

April 25, 2003

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-03-023

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

Entergy Operations, Inc.
Grand Gulf Nuclear Station
Docket:50-416 License No.:NPF-29

Licensee Emergency Classification

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

SUBJECT: SHUTDOWN OF GREATER THAN 72 HOURS

DESCRIPTION: At 0947 (CDT) on April 24, 2003, Grand Gulf Nuclear Station (GGNS) experienced an automatic reactor scram following a partial loss of offsite power. The resident inspectors were onsite at the time of the event and responded to the control room. The resident inspectors observed the operators' response and subsequent recovery actions.

During a thunderstorm, and strong winds, a locking device failed on an open disconnect switch in the switchyard. As a result of the failure of the locking device, the disconnect-switch dropped and connected Breaker J-5204. This breaker was grounded for maintenance that had been in progress before the storm. This resulted in grounding the West bus of the 500 KV switchyard and subsequent opening of the incoming offsite power feed. The loss of this feed resulted in the loss of power to Station Transformer 21 which supplies nonsafety-related buses and the Division 2 and 3 safety-related buses. Each of the emergency diesel generators (EDGs) for the Division 2 and 3 buses started and loaded to reenergize the safety-related buses. The loss of the nonsafety-related buses resulted in the loss of feedwater, condensate water and a recirculating water pump.

The apparent cause of the scram was the fast closure of the turbine stop valves due to a load rejection. The transient resulted in a low reactor vessel water level, initiating the high pressure core spray system and the reactor core isolation cooling (RCIC) system to maintain reactor vessel water level. Several seconds after the loss of the West 500KV-bus feed, the relays for undervoltage relay on the Division 1 safety-related bus sensed a loss of voltage from Station Transformer 11. The Division 1 EDG started and reenergized the bus. While there was an indication of a very short-term transient on the bus, there was no indication that the East 500 KV bus or the 115 KV bus had been lost.

The transient also resulted in main steam isolation valve closures and loss of the power conversion system. The reactor was cooled down using the safety/relief valves and the RCIC system.

Currently, the plant is stable in cold shutdown. The licensee has decided to keep the plant shutdown to implement repairs to pre-existing equipment conditions. The planned repairs involve the turbine electro-hydraulic control system, an intermediate range neutron monitor, and a drywell sump pump.

The licensee has formed event review teams to evaluate the event and equipment responses as discussed in Event Report 39793.

The state of Mississippi will be informed.

Region IV received notification of this occurrence from the Shift Manager by informing the resident staff at 0950 (CDT), April 24, 2003. Region IV has informed the EDO/NRR/PA.

This information has been discussed with the licensee and is current as of 1000 (CDT).

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