

**ENCLOSURE 2**

## **I. SUMMARY OF RESOLUTION OF APPARENT VIOLATIONS:**

### **Background:**

The NRC's letter of March 9, 2020 (NRC's Agencywide Documents Access and Management System (ADAMS) Accession No. ML20065M374), documented twelve Apparent Violations (AVs) associated with events at the Tennessee Valley Authority (TVA) Watts Bar Nuclear Plant (WBN), Unit 1, that were being considered for escalated enforcement in accordance with the NRC Enforcement Policy. For administrative tracking purposes, the letter of March 9, 2020, is designated as NRC Inspection Report 50000390/2020012.

On July 22–24, 2020, a remote pre-decisional enforcement conference (PEC) was conducted with the Tennessee Valley Authority (TVA) to discuss the apparent violations, their significance, their root causes, and TVA's corrective actions. The conference was closed to public observation because the findings were related to an NRC Office of Investigations (OI) report that has not been publicly disclosed.

### **Summary of TVA Position on AVs:**

At the PEC, TVA provided its perspective on the AVs, including whether it agreed with the violations; whether it agreed that TVA staff engaged in deliberate misconduct; the safety and regulatory perspective of the AVs; and corrective actions in response to the issues. With one exception associated with AV9, TVA denied that any staff engaged in deliberate misconduct. TVA agreed with the NRC that AVs 1, 2, 3, 5 and 6 (as referenced in the March 9, 2020 NRC letter) represented violations of requirements, but contended that these violations should be characterized as non-escalated enforcement due to the underlying lack of safety significance and the lack of deliberate misconduct.

At its PEC and in its written response to AV4, TVA stated that treating the provisions in Section 3.3 of Procedure NPG-OPDP-1, "Conduct of Operations," as enforceable requirements would be inconsistent with the NRC's Safety Culture Policy Statement and the Commission's direction regarding the Policy Statement. TVA described the bases for its view that the Policy Statement was not intended as an enforceable requirement and tied the cited provisions of its Conduct of Operations procedure to the goals of a strong safety culture. TVA further asserted that the provisions of Section 3.3 of NPG-OPDP-1 were guidelines reflecting general principles of behavior rather than objective procedural requirements. TVA claimed that citing a violation of 10 CFR Part 50, Appendix B, Criterion V for these subjective provisions of the procedure would be inappropriate because the Commission determined that the Policy Statement does not create enforceable requirements, and that doing so would represent a "sea change" from current practice. Finally, TVA acknowledged at the PEC that during the Unit 1 startup of November 11, 2015, the Unit 1 Main Control Room (MCR) and Outage Control Center (OCC) staff did not ensure that shift operations were conducted in a conservative manner; however, TVA stated that corrective actions had been implemented to address weaknesses and that the NRC had conducted several inspections since that time as a part of the NRC's review of TVA's actions in response to the NRC's letter (ML16083A479) to TVA (referred to as a Chilling Effect

Letter, or CEL), which identified that a Chilled Work Environment existed in the Operations Department.

Finally, TVA denied that AVs 7, 8, 10, 11 and 12 constituted violations of regulatory requirements, and stated its view that TVA staff communications at that time were forthright and based on reasonable and best information available to TVA staff at that time.

### **Summary of TVA's Corrective Actions:**

TVA discussed and provided specific corrective actions taken in response to each AV. Additionally, TVA provided a corrective action statement, documenting actions taken over a period of nearly five years, that in its view generally addresses the three broad areas of conduct related to the apparent violations: (1) procedural non-compliance associated with the November 11, 2015 pressurizer water level event; (2) adherence to TVA's Safety Policy reflected in WBN Procedure OPDP-1, "Conduct of Operations"; and (3) completeness and accuracy of information submitted to the NRC by TVA employees.

Actions taken to correct performance issues associated with the November 11, 2015 event included TVA's analyses to identify (1) causes of operational events at WBN, including the November 11, 2015 event, and (2) general deficiencies in operator fundamentals. Examples of actions taken to correct performance issue were provided by TVA and included Condition Report (CR) 1118150, initiated on December 21, 2015, and the initiation of CR 1186630 on June 28, 2016. CR 1118150 was escalated to the Plant Manager, to evaluate the Operations department management lack of formality in the application of standards and human performance resulting in recurring preventable human performance events.

