



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

June 4, 2013

EA-13-018

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

**SUBJECT: WATTS BAR UNIT 1 NUCLEAR PLANT - FINAL SIGNIFICANCE  
DETERMINATION OF YELLOW FINDING, WHITE FINDING AND NOTICES OF  
VIOLATIONS; ASSESSMENT FOLLOW-UP LETTER; INSPECTION REPORT NO.  
05000390/2013009**

Dear Mr. Shea:

This letter provides the final significance determination of the preliminary Yellow findings and White finding discussed in our previous communication dated March 12, 2013, which were included in NRC Inspection Report 05000390/2012009 as apparent violations (AV). The preliminary findings were previously characterized as follows:

The first preliminary Yellow finding (AV 05000390/2012009-01) involved the failure to establish and/or maintain an Abnormal Operating Instruction (AOI) procedure to mitigate onsite the effects of a probable maximum flood event. Specifically, AOI 7.1 "Maximum Probable Flood, Revision 16" was inadequate to mitigate the effects of a Probable Maximum Flood (PMF) event, in that, prior to September 30, 2009, earthen dams located upstream of the facility could potentially overtop, causing a subsequent breach. The PMF is the design basis flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in a particular drainage area. Failure of the earthen dams during a PMF event would have resulted in onsite flooding and subsequent submergence of critical equipment, such as the Emergency Diesel Generators, resulting in an ineffective flood mitigation strategy for these PMF events. An apparent violation (AV 05000390/ 2012009-02) associated with the first finding was also identified regarding the failure to report an unanalyzed condition in accordance with 10 Code of Federal Regulations (CFR) 50.72.

The second preliminary Yellow finding (AV 05000390/2012009-03) involved the failure to establish and/or maintain an AOI procedure for the plant to be reconfigured and systems realigned within 27 hours of notification of a significant flooding event, consistent with Technical Requirements Manual (TRM) 3.7.2 and Watts Bar Updated Final Safety Analysis Report (UFSAR) Section 2.4. Specifically, you were initially unable to demonstrate timely implementation of AOI-7.1 to reconfigure and realign systems necessary for flood mitigation within 27 hours. This was based on actual walk down information associated with AOI

implementation, identified spool piece fit-up issues, inability to locate staged equipment, and, in general, lack of thorough understanding of the collective workload, work flow, and manpower requirements for completing flood preparation tasks. As a result, the flood mitigation strategy for certain design basis flooding events, including PMF events, was inadequate.

The third preliminary White finding (AV 05000390/2012009-04) involved a failure to correctly translate the design basis related to onsite flooding into the instructions for plant design change Temporary Alteration Control Form (TACF) 1-09-0006-070, Revision 2. Specifically, plant design change TACF 1-09-0006-070 for the Thermal Barrier Booster Pumps (TBBP) flood protection barrier was inadequate because: (1) the appropriate sealant type was not specified in the TACF; (2) the lack of specificity regarding preparation/cleaning of surfaces as recommended by the sealant manufacturer prior to applying the sealant; (3) the failure to perform load calculations for panel deformation; and (4) failure to include provisions in the design to support the temporary panels in resisting deflection from hydrostatic pressure/force and potential uplift forces. As a result, the TBBP flood barrier would have failed during a probable maximum flood event, thereby submerging the TBBPs and rendering the equipment inoperable. Without the TBBPs, the probability for a Reactor Coolant Pump (RCP) seal loss of coolant accident increases, coincident with the flooding event.

For these issues, there are no current immediate safety concerns because compensatory measure have been established to address the degraded conditions.

At your request, a Regulatory Conference was held on April 22, 2013, to discuss your views on these issues. A copy of the slide presentation made by Tennessee Valley Authority (TVA) was included in the meeting summary issued on April 23, 2013 (ADAMS Accession number ML13115A020). During the meeting your staff described your assessment of the significance of the findings, and the corrective actions taken, including the root cause evaluation of the findings.

