



Memorandum from the Office of the Inspector General

April 20, 2021

Michael W. Parker

**REQUEST FOR MANAGEMENT DECISION – EVALUATION 2021-15790 –
ORGANIZATIONAL EFFECTIVENESS – JOHNSONVILLE COMBUSTION TURBINE**

Attached is the subject final report for your review and management decision. You are responsible for determining the necessary actions to take in response to our findings. Please advise us of your management decision within 60 days from the date of this report. 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 audits 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 Amy R. Rush, Evaluations Manager, at (865) 633-7361 or Lisa H. Hammer, Director, Evaluations – Organizational Effectiveness, at (865) 633-7342. We appreciate the courtesy and cooperation received from your staff during the audit.

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

ARR:KDS

Attachment

cc (Attachment):

TVA Board of Directors
David L. Bowling, Jr.
Susan E. Collins
Megan T. Flynn
David B. Fountain
Amanda D. Johns
Jeffrey J. Lyash
Justin C. Maierhofer
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Alex D. Mosley
Ronald R. Sanders II
Michael D. Skaggs
Lawrence Sparks
Wilson Taylor III
Emily G. Vastano
Kay W. Whittenburg
Jacinda B. Woodward
OIG File No. 2021-15790



Office of the Inspector General

Evaluation Report

To the Site Manager,
Johnsonville Combustion
Turbine

ORGANIZATIONAL EFFECTIVENESS – JOHNSONVILLE COMBUSTION TURBINE

Auditor
Amy R. Rush

Evaluation 2021-15790
April 20, 2021

ABBREVIATIONS

FY	Fiscal Year
JCT	Johnsonville Combustion Turbine
PO	Power Operations
SHRM	Society for Human Resource Management
TVA	Tennessee Valley Authority

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Evaluation 2021-15790 – Organizational Effectiveness – Johnsonville Combustion Turbine

EXECUTIVE SUMMARY

Why the OIG Did This Evaluation

Organizational effectiveness, as defined in this evaluation, is the ability of an organization to achieve its mission and goals. Due to the importance of alignment, team engagement, and operational performance, the Office of the Inspector General is conducting organizational effectiveness evaluations of business units across the Tennessee Valley Authority (TVA). This evaluation focuses on Johnsonville Combustion Turbine (JCT), which is an organization within TVA's Power Operations.

JCT was constructed in 1974 and was previously operated as part of Johnsonville Fossil Plant. It is one of TVA's nine combustion turbine gas sites and the only cogenerationⁱ plant in TVA's fleet. The site has 20 units with a 1,220-megawatt capacity. While JCT may be relied upon to supplement TVA's generation needs, its primary function in 2020 was to provide steam to Chemours, a chemical plant adjacent to JCT. The objective of this evaluation was to identify factors that could impact JCT's organizational effectiveness.

What the OIG Found

During the course of our evaluation, we identified behaviors that had a positive impact on JCT. These included leadership actions and positive relationships with team members. We also identified minimal risks to operations that, if unaddressed, could hinder JCT's effectiveness. These were related to resource needs, such as specific training and budgetary needs for plant maintenance. Based on our observations, we assessed JCT's level of risk related to behaviors and operations and determined risk was low. Ratings are reflected in the table below:

	Low Risk	Medium Risk	High Risk
Behaviors	X		
Operations	X		

What the OIG Recommends

We recommend the JCT Site Manager address the resource-related risks pertaining to training and budgetary needs for general maintenance.

ⁱ Cogeneration plants are also known as combined heat and power plants.



Evaluation 2021-15790 – Organizational Effectiveness – Johnsonville Combustion Turbine

EXECUTIVE SUMMARY

TVA Management's Comments

TVA management agreed with the recommendations. See Appendix B for TVA management's complete response.

BACKGROUND

Organizational effectiveness, as defined in this evaluation, is the ability of an organization to achieve its mission and goals. Due to the importance of alignment, team engagement, and operational performance, the Office of the Inspector General is conducting organizational effectiveness evaluations of business units across the Tennessee Valley Authority (TVA). This evaluation focuses on Johnsonville Combustion Turbine (JCT), which is an organization within TVA's Power Operations (PO).

