

Arkansas Nuclear 2

3Q/2011 Plant Inspection Findings

Initiating Events

Significance:  Sep 30, 2011

Identified By: Self-Revealing

Item Type: FIN Finding

Failure to Provide Adequate Work Instruction Results in a Main Feedwater Recirculation Valve Failing Open

The inspectors documented a self-revealing finding for inadequate work instructions that resulted in the failure of a Unit 2 main feedwater pump A recirculation valve. Specifically, the licensee failed to provide adequate work instructions for reassembling and testing of the Unit 2 main feedwater recirculation valve, 2CV-0731. This valve failed full open during full power operations resulting in exceeding licensed reactor power. The licensee has implemented corrective action to communicate the importance of the positioning of the feedback arm support bracket and has changed the work orders to verify angle and tension of the feedback arm following reassembly of the positioner. The licensee entered this issue into the corrective action program as Condition Report ANO-CR-2-2011-1782.

The failure to provide adequate work instruction for the assembly and testing of the Unit 2 main feedwater pump A recirculation valve positioner was determined to be a performance deficiency, because it was within the licensee's ability to foresee and correct and was a failure to meet station requirements to provide adequate maintenance work instruction to maintenance personnel. The performance deficiency was determined to be more than minor because it was associated with the procedure quality attribute of the Initiating Events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety function during power operations. Specifically, the failure of the recirculation valve caused reactor power to exceed licensed reactor power. Using MC 0609, Exhibit 1, "Phase 1 Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it did not contribute to both the likelihood of a reactor trip and that mitigation equipment or functions would not be available. The inspectors determined that the finding did not have a crosscutting aspect because the performance deficiency is not indicative of current plant performance.

Inspection Report# : [2011004](#) (*pdf*)

Significance:  Sep 30, 2011

Identified By: Self-Revealing

Item Type: FIN Finding

Failure to Provide Adequate Work Instruction Results in Failed Bearing on Motor Generator Set

The inspectors documented a self-revealing finding for an inadequate work instruction for the 2-02 control element motor generator set flywheel bearing replacement that resulted in a failure of that bearing. Specifically, the licensee failed to provide instructions to obtain flywheel shaft dimensions to ensure adequate interference fit between the bearing and the shaft during corrective maintenance. This bearing subsequently failed on April 6, 2011. The licensee placed the issue into the corrective action program as Condition Report ANO-CR-2-2011-1817. The licensee replaced the failed bearing and shaft assembly and the system was returned to service.

The failure to provide adequate maintenance work instruction to verify dimensional fit up between the flywheel shaft and bearing for the Unit 2, 2-02 motor generator set prior to reassembly was determined to be a performance deficiency. Specifically, it was within the licensee's ability to foresee and correct and was a failure to meet station requirements to provide adequate maintenance work instruction to maintenance personnel. The performance deficiency was determined to be more than minor because it was associated with the procedure quality attribute of the Initiating Event Cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. Specifically, due to both control element motor generator sets being in the same room, the failure of the motor generator flywheel bearing caused the failure of that motor generator shaft and could have affected the only operating motor generator set and resulted in a reactor trip. Using Manual Chapter 0609, Exhibit 1, "Phase 1 Initial Screening and Characterization of Finding," the

finding was determined to be of very low safety significance because it did not contribute to both the likelihood of a reactor trip and that mitigation equipment or function would not be available. The inspectors determined that the finding did not have a crosscutting aspect because the performance deficiency is not indicative of current plant performance as the cause of not developing adequate work instructions stems from the late 1990s.

Inspection Report# : [2011004](#) (*pdf*)

Significance:  Dec 31, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

Failure to Use Human Performance Tools Results in Two Turbine Building Roof Fires

The inspectors documented a self-revealing finding for contract roofers failing to use human performance tools, per Procedure EN HU 102, "Human Performance Tools," Revision 5, while performing hot work activities on Arkansas Nuclear One's turbine building roof which resulted in two fires. Specifically, contractors committed human performance errors during activities by not performing self- and peer-checks, or demonstrating a questioning attitude which resulted in a fire on September 17 and again on November 18, 2010. These issues were entered into the corrective action program as Condition Reports CR ANO 1 2010 3231, CR ANO C 2010 2428, and CR ANO C 2010 2978.

