

**NORTHEAST UTILITIES**

THE CONNECTICUT LIGHT AND POWER COMPANY  
THE HARTFORD ELECTRIC LIGHT COMPANY  
WESTERN MASSACHUSETTS ELECTRIC COMPANY  
FALL RIVER WATER POWER COMPANY  
NORTHEAST UTILITIES SERVICE COMPANY  
NORTHEAST NUCLEAR ENERGY COMPANY

**HANDLED ON**

APR 18 1979

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April 12, 1979

Docket No. 50-336

Director of Nuclear Reactor Regulation  
Attn: Mr. R. Reid, Chief  
Operating Reactors Branch #4  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Reference: (1) W. G. Council letter to R. Reid dated March 2, 1979.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2  
Reactor Coolant Pump Speed Sensing System

In Reference (1), Northeast Nuclear Energy Company (NNECO) proposed revisions to Technical Specifications to reflect installation of the RCP Speed Sensing System to provide protection for the four pump loss of flow event. Attachment (2) of Reference (1) provided the system qualification and design document listing. The following information is provided to supplement that material in response to verbal NRC Staff requests.

It is emphasized that the qualification of the system, as installed, at a minimum is equivalent to that provided for the ANO-2 project. All components are qualified for seismic conditions in accordance with IEEE 344-1975.

The seismic qualification consists essentially of three steps:

- (a) Define the Required Response Spectrum (RRS) which was specified for the equipment.
- (b) Compare the Test Response Spectrum (TRS), obtained by testing, with the RRS and verify that the TRS envelopes the RRS.
- (c) Compare the Plant Mounting Location Response Spectrum with the TRS and verify that this plant response is enveloped by the TRS.

The above 3 step procedure has been carried out for each of the four primary components of the speed sensing system, namely the frequency-to-voltage converters, signal processors, transmitters, and proximity probes. In each case the corresponding TRS completely envelopes the plant mounting location response spectrum. The signal processor and frequency-to-voltage converter were tested biaxially (multi-random frequency). The transmitters and proximity probes were tested using the sine beat method.

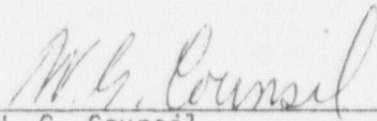
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The above mentioned components, with the cable used for their interconnection and the required electrical containment penetrations represent the total of the additional equipment used for the RCPSSS installation. Equipment within the existing RPS panels provide the setpoint and logic circuitry for the protective function. This equipment has been qualified previously as described in the Millstone Unit No. 2 FSAR.

We trust the above information is responsive to your verbal request.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
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W. G. Council  
Vice President