



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

May 3, 2013

Jeremy Browning, Site Vice President  
Arkansas Nuclear One  
Entergy Operations, Inc.  
1448 SR 333  
Russellville, AR 72802

SUBJECT: ARKANSAS NUCLEAR ONE – NRC PROBLEM  
IDENTIFICATION AND RESOLUTION INSPECTION REPORT  
05000313/2013010 AND 05000368/2013010

Dear Mr. Browning:

On March 22, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed Problem Identification and Resolution biennial inspection at your Arkansas Nuclear One, Units 1 and 2, facility. The enclosed inspection report documents the inspection results that were discussed on March 22, 2013, with you and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to problem identification and resolution with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

Overall, the inspection team concluded that the implementation of the corrective action program and overall performance related to identifying, evaluating, and resolving problems at Arkansas Nuclear One was effective. Licensee identified problems were entered into the corrective action program at a low threshold. Problems were effectively prioritized and evaluated commensurate with the safety significance. Corrective actions were effectively implemented in a timely manner commensurate with their importance to safety and addressed the identified causes of problems. Lessons learned from industry operating experience were effectively reviewed and applied when appropriate. Audits and self-assessments were generally used to identify problems and appropriate actions. The Safety-Conscious Work Environment was also accessed and the team concluded that Arkansas nuclear one had established a safety-conscious work environment. Individuals surveyed felt free to raise safety concerns without fear of retaliation.

One NRC identified finding of very low safety significance (Green) was identified during this inspection. The finding was determined to involve a violation of NRC requirements. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

J. Browning

-2-

If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at Arkansas Nuclear One.

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/*

Ray L. Kellar, P.E, Chief  
Technical Support Branch  
Division of Reactor Safety

Docket Nos.: 50-313, 50-368  
License Nos.: DRP-51, NPF-6

Enclosure: Inspection Report 05000313/2013004 and 05000368/2013004  
w/ Attachments: 1. Supplemental Information  
2. Information Request

Electronic distribution by RIV:

- Regional Administrator ([Art.Howell@nrc.gov](mailto:Art.Howell@nrc.gov))
- Deputy Regional Administrator ([Robert.Lewis@nrc.gov](mailto:Robert.Lewis@nrc.gov))
- DRP Director ([Kriss.Kennedy@nrc.gov](mailto:Kriss.Kennedy@nrc.gov))
- Acting DRP Deputy Director ([Michael.Scott@nrc.gov](mailto:Michael.Scott@nrc.gov))
- DRS Director ([Tom.Blount@nrc.gov](mailto:Tom.Blount@nrc.gov))
- Acting DRS Deputy Director ([Jeff.Clark@nrc.gov](mailto:Jeff.Clark@nrc.gov))
- Senior Resident Inspector ([Alfred.Sanchez@nrc.gov](mailto:Alfred.Sanchez@nrc.gov))
- Resident Inspector ([William.Schaup@nrc.gov](mailto:William.Schaup@nrc.gov))
- Resident Inspector ([Abin.Fairbanks@nrc.gov](mailto:Abin.Fairbanks@nrc.gov))
- Branch Chief, DRP/E ([Don.Allen@nrc.gov](mailto:Don.Allen@nrc.gov))
- Senior Project Engineer, DRP/E ([Ray.Azua@nrc.gov](mailto:Ray.Azua@nrc.gov))
- Project Engineer, DRP/E ([Jim.Melfi@nrc.gov](mailto:Jim.Melfi@nrc.gov))
- Project Engineer, DRP/E ([Dan.Bradley@nrc.gov](mailto:Dan.Bradley@nrc.gov))
- ANO Administrative Assistant ([Gloria.Hatfield@nrc.gov](mailto:Gloria.Hatfield@nrc.gov))
- Public Affairs Officer ([Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov))
- Public Affairs Officer ([Lara.Uselding@nrc.gov](mailto:Lara.Uselding@nrc.gov))
- Project Manager ([Kaly.Kalyanam@nrc.gov](mailto:Kaly.Kalyanam@nrc.gov))
- Branch Chief, DRS/TSB ([Ray.Kellar@nrc.gov](mailto:Ray.Kellar@nrc.gov))
- ACES ([R4Enforcement.Resource@nrc.gov](mailto:R4Enforcement.Resource@nrc.gov))
- RITS Coordinator ([Marisa.Herrera@nrc.gov](mailto:Marisa.Herrera@nrc.gov))
- Regional Counsel ([Karla.Fuller@nrc.gov](mailto:Karla.Fuller@nrc.gov))
- Technical Support Assistant ([Loretta.Williams@nrc.gov](mailto:Loretta.Williams@nrc.gov))
- Congressional Affairs Officer ([Jenny.Weil@nrc.gov](mailto:Jenny.Weil@nrc.gov))
- RIV/ETA: OEDO ([Doug.Huyck@nrc.gov](mailto:Doug.Huyck@nrc.gov))

