



Memorandum from the Office of the Inspector General

September 7, 2017

Michael D. Skaggs, WT 7B-K

REQUEST FOR MANAGEMENT DECISION – EVALUATION 2016-15444 – SAFETY AND PERFORMANCE IMPROVEMENT'S ORGANIZATIONAL EFFECTIVENESS

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.

If you have any questions or wish to discuss our findings, please contact Jamie M. Wykle, Senior Auditor, at (865) 633-7382 or Lisa H. Hammer, Director, Evaluations – Organizational Effectiveness, at (865) 633-7342. We appreciate the courtesy and cooperation received from your staff during this review.

David P. Wheeler
Assistant Inspector General
(Audits and Evaluations)
ET 3C-K

JMW:FAJ

Attachment

cc (Attachment):

TVA Board of Directors
Janet J. Brewer, WT 7C-K
Susan E. Collins, LP 6A-C
William G. Cronin, BR 5C-C
Robertson D. Dickens, WT 9C-K
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OIG File No. 2016-15444



Office of the Inspector General

Evaluation Report

To the Executive Vice
President, Operations

SAFETY AND PERFORMANCE IMPROVEMENT'S ORGANIZATIONAL EFFECTIVENESS

Evaluation Team
Jamie M. Wykle
Noel K. Kawado

Evaluation 2016-15444
September 7, 2017

ABBREVIATIONS

BOARD	TVA Board of Directors
BU	Business Unit
CAP	Corrective Action Program
CEO	Chief Executive Officer
DASHO	Designated Agency Safety and Health Official
FY	Fiscal Year
OSHA	Occupational Safety and Health Administration
PI	Performance Improvement
RIR	Recordable Injury Rate
RRM	Resources and River Management
S&AS	Safety and Aviation Services
SC	Safety Consultants
SPI	Safety and Performance Improvement
SRME	Safety, River Management and Environment
TISAR	Total Industrial Safety Accident Rate
TVA	Tennessee Valley Authority
VP	Vice President
WP	Winning Performance

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

BACKGROUND..... 1

OBJECTIVE, SCOPE, AND METHODOLOGY 3

OBSERVATIONS 5

 STRENGTHS 5

 RISKS..... 6

CONCLUSION.....10

RECOMMENDATIONS.....11

APPENDICES

- A. TVA VALUES AND LEADERSHIP COMPETENCIES
- B. MEMORANDUM DATED AUGUST 28, 2017, FROM MICHAEL D. SKAGGS TO DAVID P. WHEELER



Evaluation 2016-15444 – Safety and Performance Improvement’s Organizational Effectiveness

EXECUTIVE SUMMARY

Why the OIG Did This Evaluation

Organizational effectiveness, as defined in this evaluation, is the ability of the organization to achieve its mission and goals. To achieve and sustain organizational effectiveness, there should be alignment between strategy, team engagement, and operational performance. Specifically, values and behaviors that drive good performance should be embedded throughout the organization’s business processes and exemplified by the individuals that manage and work in the organization. The Tennessee Valley Authority’s (TVA) 2017 3-year Enterprise Risk Profile recognized that ongoing workforce refinementⁱ might negatively affect the performance environment. Therefore, employee engagement is critical.

Due to the importance of alignment between strategy, team engagement, and operational performance, the Office of the Inspector General is conducting organizational effectiveness evaluations of business units (BU) across TVA. This evaluation focused on Safety and Performance Improvement (SPI), which at the time we initiated our evaluation, was a BU falling under the Safety, River Management and Environment.

SPI’s mission is to (1) provide the resources to ensure employees have the latest SPI information and (2) work to create an environment where every TVA employee can come to work without fear of injury and illness. As of August 4, 2016, SPI had 46 employees, including management. The objective of this evaluation was to identify strengths and risks that could impact SPI’s organizational effectiveness.