For the first finding (AV 05000390/2012009-01), Inadequate Abnormal Condition Procedure for Flood Mitigation Strategy Prior to Installation of HESCO Barriers: TVA provided additional information which indicated that in using point-precipitation values to approximate the frequency of a certain rainfall event to a larger area, an "areal-reduction factor" should be used for Probable Maximum Precipitation estimates (i.e., the approximated maximum estimated depth of precipitation for a given duration, drainage area, and time of year assumed reasonably possible). This factor was only qualitatively considered by the NRC during the preliminary assessment of this issue. Following the Regulatory Conference, the NRC applied various areal-reduction factors (dependent on the storm size of concern). Specifically, the NRC determined that it would be appropriate to review the total rainfall over all the areas that might affect flooding levels at the plant rather than rainfall at a particular point. The total rainfall necessary to achieve various flooding levels increased and correspondingly, this indicated an expectation of a decrease in the overall risk results. In addition, the NRC added the effect of rainfall events less intense than the PMP event not previously assumed, which could have still overtopped the earthen dams. Application of these factors allowed for increased accuracy in the frequency estimates for the involved flooding events. With respect to the net effect on risk for this finding, the NRC has concluded that the finding should be reduced one order of magnitude and, is appropriately characterized as White, an issue of low to moderate safety significance.

In accordance with NRC Inspection Manual Chapter 0305, Operating Reactor Assessment Program, for old design issues, this finding was evaluated for a determination of whether it should be treated as an old design issue. The NRC concluded that this finding will not be treated as an old design issue for several reasons. First, the NRC determined that this issue will not be treated as an old design issue since it was not licensee-identified as a result of a voluntary initiative, rather the NRC considered it was identified as a result of corrective actions from another NRC violation. In February 2008, NRC performed a quality assurance (QA) inspection of the flood-related combined operating license application (COLA) submittal information for Bellefonte Nuclear Plant (BLN) Units 3 and 4. In the course of the QA inspection, NRC reviewed a 1998 calculation performed for the TVA operating units to evaluate the effects of physical changes resulting from the National Dam Safety program to the reservoir system on the plant design basis flood calculations. NRC identified that the 1998 calculation did not meet the TVA procedural requirement in place at that time for verification of inputs. A Notice of Violation (NOV) was issued on March 19, 2008, against the BLN 3 and 4 COLA submittal for that plant's use of the 1998 calculation. As part of TVA's response to the violation, a flow coefficient error was identified. Had the NRC not identified the BLN violation, the flow coefficient error which resulted in the performance deficiency may not have been found. The performance deficiency was not identified as part of a licensee voluntary initiative and, therefore, old design issue credit cannot be given.

An additional basis for not treating this finding as an old design issue is that it reasonably should have been identified through previous ongoing licensee activities. Specifically, TVA had other opportunities to identify this issue, beginning with the 1998 Dam Safety Program Review. TVA changed their licensing basis as a result of this review and lowered their PMF levels. This was an opportunity to previously identify the finding based on the detailed reviews necessary to modify design basis PMF levels.

The finding was also considered to reflect some aspects of current performance associated with existing licensee programs, policies, or procedures related to flood mitigation. Specifically, in 2009, when TVA installed the temporary flood barriers on upstream earthen dams as a corrective action to prevent the physical overtopping of earthen dams, TVA failed to sufficiently follow through on several key aspects of the corrective actions associated with identifying the incorrect flow coefficients. These included not analyzing the effects of the potential for earthen dam breach, not reporting the issue as an unanalyzed condition, and not clearly portraying the reliance of the temporary barriers in their operability and design documentation. This resulted in TVA's failure to analyze the significance of an upstream earthen dam failure not previously assumed for a number of years until prompted by the NRC. The failure to analyze the effects of an earthen dam failure on the site PMF level resulted in an unclear characterization of the relationship between the HESCO barriers and the design basis of the plant. This impacted the NRC's ability to effectively inspect and verify compliance in this area and was a primary consideration in the NRC's issuance of the Confirmatory Action Letter (CAL) dated June 25, 2012, which addressed concerns with TVA's licensing basis. Thus, the performance deficiency was and remained associated with the current existing licensee design basis program.

