

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-III-89-89 Date December 26, 1989

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 III staff on this date. DCD

Facility: Northern States Power Co.
Prairie Island, Unit 2
Welch, MN 49043

Licensee Emergency
Classification:
 Unusual Event
 Alert
 Site Area Emergency
 General Emergency
 Not Applicable

Docket No. 50-306

Subject: UNIT 2 REACTOR TRIP WITH PARTIAL LOSS OF OFFSITE POWER (REF. PNO-III-89-87
12/21/89 FOR PRIOR EVENT)

At 12:32 pm (CST), December 26, 1989, while operating at 100 percent power, the reactor automatically shut down as a result of a negative flux rate. The cause of the negative flux rate was the Reactor Protection Motor Generator output breakers opening. This removed power to the control rods which then fell into the core. One Reactor Protection Motor Generator output breaker also failed in a similar event on December 21, 1989, which was believed caused by a faulty voltage regulator. The regulator was replaced and retested.

Both reactor coolant pumps and the main condenser circulation pumps lost power because their alternate power supply was not available. This resulted from an electrical isolation function in the substation due to Unit 2 turbine generator output breaker suspected slow tripping. A similar Unit 2 reactor trip, with partial loss of offsite power, occurred on December 21, 1989. Prior to startup from the December 21, 1989 trip, the generator output breaker was tested satisfactorily. During the December 26 event, the generator output breaker appeared again to operate slowly, resulting in another partial loss of offsite power.

The licensee verified that natural circulation had occurred in the reactor coolant loop. During the event, both emergency diesel generators started as designed, but did not load since power was not lost to the safeguards bus.

The licensee restored power to one reactor coolant pump at 2:17 pm (CST) and to the second pump at 2:25 pm, thus restoring forced circulation.

Region III established open communications with the plant via the NRC Operations Center to monitor plant conditions until forced circulation was restored about one hour and 45 minutes after the event. Region III informed the EDO, NRR, AEOD and PA. The resident inspector monitored the event from the control room. An Augmented Inspection Team has been formed, headed by a Regional Specialist and including the NRR Project Manager.

The Headquarters Operations Center was notified of this event at 1:09 pm (CST), December 26, 1989. The State of Minnesota will be notified. The information in this PN was discussed with the licensee. This information is current as of 3:15 pm (CST), December 26, 1989.

CONTACT: *B. Burgen*
B. Burgen/388-5689

E. Greenman
E. Greenman/388-5518

DISTRIBUTION:

HEADQUARTERS OFFICES

Chairman Carr NMSS
Comm. Roberts GPA:SLITP
Comm. Rogers GPA:PA
Comm. Curtiss GPA:CA
Comm. Remick *OIG
EDO *ASLAP
Gen. Counsel Research
NRR IRM
AEOD ACRS
Enforcement *Denotes a Displaywriter/PC not an IBM 5520 Terminal.

REGIONS

Region I
Region II
Region IV
Region V

MAIL TO:

DCS (Orig)
DOT (Trans.
Only)

FAX TO:

INPO 4:59 NSAC 5:03 LIC 5:01
NRC OPS CTR 5:04
PDR (8/634-3343) 5:02

IE 34
0/1
9001030245 891226
PDR I&E
PNO-III-89-089 PDC