

**Entergy Operations, Inc.** 1448 S.R. 333 Russellville, AR 72802 Tel 479-858-4704

Stephenie L. Pyle Manager, Licensing Arkansas Nuclear One

1CAN111301

November 5, 2013

U.S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, DC 20555

- SUBJECT: Revised Inservice Inspection Summary Report for the Twenty-Fourth Refueling Outage (1R24) Arkansas Nuclear One, Unit 1 Docket No. 50-313 License No. DPR-51
- REFERENCE: Entergy Letter dated October 21, 2013, "Inservice Inspection Summary Report for the Twenty-Fourth Refueling Outage (1R24)" (1CAN101304) (ML13295A077)

Dear Sir or Madam:

Entergy Operations, Inc., (Entergy) submitted the Arkansas Nuclear One, Unit 1 (ANO-1) Inservice Inspection Summary Report for the twenty-fourth refueling outage (1R24) via the reference. This report was provided in accordance with Article IWA-6000 of Section XI of the 2001 Edition with the 2003 Addenda of the American Society of Mechanical Engineers Code. The summary report contained an Owner's Activity Report Form OAR-1 in place of the coderequired forms.

This report was prepared at the completion of the refueling outage and submitted within 90 calendar days of the completion of the outage. This outage was completed on August 7, 2013.

During the Authorized Nuclear Inservice Inspector's review of the submitted report it was determined that some of the information that was provided was from previous OARs and not applicable to this report. Specifically Code Cases N-661 and N-513-1 were not utilized during the reporting period. In addition, the information in Table 1 of the report related to the HBD-2-18" repair was performed and reported correctly in the previous cycle's report.

Based on the above, attached is the completed revised Form OAR-1 for ANO-1 for your information. Included with the form are tables listing the "Items with Flaws or Relevant Conditions that Required Evaluation for Continued Service" and "Abstract of

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Repair/Replacement Activities Required for Continued Service" in accordance with Code Case N-532-4. The results that are contained in the revised form are for 1R24.

This letter contains no new regulatory commitments.

By means of this submittal, the reporting requirements of IWA-6000 are fulfilled for 1R24.

If you have any questions or require additional information, please contact me.

Sincerely,

#### Original signed by David B. Bice for Stephenie L. Pyle

SLP/rwc

Attachment: Revised Form OAR-1 Owner's Activity Report

cc: Mr. Marc L. Dapas Regional Administrator U. S. Nuclear Regulatory Commission Region IV 1600 East Lamar Boulevard Arlington, TX 76011-4511

> NRC Senior Resident Inspector Arkansas Nuclear One P. O. Box 310 London, AR 72847

U. S. Nuclear Regulatory Commission Attn: Mr. Kaly Kalyanam MS O-8B1 One White Flint North 11555 Rockville Pike Rockville, MD 20852 Attachment to

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Revised Form OAR-1 Owner's Activity Report

th Unmber		TIVITY REPORT
on wonker       Over 1448 S.R. 333, Russellville, AR. 72802         No.	rt Number OAD 1422	
No	Arkansas Nuclear One / 1448 S.P. 333. Russellville, A.P. 72802	
ent inspection intervalFourth (4th) Inspection Interval	No Commercial service date December 19, 19	974 Refueling outage no. 1R24
ent inspection period <u>Second (2nd) Inspection Period</u> (1st, 2nd, 3rd) ion and Addenda of Section XI applicable to the inspection plan <u>2001 Edition with 2003 Addenda</u> e and revision of inspection plan <u>November 23, 2010 / Revision 0 (SEP-ISI-101)</u> September 12, 2012 / Revision 0 (SEP-ISI-101) July 18, 2013 / Revision 0 (SEP-ISI-101) July 18, 2013 / Revision 0 (SEP-ISI-101) (if applicable) CERTIFICATE OF CONFORMANCE I certify that (a) the statements made in this report are correct; (b) the examinations, tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of <u>1R24</u> (refueling outage number) Signed <u>Original signed by Jamie Gobell / ASME Section XI Repair / Replacement Engineer</u> Date <u>10/07/2013</u> Owner or Owner's Designee, Title I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspector and the State or Province of <u>Arkansas</u> and employed by <u>HSBCT</u> of <u>Hartford, Connecticut</u> has requirements of Section XI. generation to the requirements of Section and described in this report nor this employer makes any warranty, expressed or implied, concerning the repair/replacement activities represented by this report in accordance with the requirements of Section XI. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the inspector on his employer shall be liable in any manner for any personal injury or properly damage or a loss of any kind arising from or connected with this inspection. <u>Original signed by Carl Thompson</u> Commissions <u>ARK-1054</u> National Board, State, Province, and Endorsements Date <u>1008/2013</u>	ent inspection interval <u>Fourth (4th) Inspection Interval</u>	th. other)
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e and revision of inspection plan	on and Addenda of Section XI applicable to the inspection plan2001 I	Edition with 2003 Addenda
July 18. 2013 / Revision 0 (SEP-ISI-ANO1-101) ion and Addenda of Section XI applicable to repairs and replacements, if different than the inspection plan <u>Same</u> e Cases used: <u>N-532-4</u> (if applicable)  CERTIFICATE OF CONFORMANCE I certify that (a) the statements made in this report are correct; (b) the examinations, tests meet the Inspection Plan as required by the ASME Code, Section XI, and (c) the repair/replacement activities and evaluations supporting the completion of <u>1R24</u> conform to the requirements of Section XI. (refueling outage number) Signed <u>Original signed by Jamie Gobell / ASME Section XI Repair / Replacement Engineer</u> Date <u>10/07/2013</u> Owner or Owner's Designee, Title I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of <u>Arkanasa</u> and employed by <u>HSBCT</u> have inspected the items described in this Owner's Activity Report, and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. <u>Original signed by Carl Thompson</u> Commissions <u>ARK-1054</u> National Board, State, Province, and Endorsements Date_10/08/2013	and revision of inspection plan <u>November 23, 2010 / Revision 0 (SEP</u> September 12, 2012 / Revision 1 (SEF	<u>'-ISI-101);</u> P-ISI-101)
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	Original signed by Carl Thompson       Commissions       AR         Inspector's Signature       No         Date       10/08/2013	K-1054 ational Board, State, Province, and Endorsements

