NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF PUBLIC AFFAIRS, REGION III
801 Warrenville Road
Lisle IL 60532
Web Site: http://www.nrc.gov

No. III-02-017 April 8, 2002

CONTACT: Jan Strasma (630) 829-9663 E-mail: opa3@nrc.gov

NRC MAKES PRELIMINARY FINDING OF "HIGH SAFETY SIGNIFICANCE" FOR COOLING SYSTEM PROBLEM AT POINT BEACH NUCLEAR POWER STATION

The Nuclear Regulatory Commission staff has made a preliminary finding for an auxiliary cooling system problem at the Point Beach Nuclear Power Station as being of "high safety significance" in an inspection completed in February. The two-reactor facility, located near Two Rivers, Wisconsin, is operated by Nuclear Management Company.

NRC inspectors determined that an auxiliary cooling water system might fail to function under certain abnormal conditions. Normal plant operations were not affected by the problem, which was initially discovered by plant personnel in November of last year.

The utility took prompt corrective actions to revise procedures and train reactor operators to address the immediate safety concerns. The auxiliary feedwater system was subsequently modified to further correct the problem.

The NRC staff will hold a Regulatory Conference in the next several weeks with representatives of Nuclear Management Company in the NRC Regional Office in Lisle, Illinois, to discuss the safety significance of the cooling system problem. The date of the meeting, which will be open to the public, will be announced later.

NRC inspection findings are evaluated with a four step assessment of their safety significance, ranging from "green" for a finding of minor significance, through "white" and "yellow" to "red," for a finding of high safety significance.

The NRC's preliminary evaluation determined the cooling system problem to be a "red" finding. Information presented by the utility in the Regulatory Conference will be used by the NRC staff, along with its inspection findings, to determine the final safety significance of the problem.

"Red" inspection findings can lead to additional NRC inspections and further meetings with the utility to review plant performance.

Plant personnel found the problem, which affected both reactor units, while evaluating the risks associated with various equipment conditions.

The auxiliary feedwater system is used to safely shut down the reactor if problems occur during

plant operations and to continue removing heat from the reactor after shutdown.

There are four pumps in the auxiliary feedwater system, two driven by steam turbines and two by electric motors. One turbine-driven pump is associated with each reactor, and the two motor-driven pumps serve either unit.

When the pumps are operating, they require a minimum flow of water to prevent damage to the pumps. Each pump has a recirculation pipe that provides a continuous flow of water through the pump. Flow in this recirculation line is controlled by a valve that is operated by pressurized air; if the pressurized air system fails, the valves are designed to close automatically.

The problem found by utility personnel could occur if the auxiliary cooling system were needed to maintain reactor cooling and if the pressurized air system failed because of equipment damage, a loss of electrical power, or seismic damage. The air system failure would shut the valves and stop the protective recirculation flow through the auxiliary pumps.

The auxiliary pumps are designed to start automatically, when needed, but the pump flow must be subsequently adjusted by reactor operators to meet reactor cooling requirements.

As reactor operators reduce or stop the flow from one or more of the pumps, according to standard emergency procedures, the pumps could be damaged because of the lack of adequate water flow in the system.. This damage could affect the ability of the auxiliary feedwater system to continue to remove heat from the reactor system under the abnormal conditions.

The details of the NRC inspection findings are discussed in Inspection Report 2001-17 which will be available online in the NRC's electronic reading room. This report -- with the accession number ML020950889 -- may be viewed in the NRC's ADAMS document system, accessible at http://www.nrc.gov/reading-rm/adams.html.

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