



Memorandum from the Office of the Inspector General

September 28, 2018

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**FINAL REPORT – EVALUATION 2018-15578 – ORGANIZATIONAL EFFECTIVENESS
FOLLOW-UP – MATERIALS AND TRANSPORTATION MANAGEMENT**

The Office of the Inspector General (OIG) previously conducted an evaluation of Materials and Transportation Management¹ (M&TM) to identify strengths and risks that could affect M&TM's organizational effectiveness. Our report identified several strengths and risks along with recommendations for addressing those risks. In response to a draft of that report, Tennessee Valley Authority (TVA) management provided their management decision. The objective of this follow-up evaluation was to assess management's actions to address risks included in our initial organizational effectiveness evaluation.

In summary, we determined TVA management has taken actions to address most of the risks outlined in our initial organizational effectiveness evaluation. However, three recommendations remain unresolved, including (1) one manager's behavior and teamwork at one location, (2) instances where goals were not SMART,² and (3) cross-functional risks related to business units.

BACKGROUND

As of July 2017, the date of our original report, M&TM was a business unit under Supply Chain (SC) within TVA's Operations organization. In September 2017, M&TM was separated into two groups, Asset Management and Material Operations. As of January 2018, Asset Management was renamed Asset Management and Performance. Asset Management and Performance responsibilities include equipment reliability, inventory management, and strategy and performance. Material Operations responsibilities include fleet services, investment recovery and warehouse performance, material operations for power operations, and nuclear materials management. Additionally, these organizational changes also resulted in management changes.

In our previous organizational effectiveness evaluation of M&TM, we identified strengths and risks and provided recommendations to address those risks. Specifically, we recommended the Director, M&TM:

1. Identify and implement ways to improve (a) the applicable managers' behaviors and leadership skills in demonstrating TVA's values and competencies and (b) teamwork issues.

¹ Evaluation 2016-15386, *Materials and Transportation Management's Organizational Effectiveness*, July 27, 2017.

² SMART stands for specific, measurable, achievable, relevant, and time-bound.

2. Review the Maximo³ cycle time issue for uploading work orders and implement improvements to minimize the effect on work processes.
3. Evaluate inventory review processes for duplication and inefficiencies and make changes as needed.
4. Continue with plans to assess the impact the physical layout of the nuclear site warehouses is having on efficiency and implement corrective actions as necessary.
5. Identify ways to effectively communicate information to employees related to procedure changes and opportunities for cross-functional collaboration.
6. Review fiscal year (FY) 2018 goals to ensure they are SMART.
7. Address cross-functional risks impacting material availability and inventory accuracy by (a) tracking incidents of materials received without matching receiving documentation to identify trends, (b) determining the impact of unlogged inventory and considering remediation steps as appropriate, and (c) working with the Director, Sourcing, to find process efficiencies and increase response time, support, and collaboration between departments.
8. We also recommended the Vice President (VP), SC, work with:
 - The Senior VP, Power Operations, and the Chief Nuclear Officer to increase understanding of M&TM processes and the impacts of deviations from processes to material availability and inventory accuracy.
 - The Chief Nuclear Officer to determine if a standardized service level agreement for nuclear outages would be beneficial for SC and TVA Nuclear.

This report covers our evaluation of TVA management's actions taken to address the risks from our initial M&TM organizational effectiveness evaluation. Please see the Observations section for the risks previously identified and management's actions.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to assess management's actions to address the risks included in our initial M&TM organizational effectiveness evaluation. To achieve our objective, we:

- Reviewed Evaluation 2016-15386 to determine the risks previously identified.
- Reviewed M&TM's management decision dated July 21, 2017, and management's final action memorandum dated May 7, 2018, to identify planned and completed actions.
- Reviewed documentation provided by SC associated with management's actions.
- Developed questions and conducted interviews with a nonstatistical, judgmentally selected sample of individuals⁴ to obtain perspectives on management's actions. In

³ Maximo is TVA's Enterprise Asset Management system.

⁴ As of July 9, 2018, M&TM's functions within SC consisted of 161 employees.

addition, three employees requested an interview. Individuals interviewed included two senior managers, five management/supervisory-level employees, and 25 other employees.