To evaluate the circumstances surrounding the November 11, 2015 WBN-1 pressurizer water level event, TVA initiated apparent cause evaluation CR 1121520 on January 5, 2016, and root cause evaluation CR 1127691 on January 21, 2016. These actions led to numerous corrective actions, including, but not limited to a case study covering issues associated with the event, oral boards with all shift managers, and revisions to plant procedures. The case study, which was presented to licensed operators, OCC staff, and senior station leadership, included a discussion of the performance gaps associated with decision-making, risk management, stopping when unsure, use of the corrective action program to document and resolve issues, procedural use and adherence, and roles and dynamics between the OCC and MCR. In January 2016, TVA held oral boards with all shift managers, conducted by the Site Vice President, Plant Manager, and the Unit 2 Project Vice President, to evaluate and reinforce conservative decision-making, responsibility, authority for stopping when unsure, and procedural use and adherence including the use of "N/A." TVA also revised plant procedures to ensure an established procedural mechanism to address operational limitations identified in clearance development and Mode restraints.

TVA stated that the corrective actions taken to address the issues raised in the NRC's CEL are relevant to the NRC's concerns associated with implementation of TVA Procedure OPDP-1, Conduct of Operations. TVA highlighted its April 22, 2016, written response (ADAMS ML16113A228) to the NRC's March 2016 CEL; its root cause evaluation in response to the NRC's March 2016 CEL (CR 1155393), and, by reference, those actions taken that were documented in TVA's internal Chilled Work Environment Root Cause Analysis Report. TVA also noted that once its safety culture monitoring efforts and root cause effectiveness review determined that the Chilling Effect Letter and Cross-cutting Issue closure criteria were met, TVA

notified the NRC on October 3, 2019 of its readiness for the NRC follow-up inspection (ADAMS ML19276C380). TVA's letter included a summary of the actions taken to address the closure criteria, including sustained improvement in the Operations Department work environment, which TVA stated was relevant to contributing causes for operator actions and decision-making during the November 11, 2015 heat-up.

TVA also referenced several NRC Inspection Reports and NRC Annual Assessments for WBN over the past four years, and noted that most recently, on March 3, 2020, the NRC issued its Annual Performance Assessment letter (ADAMS ML20063M652), which found that TVA had made progress to address the Chilling Effect Letter and Cross-Cutting Issue closure criteria. TVA asserted that it believes that the actions taken to address the 2015 operational events and operator performance issues, along with the actions taken to meet the CEL and Cross-cutting Issue closure criteria, have successfully addressed the organizational and operator performance issues associated with the apparent violations documented in the NRC's letter of March 9, 2020.

TVA also described corrective actions taken to correct performance issues associated with maintaining and submitting complete and accurate information. These actions included: (1) a revision to TVA Procedure NPG-SSP-03.10, "Managing TVA's Interface with NRC," including multiple changes to the validation process for NRC submittals, and (2) a communication from the TVA Chief Nuclear Officer reemphasizing to all TVA Nuclear personnel the requirement for all interactions with the NRC to be complete and accurate. Additionally, TVA referenced its response (ADAMS ML19259A064) detailing corrective actions taken in response to NRC escalated enforcement action EA-19-042 (ADAMS ML19323F546). This enforcement action, issued on November 19, 2019, involved TVA's submittal of incomplete and inaccurate information regarding the adequacy of the offsite electric power system on multiple occasions as part of the licensing of WBN Unit 2 from 2010 through 2013, and subsequently as part of a license amendment for WBN Unit 1 in 2015.

