



Entergy Operations, Inc.  
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David B. Bice  
Acting Manager, Licensing  
Arkansas Nuclear One

2CAN120901

December 7, 2009

U. S. Nuclear Regulatory Commission  
Attn.: Document Control Desk  
Washington, DC 20555-0001

SUBJECT: Inservice Inspection Summary Report for  
The Twentieth Refueling Outage (2R20)  
Arkansas Nuclear One, Unit 2  
Docket No. 50-368  
License No. NPF-6

Dear Sir or Madam:

Article IWA-6000 of Section XI of the 2001 Edition with the 2003 Addenda of the American Society of Mechanical Engineers (ASME) Code requires an inservice inspection report be submitted to 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."

Code Case N-532 allows Entergy 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, N-532-4, is listed in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1", Revision 15, 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 for the twentieth refueling outage (2R20) for Arkansas Nuclear One, Unit 2 (ANO-2). This outage was completed on September 25, 2009.

Attached is the completed Form OAR-1 for ANO-2 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 Repair/Replacement Activities Required for Continued Service" in accordance with Code Case N-532-4. The results that are contained in this completed form are for 2R20.

This letter contains no new commitments.

By means of this submittal, the reporting requirements of IWA-6000 are fulfilled for 2R20.

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

Sincerely,

A handwritten signature in black ink, appearing to be 'DBB', with a long horizontal flourish extending to the right.

DBB/rwc

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

cc: Mr. Elmo E. Collins  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region IV  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

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-8 B1  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

Mr. Bernard R. Bevill  
Arkansas Department of Health  
Radiation Control Section  
4815 West Markham Street  
Slot #30  
Little Rock, AR 72205

**Attachment To**  
**2CAN120901**  
**FORM OAR-1**  
**OWNER'S ACTIVITY REPORT**

**FORM OAR-1 OWNER'S ACTIVITY REPORT**

Report Number OAR-2332

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

Unit No. 2 Commercial service date March 26, 1980 Refueling outage no. 2R20  
(If applicable)

Current inspection interval Third (3rd) Inspection Interval  
(1st, 2nd, 3rd, 4th, other)

Current inspection period Third (3rd) Inspection Period  
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plan 1992 Edition, Portions of 1993 Addenda for Pressure Testing

Date and revision of inspection plan January 5, 2009 / Revision 304

Edition and Addenda of Section XI applicable to repairs and replacements, if different than the inspection plan 2001 Edition with 2003 Addenda

Code Cases used: N-532-4  
(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 2R20 conform to the requirements of Section XI.  
(refueling outage number)

Signed Original signed by Richard E. Holman, Repair / Replacement Engineer Date 11/12/2009  
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 the State or Province of Arkansas and employed by HSBCT 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 a loss of any kind arising from or connected with this inspection.

Original signed by Carl Thompson Commissions NB-9985, ARK-1054 "A" "B" "N" "I" "NS"  
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-12-2009

**TABLE 1**

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

<b>Examination Category and Item Number</b>	<b>Item Description</b>	<b>Evaluation Description</b>
NONE		

**TABLE 2**

**ABSTRACT OF REPAIR / REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

<b>Code Class</b>	<b>Item Description</b>	<b>Description of Work</b>	<b>Date Completed</b>	<b>Repair / Replacement Plan Number &amp; Work Order Number</b>
2	Valve	Replaced Valve Disc on 2SI-10C	25-Sep-2009	Plan # 06-2065, WO #00082534
2	Valve	Replaced Valve Bonnet on 2CVC-22B	11-Sep-2008	Plan # 07-2061, WO # 00088185
2	Valve	Replaced Valve Bonnet on 2CVC-69B	11-Sep-2008	Plan # 07-2062, WO # 00088180
2	Cooler	Replace End Bell Fasteners 2E-47B	4-Jun-2009	Plan # 08-2004, WO # 51083886
2	Pipe	Replace Expansion Joint 2XJ-14A	7-Oct-2008	Plan # 08-2059, WO # 00138628
2	Valve	Replaced Valve Bonnet on 2CVC-22C	5-Jun-2008	Plan # 08-2063, WO # 00088184
2	Valve	Replaced Valve Bonnet on 2CVC-69C	5-Jun-2008	Plan # 08-2064, WO # 00088179
1	Pump	Modify 2P-32C Seal Flange Control Bleed Off Line	5-Dec-2008	Plan # 08-2069, EC 8304
3	Pipe	Weld Repair on Connecting Weld Between Valve 2SW-26B and 2HCC-299-4" Pipe	14-Aug-2008	Plan # 08-2070, WO # 00158248
2	Valve	Replace Valve 2CV-4817 and Associated Piping	24-Sep-2009	Plan # 09-2004, WO # 00135698
3	Valve	Replace Valve 2CV-1447-1 and Associated Piping	17-Sep-2009	Plan # 09-2013, WO # 00145815

