

January 22, 2007

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-III-07-001A

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.

<u>Facility</u>	<u>Licensee Emergency Classification</u>
Monticello	<input type="checkbox"/> Notification of Unusual Event
Nuclear Management Co.	<input type="checkbox"/> Alert
Monticello, MN	<input type="checkbox"/> Site Area Emergency
Docket: 50-263	<input type="checkbox"/> General Emergency
License: DPR-22	<input checked="" type="checkbox"/> Not Applicable

SUBJECT: MONTICELLO REACTOR SHUTDOWN DUE TO TURBINE CONTROL VALVE FAILURE (UPDATE)

DESCRIPTION:

At 3:28 p.m. CST on January 10, 2007, the reactor shut down automatically from 90 percent power after all four turbine control valves unexpectedly opened. The open control valves caused a decrease in main steam line pressure which led to the automatic shutdown. All safety systems functioned as designed.

The licensee subsequently identified that welds on the supports for the turbine control valve actuator box had failed and that the box had shifted downward about 6 inches. The downward shift caused the control valves to open and overrode the signals from the pressure regulating system.

The licensee determined that the failure of the control valve support structure was caused by inadequate design of the structure combined with shortcomings in weld quality dating from original construction. The final failure occurred after a series of intermediate weld failures which caused loads to be redistributed to other portions of the support structure, eventually resulting in failure of the remaining welds. The licensee has redesigned the actuator box support structure and will complete the installation of the modified design prior to restart.

The licensee inspected the main steam lines, located beneath the actuator box, and found no damage to the piping. The licensee staff also inspected other support structures to determine whether conditions similar to those identified on the actuator box supports exist, and no deficiencies were identified.

The NRC resident inspectors, assisted by two inspection specialists from the Region III office, have reviewed the licensee's modification to the actuator box support structure and the associated engineering design. The inspectors did not identify any issues during this review. The resident inspectors will observe portions of the plant restart including the approach to criticality and the restart of the turbine.

The State of Minnesota has been informed.

This information has been discussed with licensee management and is current as of 11:30 a.m. CST, January 22, 2007.

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