The failure to use human performance error prevention tools as specified in Procedure EN HU 102, "Human Performance Tools," Revision 5, was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the protection against external activities attribute of the Initiating Events Cornerstone, and affected the cornerstone objective to limit the likelihood of those events that upset plant stability during power operations, and therefore a finding. Using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or function would not be available. The finding was determined to have a crosscutting aspect in the area of human performance, associated with work practices, in that the licensee failed to ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported. Specifically, the licensee failed to provide adequate oversight of the roofing contractor to prevent fires.

Inspection Report# : [2010005](#) (*pdf*)

Mitigating Systems

Significance:  Mar 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Take Timely Corrective Action to Correct a Condition Adverse to Quality Associated with 4160 Volt Vacuum Breakers

Green. The inspectors documented a self-revealing noncited violation of 10 CFR 50, Appendix B, Criterion XVI for the failure to take timely corrective action to correct a condition adverse to quality. Specifically, the licensee identified an issues the Siemens vacuum breakers' plunger operated auxiliary switches (STA device) becoming stuck in mid travel and would prevent the auxiliary switches from working properly, but failed to correct this issue in a timely manner and resulted in the failure of offsite power transfer test from startup transformer 3 to startup transformer 2.

The failure of the licensee to take prompt corrective action for a previously identified condition adverse to quality was a performance deficiency. Specifically, the licensee was aware of STA devices hanging up during several breaker tests and identified a cause for this phenomenon, initiated corrective action, but failed to implement the corrective action prior to subsequent de-energization of the 2A2 bus during an offsite power transfer test. This was determined to be a performance deficiency because it was within the ability of the licensee to foresee and correct, and was a violation of NRC requirements. The performance deficiency was determined to be more than minor because it was associated with the equipment performance attribute of the Mitigating Events cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, "Significance Determination

Process,” Appendix G, Checklist 3, for shutdown operations, and was determined to be of very low safety significance because the core heat removal guidelines associated with instrumentation, training and procedures, and equipment were met. Specifically, both trains of shutdown cooling remained operable with all necessary support equipment. This finding was determined to have a crosscutting aspect in the area of human performance, associated with work control, in that the licensee failed to appropriately plan work activities by incorporating the need for planned contingencies. Specifically, the licensee failed to incorporate contingency actions to correct any deficiencies discovered during inspection of the STA devices in the 2R20 refueling outage, [H.3(a)].

Inspection Report# : [2011002](#) (*pdf*)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: FIN Finding

Exceeded Technical Specification Allowed Outage Time for Electrical Power Systems Due to Loss of Non-Technical Specification Supported Systems

The inspectors identified a noncited violation of Technical Specifications 3.8.4, “DC Sources - Operating,” Technical Specification 3.8.7, “Inverters – Operating,” and Technical Specification 3.8.9, “Distribution Systems – Operating,” due to the failure to enter the appropriate technical specification or complete the associated required action prior to the appropriate completion time when the associated emergency chillers were out of service. Specifically, the licensee did not enter the appropriate technical specification for an inoperable system, subsystem, train or component when the all necessary attendant non-technical specification support equipment that are required for the system, subsystem, train, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s). The issue was entered into the licensee's corrective action program as Condition Reports CR ANO 1 2010 3075 and CR-ANO-1-2011-0204.

