



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 6, 2020

IA-20-017

Mr. Billy W. Johnson
[Note: Home Address Deleted
Under 10 CFR 2.390]

SUBJECT: NOTICE OF VIOLATION, NUCLEAR REGULATORY COMMISSION OFFICE OF INVESTIGATIONS REPORT NO. 2-2016-042

Dear Mr. Johnson:

This letter refers to an investigation completed on May 17, 2019 by the U.S. Nuclear Regulatory Commission's (NRC) Office of Investigations (OI) concerning your activities at the Tennessee Valley Authority's (TVA) Watts Bar Nuclear Plant, Unit 1 (WBN-1). The purpose of the investigation was to determine whether TVA employees deliberately submitted incomplete and inaccurate information to the NRC and whether TVA employees deliberately violated plant procedures.

The NRC's letter of March 9, 2020 provided you the results of the NRC staff's review, Factual Summary of the OI investigation, and documented five apparent violations (AV) of the NRC's rule prohibiting deliberate misconduct, 10 CFR 50.5. The AVs involved your actions as Shift Manager for TVA WBN-1 on November 11, 2015, and information related to the events of November 11 that you provided to OI during an interview on December 18, 2015. Specifically;

- AV 3 described your apparent deliberate failure to follow General Operating Instruction (GOI) 1-GO-1, during a reactor startup by not ensuring Step 5.3[22] was properly completed prior to entering Mode 4. Specifically, you 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.
- AV 4 described your apparent deliberate failure to follow TVA Procedure NPG-OPDP-1, "Conduct of Operations." When faced with an emerging issue, you did not practice conservative decision making by proceeding in the face of uncertainty, by not verifying and validating available information, and by allowing production and cost to override safety. Specifically, in order to stay on schedule, you decided to continue with the reactor heat-up, including removal of residual heat removal (RHR) from service, with the normal letdown system out of service.
- AV 5 described your apparent deliberate failure, on November 11, 2015, to review the operations department logs and ensure that they contained a complete narrative of the shift's events, specifically associated with the RHR event, to maintain an accurate history of plant operation.

- AV 6 described your apparent deliberate failure to ensure that MCR operators operated plant equipment in accordance with written approved procedures. Specifically, although you were aware that procedures required the MCR operators to start the RHR pump when re-establishing RHR letdown, as Shift Manager you directed the MCR operators to re-establish RHR letdown without first starting the RHR pump, contrary to the requirements in Procedure 1-SOI-74.1, "Residual Heat Removal System."
- AV 9 described your apparent deliberate failure to submit information to the NRC that you knew at the time to be complete and accurate. Specifically, on December 18, 2015, during an OI interview, you discussed the decision to move forward with the heat-up on November 11 with only excess letdown, making several affirmative statements to OI indicating that you believed excess letdown would work, and stating that there was no significant pushback from the MCR operators. You also represented that the decision to continue with the heat-up as your call as Shift Manager and you were not unduly influenced by anyone outside the MCR. However, you made contradictory statements in emails sent before and after your NRC interview, and during subsequent non-NRC interviews as part of a TVA internal review of the event and a TVA OIG investigation.

The NRC's letter provided you the opportunity to address the apparent violations by either attending a pre-decisional enforcement conference or by providing a written response before we made our final enforcement decision. In a letter dated July 7, 2020, you provided a response to the apparent violations. In your response, you:

- Denied AV 3, stating that you were "unaware that a Clearance writer had put a note on the clearance for the work that the work had to be done in Modes 5 or 6." You indicated that "the off going Shift Manager did not mention the note on the clearance," and that "[n]otes on clearances are not what governs starting up or shutting down nuclear plants." You also stated that the note in question "did not actually establish a 'Mode 4 restraint'" but "was put on there as a precaution due to the potential to become a 'High Energy' which is defined as >200 degrees F." Additionally, you noted that the work order had not been flagged as a Mode 4 restraint as governed by Work Control procedures.
- Denied AV 4, stating that you were told by the Operations Representative in the OCC that the Plant Manager "was in the OCC exerting pressure to the OCC to stay on schedule, which in turn resulted in the OCC personnel putting schedule pressure on me to continue the heat-up." You indicated that you "absolutely stopped prior to proceeding and let my position about it be known to the OCC through the Ops representative at least 3 times." You stated that you "told them plainly that I wanted to wait until Normal Letdown was back in service" but they wanted you to stay on schedule, and you "only felt like I could pushback so far knowing who was exerting schedule pressure onto the OCC."
- Denied AV 5, stating that you did review the logs several times during the day. You indicated that you understood the expectation that the SM ensures the logs are complete and accurate and you reviewed them as time allowed. You acknowledged that the logs were lacking in the expected level of detail based on what occurred during the shift, but stated that this was a mistake due to the level of activity in the control room. You also expressed that at the end of the day you were concerned about exceeding your work hours limit and therefore did not review the logs at the end of the shift.