The NRC has determined that the first finding (AV 05000390/2012009-01) involving the failure to establish an adequate procedure for mitigation of external events, specifically flooding prior to the installation of HESCO barriers in 2009 is a violation of Technical Specification (TS) 5.7.1, "Procedures," as cited in the attached Notice of Violation (Notice). The circumstances

surrounding the violation were described in detail in NRC Inspection Report No. 05000390/2012009. In accordance with the NRC Enforcement Policy, the Notice is considered escalated enforcement action because it is associated with a White finding.

Regarding the second finding (AV 05000390/2012009-03), Failure to Maintain an Adequate Abnormal Condition Procedure to Implement the Flood Mitigation Strategy: TVA stated that although the AOI-7.1 procedure could not be accomplished in its entirety for the most time-limiting flood, two critical functions would reasonably be accomplished within that time frame which would avert core damage. Specifically TVA indicated that auxiliary feedwater and Reactor Coolant System (RCS) inventory makeup would be accomplished early during "Stage II" flood preparations. The NRC evaluated the following points made by TVA and found that: 1) the procedure was not intended or prioritized to focus on achieving the critical safety functions, 2) was not explicitly written to perform in parallel to assure success, and 3) TVA did not assess contingencies for other scenarios such as accounting for time spent dealing with a loss of offsite power, specifically:

- The original AOI-7.1, as written, did not establish or distinguish the completion of activities to accomplish the critical safety functions needed to mitigate these PMF events. Effectively, the AOI was an unprioritized list of independent tasks to be accomplished in order to establish a successful flood mitigation strategy. As such, the NRC concluded the key critical functions would not always be accomplished early in the "Stage II" flood preparations, as TVA indicated.
- TVA indicated that the steps in the AOI-7.1 procedure would be done in parallel. However, although the procedure permits parallel performance, it does not specifically direct how the steps would be done in parallel, and, as such, the procedure would be susceptible to a degree of failure. The NRC determined it was not reasonable to conclude that operator and maintenance actions would be performed in the specified manner and successfully accomplished with high confidence. The NRC determined that if the steps preceding completion of the two critical actions were performed in series or in a "staggered manner", there would be a probability of failure based on the licensee event timelines which assumed concurrent activities, resulting in the assumed critical functions not always being attained. As such, the NRC verified that the original Phase 3 analysis Human Error Probability (HEP) value utilized included a penalty factor for incomplete procedures.
- In the "WBN AOI Timeline Analysis" TVA asserted that certain steps preceding the critical actions would have "0 minutes" allocated to them, including for example, the step that directed offsite power restoration if lost. The NRC concluded that given that the external flooding events of concern are caused by extreme rainfall impacting a wider area, some increased probability existed for a loss of offsite power and it should not be excluded. Further, if a loss of offsite power were to occur it would potentially occupy the operators, maintenance craft, etc. for significant periods of time diverting critical resources expected for flood mitigation actions. Thus, assuming that no time would be needed for these steps was deemed not reasonable and added to the uncertainty in TVA assigning high confidence of success probability to achieving full function of the two critical systems necessary for

mitigating design basis flooding events. In addition, this conclusion is further supported by the lack of work prioritization and resource planning in the AOI in effect at the time this issue was identified.

Additionally, the NRC performed a sensitivity analysis and decreased the HEP values by half the original assumed values to evaluate the potential impact of applying additional success credit, and this did not result in a significant change for this finding.

After considering the information developed during the inspection and the information provided at the regulatory conference, the NRC has concluded that this finding is appropriately characterized as Yellow, an issue of substantial safety significance.