### **Summary of NRC Conclusions on AVs:**

Based on the information developed during the investigation and the information that TVA provided during and after the PEC, the NRC has determined that a substantial safety culture issue existed at the WBN-1 site during the late fall of 2015 to early 2016, and that AVs 2, 4, 5, 6, and 9 represent violations of NRC requirements. These violations, which are cited in Enclosure 1, are summarized below:

AV 2 (Violation E of Enclosure 1): On November 9, 2015, a TVA employee failed to follow Procedure NPG-SPP-01.2.1, "Interim Administration of Site Technical Programs and Procedures for Watts Bar 1 and 2", Rev. 0002, when revising General Operating Instruction (GOI) 1-GO-1, "Unit Startup from Cold Shutdown to Hot Standby." The NRC concluded that the employee's actions were willful. This violation is characterized at Severity Level III, based on the underlying safety significance together with the willful aspects. Additionally, a \$300,000 civil penalty is proposed for this violation.

AV 4 (Violation A of Enclosure 1): On November 11, 2015, the licensee failed to accomplish activities affecting quality in accordance with TVA Procedure NPG-OPDP-1, Section 3.3.3, "Conservative Decision Making." Specifically, during a startup of WBN Unit 1, when faced with an emerging issue, MCR operators did not ensure that shift operations were conducted in a safe and conservative manner; did not stop when unsure and proceed in a deliberate and controlled manner; did not validate available information; allowed production to override safety; and

proceeded in the face of uncertainty. Because of the significant potential consequences and increased risk associated with plant operations in a non-conservative manner by licensed operators, with the knowledge of the OCC, this violation is characterized at Severity Level III. A civil penalty is not proposed for this violation.

AV 5 (Violation C of Enclosure 1): On November 11, 2015, TVA WBN Unit 1 MCR operators failed to maintain operations department logs, as required by TVA Procedure NPG-OPDP-1, "Conduct of Operations," Revision 0035, Section 3.6, to include a narrative of all events necessary to maintain an accurate history of plant operation, and shift management failed to ensure that the logs were accurate and appropriate. This violation is characterized at Severity Level III, because the inaccurate and incomplete MCR logs significantly impeded the NRC's review and understanding of the safety significance of the November 11, 2015 startup. The violation is grouped with AV 6 (Violation B of Enclosure 1) as a Severity Level III Problem, and a \$300,000 civil penalty is proposed for this Problem.

AV 6 (Violation B of Enclosure 1): On November 11, 2015, TVA WBN Unit 1 MCR operators failed to follow Procedure 1-SOI-74.01, "Residual Heat Removal System," when they re-established Residual Heat Removal (RHR) letdown without first starting the RHR pump. The NRC concluded that the actions of one operator were willful. This violation is characterized at Severity Level III, based on the underlying safety significance together with the willful aspects. The violation is grouped with AV 5 (Violation C of Enclosure 1) as a Severity Level III Problem. A \$300,000 civil penalty is proposed for this Problem.

AV 9 (Violation D of Enclosure 1): On December 18, 2015, during an interview with the NRC, a TVA employee failed to provide complete and accurate information, as required by 10 CFR 50.9. The NRC concluded that the employee's actions were willful. This violation is characterized at Severity Level II, because the inaccurate and incomplete information significantly impeded the NRC's review and understanding of the safety significance of the November 11, 2015 startup, because the individual was considered to be a licensee official, and because of the willful aspects. Additionally, a \$303,471 civil penalty is proposed for this violation.

## **II. DETAILS:**

The following provides a summary of the resolution of each AV as referenced in the NRC's March 9, 2020 letter, based on the information developed during OI Investigation 2-2016-042, and NRC review of the information provided by TVA during and after its PEC. Violations that the NRC has determined do not warrant escalated enforcement (AVs 1 and 3) will be dispositioned in the WBN quarterly integrated inspection report.

### **1. Summary of Apparent Violation No. 1:**

Description: On October 21, 2015, the licensee failed to follow General Operating Instruction (GOI) 1-GO-2, "Reactor Startup," while conducting a start-up of Unit 1. Specifically, the MCR operators maintained the Steam Generator levels on program using the Standby Main Feedwater Pump, to facilitate performance testing and inspection of feedwater valves, instead of using the Auxiliary Feedwater (AFW) pumps. These actions appeared to be in violation of Watts Bar Nuclear Plant (WBN) Unit 1 Technical Specification (TS), NRC Regulatory Guide 1.33, Revision 2, "Quality Assurance Program Requirements," and WBN GOI 1-GO-2, Revision 6, Section 4, "Prerequisites".

