UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BLVD
ARLINGTON, TEXAS 76011-4511

July 30, 2012

Christopher J. Schwarz, Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
1448 SR 333
Russellville, AR 72802-0967

SUBJECT: ERRATA FOR ARKANSAS NUCLEAR ONE - NRC INTEGRATED INSPECTION REPORT 05000313/2011005 AND 05000368/2011005

Dear Mr. Schwarz:

It was identified that an inspection activity was inadvertently omitted from NRC Inspection Report 05000313/2011005 and 05000368/2011005, dated February 14, 2012. The inspection activity in question was the review of Licensee Event Report 05000313/2010002, "Reactor Coolant System Pressure Boundary Leakage Due to Primary Water Stress Corrosion Cracking of Pressurizer Level Instrument Tap Resulted in Degradation of a Principle Safety Barrier." Please replace pages 48 through 50 in the enclosure to NRC Inspection Report 5000313/2011005 and 05000368/2011005, with the enclosed pages 48 through 51. In addition, replace pages A-1 through A-2 to the attachment section of the same report with the provided replacement pages.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agency wide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Donald B. Allen, Chief
Project Branch E
Division of Reactor Projects

Docket Nos.: 05000-313, 05000-368
License Nos.: DRP-51, NPF-6

Enclosure: Errata Pages 48 through 51 for NRCInspection Report 05000313/2011005 and 05000368/2011005
w/ Attachment: Errata Pages A-1 through A-2 for Supplemental Information section of NRC Inspection Report 05000313/2011005 and 05000368/2011005

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SUNSI Rev Compl.		☑Yes ☐ No	ADAMS	☑Yes ☐ No	Reviewer Initials	RVA
Publicly Avail.		☑Yes ☐ No	Sensitive	☐Yes ☑ No	Sens. Type Initials	RVA

SRI:DRP/E	SPE:DRP/E	BC:DRP/E
ASanchez	RAzua	DAllen
/RA via email/	/RA/	/RA/
07/30/2012	07/25/2012	07/25/2012

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.2 (Closed) LER 05000313/2010002 Reactor Coolant System Pressure Boundary Leakage Due to Primary Water Stress Corrosion Cracking of Pressurizer Level Instrument Tap Resulted in Degradation of a Principle Safety Barrier

On March 27, 2010, Unit 1 was shutdown in Mode 6 for 1R21 outage activities. During visual examinations of the reactor coolant system one pressurizer level tap nozzle had indication of through wall leakage. Leakage was indicated by a small amount of dry boron on the lower portion of the nozzle bore and rust stains on the Alloy 600 nozzle and in the vicinity surrounding the nozzle outlet. Additional inspection revealed minor corrosion of the nozzle bore and as part of the inservice inspection program the other eight Alloy 600 pressurizer level tap nozzles were visually inspected and no indications of leakage or degradation were noted. The licensee evaluation concluded that the degradation was caused by primary water stress corrosion cracking of Alloy 600 metal. A previously planned mitigation repair method for the affected nozzle was implemented to repair the nozzle. Additionally, during the outage all nine nozzles were replaced with materials that are resistant to primary water stress corrosion cracking. The issue was placed into the corrective action program as Condition Report CR-ANO-1-2010-0842. The review of this licensee event report is complete and no findings were identified and no violations of NRC requirements occurred. This licensee event report is closed.

.3 (Closed) LER 05000368/2009002 Containment Building Penetration Isolation Valves Open During Core Alterations without Application of Administrative Controls Required by Technical Specifications Due to Inadequate Procedural Instructions

On September 7, 2009, with Unit 2 in Mode 6 for refueling, licensed operators discovered that containment penetration isolation valves located on the return line of the containment atmospheric monitoring system were configured such that a direct path existed between the containment atmosphere and the auxiliary building atmosphere and the resulting containment breech was not being administratively controlled as required by Unit 2 technical specifications. The licensee determined that the system was initially placed in the correct configuration during reactor shutdown, but a local leak rate testing evolution required these vales to be repositioned. The valves were not restored to the required configuration following completion of the local leak rate testing. Core alteration commenced shortly after completion of the testing. The licensee determined that the local leak rate procedure failed to give adequate guidance to restore the system for shutdown plant conditions. The licensee took corrective action to modify the procedure to specify position of the valves depending on the plant mode. The issue was placed into the corrective action program as Condition Report CR-ANO-2-2009-2329. A licensee identified non-cited violation was documented in Inspection Report 05000368/2009004. This licensee event report is closed.

