

LER NO. 80-41/1X, Revision 1
DOCKET NO. 50-317
LICENSE NO. DPR 53
EVENT DATE 08-12-82
REPORT DATE 10-06-82
ATTACHMENT

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (CONT'D)

At 0700 on August 12, 1980, with Unit One operating at 100% power indicated level in both #11 and #12 Service Water (SRW) head tanks went from normal operating level to full. About five minutes later an isophase bus duct cooling low flow alarm was received. The Shift Supervisor immediately suspected that air was being introduced into the system. A subsequent investigation revealed that #11 Instrument Air Compressor After Cooler had failed causing air ingress to both service water subsystems. With both subsystems in operation the automatic vents provided adequate air removal capability to insure system operability. System pressure did not drop below the normal operating band in either subsystem during the event. After #11 Instrument Air Compressor Air Cooler was isolated, the service water system was restored to normal operation at 0800. LER 80-27 (U-1) describes a similar event.

The air cooler was subsequently replaced by an identical one and was examined metallurgically for mode of failure. It was discovered that in the manufacturing process the tubes of the heat exchanger had been over rolled. This caused longitudinal cracks in the tubes, ultimately leading to failure. The heat exchanger was retubed and returned to stock.

Engineering review indicated a need for system modification. Automatic vent valves of higher capacity and having air flow-rate detectors which initiate alarms in the Control Room were added to the system. No further action is necessary.