



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

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No. III-03-028

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April 4, 2003

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NRC DECIDES A PRIOR "RED" IS NOT AN "OLD DESIGN" ISSUE AND ISSUES A PRELIMINARY "RED" FINDING FOR FEEDWATER SYSTEM PROBLEMS

The Nuclear Regulatory Commission staff has determined that the potential failure in the auxiliary feedwater system at the Point Beach Nuclear Power station, which has been earlier characterized as "red," or an issue of high importance to safety, does not meet the criteria for being treated as an "Old Design" issue. The NRC also issued a preliminary "red" for a related problem in the auxiliary feedwater system, associated with the potential clogging of recirculation lines. The two-reactor facility is located near Two Rivers, Wisconsin, and is operated by Nuclear Management Company.

"OLD DESIGN" ISSUE

In November 2001, the utility discovered that the auxiliary feedwater water system might fail under certain abnormal conditions. Normal plant operations were not affected by the problem, which was initially discovered by plant personnel.

The utility took prompt corrective actions to revise procedures and train reactor operators to address the immediate safety concerns.

The NRC staff previously issued a determination that the potential failure was a "red finding," or of high importance to safety, and issued a Notice of Violation to Nuclear Management Co. for inadequate operating procedures for the auxiliary feedwater system and for failing to identify and correct the problem in prior opportunities between 1997 and 2001.

NRC inspection findings are evaluated using a four-level scale of increasing 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 oversight process uses performance indicators submitted by nuclear power plants and findings from NRC's inspections to evaluate each plant's safety performance. These findings fall into seven specific areas, or "cornerstones," which are key indicators of the safety of a plant's operations.

The utility agreed with the NRC's characterization of the finding as "red," but requested that the finding be treated as an "Old Design" issue. Under the NRC's Reactor Oversight Process, a "red finding" would normally lead to an extensive inspection program to broadly assess the utility's management of issues and its corrective actions program. If, however, the issue is determined to be an "Old Design" issue, it would mean that the finding does not reflect current plant performance and the agency's inspection follow-up would be more limited, focusing on the response to the auxiliary feedwater system problem.

After conducting special inspections, September 2002-March 2003, NRC inspectors concluded that this issue did not meet the four required criteria to qualify as an "Old Design" issue because the utility failed to implement thorough and complete corrective actions. Additionally, more recent problems in its engineering program led to a subsequent problem with partial plugging of recirculation line openings in the auxiliary feedwater system.

The NRC issued a Notice of Violation to Nuclear Management Company for failing to adequately correct all aspects of the initial problem with the auxiliary feedwater system.

PRELIMINARY RED FINDING

On October 29, 2002, the utility notified the NRC that the auxiliary feedwater system might fail to function under certain abnormal conditions due to plugging of the recirculation lines by debris.

When the pumps are operating, they require a minimum flow of water to prevent damage to the pumps. Each pump has a recirculation line that ensures a continuous flow of water through the operating pump. Plant personnel found that one line was partially clogged, which could cause pump damage.

The NRC conducted a special inspection, beginning October 31, 2002, to review this issue and its relation to the initial problem with the auxiliary feedwater system. NRC inspectors concluded that the clogging resulted because the utility installed orifices in the recirculation lines that were susceptible to clogging, which would prevent them from fulfilling their design function of recirculating water in certain accident conditions.

The utility took adequate compensatory and corrective actions, which included revalidation of design basis for the auxiliary feedwater system and the revision of procedures and operator training.

The NRC made a preliminary determination on this issue as being of high significance to safety because it could lead to the failure of the auxiliary feedwater system in certain conditions and reduce the plant's ability to shut down in certain accidents.

Before the NRC makes a final decision on the safety significance of the issue, the utility has an opportunity to request a Regulatory Conference to provide its perspective on the significance of the findings, as well as additional information related to the issue. NRC staff, uses this information, along with its inspection findings, to determine the final safety significance of a problem.

When the NRC regulatory process identifies a "red" issue, it means that a "cornerstone" of safety met with longstanding issues of significant reduction in safety.

The details of the NRC inspection findings are discussed in inspection report 2002-15, which is available online in the NRC's electronic reading room at <http://www.nrc.gov/reading-rm/adams.html>. The report's accession number is ML030920128.

The final determination of the safety significance will be posted on the NRC's web site at: http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/POIN1/poin1_chart.html

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