The NRC's letter of March 9, 2020 identified this violation as non-willful. TVA accepted this violation, and the information provided by TVA at its PEC supported the NRC's conclusion that this violation did not involve willfulness. Therefore, this violation will be assessed in accordance with the Significance Determination Process and dispositioned in the next quarterly integrated inspection report.

## 2. Summary of Apparent Violation No. 2:

Description: The NRC's letter of March 9, 2020 documented that on November 9, 2015, TVA staff apparently failed to follow Procedure NPG-SPP-01.2.1, "Interim Administration of Site Technical Programs and Procedures for Watts Bar 1 and 2", Rev. 0002, when revising General Operating Instruction (GOI) 1-GO-1, "Unit Startup from Cold Shutdown to Hot Standby." During a Unit 1 startup from Cold Shutdown to Hot Standby, the Manager of Nuclear Plant Shift Operations identified the need for a procedural change, directed a procedure writer to make the change, and then approved the change to the procedure that was not minor/editorial, in that it altered the technical intent of GOI 1-GO-1. Procedural changes that are not minor/editorial require a higher level of review and approval to ensure plant safety. The NRC preliminarily concluded that the actions of the Manager of Nuclear Shift Operations and the procedure writer were willful.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that the licensee violated 10 CFR Part 50, Appendix B, Criterion V, and TVA Procedure NPG-SPP-01.2. Additionally, the NRC concluded that the actions of the Manager of Nuclear Plant Shift Operations were willful.

Because of the willful aspects, this violation was assessed and dispositioned in accordance with the NRC Enforcement Policy. The assessment process entails evaluation of the significance of a violation based on actual consequences, potential consequences, impacting or impeding the regulatory process, and willfulness.

Enforcement Action: Due to the willful aspects and potential underlying safety consequences involving procedural non-compliance, this violation is characterized as a Severity Level III violation in accordance with the NRC Enforcement Policy, and is cited in Enclosure 1 (VIO 05000390/2020013-01, Failure to follow TVA Procedure NPG-SPP-01.2.1 during a procedure change).

## 3. Summary of Apparent Violation No. 3:

Description: The NRC's letter of March 9, 2020, documented that on November 11, 2015, the licensee failed to follow GOI 1-GO-1, during a reactor startup by not ensuring Steps 5.3[17] and 5.3[22] were properly completed prior to entering Mode 4. Specifically, Step 5.3[17] was marked as "N/A" without explanation or independent verification when, in fact, Clearance 1-62-0584-FO, which contained a Mode 5/6 restriction, was still in effect. Additionally, the Shift Manager initialed Section 5.3, Step [22], indicating that all restraints to Mode 4 entry had been resolved, when in fact all such restraints had not been resolved. In this case, Valve 1-FCV-62-70 was under repair and not in the "OPERABLE" position. As a result, the Chemical and Volume Control System (CVCS) was in an abnormal line-up controlled by Clearance 1-62-0584-FO. The clearance contained a Mode 5/6 restriction, which was a safety precaution that was necessary for the valve repair work. These actions were determined to be in apparent violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," and Watts Bar Nuclear (WBN) Plant, Unit 1 General Operating Instructions (GOI) 1-GO-1, "Unit

Startup from Cold Shutdown to Hot Standby,” Revision 4, and appeared to be the result of willful actions by TVA staff.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that the licensee’s actions were in violation of 10 CFR Part 50, Appendix B, Criterion V, and TVA GOI 1-GO-1. Additionally, the NRC concluded that the licensee’s actions were not willful, but rather were attributable to personnel error. Therefore, this violation will be assessed in accordance with the Significance Determination Process and dispositioned in the next quarterly integrated inspection report.

