



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 E LAMAR BLVD
ARLINGTON, TX 76011-4511

March 2, 2016

Jeremy Browning, Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
1448 SR 333
Russellville, AR 72802-0967

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR ARKANSAS NUCLEAR ONE, UNITS 1
AND 2 (REPORT 05000313/2015006 AND 05000368/2015006)**

Dear Mr. Browning:

On February 18, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed its end-of-cycle performance review of Arkansas Nuclear One (ANO), Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from January 1, 2015, through December 31, 2015. This letter informs you of the NRC's assessment results for your facility and its plans for future inspections.

The NRC determined the performance at ANO, Units 1 and 2 during the most recent quarter was within the Multiple/Repetitive Degraded Cornerstone Column (Column 4) of the NRC's Reactor Oversight Process (ROP) Action Matrix based on having one Yellow finding in the Initiating Events Cornerstone for Units 1 and 2, and one Yellow finding in the Mitigating Systems Cornerstone for Units 1 and 2. In addition, the Unplanned Scrams per 7,000 Critical Hours Performance Indicator (PI) result in the Initiating Events Cornerstone for Unit 2 was White for the second and third quarters of 2014, and then returned to Green in the fourth quarter of 2014.

On January 15, 2016, your staff notified the U.S. Nuclear Regulatory Commission of Entergy's readiness for the NRC to perform supplemental inspections to review the actions taken to address performance issues at ANO (ADAMS ML16019A047). Therefore, in addition to ROP baseline inspections, the NRC began a supplemental inspection on January 25, 2016, using the following inspection procedures to review Entergy's evaluation of the causes for declining performance at ANO, as well as corrective actions taken or planned to address performance concerns:

- Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," for the White PI associated with Unit 2 unplanned scrams.
- Inspection Procedure 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area," for the two Yellow findings pertaining to each unit.

- Inspection Procedure 95003, “Supplemental Inspection for Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple Yellow Inputs or One Red Input.”

The enclosed inspection/activity plan lists the NRC inspections scheduled through December 31, 2017. Routine inspections conducted by resident inspectors are not included in the plan. The inspections listed during the second half of the calendar year are tentative and may be revised based on the results of the ROP mid-cycle performance review. We are providing the inspection/activity plan to allow for the resolution of any scheduling conflicts and personnel availability issues. We will contact you as soon as possible to discuss changes to the inspection/activity plan should circumstances warrant any changes. The subject plan does not include security-related inspections, a schedule of which will be sent via separate, non-publicly available correspondence. In accordance with Inspection Manual Chapter 0305, “Operating Reactor Assessment Program,” the NRC is conducting an additional problem identification and resolution inspection in August of 2016.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, “Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events.” This Order requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, “Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation.” This Order requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. The subject audit has been completed for ANO and the information gathered will aid staff in development of the associated Safety Evaluation for the site. After the NRC staff receives a letter from Entergy indicating the site is in full compliance with the Orders, the Final Safety Evaluation will be issued by the NRC. Then, the NRC staff will confirm through inspections, using Temporary Instruction (TI) 191, “Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans,” Entergy’s full implementation of the Orders.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, “Public Inspections, Exemptions, Requests for Withholding,” a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC’s Public Document Room or from the Publicly Available Records (PARS) component of the NRC’s

J. Browning

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Agencywide Documents 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).

Please contact Mr. Neil O'Keefe at 817-200-1574 with any questions you have regarding this letter.

Sincerely,

/RA/

Marc L. Dapas
Regional Administrator

Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6

Enclosure:
ANO, Units 1 and 2,
Inspection/Activity Plan

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DISTRIBUTION:
See next page

ADAMS ACCESSION NUMBER: ML16061A290

<input checked="" type="checkbox"/> SUNSI Review By: NFO		ADAMS <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available		Keyword: NRC-002	
OFFICE	SPE:DRP/E	BC:DRP/E	DD/DRS	DD/DRP	RA				
NAME	JDixon/RDR	NO'Keefe	AVegel	TPruett	MDapas				
SIGNATURE	/RA/	/RA/	/RA/JClark, for	/RA/	/RA/				
DATE	2/19/16	2/19/16	2/22/16	2/18/16	2/29/16				

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Letter to Jeremy Browning from Mark L. Dapas, dated March 2, 2016

SUBJECT: ANNUAL ASSESSMENT LETTER FOR ARKANSAS NUCLEAR ONE, UNITS 1
AND 2 (REPORT 05000313/2015006 AND 05000368/2015006)