.4 (Closed) LER 05000368/2009004 Emergency Diesel Automatic Actuation While Performing Offsite Power Transfer Testing Due to a High Resistance Contact Supplying Voltage to a Synchronizing Check Relay

On September 20, 2009, Unit 2 was shutdown in Mode 5 for 2R20 outage activities. During the performance of planned surveillance testing of the Offsite Power Transfer Test, the 2K-4A emergency diesel generator automatically started. An Offsite Power

Transfer Test was being performed to test automatic transfer from the Startup 3 Offsite Transformer to the Startup 2 Offsite Transformer. During the Offsite Power Transfer Test, a permissive contact in the Startup 2 feeder breaker failed resulting in a slow transfer to the 2A1 bus instead of the expected fast transfer. The slow transfer resulted in a momentary loss of power to the 4160 Volt Safety Electrical Bus 2A3 which is powered from 2A1. The momentary undervoltage condition on 2A3 caused the 2K-4A emergency diesel generator to auto start as designed. The 2K-4A emergency diesel generator did not power 2A3, since 2A3 was successfully powered from 2A1 after the slow transfer completed. During the momentary loss of power, 2A3 automatically shed all loads as designed. This load shed caused the running shutdown cooling pump, 2P-60A , to secure which resulted in a loss of shutdown cooling flow to the reactor coolant system for approximately three and one half minutes. The licensee determined that the cause of the event was a loss of one of the voltage inputs that feed the 2A1 bus synchronizing check relay (125-111), located in the 2A-111 breaker cubicle, due to a high resistance contact. This high resistance condition blocked one of the voltage inputs to the synchronizing check relay, causing the relay to falsely indicate that the startup 2 transformer and the 2A1 bus were not synchronized. The licensee took immediate corrective action to modify the circuit with alternate contacts with the appropriate resistance. The licensee also took corrective action to modify the maintenance procedures for these type breakers to inspect and maintain these contacts. The issue was placed into the corrective action program as Condition Reports CR-ANO-2-2009-2997. A self-revealing noncited violation was documented in Inspection Report 05000368/2009005 for this issue. The review of this licensee event report is complete and no findings were identified and no violations of NRC requirements occurred. This licensee event report is closed.

4OA5 Other Activities

(Open) NRC TI 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems (NRC Generic Letter 2008-01)"

As documented in Section 1R22, the inspectors confirmed the acceptability of the licensee's procedures and processes for filling and venting ECCS systems. This inspection effort counts towards the completion of TI 2515/177 which will be closed in a later NRC Inspection Report following further inspection activities to follow-up on previously identified issues documented in Inspection Report ANO 05000313/2011004 and 05000368/2011004.

4OA6 Meetings

Exit Meeting Summary

On October 28, 2011, the inspectors presented the inspection results of the review of inservice inspection activities to Mr. C. Schwarz, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On December 1, 2011, the inspector, during a telephonic meeting, discussed the results of the in-office inspection of changes to the licensee's emergency plan and emergency action levels to Mr. R. Holeyfield, Manager, Emergency Preparedness, and other members of the licensee's staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On January 20, 2012, the inspectors presented the inspection results to Mr. M. Chisum, General Manager, Plant Operations, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee-Identified Violations

The following violations of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements which meet the criteria of Section 2.3.2 of the NRC Enforcement Policy for being dispositioned as non-cited violations.

- Unit 1 Technical Specification 5.4.1.a, requires, in part, that "Written procedures shall be established, implemented, and maintained covering the following activities…the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978." Regulatory Guide 1.33, Revision 2, Appendix A, Section 2 specifies written procedures for the safety-related activity of refueling and core alterations. Contrary to the above, the licensee failed to implement procedures for core alterations during 1R23 Unit 1 refueling outage. Specifically, on two occasions, the refueling team failed to follow refueling procedures for verifying neutron counts prior to un-grappling a fuel bundle in the core and for moving a fuel bundle in fast speed prior to obtaining adequate clearance from other fuel bundles in the core. Using Manual Chapter 0609, Appendix G, Attachment 1, Checklist 4, "PWR Refueling Operation: RCS Level >23'," the finding was determined to have very low safety significance (Green) because the finding did not adversely affect: 1) core heat removal; 2) inventory control; 3) electrical power; 4) containment control; or 5) reactivity control. These issues were entered into the corrective action program as Condition Reports CR-ANO-1-2011-2085, and 2552.