- Denied AV 6, stating, "There was no need for the RHR pumps to be started. This would have just been unnecessary wear and tear on the pumps and could have caused an unnecessary and inadvertent Mode change from Mode 4 back to Mode 5." However, you also acknowledged that, "I do understand that even though we were procedurally allowed by Procedures OPDP-1 and NPG-SPP-01.2 to use only portions of procedures and N/A steps not needed, I did not follow up with the operators to ensure a hard copy of the procedure had been printed off and used and those steps that were N/A'd were actually N/A'd in the procedure and the steps completed had been signed off in the procedure."
- Denied AV 9, noting "It was quite apparent that whatever I said in the interview was going to be relayed back to [the plant manager]. . . I didn't want to give [the plant manager] more reason to get rid of me as soon as this issue was resolved, which I thought was going to be rather promptly." You admitted to one inaccurate statement during the OI interview: the statement that you "had not been unduly influenced by anyone outside of the MCR [w]hen, in fact, I would not have continued with the heatup until the Normal Letdown System was back in service if not being pressured to continue." You described the basis for your fear of losing your job and stated that you "didn't elaborate on the undue pressure I had received to continue heating up on excess letdown to stay on schedule" because the TVA attorney was present. You also indicated that you spoke to the NRC again shortly after the OI interview and "in detail, set the record straight and discuss[ed] the pressure exerted on me from the OCC on November 11. . . ." Finally, you acknowledged that "with the experience and additional regulatory process knowledge I have gained from this event, I am now confident that I could have told all of the facts concerning the OCC/Management pressure and would have been protected from retaliation. Faced with the same circumstances again I absolutely would not allow myself to be intimidated into having to be less than totally accurate and tell all of the facts."

Based on the information developed during the investigation, the information that you provided in your response, and information provided by TVA in its PEC, the NRC has determined that violations of NRC requirements occurred. The violations are cited in the enclosed Notice of Violation (Notice) (Enclosure 1). In summary, the NRC concluded that:

- (Originally AV 3) On November 11, 2015, you failed to ensure that all restraints had been resolved prior to entry into Mode 4, as required by GOI 1-GO-1. The NRC has determined that this violation was not willful but rather a result of error. Therefore, AV 3 is not cited in Enclosure 1 and will be assessed in accordance with the Significance Determination Process and dispositioned in the next NRC quarterly integrated inspection report.
- (Originally AV 4) On November 11, 2015, when faced with an emerging issue, you failed to conduct shift operations in a safe and conservative manner by proceeding in the face of uncertainty; not verifying and validating available information; and allowing production and cost to override safety in violation of TVA Procedure OPDP-1, "Conduct of Operations," Section 3.3.3, "Conservative Decision Making," Subparts A and E. Although the NRC has determined that this violation was not willful, the NRC is citing you individually as a licensee under 10 CFR Part 55 based on the SRO license you held at the time.
- (Originally AV 5) On November 11, 2015, you failed to review the operations department logs and ensure that they contained a complete narrative of the shift's events, specifically associated with the RHR event, to maintain an accurate history of plant operation. Your failure to review and ensure the completeness of the main control room logs, though

determined not to be willful, significantly impeded the NRC's review and understanding of the safety significance of the November 11, 2015 heat-up. You are not cited for AV 5 in Enclosure 1; however, AV 5 is dispositioned in TVA's Notice of Violation (Enclosure 2).

- (Originally AV 6) On November 11, 2015, you deliberately failed to ensure that the MCR operators operated plant equipment in accordance with written approved procedures. Specifically, although you were aware that the procedure required the MCR operators to start the RHR pump when re-establishing RHR letdown, as Shift Manager you directed the MCR operators to re-establish RHR letdown without first starting the RHR pump, contrary to the requirements in Procedure 1-SOI-74.1, "Residual Heat Removal System." This violation, described as AV 6 above, is cited in Enclosure 1 as Violation A. Given the significance of the underlying issue, your licensed supervisory position at that time, and the deliberate nature of your actions, this violation has been categorized in accordance with the NRC Enforcement Policy at Severity Level III.
- (Originally AV 9) On December 18, 2015, you deliberately submitted to the NRC information that you knew at the time to be incomplete and/or inaccurate regarding the decision to move forward with the heat-up on November 11 with only excess letdown. In an interview with OI, you made several affirmative statements indicating that you believed excess letdown would work, and you indicated that there was no significant pushback from the Main Control Room (MCR) operators. You also represented that the decision to continue with the heat-up was your call as Shift Manager, and that you were not unduly influenced by anyone outside the MCR. This violation, described as AV 9 above, is cited in Enclosure 1 as Violation C. The NRC considers violations involving the submittal of incomplete and inaccurate information to the NRC that could impede or otherwise have an impact on the NRC's review of reactor operations to be a significant matter. Additionally, the deliberate aspects of this violation, in this case by you as a licensed senior reactor operator, warrant escalation of this violation to Severity Level II, in accordance with the NRC Enforcement Policy.