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Arkansas Nuclear One
 Inspection / Activity Plan
 04/01/2016 - 12/31/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
EXAM - INITIAL EXAM ANO U1					4
1	07/25/2016	07/29/2016	X02568	INITIAL EXAM ANO UNIT 1 (08/2016)	
1	08/22/2016	09/02/2016	X02568	INITIAL EXAM ANO UNIT 1 (08/2016)	
EB2-05XT - TRIENNIAL FIRE PROTECTION INSPECTION					4
1, 2	06/06/2016	06/10/2016	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
1, 2	06/20/2016	06/24/2016	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
EXAM - INITIAL EXAM U2					5
2	01/09/2017	01/13/2017	X02585	INITIAL EXAM ANO UNIT 2 (02/2017)	
2	02/06/2017	02/10/2017	X02585	INITIAL EXAM ANO UNIT 2 (02/2017)	
RS 5678 - RADIATION SAFETY - TEAM					4
1, 2	06/27/2016	07/01/2016	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2	06/27/2016	07/01/2016	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1, 2	06/27/2016	07/01/2016	IP 71124.07	Radiological Environmental Monitoring Program	
1, 2	06/27/2016	07/01/2016	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
INSP - BIENNIAL REQUAL INSPECTION U1					2
1	07/11/2016	07/15/2016	IP 7111111B	Licensed Operator Requalification Program	
INSP - BIENNIAL REQUAL INSPECTION U2					2
2	07/11/2016	07/15/2016	IP 7111111B	Licensed Operator Requalification Program	
EP-2 - EP PERFORMANCE INDICATORS					2
1	08/15/2016	08/19/2016	IP 71151-EP01	Drill/Exercise Performance	
1	08/15/2016	08/19/2016	IP 71151-EP02	ERO Readiness	
1	08/15/2016	08/19/2016	IP 71151-EP03	Alert & Notification System Reliability	
EP-3 - BIENNIAL EP EXERCISE INSPECTION					4
1, 2	08/15/2016	08/19/2016	IP 7111401	Exercise Evaluation	
1, 2	08/15/2016	08/19/2016	IP 7111404	Emergency Action Level and Emergency Plan Changes	
TSB 52B - BIENNIAL PI&R INSPECTION					4
1, 2	08/29/2016	09/02/2016	IP 71152B	Problem Identification and Resolution	
1, 2	09/12/2016	09/16/2016	IP 71152B	Problem Identification and Resolution	
71111.08 - INSERVICE INSPECTION 1R26					1
1	09/26/2016	10/07/2016	IP 7111108P	Inservice Inspection Activities - PWR	
RS 12 PI - RADIATION SAFETY					2
1, 2	10/03/2016	10/07/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	10/03/2016	10/07/2016	IP 71124.02	Occupational ALARA Planning and Controls	

This report does not include INPO and OUTAGE activities.
 This report shows only on-site and announced inspection procedures.

Arkansas Nuclear One
Inspection / Activity Plan
04/01/2016 - 12/31/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			RS 12 PI - RADIATION SAFETY		2
1, 2	10/03/2016	10/07/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1, 2	10/03/2016	10/07/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			EB1-21T - ANO COMPONENT DESIGN BASIS INSPECTION		6
1, 2	10/31/2016	12/02/2016	IP 7111121	Component Design Bases Inspection	
			ISFSI - LOADING INSPECTION (ONE WEEK IN MONTH)		1
1, 2	12/01/2016	12/30/2016	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			RS 13 PI - RADIATION SAFETY		3
1, 2	03/13/2017	03/17/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/13/2017	03/17/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/13/2017	03/17/2017	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1, 2	03/13/2017	03/17/2017	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			71111.08 - INSERVICE INSPECTION 2R25		1
2	03/13/2017	03/23/2017	IP 7111108P	Inservice Inspection Activities - PWR	
			EB2-03 - LICENSE RENEWAL INSPECTION (PHASE 1)		2
2	03/20/2017	03/24/2017	IP 71003	Post-Approval Site Inspection for License Renewal	
			TSB 52B - BIENNIAL PI&R		4
1, 2	05/01/2017	05/05/2017	IP 71152	Problem Identification and Resolution	
1, 2	05/15/2017	05/19/2017	IP 71152	Problem Identification and Resolution	
			EP-1 - BIENNIAL EP PROGRAM INSPECTION		1
1, 2	07/10/2017	07/14/2017	IP 7111402	Alert and Notification System Testing	
1, 2	07/10/2017	07/14/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	07/10/2017	07/14/2017	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2	07/10/2017	07/14/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
			EP-2 - EP PERFORMANCE INDICATOR VERIFICATION		1
1, 2	07/10/2017	07/14/2017	IP 71151-EP01	Drill/Exercise Performance	
1, 2	07/10/2017	07/14/2017	IP 71151-EP02	ERO Readiness	
1, 2	07/10/2017	07/14/2017	IP 71151-EP03	Alert & Notification System Reliability	
			EB1-17T - ANO PERMANENT PLANT MODS & 50.59		3
1, 2	07/24/2017	08/11/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			RS 24 - RADIATION SAFETY		3
1, 2	11/06/2017	11/10/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	11/06/2017	11/10/2017	IP 71124.04	Occupational Dose Assessment	

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