The inspectors determined that not entering the appropriate technical specification when the emergency switchgear chillers or applicable room cooling unit were not available to provide the technical specification support function for technical specific emergency switchgear equipment was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and is therefore a finding. Specifically, CALC-93-R-1040-01, “ANO-1 AB Limiting Component Qualification Temperatures,” Revision 3 identifies the temperature limits for each applicable room at 120 degrees F except for Room 110 which is 150 degrees F. Licensee Event Report No. 50-313/77-19 described the permanent solution to maintain room temperatures by the installation of two independent chilled water systems (VCH4s and applicable room coolers) to maintain those rooms and associated enclosed equipment (i.e., 480V motor control centers, inverters, battery chargers, instrument AC panels, etc.) below the rated continuous operating temperatures following a loss of coolant accident concurrent with a loss of offsite power, which was accepted by the NRC in a Safety Evaluation Report dated October 10, 1979. Failure to enter Technical Specifications 3.8.4, “DC Sources - Operating,” Technical Specification 3.8.7, “Inverters – Operating,” and Technical Specification 3.8.9, “Distribution Systems – Operating,” due to the loss of the non-technical specification chilled water cooling support system or complete the associated required action prior to the appropriate completion time when the associated emergency chillers were out of service was a violation of technical specifications. Using Inspection Manual Chapter 0609.04, “Phase 1 - Initial Screening and Characterization of Findings,” the finding was determined to require a Phase 2 analysis because removing a VCH-4 chiller from service did result in an actual loss of safety function of a single train for greater than its technical specification allowed outage time. The resident inspectors received support from the regional senior reactor analyst and determined that the finding to be of very low safety significance (Green). Specifically, although the function was lost by the designated support equipment (emergency switchgear chillers), representing the technical specification violation, the licensee had an evaluation that credited compensatory measures and specific environmental conditions that assured the overall functionality of the applicable switchgear train was not lost. The inspectors reviewed the engineering change EC 25691, “Prepare EC markup to CALC-92-E-0103-01 to determine maximum outside ambient temperatures and compensatory measures to allow one chiller train to cool DC/BATT/SWGR areas during maintenance,” and determined that it supported the conclusion that the compensatory measures in place assured the overall functionality of the applicable switchgear train was not lost, however, the compensatory measures sufficed for the function, but did not satisfy the technical specification switchgear operability requirements. The finding was determined to have a crosscutting aspect in the area of human performance, associated with decision making, in that the licensee did not use conservative assumptions in decision making and adopt a requirement to demonstrate that the proposed action is safe

in order proceed rather than a requirement that it is unsafe in order to disapprove the action. Specifically, the licensee approved an engineering change that relied on the use of compensatory actions and non-safety related equipment to support the operability of technical specification equipment when the safety related support equipment was not available or functional and implemented a procedure change that resulted in not entering the appropriate technical specification when applicable non technical specification safety related equipment was out of service.

Inspection Report# : [2010005](#) (pdf)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform Required Quality Control Inspections

Inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion X, "Inspection," for the failure to ensure that quality control verification inspections were consistently included and correctly specified in quality-affecting procedures and work instructions for construction-like work activities as required by the quality assurance program. The licensee performed extensive reviews, and inspectors performed independent reviews of the licensee's conclusions as well as independent sampling, to confirm that improper or missed inspections did not actually affect the operability of plant equipment. Entergy initiated prompt fleet-wide corrective actions to ensure proper work order evaluation and proper inclusion of quality control verification inspections. This issue was entered into the corrective action program under Condition Reports CR HQN 2009 01184 and CR HQN 2010 0013.

The failure to ensure that adequate quality control verification inspections were included in quality-affecting procedures and work instructions as required by the quality assurance program was a performance deficiency. This programmatic deficiency was more than minor because, if left uncorrected, it could lead to a more significant safety concern in that the failure to check quality attributes could involve an actual impact to plant equipment. This issue affected the design control attribute of the Mitigating Systems Cornerstone because missed or improper quality control inspections during plant modifications could impact the availability, reliability, and capability of systems needed to respond to initiating events. This performance deficiency was determined to have very low safety significance in Phase 1 of the Significance Determination Process, since it was confirmed to involve a qualification deficiency that did not result in a loss of operability or functionality. The inspectors determined that this performance deficiency involved a crosscutting aspect related to the human performance in decision-making because the licensee did not have an effective systematic process for obtaining interdisciplinary reviews of proposed work instructions to determine whether quality control verification inspections were appropriate.

