



FEMA

August 28, 2014

Mr. Michael Brezovec, Acting Chief  
Operating and New Reactor Licensing Branch  
Division of Preparedness and Response  
Office of Nuclear Security and Incident Response  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Ref: Request for Assistance to Address Concerns with Updating the Safety Evaluation Report for the Nuclear Regulatory Commission's (NRC) Site Safety Evaluation Report for the Watts Bar Nuclear Plant Unit 2

Dear Mr. Brezovec:

On May 22, 2014, The Nuclear Regulatory Commission (NRC) submitted questions to the Federal Emergency Management Agency (FEMA) pertaining to the updating of the NRC Watts Bar Nuclear (WBN) Plant Site Safety Evaluation Report (SSER). Specifically, these questions concerned the alert and notification system and the continued reasonable assurance that appropriate measures can and will be taken to protect the health and safety of the public in the event of a radiological emergency at the WBN site. FEMA Headquarters requested our FEMA Region IV office answer your questions. Please find enclosed the report submitted by the Radiological Emergency Preparedness (REP) Program staff from the FEMA Region IV office.

Based on our thorough review of the FEMA Region IV response, FEMA continues to find, with reasonable assurance, that appropriate measures can and will be taken to protect the health and safety of the general public in the event of a radiological emergency at the WBN site.

Should you or members of your staff have any questions regarding this matter, please contact Mr. Albert Coons at 202-212-2318.

Sincerely,

A handwritten signature in dark ink, appearing to read "Vanessa E. Quinn".

Vanessa E. Quinn  
Chief

Radiological Emergency Preparedness Branch

Enclosure: As stated

cc: C. Burnside, FEMA Region IV  
J. King, FEMA HQ Regional Liaison

May 19, 2014

Federal Emergency Management Agency  
Radiological Emergency Preparedness Program  
ATTN: Vanessa E. Quinn, Chief  
1800 S. Bell St.  
8th Floor  
Arlington, VA 20598-3025

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 2, OPERATING LICENSE  
(DOCKET NO. 50-391)

Dear Ms. Quinn:

In a letter dated December 1, 2008, the U.S. Nuclear Regulatory Commission (NRC) alerted the Federal Emergency Management Agency (FEMA) that the Tennessee Valley Authority (TVA) was re-activating its operating license application for the Watts Bar Nuclear Plant, Unit 2 (WBN Unit 2). In October 2009, FEMA and the NRC met to review the history of the WBN Unit 2, TVA plans for licensing, and FEMA's and NRC's plans for conducting the review. By letter dated March 24, 2010, FEMA provided its Interim Finding Report (IFR) dated October 6, 2009, concluding that FEMA had determined that the plans were adequate and that there was reasonable assurance that the plans can be implemented with no corrections needed. The NRC developed Supplement No. 22 to NUREG-0847 "Safety Evaluation Report Related to the Operation of Watts Bar Nuclear Plant, Unit 2" (SSER-22) using the results of its review of the onsite preparedness along with the FEMA findings and determinations in the IFR. SSER-22 was issued in January 2011.

For various reasons, the applicant's schedule date for power operation, then April 2012, had been postponed and the issuance of the operating license is currently scheduled in February 2015. The NRC has identified two sections in which SSER-22 needs updating prior to license issuance. These issues are described below:

1. Section II.E.6 of the October 2009 IFR confirmed that FEMA's earlier findings and determinations regarding the public alert and notification system (ANS) for WBN Unit 1 would be applicable to WBN Unit 2. The NRC used this re-confirmation as a basis for its finding in SSER-22 Section 13.3.2.7 that TVA has met its obligation to demonstrate that administrative and physical means have been established for alerting and informing the public, with regard to WBN Unit 2.

In 2013, subsequent to the IFR and SSER-22, TVA replaced all of its ANS sirens with new sirens having battery backup power. In addition, TVA was required to identify a backup alerting capability by the final emergency preparedness rulemaking issued in November 2011.

The NRC requests that FEMA reconfirm that the WBN ANS, as modified in 2013, continues to provide an adequate administrative and physical means for alerting and informing the public, with specific regard to WBN Unit 2. Similarly, does the FEMA final ANS design report describe an acceptable backup capability to be used in the event of a failure of the primary system with regard to WBN Unit 2?

2. Section V of the IFR provided FEMA's reasonable assurance determination, but included the statement, "A qualifying exercise will be demonstrated by the WBN site in conjunction with offsite state and county participation." The NRC and FEMA discussed the issue of a qualifying exercise for WBN Unit 2. In a letter dated August 19, 2010, and supplemented by an e-mail dated September 23, 2010, FEMA advised the NRC as follows:

Based on the results of the June 10, 2009, exercise and FEMA review of Tennessee's Annual Letters of Certification, the offsite radiological emergency response plans and preparedness for the State of Tennessee and the affected local jurisdictions, site-specific to the Watts Bar Nuclear Plant, can be implemented and are adequate to provide reasonable assurance that appropriate measures can and will be taken to protect the health and safety of the public in the event of a radiological emergency at the site.