#### 4. Summary of Apparent Violation No. 4:

Description: The NRC’s letter of March 9, 2020 documented that during a Unit 1 reactor start-up on November 11, 2015, the licensee failed to follow TVA Procedure NPG-OPDP-1 “Conduct of Operations,” Revision 0035, as required by 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings.” Specifically, during the Unit 1 reactor start-up on November 11, 2015, when faced with an emerging issue, the licensee did not ensure that shift operations were conducted in a safe and conservative manner; did not stop when unsure and proceed in a deliberate and controlled manner; did not validate available information; allowed production to override safety; and proceeded in the face of uncertainty. The NRC found, as documented in the March 9, 2020 letter, that the licensee’s actions were in apparent violation of Procedure NPG-OPDP-1, “Conduct of Operations,” and appeared to be due to willful actions of TVA staff.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that a violation occurred involving TVA staff’s failure to follow TVA Procedure OPDP-1, “Conduct of Operations,” Section 3.3.3 “Conservative Decision Making,” Subpart A, as required by 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings.” The NRC concluded that the TVA staff actions were not willful. However, two licensed operators who were on duty at the time are being cited for non-willful violations of their 10 CFR Part 55 licenses. Because of the significant potential consequences and increased risk associated with plant operations in a non-conservative manner by licensed operators, with the knowledge of the OCC, this violation is characterized at Severity Level III in accordance with the NRC Enforcement Policy, and is cited in Enclosure 1 (VIO 05000390/2020013-02, Failure to follow TVA Procedure OPDP-1, Conduct of Operations).

#### 5. Summary of Apparent Violation No. 5:

Description: The NRC’s letter of March 9, 2020, documented that on November 11, 2015, the licensee failed to follow TVA Procedure NPG-OPDP-1, “Conduct of Operations,” Revision 0035, Section 3.6, “Log Keeping.” Specifically, the MCR operators failed to maintain operations department logs that contained a narrative of all events necessary to maintain an accurate history of plant operation and failed to ensure that the logs were accurate and appropriate. On November 11, 2015, the Watts Bar Nuclear (WBN) Plant Unit 1 MCR operators were conducting a plant startup after a maintenance outage in accordance with General Operating Instruction (GOI) 1-GO-1, “Unit Startup from Cold Shutdown to Hot Standby.” During the startup, the MCR removed RHR letdown from service, leaving excess letdown in service to control pressurizer water level while continuing with the startup. After the MCR operators removed RHR from service, the pressurizer water level rose uncontrollably from approximately 45 percent to 79 percent over the next hour and twenty minutes. Prior to exceeding the pressurizer high level alarm, the MCR operators opened RHR loop suction valves (Valves 1-FCV-74-1 and 1-FCV-74-2) and placed RHR letdown back in service to regain pressurizer water level control. The MCR

operators conducted the above major equipment manipulations and plant configuration changes and did not make any log entries to document the loss of control of pressurizer level or the actions taken to regain control. As a result, the logs failed to provide enough detail for the NRC or the licensee to reconstruct the events later. Shift management also did not review the logs to ensure that the logs were accurate and appropriate. The NRC's letter of March 9, 2020 documented that the licensee's actions were in apparent violation of Title 10 CFR Part 50, Appendix B, Criterion XVII, "Quality Assurance Records," and TVA Procedure NPG-OPDP-1, "Conduct of Operations," Revision 0035, Section 3.6, "Log Keeping," and appeared to be due to the willful actions of TVA staff.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that that the licensee's actions were in violation of 10 CFR Part 50, Appendix B, Criterion XVII, "Quality Assurance Records," and TVA Procedure NPG-OPDP-1, "Conduct of Operations," Revision 0035, Section 3.6, "Log Keeping." Additionally, the NRC concluded that this violation involved willfulness on the part of the Unit Supervisor.

Because this violation significantly impeded the NRC's review and understanding of the circumstances surrounding the November 11, 2015, event, it is being assessed and dispositioned as a Severity Level III violation in accordance with the NRC Enforcement Policy. In addition, the willful aspects of this violation would normally result in the NRC escalating the severity level of the violation to Severity Level II. However, due to the particular circumstances of this case (i.e., the unavailability of the Unit Supervisor, which precluded TVA's ability to assess his actions) the NRC has decided to disposition this violation as SL III, and to not consider the willful aspects in the civil penalty assessment.

