REVISED NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Watts Bar Nuclear Plant
Unit 1

Docket No.: 05000390
License No.: NPF-90
EA-19-092

During an NRC investigation completed on May 17, 2019, violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

A. Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," states, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.

Tennessee Valley Authority (TVA) Procedure NPG-OPDP-1, "Conduct of Operations," Revision 0035, Section 1.0, "Purpose," states that a purpose of this procedure is to, "provide guidelines and instructions to ensure shift operations are conducted in a safe and conservative manner."

Section 3.3.3 "Conservative Decision Making," Subpart A, states, in part, "Stop when unsure and proceed in a deliberate and controlled manner."

Section 3.3.3 "Conservative Decision Making," Subpart E, states, in part, "When the control room team is faced with an emerging issue: . . .1. Do not allow production and cost to override safety. . . 3. question verify and validate available information. . . 5. Do not proceed in the face of uncertainty."

Contrary to the above, on November 11, 2015, the licensee failed to accomplish activities affecting quality in accordance with TVA Procedure NPG-OPDP-1. Specifically, during a startup of Watts Bar Nuclear Plant (WBN) Unit 1, when faced with an emerging issue, Main Control Room (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. In order to stay on schedule, Outage Control Center (OCC) personnel urged the Shift Manager to proceed, and the Shift Manager decided to proceed and directed MCR operators to continue with startup activities, including conducting a reactor heat-up and a surveillance test of the residual heat removal (RHR) system with normal letdown out of service. The Shift Manager, with input from the OCC, directed the MCR operators to proceed without validating the capability of excess letdown to control pressurizer water level and without having or using approved or modified written procedures for responding to off-normal events during the evolution (uncontrolled pressurizer water level increase). As a direct result, an uncontrolled increase in the

pressurizer water level occurred and the MCR operators did not follow approved procedures to arrest the uncontrolled pressurizer water level increase. Neither the OCC personnel nor the MCR operators had the knowledge, training, or procedural guidance to be certain that the directed reactor operations could be conducted successfully given the current reactor Mode and the equipment configuration at the time.

This is a Severity Level III violation (Enforcement Policy Section 6.1).
Civil Penalty – None.

B. Title 10 CFR Part 50, Appendix B, Criterion XVII, "Quality Assurance Records," states, in part, that, "Sufficient records shall be maintained to furnish evidence of activities affecting quality," and that these records "shall include" operating logs.

TVA Procedure NPG-OPDP-1, "Conduct of Operations," Revision 0035, Section 3.6, "Log Keeping," Paragraph A, states, "Operations department logs, established for key shift positions, contain a narrative of the plant's status and of all events and record the data necessary to maintain an accurate history of plant operation." Paragraph B states, "All members of the shift shall ensure entries are made for their respective areas of responsibility." Paragraph C states that "[l]og entries document all major equipment manipulations and plant configuration changes" and that logs "should provide enough detail that events can be reconstructed at a later date." Paragraph I states, "Shift management reviews the logs to ensure that the logs are accurate and appropriate."

Contrary to the above, on November 11, 2015, the licensee 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 WBN 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.

This is a Severity Level III violation (Enforcement Policy Section 6.9).
Civil Penalty – None.

C. Title 10 CFR 50.9(a) requires that information provided to the Commission by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the licensee shall be complete and accurate in all material respects.

Contrary to the above, on December 18, 2015, the licensee provided information to the Commission that was not complete and accurate in all material respects. Specifically, 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. One of the employees interviewed that day, the WBN Unit 1 Shift Manager who was on duty on November 11, 2015, provided incomplete and inaccurate information to OI.

During his OI interview, 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. The Shift Manager also stated that there was no significant pushback from the MCR operators and represented that the decision to continue with the startup was not influenced by anyone outside the MCR.

The information provided by the Shift Manager during his OI interview was not complete and accurate. The Shift Manager made contradictory statements in emails sent before and after his NRC OI interview and during subsequent non-NRC interviews, indicating that he had been talked into moving forward with the startup, that moving forward was really a senior management decision, and that he had not told this to the NRC. In subsequent non-NRC interviews, he made statements indicating that he had no idea if excess letdown would work and suspected it would not. He also admitted knowing that the MCR operators did not want to move forward with the startup, which is consistent with statements made by other MCR operators in NRC and non-NRC interviews indicating that they expressed concerns to the Shift Manager that excess letdown would not work and it was not a good idea to proceed.

This information was material to the NRC because it concerned the loss of control of the pressurizer level during startup of the reactor on November 11, 2015, an event that the NRC was actively inspecting at the time.

This is a Severity Level II violation (Enforcement Policy Section 6.9).
Civil Penalty - $303,471

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved, was adequately addressed in TVA's written response of December 7, 2020. Therefore, no additional response is required.

TVA may pay the civil penalty in accordance with NUREG/BR-0254 and by submitting to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, a statement indicating when and by what method payment was made. Should TVA fail to pay the civil penalty within 30 days of the date of this Revised Notice, the NRC will issue an order imposing the civil penalty.

The Statement as to payment of civil penalty should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S., Nuclear Regulatory Commission, Region II, 245 Peachtree Center Ave. N.E., Suite 1200, Atlanta, GA 30303, and the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, and a copy to the NRC Resident Inspector at the facility that is the subject of this Revised Notice.

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

Dated this 23rd day of July 2021.