

March 17, 1994

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-IV-94-006A

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region IV staff on this date.

Facility

Nebraska Public Power District  
Cooper 1  
Brownsville, Nebraska  
Dockets: 50-298

Licensee Emergency Classification

X Notification of Unusual Event  
Alert  
Site Area Emergency  
General Emergency  
Not Applicable

Subject: PLANT SHUTDOWN (UPDATE)

On March 12, 1994 at 2:10 a.m. (CST) a reactor start up was commenced following the completion of a forced outage that started on March 2, 1994. The licensee concluded that the high flux reactor scram was attributed to a pressure transient caused by the partial closure of the turbine control valves. The licensee had identified what they believed was the cause of the control valve fluctuations as faulty control cards in the digital electro-hydraulic (DEH) control circuitry. The cards were replaced and the plant was returned to service.

On March 12 and 13, 1994, with the plant at approximately 5 percent power, additional turbine valve problems were encountered in which reactor water level and power level fluctuated. Further investigation of the DEH system revealed that the controlling power supplies and a servo valve for the No. 1 control valve were degraded. The power supplies and servo valve were replaced. No other turbine valve concerns have been identified and the licensee's actions appear to have corrected the problems.

The NRC special inspection team continues to review the licensee's activities pertaining to the reactor trip and the turbine control valve problems.

On March 14, 1994, during monthly valve surveillance testing, the licensee discovered that RHR-MOV-M027A, the outboard Low Pressure Coolant Injection isolation valve failed its valve operability test because of excessive leakage past the valve seat. This valve is a containment isolation valve, and the licensee has elected to shut down the plant and repair the valve. On March 16, 1994, at 7:45 p.m. the reactor was manually scrammed. All systems functioned as expected. The licensee expects the repairs to take 5-10 days.

The licensee provided a press release pertaining to the concerns and problems associated with Valve RHR-MOV-M027A and the plant shutdown to repair the valve.

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On March 17, 1994, at 9:26 a.m. (CST), with the plant in cold shutdown, a loss of shutdown cooling occurred due to a spurious automatic closure of the shutdown cooling suction isolation valves and resulting pump trip. Shutdown cooling was restored 13 minutes later, during which time reactor temperature increased from 184 to 189 degrees F. Currently, the licensee has not determined the cause of the closure of the shutdown cooling valves.

The licensee has formed a Problem Resolution Team to investigate the cause of this event. The NRC has initiated a special inspection.

This information has been confirmed with a licensee representative.

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