

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
NEW YORK WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

General Offices • Seiden Street, Berlin, Connecticut

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 665-5000

April 30, 1985

Docket No. 50-423
F0436A

Dr. Thomas E. Murley
Regional Administrator
Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

- References: (1) W. G. Counsil to T. E. Murley, B10950, dated November 16, 1983.
- (2) B. J. Youngblood to W. G. Counsil, Safety Evaluation Report (SER) Related to the Operation of Millstone Nuclear Power Station, Unit No. 3 (NUREG-1031), dated July, 1984.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Reporting of Potential Significant Deficiencies
in Accordance with 10 CFR 50.55(e):
Emergency Generator Load Sequencers (SD-45)

In an October 17, 1983 telephone conversation between your Mr. J. Robertson and our Mr. J. J. Festa, Northeast Nuclear Energy Company (NNECO) reported a potential significant deficiency in the construction of Millstone Unit No. 3 as required by 10 CFR 50.55(e). The potential significant deficiency involved emergency generator load sequencers supplied by Vitro Laboratories.

It was discovered that for Safety Injection Signal (SIS) and Containment Depressurization Actuation (CDA) signal conditions, the sequencers could fail to provide the required time delay prior to sequencing. This is due to resets which were omitted from the automatic test feature. The primary purpose of the sequencers is to automatically control the loading of the safety related buses when a loss of offsite power has occurred and the buses are being re-energized by the emergency diesel generator, and to automatically control the loading of equipment required for emergency situations which do not involve a loss of offsite power.

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We completed our evaluation and determined that these potential time delays could cause problems for the recirculation pumps. Recirculation pump start is designed to delay for all situations. This deficiency could result in a time delay of essentially zero if the input occurrence coincides with the automatic test timing. Mis-timing and premature start of the recirculation pumps could result in the pumps having inadequate net positive suction head (NPSH) resulting in cavitation and possible damage to the pumps. Hence, this represents a significant deficiency in the final design of Millstone Unit No. 3.

Vitro Laboratories provided a design modification package to correct this significant deficiency which was reviewed and approved by our engineering staff. These modifications were incorporated into the sequencers and tested at Millstone Unit No. 3.

However, during this testing of the sequencers, it was discovered that a similar problem existed for time delays under Loss of Power (LOP) conditions. This additional concern was reported to your Mr. T. Rebelowski by our Mr. G. M. Olsen on January 21, 1985.

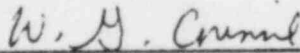
Vitro Laboratories amended their design package to include a modification to correct this deficiency for LOP conditions. This modification was incorporated into the sequencers and, along with the other modifications, successfully tested at Millstone Unit No. 3.

This item was also the subject of Millstone Unit No. 3 SER Confirmatory Item No. 40, Section 7.3.3.13 (Reference 2). We consider this report sufficient to resolve this confirmatory item.

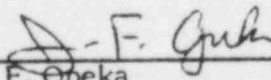
We consider this to be our final report for SD-45. We trust that the above information satisfactorily responds to your concerns.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



W. G. Council
Senior Vice President



By: J. F. Opeka
Vice President

cc: Mr. R. C. DeYoung, Director
Division of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. H. C. Li
Instrumentation and Control Systems Branch
U. S. Nuclear Regulatory Commission
Phillips Building
7920 Norfolk Avenue
Bethesda, MD 20814