

# D.C. Cook 2

## 1Q/2008 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:** SL-IV Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Lack of Safety Evaluation for Ice Condenser Operation with Insufficient Ice Fusion time**

The inspectors identified a Non-Cited Violation of 10 CFR 50.59(d)(1) associated with the licensee's failure to perform a 10 CFR 50.59 evaluation for operation of the plant with less than the design basis time allotted for ice condenser ice basket fusion. Specifically, the licensee failed to properly interpret design and licensing basis requirements associated with protection against external events (i.e., seismic) and as a result did not perform a 10 CFR 50.59 evaluation for plant operation with ice baskets that had less than the design basis time allotted for ice fusion. The licensee performed an evaluation of past operability and determined that the ice condenser would have continued to perform its pressure suppression function even with additional ice fall from the potentially unfused ice baskets.

Because this issue affected the NRC's ability to perform its regulatory function, the violation was reviewed under the traditional enforcement process; however, the underlying technical issue was evaluated using the Significance Determination Process. The violation was determined to be of more than minor significance because the inspectors could not reasonably determine that a 10 CFR 50.59 evaluation would not have ultimately required NRC prior approval. The inspectors reviewed the "Seismic, Flooding, and Severe Weather Screening Criteria" screening questions in Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations" and determined that Question No. 3 was applicable. The violation was of very low safety significance because the finding did not involve the total loss of a safety function identified by the licensee through Probabilistic Risk Assessment, Individual Plant Examination of External Events or similar analysis, that contributes to external event initiated core damage accident sequences. The inspectors did not identify a cross-cutting area component related to this finding.

Inspection Report# : [2007006](#) (*pdf*)

**Significance:** SL-IV Sep 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Comply with TS 3.5.2, ECCS - Operating**

The inspectors identified a Non-Cited Violation of Technical Specification 3.5.2. Both Unit 2 residual heat removal discharge header safety valves failed pressure lift testing during the Unit 2 Cycle 16 refueling outage. A common cause (i.e., bonding of the disc and seating surfaces caused by the formation of an oxide film on the disc and seat) was identified for the two failed pressure lift tests. The two failed pressure lift tests resulted in two inoperable emergency core cooling system trains for greater than the Technical Specification allowed outage time. No performance deficiency was associated with this event because appropriate maintenance and testing had been performed in accordance with the regulatory requirements. Therefore, cross-cutting aspects were not assessed. Both valves were replaced during the refueling outage.

The violation was reviewed under the traditional enforcement process; however, the underlying technical issue was evaluated using the Significance Determination Process. The violation was of more than minor significance because it was related to the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the passive safety function of the piping system would not have been protected from an over-pressure condition. The violation was of very low safety significance because it was not a design or qualification deficiency, did not result in an actual loss of system safety function, and was not risk-significant due to external event initiators.

**Significance:**  Jun 29, 2007

Identified By: Self-Revealing

Item Type: FIN Finding

### **Inadequate Foreign Material Exclusion Controls During Painting Surface Preparations Affected Operability of the Unit 2 AB EDG**

A finding of very low safety significance was identified through a self-revealing event. During painting surface preparation activities in the Unit 2 AB emergency diesel generator (EDG) room, the licensee failed to establish appropriate foreign material exclusion controls by allowing foreign material to collect on the EDG fuel injector pumps' metering rods. This resulted in an inoperable EDG when foreign material on one of the fuel injector pump metering rods became lodged in the pump and prevented the metering rod from further movement. No violation of regulatory requirements was identified. Corrective actions included verifying that the affected fuel injector pump metering rod was free to move, cleaning and lubricating the engine governor linkage, and cleaning other light dust from the engine and the room. The licensee also ran the other three EDGs to verify no common cause failure existed and then cleaned and lubricated the engine governor linkage after each of the runs.

This finding was of more than minor significance because it is related to the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Specifically, the Unit 2 AB EDG was rendered inoperable by foreign material present on the engine. The finding was of very low safety significance because it did not represent a design or qualification deficiency, loss of safety function for a single train for greater than its Technical Specification (TS) allowed outage time, and was not risk-significant due to external event initiators. The primary cause of this finding was not related to any of the cross-cutting areas because none of the cross-cutting aspects was determined to be a significant contributor to the finding.

Inspection Report# : [2007004](#) (pdf)

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## **Barrier Integrity**

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## **Emergency Preparedness**

**Significance:** SL-IV Feb 22, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to properly report data associated with the Alert and Notification System (ANS) performance indicator (PI) for the second quarter of 2004 and subsequently failed to inform the NRC of the incorr**

The inspectors identified an NCV of 10 CFR 50.9, "Completeness and Accuracy of Information," when licensee personnel failed to properly report data associated with the Alert and Notification System (ANS) performance indicator (PI) for the second quarter of 2004 and subsequently failed to inform the NRC of the incorrect information after it was identified during a root cause evaluation for a similar event in 2007.

The inspectors determined the finding was more than minor in accordance with IMC 0612 and the Enforcement Manual. Specifically, had the licensee properly submitted the ANS data, the PI would have been categorized as White for the second quarter of 2004; therefore the data was inaccurate in a material respect. As part of the licensee's immediate corrective actions, this issue was entered into the corrective action program. In addition, the inspectors determined that the finding had a cross-cutting aspect in the area of Human Performance since the licensee failed to evaluate and report the erroneous data due to non-conservative decision-making (H.1(b)).

(Section 02.06)

Inspection Report# : [2008502](#) (pdf)

**Significance:**  Feb 22, 2008

Identified By: NRC

Item Type: FIN Finding

**Between 1984 and 2007, the licensee made significant changes to the ANS without obtaining required Federal Emergency Management Agency (FEMA) approval for the changes as required by 44 CFR 350**

The inspectors identified that between 1984 and 2007, the licensee made significant changes to the ANS without obtaining required Federal Emergency Management Agency (FEMA) approval for the changes as required by 44 CFR 350, "Review and Approval of State and Local Radiological Emergency Plans and Preparedness."

The inspectors concluded that the finding was more than minor because the finding was associated with the Procedure Quality attribute of the Emergency Preparedness cornerstone and adversely impacted the cornerstone objective of ensuring the licensee was capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency since the licensee failed to obtain FEMA approval of significant changes to the ANS. The inspectors determined that the finding affected a Risk Significant Planning Standard (RSPS) since the finding was associated with the FEMA-approved ANS Design Report and supporting FEMA approval letter.

However, because the finding did not result in the loss or significant degradation of the ANS, the finding was of very low safety significance (Green). As part of their immediate corrective actions, the licensee obtained FEMA approval for a Final ANS Design Report that addressed all of the modifications that had been made to the ANS. Due to the age of the performance deficiency, the inspectors concluded that no cross-cutting aspect was associated with the finding. No violation of NRC requirements occurred.

(Section 02.06)

Inspection Report# : [2008502](#) (*pdf*)

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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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