The NRC also has determined that the second finding (AV 05000390/2012009-03) involving the failure to maintain an adequate abnormal condition procedure to implement the flood mitigation strategy is a violation of Technical Specification (TS) 5.7.1, "Procedures," as cited in the attached Notice of Violation (Notice). The circumstances surrounding the violation were described in detail in the referenced inspection report. In accordance with the NRC Enforcement Policy, the Notice is considered escalated enforcement action because it is associated with a Yellow finding.

Regarding the third finding, (AV 05000390/2012009-04), Failure to Adequately Protect Safety Related Equipment (thermal barrier booster pumps) During Flood Mode Preparation, TVA provided new information supported by vendor analysis which concluded that a potential loss of RCP seal cooling during Mode 4 conditions with the RCP pumps stopped would be bounded by the probability of a small break loss of coolant accident ( $1.5E-3$  per NUREG/CR-6928, "Industry-Average Performance for Components and Initiating Events at U.S. Commercial Nuclear Power Plants"). The rationale for the lower RCP seal failure probability was based on: 1) lower RCS pressure affecting seal ring extrusion, 2) lower RCS temperature affecting popping seal failure, and 3) lower RCS temperature affecting seal ring binding. This technical issue did not reduce the risk of the AOI-7.01 issue (AV 05000390/2012009-03) because under a hypothetical sustained loss of core cooling, core damage ultimately would occur regardless of whether the RCP seals failed or not. Following the Regulatory Conference, the analysts reviewed the vendor information and agreed with TVA's RCP seal failure analysis insights that the original probabilities of RCP seal integrity loss in the NRC risk analysis could be assumed as conservative. As a result, the staff determined that it was appropriate to apply an order of magnitude reduction to the RCP seal failure probability used in the original Phase 3 analysis, and the finding is appropriately characterized as Green.

After considering the information developed during the inspection and the information provided at the Regulatory Conference, the NRC has concluded that this finding represents a violation of 10 CFR 50, Appendix B, Criterion III, "Design Control" and is characterized as a Green NCV, an issue of low safety significance, in accordance with criterion of 2.3.2 of the Enforcement Policy. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Watts Bar Nuclear Plant.

You have 30 calendar days from the date of this letter to appeal the staff's determination of significance for the identified Yellow and White findings. Such appeals will be considered to have merit only if they meet the criteria given in the Inspection Manual Chapter (IMC) 0609, Attachment 2. An appeal must be sent in writing to the Regional Administrator, Region II, 245 Peachtree Center Avenue NE, Suite 1200, Atlanta, Georgia 30303-1257.

Based on the information developed during the inspection associated with the first issue previously described (AV 05000390/2012009-01) and the information provided at the conference, the NRC has concluded that an additional violation of NRC requirements occurred (AV 05000390/2012009-02). Specifically, the NRC determined that the failure to report, within eight hours of occurrence (discovery) an unanalyzed condition that significantly degraded plant safety constitutes a violation of 10 CFR 50.72 (b)(3)(ii)(B). The violation, the significance of which was evaluated using the NRC's traditional enforcement process, is cited in the enclosed Notice and the circumstances surrounding it were described in detail in NRC IR 05000390/2012009.

As discussed in the Enforcement Policy, the severity level of a violation involving the failure to make a required report to the NRC will be based upon the significance of and the circumstances surrounding the matter that should have been reported. In this case, and as discussed above, the NRC concluded that the failure to provide the required report is associated with a White finding for TVA's failure to establish an adequate procedure for mitigation of external events. In addition, TVA's failure to report an unanalyzed condition that significantly degraded plant safety, as required by 10 CFR 50.72, impeded the NRC's regulatory process. Had TVA reported the incident as required, NRC review and follow-up inspection likely would have occurred, which may have prompted TVA to adopt compensatory measures and/or corrective actions, thereby precluding further incidents. Based on the above, the NRC has concluded that the violation of 10 CFR 50.72 is appropriately characterized at Severity Level III, in accordance with the NRC Enforcement Policy.

