



Memorandum from the Office of the Inspector General

June 15, 2022

Danny Bost

**REQUEST FOR FINAL ACTION – EVALUATION 2021-17256 – TVA NUCLEAR
MAINTENANCE EMPLOYEE TIME REPORTING**

Attached is the subject final report for your review and final action. Your written comments, which addressed your management decision and actions planned or taken, have been included in the report. Please notify us when final action is complete. In accordance with the Inspector General Act of 1978, as amended, the Office of the Inspector General is required to report to Congress semiannually regarding evaluations that remain unresolved after 6 months from the date of report issuance.

If you have any questions or wish to discuss our findings, please contact Heather R. Kulisek, Manager, Evaluations, at (423) 785-4815 or E. David Willis, Director, Evaluations, at (865) 633-7376. We appreciate the courtesy and cooperation received from your staff during the evaluation.

David P. Wheeler
Assistant Inspector General
(Audits and Evaluations)

HRK:FAJ
Attachment

cc (Attachment):

TVA Board of Directors
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OIG File No. 2021-17256



Office of the Inspector General

Evaluation Report

To the Senior Vice President,
Nuclear Operations

TVA NUCLEAR MAINTENANCE EMPLOYEE TIME REPORTING

ABBREVIATIONS

NFR	Nuclear Fatigue Rule
PQ&S	Personnel Qualifications and Scheduling
SPP	Standard Programs and Processes
TVA	Tennessee Valley Authority

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MEMORANDUM DATED JUNE 10, 2022, FROM DANNY BOST TO DAVID WHEELER



Evaluation 2021-17256 –TVA Nuclear Maintenance Employee Time Reporting

EXECUTIVE SUMMARY

Why the OIG Did This Evaluation

The Tennessee Valley Authority (TVA) Standard Programs and Processes (SPP) 13.028, *Recording Time*, provides instructions for accurately recording and reporting time. It covers roles and responsibilities, general time-reporting information, the time-reporting process, and the time-reporting system (eWorkplace). NPG-SPP-03.21, *Nuclear Fatigue Management Program*, implements requirements for managing fatigue and controlling work hours in accordance with Title 10 Code of Federal Regulations, Part 26, Subpart I, *Managing Fatigue*.ⁱ The Personnel Qualifications and Scheduling (PQ&S) program tracks employees' hours to avoid a violation of the NFR. Due to issues identified in a previous review related to TVA Nuclear employees' time reporting,ⁱⁱ we performed an evaluation to determine if TVA Nuclear's Maintenance employees' time reported is accurate.

What the OIG Found

We identified several instances where time was not accurately reported in the PQ&S program and eWorkplace. However, we were unable to determine if all Nuclear Maintenance employees' time was accurately reported because we could not account for time that employees were not badged into the protected area of the plants.ⁱⁱⁱ The inaccurate reporting resulted in a violation of the NFR, unnecessary paid time off for an employee, and overstated leave balances.

What the OIG Recommends

We recommend the Senior Vice President, Nuclear Operations, evaluate the process for entering time in PQ&S program and eWorkplace to improve accuracy.

ⁱ The regulation is commonly referred to as the nuclear fatigue rule (NFR).

ⁱⁱ Evaluation 2019-15651, *Nuclear Fatigue Rule at Watts Bar Nuclear Plant*, January 22, 2020.

ⁱⁱⁱ We could not validate employees' time outside the protected area (the area encompassed by physical barriers and to which access is controlled), because (1) gates outside of the protected area did not always require badging; (2) training records only indicated the date training was completed, not performed; and (3) several employees teleworked.



Evaluation 2021-17256 –TVA Nuclear Maintenance Employee Time Reporting

EXECUTIVE SUMMARY

TVA Management Comments

In response to our draft report, TVA management agreed with our recommendation and stated each site Maintenance Director will communicate the results of this evaluation. See the Appendix for TVA's complete response.

Auditor's Response

We concur with TVA management's planned actions for the recommendation.