What the OIG Found

We identified strengths related to: (1) organizational alignment, (2) customer focus, (3) management support of employees, (4) employee teamwork and collaboration, and (5) proactive identification of safety risk behaviors. We also identified risks related to (1) mixed messaging on the importance of safety, including the use of Recordable Injury Rate (RIR) in TVA’s Winning Performance Program, placement of the Designated Agency Safety and Health Official (DASHO) within TVA’s organizational structure, and frequent movement and reorganization of the safety function and (2) nuclear Safety Consultants reporting structure. However, as we discuss in this report, none of these risks are within the control of SPI, but are dependent on other TVA organizations for resolution.

Based on our findings and using TVA’s Business Operating Model, we assessed SPI’s level of risk in the areas of alignment, engagement, and

ⁱ Refinement of the workforce includes activities such as reduction in force.



Evaluation 2016-15444 – Safety and Performance Improvement’s Organizational Effectiveness

EXECUTIVE SUMMARY

execution. As shown in Table 1 below, we determined alignment risk to be medium based upon the nuclear Safety Consultants reporting directly to plant managers. We rated engagement risk as low based upon good employee teamwork and collaboration, and management support of employees. Finally, we rated execution risk as medium based upon the use of the RIR, which could incentivize employees to withhold safety information, placement of the DASHO, and frequent organizational and key personnel changes, which could disrupt momentum in programs and initiatives.

	Low Risk	Medium Risk	High Risk
Alignment		x	
Engagement	x		
Execution		x	

Table 1

What the OIG Recommends

We recommend the Executive Vice President, Operations:

- Determine whether including the RIR as a measure in TVA’s incentive programs has an adverse impact on safety reporting, and if so, remove it from the incentive program.
- Communicate the rationale behind any (1) changes to the placement of the DASHO within the organization and (2) future organizational changes within the Safety group.

We recommend the Executive Vice President, Operations, in conjunction with the Chief Nuclear Officer:

- Consider transferring the responsibility for nuclear safety to Safety and Aviation Services to decrease concerns about independence and objectivity.

TVA Management’s Comments

In response to our draft report, TVA management stated they are in agreement with the facts, conclusions, and recommendations and have no additional comments. 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. To achieve and sustain organizational effectiveness, there should be alignment between strategy, team engagement, and operational performance. Specifically, values and behaviors that drive good performance should be embedded throughout the organization's business processes and exemplified by the individuals that manage and work in the organization.

In recent years, the Tennessee Valley Authority (TVA) has faced internal and external economic pressures and implemented cost-cutting measures in an attempt to keep rates low and reliability high while continuing to fulfill its broader mission of environmental stewardship and economic development. In addition to recognizing operational risks related to those pressures, TVA's 2017 3-year Enterprise Risk Profile recognized that ongoing workforce refinement¹ might negatively affect the performance environment. Therefore, employee engagement is critical.

Due to the importance of alignment between strategy, team engagement, and operational performance, the Office of the Inspector General is conducting organizational effectiveness evaluations of business units (BU) across TVA. According to the TVA's Safety and Performance Improvement (SPI) Web site, their mission is to (1) provide the resources to ensure employees have the latest SPI information and (2) work to create an environment where every TVA employee can come to work without fear of injury and illness.

Safety, one of TVA's core values,² is described as sharing "a professional and personal commitment to protect the safety of our employees, our contractors, our customers, and those in the communities that we serve." Ultimately, SPI provides safety oversight for all of TVA.

The Occupational Safety and Health Administration (OSHA) lays the foundation for regulatory safety requirements for federal agencies in 29 Code of Federal Regulations 1960, "Basic Program Elements for Federal Employee Occupational Safety and Health Program Related Matters." In addition, Section 19 of the Occupational Safety and Health Act of 1970 includes provisions promoting safe and healthful working conditions for federal sector employees, and requires federal agencies to establish and maintain an effective and comprehensive occupational safety and health program. As part of these requirements, federal agencies are required to appoint a Designated Agency Safety and Health Official (DASHO) to assist the agency head in establishing the agency's occupational safety and health policy and program consistent with OSHA regulations.³

¹ Refinement of the workforce includes activities such as reduction in force.