**TABLE 2**

**ABSTRACT OF REPAIR / REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

<b>Code Class</b>	<b>Item Description</b>	<b>Description of Work</b>	<b>Date Completed</b>	<b>Repair / Replacement Plan Number &amp; Work Order Number</b>
1	Steam Generator	Replace Primary Manway Fastener on 2E-24B	15-Sep-2009	Plan # 09-2018, WO # 51049154
1	Steam Generator	Replace Primary Manway Fastener on 2E-24A	15-Sep-2009	Plan # 09-2019, WO # 51049156
1	Pipe	Re-install Bonnet Seal Weld on Valve 2CVC-26	14-Sep-2009	Plan # 09-2022, WO # 51666644
3	Valve	Replaced Valve 2MS-39A	24-Sep-2009	Plan # 09-2024, WO # 00158398
2	Pipe	Install Pipe Coupling 2HCB-67-2"	9-Mar-2009	Plan # 09-2026, WO # 00183868
1	Pipe / Valve	Replace Vent Valves 2SI-5113A / B and Associated Pipe	11-Sep-2009	Plan # 09-2027, WO # 00146183
1	Valve	Replaced Body to Bonnet Fasteners 2CV-4652	24-Sep-2009	Plan # 09-2028, WO # 00146765
3	Pipe	Replace Header Piping for 2VCC-2A	22-Sep-2009	Plan # 09-2032, WO # 00169877
3	Pipe	Replace Header Piping for 2VCC-2B	22-Sep-2009	Plan # 09-2033, WO # 00169877
1	Pipe / Valve	Replace Vent Valves 2RC-1002B / 1003B and Associated Pipe	7-Sep-2009	Plan # 09-2039, WO # 00189473

**TABLE 2**

**ABSTRACT OF REPAIR / REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

<b>Code Class</b>	<b>Item Description</b>	<b>Description of Work</b>	<b>Date Completed</b>	<b>Repair / Replacement Plan Number &amp; Work Order Number</b>
3	Valve	Replaced Valve 2SW-72	12-Sep-2009	Plan # 09-2040, WO # 00031743
1	Valve	Replaced Valve 2PSV-5085	24-Sep-2009	Plan # 09-2041, WO # 51665730
3	Cooling Coil	Replaced Cooling Coil 2VUC-1E	26-Jul-2009	Plan # 09-2047, WO # 00191737
1	Pump	Modify Spare Reactor Coolant Pump (RCP) Seal Flange Control Bleed Off Line	17-Sep-2009	Plan # 09-2052, EC 8304
1	Support	Replaced U-bolt on Support 2CCA-15-H36	19-Sep-2009	Plan # 09-2078, WO # 00146765
1	Steam Generator	Installed Mechanical Plugs in 2E-24A	24-Sep-2009	Plan # 09-2080, WO # 00187801
1	Steam Generator	Installed Mechanical Plugs in 2E-24B	24-Sep-2009	Plan # 09-2081, WO # 00187802
2	Valve	Replaced Valve Nozzle and Disc on 2PSV-4800	21-Sep-2009	Plan # 09-2083, WO # 51675399
1	Valve	Replaced Valve 2SV-5061-2	19-Sep-2009	Plan # 09-2084, WO # 00200375
2	Valve	Tack Weld Disc Hinge Set Screw on 2CCW-38	22-Sep-2009	Plan # 09-2085, WO # 00207551



**TABLE 2**

**ABSTRACT OF REPAIR / REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

<b>Code Class</b>	<b>Item Description</b>	<b>Description of Work</b>	<b>Date Completed</b>	<b>Repair / Replacement Plan Number &amp; Work Order Number</b>
2	Penetration	Replaced 1 Fastener on 2C-3	17-Sep-2009	Plan # 09-2086, WO # 51667520
Notes: Unit 2, 3rd Interval, 3rd Period. Table 2 is an abstract for <u>all</u> ASME Section XI Repair/Replacement activities performed during Cycle 20 to comply with site procedures.				