

NORTHEAST UTILITIES

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

General Offices • Selden Street, Berlin, Connecticut

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 645-5000

January 2 1990

MP-13906

Docket No. 50-423

Re: 10CFR50.36

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

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Malfunctioning Loose Parts Monitor Channels

This Special Report is being submitted as a supplement to the August 25, 1989 Special Report on Malfunctioning Loose Parts Monitor Channels. This supplemental report is being submitted pursuant to Millstone Unit 3 Technical Specification 3.3.3.8.a: Loose Part Detection System. Technical Specifications requires a Special Report be submitted to the NRC if one or more channels of the Loose Part Detection System are inoperable for more than 30 days.

At 0730 on July 16, 1989 with the plant in Mode 1, at 48% power, 2250 psia, and 586 degrees Fahrenheit, two of twelve Loose Parts Monitor (LPM) channels were declared to be inoperable because they were alarming continuously. Analysis of information recorded by the LPM verified that loose parts did not exist. Further investigation revealed that the alarms were caused by malfunctions in LPM equipment located inside the containment building.

Loose part impacts in the Reactor Coolant System (RCS) are detected by accelerometers attached to major RCS components. An impact generates an electrical signal from one or more accelerometers, which triggers the Loose Parts Monitor to record information from all channels on a computer disk, and actuate an alarm on the main control board.

The two malfunctioning channels have redundant channels which are operating normally. The malfunctions do not affect other channels. The malfunctioning channels have been turned off, so that valid loose part impact alarms will not be masked.

The problems with both channels have been localized to within the containment building and require corrective work in high radiation areas. For this reason, corrective actions were scheduled for the next reactor Cold Shutdown period.

9001180168 900102
PDR ADOCK 05000423
S PDC

JE22
11

Millstone Unit Number 3 was in Cold Shutdown from 1450 on November 29, 1989 to 0546 on December 5, 1989 to replace the C Pressurizer Code Safety Valve, as reported by Licensee Event Report 89-031-00. During this time, problems with the malfunctioning Loose Parts Monitor channels were investigated further. The exact locations of failed components in containment were identified. Replacement of the components would have required extending the outage by several days in order to remove and reinstall mirror insulation on the reactor head and the affected steam generator. Additionally, a replacement part required to fix one of the channels was unavailable. Since the redundant LPM channels monitoring these locations were operating satisfactorily, no increase in plant safety would be realized by extending the outage to replace the components. For these reasons, the component replacement has been scheduled for the next refueling outage.

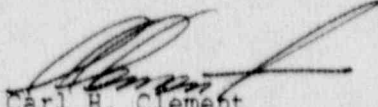
The LPM was designed and built by Northeast Utilities Service Company, and is installed at Millstone Unit 3 and Connecticut Yankee. This design is not used at any other plants.

The licensee contact for this special report is Robert Conway, who may be contacted at (203) 447-1791, extension 5642.

Very Truly Yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: Stephen E. Scace
Station Superintendent
Millstone Nuclear Power Station


BY: Carl H. Clement
Unit 3 Superintendent
Millstone Nuclear Power Station

SES/RDC:bjo

cc: W. T. Russell, Region I, Administration
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3
D. H. Jaffe, NRC Project Manager, Millstone Unit No. 3