

# Crystal River 3

## 3Q/2006 Plant Inspection Findings

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### Initiating Events

**Significance:**  Dec 31, 2005

Identified By: NRC

Item Type: FIN Finding

#### **Inadequate procedure guidance resulted a Loss of Condensate flow and a Manual Reactor Trip**

A self-revealing finding was identified for failure to provide adequate condensate system procedural guidance to preclude condensate pump operation at critical speed. As a result, prolonged operation at critical speed caused the condensate pump to fail and subsequently, the reactor was manually tripped in anticipation of a loss of the normal heat sink. The licensee entered this issue into the licensee's corrective action program as nuclear condition reports (NCRs) 174440 and 174442.

This finding is more than minor because it affected the procedure quality attribute of the Initiating Events cornerstone and resulted in an event that upset plant stability and challenged critical safety functions. This finding also affected the equipment reliability attribute of the Mitigating Systems Cornerstone objective and resulted in a loss of the normal heat sink. Because two Cornerstones were affected, a Phase 2 analysis was required. The consequences of the finding were assessed through the Significance Determination Process (SDP) Phase 2, and although the likelihood of a unit trip was increased and resulted in a loss of the normal heat sink, the exposure time for this condition was less than 3 days and all other mitigation capabilities described on the Phase 2, SDP worksheet for transient (reactor trip) core damage sequences were maintained. Consequently, the finding was determined to be of very low safety significance (Green). The finding was associated with non-safety related equipment and therefore, no violation of regulatory requirements occurred (Section 40A3.2).

Inspection Report# : [2005005\(pdf\)](#)

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### Mitigating Systems

**Significance:**  Jun 23, 2006

Identified By: NRC

Item Type: FIN Finding

#### **Failure to Conduct an Extent of Condition Review after Three Motor Operated Valves Were Found with Their Pinion Gears Installed Incorrectly**

A Green finding was identified by the inspectors for failure to conduct an extent of condition evaluation when three motor operated valves (MOV) which were thought to not be susceptible to incorrect pinion gear installation were found with their pinion gears installed backwards.

This finding is more than minor because it affected the equipment performance attribute of the mitigating system cornerstone and affected the cornerstone objective of ensuring reliability of a mitigating system. Using NRC Manual Chapter 0609, "Significance Determination Process," Appendix A, Phase 1, this finding was determined to be of very low significance (Green), because the finding has not resulted in a loss of safety function and was not screened as potentially risk significant due to external events. The primary cause of the finding was related to the cross cutting area of Problem Identification and Resolution, in that station personnel failed to determine the need for additional MOV inspections when three MOVs which were initially thought to not be susceptible to incorrect pinion gear installation were found with reversed pinion gears, one of which was also discovered with an improperly staked pinion key.

Inspection Report# : [2006009\(pdf\)](#)

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## Barrier Integrity

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## Emergency Preparedness

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## Occupational Radiation Safety

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## Public Radiation Safety

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## Physical Protection

[Physical Protection](#) information not publicly available.

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## Miscellaneous

**Significance:** N/A Jun 23, 2006

Identified By: NRC

Item Type: FIN Finding

### Identification and Resolution of Problems

The team concluded that in general, problems were properly identified, evaluated, prioritized, and corrected within the licensee's problem identification and resolution program. Evaluation of issues was generally comprehensive and technically adequate. Formal root cause evaluations for issues classified as significant conditions adverse to quality were comprehensive and detailed. Overall, corrective actions developed and implemented for issues were effective in correcting the problems. One exception was noted concerning corrective action for identified deficiencies with three motor-operated valves.

The processes and procedures of the licensee's corrective action program (CAP) were generally adequate; thresholds for identifying issues were appropriately low, and in most cases, corrective actions were adequate to address conditions adverse to quality. Nuclear Assessment Section audits and departmental self-assessments were effective in identifying issues and directing attention to areas that needed improvement. Licensee identified weaknesses and issues in self-assessments were appropriately entered into the CAP and addressed. However, the inspectors observed that several lower threshold issues had not been entered into the CAP.

Based on discussions and interviews conducted with plant employees from various departments, the inspectors did not identify any reluctance to report safety concerns.

Inspection Report# : [2006009\(pdf\)](#)

Last modified : December 21, 2006