

# D.C. Cook 1

## 3Q/2011 Plant Inspection Findings

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### Initiating Events

**Significance:**  Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Examine RCS Piping Following Application of Mechanical Stress Improvement**

A finding of very low safety significance and associated Non Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," were identified by the inspectors for the licensee's failure to examine reactor coolant system (RCS) pipe surfaces affected by mechanical stress improvement to ensure that surfaces were uniform and free of cracks, buckles or other defects. As a corrective action, the licensee issued AR 2011 4426 to document the nonconforming condition of the RCS piping and was evaluating corrective actions including an action to request NRC approval to deviate from these code requirements.

The finding was determined to be more than minor because the finding was associated with the Initiating Events Cornerstone attribute of Design Control and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions. Because the licensee did not perform surface examinations intended to provide reasonable assurance in the physical integrity of the RCS boundary, the availability and reliability of the RCS may have been reduced. The RCS piping was considered operable because of the low plastic strains involved, such that the likelihood of substantive cracking or buckling was small. The inspectors answered "No" to the Phase I screening question "Assuming worst case degradation, would the finding result in exceeding the Technical Specification limit for any RCS leakage or could the finding have likely affected other mitigation systems resulting in a total loss of their safety function assuming the worst case degradation?" Therefore, the finding screened as having very low safety significance. This finding has a cross cutting aspect in the area of human performance, resources, because the licensee did not provide complete, accurate and up to date design documentation. Specifically, the failure to examine RCS pipe surfaces was caused by the incomplete and inaccurate design documents for implementation of the mechanical stress improvement process (Inspection Manual Chapter 310 Item [H.2(c)]). (Section 40A5.1).

Inspection Report# : [2011003](#) (*pdf*)

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### Mitigating Systems

**Significance:**  Oct 21, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate As-Found Heat Exchanger Inspection Guidance and Acceptance Criteria**

The inspectors identified a finding having very low safety-significance and an NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to establish inspection procedures that were appropriate for the circumstances. Specifically, the licensee's heat exchanger inspection guidance and acceptance criteria could potentially result in the design basis tube plugging limit being exceeded due to the accumulation of macro fouling and as a result the heat exchanger would not be able to meet the design basis heat removal capability. This finding was entered into the licensee's corrective action program and a review of the heat exchanger tube plugging analysis identified additional margin to remain within its design basis heat removal capability.

The finding was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. This finding was of very low safety-significance (Green) because the licensee was able to demonstrate adequate margin and therefore there was not a design or qualification deficiency, did not represent a loss of system

safety function, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding had a cross-cutting aspect in the area of human performance because the licensee did not use conservative assumptions in decision making when developing the inspection guidance and acceptance criteria. Inspection Report# : [2010006](#) (*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**

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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## **Miscellaneous**

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