Enforcement Action: This violation is characterized as a Severity Level III violation in accordance with the NRC Enforcement Policy. Non-cited violation 05000390/2016001-07, Failure to Maintain Operating Logs is withdrawn and this violation is cited in Enclosure 1 (VIO 05000390/2020013-03, Failure to Maintain Operating Logs).

## 6. Summary of Apparent Violation No. 6:

Description: The NRC's letter of March 9, 2020, documented that on November 11, 2015, the licensee failed to operate the RHR system in accordance with approved written procedures. Specifically, the MCR operators did not follow Procedure 1-SOI-74.01, "Residual Heat Removal System," when they re-established RHR letdown without first starting the RHR pump. The NRC's letter of March 9 also documented that the actions of the licensee appeared to be willful.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that that the licensee's actions were in violation of 10 CFR Part 50, Appendix B, Criterion V, TVA Procedure NPG-OPDP-1, "Conduct of Operations," Revision 0035, Section 3.8.1, "Procedural Adherence," TVA Procedure NPG-SPP-01.2, "Administration of Site Technical Procedures," Section 3.2.2B, and WBN Procedure 1-SOI-74.01, Residual Heat Removal (RHR) System, Revision 0002. Procedure 1-SOI-74.01 is a continuous use procedure, and Section 5.8.2, Steps [11], [18], and [21], state that the required sequence of plant operations is to open valves 1-FCV-74-1 and 1-FCV-74-2 (Step 11) and start the RHR pump (Step 18) before establishing RHR letdown (Step 21).

Additionally, the NRC concluded that the actions of the Shift Manager were willful. Because of the willful aspect, this violation is assessed and dispositioned in accordance with the NRC Enforcement Policy. The assessment process entails evaluation of the significance of a

violation based on actual consequences, potential consequences, impacting or impeding the regulatory process, and willfulness.

Enforcement Action: Due to the willful aspects and potential underlying safety consequences involving procedural non-compliance, this violation is characterized as a Severity Level III violation in accordance with the NRC Enforcement Policy. Non-cited Violation 05000390/2016001-05, Failure to Use Approved Procedures to Place RHR Letdown In Service is withdrawn and this violation is cited in Enclosure 1 (VIO 05000390/2020013-04, Failure to follow TVA Procedure 1-SOI-74.01 while operating the RHR system during a Unit 1 Reactor Start-up).

#### 7. Summary of Apparent Violation No. 7:

Description: The NRC's letter of March 9, 2020 documented an apparent violation of 10 CFR 50.9(a), when on December 14, 2015, two TVA employees met with the NRC Senior Resident Inspector (SRI) in the NRC Resident Inspector Office at WBN. At the meeting, the TVA employees gave the SRI a document containing written responses to questions that the SRI had previously posed regarding events that occurred on November 11, 2015, during a Unit 1 startup. In response to the SRI's question as to why the RHR inlet valves were cycled on November 11, 2015, the TVA written response stated that one reason the RHR inlet valves were cycled was to place RHR letdown in service "to allow the repair of a valve inside containment on the normal letdown line (Valve 1-FCV-62-70)."

The NRC's letter of March 9, 2020 documented that the written response provided by the TVA employees to the SRI appeared to be inaccurate because it stated that the RHR inlet valves (Valves 1-FCV-74-1 and 1-FCV-74-2) were opened "to allow the repair of a valve inside containment on the normal letdown line (Valve 1-FCV-62-70)," when in fact the repair was initiated hours before the valves were opened. The written response also appeared to be incomplete because it omitted the actual reason why the RHR inlet valves were cycled, which was to arrest the increase in pressurizer water level resulting from the inability of excess letdown to control pressurizer water level during the heat-up. The March 9, 2020 letter also documented that TVA WBN maintained information that did not appear to be complete and accurate in all material respects in Condition Report (CR) 1114975, which was written on December 15, 2015, to address the SRI's concerns about the November 2015 startup. Finally, the March 9, 2020 letter indicated that the actions of the employees appeared to be willful.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that the licensee's actions did not result in a violation of 10 CFR 50.9(a).