S:\DRS\REPORTS\Reports Drafts\ANO 2013010- RP-LW final.docx

ADAMS: ML13123A318

SUNSI Rev Compl.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ADAMS	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reviewer Initials	LMW
Publicly Avail.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sensitive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sens. Type Initials	LMW
TL:DRS/TSB	HP:DNMS/E	SRI:DRS/TSB	RI:DRP/E	BC:DRP/E	BC:DRS/TSB
LWilloughby	DStearns	HFreeman	AFairbanks	DAllen RAzua/for	RKellar
/T/	/T/	/RA/	/E/	/RA/	/RA/
5/2/13	5/1/13	5/2/13	4/29/13	5/2/13	5/3/13

OFFICIAL RECORD COPY

T=Telephone

E=E-mail

F=Fax

**U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV**

Docket: 05000313; 05000368  
License: DPR-51; NPF-6  
Report: 05000313/2013010; 05000368/2013010  
Licensee: Entergy Operations Inc.  
Facility: Arkansas Nuclear One, Units 1 and 2  
Location: Junction of Hwy. 64 West and Hwy. 333 South  
Russellville, Arkansas  
Dates: March 4 through March 22, 2013  
Inspectors: L. Willoughby, Senior Reactor Inspector  
H. Freeman, Senior Reactor Inspector  
D. Stearns, Health Physicist Inspector  
A. Fairbanks, Resident Inspector  
Approved By: R. Kellar, P.E., Chief, Technical Support Branch,  
Division of Reactor Safety

## SUMMARY OF FINDINGS

IR 05000313/2013010, 05000368/2013010; March 4 through March 22, 2013; Arkansas Nuclear One; "Biennial Baseline Inspection of the Identification and Resolution of Problems."

The team inspection was performed by two regional senior reactor inspectors, one regional health physicist, and a resident inspector. One green non-cited violation was identified during this inspection. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG 1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### Identification and Resolution of Problems

The team reviewed approximately 150 condition reports, work orders, engineering evaluations, root and apparent cause evaluations, and other supporting documentation to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, self-assessments, trending reports and metrics, and various other documents related to the corrective action program. The team found that licensee was generally effective at identifying problems and putting them into the corrective action program; however, there were a few instances identified during the assessment period where the licensee had missed identification of problems. The licensee was also generally effective in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementing corrective actions. The licensee's corrective action process was generally found to be effective in documenting and tracking problems to resolution. Corrective actions were generally implemented in a timely manner.

The team determined that the licensee was adequately evaluating industry operating experience. Licensee audits and internal self-assessments were found to be generally effective and highlighted areas of ineffective corrective actions similar to weaknesses identified by the team. The team found that on the basis of focus group interviews and an independent safety culture survey, workers at the site felt free to raise safety concerns using the corrective action program, their management and chain of command, and to the NRC without fear of retaliation.