² According to TVA, values "are the fundamental beliefs that guide our actions, our behaviors and our decisions as a company."

³ 29 CFR 1960.6a and 6b

Currently, the Director, Safety and Aviation Service (S&AS), is the TVA DASHO. TVA's Safety Program establishes the foundation needed to help drive a culture across the organization to reduce events and improve operational performance. By design, the Safety Program provides guidance to assist all employees in safely executing work activities through procedures established in TVA's Safety Manual.

At the time we initiated our evaluation, SPI was organizationally aligned under the Safety, River Management and Environment (SRME), which was a part of TVA's Resources and River Management (RRM). The Director, SPI, reported to the Vice President (VP), SRME, who reported to the Senior VP, RRM. SPI included three departments: Safety Operations, Safety Support and Performance Improvement (PI):

- Safety Operations, through its safety consultants (SC),⁴ is responsible for providing safety oversight and support to TVA personnel. SCs, at their assigned location(s), are tasked with, among other things, conducting safety observations, coaching site management and employees on desired safety behaviors, participating in the resolution of outstanding safety issues, and utilizing data analysis to help guide sites in their efforts to achieve a safe working environment. In addition, a primary role of SCs is to determine whether an injury is recordable for OSHA reporting purposes.
- The Safety Support department provides governance and technical expertise for programs that support TVA's safety vision. Safety Support's areas of responsibility includes Industrial Hygiene, Regulatory Compliance, Health and Safety Committees, and maintenance of the TVA Safety Manual.
- PI is responsible for several programs that, in general, were designed to proactively reduce safety risks. These programs included:
 - Human Performance – Development and governance of tools and resources to promote behaviors supporting the safe and reliable execution of work and an incident-free safety culture.
 - Observations – Governance and oversight of TVA's safety observation program and the data repository for such observations in the TVA Observation Program application.
 - Operating Experience – Collection and distribution of conditions, events, best practices, and lessons learned across TVA to sustain safe and reliable operations and reduce and minimize future events.
 - Rewards and Recognition – Promotion of employee engagement and improvement of TVA safety culture through the recognition and reward of employees demonstrating exceptional safety dedication and leadership.
 - Corrective Action Program (CAP) – Identification, documentation, evaluation, and trending of problems and the development and implementation of appropriate actions to correct problems.

⁴ Except for TVA Nuclear Operations which, as we discuss in this report, has its own SCs reporting directly to Nuclear Plant management rather than to SPI.

- Continuous Improvement – Promotion of ongoing, continuous improvement ethos to equip and reinforce leaders and individual contributors with approaches to improve the way they work every day.

On January 30, 2017, TVA restructured the RRM organization, moving (1) the PI group from SPI to a newly created Enterprise Improvement group under RRM and (2) Aviation Services from TVA's Supply Chain to the newly formed S&AS. Under this new structure, the Director of the newly-formed S&AS reports directly to the Senior VP, instead of the VP, SRME. Safety Operations and Safety Support functions previously under SPI continue under S&AS.

In February 2017, the newly created S&AS drafted a document which lays out its strategy. According to the Director, S&AS, all of the previous functions performed by the PI group, except for Observations, will be performed by Enterprise Improvement. To continue these functions and to establish expectations of S&AS and Enterprise Improvement going forward, an intergroup agreement was developed and became effective on February 24, 2017.

SPI metrics included in SRME's Fiscal Years (FY) 2016 through 2018 business plan:

- Recordable Injury Rate (RIR) – The number of recordable injuries (as defined by TVA's Safety Program) per 200,000 employee hours worked by TVA employees and staff augmentation contractors (hearing events excluded).
- Significant Human Events Incident Rate – The number of significant human events per man-hours worked by employees and staff augmentation contractors times 10,000, calculated monthly.
- CAP – Includes the CAP RIR and other general CAP metrics. The CAP RIR metrics tracks the timeliness and quality of CAPs related to recordable injuries. The other general CAP metrics measure the timeliness and quality of CAPs.