Inspection Report# : [2010005](#) (pdf)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement the Experience and Qualification Requirements of the Quality Assurance Program

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion II, "Quality Assurance Program," for the failure to implement the experience and qualification requirements of the quality assurance program. As a result, the licensee failed to ensure that an individual assigned to the position of quality assurance manager met the qualification and experience requirements of ANSI/ANS 3.1 1978 as required by the quality assurance program. Specifically, the individual assigned to be the responsible person for the licensee's overall implementation of the quality assurance program did not have at least 1 year of nuclear plant experience in the overall implementation of the quality assurance program within the quality assurance organization prior to assuming those responsibilities. This issue was entered into the corrective action program as Condition Report CR HQN 2010 00386. Failure to ensure that an individual assigned to the position as quality assurance manager met the qualification and experience requirements of ANSI/ANS 3.1 1978 as required by the quality assurance program was a performance deficiency. This performance deficiency was determined to be more than minor because, if left uncorrected, it could create a more significant safety concern. Failure to have a fully qualified individual providing overall oversight to the quality assurance program had the potential to affect all cornerstones, but this finding will be tracked under the Mitigating Systems Cornerstone as the area most likely to be impacted. The issue was not suitable for quantitative assessment using existing Significance Determination Process guidance, so it was determined to be of very low safety significance using Inspection Manual Chapter 0609, Appendix M, "Significance Determination Process Using

Qualitative Criteria.” The inspectors determined that there was no crosscutting aspect associated with this finding because this issue was not indicative of current performance because the violation occurred more than 3 years ago.

Inspection Report# : [2010005](#) (*pdf*)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Verify the Adequacy of the Unit 2 Refueling Water Tank and the Condensate Storage Tank Transfer Setpoints

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," which states, in part, that design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified methods of calculation, or by the performance of a suitable testing program. Contrary to the above, the licensee failed to assure that design control measures were provided for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculation methods, or by the performance of a suitable testing program. Specifically, since 1998, the licensee failed to verify the adequacy of the Unit 2 refueling water tank and the condensate storage tank transfer setpoints to prevent potential air entrainment due to vortexing in safety-related pump suction piping. This finding was entered into the licensee's corrective action program as Condition Report ANO C 2007 1469.

The inspectors determined that the failure to verify the adequacy of the Unit 2 refueling water tank and the condensate storage tank transfer setpoints was a performance deficiency. The finding was more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors determined that the finding was of very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality. Specifically, the licensee performed subsequent analysis which demonstrated that vortexing in the refueling water and condensate storage tanks would not impact safety-related pump operation during a design basis event. This finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

Inspection Report# : [2010005](#) (*pdf*)

Significance:  Aug 27, 2010

Identified By: NRC

Item Type: FIN Finding

Fire Protection Compensatory Measures Did Not Cover All Fire Protection Features

The team identified a finding because the licensee did not include fire protection features in Procedure 1000.120, "ANO Fire Impairment Program," Revision 20. The approved fire protection program required implementing compensatory measures for degraded fire protection systems and features, but the fire impairment implementing procedure addressed only action to identify, document and apply compensatory measures for specific fire protection systems. The team identified that the licensee did not implement compensatory measures for periods when the Appendix R emergency lighting units were placed out of service for maintenance and testing. This finding has been entered into the corrective action program as CR-ANO-C-2010-02205.

Failure to ensure that all of the applicable elements of the approved fire protection program were included in the fire impairment implementing procedure is a performance deficiency. The finding is more than minor because it is associated with the Protection Against External Events attribute of the Mitigating Systems cornerstone since it affected the availability, reliability, and capability of systems that respond to fire events to prevent undesirable consequences. Because this issue relates to fire protection, the team used the guidance of Manual Chapter 0609, Appendix F, Attachment 2, to determine that this fire prevention and administrative control deficiency had a low degradation rating in that it minimally impacted the fire protection program. Based on this, the finding screened as having very low safety significance (Green) during a Phase 1 significance determination. This finding is identified as FIN 05000313; 05000368/2010006--01, Inadequate Compensatory Measures for Out-Of-Service Appendix R Emergency Lights. No cross cutting aspect was associated with this finding because the team determined that this deficiency is not indicative of current performance because this practice existed for longer than three years.

Barrier Integrity

Significance:  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Take Timely Corrective Actions for Invalid Local Leak Rate Test

The inspectors identified a noncited violation of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Actions” for the licensee’s failure to take corrective action for an invalid local leak rate test performed on the Unit 2 escape hatch, 2C-2. Specifically, the licensee failed to take appropriate and timely corrective action to develop an appropriate testing method for the inner and outer escape hatch door seals. The issue was entered into the licensee’s corrective action program as Condition Report CR-ANO-2-2011-3198.