## TABLE 1

# ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED EVALUATION FOR CONTINUED SERVICE

Examination Category and Item Number	Item Description	Evaluation Description
N/A	Flow Accelerated Corrosion degradation of EBB-1-18" Feedwater piping component number EBB01P020A. Measured thickness was 0.666 inches versus a Tcrit value of 0.669 inches	Pipe wall thickness was measured to be less than the acceptance criteria (Tcrit). Piping was analyzed using Finite Element Analysis and accepted for continued use as documented under EC-45816, CR-ANO-1-2013-00489 and CR-ANO-1-2013-01132.
N/A	Flow Accelerated Corrosion degradation of EBB-1-18" Feedwater piping component number EBB01E004. Measured thickness was 0.753 inches versus a Tcrit value of 0.776 inches.	Pipe wall thickness was measured to be less than the acceptance criteria (Tcrit). Piping was analyzed using Finite Element Analysis and accepted for continued use as documented under EC-45816, CR-ANO-1-2013-00489 and CR-ANO-1-2013-01213.

### TABLE 2

# ABSTRACT OF REPAIR / REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE

Code Class	Item Description	Description of Work	Date Completed	Repair / Replacement Plan Number & Work Order Number
1	Restraint	Replace rear bracket due to wear in load	29-Sep-2012	Plan # WO-00281913-10
1	Stud	Replaced reactor closure head stud due to thread damage	5-Oct-2012	Plan # WO-52357868-06 CR-ANO-2-2012-02023
Т3	Pipe	Repair weld FW-36R1 in HCD-112-6" Service Water piping	20-Jun-2013	Plan # WO-00338362-01 CR-ANO-1-2012-01853
1	Steam Generator	E-24A tube plugging	18-Jul-2013	Plan # 52399714-09 WO 52399714
1	Steam Generator	E-24B tube plugging	18-Jul-2013	Plan # 52399668-10 WO 52399668
2	Pipe	Repair of socket weld FW-12GC2 on CCB-1-1" piping due to pinhole leak in new weld	7-Aug-2013	WO-00358952-03 CR-ANO-1-2013-02285
1	Control Rod Drive Mechanism (CRDM)-12	Replaced CRDM top closure (Quick Vent) assembly due to damage that occurred to the seating surface as a result of maintenance	14-Aug-2013	WO-52399792-13 R&R Plan # 50233739-13 CR-ANO-1-2013-01708 and CR-ANO-1-2013-02626
1	CRDM-19	Replaced CRDM due to damage that occurred to the seating surface as a result of maintenance	14-Aug-2013	WO-00297993-03 R&R Plan # 00297993-03 CR-ANO-1-2011-02905

### TABLE 2 (continued)

# ABSTRACT OF REPAIR / REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE

Code Class	Item Description	Description of Work	Date Completed	Repair / Replacement Plan Number & Work Order Number	
1	CV-1228	Replaced valve bonnet due to a scratch in the pressure seal ring seating area	28-Aug-2013	Plan # 00296958-11 WO 00296958	
NOTE: ANO-1, Fourth Interval, Second Period					