As of August 4, 2016, SPI had 46 employees,⁵ including management. As of that date, SPI's management structure included a director and three senior managers.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this evaluation was to identify strengths and risks that could impact SPI's organizational effectiveness. We assessed SPI operations from October 2014 through March 2017 and culture at the time of our interviews occurring from October 2016 through January 2017. Our evaluation assesses the organizational effectiveness of SPI prior to its restructuring, although some follow-up interviews and documentation reviews were conducted after the organizational changes.

⁵ SPI also had 31 contractors as of August 4, 2016. However, contractors were excluded from the scope of this evaluation.

To complete the evaluation, we:

- Reviewed SPI's FY2016 through FY2018 business plan to gain an understanding of SPI's goals and how SPI's responsibilities align with its mission.
- Reviewed TVA values and competencies (see Appendix A) for understanding of cultural factors deemed important to TVA.
- Interviewed the SPI Director and 3 direct reports and 5 other designated supervisory/management-level employees, to obtain their perceptions related to strengths and risks that could affect organizational effectiveness.
- Conducted interviews with 34 of 37 employees and analyzed the results to identify themes related to strengths and risks that could affect organizational effectiveness.
- Surveyed and/or conducted interviews with a nonstatistical sample of 21 individuals from other TVA organizations that work closely with SPI and analyzed results to identify strengths and risks from a customer service standpoint.
- Reviewed select TVA Standard Programs and Processes and guidelines to gain an understanding of processes and controls.
- Analyzed performance management documentation for nuclear SCs to identify performance goals.
- Reviewed previous organization charts and information contained in TVA's Oracle PeopleSoft application⁶ to determine structural changes within the Safety organization.
- Compared changes from the 2015 Employee Engagement Survey to TVA's 2016 Pulse Survey to gain additional understanding of the work environment.
- Reviewed OSHA regulations and guidelines and safety best practices.
- Assessed the overall effectiveness of SPI in the following areas, as described in TVA's Business Operating Model:
 - Alignment – How well the organization coordinates the activities of its many components for the purpose of achieving its long-term objectives—this is grounded in an understanding of what the organization wants to achieve, and why.
 - Engagement – How the organization achieves the highest level of performance from its employees.
 - Execution – How well the organization achieves its objectives and mission.

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

⁶ Human Resources Information System

OBSERVATIONS

Within SPI, we identified strengths related to (1) organizational alignment, (2) customer focus, (3) management support of employees, (4) employee teamwork and collaboration, and (5) proactive identification of safety risk behaviors. However, we also identified risks that could impact the effectiveness of SPI to meet its mission. These risks are (1) mixed messaging on the importance of safety and (2) nuclear SCs reporting structure.

As we discuss in this report, none of these risks are within the control of SPI, but are dependent on other TVA organizations for resolution.

STRENGTHS

During the course of our interviews and data analyses, we identified strengths that positively affected the day-to-day activities of SPI personnel and performance. These strengths included (1) organizational alignment, (2) customer focus, (3) management support of employees, (4) employee teamwork and collaboration, and (5) proactive identification of safety risk behaviors.

SPI Organizational Alignment

We found SPI's mission, key initiatives, actions, and goals aligned to SRME's and TVA's mission, strategic imperatives, and/or priorities. In addition, based on our review of selected performance documents, we noted that performance management goals aligned to SPI's mission, key initiatives and metrics, and cascaded from the Director to managers and employees.

Customer Focus

Safety personnel interviewed conveyed a strong understanding of SPI's role as a support organization and emphasized customer support. SPI employees recognize the need to develop and/or maintain trusting relationships with TVA employees that they support. SPI's rewards and recognition program acknowledges TVA employees who demonstrate exceptional safety dedication and leadership. The intent of the program, according to SPI, is to motivate employees to take an active role in improving safety for themselves and their coworkers.

This focus on safety was also reflected in interviews conducted with SPI customers. We interviewed several representatives from other TVA organizations that work with SPI to obtain their views of the quality of customer service provided by SPI. Most individuals we interviewed held positive views of the organization, stating that SPI personnel are dedicated, responsive, informative and focused on making everyone safe. Customers interviewed expressed their satisfaction with SPI products/services and believe the Health and Safety Committees are effective in promoting safety.

