

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

CON'T

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

PHONE (717) 542-3917

Attachment  
LER 83-051/03X-1 |

It was determined by an analysis of Transient Monitoring System data that the overspeed trip of the RCIC Turbine was caused by the slow operation of the control valve. The RCIC unit attempted to start at 0104 on 3/22/83 when a low reactor vessel water level initiate signal was received. Previous measurements of the control valve speed from full open to full close on the start of the RCIC Turbine was approximately one second. When the RCIC Turbine tripped after automatic initiation on 3/22/83, the control valve took approximately 2 seconds to close. The additional closure time allowed the RCIC Turbine to overspeed on the automatic start. The unit was successfully manually started immediately after the overspeed. Later, the control valve was cycled manually to check for freedom of operation and the unit was started again manually to check the response of the turbine control electronics. The control system electronics response as well as the control oil system response was compared with previous manual and quick start responses and showed to be satisfactory.

On 3/23/83, to further upgrade the condition of the unit, the valve stem was cleaned and lubricated and an oil sample taken. A visual inspection of the oil showed small metallic particles which resulted in a decision to change the oil and oil filters in the unit. After the oil change, the RCIC unit was restarted per SO-50-002, the quarterly RCIC Flow Surveillance, at a reduced reactor pressure to recheck system operation and response in Operational Condition 3 before preceding to Operational Conditions 1 and 2. On 3/26/83 in Operational Condition 1, the RCIC unit was tested using a special procedure consisting of a manually initiated quick start to the Reactor Pressure Vessel with the RCIC FLOW CONTROLLER in AUTO and greater than 20% RATED THERMAL POWER. The RCIC unit responded properly and achieved rated system flow in less than 20 seconds from initiation. All manual and quick starts of the RCIC Turbine after the overspeed showed that the control valve response was adequate to control the initial start transient. The condition that caused the overspeed could not be duplicated. The particles contained in the oil were attributed to the initial testing and wear in of the RCIC turbine components.

Since the filing of the previous report it has been determined that the slow response of the governor was caused by dirt deposition in the opening of the pilot valve. This was corrected on May 17, 1984 by installing a new upgraded governor in which the pilot valve opening was enlarged. No RCIC overspeed trips have been identified following this installation.

As reported in the previous Licensee Event Report, the frequency of RCIC quick start testing was increased to monthly to trend control system performance. As of 10/3/85 sixteen quick start tests have been logged with no starting difficulties encountered. Based on this the frequency of quick start testing will be adjusted back to quarterly.

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January 30, 1986

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

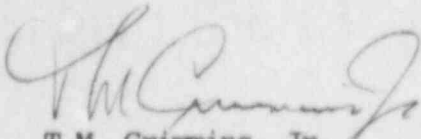
SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 83-051/03X-1 |  
ER 100450 FILE 841-23  
PLAS- 144

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Docket No. 50-387  
License No. NPF-14

Dear Dr. Murley:

Attached is Licensee Event Report No. 83-051/03X-1, which is an update to the original filed on April 21, 1983. This event was determined to be reportable per Technical Specification 6.9.1.9.b, in that the Reactor Core Isolation Cooling pump turbine tripped on its electrical overspeed signal when automatically initiated.



T.M. Crimmins, Jr.  
Superintendent of Plant-Susquehanna

JAH/pjg

Attachment

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