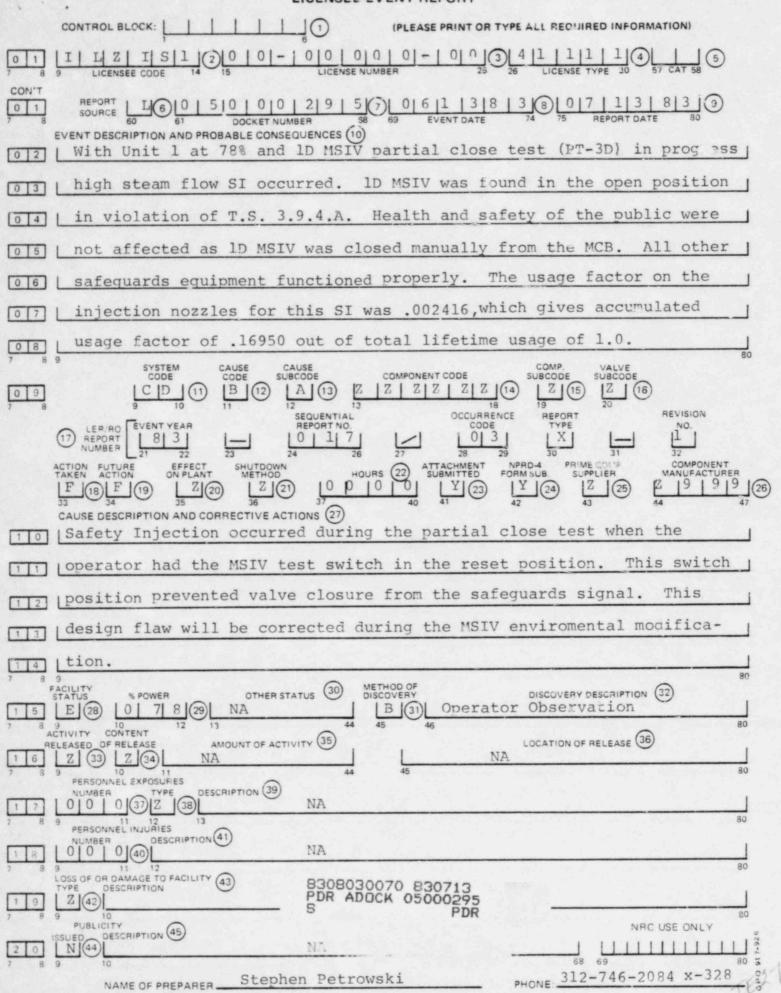
LICENSEE EVENT REPORT



No. 83-017/03 X-1

COMMONWEALTH EDISON CO. ZION GENERATING STATION 50-295

DESCRIPTION OF EVENT

With Unit 1 at 78% and increasing power, 1D MSIV partial close test (PT-3D) was in progress. The valve stroked partially closed but when the test switch was released to the open position, the valve appeared not to be going open. The operator responded by positioning the switch to reset. About that time, the reactor tripped on 1D S/G low level, followed by high steam flow-low steam line pressure safety injection.

CONSEQUENCES OF OCCUPRENCE

The valve did not close from the safeguards signal which is in violation of T.S. 3.9.4.A. It, however, closed by manual actuation from the control room. Therefore, health and safety of the public were not affected.

CAUSE OF OCCURRENCE

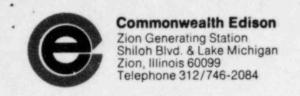
Investigations revealed two problems. One, the partial stroke limit switch was found bent. This caused ID MSIV to go closed further than desired, actually entering the steam flow. This resulted in the following rapid sequence of events;

- 1D MSIV partial closed
- RCS Tave increasing due to loss of heat transfer in 1D S/G
- RX trip due to 1D S/G low-low level
- Operator holds 1D MSIV switch to reset
- Steam dumps are armed due to turbine trip and go full open due to high Tave
- Resulting steam draw causes low steam line pressure
- Hi steam flow signal generated following RX trip due to instantaneous reduction of steam flow setpoint to 40% while actual flow is greater than 40%
- SI results from high steam flow-low steam line pressure.

Second problem, a design flaw in the electrical circuit prevented the MSIV from closing on a safeguards signal. The safety injection signal came at the same time the operator had the test switch in the reset position. In this position, the seal-in circuit for full valve closure could not be completed and the valve, which started to close, returned to open.

CORRECTIVE ACTIONS

The operator responded timely by closing 1D MSIV manually from the centrol room. The partial stroke limit switch arm was replaced and the valve tested satisfactorily for partial and full closure. The flaw in MSIV's safeguards circuits will be corrected during their environmental qualification modifications scheduled for 1984. In the mean time, reactor operators will be made aware of the current design and how to respond in similar situations.



July 13, 1983

Mr. James G. Keppler
Regional Administrator
Directorate of Inspection and Enforcement
Region III
U.S. Nuclear Regulatory Commission
799 Rocsevelt Rd.
Glen Ellyn, IL 60137

Reference: Zion Generation Station

Docket No. 50-295/DPR-39

Technical Specification, Section 6.6.2

Dear Mr. Keppler:

The enclosed updated Licensee Event Report from Zion Generating Station is being transmitted to you in accordance with the requirements of Technical Specifications, Section 3.3.2.F.3. This section states a written ninety day report is required in the event ECCS is actuated and injects into the RCS when Tavg is \$350°F.

This report is number 83-017/03X-1, Docket No. 50-295/ DPR-39. The updated Licensee Event Report is also accompanied by an attachment.

Very truly yours,

K. L. Graesser Superintendent

Zion Generating Station

Enclosure: Reportable Occurrence Report No. 83-017/03X-1

Attachment

cc: J. Waters, NRC Resident Inspector