



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

September 1, 2015

Mr. Joseph W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
1101 Market Street, LP 3D-C
Chattanooga, TN 37402-2801

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR THE BROWNS FERRY NUCLEAR
PLANT UNITS 1, 2 and 3, NRC INSPECTION REPORT 005000259/2015005,
005000260/2015005, and 005000296/2015005

Dear Mr. Shea:

On August 13, 2015, the NRC completed its mid-cycle performance review of Browns Ferry Nuclear Plant. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2014 through June 30, 2015. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined that overall, Browns Ferry Nuclear Plant operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Browns Ferry Nuclear Plant during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through June 30, 2017. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

In addition to the routine ROP baseline inspections at your facility, we also plan on conducting infrequently performed inspections which include Inspection Procedure (IP) 43004, "Inspection of Commercial-Grade Dedication Programs," and an initial operator license examination.

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 audit was completed for Browns Ferry in January of 2015, and the information gathered will aid staff in development of the Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing 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."

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document 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 me at 404-997-4415 with any questions you have regarding this letter.

Sincerely,

/RA/

Alan Blamey, Chief
Reactor Projects Branch 6
Division of Reactor Projects

Docket Nos.: 50-259, 50-260, 50-296
License Nos. DPR-33, DPR-52, DPR-68

Enclosure: Browns Ferry Inspection/Activity Plan
(07/01/2015 – 06/30/2017)

cc distribution via ListServ

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 audit was completed for Browns Ferry in January of 2015, and the information gathered will aid staff in development of the Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing 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."

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document 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 me at 404-997-4415 with any questions you have regarding this letter.

Sincerely,

/RA/

Alan Blamey, Chief
Reactor Projects Branch 6
Division of Reactor Projects

Docket Nos.: 50-259, 50-260, 50-296
License Nos. DPR-33, DPR-52, DPR-68

Enclosure: Browns Ferry Inspection/Activity Plan
(07/01/2015 – 06/30/2017)

cc distribution via ListServ

☒ PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE ☒ NON-SENSITIVE
ADAMS: ☒ Yes ACCESSION NUMBER: _____ ☒ SUNSI REVIEW COMPLETE

OFFICE	RII:DRP	RII:DRP	RII:DRP			
SIGNATURE	BDB3	CRK1	AJB3			
NAME	BBISHOP	CKONTZ	ABLAMEY			
DATE	8/25/2015	8/25/2015	8/31/2015			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP\PERIODIC ASSESSMENTS &
REPORTS\EOC & MID-CYCLE\2015\MID-CYCLE\INPUT\RPB6\MID-CYCLE LETTER-FINAL\BFN 2015 MID-
CYCLE LETTER FINAL.DOCX

Letter to Joseph Shea from Alan Blamey dated September 1, 2015

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR THE BROWNS FERRY NUCLEAR
PLANT UNITS 1, 2 and 3, NRC INSPECTION REPORT 005000259/2015005,
005000260/2015005, and 005000296/2015005

DISTRIBUTION:

D. Gamberoni, RII

L. Gibson, RII

OE Mail

RIDSNRRDIRS

PUBLIC

A. Adams, NRR

RidsNrrPMBrownsFerry Resource

ROP Assessment

ROP Reports

Institute of Nuclear Power Operations (INPO)