Accordingly, AV 7 is closed via this inspection report.

#### 8. Summary of Apparent Violation No. 8:

Description: The NRC's letter of March 9, 2020 documented an apparent violation of 10 CFR 50.9(a), when on January 6, 2016, the NRC staff conducted a meeting with TVA's WBN plant senior managers at the WBN facility. During the meeting, TVA discussed the circumstances of the November 11, 2015, Unit 1 start-up, and presented a slide that appeared to contain incomplete and/or inaccurate information related to the Unit 1 start-up. The NRC's letter of March 9, 2020 also documented that the actions of TVA staff were apparently willful.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that the licensee's actions did not result in a violation of regulatory requirements.

Accordingly, AV 8 is closed via this inspection report.

#### 9. Summary of Apparent Violation No. 9:

Description: The NRC's letter of March 9, 2020 documented an apparent violation of 10 CFR 50.9(a), when on December 18, 2015, the NRC's Office of Investigations (OI) interviewed several TVA WBN employees regarding a Unit 1 startup on November 11, 2015, and a decision to continue with the startup while controlling pressurizer water level using only excess letdown. During those interviews, two of the employees interviewed that day, the WBN Unit 1 Shift Manager who was on duty on November 11, 2015, and the Operations Superintendent, provide information that appeared to be incomplete and inaccurate to OI.

During the OI interviews, both the Operations Superintendent and the Shift Manager stated that no one had brought forth concerns regarding the Unit 1 startup before, during, or after the November 11, 2015, event. Additionally, the Shift Manager made several affirmative statements to OI indicating his belief that using only excess letdown would be successful in controlling pressurizer water level. Both the Operations Superintendent and the Shift Manager also stated that there was no significant pushback from the MCR operators and represented that the decision to continue with the heat-up was not influenced by anyone outside the MCR.

Based on the results of the investigation and information provided by TVA at the PEC, the NRC concluded that that the licensee's actions (specifically, the statements of the Shift Manager) were in violation of 10 CFR 50.9(a). The NRC concluded that there was no violation of regulatory requirements associated with the Operations Superintendent's statements. Additionally, the NRC concluded that the Shift Manager's actions were willful, in that he deliberately provided information to the NRC that he knew was incomplete and inaccurate, in violation of 10 CFR 50.5(a)(2). Because of the willful aspect, this violation is assessed and dispositioned in accordance with the NRC Enforcement Policy. The assessment process entails evaluation of the significance of a violation based on actual consequences, potential consequences, impacting or impeding the regulatory process, and willfulness.

Enforcement Action: Because this violation impeded the NRC's review of the circumstances of the Unit 1 start-up of November 11, 2015, was due to the actions of an individual who was considered to be a licensee official, and was willful, it is characterized as a Severity Level II violation in accordance with the NRC Enforcement Policy, and is cited in Enclosure 1 (VIO 05000390/2020013-05, Failure to provide complete and accurate information to OI).

#### 10. Summary of Apparent Violation No. 10:

Description: The NRC's letter of March 9, 2020, documented an apparent violation of 10 CFR 50.9(a), when on January 21, 2016, TVA WBN staff completed a Level 2 Corrective Action Program (CAP) evaluation, as part of CR CR 1121520, which contained inaccurate and incomplete information.

On or about January 12, 2016, the licensee initiated a Level 2 corrective action program evaluation to review certain aspects of the November 11, 2015, Unit 1 plant startup, as part of condition report (CR) 1121520. A team led by the WBN Director of Site Support conducted this review and prepared a draft report that assigned responsibility to both the MCR and the OCC for

using incorrect assumptions and information and for displaying a lack of conservative decision making and risk review in the decision to proceed with the plant heat-up on excess letdown. The final Level 2 CAP evaluation report appeared to contain incomplete and/or inaccurate information regarding the apparent and contributing causes for the November 11, 2015, pressurizer water level rise event. The NRC also preliminarily concluded that the apparent violation was willful on the part of TVA staff.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that the licensee's actions did not result in a violation of regulatory requirements.