Management Support of Employees

Most employees we interviewed shared positive views of SPI management. In particular, these employees stated that management communicated well, understood their work, removed barriers, empowered them, and provided the support, tools, and resources to do their job. This appreciation for management included the Director, SPI, who was commended by employees for the way he has handled difficult situations in the past. Most employees indicated that management was receptive to receiving employee feedback and held employees accountable. Accordingly, these employees indicated that they trusted management.

Employee Teamwork/Collaboration

TVA's "Collaboration" value was evident through interviews with employees of SPI. The majority of employees provided positive comments pertaining to teamwork within their department. Specifically, several employees described their ability to reach out to one another to ask questions, share knowledge, collaborate, and support one another. In addition, employees and managers described their belief that the organization has a diverse talent pool and subject matter experts.

Proactive Identification of Safety Risks

To identify and mitigate safety risks across TVA before injuries/incidents occur, SPI has initiated a risk-mapping process. The leading indicators used in this risk-mapping process rely, in part, on input from TVA employees and contractors. Information input by employees into Medgate⁷ such as near misses (except those related to motor vehicles), good catches, injuries and illnesses are incorporated into the risk-mapping process and analyzed to determine the likely severity of a potential event occurring. Potential serious events⁸ would trigger the Operating Experience group within PI to dispatch alerts to applicable TVA groups and to TVA peers. Potential low and medium risk events are trended and/or used to identify common causes. All potential events could trigger a condition report within the CAP to initiate resolution of an issue.

RISKS

We identified risks that could impact SPI's effectiveness in achievement of its mission to TVA, including (1) mixed messaging on the importance of safety and (2) nuclear SCs reporting structure.

Mixed Messaging on the Importance of Safety

Through our interviews, we identified three issues that could send mixed messages to employees regarding the importance of safety to TVA. Specifically, the (1) use of RIR in TVA's Winning Performance (WP) Program, (2) placement of the DASHO within TVA's organizational structure, and (3) frequent movement and reorganization of the safety function.

⁷ Medgate is an application that serves as the repository for the data elements included in the risk mapping. Medgate is accessible by all TVA employees who have access to a computer.

⁸ Potential events are designated as "serious" (which includes "extreme" and "high" risk-type events, such as events that would involve serious injury), "medium," and "low" risk events.

Use of RIR in TVA's WP Program

Until FY2013, the RIR was included as a metric in TVA's WP incentive program. In FY2014, TVA removed the RIR as an individual metric from WP scorecards and included it as one of several corporate multiplier measures,⁹ including those focusing on financial health, economic development and board-level significant areas.

According to TVA, "safety was placed at the corporate-multiplier-measure level to convey the importance of this core value and focus on a culture of zero injuries." However, most SPI personnel we interviewed believed that including injuries as part of TVA's WP could negatively impact safety performance and promote behaviors inconsistent with TVA values. Specifically, SPI personnel believed employees may be reluctant to report safety incidents because of potential reductions in financial incentives. Concerns regarding RIR as a WP metric have been voiced by other TVA employees in prior organizational effectiveness reviews conducted by our office.¹⁰

While the Safe Workplace corporate multiplier measure is a representation of TVA's overall RIR, that measure is a compilation of the RIRs of BU/locations throughout TVA. Data on TVA's overall RIR and the breakdown of that RIR across TVA, by location and BU, is easily available on TVA's intranet. Therefore, an employee may reasonably view his or her injury as one that can negatively impact the overall TVA RIR. TVA's values of Integrity, Accountability,¹¹ and Safety could be compromised if employees withhold safety information for financial benefit or to avoid blame.