#### A. NRC-Identified and Self-Revealing Findings

##### Cornerstone: Initiating Events

- Green. Inspectors identified a violation of Technical Specification 5.4.1.a, which requires that the licensee establish, implement, and maintain the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Paragraph 9.a of Appendix A requires, in part, that maintenance that can affect the performance of safety-related equipment be properly preplanned and performed in accordance with documented instructions. Contrary to the above, prior to March 2013, the licensee did not preplan and perform maintenance that could affect the performance of safety-related equipment in accordance with documented

instructions. Specifically, the licensee failed to establish instructions to ensure that fluorescent light fixtures in both Unit 1 emergency diesel generator rooms were returned to their analyzed design configuration after maintenance was performed. The licensee documented the issue in Condition Reports CR-ANO-C-2013-0631 and CR-ANO-C-2013-0632.

Inspectors concluded that the licensee's failure to have work instructions to control the design configuration of fluorescent light fixtures, in the Unit 1 emergency diesel generator rooms, was a performance deficiency. The finding is more than minor because it is associated with the Mitigating System Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and Appendix A, "The Significance Determination Process for Findings at Power," the finding was screened against the mitigating systems cornerstone and determined to be of very low safety significance (Green) because the finding did not: (1) result in an actual loss of operability or functionality, (2) represent a loss of system and/or function, (3) represent an actual loss of function of a single train for greater than its technical specification allowed outage time, (4) represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours and (5) involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather event. This finding did not have a cross-cutting aspect associated with it because the most significant contributor was not indicative of current performance. Specifically, the licensee had never established instructions to ensure that the fluorescent light fixtures were returned to their analyzed design configuration after maintenance was performed (4OA2.5).

B. Licensee-Identified Violations

None

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA2 Problem Identification and Resolution (71152)

The team based the following conclusions on a sample of the corrective action documents that were initiated in the assessment period, which ranged from February 19, 2011, to the end of the on-site portion of the inspection on March 22, 2013.

#### .1 **Assessment of the Corrective Action Program Effectiveness**

##### a. Inspection Scope

The team reviewed approximately 150 Condition Report and associated root cause, apparent cause, and direct cause evaluations, that had been issued between February 2011 and January 2013 to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team found that concerns were being entered into the licensee's corrective action process as Condition Reports, which included issues and concerns, both safety-related and non-safety-related. During the assessment period, the licensee initiated 18,312 Condition Reports of which 4,304 or approximately 23.5 percent were classified as conditions adverse to quality.

The team reviewed a sample of system health reports, operability determinations, self-assessments, trending reports and metrics, and various other documents related to the corrective action program. The team evaluated the licensee's efforts in establishing the scope of problems by reviewing selected logs, work requests, self-assessments results, audits, system health reports, action plans, and results from surveillance tests and preventive maintenance tasks. The team reviewed work requests and attended the licensee's management review committee meetings. One such meeting was the Condition Review Group (CRG) that assessed the reporting threshold, prioritization efforts, and significance determination process of the condition reports. The CRG also provided oversight of the interfaces with the operability assessment and work control processes, when applicable. The team's review included verifying the licensee considered the full extent of cause and extent of condition for problems, as well as how the licensee assessed generic implications and previous occurrences. The team assessed the timeliness and effectiveness of corrective actions, completed or planned, and looked for additional examples of similar problems. The team conducted interviews with plant personnel to identify other processes that may exist where problems may be identified and addressed outside the corrective action program. The team also reviewed corrective action documents that addressed past NRC-identified violations to ensure that the corrective action addressed the issues as described in the inspection reports. The inspectors reviewed a sample of corrective actions closed to other corrective action documents to ensure that corrective actions were still appropriate and timely.