JCT was constructed in 1974 and was previously operated as part of Johnsonville Fossil Plant. It is one of TVA's nine combustion turbine gas sites and the only cogeneration¹ plant in TVA's fleet. The site has 20 units with a 1,220-megawatt capacity. While JCT may be relied upon to supplement TVA's generation needs, its primary function in 2020 was to provide steam to Chemours, a chemical plant adjacent to JCT.

JCT's initiatives in fiscal year (FY) 2021 include reinstatement of site health and safety meetings, implementation of a respectful workplace refresher course, plans to conduct preventive maintenance on a certain type of equipment, and training of managers and a continuous improvement champion. Metrics for FY 2021 include, but are not limited to, total spend, recordable injuries, trip events, economic starting reliability, and environmental noncompliance.

In FY 2020, JCT was under budget in their spending and staffing has remained relatively steady since FY 2018 at around 30 employees. As of January 6, 2021, JCT employed 29 individuals, including the site manager, 2 Operations and Maintenance cogen managers (1 permanent, 1 temporary), 1 Controls Gas specialist, 18 combustion turbine plant technicians, 3 machinists, 3 foremen, and 1 business support representative.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this evaluation was to identify factors that could impact JCT's organizational effectiveness. We assessed operations as of January 2021 and culture at the time of our interviews, which occurred during January 25, 2021, through February 20, 2021. To complete the evaluation, we:

- Reviewed (1) PO FY 2021 through FY 2023 business plan, (2) Gas Operations' FY 2021 through FY 2023 business plan, and (3) documentation provided by JCT to gain an understanding of initiatives, metrics, and/or risks within JCT.
- Reviewed TVA values and competencies (see the Appendix for an understanding of cultural factors deemed important to TVA).

¹ Cogeneration plants are also known as combined heat and power plants.

- Reviewed select Standard Programs and Processes and other documentation to gain an understanding of processes.
- Examined FY 2019 through December 31, 2020, financial information to gain an understanding of expenditures used in support of the work environment.
- Conducted individual interviews with 22² individuals, including management, and analyzed the results to identify themes that could affect organizational effectiveness.

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

OBSERVATIONS

During the course of our evaluation, we identified behaviors that had a positive impact on JCT. These included leadership actions and positive relationships with team members. We also identified minimal risks to operations that, if unaddressed, could hinder JCT's effectiveness. These were related to resource needs, such as specific training and budgetary needs for plant maintenance.

Behaviors Having a Positive Impact on JCT

According to the Society for Human Resource Management (SHRM),³ employee engagement relates to the level of an employee's connection and commitment to the organization. SHRM also specifies drivers of employee engagement, including commitment of leaders, trust in leadership, and positive relationships with supervisors. TVA has developed competencies intended to define common characteristics that set the tone for how work is to be performed in the organization. Defined behaviors are associated with the competencies to provide guidance as to how employees can demonstrate their commitment to TVA values. Based on interviews with individuals within JCT, we determined behavior-related risk was low due to interactions with leadership and with team members.

Leadership is a Positive Driver of Engagement

TVA expects leaders to inspire trust and engagement by building a positive environment that motivates others to achieve and exceed organizational goals and aspirations. We asked individuals within JCT about relationships with their first-line supervision, middle management, and upper management. Responses from individuals indicated that leadership is a positive driver of engagement within JCT.

² One individual not included in the January 6, 2021, headcount began working at JCT at the time of our interviews; therefore, we did not interview this individual. We did not interview 2 individuals due to unavailability, 3 individuals who could not be reached, and 2 individuals who did not wish to be interviewed.

³ SHRM is a membership organization for Human Resource professionals.

