

December 24, 1991

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-11-91-83

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. This information is as initially received without verification or evaluation, and is basically all that is known by the Region 11 staff of this date.

FACILITY: Virginia Electric Power Co.  
North Anna Unit 1  
Docket No. 50-338  
Mineral, Virginia

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

SUBJECT: NORTH ANNA UNIT 1 SHUTDOWN DUE TO INOPERABLE STEAM GENERATORS

On December 23, 1991, while at 100% power, the licensee declared the North Anna Unit 1 steam generators (SGs) inoperable at 4:00 pm following concerns raised by the NRC with the adequacy of the steam generator tube eddy current inspection program. The steam generators were last inspected during the refueling outage which ended in March 1991. The licensee entered Technical Specification 3.0.3 and declared an Unusual Event at 4:32 pm based upon a Technical Specification required shutdown. The unit was shutdown and the Unusual Event terminated at 7:30 am, December 24, after the unit was brought to cold shutdown at 7:18 am.

During the 1991 refueling outage, extensive eddy current inspection was performed on the tubes in each of the three SGs. This included use of bobbin coil, 8x1 probe and rotating pancake coil (RPC). The results of the inspections were classified as Category C-3 for each of the SGs. Category C-3, as defined by Technical Specifications, is when greater than 1% of the inspected tubes are defective. This condition requires all tubes to be inspected, defective tubes plugged and NRC approval for restart. This approval was granted with the stipulation that the licensee either implement a mid-cycle inspection of the SG tubes or provide additional information necessary to justify a full cycle of operation. The licensee provided additional information and review of the analysis by the NRC has been ongoing. On December 3, 1991 the licensee was asked to review eddy current data on a sample of tubes which were inspected and apply the results to revised acceptance criteria. As a result of this re-evaluation, several additional intersections for the 8x1 probe and the RPC were considered pluggable by the licensee. These included both axial and circumferential indications. This information was presented to NRC, management on December 19. Based on further discussion with the NRC the licensee decided to initiate the shutdown. The resident inspectors monitored the shutdown. A 60-day outage is anticipated to conduct the necessary SG inspections.

The licensee had not experienced any unusual indications of primary-to-secondary leakage. The latest measured leakage rates are approximately a total of 12 gallons per day with the highest individual leaking SG at 8 gallons per day. The steady state leak rates have been stable for several months. The licensee's Technical Specifications require shutdown with an individual leak rate greater than 100 gallons per day.

The Commonwealth of Virginia was notified of the event.

The NRC Emergency Response Center received notification of this occurrence by telephone call from the licensee on December 23, 1991 at 4:45 p.m.

The licensee does not plan on issuing a press release.

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This information is correct as of 10:00 am (EST) on December 24, 1991

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*Joy Kelly*  
12/24/91

5520: 12/24/91 @ \_\_\_\_\_ TO REGIONS AND HQ

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