As described above, your actions placed TVA in violation of 10 CFR 50, Appendix B, Criteria V and XVII, and 10 CFR 50.9(a). Enclosure 2 includes a copy of the letter and Notice of Violation and Proposed Imposition of Civil Penalty issued to TVA.

In determining the appropriate sanction to be issued in this case, the NRC considered issuing an Order prohibiting your involvement in NRC-licensed activities as a result of your actions. However, because you have relinquished your SRO license and no longer serve as a reactor operator or shift manager, I have decided to issue the enclosed Notice of Violation.

You should be aware that if you are involved in NRC-licensed activities in the future, additional deliberate violations could result in more significant enforcement action or criminal penalties.

The NRC has concluded that information regarding the violations is already adequately addressed on the docket in your written response of July 7, 2020. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and any response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and

Management 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. The NRC also includes significant enforcement actions on its Web site at (<http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>). In addition, this letter will be maintained by the Office of Enforcement in an NRC Privacy Act system of records, NRC-3, Enforcement Actions Against Individuals. This system, which is not publicly-accessible, includes all records pertaining to individuals who are being or have been considered for enforcement action, whether such action was taken or not. The NRC-3 system notice, which provides detailed information about this system of records, can be accessed from the NRC Web site at <http://www.nrc.gov/reading-rm/foia/privacy-systems.html>.

If you have any questions concerning this matter, please contact me at 630-829-9654.

Sincerely,

Kenneth G. O'Brien, Director
Office of Enforcement Special Project Team

Enclosures:

1. Notice of Violation
2. Notice of Violation and Proposed Civil Penalty to TVA

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

SUBJECT: NOTICE OF VIOLATION, NUCLEAR REGULATORY COMMISSION OFFICE OF INVESTIGATIONS REPORT NO. 2-2016-042
 DATED: 11/06/2020

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NOTICE OF VIOLATION

Mr. Billy W. Johnson
[HOME ADDRESS DELETED
UNDER 10 CFR 2.390]

IA-20-017

During U.S. Nuclear Regulatory Commission (NRC) investigations completed on May 17, 2019, violations of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. Senior Reactor Operator License Number SOP-21782-2 issued to Mr. Billy W. Johnson on June 3, 2015 states, in part, "While performing licensed duties, you shall observe the operating procedures and other conditions specified in the facility license authorizing operation of the facility."

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, "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: ...do not allow production and cost to override safety; question, verify and validate available information; and do not proceed in the face of uncertainty."

Contrary to the above, on November 11, 2015, Mr. Billy W. Johnson, at the time a Shift Manager for the TVA Watts Bar Nuclear (WBN) Plant, failed to observe the operating procedures and other conditions specified in the facility license which caused him to be in violation of his NRC License Number SOP-21782-2, and caused TVA to be in violation of 10 CFR Part 50, Appendix B, Criterion V, when he failed to follow TVA Procedure NPG-OPDP-1, "Conduct of Operations." When faced with an emerging issue, Mr. Johnson did not practice conservative decision making by proceeding in the face of uncertainty, not verifying and validating available information, and allowing production and cost to override safety. Specifically, in order to stay on schedule, personnel in the Outage Control Center (OCC) and the Main Control Room (MCR), including Mr. Johnson, decided to continue with the reactor heat-up, including removal of residual heat removal (RHR) from service, with the normal letdown system tagged out of service. After WBN Unit 1 entered Mode 4, the OCC urged Mr. Johnson and Mr. Johnson directed the MCR operators to continue with the heat-up and remove RHR letdown from service, despite the MCR operators' concerns regarding the ability to control pressurizer level using excess letdown. Although he was aware of the MCR operators' concerns, including his own, and had no prior experience or training with use of excess letdown to control pressurizer water level, Mr. Johnson, the Shift Manager, ultimately directed the MCR operators to take RHR letdown out of service and proceed with

the heat-up. This resulted in a relatively quick and uncontrollable pressurizer water level rise from 45 to 79 percent, which led the MCR operators to take actions outside of proper operating procedures to reestablish RHR letdown and reduce the pressurizer water level.