Accordingly, AV 10 is closed via this inspection report.

#### 11. Summary of Apparent Violation No. 11:

Description: The NRC's letter of March 9, 2020 documented an apparent violation of 10 CFR 50.9(a), when on February 2, 2016, during a non-public "drop-in" meeting with NRC management in the NRC's Region II office, TVA management provided incomplete and inaccurate information regarding the November 11, 2015, event at WBN. During the meeting, a TVA employee presented a slide addressing the apparent cause analysis for the November 11 event. The slide stated that "[t]he Main Control Room (MCR) crew displayed a lack of conservative decision making and risk review," and that this decision "was not recognized or challenged by the OCC [Outage Control Center]." The slide also identified, as a contributing cause, that "[t]he MCR crew did not fully understand the expected plant response and proceeded in the face of uncertainty." This slide appeared to contain incomplete and/or inaccurate information regarding the apparent and contributing causes for the November 11, 2015, pressurizer water level rise event. The NRC also preliminarily concluded that the apparent violation involved willfulness on the part of TVA staff.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that the licensee's actions did not result in a violation of regulatory requirements.

Accordingly, AV 11 is closed via this inspection report.

#### 12. Summary of Apparent Violation No. 12:

Description: The NRC's letter of March 9, 2020 documented an apparent violation of 10 CFR 50.9(a), when on several occasions in March 2016 the licensee provided information to the Commission that did not appear to be complete and accurate in all material respects. These included: (a) information in talking points used during two telephone calls between the TVA Chief of Nuclear Operations (CNO) and NRC senior managers on March 13 and 15, 2016, and (b) information in a TVA Special Review Team (SRT) Report submitted to the NRC on March 24, 2016. The NRC's letter of March 9, 2020 preliminarily concluded that the actions appeared to involve willfulness.

Based on the results of the investigation and information provided by TVA at its PEC, the NRC concluded that the licensee's actions did not result in a violation of regulatory requirements.

Accordingly, AV 12 is closed via this inspection report.

### III. Tracking Items

#### CLOSED

|                     |    |   |
|---------------------|----|---|
| 05000390/2020012-02 | AV | Failure to follow TVA Procedure NPG-SPP-01.2 during a procedure change                                      |
| 05000390/2020012-04 | AV | Failure to follow TVA Procedure OPDP-1, Conduct of Operations   |
| 05000390/2020012-05 | AV | Failure to Maintain Operating Logs  |
| 05000390/2020012-06 | AV | Failure to follow TVA Procedure 1-SOI-74.01 while operating the RHR system during a Unit 1 Reactor Start-up |
| 05000390/2020012-07 | AV | Failure to provide complete and accurate information to the NRC SRI   |
| 05000390/2020012-08 | AV | Failure to provide complete and accurate information to the NRC during Jan 6, 2016 Meeting                  |
| 05000390/2020012-09 | AV | Failure to provide complete and accurate information to OI  |
| 05000390/2020012-10 | AV | Failure to provide complete and accurate information in a Level CAP evaluation                              |
| 05000390/2020012-11 | AV | Failure to provide complete and accurate information to the NRC during Feb 2, 2016 Meeting                  |
| 05000390/2020012-12 | AV | Failure to provide complete and accurate information to the NRC during teleconferences and in Meeting       |

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| 05000390/2020013-01 | VIO | Failure to follow TVA Procedure NPG-SPP-01.2.1 during a procedure change                                    |
| 05000390/2020013-02 | VIO | Failure to follow TVA Procedure OPDP-1, Conduct of Operations   |
| 05000390/2020013-03 | VIO | Failure to Maintain Operating Logs  |
| 05000390/2020013-04 | VIO | Failure to follow TVA Procedure 1-SOI-74.01 while operating the RHR system during a Unit 1 Reactor Start-up |
| 05000390/2020013-05 | VIO | Failure to provide complete and accurate information to OI  |