Browns Ferry
Inspection / Activity Plan
09/01/2015 - 06/30/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
			OL EXAM - INITIAL LICENSE EXAM PREP		3
1	10/19/2015	10/23/2015	V23463	BROWNS FERRY NOVEMBER 2015 INITIAL EXAM AT POWER FACILITIES	
			CDBI - COMPONENT DESIGN BASES INSPECTION		8
1, 2, 3	10/19/2015	10/23/2015	IP 7111121	Component Design Bases Inspection	
1, 2, 3	11/30/2015	12/04/2015	IP 7111121	Component Design Bases Inspection	
1, 2, 3	12/14/2015	12/18/2015	IP 7111121	Component Design Bases Inspection	
			EP - EP EXERCISE		6
1, 2, 3	11/02/2015	11/06/2015	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2, 3	11/02/2015	11/06/2015	IP 7111407	Exercise Evaluation - Hostile Action (HA) Event	
1, 2, 3	11/02/2015	11/06/2015	IP 71151	Performance Indicator Verification	
			OL EXAM - INITIAL LICENSE EXAM		3
1	11/16/2015	12/04/2015	V23463	BROWNS FERRY NOVEMBER 2015 INITIAL EXAM AT POWER FACILITIES	
			PI&R - PROBLEM IDENTIFICATION AND RESOLUTION		4
1, 2, 3	02/08/2016	02/12/2016	IP 71152B	Problem Identification and Resolution	
1, 2, 3	02/22/2016	02/26/2016	IP 71152B	Problem Identification and Resolution	
			RP - RAD HAZARDS ANALYSIS AND TRANSPORTATION		2
1, 2, 3	02/29/2016	03/04/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2, 3	02/29/2016	03/04/2016	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			ISI - UNIT 3 IN-SERVICE INSPECTION		1
3	03/07/2016	03/11/2016	IP 7111108G	Inservice Inspection Activities - BWR	
			LR - UNIT 3 POST APPROVAL LR PHASE 1		2
3	03/07/2016	03/11/2016	IP 71003	Post-Approval Site Inspection for License Renewal	
			EQ - ENVIRONMENTAL QUALIFICATION INSPECTION		3
1, 2, 3	03/21/2016	03/25/2016	IP 7111121	Component Design Bases Inspection	
1, 2, 3	04/11/2016	04/15/2016	IP 7111121	Component Design Bases Inspection	
			EP - EP PROGRAM INSPECTION		2
1, 2, 3	06/06/2016	06/10/2016	IP 7111401	Exercise Evaluation	
1, 2, 3	06/06/2016	06/10/2016	IP 7111402	Alert and Notification System Testing	
1, 2, 3	06/06/2016	06/10/2016	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2, 3	06/06/2016	06/10/2016	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2, 3	06/06/2016	06/10/2016	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2, 3	06/06/2016	06/10/2016	IP 71151	Performance Indicator Verification	

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

Enclosure

Browns Ferry
Inspection / Activity Plan
09/01/2015 - 06/30/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
RP - RP PUBLIC RAD SAFETY BASELINE					
1, 2, 3	06/13/2016	06/17/2016	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	2
1, 2, 3	06/13/2016	06/17/2016	IP 71124.07	Radiological Environmental Monitoring Program	
1, 2, 3	06/13/2016	06/17/2016	IP 71151	Performance Indicator Verification	
TFPI - TRIENNIAL FIRE PROTECTION INSPECTION					
1, 2, 3	07/25/2016	07/29/2016	IP 7111105T	Fire Protection [Triennial]	4
1, 2, 3	08/08/2016	08/12/2016	IP 7111105T	Fire Protection [Triennial]	
OL RQ - REQUAL INSP					
1, 2, 3	09/12/2016	09/16/2016	IP 7111111B	Licensed Operator Requalification Program	2
ISI - UNIT 1 IN-SERVICE INSPECTION					
1	10/10/2016	10/14/2016	IP 7111108G	Inservice Inspection Activities - BWR	1
ISI - UNIT 2 IN-SERVICE INSPECTION					
2	03/13/2017	03/17/2017	IP 7111108G	Inservice Inspection Activities - BWR	1
RP - RP OCCUPATIONAL INSPECTION WEEK 1					
1, 2, 3	03/13/2017	03/17/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	3
1, 2, 3	03/13/2017	03/17/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2, 3	03/13/2017	03/17/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2, 3	03/13/2017	03/17/2017	IP 71124.04	Occupational Dose Assessment	
1, 2, 3	03/13/2017	03/17/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2, 3	03/13/2017	03/17/2017	IP 71151	Performance Indicator Verification	
RP - RP OCCUPATIONAL INSPECTION WEEK 2					
1, 2, 3	03/27/2017	03/31/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	2
1, 2, 3	03/27/2017	03/31/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2, 3	03/27/2017	03/31/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2, 3	03/27/2017	03/31/2017	IP 71124.04	Occupational Dose Assessment	
1, 2, 3	03/27/2017	03/31/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2, 3	03/27/2017	03/31/2017	IP 71151	Performance Indicator Verification	
EP - EP EXERCISE					
1, 2, 3	06/26/2017	06/30/2017	IP 7111401	Exercise Evaluation	6
1, 2, 3	06/26/2017	06/30/2017	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2, 3	06/26/2017	06/30/2017	IP 7111408	Exercise Evaluation – Scenario Review	
1, 2, 3	06/26/2017	06/30/2017	IP 71151	Performance Indicator Verification	

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

Enclosure