



Entergy Operations, Inc.
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Stephenie L. Pyle
Manager, Regulatory Assurance
Arkansas Nuclear One

1CAN071802

July 25, 2018

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

SUBJECT: Inservice Inspection Summary Report for the Twenty-Seventh
Refueling Outage (1R27)
Arkansas Nuclear One – Unit 1
Docket No. 50-313
License No. DPR-51

Dear Sir or Madam:

Article IWA-6000 of Section XI of the 2007 Edition with the 2008 Addenda of the American Society of Mechanical Engineers (ASME) Code requires an inservice inspection summary report be submitted by the regulatory and enforcement authorities having jurisdiction at the plant site. The summary report is to contain the completed Form NIS-1, "Owner's Report for Inservice Inspection," and Form NIS-2, "Owner's Report for Repair or Replacement Activity." This 2007 Edition with the 2008 Addenda of the ASME Code is the code of record for the fifth 10-year interval at Arkansas Nuclear One, Unit-1 (ANO-1).

ASME Code Case N-532 allows Entergy Operations, Inc., to prepare an Owner's Activity Report Form OAR-1 in place of the code-required NIS-1 and NIS-2 forms. The latest revision of this code case used in this report, N-532-5, is listed in Regulatory Guide (RG) 1.147, "In service Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 18, Table 1, "Acceptable Section XI Code Cases." Therefore, prior NRC approval to implement this code case is not required.

This report is to be prepared at the completion of a refueling outage and submitted within 90 calendar days of the completion of the refueling outage. In this case the report is to the twenty-seventh refueling outage for ANO-1 (1R27). This outage was completed on May 22, 2018.

Enclosed is the completed Form OAR-1 for 1R27 for your information. Included with the form are tables listing the "Items with Flaws or Relevant Conditions Required Evaluation for Continued Service" and "Abstract of Repair / Replacement Activities Required for Continued Service" in accordance with Code Case N-532-5. The results that are contained in this submittal are for 1R27.

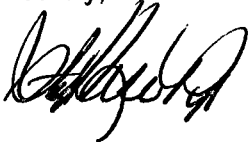
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This letter contains no new commitments.

By means of this submittal, the reporting requirements of the ASME Code, Section XI, Article IWA-6000 are fulfilled for 1R27.

Should you have any questions regarding this submittal, please contact me.

Sincerely,



SLP/rwc

Enclosure: Form OAR-1, Owner's Activity Report

cc: Mr. Kriss M. Kennedy
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. Thomas Wengert
MS O-8B1A
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

ENCLOSURE TO

1CAN071802

**Form OAR-1
Owner's Activity Report**

FORM OAR-1 OWNERS ACTIVITY REPORT

Report Number: OAR-1511

Page 1 of 3

Plant: Arkansas Nuclear One / 1448 S.R. 333, Russellville, AR. 72802

Unit No: 1 Commercial Service Date: December 19, 1974 Refueling Outage No.: 1R27
(if applicable)

Current Inspection Interval: Fifth (5th) Inspection Interval
(1st, 2nd, 3rd, 4th, Other)

Current Inspection Period: First (1st) Inspection Period
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the Inspection Plans: 2007 Edition with 2008 Addenda

Date and Revision of Inspection Plans: August 23, 2017 / Revision 4 (SEP-ISI-ANO1-101)

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the Inspection Plans: Same

Code Cases used for inspection and evaluation: N-513-3, N-532-5

(if applicable, including cases modified by Case N-532 and later revisions)

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and 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 1R27 conform to the requirements of Section XI.
(refueling outage number)

Signed: Joe Devault R+R ENGINEER Date: 7-11-18
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Hartford Connecticut 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 loss of any kind arising from or connected with this inspection.

