Mr. Leon J. Olivier
Vice President - Nuclear/Station Director
Boston Edison Company
Pilgrim Nuclear Power Station
RFD #1 Rocky Hill Road
Plymouth, MA 02360

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR RESOLUTION OF

GEN NIC LETTER (GL) 96-06 ISSUES AT PILGRIM NUCLEAR POWER

STATION, UNIT 1 (TAC NO. M96851)

Dear Mr. Olivier:

In response to GL 96-06, Boston Edison Company provided its assessment of the waterhammer and two-phase flow issues for the Pilgrim Nuclear Power Station in a letter dated January 28, 1997. The Nuclear Regulatory Commission (NRC) has reviewed the response and determined that additional information is needed to complete the review. Enclosed is the staff's Request for Additional Information. We request that you respond by November 30, 1998. This response date has been discussed with and agreed upon by Peter Khaler of your staff.

Questions regarding this request should be sent to my attention at the above address; or, you can contact me at (301) 415-1445.

Sincerely,
Original signed by
Alan B. Wang, Project Manager
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-293

Enclosure: Request for Additional

Information

cc w/encl: See next page

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9811020248 981029 PDR ADDCK 05000293 PDR Mr. Leon J. Olivier Boston Edison Company

Mr. Ron Ledgett
Executive Vice President
800 Boyleston Street
Boston, MA 02199

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Post Office Box 867
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Chairman, Duxbury Board of Selectmen Town Hall 878 Tremont Street Duxbury, MA 02332

Office of the Commissioner
Massachusetts Department of
Environmental Protection
One Winter Street
Boston, MA 02108

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Mr. Robert M. Hallisey, Director Radiation Control Program Massachusetts Department of Public Health 305 South Street Boston, MA 02130

Regional Administrator, Region I U. S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, PA 19406

Ms. Jane Fleming 8 Oceanwood Drive Duxbury, MA 0233

Mr. James Keyes
Acting Licensing Division Manager
Boston Edison Company
600 Rocky Hill Road
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Pilgrim Nuclear Power Station

Mr. Jack Alexander
Manager, Reg. Relations and Quality
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Plymouth, MA 02360

Mr. David F. Tarantino Nuclear Information Manager Pilgrim Nuclear Power Station RFD #1, Rocky Hill Road Plymouth, MA 02360

Ms. Kathleen M. O'Toole Secretary of Public Safety Executive Office of Public Safety One Ashburton Place Boston, MA 02108

Mr. Peter LaPorte, Director
Attn: James Muckerheide
Massachusetts Emergency Management
Agency
400 Worcester Road
P.O. Box 1496
Framingham, MA 01701-0317

Chairman, Citizens Urging Responsible Energy P.O. Box 2621 Duxbury, MA 02331

Citizens at Risk P.O. Box 3803 Plymouth, MA 02361

W.S. Stowe, Esquire Boston Edison Company 800 Boyleston St., 36th Floor Boston, MA 02199

Chairman Nuclear Matters Committee Town Hall 11 Lincoln Street Plymouth, MA 02360

Mr. William D. Meinert Nuclear Engineer Massachusetts Municipal Wholesale Electric Company P.O. Box 426 Ludlow, MA 01056-0426

## REQUEST FOR ADDITIONAL INFORMATION (RAI) PILGRIM NUCLEAR POWER STATION, UNIT 1

Generic Letter (GL) 96-06, "Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions," dated September 30, 1996, included a request for licensees to evaluate cooling water systems that serve containment air coolers to assure that they are not vulnerable to waterhammer and two-phase flow conditions. Boston Edison Company (the licensee) identified six pipe lines that are subject to the effects of thermally-induced pressurization. The following questions are related to the issue of thermally-induced pressurization of piping runs penetrating the containment.

- Has the relief valve for the two reactor building closed cooling water lines been added to the IST program?
- 2. Have pressure relief devices been added to the two sump pump discharge lines?
- 3. Have the valves inside containment on the core spray sample lines been opened?
- 4. For the residual heat removal (RHR) shutdown cooling line please provide the following:
  - a) Provide the applicable design criteria for the piping and valves including the required load combinations,
  - b) Provide a drawing of the piping run between the isolation valves including the lengths and thicknesses of the piping segments and the type and thickness of the insulation,
  - c) Provide the maximum-calculated temperature and pressure for the pipe run. Describe in detail, the method used to calculate these pressure and temperature values. This should include a discussion of the heat transfer model used in the analysis and the basis for the heat transfer coefficients used in the analyses.