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The Northeast Utilities System

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Millstone Nuclear Power Station, Unit No. 1
Special Report: Stack High Range Noble Gas Effluent Monitor Inoperable

This Special Report is submitted pursuant to reporting requirements contained in Section III.C.5 of the Radiological Effluent Monitoring & Offsite Dose Calculation Manual which requires that a special report be submitted to the commission within 14 days of declaring the monitor inoperable, if the stack high range noble gas effluent monitor is inoperable for more than 7 days.

The monitor was declared inoperable on 1/4/00 and was restored on 1/14/00. Additional details are contained in the attached Special Report.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Larry G. Temple
Unit 1 General Manager

Attachment: Special Report

cc: H. J. Miller, NRC Region I Administrator
L. L. Wheeler, NRC Project Manager, Millstone Unit No. 1
P. C. Cataldo, NRC Inspector
F. C. Rothen, NU Vice President - Nuclear Work Services

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Attachment 1

Millstone Nuclear Power Station, Unit No. 1
Special Report: Stack High Range Noble Gas Effluent Monitor Inoperable

The Millstone Station Radiological Effluent Monitoring & Offsite Dose Calculation Manual (REMODCM) Section III.C.5 requires that the MP1 stack high range noble gas monitor be operable on a continuous basis. If the monitor is not operable, then a preplanned alternate method of monitoring noble gas effluents must be initiated within 72 hours and the monitor restored to operable within 7 days; or a special report must be submitted to the Commission within 14 days of declaring the monitor inoperable. In accordance with the REMODCM, the special report must outline the action taken, the cause of the inoperability, and the plans and schedule for restoring the monitor to operable.

On Tuesday, January 4, 2000, after replacing the particulate and iodine filters for the stack radiation monitors stack sample pump #2 failed to start. The system was realigned to sample pump #1. However that pump also failed to start. The stack sample system was declared inoperable at 0654 and alternate sampling initiated. The high range noble gas monitor draws a sample from the flow created by the stack sample system. With the stack sample system inoperable, the high range monitor would not have detected an increase in activity, and would not have automatically started its associated sample pump. Therefore the high range noble gas monitor was also inoperable.

The auxiliary sampler was started at 0720 and the first sample collected at 0730. Sampling continued until the monitors were returned to operation.

Investigation into the cause of the failure of the sample pumps to start determined that a ground existed between the power supply and the pumps. This cable run is through the buildings and then underground to the stack. Subsequent investigation was unable to identify the location of the excessive grounding.

A decision was made to re-power the pumps from a local power supply in lieu of running new cable. This modification was completed on January 14, and the stack monitors returned to service at 1630 on January 14, 2000.