

PRELIMINARY NOTIFICATION

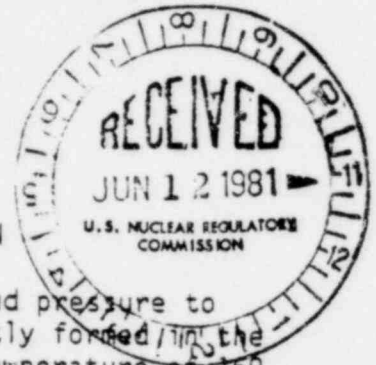
June 8, 1981

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-II-81-39

This preliminary notification constitutes EARLY notice of an event of POSSIBLE safety or public interest significance. The information presented is as initially received without verification or evaluation and is basically all that is known by IE staff as of this date.

FACILITY: Duke Power Company
McGuire 1
Docket No. 50-369
Charlotte, North Carolina

SUBJECT: DEVELOPMENT OF STEAM VOID UNDER VESSEL HEAD DURING COOLDOWN



On June 2, while reducing Reactor Coolant System (RCS) temperature and pressure to achieve a cold shutdown condition, a water-steam mixture was apparently formed in the reactor vessel head area when the system was vented. At a RCS loop temperature of 160 degrees and a pressure of 60 psig, the RCS vent was opened and operations personnel observed a pressurizer level increase of 3 to 4 percent. The vent was closed and level returned to pre-vent conditions. A check of the reactor vessel head temperature showed the head temperature to be 250 degrees. (A similar event occurred during cool-down on natural circulation at St. Lucie (PNO-II-80-104).)

A similar event occurred again after eight additional hours of cooling and at an indicated RCS loop temperature of 117 degrees. The highest upper head temperature was 211 degrees. The system was repressurized to permit operation of the reactor coolant pumps to sweep the loops; a cold shutdown was then achieved.

Since the reactor had not achieved initial criticality, there was no decay heat and no natural circulation as there would have been on an operating plant. Also, the operating RHR resulted in recirculation of only two of the four RCS loops.

The operations personnel recognized the problem and took prompt corrective action.

The generic applicability of this event is being evaluated by IE:HQ.

Media interest has not occurred. Neither the licensee nor the NRC plans a news release. The State of North Carolina has been informed.

The NRC Emergency Response Center received notification of this occurrence by telephone from the licensee at 9:40 a.m. on June 2. This information is current as of 3:00 p.m. on June 8.

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