The inspectors determined that the licensee’s failure to develop an adequate testing method that did not use the strong backs to precondition the escape hatch door seals prior to the 2R20 fall 2009 outage was a performance deficiency. Specifically, the licensee failed to provide timely corrective actions to a condition adverse to quality that had been identified in a previous NRC identified noncited violation and was within the licensee’s ability to foresee and correct. The performance deficiency was determined to be more than minor because it was associated with the procedure quality attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events and is therefore a finding. Using Manual Chapter 0609.04, “Phase 1 - Initial Screening and Characterization of Findings,” the finding was determined to have very low safety significance, Green, because the finding does not represent a degradation of the radiological barrier, or the smoke and toxic gas barrier functions provided for the control room, or does not represent an actual open pathway in the physical integrity of the reactor containment or a heat removal component. The finding was determined to have a crosscutting aspect in the area of problem identification and resolution, associated with the corrective action program in that the licensee did not thoroughly evaluate the problem in a manner to make certain that the resolution addressed the causes and the extent of condition to ensure a new test method, that did not use preconditioning, would be completed in a timely manner to resolve the problem [P.1(c)].

Inspection Report# : [2011004](#) (pdf)

Significance:  Jun 03, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Scaffolding Erected Too Close to the Unit 2 B Containment Spray Pump Minimum Flow Recirculation Valve and Associated Piping

The inspectors identified a noncited violation of Unit 2 Technical Specification 6.4.1.a for the failure to erect a scaffold in accordance with station procedure EN-MA-133, “Control of Scaffolding”, Revision 7. Specifically, a scaffold was erected near the Unit 2 train B containment spray pump that was too close to the train B containment spray pump minimum flow recirculation valve, 2CV- 5673-1, and associated recirculation piping. The engineering evaluated the scaffold as acceptable and decided to remove the scaffold at the next available opportunity. This issue was entered into the licensee’s corrective action program as Condition Reports CR-ANO-2-2011-1968 and CR-ANO-2-2011-2030.

The inspectors determined that the erection of a scaffold within two inches of safety-related equipment without an engineering evaluation was a performance deficiency because the licensee failed to meet to the requirements of station procedure EN-MA-133, “Control of Scaffolding”, Revision 7, because it was within the licensee’s ability to foresee and correct and violated technical specifications. The performance deficiency was more than minor because it was associated with the human performance attribute of the Containment Barrier Cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events and is therefore a finding. Specifically, erecting a scaffold within

two inches of the safety-related equipment without an engineering evaluation could have impeded or prevented proper operation of the equipment. Using Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance, Green, because the finding does not represent a degradation of the radiological barrier, or the smoke and toxic gas barrier functions provided for the control room, or does not represent an actual open pathway in the physical integrity of the reactor containment or a heat removal component. The finding was determined to have a crosscutting aspect in the area of human performance, associated with work practices in that the licensee failed to utilize human error prevention techniques such as self and peer checking and proper documentation when erecting the scaffold, [H.4(a)].

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

Significance:  Jun 03, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Provide Adequate Procedural Guidance Results in Control Element Assembly Shaft Extension

Damage

The inspectors documented a self-revealing noncited violation of Unit 2 Technical Specification 6.4.1.a for an inadequate procedure that resulted in damaging a control element assembly shaft extension. Specifically, station procedure OP-2505.007, "Unit 2 Upper Guide Structure Installation," Revision 18, failed to give adequate guidance on aligning the center control element assembly shaft extension with the in-core instrumentation thimble support plate lifting frame funnel. This misalignment resulted in damaging the shaft extension, and required additional inspection and analysis for possible damage to the control element assembly and reactor fuel. The licensee entered this issue into the corrective action program as Condition Report CR-ANO-2-2011-1284.

The inspectors determined that the failure to provide adequate procedural guidance for installing the thimble support plate into the Unit 2 reactor vessel was a performance deficiency because it was within the licensee's ability to foresee and correct and also violated technical specifications. The performance deficiency was determined to be more than minor because it was associated with the procedure quality attribute of the Barrier Integrity Cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that the physical design barriers protect the public from radionuclide releases caused by accidents or events, and therefore a finding. Specifically, inadequate procedural guidance resulted in damaging a control element assembly and could have resulted in fuel cladding damage. Using MC 0609, Appendix G, "Shutdown Operations Significance Determination Process," the finding was determined to be of very low safety significance, green, because the finding did not prevent or degrade core heat removal, inventory control, electrical power, containment control, or core reactivity capabilities. The finding was determined not to have a crosscutting aspect because the performance deficiency occurred in 2002 and is not indicative of current plant performance.

