October 13, 1999

Mr. Theodore A. Sullivan
Vice President Nuclear and Station Director
Entergy Nuclear Generation Company
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) REGARDING GENERIC LETTER 87-02 (UNRESOLVED SAFETY ISSUE A-46), "VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT IN OPERATING PLANTS," PILGRIM NUCLEAR POWER STATION (TAC NO. M69471)

Dear Mr. Sullivan:

By letter dated August 6, 1999, you provided additional information on the unresolved safety issue (USI) A-46 implementation methodology used at the Pilgrim Nuclear Power Station. The NRC has reviewed this information and determined that additional information is needed to complete the review. Enclosed is the staff's RAI. We request that you respond by October 30, 1999, as discussed with and agreed upon by Stephen Brennion 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, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-293

Enclosure: Request for Additional Information

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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Sincerely,

Alan Wang

Alan B. Wang, Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
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cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

PILGRIM NUCLEAR POWER STATION, UNIT 1

1. What is the status of all identified outliers for USI A-46 resolution? For those outliers that have not been implemented please provide a completion schedule.

2. The Generic Implementation Procedure, Revision 2 (GIP-2) provides for several methods of comparing seismic capacity to seismic demand. Method A.1 compares the Seismic Qualification Utility Group Bounding Spectrum to the plant's safe shutdown earthquake (SSE) ground response spectrum. However, GIP-2 places limitations on the use of Method A.1. These limitations are that the SSE ground response spectrum can be used for comparison to the Bounding Spectrum when:

   - The equipment is mounted in the nuclear plant at an elevation below about 40 feet above the effective grade.

   - The equipment, including its supports, has a fundamental natural frequency greater than about 8 Hz.

   - The amplification factor between the free field ground response spectrum (GRS) and the in-structure response spectra (IRS) is not more than about 1.5.

   In your letter entitled "USI A-46 Supplementary Information," dated August 6, 1999, Figures 1, 2, 3, and 4 contain plots of the IRS and GRS for the Reactor Building at elevation 23 feet, the Turbine Building at elevation 37 feet, the Radwaste Building at elevation 37 feet and the Diesel Generator Building at elevation 34.5 feet. You used GIP-2 Method A.1 to compare the seismic demand to seismic capacity for safe shutdown equipment list items at these locations. However, the amplification factors, above 8 Hz, of these IRS with respect to the GRS appear to be significantly above the 1.5 limit set by GIP-2. Provide a building specific quantitative justification for the use of Method A.1 at the locations where the amplification exceeds the 1.5 limit above 8 Hz.