In addition, past payouts related to the corporate multiplier may have had the unintended consequence of sending a mixed message to employees on the importance of safety to TVA. For both FY2015 and FY2016, TVA achieved all of its corporate multiplier goals, except for the Safe Workplace goal. During FY2015, TVA's RIR was 0.72, as compared to a target of zero, which placed TVA in the top quartile compared to its peers. Because of the shortfall in safety, TVA's Chief Executive Officer (CEO) recommended, and the TVA Board of Directors (Board) approved, a reduction in the overall corporate multiplier from 1.0 to 0.95. Comparatively, during FY2016, TVA's RIR was 0.43, as compared to a target of zero. Although the RIR in FY2016 of 0.43 was better than the rate for FY2015, TVA had two fatalities in FY2016. However, the CEO recommended, and the Board approved, no reduction in the corporate multiplier.

During our interviews, some SPI employees stated that TVA's actions related to measuring safety by RIR could send the message that TVA is only concerned about the number of injuries, regardless of the type of injury (in other words, that a fatality is just another count against the RIR). These feelings could foster distrust in TVA management about its motives regarding safety.

⁹ The corporate multiplier, which ranges from 0 to 1 for FY2017, will be applied to the scorecard to set the final payout percentage. For FY2017, the corporate multiplier goal for the RIR was set at zero for TVA as a whole.

¹⁰ Evaluation 2015-15296, Cumberland Fossil Plant Organizational Effectiveness, November 4, 2015; and Evaluation 2016-15357, Bull Run Fossil Plant Organizational Effectiveness, March 30, 2016.

¹¹ See Appendix A for TVA's definitions of "Integrity" and "Accountability."

OSHA neither approves nor disapproves the design or the effectiveness of safety incentive programs, nor does it prohibit safety incentive programs. However, OSHA has communicated,¹² on several occasions, its unfavorable view on safety incentive programs that discourage workers from reporting a workplace injury and a favorable view of incentive programs that encourage safe work practices and promote worker participation in safety-related activities. Most recently, on May 12, 2016, OSHA published in the Federal Register, a final rule, which took effect on January 1, 2017, revising its Recording and Reporting Occupational Injuries and Illnesses Regulation. The rule states:

[I]t is a violation for an employer... to take adverse action, including denying a benefit, because an employee reports a work-related injury or illness, such as disqualifying the employee for a monetary bonus or any other action that would discourage or deter a reasonable employee from reporting the work-related injury or illness.

It further clarifies “[t]he specific rules and details of implementation of any given incentive program must be considered to determine whether it could give rise to a violation.”

In a TVA Communications Plan (“OSHA Recordable Injury Rate Enforcement Change”), dated May 8, 2017, TVA stated it “will continue to measure safety performance through company-wide metrics as directed by the OSHA policy, and the overall TVA RIR will remain a safety metric for [WP] this year.” While we believe that the use of the RIR in TVA’s WP incentive program is contrary to the spirit of OSHA’s Recording and Reporting Occupational Injuries and Illnesses Regulation, TVA’s position is that “[c]ompany-wide RIR can be used in a broad-based incentive program with a range of other factors.”

Placement of the DASHO within the Organizational Structure

One of the DASHO’s primary responsibilities is to assist the CEO and the Board in establishing the agency’s occupational safety and health policy and program consistent with OSHA regulations. Employees expressed concerns with the downward movement of the DASHO within the organizational structure. At the date this evaluation was initiated, the VP, SRME, was the TVA DASHO and reported to Senior VP, RRM. In previous years, the DASHO reported either to the Chief Operating Officer, or directly to the CEO. When the DASHO did not report directly to the CEO, the DASHO reported to an executive, who reported to the CEO. Currently, however, the Director, S&AS is the DASHO and sits three levels below the CEO. While we did not determine the rationale for reassigning the DASHO role, its downward movement in the organization could pose communication risks between the DASHO and the CEO and Board. In addition, this movement could be interpreted by employees as an action that is inconsistent with TVA’s message regarding the importance of safety.

¹² On September 28, 2010, OSHA issued a National Emphasis Program "Directive on its Injury and Illness Recordkeeping National Emphasis Program." On June 2011, OSHA issued "Revised VPP Policy Memorandum No. 5: Further Improvements to the Voluntary Protection Programs." On March 12, 2012, OSHA issued a memorandum, "Employer Safety Incentive and Disincentive Policies and Practices."

