

PRIORITY ATTENTION REQUIRED MORNING REPORT - REGION IV MARCH 5, 2001

Licensee/Facility:

Nebraska Public Power District
Cooper 1
Brownville, Nebraska
Dockets: 50-298
BWR/GE-4

Notification:

MR Number: **4-01-0001**
Date: 03/05/01
Resident Inspectors

Subject: LEVEL CONTROL PROBLEMS FOLLOWING REACTOR SCRAM (Event 37805)

Reportable Event Number: N/A

Discussion:

On March 3, 2001, at 9:42 a.m., licensed operators manually scrammed the Cooper reactor from 18 percent power as part of a planned shutdown for a midcycle outage. Following the reactor scram, vessel water level initially dropped, as expected, then increased until a reactor high level signal tripped the operating reactor feedwater pump at approximately 9:45 a.m.

In response to the high level condition, operators initiated a vessel drain through the reactor water cleanup system. At 9:53 a.m., a reactor equipment cooling system surge tank high level alarm was received. At 9:54 a.m., the reactor water cleanup system isolated on high temperature caused by the high flowrate through the system heat exchangers and the reduced return flow through the regenerative heat exchanger. At 9:58 a.m., operators observed reactor equipment cooling system high pressure and surge tank low level alarms. Plant operators found water on the floor surrounding the system surge tank, and no water level was indicated in the tank.

Operators could not restart either feedwater pump following the high level trip. At 10:26 a.m., 45 minutes after the loss of feedwater, operators started the reactor core isolation cooling (RCIC) system to restore reactor water level. Immediately after initiating injection, the shrink from the cold water caused a reactor low water level scram signal, and resulted in Groups 2, 3, and 6 containment isolations. The reactor water cleanup system and secondary containment automatically isolated. Reactor water level was recovered using the RCIC system. Operators reduced the RCIC system flow once reactor vessel level increased to clear the low level alarm point.

With reduced flow from the RCIC system, reactor vessel water level again decreased rapidly. Licensed operators inserted a manual scram of the reactor at 10:40 a.m. in lieu of an automatic scram on low reactor vessel level. Level was restored and RCIC cooling was secured at 10:46 a.m.

During recovery of secondary containment, following the group isolation, licensed operators could not maintain the required differential pressure and declared secondary containment inoperable. Approximately 10 minutes later, secondary containment was restored.

The senior resident inspector was in the main control room for most of the event, and regional management established a 24-hour control room watch by the resident inspectors until the plant was in cold shutdown.

The reactor is currently in Mode 5 being cooled with the residual heat removal system.

Regional Action:

Resident inspectors will follow up and further evaluation of the risk consequences of this event is ongoing.

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