The team considered risk insights from both the NRC's and Arkansas Nuclear One's risk

assessments to focus the sample selection and plant tours on risk significant systems and components. The team selected the following risk significant systems: the Unit 1 service water system and the Unit 2 480 volt AC system. The samples reviewed by the team focused on, but were not limited to, these systems. The team also expanded their review to include five years of evaluations involving the Unit 1 service water system and the Unit 2 480 volt AC system to determine whether problems were being effectively addressed. The team conducted a walk down of this system to assess whether problems were identified and entered into the corrective action program.

b. Assessments

1. Assessment - Effectiveness of Problem Identification

Arkansas Nuclear One is one of several licensees in Entergy's fleet of nuclear power plants. The corrective action process is a corporate program that is managed at the corporate level. ANO personnel implement the corrective action process based on the corporate program.

The team concluded that the licensee was generally effective in identifying issues and adverse conditions in accordance with the licensee's corrective action program guidance and NRC requirements. The team noted that licensee personnel had a very low threshold for entering issues into corrective action program as evidenced by the more than 18 thousand condition reports issued during the two-year review cycle. While there was one finding identified during the inspection, the team concluded that the license was generally identifying problems at a low threshold.

2. Assessment - Effectiveness of Prioritization and Evaluation of Issues

The team concluded that the licensee was generally effective in the prioritization and evaluation of conditions adverse to quality during this assessment period. The team reviewed corrective action documents that involved operability reviews to assess the quality, timeliness, and prioritization of operability assessments. The team concluded that operability assessments were generally completed in an appropriate manner.

The team monitored the licensee's action request review committee and the corrective action review board meetings. The team found that the licensee was effectively reviewing and prioritizing conditions adverse to quality.

3. Assessment – Effectiveness of Corrective Action Program

Overall, the team concluded that the licensee had an effective corrective action program where conditions adverse to quality were promptly identified, prioritized, evaluated, and corrected in a timely manner commensurate to safety significance. The licensee generally had performed timely effectiveness reviews of significant corrective actions to verify their adequacy. The team noted, when appropriate corrective actions were implemented, they were generally effective. However, the team identified some examples of corrective actions not addressing the entire cause or extent of condition.



- During work in the Unit 2 Letdown Heat Exchanger room, a posted high radiation area, in October 2012, individuals entered the room using an incorrect Radiation Work Permit task. The licensee performed an Apparent Cause Evaluation and concentrated on the circumstances related to workers entering on the wrong task. During the evaluation of the event, the licensee identified that at least one worker was unable to hear his electronic dosimeter alarm on at least 4 occasions due to high ambient noise levels. The use of alarming dosimetry is required when entering a high radiation area. This fact that the individual was unable to hear the dosimeter alarm was never addressed during the discussion of corrective actions or addressed in a separate condition report.
- On October 24, 2012, an individual entered an area posted as a Contamination Area and High Radiation Area without an alarming dosimeter. Since the individual who entered the area was from the Operations Department, the responsibility for performing the Apparent Cause Evaluation was given to that department. During a discussion with the Radiation Protection Manager, the inspectors noted that additional information related to changes in the posting of area was not included as part of the Apparent Cause Evaluation. Therefore, this information was not evaluated for possible changes in processes or procedures.

The team noted that corrective actions to address the sample of NRC non-cited violations and findings since the last problem identification and resolution inspection had been timely and effective.

## **.2 Assessment of the Use of Operating Experience**

### **a. Inspection Scope**

The team examined the licensee's program for reviewing industry operating experience, including reviewing the governing procedure and self-assessments. A sampling of approximately 10 operating experience notifications that had been issued during the assessment period were reviewed to assess whether the licensee had appropriately evaluated the notification for relevance to the facility. The team then examined whether the licensee had entered those items into their corrective action program and assigned actions to address the issues. The team reviewed a sample of root cause evaluations and corrective action documents to verify if the licensee had appropriately included industry-operating experience.