- Reviewed FY2018 performance documentation for all employees, where available,⁵ to determine if employee goals (1) aligned with SC management goals, the SC mission, and/or TVA values and competencies; and (2) were SMART.
- Identified leadership training and development provided to M&TM leaders⁶ by reviewing (1) training records from July 27, 2017, through June 25, 2018, and (2) FY2018 individual development plans (IDP).

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

In summary, we determined management has taken actions to address most of the risks outlined in our initial organizational effectiveness evaluation. However, three recommendations remain unresolved, including (1) one manager’s behavior and teamwork at one location, (2) instances where goals were not SMART, and (3) cross-functional risks related to business units.

FIGURE 1: MANAGEMENT’S ACTIONS AND OUR OBSERVATIONS

Risk	Management’s Actions	OIG’s Observations
Management Behaviors and Teamwork	Management stated information related to behavior and leadership skills has been reviewed with applicable leaders who are working with senior leadership to address competency gaps and develop a plan to address teamwork and trust. Leadership competencies are being addressed across TVA’s SC through ongoing leadership training. In their May 2018 final action memorandum, SC management stated they (1) engaged in performance and IDP discussions focused on building trust and engagement and (2) required that leaders attend Operations Leader Network meetings, SC forums, all-hands meetings, training on performance management, and IDP training focused on competencies.	We reviewed training records for 22 leaders and found 27 percent of the leaders identified had some type of leadership training. We also reviewed 21 IDPs and found each IDP contained a focus on leadership development. In our initial evaluation, we identified behavioral issues with 3 managers at 3 locations and teamwork at 1 location. Due to SC organizational changes, 2 of these managers are no longer in their former roles. We conducted interviews with our sample of employees and found, at these 2 locations, most employees indicated positive views of their current manager. However, most interviewees at the 3rd location identified continuing concerns around managerial behaviors. Further, many interviews indicated continued teamwork concerns at one location.

⁵ Performance documentation for 11 employees was not reviewed due to (1) 10 employees having no documentation uploaded, and (2) 1 employee’s goals were for a previous job unrelated to SC.

⁶ For the purpose of this report, we considered program managers, first-line supervisors, and above as leaders due to their job functions.

Risk	Management's Actions	OIG's Observations
<p>Process Inefficiencies</p>	<p>Management stated they will work with SC Operations Support team to understand and improve the Maximo issue and will communicate any cycle time reviews or findings proactively.</p> <p>Management stated they will work to improve the output of Oniqua Analytics Solution⁷ and continue to focus on efficiencies to be gained by leveraging this system. In their May 2018 final action memorandum, SC management stated they have worked with employees to identify opportunities for improvement in inventory processes and implemented teams to develop a standardized approach and recommend improvements.</p>	<p>In the original report, some employees described frustration with the amount of time Maximo takes to process work orders, also known as the Maximo cycle time or "Chron." According to the Manager, Reporting and Compliance, all inventory analysts have been informed on how the system works and the current constraints. In addition, SC performance indicators include cycle time measures developed to proactively measure cycle time.</p> <p>According to the Director, Asset Management and Performance, SC is focused on standardization and improving processes. We examined documentation provided by SC that indicated communication of system changes and upgrades, the existence of a cross-functional team to identify opportunities to improve work management systems (including Maximo), and a system workshop. Based on our review of documentation provided by SC, teams have been formed (which include representation from business units that SC supports) to identify opportunities for improvement in inventory processes.</p>
<p>Warehouse Layout</p>	<p>Management stated a thorough review of the warehouse needs of all nuclear sites has been completed, and significant changes and improvements have been made over the 3 years prior to the evaluation. Management stated while a new or significantly different warehouse is not financially feasible in the near term, as additional suggestions are identified they will be reviewed and implemented if feasible.</p>	<p>This recommendation was closed on September 26, 2017, based on management's response that concluded a new or significantly improved warehouse was not financially feasible.</p>
<p>Communication Concerns</p>	<p>Management stated cross-functional collaboration is a focus of SC and the FY2018 through FY2020 Business Plan.</p>	<p>In order to provide more focus on procedure use and adherence, structured communication, and change management plans for process or procedure changes, SC restructured its Reporting and Compliance group in June 2018. According to the Director, Asset Management and Performance, a reworked organizational chart and changes to job titles more clearly reflect the roles within the group.</p>

⁷ An inventory and analytics software that provides data analysis and tools.

