9-26-77

Rec'd 9/26/77355

50-346

TO: United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region

Attn: Tom Tambling

SUBJECT: Reportable Occurrence

SFRCS Actuation with Resultant Reactor Trip and SFAS Actuation

Davis-Besse No. 1 Reactor in Mode 1 Operation Power 280 MWT - Load 90 MWE

At 2134 hours on September 24, 1977, the Reactor Operator noticed Main Feed Pump No. 2 Speed decreasing and received a low level alarm on No. 2 OTSG. At 2135 hours, he received a low steam generator level SFRCS trip. The reactor was manually tripped at 2136 due to increasing pressurizer level and at the same time the pressurizer electromagnetic relief lifted. Unknown to the operator the electromagnetic relief failed to reclose resulting in a decrease of RCS pressure and resultant SFAS actuation at 1600 pounds psig. As a result of the electromagnetic relief staying open and the quench tank cooling being isolated by the SFAS actuation, the quench tank pressure increased and the rupture disc ruptured.

When the operator realized the electromagnetic relief was not closed, the isolation valve was shut and RCS pressure stabilized.

High pressure injection which was initiated by SFAS was maintained in operation to assist returning the RCS pressure and pressurizer level to normal.

The main steam isolation valves were reopened and the normal Plant cooldown was started.

Tom Tambling, NRC Region III, telephoned at 103[illegible] hours on September 25, 1977.

Jack Evans
Station Superintendent
Davis-Besse Nuclear Power Station
Toledo Edison Company

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