



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

---

June 29, 2017

10 CFR 50.55a

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Browns Ferry Nuclear Plant, Unit 2  
Renewed Facility Operating License No. DPR-52  
NRC Docket No. 50-260

**Subject: American Society of Mechanical Engineers Section XI, Inservice Inspection, System Pressure Test, Containment Inservice Inspection, and Repair and Replacement Programs - Owner's Activity Report for Browns Ferry Nuclear Plant, Unit 2, Cycle 19 Operation**

The Tennessee Valley Authority is submitting the Browns Ferry Nuclear Plant (BFN), American Society of Mechanical Engineers (ASME), Section XI, Owner's Activity Report for BFN, Unit 2, Cycle 19 Operation. The report is contained in the enclosure to this letter and is in accordance with the requirements of ASME Code Case N-532-5, Repair/Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission, Section XI, Division 1.

The report is an overview of the inservice examination results that were performed on components within the ASME Section XI boundary, up to and including the BFN, Unit 2, Cycle 19 refueling outage, during the first inspection period of the Fifth 10 Year Inspection Interval. The applicable provisions of the ASME Code Case N-532-5 require that this report be submitted within 90 calendar days of the completion of each refueling outage. The BFN, Unit 2, Cycle 19 refueling outage ended on March 31, 2017. Accordingly, this submittal is due by June 29, 2017.

U.S. Nuclear Regulatory Commission  
Page 2  
June 29, 2017

There are no new regulatory commitments contained in this letter. Should you have any questions concerning this submittal, please contact J. L. Paul, Nuclear Site Licensing Manager, at (256) 729-2636.

Respectfully,

A handwritten signature in black ink, appearing to read 'S. M. Bono', with a stylized flourish at the end.

S. M. Bono  
Vice President

Enclosure:

American Society of Mechanical Engineers, Section XI, Fifth 10 Year Inspection Interval, Inservice Inspection, System Pressure Test, Containment Inspection, and Repair and Replacement Programs, Owner's Activity Report for Browns Ferry Nuclear Plant, Unit 2, Cycle 19 Operation

cc (Enclosure):

NRC Regional Administrator – Region II  
NRC Senior Resident Inspector – Browns Ferry Nuclear Plant

**Enclosure**

**Tennessee Valley Authority**

**Browns Ferry Nuclear Plant  
Unit 2**

**American Society of Mechanical Engineers,  
Section XI, Fifth 10 Year Inspection Interval, Inservice Inspection,  
System Pressure Test, Containment Inservice Inspection,  
and Repair and Replacement Programs,  
Owner's Activity Report for Browns Ferry Nuclear Plant, Unit 2, Cycle 19 Operation**

---

**See Enclosed**

## FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number BFNU2R19

Plant Browns Ferry Nuclear Plant, P.O. Box 2000, Decatur, AL 35609

Unit No. 2 Commercial service date March 1, 1975 Refueling Outage no. Refueling Outage 19  
(if applicable)

Current Inspection Interval Fifth Ten Year Inspection Interval  
(1st, 2nd, 3rd, other)

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

Edition and Addenda of Section XI applicable to the inspection plans 2007 Edition, 2008 Addenda

Date and Revision of inspection plan 2-SI-4.6.G, Revision 0055, 03/04/2017

Edition and Addenda of Section XI applicable to repairs and replacements, if different than the inspection plan N/A

Code Cases used for inspection and evaluation: N-508-4, N-513-3, N-526, N-532-5, N-586-1, N-613-1, N-648-1, N-716-1, N-735, N-747, and N-751  
(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 U2R19 conform to the requirements of Section XI.  
(refueling outage number)

Signed

6/23/17

Owner or Owner's Designee, Title

Sys. Eng. Man.

Date

6/23/17

### 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 a loss of any kind arising from or connected with this Inspection.

M. A. 7 Cell

Inspector's Signature

Commissions

NB 13977 I.N.R.

National Board Number and Endorsement

Date

6/23/17

# FORM OAR-1 OWNER'S ACTIVITY REPORT

## TABLES

Report Number BFNU2R19

Plant Browns Ferry

Unit No. 2 Commercial service date 03/01/1975 Refueling outage no. 19

Current inspection interval 5th Current inspection period 1st

**TABLE 1**  
**ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRE**  
**EVALUATIONS FOR CONTINUED SERVICE**

Examination Category and Item Number	Item Description	Evaluation Description
NONE	NONE	NONE

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

## TABLES

Report Number BFNU2R19

Plant Browns Ferry

Unit No.	2	Commercial service date	03/01/1975	Refueling outage no.	19
----------	---	-------------------------	------------	----------------------	----

Current inspection interval	5th	Current inspection period	1st
-----------------------------	-----	---------------------------	-----

TABLE 2

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

[illegible]

# FORM OAR-1 OWNER'S ACTIVITY REPORT

## TABLES

Report Number BFNU2R19  
 Plant Browns Ferry  
 Unit No. 2 Commercial service date 03/01/1975 Refueling outage no. 19  
 Current inspection interval 5th Current inspection period 1st

### Summary of IWE Indications for U2R19

The summary table below is provided in accordance with the requirements of 10 CFR 50.55a(b)(2)(ix)(A) and 10 CFR 50.55a(b)(2)(ix)(D).

Examination Category and Item Number	Component Identifier	Indication Description	Acceptability/Corrective Action	Inaccessible Area (Location and Evaluation)	Additional Samples
E-A, Item E1.11	PSC EXT 2-B-2 PSC EXT 2-B-3 PSC EXT 2-B-8 PSC EXT 2-B-9	Peeling of protective coatings, pitting, gouges, arc strikes, and dents. [NOI U2R19-001]	EVALUATED ACCEPTABLE (No Corrective Measures Required.) Peeling of protective coatings due to leakage was addressed by reapplication of protective coatings. Pitting, gouges, arc strikes, and dents with insignificant wall loss were identified. One indication on the ECCS Ring Header, consisting of various arc strikes with the deepest measuring 0.125 inches, required engineering evaluation. This location was determined to be acceptable based on the small area affected; the 0.0025 inch difference between the localized minimum measurement and the manufacturer tolerance; and that the surface depression will have negligible effect on the pipe stiffness and the piping stresses documented in the existing pipe analysis calculation. This location has been identified for successive examination in accordance with IWE-2420(b) and (c).	None	None
E-A, Item E1.30	MSB-2-1 Moisture Seal Barrier	Areas of Separation. [NOI U2R19-002]	EVALUATED ACCEPTABLE None of the areas penetrated the full depth of the seal. Seal adhesion was good and there was no seal failure. Portions of the seal identified for repair were excavated and the exposed liner beneath the seal VT-1 examined. This examination revealed no reportable conditions and confirmed the seal membrane was not breached and that seal failure did not occur. All indications are the result of mechanical damage from previous outage activities or separations at the seal surface previously identified, but within O-TI-417 acceptance criteria. The exposed liner was cleaned and prepared, and the MSB was then re-poured in these areas and re-examined.	None	None