[Signature] Commissions: #14374, I, N, R
Inspector's Signature (National Board Number and Endorsement)

Date: 07/11/18

FORM OAR-1 OWNERS ACTIVITY REPORT

Report Number: OAR-1511Page 2 of 3Plant: Arkansas Nuclear One / 1448 S.R. 333, Russellville, AR. 72802Unit No: 1 Commercial Service Date: December 19, 1974 Refueling Outage No.: 1R-27
(if applicable)

TABLE 1: ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED EVALUATION FOR CONTINUED SERVICE		
Examination Category and Item Number	Item Description	Evaluation Description
C-H C7.10	CV-1407 valve replacement weld end prep on the up-stream side on the existing piping, pitting was identified in the weld prep area of the ID. *	See Operability evaluation CR-ANO-1-2018-01591
D-B D2.10	Perform a base metal repair BMR-1 on the inside of existing Service Water pipe spool *	See Operability evaluation CR-ANO-C-2018-01743
B-J B9.40	CCA-5-2 1/2". Install Plug per EC-78176 due to cracked weld**	See Operability evaluation CR-ANO-C-2018-03567
B-J B9.40	Replace tubing adapter for leak repair***	See Operability evaluation CR-ANO-1-2018-03738
E-A E1.11	Re-evaluation of the degraded liner plate	EC-76205

*Item was Repaired/Replaced during 1R27 refueling outage

** Item was Repaired/Replaced during 1FO18-01

*** Item was Repaired/Replaced during 1FO18-02

FORM OAR-1 OWNERS ACTIVITY REPORT

Report Number: OAR-1511

Page 3 of 3

Plant: Arkansas Nuclear One / 1448 S.R. 333, Russellville, AR. 72802

Unit No: 1 Commercial Service Date: December 19, 1974 Refueling Outage No.: 1R-27
(if applicable)

**TABLE 2:
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

Code Class	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
3	E-176	REPLACE CONDENSOR	6-6-18	247760-01
2	P55 penetration	Replace Penetration Flued Head	5-23-18	475837-03
2	P63 penetration	Replace Penetration Flued Head	5-23-18	475837-04
2	CV1407	Replace CV-1407 Valve	5-11-18	409632-20
2	CV1407	Replace CV-1407 Valve Piping (Elbow to Tee)	5-11-18	409632-37
2	VCC-2A/B	Replace HBB-3-10" SW Return Piping located in the Aux Bldg for VCC-2A and VCC-2B. Piping replacement to be from P-63 penetration to CV-3814 Valve and replace piping to Item # 4 on HBD-21-10" Tee.	7-5-18	475840-02
2	1 HBB-3 PIPE	Replace Service Water Supply Piping located inside the Aux Bldg for VCC-2A and VCC-2B. Piping replacement to be from CV-3812 Valve to P-55 Penetration.	7-5-18	475840-01
1	DH-17	DH-17 (check valve) replacement	5-21-18	418605-01
1	DH-18	DH-18 (check valve) replacement	5-21-18	418604-01
T3	HBD-14-18	Replace section of pipe on HBD-14-18" SW Piping between FW-66 and Vendor Weld 2 shown on Dwg 13-SW-134	4-30-18	440605-01
1	R-1	CRDM #52 flange bolt & nut ring segment replacement	5-29-18	466956-14
1	R-1	CRDM #47 flange bolt & nut ring segment replacement	5-29-18	466956-14
1	R-1	CRDM #51 flange bolt & nut ring segment replacement	5-29-18	466956-14
1	CV-1216	Replaced Disk	5-9-18	353893-30
2	CV-1234	Replaced Disc	5-14-18	500437-11
2	CV-1234	Replaced Bonnet	5-14-18	461871-03
1	CV-1214	Replaced Disc	5-9-18	353895-03
1	CRDM-67	Replace CRDM-67 Closure insert Assembly	5-29-18	482542-13
1	CRDM-7	Replace CRDM-7 Closure Insert Assembly	5-29-18	482542-13
T3	1HBD-21-14" Piping	1HBD-21-14" Piping replacement	5-14-18	460878-01