There were biennial exercises involving the Offsite Response Organization participation conducted on October 19, 2011, and October 30, 2013. Additionally, there have been several Annual Letters of Certification submitted since the IFR was issued. Please confirm that FEMA continues to find, with reasonable assurance, that appropriate measures can and will be taken to protect the health and safety of the public in the event of a radiological emergency at the WBN site. With FEMA's confirmation, the NRC will update the above statement as it appears in SSER-22.

Any questions pertaining to WBN Unit 2 operating license review may be directed to either Daniel Barss (301) 287-3758 or Stephen LaVie (301) 287-3741.

Sincerely,

*Daniel M. Barrs for /RA/*

Michael S. Brezovec, Acting Chief  
Operating and New Reactor Licensing Branch  
Division of Preparedness and Response  
Office of Nuclear Security and Incident Response

cc: C. Burnside, FEMA RGIV

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Sincerely,

Daniel M. Barrs for /RA/

Michael S. Brezovec, Acting Chief  
Operating and New Reactor Licensing Branch  
Division of Preparedness and Response  
Office of Nuclear Security and Incident Response

cc: C. Burnside, FEMA RGIV

**DISTRIBUTION:**

R. Lewis, NSIR

[WBN2HearingFile.Resource@nrc.gov](mailto:WBN2HearingFile.Resource@nrc.gov)DPR r/f

**ADAMS ACCESSION NUMBER: ML14112A561** \*prior concurrence

Office	NSIR/DPR	NRR/DORL/LPL2-2	NSIR/DPR	NSIR/DPR:BC
Name	SLaVie	JPoole	DBarss	MBrezovec*Daniel Barrs for
Date	05/01/14	05/02/14	05/05 /14	05/19/14

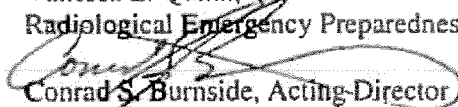
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**FEMA**

August 27, 2014

MEMORANDUM FOR: Vanessa E. Quinn, Chief  
Radiological Emergency Preparedness Branch

FROM:   
Conrad S. Burnside, Acting Director  
National Preparedness Division  
Federal Emergency Management Agency, Region IV

SUBJECT: Watts Bar Nuclear Plant, Unit 2, Operating License (Docket No. 50-391) Request

This is in response to a request from NRC to update FEMA's IFR for the Watts Bar Nuclear Plant; Unit 2 dated October 6, 2009. Specifically NRC requested that we update Section II.E.6 and Section V.

- Section II.E.6 - On April 24, 2013, FEMA issued a letter to the Tennessee Valley Authority that stated: "The assigned engineering staff reviewed the documentation and determined that the upgraded ANS would continue to be in compliance with program requirements".

According to the Watts Bar FEMA REP-10 Report, vol. 1, page 12, para 2.2.2, the Watts Bar alert and notification system consist of two components. A system of sirens has been installed by TVA to provide an acoustic signal for residents within the 10-mile EPZ of Watts Bar Nuclear Plant. The sirens are powered by AC with solar battery backup power. Schools and other institutions within the EPZ have received tone alert radios receiving the national weather service frequency, which give them prompt notification.

A backup alerting system consists of route alerting which is discussed in the State Radiological Emergency Plan Annex B and the Rhea County, Meigs County, and McMinn County implementing procedures. FEMA activates the warning sirens by radio from the State EOC (SEOC). The backup activation system is located at Rhea County 911 Center, and will provide EAS instructional messages to the public as the need arises.

- Section V. FEMA evaluated a full participation plume exposure exercise on October 19, 2011 and a full participation ingestion pathway exercise on October 30 and 31, 2013 for the Watts Bar Nuclear plant. FEMA also reviewed and approved the annual letters of certification for the State of Tennessee relative to the Watts Bar Nuclear Plant for calendar years 2010, 2011, 2012 and 2013. In the transmittal letter for the October 30 and 31, 2013 exercise from the FEMA Region IV Regional Administrator to the NRC Region II Regional Administrator FEMA stated:

Based on the results of this exercise and FEMA's review of Tennessee's Annual Letters of Certification for 2012 and 2013, the offsite radiological emergency response plans and preparedness for the State of Tennessee and the affected local jurisdictions, site-specific to the Watts Bar Nuclear Plant, can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site. The Title 44 CFR, Part 350, approval of the State of Tennessee's offsite radiological emergency response plans and preparedness site-specific to Watts Bar Nuclear Plant granted on July 3, 1997, will remain in effect.

FEMA continues to find, with reasonable assurance that appropriate measures can and will be taken to protect the health and safety of the general public in the event of a radiological emergency at the WBN site.

Should you have questions, please contact me at 770/220-5486.