### **b. Assessment**

The operating experience program is another Entergy Corporate process. Representatives from the various operating reactor licensees review all operating experience at the corporate level. Applicable operating experience is then assigned to the individual affected licensee sites. The team noted that Arkansas Nuclear One personnel would review and incorporate applicable operating experience assigned by Entergy Corporate as well as review additional industry operating experience to gain insights for correction or prevention of problems.

Overall, the team determined that the licensee was adequately evaluating industry-operating experience for relevance to the facility. The licensee had generally entered applicable items in the corrective action program in accordance with station procedures.

### **.3 Assessment of Self-Assessments and Audits**

#### **a. Inspection Scope**

The team reviewed a sample of five licensee self-assessments, surveillances, and audits to assess whether the licensee was regularly identifying performance trends and effectively addressing them. The team reviewed audit reports to assess the effectiveness of assessments in specific areas. The team evaluated the use of self- and third party assessments, the role of the quality assurance department, and the role of the performance improvement group related to licensee performance. The specific self-assessment documents reviewed are listed in the Attachment.

#### **b. Assessment**

The team found that the internal licensee self-assessments and audits were generally effective, detailed, in-depth and critical. The team found that the corrective actions initiated to address self-assessment findings were not always effective. The licensee acknowledged that they had also identified this and had initiated actions to perform effectiveness reviews for self-assessment corrective actions earlier this year. The team acknowledged this and concluded that it there was insufficient data to assess whether the licensee's effectiveness reviews would reduce the number of repeat findings documented.

### **.4 Assessment of Safety-Conscious Work Environment**

#### **a. Inspection Scope**

The team conducted five focus group interviews with between 8 - 10 individuals per group. The focus groups consisted of workers from engineering, health physics, operations, chemistry, training, planning, procurement, and dry fuel storage. Individuals were randomly selected to assure representative outcomes for the interviews. The inspection team also conducted individual interviews. The interviewees represented various functional organizations including operations, security, and housekeeping, and ranged across staff, and supervisory levels. The team conducted these interviews to assess whether conditions existed that would challenge the establishment of a safety conscious work environment at Arkansas Nuclear One. The team also reviewed the most recent safety culture survey results conducted by an independent organization in 2012.

#### **b. Assessment**

Based upon the results of these interviews and survey results, the team concluded that the licensee had established a safety-conscious work environment where individuals felt free to raise safety concerns both to the licensee and the NRC without fear of retaliation. None of the individuals interviewed knew of anyone who had suffered retaliation for

having raised safety concerns and all indicated that they felt comfortable raising safety-concern to their supervisor and to the corrective actions program by writing a condition report. They also were aware that they could raise concerns to the employee concerns program, to the NRC, or to management using their chain of command; however, most indicated that they had not had felt the need to raise concerns beyond their supervisor or the corrective action program. All who responded indicated that they felt comfortable raising concerns to the NRC resident inspectors. Responses to questions and topics during the focus group sessions and during individual interviews did not reveal any sense that safety was not the highest priority.

## **.5 Specific Issues Identified During This Inspection**

### **Failure to Provide Maintenance Instructions for Installation of Fluorescent Light Fixtures**

**Introduction.** Inspectors identified a Green non-cited violation of Technical Specification 5.4.1.a, Procedures, for the licensee's failure to implement the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, Paragraph 9.a, February 1978. Specifically, the licensee failed to establish instructions for controlling fluorescent light fixtures in the proximity of the Unit 1 emergency diesel generators, to ensure that the light fixture configuration was in accordance seismic qualifications.

**Description.** During a walk-down of the Unit 1 train A and B emergency diesel generator rooms, inspectors identified multiple fluorescent light fixtures that were not installed in accordance with Calculation 91-E-0113-01, "Seismic Qualification of Light Fixtures Suspended by Chains," Revision 0. Specifically, inspectors identified chains that were linked with tie wraps, chains that were hung on electrical conduit, fixtures that were in close proximity to other structures, "S" hooks that were open, excess chain that was wrapped back on itself, and excess electrical cable that added to the weight of the fixtures.

