

Arkansas Nuclear 1

3Q/2003 Plant Inspection Findings

Initiating Events

Significance: SL-IV Sep 20, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Obtain a License Amendment for Upgrade of the Spent Fuel Area Crane

A noncited violation of 10 CFR 50.59 was identified by the inspectors when the licensee did not submit a license amendment request for a modification to the L-3 spent fuel area crane. The modification, which increased the maximum critical load rating to allow for a different type of spent fuel storage cask to be carried over the control rooms of both units, created the possibility for a malfunction of the L-3 crane that had a different result than previously evaluated. The licensee subsequently submitted a license amendment request for the modification on February 24, 2003.

This issue involves traditional enforcement because it involves a violation of 10 CFR 50.59 and is more than minor because there was a reasonable likelihood that the change would require NRC review and approval prior to its implementation. The finding affects the initiating events cornerstone objective attributable to fuel handling equipment performance and has very low safety significance because, after identification of the problem, the licensee did not transfer spent fuel casks until the license amendment was approved. Consequently, the finding is categorized as a Severity Level IV noncited violation in accordance with the NRC Enforcement Policy.

Inspection Report# : [2003004\(pdf\)](#)

Mitigating Systems

Significance:  Sep 20, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Surveillance Test Procedure Fails to Ensure Operability of Safety-Related Switchgear Room Cooler

A noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for failure to provide an adequate procedure for surveillance testing of the Unit 1 safety-related switchgear room Cooler VCH-4B revealed itself. On August 12, 2003, during an attempted run of the chiller, when the normal room chiller was to be removed from service for maintenance, the Cooler VCH-4B compressor tripped. Because the surveillance procedure did not have a low acceptance criterion for compressor discharge pressure, the chiller was returned to service after its previous surveillance which recorded a degraded compressor discharge pressure and allowed to further degrade in the form of Freon leakage until it failed to run.

The finding is greater than minor because it affected the mitigating systems cornerstone objective of ensuring the operability, availability, reliability, or function of systems that respond to initiating events. The finding has very low safety significance because, with compensatory measures, the remaining room cooling capability was sufficient to maintain the components in the switchgear room within the licensee's room heatup analysis.

Inspection Report# : [2003004\(pdf\)](#)

Significance:  Feb 20, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

UNAUTHORIZED TEMPORARY ALTERATION

IR 050000313-03-02, IR 05000368-03-02; Entergy Operations, Inc.; 12/29/02 - 03/22/03; Arkansas Nuclear One, Units 1 and 2; Evaluations of Changes, Tests, or Experiments; Temporary Plant Modifications; ALARA Planning and Controls.

Green. The licensee did not properly evaluate a temporary alteration that was performed when a door separating a safety-related switchgear room from the turbine building was removed for maintenance. As a result, the impact of a potential high energy line break on equipment needed to mitigate the event was not identified or evaluated by an engineering evaluation. Failure to perform an engineering evaluation to support this temporary alteration was a violation of Unit 1 Technical Specification 5.4.1.a. This violation is being treated as a noncited violation (NCV) consistent with Section VI.A in the Enforcement Policy.

The safety significance of this issue was determined to be very low since this issue screened as Green during a Phase 1 SDP assessment, because the finding did not result in equipment becoming incapable of performing its function in the case of a design basis accident. The issue was considered to be more than minor because it affected the mitigating systems cornerstone objective for design control and modifications because the ability to mitigate the consequences of a high energy line break would have been affected if the finding had affected more than one train of equipment.
Inspection Report# : [2003002\(pdf\)](#)

Significance: TBD Aug 03, 2001

Identified By: NRC

Item Type: AV Apparent Violation

THE ACCEPTABILITY OF THE USE OF MANUAL ACTIONS IN LIEU OF PROVIDING PROTECTION FOR CABLES ASSOCIATED WITH EQUIPMENT NECESSARY FOR ACHIEVING AND MAINTAINING HOT SHUTDOWN.

In a letter dated September 28, 2001, the licensee claimed the NRC position that manual actions cannot be used to comply with 10 CFR Part 50, Appendix R, Section III.G.2, was a backfit. The NRC convened a backfit panel and determined that the NRC's position did not constitute a backfit. On April 15, 2002, the NRC reclassified this unresolved item as an apparent violation pending assessment of the significance of the finding. The question of whether this position was a backfit generic to all plants was addressed in the NRC's letter to the Nuclear Energy Institute, dated May 16, 2002.

Inspection Report# : [2001006\(pdf\)](#)

Barrier Integrity

Significance:  Aug 01, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CORRECTLY TRANSLATE A DESIGN BASIS INTO CALCULATIONS

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." Specifically, the inspectors identified four examples of failures to correctly translate the design basis into specifications, procedures, and instructions. The inspectors considered the barrier integrity cornerstone affected because of the potential of containment and engineered safety features integrity being degraded by these conditions.