BACKGROUND

The Tennessee Valley Authority (TVA) operates three nuclear plants capable of generating an average of 7,800 megawatts of electricity each day. Each plant has employees designated for performing maintenance, which includes preventative and corrective measures that ensure structures, systems, and components are able to perform their design functions. TVA Standard Programs and Processes (SPP) 13.028, *Recording Time*, provides instructions for accurately recording and reporting time. The SPP covers roles and responsibilities, general time-reporting information, the time-reporting process, and TVA's time-reporting system (eWorkplace). According to the SPP, employees, authorized time-reporting personnel, or supervisors enter time worked into eWorkplace. All time must be entered in at least 15-minute increments. In addition, employees are responsible for entering leave and time worked outside scheduled hours into eWorkplace in a timely manner to ensure accurate pay and financial reporting. Employees are also responsible for ensuring that time reporting is correct.

NPG-SPP-03.21, *Nuclear Fatigue Management Program*, implements requirements for managing fatigue and controlling work hours in accordance with Title 10 Code of Federal Regulations (CFR), Part 26, Subpart I, *Managing Fatigue*.¹ The regulation requires average minimum days off for covered individuals² based on work the individuals perform and the length of their shift. According to NPG-SPP-03.21, the work-hour controls apply to individuals performing maintenance or on-site directing of the maintenance of structures, systems, and components that are significant to public health and safety. Employee work hours are tracked through the Personnel Qualifications and Scheduling (PQ&S) program that indicates when an overtime shift would create a violation of the NFR.

Due to issues identified in a previous review related to TVA Nuclear employees' time reporting,³ we performed an evaluation of TVA Nuclear's Maintenance employees' time reporting.

¹ This is commonly referred to as the nuclear fatigue rule (NFR).

² Covered individuals are any individuals granted unescorted access to a nuclear power plant protected area to perform tasks significant to public health and safety.

³ Evaluation 2019-15651, *Nuclear Fatigue Rule at Watts Bar Nuclear Plant*, January 22, 2020.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of our evaluation was to determine if TVA Nuclear's Maintenance employees' time reported was accurate. Our scope included TVA Nuclear's Maintenance employees' time reported between October 1, 2020, and June 30, 2021. To achieve our objective, we:

- Interviewed relevant personnel and reviewed the following SPPs and regulation to gain an understanding of time-reporting requirements.
 - TVA-SPP-13.028, *Recording Time*
 - NPG-SPP-03.21, *Nuclear Fatigue Management Program*
 - Title 10 CFR, Part 26, Subpart I *Managing Fatigue*
- Reviewed documentation for a statistically selected sample of 68 of the 705 maintenance employees at Sequoyah, Browns Ferry, and Watts Bar Nuclear Plants as of October 1, 2020. We selected our sample size using rate of occurrence sampling with a 95-percent confidence interval and performed the following steps:
 - Compared the work time reported in (1) eWorkplace, (2) badging records for the gates used to access the protected area⁴ of the plants, and (3) PQ&S program reports to determine if the hours matched.
 - Reviewed (1) badging records for gates used to access other TVA facilities and (2) training records to determine if employees attended training when not in the protected area of the plants.⁵
 - Compared protected area badging records to the employees' schedules in eWorkplace to identify employees that arrived more than 15 minutes late or left more than 15 minutes⁶ early without submitting leave as required. We did not include days where employees made up their missed time.
- Interviewed personnel and obtained additional documentation, when available, for discrepancies identified to determine if the time reported was accurate.

This evaluation was performed in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation*.

⁴ The protected area of the plant is the area encompassed by physical barriers and to which access is controlled.

⁵ We could not validate employees' time outside the gate, because (1) gates outside the protected area did not always require badging; (2) training records only indicated the date training was completed, not performed; and (3) several employees teleworked.

⁶ For Watts Bar Nuclear Plant, we used 30 minutes, rather than 15 minutes, before their scheduled exit time because the Maintenance director stated employees were allowed to leave 30 minutes early during our scope.

FINDINGS

We identified several instances where time was not accurately reported in the PQ&S program and eWorkplace. However, we were unable to determine if all Nuclear Maintenance employees' time was accurately reported because we could not account for time that employees were not badged into the protected area of the plants.

INACCURACIES IN THE PQ&S PROGRAM

We determined there were instances when time was not accurately reported in the PQ&S program. Specifically, we identified instances where employees' work hours were understated or overstated indicating TVA did not appropriately manage employee work hours in the PQ&S program.