Inspectors were concerned that the light fixtures were degraded and that a seismic event could adversely impact the safety function of the emergency diesel generators. The licensee documented the issues in Condition Reports CR-ANO-1-2013-00403, CR-ANO-1-2013-00432, and CR-ANO-1-2013-00500. The licensee performed operability determinations for both emergency diesel generators and concluded that the diesel generators were operable. Inspectors reviewed the operability determinations and reached the same conclusion.

Additionally, inspectors asked to see the work instructions that controlled the configuration of the fixtures. Inspectors were told that the reinstallation of the fixtures was considered "skill of the craft," and no detailed instructions existed. The licensee documented the issue in Condition Reports CR-ANO-C-2013-0631 and CR-ANO-C-2013-0632.

**Analysis.** Inspectors concluded that the licensee's failure to have work instructions to control the design configuration of fluorescent light fixtures, in the Unit 1 emergency diesel generator rooms, was a performance deficiency. The finding is more than minor because it is associated with the Mitigating System Cornerstone attribute of procedure

quality and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," and Appendix A, "The Significance Determination Process for Findings at Power," the finding was screened against the mitigating systems cornerstone and determined to be of very low safety significance (Green) because the finding did not: (1) result in an actual loss of operability or functionality, (2) represent a loss of system and/or function, (3) represent an actual loss of function of a single train for greater than its technical specification allowed outage time, (4) represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant for greater than 24 hours and (5) did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather event. This finding did not have a cross-cutting aspect associated with it because the most significant contributor was not indicative of current performance. Specifically, the licensee had never established instructions to ensure that the fluorescent light fixtures were returned to their analyzed design configuration after maintenance was performed.

Enforcement. Technical Specification 5.4.1.a requires that the licensee establish, implement, and maintain the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Paragraph 9.a of Appendix A requires, in part, that maintenance that can affect the performance of safety-related equipment be properly preplanned and performed in accordance with documented instructions. Contrary to the above, prior to March 2013, the licensee did not preplan and perform maintenance that could affect the performance of safety-related equipment in accordance with documented instructions. Specifically, the licensee failed to establish instructions to ensure that fluorescent light fixtures in both Unit 1 emergency diesel generator rooms were returned to their analyzed design configuration after maintenance was performed. Because the finding is of very low safety significance (Green) and the issue has been entered into the corrective action program as Condition Reports CR-ANO-C-2013-0631 and CR-ANO-C-2013-0632, this violation is being treated as a non-cited violation consistent with Section 2.3.2.a of the NRC Enforcement Policy: NCV 05000313/2013010-01, "Failure to Provide Maintenance Instructions for Installation of Fluorescent Light Fixtures."

#### **40A6 Meetings**

##### Exit Meeting Summary

On March 22, 2013, the team presented the inspection results to Mr. Jeremy Browning, 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.

#### **40A7 Licensee-Identified Violations**

None

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

J. Browning	Site Vice President
M. Chisum	General Manager, Plant Operations
D. James	Nuclear Safety Assurance Director
B. Eichenberger	Corrective Actions and Assessments
S. Pyle	Licensing Manager
P. Williams	Operations Manager
B. Daiber	Design Engineering Manager
D. Perkins	Maintenance Manager
D. Marvel	Radiation Protection Manager
R. Byford	Training Manager
S. Coffman	Senior Licensing Specialist
T. Shurter	Supervisor, Radiation Protection
D. Thompson	Employee Concerns

#### **NRC Personnel**

W. Schaup	Resident Inspector
-----------	--------------------

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened

None

### Opened and Closed

NCV 05000313/2013010-01 Failure to Provide Maintenance Instructions for Installation of Fluorescent Light Fixtures