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

Emergency Preparedness

Significance: SL-IV Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Submit for Approval a Decrease in Effectiveness of Emergency Plan

The inspectors identified a noncited violation of 10 CFR 50.54(q) for the failure to apply for and receive approval by the NRC prior to implementing a change that decreased the effectiveness of the Arkansas Nuclear One Emergency Plan. Specifically, the licensee changed the default Protective Action Recommendation from a 2 mile radius and 5 miles downwind for General Emergency conditions to a 5 miles radius and 10 miles downwind which was determined to be a change that decreased the effectiveness of the approved emergency plan and was implemented without application to and approval by the Commission. Because the violation was entered into the licensee's corrective action program as Condition Report CR ANO C 2010 02502, it is being treated as a noncited Severity Level IV violation consistent with Section 2.3.2 of the Enforcement Policy.

The failure to submit, for approval, a change to the Arkansas Nuclear One Emergency Plan that decreases emergency plan effectiveness is a performance deficiency. The finding is more than minor because the change made has the potential to unnecessarily increase the risk to the public. Because this issue has the potential for impacting the NRC's ability to perform its regulatory function, traditional enforcement is applicable in accordance with NRC Inspection Manual Chapter 0612, Appendix B, "Issue Screening." The finding was determined to be a Severity Level IV violation in accordance with Section 6.6.d.1 of the Enforcement Policy because it involved the licensee's ability to meet or implement any regulatory requirement not related to assessment or notification such that the effectiveness of the emergency plan decreases. This violation of NRC requirements occurred on March 13, 2003, no crosscutting aspect is assigned to this finding because it is not indicative of current performance.
Inspection Report# : [2010005](#) (*pdf*)

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform Face-to-Face Supervisory Assessments Less than 4 Hours Before Individuals Began Performing Work Activities Under a Waiver

The inspectors identified a noncited violation of 10 CFR 26.207(a)(3), "Waivers and Exceptions," associated with the failure of supervisory personnel to appropriately perform face-to-face fatigue assessments. Specifically, supervisory personnel were performing one face-to-face fatigue assessment prior to the first shift worked under a waiver issued for multiple days, and not performing additional assessments for consecutive shifts worked under the same waivers when there was a break of at least 10 hours provided between the successive work periods covered by these waivers. The failure to perform face-to-face supervisory assessments less than 4 hours before individuals began performing work activities under a waiver was a performance deficiency. The licensee entered this issue in their corrective action program as Condition Report CR ANO C 2010 2396.

The failure to perform face-to-face supervisory assessments less than 4 hours before individuals began performing work activities under a waiver was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the access authorization attribute of the Security Cornerstone, and affected the associated cornerstone objective to provide assurance that the licensee's security system and material control and accounting program use a defense in-depth approach and can protect against (1) the design basis threat of radiological sabotage from external and internal threats and (2) the theft or loss of radiological materials, and is therefore a finding. Using Inspection Manual Chapter 0609, Appendix E, "Baseline Security Significance Determination Process for Power Reactors," Figures 5 and 6, the finding was determined to have very low safety significance because the calculated point total did not exceed the threshold value for a Green noncited violation. The cumulative total for this

finding was zero points, which was calculated by factoring the one impact area (vital areas) against Tier III Element 08.02.08, Security Force Work Hours, of the Access Authorization attribute, which resulted in a total of zero points within this attribute. The finding was determined to have a crosscutting aspect in the area of human performance associated with decision making [H.1(b)] in that the licensee failed to use conservative assumptions in decision making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to show it is unsafe in order to disapprove the action. Specifically, the licensee had defined the work period to be 6 weeks without giving appropriate thought about potential consequences of this decision relative to potential fatigue aspects while continuing to work under a waiver.

Inspection Report# : [2010005](#) (*pdf*)

Last modified : January 04, 2012