NORTHEAST UTILITIES
The Connecticut Light And Power Company
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Docket No. 50-423
Re: 10CFR50.37
December 1, 1992
MP-92-1264

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

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Loose Parts Detection System

This Special Report update is being submitted to update a Special Report submitted pursuant to Millstone Unit 3 Technical Specification 3.3.3.8.a, Loose Parts Detection System. Plant Technical Specification 3.3.3.8.a requires that a Special Report be submitted to the NRC 10 days following one or more channels of the Loose Parts Detection System being declared inoperable for more than 30 days while in Mode 1 (Power Operation) or Mode 2 (Startup). This update provides additional information to the June 14, 1992 submittal.

On February 4, 1992, at 1057 hours, with the plant entering Mode 2 (Startup), at 3% power, 2250 psia and 558 degrees Fahrenheit, the Loose Parts Monitoring System (LPM) was declared inoperable per plant Technical Specifications based on low level alarms on all channels.

Loose parts impacts in the Reactor Coolant System (RCS) are detected by accelerometers attached to major RCS components. An impact generates a signal from one or more accelerometers, which triggers a High Alarm annunciation on the Main Control Board. The High Alarm signal causes information to be recorded from 12 channels onto a computer disk. Low Alarm setpoints are used to detect and annunciate channel failures.

The system low alarms were fixed through the replacement of several system cards. The system operational channels were declared functional on July 3, 1992. All functional channels were surveilled and considered capable of detecting loose parts. The following measures were established to verify channel operability. Disks were analyzed for degradation or failure on a monthly frequency. Continuity checks of LPM cables to verify open, grounded or shorted circuits were performed on a monthly frequency. These compensatory checks were performed in addition to the normal surveillances until the low level alarms were returned to service on July 3, 1992.

On September 2, 1992, at 1410 hours, with the plant in Mode 1 (Power Operation), LPM channel 12 went into alarm. Channel 12 monitors loose parts activity in Steam Generator D, upper level. LPM channel 12 was taken out of service at that time due to spurious low level vibration alarms.

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On September 2, 1992, at 1410 hours, when channel 12 was declared inoperable, ten (10) of the remaining eleven (11) channels were operating properly and providing redundant verification.

The remaining inoperable channel was channel 10, Steam Generator - B, upper level which was declared inoperable on May 5, 1992, and the subject of Special Report Docket Number 50-423, dated June 10, 1992. During the extended outage which commenced on September 2, 1992, channel 10 was investigated further. It was determined that channel 10 could not be repaired at this time.

On September 30, 1992 at 0036 hours with the plant in Mode 1 (Power Operation) the plant commenced down power operations for an extended cold shutdown. During this period channels 10 and 12 were investigated. Channel 12 was repaired. Channel 10 still remains inoperable. It was determined that the circuitry outside of the containment and extending to the Main Control Room was functioning properly, further testing concluded that the channel failure was within containment.

Restoration of channel 10 has been scheduled for the next cold shutdown of sufficient duration or the next refueling outage.

The Licensee contact for this Special Report is Burtel N. Forrest, who may be contacted at (203) 444-5442.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

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