The majority of individuals commented positively when asked about interactions with first-line and middle management. Examples of positive interactions included management caring about the site and/or employees and/or having respect for management. Most individuals commented positively on communication with first-line management and many felt that communication with middle management was positive. Most individuals interviewed indicated they trusted first-line and middle management and the majority felt comfortable reporting concerns or offering a differing opinion to first-line and middle management. Many individuals also commented positively on accountability and recognition from first-line and middle management. Examples of recognition included verbal praise and praise through emails, gift cards and/or crew meals, and generally letting employees know they are appreciated.

Upper management for all individuals was outside of JCT. Therefore, few individuals commented on relationships with upper management. Of those who commented, comments were positive related to communication, trust, recognition, and comfort reporting concerns and/or offering a differing opinion.

Positive Relationship With Team Members

TVA expects employees to earn the trust of others through open, honest, and respectful words and actions and to conduct business in accordance with ethical standards. All JCT employees we interviewed commented positively on interactions with others in their group and indicated they trusted their coworkers. Several individuals specifically commented on the team working well together and/or indicated they get along with each other. In addition, all believed the ethical culture⁴ in the organization was positive. Several individuals indicated teamwork as drivers of positive morale in their area.

Minimal Risk to Operations

Based on our interviews, we identified minimal risks to operations that, if unaddressed, could hinder JCT's effectiveness. Feedback pertaining to others within and outside of JCT was primarily positive and several individuals indicated having no concerns with completing their primary job responsibilities. However, several individuals expressed concerns related to (1) training in certain areas, such as when moving to a foreman or management position, or from a coal to a gas plant; and/or (2) budgetary needs for general plant maintenance. According to PO management, they are working on a training program for foremen that is scheduled to be rolled out soon.

RECOMMENDATIONS

We recommend the JCT Site Manager address the resource-related risks pertaining to training and budgetary needs for general maintenance.

TVA Management's Comments – TVA management agreed with the recommendations. See Appendix B for TVA management's complete response.

⁴ Ethical culture, as defined in this evaluation, refers to the shared concept of right and wrong behavior in the workplace.

TVA Values	
Safety	We are committed to the safety and well-being of each TVA employee and the communities we serve.
Service	We are proud to serve in the communities in which we live, work, and play.
Integrity	We are honest and straightforward.
Inclusion	We strive to treat everyone with dignity and respect by welcoming each person's individuality so we can all reach our full potential.

TVA Leadership Competencies

Accountability and Driving for Results
Continuous Improvement
Leveraging Diversity
Adaptability
Effective Communication
Leadership Courage
Vision, Innovation, and Strategic Execution
Business Acumen
Building Organizational Talent
Inspiring Trust and Engagement

April 16, 2021

David P. Wheeler, WT 2C-K

REQUEST FOR COMMENTS – DRAFT EVALUATION 2021-15790 –
ORGANIZATIONAL EFFECTIVENESS - JOHNSONVILLE COMBUSTION TURBINE

This is in response to your memorandum dated March 19, 2021. After review of the draft evaluation, please see the following response for organizational effectiveness.

We would like to thank David Wheeler for his diligence and support to optimize the Gas Operations workforce by identifying opportunities for organizational effectiveness.

Recommendations

We recommend the Johnsonville Combustion Turbine (JCT) Site Manager address the resource-related risks pertaining to training and budgetary needs for general maintenance.

This recommendation is broken down into two parts below for the purpose of Gas Operations' response.

1. We recommend the Johnsonville Combustion Turbine (JCT) Site Manager address the resource-related risks pertaining to training. (Specifically, moving to a foreman or management position, or from a coal to a gas plant.)

Response

Gas Operations agrees with this recommendation.

2. We recommend the Johnsonville Combustion Turbine (JCT) Site Manager address the resource-related risks pertaining to budgetary needs for general maintenance.

Response

Gas Operations agrees with this recommendation.

David P. Wheeler
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April 16, 2021

Thank you for allowing us to provide these comments. Please contact us if you have any questions.



Michael W. Parker
Site Manager
Johnsonville Combustion Turbines

MWP:TDL

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Susan E. Collins, LP 3D-C
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Michael D. Skaggs, WT 7B-K
Lawrence Sparks, LP 2K-C
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