Because Watts Bar Unit 1 has not been the subject of escalated enforcement actions within the last two years, the NRC considered whether credit was warranted for Corrective Action in accordance with the civil penalty assessment process in Section 2.3.4 of the Enforcement Policy. In response to the inspection findings of March 12, 2013, the Watts Bar staff promptly initiated Problem Evaluation Reports (PERs) 669443 and 682202, conducted an extent of condition review of past instances where its flood mitigation strategies may not have been adequate, and included the reportability aspect as part of an overall Root Cause Analysis. Your Root Cause Analysis concluded that the cause of the reportability issues could be attributed, in part, to multiple inadequate procedures regarding reportability of unanalyzed conditions and a cultural bias towards not reporting issues that are not fully analyzed. Based on this review, you revised procedures to include guidance on conservative decision-making for reporting, conducted reportability training for key organizations, and developed a structured oversight program to assess reportability decisions. Based on the promptness of corrective actions, the procedural revisions and the Root Cause Analysis, the NRC has concluded that credit is warranted for the factor of Corrective Action. Therefore, to encourage prompt and comprehensive correction of violations, and in recognition of the absence of previous escalated enforcement action, I have been authorized, after consultation with the Director, Office of Enforcement, to propose that no civil penalty be assessed in this case. However, significant violations in the future could result in a civil penalty.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC's review of your response to the Notice will also include a determination regarding whether further enforcement action is necessary to ensure compliance with regulatory requirements.

Because plant performance for this issue has been determined to be beyond the licensee response column, we have used the NRC's Action Matrix to determine the most appropriate NRC response for this event. As a result of our assessment review, we have assessed Watts Bar's performance to be in the Degraded Cornerstone Column of the NRC's Action Matrix beginning in the first quarter of calendar year 2013.

We will conduct a supplemental inspection (Inspection Procedure 95002) when you have notified us of your readiness for the NRC to review the actions taken to address these issues. This inspection will review the inspection findings issued in this final significance determination letter.

The 95002 inspection will provide assurance that the root and contributing causes of the risk-significant performance issues are understood and independently assess and provide assurance that the extent of condition and the extent of cause of the risk-significant performance issues are identified. In addition, it will determine if safety culture components caused or significantly contributed to the risk-significant performance issues and provide assurance that TVA's corrective actions for risk-significant performance issues are sufficient to address the root and contributing causes and prevent recurrence.

For administrative purposes, this letter is issued as NRC IR 05000390/2013009. Accordingly, consistent with the regulatory positions described in this letter AV 05000390/2012009-01 is updated as VIO 05000390/2012009-01 with no cross-cutting aspect, AV 05000390/2012009-02 is updated as VIO 05000390/2012009-02 with no cross-cutting aspect, AV 05000390/2012009-03 is updated as VIO 05000390/2012009-03 with a cross-cutting aspect in the area of Human Performance, and AV 05000390/2012009-04 is updated as a Green NCV 05000390/2012009-04 with a cross-cutting aspect in the area of Human Performance.

J. Shea

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Sincerely,

*/RA/*

Victor M. McCree  
Regional Administrator

Docket No.: 50-390  
License No.: NPF-90

Enclosure: Notice of Violation

cc w/encl: (See page 9)



In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Sincerely,

*/RA/*

Victor M. McCree  
Regional Administrator

Docket No.: 50-390  
License No.: NPF-90

Enclosure: Notice of Violation

cc w/encl: (See page 9)

X PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE      X NON-SENSITIVE  
ADAMS:  Yes      ACCESSION NUMBER:      X SUNSI REVIEW COMPLETE       FORM 665 ATTACHED

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J. Shea

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cc w/encl:  
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Ann Harris  
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Rockwood, TN 37854