<p>Communication Concerns (continued)</p>		<p>In the original report, several employees indicated procedure changes were not communicated throughout the organization. In the documentation provided by SC, there was evidence of communication on changes in procedures. In the original report, some employees expressed a desire to share more information across groups in SC. We examined documentation provided by SC that described a meeting between Sourcing and Material Operations and continuous improvement initiatives, including cross-functional collaborations within SC.</p>
<p>Incomplete Performance Management Documentation</p>	<p>Management stated a review of FY2017 goals was conducted, and M&TM management commits to having complete and SMART goals for FY2018.</p>	<p>We performed analyses on goals for FY2018 and found many instances where goals were not SMART. In addition, there were instances where the employee goal measurement was identified as "to be determined" indicating incomplete goals.</p>
<p>Cross-Functional Risks</p>	<p>Management stated (1) a mismatch report is tracked weekly, (2) inventory accuracy is not a major issue but is being tracked and remediated if necessary, and (3) there is ongoing collaboration between all SC groups with specific emphasis on interpersonal and team building collaboration through FY2019.</p>	<p>In the original report the Director, M&TM, indicated there was no tracking of materials without matching receiving documentation. SC personnel provided documentation reflecting mismatch reports. We examined the documentation and determined the report allows for monitoring of mismatches using various filters such as mismatch by site.</p> <p>While SC management tracked inventory accuracy during our original evaluation, employees had concerns about inventory discrepancies such as accurate logging of inventory. In their May 2018 final action memorandum, SC management indicated inventory accuracy was not a major issue and provided documentation showing inventory accuracy as a percent of dollars in July 2018 was 100 percent.</p> <p>While we did not assess effectiveness of collaboration, SC personnel provided documentation reflecting collaboration between SC groups and metrics that measure response time between Sourcing, Material Operations, and Asset Management and Performance. In addition, the Director, Sourcing, provided documentation as part of another evaluation that indicates a meeting between Sourcing and Material Operations resulted in action items, including group meetings with business units and standardization of functions. As previously stated, review of documentation provided by SC also indicated various cross-functional teams within SC have been formed, which are identifying concerns and suggesting improvements.</p>

<p>Cross-Functional Risks (continued)</p>	<p>Management stated there was ongoing education of senior leadership and increased collaboration with line leadership in all business units that utilize SC support. In their May 2018 final action memorandum, SC management stated the VP, SC, and directors met with each business partner's senior leadership team on SC organizational changes and metrics to help groups understand their impact on SC and how the groups can work together.</p> <p>Management's response did not specifically address the issue related to standardized service level agreements for nuclear outages.</p>	<p>In the original report, some employees voiced concerns with working with the plants they support. We examined documentation from SC, including (1) metrics to help business units understand their impact on SC and a communication plan for metrics and (2) evidence of communication with business units' leadership on the new organizational changes. In addition, an examination of documentation provided by SC indicated several projects or presentations with business partners. These include a budgeting inventory education presentation with Power Operations and cross-functional teams including business unit members tasked with standardizing fleet-wide processes. In addition, the Director, Asset Management and Performance, indicated that a budgeting team, a fleet-wide inventory surplus exercise with Nuclear, a review of direct charge material and inventory with Transmission, and an off-site with Financial Services to partner to support business units and better manage spend are all in process.</p> <p>According to the Senior Manager, Nuclear Materials Management, addressing standardized service agreements for nuclear outages is part of their FY2019 plan. According to the Director, Asset Management and Performance, SC has worked with the Nuclear sites to enhance understanding of a SC system upgrade.</p>
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In summary, we determined management has taken actions to address most of the risks outlined in our initial organizational effectiveness evaluation, and management actions appear reasonable to address the remaining risks. However, three recommendations remain unresolved, including (1) one manager's behavior and teamwork at one location, (2) instances where goals were not SMART, and (3) cross-functional risks related to business units. Based on the risks not yet addressed, the OIG will conduct an additional review during FY2019.

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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 need additional information, please contact Jessica L. Monroe, Senior Auditor, at (865) 633-7338 or Lisa H. Hammer, Director, Evaluations – Organizational Effectiveness, at (865) 633-7342. We appreciate the courtesy and cooperation received from your staff during the evaluation.



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