NORTHEAST UTILITIES
The Connecticut Light And Power Company
Western Massachusetts Electric Company
Holyoke Water Power Company
Northeast Utilities Service Company
Northeast Nuclear Energy Company

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Docket No. 50-423
Re: 10CFR50.36

September 25, 1991
MP-91-756

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

References: (1) Regulatory Guide 1.12, Instrumentation For Earthquakes
(2) ANSI/ANS-2.2-1978, Earthquake Instrumentation Criteria for Nuclear Power Plants
(3) ANSI/ANS-2.10-1978, Guidelines for Retrieval, Review, Processing, and Evaluation of Records Obtained From Seismic Instrumentation

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Inoperable Seismic Monitoring Instrumentation

This Special Report is being submitted pursuant to the requirements of plant Technical Specifications 3.3.3.3.a: SEISMIC INSTRUMENTATION, and 6.9.2: SPECIAL REPORTS. If one or more of the seismic monitoring instruments remains inoperable for more than 30 days, plant Technical Specification 3.3.3.3.a requires that a Special Report be submitted to the NRC within the next 10 days, outlining the cause of the malfunction and the plans for restoring the instruments to OPERABLE status.

On August 16, 1991, at 1253 hours, with the plant in Mode 5 (Cold Shutdown), at 95 degrees Fahrenheit and atmospheric pressure, the passive Triaxial (Recording) Peak Accelerograph, 3ERS-PAS28, which is installed on the Charging Pumps Cooling Surge Tank, was removed from service to perform its refueling channel calibration. While performing the surveillance, an Instrumentation & Controls Department technician identified that the surveillance acceptance criteria tolerance was not repeatable. The reliability of all three passive Triaxial Peak accelerographs installed in the plant was questioned, based on the inconsistency of the magnetic trace data obtained as part of the operability verification/channel calibration. The investigation concluded that the vendor stated tolerances could not be consistently satisfied with confidence when applied to devices installed in the field and new devices being bench tested prior to replacement installation.

Because of the problematic nature of the triaxial peak accelerographs, Millstone 3 will pursue replacement of the subject passive accelerographs with a more reliable model which complies with the requirements of Regulatory Guide 1.12. In the interim, the triaxial peak accelerographs will remain installed but will not meet the required ± 5% of full scale acceptance criteria. As corrective action to restore the existing devices to operable status, testing will be performed on the subject devices to establish instrument repeatability and accuracy. Based on the test data, an engineering evaluation will be performed to establish a satisfactory acceptance criteria, which is consistent with the requirements of 10CFR100 - Reactor Site Criteria. The engineering evaluation will reconcile any inconsistencies between the Final Safety Analysis Report design basis for the triaxial peak accelerographs and the requirements of Regulatory Guide 1.12.

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The remaining 8 active/passive seismic instruments listed on Technical Specification Table 4.3-4 are in compliance with Regulatory Guide 1.12. These instruments will provide sufficient data for evaluation of the response of the structures and equipment to any seismic motion. Since the information contained in this Special Report may be of importance to the industry, a discussion of the event will be submitted on the INPO Notepad. A Special Report update will be forwarded to the Staff providing corrective action resolution on the issue of the inoperable triaxial peak accelerographs. This update will be submitted by December 31, 1991.

The licensee contact for this Special Report is Vere Joseph, who may be contacted at (203)444-5571.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: Stephen E. Scace
Director, Millstone Station

BY: John S. Keenan
Millstone Unit 2 Director

SES/VRJ:tp

cc: T. T. Martin, Region 1 Administrator
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3
D. H. Jaffe, NRC Project Manager, Millstone Unit Nos. 1 and 3