



**Memorandum from the Office of the Inspector General**

March 9, 2022

David L. Bowling, Jr.

**FINAL REPORT – EVALUATION 2022-17339 – GAS AND HYDRO HUMAN PERFORMANCE EVENTS**

Tennessee Valley Authority (TVA) Standard Programs and Processes (SPPs) 22.200, *Human and Organizational Performance*, states that the purpose of the SPP is to promote and support safe and reliable execution of work and contribute to achieving a culture of learning and improving. According to this procedure, significant events are incidents that seriously impact safety, the environment, regulatory compliance, or asset performance.

Due to an elevated number of human performance events in Gas Operations and Hydro Generation organizations in fiscal year (FY) 2020, we initiated an evaluation to determine if TVA was taking appropriate actions to address human performance events. We determined Gas and Hydro organizations have taken appropriate actions in response to human performance events. Specifically, we determined (1) actions were taken or planned to be taken to address human performance events and (2) initiatives were created to improve human performance in the organizations.

**BACKGROUND**

TVA-SPP-22.200, *Human and Organizational Performance*, states significant events are incidents that seriously impact safety, the environment, regulatory compliance, or asset performance. Significant human performance events recorded in Gas and Hydro in FYs 2019 through 2021 are shown in Table 1 below.

<b>Significant Human Performance Events</b>			
	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
Gas	7	9	3
Hydro	5	11	6

**Table 1**

According to TVA-SPP-22.200, *Human and Organizational Performance*, the purpose of the SPP is to promote and support safe and reliable execution of work and contribute to achieving a culture of learning and improving. The human and organizational performance philosophy strives to enhance the understanding of how an organization can be safe, reliable, and resilient in its operations. This is accomplished by creating psychological safety and transparency, removing roadblocks, streamlining processes, and

improving the capacity for failure in work. According to the SPP, employing this philosophy increases management and worker participation, helping organizations learn from experiences.

Due to an elevated number of human performance events in Gas Operations and Hydro Generation organizations in FY 2020, we initiated an evaluation to determine if TVA was taking appropriate actions in response to human performance events.

### **OBJECTIVE, SCOPE, AND METHODOLOGY**

The objective of this evaluation was to determine if TVA had taken appropriate<sup>1</sup> action to address human performance events. The scope of our evaluation was human performance events at gas and hydro plants in FYs 2020 and 2021. To achieve our objective, we:

- Interviewed TVA employees to understand how the human performance program works as well as to obtain information about actions taken in Gas and Hydro to address human performance events.
- Reviewed significant human performance events in Gas and Hydro to determine what, if any, actions were taken as a result of each individual event.
- Reviewed low-level human performance events<sup>2</sup> and actions taken, as well as near misses,<sup>3</sup> to determine if any correlation exists with the significant human performance events.

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

### **FINDINGS**

We determined appropriate actions were taken in response to human performance events in Gas and Hydro. Specifically, we determined (1) actions were taken or planned to be taken in response to human performance events and (2) initiatives were created to improve human performance in the organizations. According to individuals in the Hydro organization, an initiative was implemented to improve human performance in response to an increase in human performance events. Information has been gathered from the employees at hydro sites to develop action plans for addressing the common causes that lead to significant events. The Gas organization implemented a human performance focus in FY 2020, which included initiatives aimed to proactively prevent unwanted outcomes triggered by human error.

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<sup>1</sup> We considered actions appropriate when response appeared to be reasonable based on the significance of the issues.

<sup>2</sup> Low-level human performance events are events caused by errors or violations that do not rise to the level of significant events.

<sup>3</sup> A near miss is an unplanned event that did not result in injury or illness but had the potential to do so under slightly different conditions (e.g., time, position).

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In addition to the steps taken by the organizations, we noted significant human performance events decreased from 9 to 3 and 11 to 6 in Gas and Hydro, respectively from FY 2020 to 2021.

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This report is for your review and information. No response to this report is necessary. If you have any questions or wish to discuss our observations, please contact Lindsay J. Denny, Evaluations Manager, at (865) 633-7349 or E. David Willis, Director, Evaluations at (865) 633-7376. We appreciate the courtesy and cooperation received from your staff during the evaluation.



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