The inspectors considered this finding greater than minor because it paralleled Example 3.i of Appendix E to Inspection Manual Chapter 0612. The licensee's engineering staff had to perform reanalyses and operability evaluations due to these conditions. The inspectors considered this finding of very low safety significance because it did not represent an actual loss-of-safety function.

Inspection Report# : [2003007\(pdf\)](#)

Significance: SL-IV Apr 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**DELETION OF CONTAINMENT INTEGRITY CONTROLS FOR SECONDARY SYSTEM
CONTAINMENT PENETRATIONS**

IR 050000313-03-02, IR 05000368-03-02; Entergy Operations, Inc.; 12/29/02 - 03/22/03; Arkansas Nuclear One, Units 1 and 2; Evaluations of Changes, Tests, or Experiments; Temporary Plant Modifications; ALARA Planning and Controls.

Severity Level IV. The inspectors identified a noncited violation of 10 CFR 50.59 because the licensee failed to identify that changes made to the Units 1 and 2 Updated Safety Analysis Reports required a license amendment request. These changes removed containment isolation valve controls for secondary system containment penetrations. The licensee initiated corrective action on March 28, 2003, to prepare a license amendment request to obtain NRC approval of the changes to the Updated Safety Analysis Reports.

This is an item for traditional enforcement because it involves an issue not appropriate for evaluation using the SDP. It involves a violation of 10 CFR 50.59, an issue which impacts NRC oversight ability. The issue is more than minor because it involves a programmatic issue affecting containment controls for all secondary system penetrations. It was considered to be a noncited Severity Level IV violation. Management review determined it was greater than minor because the change should have received NRC review prior to implementation. Redundant containment barrier (system piping) existed and the licensee entered this issue into its corrective action program

Inspection Report# : [2003002\(pdf\)](#)

Emergency Preparedness

Significance: TBD Aug 22, 2003

Identified By: NRC

Item Type: AV Apparent Violation

FAILURE TO MEET THE ALERT NOTIFICATION SYSTEM DESIGN CRITERIA

TBD. The inspector identified a violation of 10 CFR 50.54(q) having a potential safety significance greater than very low significance because the licensee failed to follow the emergency plan requirement to establish a means to notify members of the public in the emergency planning zone. Between September 1999 and April 2003, a small percentage of residences in the licensee's plume exposure emergency planning zone would not have received an emergency alerting signal in the event of an emergency at the Arkansas Nuclear One facility.

The finding had greater than minor significance because the condition resulted in a loss of alert notification capability

to a small percentage of the emergency planning zone population, and if left uncorrected the condition would have continued to degrade. Using the Emergency Preparedness Significance Determination Process the finding was preliminarily determined to have low to moderate safety significance (White) because it was a violation of 10 CFR 50.54(q) and represented a degradation of the risk-significant planning standard 10 CFR 50.47(b)(5) function.
Inspection Report# : [2003011\(pdf\)](#)

Occupational Radiation Safety

Significance:  Feb 20, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROVIDE ADEQUATE JUSTIFICATIONS FOR WORK ACTIVITY DOSE ESTIMATE ADJUSTMENTS

IR 050000313-03-02, IR 05000368-03-02; Entergy Operations, Inc.; 12/29/02 - 03/22/03; Arkansas Nuclear One, Units 1 and 2; Evaluations of Changes, Tests, or Experiments; Temporary Plant Modifications; ALARA Planning and Controls.

Green. The inspectors identified a noncited violation of Units 1 and 2 Technical Specifications 5.4.1.a and 6.8.1.a, respectively, because the licensee failed to follow procedural requirements. Specifically, the licensee failed to provide the reason radiation work permits and work activity dose estimates were revised as required by Procedure NMM RP-105, Revision 1, Section 5.8.

The inspectors determined that this finding was associated with the Occupational Radiation Safety Cornerstone program and process attributes (ALARA planning/projected dose) and affected the objective of the cornerstone, which is to protect the worker from exposure to radiation. Therefore, the finding was greater than minor. The occurrence involved a failure to maintain or implement, to the extent practical, procedures needed to achieve occupational doses that were ALARA, which resulted in unplanned, unintended occupational collective dose for a work activity. Therefore, the safety significance of the finding was evaluated using the Occupational Radiation Safety SDP. However, because the licensee's 3-year rolling average collective dose was not greater than 135 person-rem/unit, the finding had no more than very low safety significance.

Inspection Report# : [2003002\(pdf\)](#)

Public Radiation Safety

Physical Protection

Significance: N/A Jan 10, 2003

Identified By: NRC

Item Type: FIN Finding

Verification of Compliance With Interim Compensatory Measures Order

On February 25, 2002, the NRC imposed by Order, Interim Compensatory Measures to enhance physical security. The

inspectors determined that, overall, the licensee appropriately incorporated the Interim Compensatory Measures into the site protective strategy and access authorization program; developed and implemented relevant procedures; ensured that the emergency plan could be implemented; and established and effectively coordinated interface agreements with offsite organizations.

Inspection Report# : [2003006\(pdf\)](#)

Miscellaneous

Last modified : December 01, 2003