and 5 have safety significance and will be corrected both procedurally and with appropriate training.)

b. June 11, 1979

Core Spray check valve inspection discussed during Morning Staff Meeting. Inspection scheduled for Tuesday, June 12. Discussed measures to be taken to protect other ECCS equipment during period when minimum flow lines were isolated. Extra Nuclear Plant Operator hired to specifically watch ECCS equipment. Concerns of Staff members were centered on operability and protection of required equipment. (This item has safety significance and will be corrected both procedurally and with appropriate training.)

c. June 12, 1979

Core Spray Loop "A" declared inoperable and isolated after the required surveillance for one core spray loop inoperative was completed. Maintenance Request approved for work to commence. (It was at this point that we became subject to violation of primary containment because the section of system to be opened was not bounded by active isolation devices; no isolation between the check valve and TORUS. This was not recognized as a problem because of the low pressure in the TORUS and the submergence of the

minimum flow line which would prevent loss of the nitrogen blanket. Breaching of primary containment was overlooked in our concern for correcting the low flow condition.) (This item has safety significance and will be corrected both procedurally and with appropriate training.)

2. Review the adequacy of procedural and management controls as they apply to safety-related maintenance;

Station 1.5.3 (Maintenance Request) and 1.4.5 (PNPS Tagging Procedure) were reviewed to ensure that procedural controls were in place which should have prevented this occurrence.

Section II.B.1.a of PNPS Tagging Procedure 1.4.5 requires:

a. "Before starting work on equipment, protection at the work location requires that valves, switches and other devices directly associated with the equipment be set in the proper position to isolate the equipment from all sources of electricity, steam, water, oil, air or any other liquid or gas which could cause injury or damage.",

and Section III.9.b. and d. of Maintenance Request Procedure 1.5.3 states:

b. If isolations are required, the Operating Supervisor shall complete the ISOLATIONS section "B" of the Maintenance Request to indicate the device number, device description, its normal position, its tagged position and the color of the tag to be used. The Operating Supervisor will assign a responsible person to perform the isolations. When completed, the person performing the isolations shall enter his signature and the date and time that the isolations were completed.

c. When the Operating Supervisor (Watch Engineer) is satisfied that the equipment is ready for maintenance and all job documentation is correct and complete, he shall sign the APPROVAL FOR WORK START block on the Maintenance Request, have the responsible Maintenance Supervisor or workers verify that they agree with isolations by signing the Maintenance Request, remove the white and blue copy and give the package to the responsible Maintenance Supervisor or worker.

In addition, Station Procedure 1.5.3 Section III.9.a. requires:

a. If Technical Specification Operability Surveillance Testing is required before taking equipment out of service, the Operating Supervisor shall indicate this on the Maintenance Request along with the applicable procedure numbers and shall sign this Maintenance Request section blank when these requirements are satisfied.

If no testing is required, he shall check "NOT REQUIRED" and sign the section blank.

Although Procedural and Management Controls are in effect which should have prevented this occurrence, it was concluded that these controls are vague. Therefore, station procedures 1.4.5 and 1.5.3 will be revised to strengthen both procedural and management controls. These changes will provide more specific direction for responsible management personnel to ensure that adequate reviews to prevent violations of limiting conditions of operation are conducted prior to approval for maintenance activities to commence. These activities will be implemented prior to September 15, 1979.

3. Review the adequacy of plant staffing and staff training to prevent such an occurrence.

A review of the adequacy of plant staffing and staff training to prevent such an occurrence has been conducted. Although it has been concluded that plant staffing was adequate, Boston Edison believes that organizational change implemented August 12, 1979 will serve to enhance further the overall effectiveness of Station personnel. The change involves the creation of a position entitled Assistant Station Manager. The Station Methods, Compliance and Training Group Leader, the Chief Technical Engineer as well as the Security Supervisor will report directly to the Assistant Station Manager. Concurrent with this change, the Station Instrumentation and Control Group will now report to the Chief Technical Engineer. In addition to relieving the Chief Maintenance Engineer of a large and technically complex workload, the reorganization will allow additional emphasis on overall Station management controls.

The PNPS Tagging Procedure will be reviewed during the next Operator Requalification Program to ensure that all operations personnel are aware of the requirements. Particular emphasis will be placed on the safety significance associated with this occurrence. This action will be completed by November 1, 1979. Further, the Maintenance Staff Engineers and Supervisors will be given classroom training designed to provide a familiarization with Technical Specification requirements in particular, the limiting conditions for operation, a familiarization with both process and engineered safeguard systems, and a better overall understanding of plant operations. Since the training described above constitutes a long term corrective action, meetings will be held by the Chief Operating Engineer and the Chief Maintenance Engineer with their respective management personnel to review the occurrence and to emphasize its serious nature. These meetings will be conducted prior to September 15, 1979.

Boston Edison Company trusts you will find this letter responsive to your letter of August 10, 1979; however, should you require additional information feel

free to contact us. In addition, it is requested that upon completion of your review of this information we be granted the opportunity to meet with you and your representatives to discuss these matters further.

Very truly yours,

A. Paul Perlegueiro