Arkansas Nuclear 1
1Q/2004 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 Switchgerar 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: 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 Nucear Energy Institute, dated May 16, 2002.
Inspection Report# : 2001006*(pdf)*

Barrier Integrity

Significance: G Dec 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Prevent Repeat RCS Boundary Leakage
The inspectors identified a non-cited violation of Technical Specification 3.4.13(a) and 10 CFR 50, Appendix B, Criterion XVI. The inspectors identified an unresolved item on December 20, 2002 (URI 50-313/2002-05-02) for repeat reactor coolant system boundary leakage from Unit 1 Control Rod Drive Mechanism Nozzle #56. During this inspection the team performed additional review of corrective action documents and consulted with NRC senior reactor analysts and Office of Enforcement personnel to close this issue. The inspectors concluded that repetitive leakage from the nozzle violated the licensee's Technical specification of zero reactor coolant system boundary leakage, with the causal factor of a performance deficiency in failing to prevent recurrence of a significant condition adverse to quality. This finding was determined to have cross-cutting aspects of problem identification and resolution.
The finding was considered more than minor due to adversely affecting the performance attribute of the barrier integrity cornerstone for reactor coolant system leakage. The finding is of very low safety significance because a Manual Chapter 0609 phase III significance determination concluded that the flaw did not have a circumferential aspect, and therefore represented relatively low risk of a control rod ejection accident. The licensee entered the condition into the corrective action system and completed a more comprehensive repair as documented in Licensing Event Report (LER 50-313/2002-003-00). (Section 4OA2.c).
Inspection Report# : 2003008*(pdf)*

Significance: G 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

Public Radiation Safety

Physical Protection

Miscellaneous

Significance:  Dec 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct Multiple Conditions Adverse to Quality
• Green. The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, with four examples, for failing to correct conditions adverse to quality. a) The team identified that on June 21, 2002, after the licensee noted a large number of foreign material exclusion (FME) problems with the Unit 1 and 2 spent fuel pools, a root cause analysis was initiated and corrective actions were developed to prevent recurrence. The inspectors concluded the root cause was narrowly focused, and that subsequent spent fuel pool FME problems in 2003 demonstrated that corrective actions did not correct the condition adverse to quality; b) The inspectors closed URI 2003-04-02, for inadequate corrective actions associated with the use of ultrasonic flow instruments in service water heat exchanger performance testing; c) The inspectors identified that on October 11, 2003, the licensee performed an equalizing charge of the Unit 2 battery 2D11, as corrective action, after five cell specific gravities were found below procedural maintenance limits, and after cell #41 was found below Technical Specification minimum voltage on October 9, 2003. While the licensee monitored 2D11 cell #41 several times during the charge, and observed its voltage increased above Technical Specification limits, the licensee failed to perform a post maintenance test of the battery to confirm that corrective actions were effective; and d) The inspectors identified that during a period from 2001 through 2003, the licensee entered numerous problems into their corrective action program that appeared to represent violations of NRC requirements. However, the inspectors determined, based upon a sampling of 12 such issues, the licensee did not consider the majority of these to be conditions adverse to quality and closed them administratively. The inspectors found that several of the conditions did violate NRC requirements, but were closed in the licensee's corrective action program without corrective actions being taken. This finding was determined to have cross-cutting aspects of problem identification and resolution.
The finding was considered more than minor because, if left uncorrected, they would pose a more significant safety concern. The finding is of very low safety significance because: a) the licensee evaluated the subsequent FME issues and determined that each was of very low safety significance ; b) the licensee changed the heat exchanger performance test to use adequate test equipment and subsequently performed satisfactory tests on each heat exchanger; c) the licensee conducted a surveillance of the 2D11 battery, which demonstrated no Technical Specifications were exceeded, and d) the inspectors determined the licensee subsequently corrected all identified violations of NRC requirements. The inspectors verified the license entered the issues into their corrective action program as condition reports CR-C-ANO-2003-1080. (Section 4OA2.c).
Inspection Report# : 2003008*(pdf)*

Significance:  Dec 19, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify Multiple Conditions Adverse to Quality
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, with three examples, for failing to identify conditions adverse to quality and enter them into the corrective action program. a) On February 15, 2002, an inadequate implementation of a modification for a Unit 1 Integrated Control System (ICS) module caused reactor power to increase to 101.3 percent. The licensee missed prior opportunities, from 1999 to 2002, to identify and enter a condition adverse to quality into their corrective action system, associated with the module, which lead to this self-revealing excursion; b) The inspectors further reviewed the conditions of an unresolved item (URI 05000368/2003003-01). From April to June of 2003, inspectors identified numerous physical and electrical conditions which could adversely affect the quality of Unit 2 battery 2D12. The inspectors noted that although several of these conditions were previously known to the licensee, they failed to enter the conditions adverse to quality into the corrective action system; and c) On October 11, 2002, workers inspected the Unit 1 emergency feedwater system turbine driven pump steam admission bypass valve, SV-2663. Although clearly identified in the maintenance document as being environmentally qualified, and referencing a previous degraded condition due to excessive temperature effects, the workers identified heat damage on the inspection form but failed to enter the condition adverse to quality into the corrective action program. This finding was determined to have cross-cutting aspects of problem identification and resolution.
The finding was considered more than minor because, if left uncorrected, they would pose a more significant safety concern. The finding is of very low safety significance because: a) Operators took prompt immediate actions to take manual control of the ICS and terminate the transient. Subsequent corrective actions eliminated the problem with the module. b) The 2D12 battery passed Technical Specification surveillance tests for the remainder of the operating cycle and was subsequently replaced; and c) the licensee repaired SV-2663 prior to evaluated end of qualified life. The license entered the issues, including the failures to enter adverse conditions into their corrective action program, as condition reports CR-1-ANO-2002-00201 for the ICS issue, CR-2-ANO-2003-00457, CR-2-ANO-2003-00646, CR-2-ANO-2003-00703, and CR-2-ANO-2003-00871 for the 2D12 battery, and CR-1-ANO-2003-00346 for SV-2663. (Section 4OA2.a).
Inspection Report# : 2003008*(pdf)*

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