Understated Work Hours in the PQ&S Program

We identified 16 instances where employees' work hours should have been recorded in the PQ&S program but were not. When the records were subsequently updated in the PQ&S program, the program indicated that one of the instances resulted in an NFR violation. Violating the NFR could pose a safety risk due to fatigue.

Overstated Work Hours in the PQ&S Program

We identified 589 instances where the records in the PQ&S program overstated the number of hours worked by employees. The overstatements were due to not adjusting the PQ&S records for paid time off. Since an employee may receive nonwork pay to avoid noncompliance with the NFR, overstating the hours worked by the employee could result in paying for a shift not worked because of the unnecessary application of the NFR. We identified one example where the PQ&S program was not adjusted for sick leave taken resulting in the employee receiving paid time off unnecessarily.

INACCURACIES IN eWORKPLACE

We identified instances where time was not entered correctly in eWorkplace resulting in an overstatement of leave balances in some cases. Our review of gate logs and eWorkplace identified 14 instances where eWorkplace indicated the employee had worked when they had not. These instances showed employees were not in the gate or the PQ&S program when they had hours in eWorkplace. According to plant personnel, the employees were either on (1) sick or annual leave or (2) paid time off.

In addition, we compared gate logs to schedules in eWorkplace and identified instances of employees leaving early or arriving late for work. According to TVA management, employees were generally expected to be in the gate at the beginning of their shift and leave between 15 and 30 minutes before the end.

Specifically we found:

- One hundred two of the 8,508 badging gate log records reviewed showed employees entered the gate between 16 minutes and an hour after the time they were scheduled to start.
- Two hundred ninety-nine of the 6,456 badging gate log records reviewed at Sequoyah and Browns Ferry Nuclear Plants showed employees exited the gate 16 minutes to an hour before their scheduled exit time.
- One hundred sixty-six of the 2,052 badging gate log records we reviewed at Watts Bar Nuclear Plant showed employees exited the gate 31 minutes to an hour before their scheduled exit time.

According to the Senior Manager, Security Operations, TVA has issued a request for proposal for a new system, which will require time to be entered only once rather than in both eWorkplace and PQ&S program. The new system could reduce the number of discrepancies between eWorkplace and the PQ&S program.

RECOMMENDATION

We recommend the Senior Vice President, Nuclear Operations:

- Evaluate the process for entering time in PQ&S program and eWorkplace to improve accuracy.

TVA Management Comments – TVA agrees with this recommendation. Each site Maintenance Director will communicate the results of this evaluation and the Healthy Accountability Model will be applied to ensure that expectations are set and clearly understood by personnel for accurate reporting of time in both PQ&S and eWorkplace. In addition, the Maintenance Corporate Functional Area Manager will conduct interviews with maintenance personnel to ensure that the message was understood.

Auditor Response – We concur with TVA management's planned actions.

June 10, 2022

David Wheeler – WT 2C-K

**RESPONSE TO REQUEST FOR COMMENTS TO DRAFT EVALUATION 2021-17256 - TVA
MAINTENANCE EMPLOYEE TIME REPORTING**

Thank you for the opportunity to address the recommendations in the Draft Evaluation 2021-17256 - TVA Maintenance Employee Time Reporting. After reviewing the report, we do not have any comments and agree with the recommended actions to be taken.

We would like to thank Heather R. Kulisek and her team for their diligence and professionalism.

OIG Recommendation 1

We recommend the Senior Vice President, Nuclear Operations evaluate the process for entering time in PQ&S program and eWorkplace to improve accuracy.

Response: We agree with this recommendation and will take the following actions.

- Each site Maintenance Director will communicate the results of this evaluation. The Healthy Accountability Model will be applied to ensure that expectations are set and clearly understood by personnel for accurate reporting of time in both PQ&S and eWorkplace. Due date July 15, 2022.
- Maintenance Corporate Functional Area Manager will conduct interviews with maintenance personnel to ensure that the message was understood. Due date August 12, 2022.

This Memorandum provides acceptance of the noted recommendation and actions to be taken. If you have further questions, please contact Danny Bost, Senior Vice President, Nuclear Operations.



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Senior Vice President, Nuclear Operations
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OIG File No. 2021-17256