This is a Severity Level III violation.

- B. Title 10 CFR 50.5(a)(1), "Deliberate Misconduct" prohibits a licensee or an employee of a licensee from engaging in deliberate misconduct that causes or would have caused a licensee to be in violation of any regulation, or order; or any term, condition, or limitation of any license issued by the Commission.

Title 10 CFR 50.5(c) states, in part, that, for the purposes of paragraph (a)(1) of this section, deliberate misconduct by a person means an intentional act or omission that the person knows (1) would cause a licensee to be in violation of any rule, regulation, or order, or any term, condition or limitation of any license issued by the Commission; or (2) constitutes a violation of a requirement, procedure, instruction or policy of a licensee.

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," Rev. 0035, Section 3.8.1.D, "Procedural Adherence," states, "Plant equipment shall be operated in accordance with written approved procedures as discussed in [Procedure] NPG-SPP-01.2, Administration of Site Technical Procedures."

TVA Procedure NPG-SPP-01.2.1, "Interim Administration of Site Technical Programs and Procedures for Watts Bar 1 and 2", Rev. 0002, Section 3.2.5B, states, "Each step [of a continuous use procedure] shall be performed exactly as written and in the exact sequence specified unless the procedure allows working steps out of sequence."

Watts Bar Nuclear (WBN) Procedure 1-SOI-74.01, "Residual Heat Removal (RHR) System," Rev. 0002, a continuous use procedure, 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).

Contrary to the above, on November 11, 2015, Mr. Billy W. Johnson, at the time a Shift Manager for the TVA WBN, engaged in deliberate misconduct that caused TVA to be in violation of 10 CFR Part 50, Appendix B, Criterion V. On November 11, 2015, Mr. Johnson deliberately failed to ensure that Main Control Room (MCR) operators operated plant equipment in accordance with written approved procedures. Specifically, although Mr. Johnson was aware that the procedure required the MCR operators to start the RHR pump when re-establishing RHR letdown, as Shift Manager he directed the MCR operators to re-establish RHR letdown without first starting the RHR pump, contrary to the requirements in Procedure 1-SOI-74.1, "Residual Heat Removal System."

This is a Severity Level III violation.

- C. Title 10 CFR 50.5(a)(2) states that any employee of a licensee who knowingly provides to any licensee any components, equipment, materials, or other goods or services that relate to a licensee's activities may not deliberately submit to the NRC or a licensee information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.

Contrary to the above, on December 18, 2015, Mr. Billy W. Johnson, at the time a Shift Manager for the Tennessee Valley Authority's (TVA) Watts Bar Nuclear Plant, Unit 1 (WBN-1), deliberately submitted to the NRC information that he knew at the time to be incomplete and/or inaccurate and material to the NRC.

Specifically, on December 18, 2015, the NRC's Office of Investigations (OI) interviewed Mr. Johnson regarding a November 11, 2015, WBN-1 startup, during which operators used only excess letdown to control pressurizer water level. On November 11, 2015, Mr. Johnson was the WBN-1 on duty shift Manager.

During the OI interview, Mr. Johnson discussed the decision to move forward with the heat-up on November 11 with only excess letdown. He made several affirmative statements to OI indicating that he believed excess letdown would work, and he stated that there was no significant pushback from the Main Control Room (MCR) operators. He also represented that the decision to continue with the heat-up was his call as Shift Manager and he was not unduly influenced by anyone outside the MCR.

The information provided by Mr. Johnson during the OI interview was not complete and accurate. Mr. Johnson 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, Mr. Johnson 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 Mr. Johnson 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.

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance was achieved is already adequately addressed on the docket in your letter of July 7, 2020. However, if the description therein does not accurately reflect your position or your corrective actions, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 within 30 days of the date of the letter transmitting this Notice of Violation. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, IA-20-017", and send it to the Director, Office of Enforcement, U.S. Nuclear

Regulatory Commission, One White Flint North, 11555 Rockville, MD 20852-2738, with a copy to the Document Control Desk, Washington, DC 20555-0001.

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.

Should you chose to respond, you response will be made available electronically for public inspection in the NRC Public Document Room and in the NRC's Agencywide Document Access and Management 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. 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. This letter will be maintained by the Office of Enforcement in an NRC Privacy Act system of records, NRC-3, Enforcement Actions Against Individuals. This system, which is not publicly accessible, includes all records pertaining to individuals who are being or have been considered for enforcement action, whether such action was taken or not. The NRC-3 system notice, which provides detailed information about this system of records, can be accessed from the NRC Web site at <http://www.nrc.gov/reading-rm/foia/privacy-systems.html>.

Dated this 6th day of November 2020