

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
MILVONE 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) 665-5000

December 11, 1989
MP-13841

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 Number 3
Initiation of a Plant Shutdown to Repair Turbine Electrical Solenoid Valve

This Special Report is being submitted to provide further information regarding the failure of the Turbine Electrical Trip Solenoid Valve which occurred on November 10, 1989 at Millstone Unit 3.

On November 10, 1989, at 2000 hours, while operating in Mode 1 at 100 percent power, 587 degrees Fahrenheit and 2260 psia, the Turbine Electrical Trip Solenoid failed to meet its surveillance acceptance criteria. To fulfill the requirements of Technical Specification 3.3.4, the Unit immediately began to downpower. Preparations were made to take the turbine off line to repair the solenoid. Immediate notification per 10CFR50.72(b)(1)(i) was performed to document the initiation of a plant shutdown required by the plant's Technical Specifications. However, there are no 30 day Report requirements per 10CFR50.73 which apply since the plant never completed the shutdown and was within the bounds of its Technical Specifications.

The plant was taken to 10% power and the turbine was taken off line at 0050 on November 11, 1989. The Electrical Trip Valve and the Electrical Trip Solenoid Valve were removed, disassembled, and inspected. No damage was found on any of the subcomponents, including the O-rings and seals. The limit switch linkage was removed prior to the valve replacements and the valves were stroked to verify the linkage was not causing the problem. The cause of the failure had been determined to be particulate contamination of either the Electronic Trip Solenoid Valve Secondary Valve or the Electronic Trip Valve. Electro Hydraulic Control (EHC) fluid samples were taken a week earlier and were within acceptable limits; however, monthly samples taken two weeks prior to the problem had slightly elevated particulates, although these samples were also within acceptable limits.

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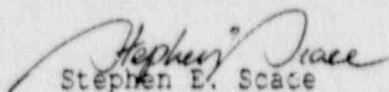
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As corrective action, both the Electrical Trip Valve and the Electrical Trip Solenoid Valve were replaced with rebuilt valves. After these valves were successfully retested, the Unit was returned to 100 percent power. The removed valves were sent to the vendor to verify the root cause was particulate contamination. The verification by the vendor is currently ongoing. The EHC filters were also replaced as a precaution to ensure EHC fluid remained free of particulate contaminants.

The Licensee contact for this Special Report is Gary L. Swider, who may be contacted at (203) 447-1791, Extension 5381.

Very Truly Yours,

NORTHEAST NUCLEAR ENERGY COMPANY



Stephen E. Scace
Station Superintendent
Millstone Nuclear Power Station

SES/CLS:clc

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