

LER SUPPLEMENTAL INFORMATION

SQRO-50-327/82080

Technical Specification Involved: 3.0.3., 3.6.2.1,
3.5.2, 3.6.1.8,
3.5.4.2, & 3.7.7

Reported Under Technical Specification: 6.9.1.12.b

Date of Occurrence: 07/08/82

Time of Occurrence: 1325 CDT

Identification and Description of Occurrence:

At 1320 (c), both chlorine detectors were declared inoperable when the drip rate was determined slow. LCO 3.3.3.6 requires the control room emergency ventilation system be initiated and maintained under the circumstances. At 1325, after initiation of the control room emergency ventilation system, the control transformer to the control building emergency pressurizer fan failed causing a trip of the 1B1-B control and auxiliary vent board. This resulted in loss of power to various equipment and required entry into several LCOs.

Equipment InoperableLCO

Train B safety injection pump room cooler	3.5.2
Train B centrifugal charging pump room cooler	3.5.2
Train B residual heat removal pump room cooler	3.5.2
Train B containment spray pump room cooler	3.6.2.1
Train B emergency core cooling system heat trace	3.5.4.2
Train B emergency gas treatment system	3.6.1.8
Train B control building emergency ventilation system	3.7.7

LCO 3.0.3 was entered due to the train 'A' containment spray pump room cooler also being out of service for performance of SI-668.1, ERCW Pipe Corrosion Monitoring Instruction.

Apparent Cause of Occurrence:

Due to an improperly sized fuse installed in the transformer, the control transformer to the control building emergency pressurizer fan was shorted by a defective relay (1B-271) in the fan control circuit. The transformer failure resulted in blowing a fuse in the normal feeder breaker to the 1B1-B control and auxiliary vent board.

Analysis of Occurrence:

Investigation of the chlorine detectors established that the detectors were not inoperable. Instructions require performance of SI-168, "Periodic Calibration of Control Room Air Intake Chlorine Detection System," or SI-240, "Functional Test of Control Room Air Intake Chlorine Detection System," to determine operability of the detectors when the drip rate is slow. The detectors were declared inoperable and action of 3.3.3.6 was taken before either test was performed. Performance of SI-240 at 1424 (C) on 07/08/82 established that the chlorine detectors were not inoperable. A replacement control transformer was installed on 07/12/82, but this transformer also shorted following energizing the fan. Investigation discovered

a defective relay (1B-271) in the fan control circuit. Further investigation revealed a 10 amp fuse was installed in the control transformer, but the drawing required only a 1 amp fuse. The defective relay was a result of normal ageing failure. Installation of an improperly sized fuse has been attributed to personnel error during construction installation for the first failed transformer. Since the 10 amp fuse did not fail, maintenance personnel did not refer to the drawing for required fuse size. This resulted in the second transformer failure.

Corrective Actions:

Train A containment spray pump room cooler was returned to service at 1338 (C) following completion of SI-668.1. Power was restored to the 1B1-B control and auxiliary vent board which returned all of the above listed equipment to service at 1440 (C) except for train B control building emergency ventilation system which was returned to service on 07/12/82 at 1558 (C) after replacement of the control transformer.

A nameplate has been installed at the control transformer stating to use a 1 amp fuse. A spot check of other control transformers was performed to ensure all had the correct size fuses installed. A program has begun to check all fuses protecting safety related equipment against the controlled as constructed drawings to assure proper sizing of all fuses. Nameplates will also be installed along side each fuse box indicating the correct fuse size.

Operations personnel will have SI-168 or SI-240 performed prior to declaring the chlorine detectors inoperable for slow drip rate.

Failure Data:

None.