Frequency of Key Personnel and Organizational Changes

Most employees we interviewed expressed angst, uncertainty, and fear based on the continual changes to Safety's organizational structure. We reviewed previous organizational charts and information contained in TVA's Oracle PeopleSoft application and identified several organizational/key personnel changes within the TVA safety group since February 2009. Specifically:

- Six different individuals have filled the Director/General Manager of Safety position.
- Five different individuals have held the DASHO position.
- Eight different individuals have filled the Senior VP, VP, or Senior Manager positions to whom the Director/General Manager of Safety reported.
- Six name changes have occurred to describe the safety functions.
- Eight different strategic BUs have included the safety group.

In addition, there have been numerous changes in the functions included under the safety group. For example, the Workers' Compensation, Non-Nuclear Fitness for Duty, Continuous Enterprise Excellence, and PI functions were once, but not currently, included under the safety group. Frequent changes such as these may impact the trust and engagement of employees who expressed angst, uncertainty, and fear based on the continual past organizational changes.

Nuclear SCs Reporting Structure

Before February 2014, all TVA SCs reported to the corporate safety organization; however, since that time, the SCs for nuclear sites have reported to their site's plant manager with oversight from two individuals in SPI. When a disagreement arises between the site's manager and the SC as to whether an injury is recordable, the issue is escalated to SPI. For SPI SCs, their reporting structure fosters objectivity in determining whether an injury is or is not recordable. However, during our interviews, several individuals voiced concerns that nuclear SCs may hesitate going against their supervisor (site plant manager) and may feel their objectivity is compromised when performing their duties.

We obtained copies of nuclear SC performance documents and noted that, for FY2015 through FY2017, all nuclear SCs had goals based on the Total Industrial Safety Accident Rate (TISAR)¹³ and/or RIR,¹⁴ or were ultimately rated on the RIR even though it was not specifically spelled out as a performance measure. Specifically, the consultants were rated on whether the site met their individual TISAR or RIR rates, even though those consultants can educate but not prevent

¹³ Captures lost time and restricted duty injuries for total station personnel including contractors. Rate is reported per 200,000 hours worked over the 18- (Sequoyah Nuclear Plant and Watts Bar Nuclear Plant) or 24-month (Browns Ferry Nuclear Plant) operating cycle. The TISAR is one of several key performance indicators used to calculate the Institute of Nuclear Power Operations index, which is a standard used in the nuclear industry to trend overall station performance. While the index is not specifically included in WP, this index and the RIR is measured and tracked on a TVA-wide basis for benchmarking purposes against TVA's peer group.

¹⁴ We noted that none of the performance documents of SCs within SPI, for FY2016, contained goals based on TVA's RIR or TISAR.

site accidents. As a nuclear SC, it may be difficult to argue against the nuclear plant manager, who is the same person that assesses that SC's performance throughout the year and determines that SC's merit pay increase.

As mentioned previously, OSHA released a new rule on May 12, 2016. Under the new OSHA rule, using injuries as criteria for the nuclear SC's performance is not permissible because it may incentivize such individuals to not report/classify injuries as recordable. The new rule targets employer programs and policies that, while nominally promoting safety, have the effect of discouraging workers from reporting injuries and, in turn leading to incomplete or inaccurate records of workplace hazards.

As of the date of this report, nuclear SC's FY2017 performance documents still contained the RIR and TISAR measure as a performance measure. However, according to Office of General Counsel, TVA will not use RIR or TISAR as a metric for individual performance evaluations, compensation, incentives, effective October 1, 2016; therefore, it is not necessary to update individual FY2017 performance documents unless there is a strong reason to do so. However, removal of the RIR and TISAR measures from nuclear SCs performance documentation does not provide assurance that the objectivity of those SCs could not be compromised based on their reporting structure.