- Unit 1 Technical Specification 5.4.1.a, requires, in part, that "Written procedures shall be established, implemented, and maintained covering the following activities…the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978." Regulatory Guide 1.33, Revision 2, Appendix A, Section 2 specifies written procedures for the safety-related activity of refueling and core alterations. Contrary to the above, the licensee failed to provide adequate procedures for refueling and core alterations during 1R23 Unit 1 refueling outage. Specifically, the licensee over rotated a control rod drive lead screw during reactor disassembly and resulted in having to replace the control rod drive mechanism. Using Manual Chapter 0609, Appendix G, Attachment 1, Checklist 4, "PWR Refueling Operation: RCS Level >23'," the finding was determined to have very low safety significance (Green) because the finding did not adversely affect: 1) core heat removal, 2) inventory control, 3) electrical power,

4) containment control, or 5) reactivity control. This issue was entered into the corrective action program as Condition Report CR-ANO-1-2011-1921.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

C. Schwarz, Site Vice President
D. Bice, Licensing Specialist
B. Byford, Manager, Training
T. Chernivec, Manager, Outages
M. Chisum, General Manager, Plant Operations
B. Daiber, Manager, Design Engineering
A. Dodds, Manager, Maintenance
M. Farmer, Maintenance, Refueling Program Manager
R. Fowler, Senior Emergency Preparedness Planner
R. Fuller, Manager, Quality Assurance
W. Greeson, Manager, Engineering Programs and Component
R. Holeyfield, Manager, Emergency Preparedness
R. Holman, Welding Engineer, Entergy Code Programs
D. Hughes, Manager (Acting), Engineering Programs and Component
K. Jones, Manager, Operations
B. Lovin, Manager, Security
D. Marvel, Manager, Radiation Protection
J. McCoy, Director, Engineering
R. McGaha, NDE Technician, Entergy Code Programs
D. Metheany, Steam Generator Programs Owner
N. Mosher, Licensing Specialist
B. Pace, Manager, Planning, Scheduling, and Outage
K. Panther, Manager, ISI Program
D. Perkins, Manager, Maintenance
S. Pyle, Manager, Licensing
T. Sherrill, Manager, Chemistry
P. Williams, Manager, System Engineering

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000313/2011005-01	NCV	Exceeded Technical Specification Allowed Completion Time for Electrical Power Systems (Section 1R15)
05000313/2011005-02	NCV	Failure to Implement Procedure Results in Lowering Spent Fuel Pool Level by 0.6 Feet (Section 1R20(1))

Opened and Closed

05000313/2011005-03	NCV	Failure to Identify and Correct Unit 1 Service Water Pump Column Protective Wrap Installation Deficiencies (Section 1R20(2))
05000313/2011005-04	NCV	Failure to Identify and Correct a Condition Adverse to Quality Resulted in Dropping a Fuel Bundle Approximately One Inch (Section 1R20(3))
05000313/2011005-05	FIN	Failure to Take Adequate Corrective Actions for Known Fuel Transfer System Deficiencies (Section 1R20(4))
05000313/2011005-06	NCV	Failure to Adequately Implement the Configuration Control Program (Section 4OA2.4)

Closed

05000368/2009003	LER	Steam Generator Tube Exceeding Technical Specification Plugging Criteria Remained in Service During Previous Cycles as a Result of the Failure to Use Proper Independent Verification
05000313/2010002	LER	Reactor Coolant System Pressure Boundary Leakage Due to Primary Water Stress Corrosion Cracking of Pressurizer Level Instrument Tap Resulted in Degradation of a Principle Safety Barrier
05000368/2009002	LER	Containment Building Penetration Isolation Valves Open During Core Alterations without Application of Administrative Controls Required by Technical Specifications Due to Inadequate Procedural Instructions
05000368/2009004	LER	Emergency Diesel Automatic Actuation While Performing Offsite Power Transfer Testing Due to a High Resistance Contact Supplying Voltage to a Synchronizing Check Relay