

Supplementary Information to
LER 82-072/01 T-0

Licensee: Mississippi Power & Light Company
Facility: Grand Gulf Nuclear Station - Unit 1
Docket No: 50-416

During Non-Nuclear Heatup (NNH) testing at Grand Gulf Nuclear Station Unit 1, it was noted, by an incidental observation at 0200 CDT on September 24, 1982, that the handswitches for the ADS booster compressor supply valves IP53-F012A and IP53-F017B were both in the CLOSE position. Normal lineup required one to be in OPEN and one in STANDBY. The Booster Compressors supply the Division I and II ADS valve accumulators via the ADS valve air receivers. This valves IP53-F017A and IP53-F017B closed, the air receivers had no air supply makeup. At the time of discovery the plant was in Operational Mode 3 with the reactor pressure at 400 psig and reactor water temperature above 200^oF.

Upon discovery that the handswitches for the ADS booster compressors supply valves IP53-F017A and IP52-F017B were closed, pressure gages were installed at the ADS valve air receivers. It was found that the "A" receiver pressure was 0 psig and the "B" receiver pressure was 82 psig, normal receiver pressure is 165-185 psig. At this time, 0500 CDT on September 24, 1982, Non-Nuclear Heatup was secured by placing the Reactor Recirculation Pumps on the LSMG, and an LCO entered per requirements of Tech. Spec. 3.5.1.b.2. The valve lineup for the ADS air supply was checked and the booster compressors started at 0520 CDT on September 24, 1982. At 0542 on September 24, 1982 the Duty Manager (C. K. McCoy-Plant Manager) was informed of the incident. Mr Chauncey Gould of the NRC was telephoned at 0545 on September 24, 1982. The ADS valve air receivers were restored to 182 psig at 0945 on September 24, 1982 and ADS was declared operable. Heatup was resumed at 0954. Upon further investigation, it has been determined that the following chain of events resulted in the ADS booster compressors being isolated.

On September 17, 1982, startup personnel were performing portions of preoperational test 1B21-PT01, which required depressurization of the ADS valve air receivers. When the test was completed, the air receivers were repressurized using the ADS booster compressors. The booster compressors were secured under the direction of the startup test supervisor when the receivers were restored to normal pressure. On September 17, 1982 at 2355 CDT, Operations satisfactorily performed the section of the surveillance procedure 06-OP-1B21-C-003 pertaining to the testing of check valves. The surveillance procedure 06-OP-1B21-C-003 did not address the ADS booster compressor or their supply valves IP53-F017A or IP53-F017B. As documented on operations Status Checklist, Attachment 1 of Operations Section Procedure 02-S-01-4, each shift reported ADS out of service (OOS) every shift from September 17, 1982 at

0730 until 1600 on September 24, 1982. No explanation of why ADS was out of service was noted on the Status Checklist. Violation of Technical Specification 3.5.1.b.2 and Technical Specification 3.0.4 did not occur until Mode 3 was entered at 2223 CDT on September 22, 1982.

At the time of the incident, the Reactor Vessel had been pressurized to 400 psig with heat generated by the Recirculation pumps. The Reactor was in a shutdown condition with no operating history on the core. The portion of the safety/relief system which was rendered inoperable was the auto depressurization system (ADS). Due to the fact that there are 20 safety relief valves (including 8 ADS Valves) and the safety relief function was not impaired, the integrity of the Reactor Vessel was never compromised. The event did not result in any significant occurrences, release of radioactivity or personnel injuries and had no effects upon public health or safety.

The status checksheet is being revised to include a note under ADS as follows: "This includes at least one booster compressor inlet valve open". This will draw attention to the significance to these compressors.

The event resulted in both Divisions of ADS to be inoperable.