CONCLUSION

The existence of a work environment that encourages safe work habits and a workforce that practices good safety behaviors is a key foundation of any organization. Simply stated, a workforce that does not practice safe behaviors is more likely to have injuries/accidents, which not only impedes accomplishment of goals and increases costs, but also negatively impacts worker trust and morale. As a TVA value, safety and its importance are communicated frequently throughout the organization. However, because TVA operates in a dynamic environment, it can be challenging to understand changes in safety risks and keep safety at the forefront of employees' minds. Ultimately, though, everyone is accountable to themselves, and to each other, to exhibit safe behaviors and ensure that working conditions are free from working hazards. Additionally, research suggests five elements of a positive safety culture include: (1) informed culture that collates data from accidents and incidents and combines them with information from proactive measures, (2) reporting culture in which employees feel free to report safety-related occurrences, (3) culture characterized by an atmosphere of trust, (4) flexible culture that successfully manages safety during organizational changes, and (5) learning culture needed to draw conclusions from the information collected along with the will to implement necessary changes.

TVA's Safety Program establishes the basis needed to help drive a culture across the organization to reduce events and improve operational performance. By design, the Program provides guidance to assist all employees in safely executing work activities through procedures established in TVA's Safety

Manual. The significance of safety to TVA, coupled with SPI's role in helping to keep TVA employees safe, underscore the importance of SPIs' effectiveness. Using the strengths and risks identified and TVA's Business Operating Model, we evaluated the risk of three critical areas that could impact SPI's effectiveness, including: (1) alignment, (2) engagement, and (3) execution, as follows:

- Alignment risk is medium based on the reporting structure of the nuclear SCs.
- Engagement risk is low based upon good employee teamwork and collaboration, and management support of employees.
- Execution risk is rated medium based upon the use of the RIR, placement of the DASHO, and frequent organizational and key personnel changes, which could disrupt momentum in programs and initiatives.

RECOMMENDATIONS

We recommend the Executive VP, Operations:

- Determine whether including the RIR as a measure in TVA's incentive programs has an adverse impact on safety reporting, and if so, remove it from the incentive program.
- Communicate the rationale behind any (1) changes to the placement of the DASHO within the organization and (2) future organizational changes within the Safety group.

We recommend the Executive VP, Operations, in conjunction with the Chief Nuclear Officer:

- Consider transferring the responsibility for nuclear safety to S&AS to decrease concerns about independence and objectivity.

TVA Management's Comments – In response to our draft report, TVA management stated they are in agreement with the facts, conclusions, and recommendations and have no additional comments. See Appendix B for TVA management's complete response.

TVA Values	
Safety	We share a professional and personal commitment to protect the safety of our employees, our contractors, our customers, and those in the communities that we serve.
Service	We are privileged to be able to make life better for the people of the Valley by creating value for our customers, employees, and other stakeholders. We do this by being a good steward of the resources that have been entrusted to us and a good neighbor in the communities in which we operate.
Integrity	We conduct our business according to the highest ethical standards and seek to earn the trust of others through words and actions that are open, honest, and respectful.
Accountability	We take personal responsibility for our actions, our decisions, and the effectiveness of our results, which must be achieved in alignment with our company values.
Collaboration	We are committed to fostering teamwork, developing effective partnerships, and valuing diversity as we work together to achieve results.

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

TVA RESTRICTED INFORMATION

August 28, 2017

David P. Wheeler, ET 3C-K

RESPONSE TO REQUEST FOR COMMENTS - DRAFT EVALUATION 2016-15444 - SAFETY
AND PERFORMANCE IMPROVEMENT ORGANIZATIONAL EFFECTIVENESS

In response to the subject request for comments regarding Draft Evaluation 2016-1544, we are in agreement with the facts, conclusions, and recommendations and have no additional comments.

I appreciate the professionalism and cooperation of those conducting and supporting this audit.

If you have any additional questions, please let me know.



Mike Skaggs
Executive Vice President, Operations
WT 7B-K

cc: Susan E. Collins, LP 6A-C
William G. Cronin, BR 5C-C
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