June 9, 1998

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-III-98-032

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 Region III staff (Lisle, Illinois) on this date.

Facility
Northern States Power Co.
Prairie Island 1
Welch, Minnesota
Dockets: 50-282

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

Subject: REACTOR TRIP DUE TO DROPPED CONTROL ROD

On June 5, 1998, at 6:58 p.m. (CDT), Prairie Island Unit 1 experienced an automatic reactor trip when control rod (G7) dropped into the reactor core. A possible cause of the dropped rod was determined to be a blown fuse on the stationary gripper coil due to a ground in the wiring to the coil. The licensee has removed the reactor missile shield to gain access to the wiring for further troubleshooting. The forced outage is expected to last at least one week.

Shortly after the event, a turbine building operator reported steam in the turbine building and control room operators noted that the post-trip reactor coolant system cooldown seemed to be excessive. As a result, the shift supervisor ordered the main steam isolation valves closed. The source of the steam was found to be a lifted relief valve on the tube side of the 15A feedwater heater. The relief valve closed when the main feedwater pump was stopped.

Because the main steam isolation valves were closed, decay heat removal was accomplished by using auxiliary feedwater pumps and steam generator power operated relief valves (PORVs). The reactor operator was experiencing normal steam generator level swells whenever the PORVs opened in automatic and was concerned that indicated level could exceed procedural limits. The operator placed the PORVs in manual operation and was controlling auxiliary feedwater flow to limit steam generator levels. However, a small rise in steam generator and reactor coolant system temperature resulted in steam generator pressure increases and the lifting of a steam generator safety relief valve. This caused steam generator pressure drops and resultant levels to swell. The operator subsequently stabilized steam generator levels within the normal range and the licensee eventually took the unit to cold shutdown.

The resident inspector responded to the site and monitored the licensee recovery actions from the control room.

The State of Minnesota has been notified. The information in this preliminary notification has been reviewed with licensee management.

The licensee reported the reactor trip to the NRC Operations Center at 7:30 p.m. (CDT) on June 5, 1998. This information is current as of 9:00 a.m. (CDT) on June 9, 1998.

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