Letter to Joseph W. Shea from Victor M. McCree dated June 4, 2013

SUBJECT: WATTS BAR UNIT 1 NUCLEAR PLANT - FINAL SIGNIFICANCE  
DETERMINATION OF YELLOW FINDING, WHITE FINDING AND NOTICES OF  
VIOLATIONS ASSOCIATED WITH FLOOD MITIGATION STRATEGIES AND  
EQUIPMENT AND ASSESSMENT FOLLOW-UP LETTER; INSPECTION REPORT  
NO. 05000390/2013009

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## NOTICE OF VIOLATION

Tennessee Valley Authority  
Watts Bar Nuclear Plant  
Unit 1

Docket No. 50-390  
License No. NPF-90  
EA-13-018

During an NRC inspection completed on February 15, 2013, four violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. Technical Specification 5.7.1, Procedures, requires in part that written procedures shall be established, implemented, and maintained covering the activities recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978.

Regulatory Guide 1.33, Revision 2, Appendix A, includes "Abnormal Conditions" as a typical safety-related activity that should be covered by written procedures.

Abnormal Operating Instruction (AOI) 7.1, "Maximum Probable Flood," Revision 16, provides detailed instructions for implementing required site flood mitigation strategies necessary to cope with design basis flooding events.

Contrary to the above, prior to September 30, 2009, the licensee failed to establish and/or maintain an adequate Abnormal Operating Instruction procedure to implement its flood mitigation strategy. Specifically, AOI 7.1 was inadequate to mitigate the effects of a Probable Maximum Flood (PMF) event, in that earthen dams located upstream of the facility could potentially overtop, causing a subsequent breach. Failure of the earthen dams during a PMF event would have resulted in onsite flooding and subsequent submergence of critical equipment, such as the Emergency Diesel Generators, resulting in an ineffective flood mitigation strategy for these PMF events.

This violation is associated with a White Significance Determination Process (SDP) finding.

- B. Technical Specification 5.7.1, Procedures, requires, in part, that written procedures shall be established, implemented, and maintained covering the activities recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978.

Regulatory Guide 1.33, Revision 2, Appendix A, includes "Abnormal Conditions" as a typical safety-related activity that should be covered by written procedures.

Abnormal Operating Instruction AOI-7.1, "Maximum Probable Flood," Revision 21, and the supporting maintenance instructions referenced therein, required that the plant be reconfigured and systems realigned within 27 hours, consistent with Technical Requirements Manual (TRM) 3.7.2 and Watts Bar UFSAR Section 2.4.

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Contrary to the above, the licensee failed to maintain an adequate Abnormal Condition procedure to implement its flood mitigation strategy. Specifically, the licensee was unable to implement AOI-7.1 to reconfigure and realign systems necessary for flood mitigation within 27 hours. As a result, the licensee's flood mitigation strategy for certain flooding events, including PMF events, was inadequate. This condition existed from initial licensing until July 2012.

This violation is associated with a Yellow SDP finding.

- C. 10 CFR 50.72(b)(3)(ii)(B) states that a licensee shall notify the NRC as soon as practical and in all cases within eight hours of the occurrence of the nuclear plant being in an unanalyzed condition that significantly degraded plant safety.

Contrary to the above, on December 30, 2009, the licensee failed to report within eight hours an unanalyzed condition that significantly degraded plant safety for the Watts Bar Unit 1 facility. Specifically, the licensee failed to notify the NRC upon confirmation that a postulated Probable Maximum Flood (PMF) level would exceed the current licensing basis and the design basis PMF flooding event would result in overtopping of critical earthen dam structures upstream of the Watts Bar facility. These overtopping conditions were not previously assumed in the licensing basis for the facility and represented an unanalyzed condition.

This is a Severity Level III violation (Enforcement Policy paragraph 6.9).

Pursuant to the provisions of 10 CFR 2.201, Tennessee Valley Authority is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region 2, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-13-018" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made

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available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 4 day of June 2013

Enclosure