### Closed

None

### Discussed

None

## LIST OF DOCUMENTS REVIEWED

### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-LI-102	Corrective Action Process	20
EN-LI-118	Root Cause Evaluation Process	18
EN-LI-116	Apparent Cause Evaluation (ACE) Process	16
EN-OP-106	Operability Determination Process	6
EN-EC-100	Guidelines for Implementation of the Employee Concerns Program	6
OP-1015.045	Unit 1 Safety Function Determination Program	000-02-0
OP-1306.023	Snubber Functional Testing	019

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-OP-104	Operability Determination Process	6
EN-LI-102	Corrective Action Process	20
EN-DC-147	Engineering Reports	0
EN-LI-119	Apparent Cause Evaluation (ACE) Process	16
EN-FAP-LI-001	Condition Review Group	3
EN-EC-100-01	Employee Concern Coordinator Training Program	1
EN-LI-108-01	10 CFR Evaluations and Reporting	2
EN-LI-126	NRC Allegation – Request For Information (RFI), Guidelines for conducting an Investigation and Preparing the Response	1
EN-PL-155	Entergy Nuclear Change Management	4
EN-OE-100	Operating Experience Program	18

Calculations

91-E-0113-01	Seismic Qualification of Light Fixtures Suspended By Chains	0
--------------	--	---

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
Engineer Change 0000040001	ANO – Develop Allowable Snubber Acceleration Limits Using EPRI Document Number NP-6443, Improved Criteria For Snubber Functional Testing	0
	Condition Review Group meeting agenda	March 21, 2013
	Corrective Action Review Board meeting agenda	March 6, 2013

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Ops 6 Mo / 12 Mo PI Summary Table	February 2012
	Unit 2 Shift Relief	March 19, 2013
	ANO Condition Review Group What It Looks Like (WILL) Sheet	March 21, 2013
FCBT-CAA- CAP-CR-INT	Corrective Action Process and Condition Report Initiation	2
	List of Functional Failures	February 1, 2013

Work Orders (WO)

207927

Condition Reports (CR-ANO- (1, 2, C, HQN)-Year-Sequence)

C-2008-01499	1-2012-01755	C-2008-01029	1-2011-01495	1-2010-00498
2-2010-00718	1-2012-01777	1-2012-00716	2-2012-01126	C-2010-00329
1-2011-02113	1-2011-01670	C-2011-02725	1-2011-02843	1-2012-00864
2-2011-00729	2-2012-00704	1-2011-00039	1-2011-00398	C-2013-00522
1-2012-00864	1-2011-01252	2-2012-01742	2-2012-01321	HQN-2012-00850
2-2011-00293	C-2010-00329	1-2010-00693	2-2012-01507	2-2011-00997
C-2013-00631	C-2013-00632	1-2013-00500	1-2013-00432	1-2013-00403
2-2012-02663	C-2012-02829	C-2013-00418	1-2002-01249	2-2012-02193
1-2011-01312	1-2011-01536	1-2011-02106	1-2011-01755	1-2011-02543
2-2012-02396	1-2013-00230	2-2012-02250	2-2012-03030	C-2010-00912



Condition Reports (CR-ANO- (1, 2, C, HQN)-Year-Sequence)

2-2011-00789	2-2008-01486	2-2009-01155	C-2009-01579	1-2011-0434
1-2011-0462	1-2011-0773	1-2011-1443	1-2011-1572	1-2011-1760
1-2011-2377	2-2011-0463	2-2011-0486	2-2011-0510	2-2011-3747
2-2011-0510	C-2011-0555	C-2011-0885	C-2011-0890	C-2011-1642
C-2011-1679	C-2011-1825	C-2011-1886	C-2011-2233	C-2011-2237
C-2011-2234	C-2011-2540	C-2011-2904	C-2011-3015	C-2011-3218
C-2011-3255	C-2012-0008	C-2012-0009	C-2012-0500	C-2012-0723
C-2012-1210	C-2012-1878	C-2012-2350	C-2012-2551	C-2012-2808
C-2012-2973	C-2012-3340	C-2013-0009	C-2013-0870	C-2011-1742
C-2011-1663	C-2012-1343	C-2012-1483	C-2012-1936	1-2012-1599
2-2012-2830				

**Information Request**  
**January 22, 2013**  
**Biennial Problem Identification and Resolution Inspection –**  
**Arkansas Nuclear One**  
**Inspection Report Number 05000313/2013010 and 05000368/2013010**

This inspection will cover the period from February 19, 2011, to February 9, 2013. All requested information should be limited to this period unless otherwise specified. To the extent possible, the requested information should be provided electronically in Adobe PDF or Microsoft Office format. Lists of documents should be provided in Microsoft Excel or a similar sort-able format. Please provide the information on a compact disc (one for each team member), if possible.

Please provide the following no later than the week of February 4, 2013:

1. Copies of the corporate and site level procedures and sub-tier procedures associated with the corrective action program. This should include procedures related to:
  - a. Corrective action process
  - b. Operating experience program
  - c. Employee concerns program
  - d. Self-assessment program
  - e. Maintenance rule program and implementing procedures
  - f. Operability determination process
  - g. Degraded/non-conforming condition process (e.g., RIS 2005-20)
  - h. System Health process or equivalent equipment reliability improvement programs
  - i. Operational Decision Making (ODMI) process
2. Scheduled date/time/location of all meetings associated with implementation of the corrective action program, such as screening meetings, corrective action review board meetings, etc.
3. List of all condition report disposition request (CRDR) generated sorted by priority, with the following information: number; priority; title/description; date initiated; and status (open or closed). The CRDRs should be grouped by the initiating department (operations, maintenance, engineering, radiation protection, emergency preparedness, and security).
4. Listing of the total number of CRDRs generated annually, sorted by the above departments.
5. A copy of all root, apparent, and common cause evaluations.

6. A list of CRDRs generated as a result of identified trends. The list should be sorted by priority and have the following information: number, title/description, date initiated, status and initiating department.
7. A list of outstanding corrective actions, sorted by priority, with a title/description, initiating date and due date. Please also identify and list any associated due date extensions.
8. List of control room deficiencies and operator work-arounds, sorted by priority, with a brief description and corresponding CRDR and/or work order number.
9. A chronological list of all nuclear Quality Assurance/Nuclear Oversight audits and department/station self-assessments.
10. A copy of all system health reports.
11. All copy of assessments or evaluations (internal or external) regarding station or department safety-culture.
12. A list of all operability determinations and ODMIs performed with the following information: date initiated, initiating IR and status (open or closed).
13. A list of maintenance preventable functional failures (MPFFs) of risk-significant systems (include actions completed and current status). A list of current Maintenance Rule a(1) systems and a list of those systems that entered a(1) within the last two years, but which were returned to a(2) status. Include a copy of the current system health report for those systems now in a(1).
14. Copy of the latest corrective action program statistics such as the number initiated by department, human performance errors by department, backlog, corrective action timeliness and others as may be available.
15. Any performance indicators associated with backlog of corrective maintenance items.
16. List of industry operating experience evaluated by the site. Additionally, list of all NRC generic communications (information notices, generic letters, etc.) evaluated by the site for applicability to the station regardless of the determination of applicability.
17. A list of condition reports where the NRC was the identifying organization. This list should include non-cited and minor violations, and findings, regardless of whether there was an associated violation. Please provide the IR number, title, date initiated and status.

18. A chronological list of all Licensee Event Reports, with a brief description of the affected components or systems.

19. A listing of the top 10 risk-significant systems, components, and operator manual actions.

This information may be uploaded on the Certrec IMS website or provided on CDs and/or DVDs sent via overnight carrier to:

U.S. NRC Region IV  
1600 E. Lamar Blvd.  
Arlington, TX 76011-4511

Attention: Harry Freeman

Please note that the NRC is not currently able to accept electronic documents on thumb drives or other similar digital media.