Internal Audit Report

Physical and Cycle Count Inventory Procedures

TxDOT Internal Audit Division
Objective
To determine the adequacy of controls over the management and reporting of inventory.

Opinion
Based on the audit scope areas reviewed, control mechanisms require improvement and only partially address risk factors and exposures considered significant relative to impacting reporting reliability, operational execution, and compliance. The organization's system of internal controls requires improvement in order to provide reasonable assurance that key goals and objectives will be achieved. Significant improvements are required to correct control gaps and mitigate residual risk that may result in potentially significant negative impacts to the organization including the achievement of the organization's business/control objectives.

Overall Engagement Assessment

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<th>Control Design</th>
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<th>Rating</th>
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<td>Finding 1 Waiver of Annual Wall-to-Wall Inventory</td>
<td>X</td>
<td>X</td>
<td>Needs Improvement</td>
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<td>Finding 2 Implementation of Inventory Management Procedures</td>
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<tr>
<td>Finding 3 Use of Personal Protective Equipment (PPE)</td>
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<td>Needs Improvement</td>
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Management concurs with the above findings and prepared management action plans to address deficiencies.

Control Environment
The Support Services Division (SSD) has developed and published inventory management policies, standard operating procedures and inventory reporting on their internal webpage. Although SSD is responsible for providing oversight for inventory management, implementation and monitoring is the primary responsibility of each district and regional distribution center (RDC).

Inventory cycle counts were initiated SSD in January 2017 with an expectation that counts be performed at a minimum monthly within all inventory business units (INBU) and counting all inventory items in intervals of 60, 90 or 180 days depending on item category (i.e., A, B, C, respectively). Although the monthly expectation was established by SSD, INBUs have been allowed to perform counts more frequently (i.e., weekly or daily). Regularly performed spot inventories are also recommended to assist districts with their further assessment and management of inventory for detection and early correction of problem areas; however, these are left to the discretion of the district and not required.

Beginning in fiscal year (FY) 2019, INBUs with an average overall cycle count score of 97% and above would no longer be required to perform an annual physical inventory to certify all inventory quantities on hand. Currently, an annual physical inventory is conducted for all INBUs within a district by employees independent of the day-to-day operations of the INBU (i.e., the Business Service Coordinator or the Inventory Manager). This change in inventory
process should continue to be evaluated based on results of this audit engagement; especially in areas associated with cycle count procedures.

Inventory adjustments are a normal occurrence after performing a physical inventory or cycle count and these adjustments are to be recognized and entered through enterprise resource planning system (ERP) as part of the process to record performance of the inventory count. A non-conventional means of adjusting inventory is being completed through modification of previously submitted daily activity reports (DARs) within the Maintenance Management System (MMS). Adjustments to inventory quantities that are completed within MMS are not captured or recognized within that INBU’s or district’s cycle count adjustment data used to report on cycle count performance.

Summary Results
Audit testing completed resulting in management action plans:

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<th>Scope Areas</th>
<th>Evidence</th>
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| 1       | Cycle Counts | Review of inventory management policy, inventory management practices, and reporting used to communicate cycle count results identified:  
|         | Physical Inventory | • Modifications of DARs (i.e., adjustments) are not captured within cycle count adjustment data utilized to compute INBU cycle count results scoring.  
|         |             | • Performance of cycle counts per frequency requirements is not incorporated into final INBU cycle count results reporting. |
| 2       | Cycle Counts | A review of the past two recorded cycle counts for 152,869 inventory items for 25 districts and two RDCs between January 2017 and July 2018 identified:  
|         | Physical Inventory | • 100,962 of 152,869 (66%) inventory items were counted outside of the required count frequency.  
|         |             | o 31,538 (31%) A inventory items were counted 31 days or more past due 43% of the time.  
|         |             | o 36,340 (36%) B inventory items were counted 31 days or more past due 44% of the time.  
|         |             | o 33,084 (33%) C inventory items were counted 31 days or more past due 65% of the time.  
|         |             | Review of documentation for FY 2018 cycle counts and FY2017 – 2018 physical inventories performed for 34 INBUs in 25 districts and two RDCs identified the following within both types of inventory counts:  
|         |             | • Inconsistency with use of two separate employees during inventory count.  
|         |             | • Count sheets utilized include pre-populated quantities of what is in ERP (i.e., not a blind count).  
|         |             | • Variation in retention of documentation exists to support inventory counts, root-causing, and adjustments.
Physical and Cycle Count Inventory Procedures  

- Inconsistency in how root-cause analysis is performed for count differences and correction of issues.
- Inventory adjustments performed without evidence of approval prior to adjustment being made.

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<th>Cycle Counts</th>
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<td>Physical Inventory</td>
<td>Employees were identified not wearing proper personal protective equipment while performing inventory counts of roadway signs.</td>
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Audit testing completed not resulting in management action plans:

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| Cycle Counts | - Inventory management policy and procedures including job aids that outline detailed process steps have been developed by SSD for the districts and regional distribution centers.  
- A review of inventory adjustments performed within ERP for a sample selection of FY 2017 - 2018 physical inventory and cycle counts indicated that adjustments were properly performed by employees with an inventory business need and having authorization to make adjustments.  
- A review of accuracy for entry of count quantities from inventory count sheets into ERP for a selection of FY 2017 - 2018 physical inventory and cycle counts for 25 districts and two RDCs indicated minimal input inaccuracies (<1%). |
| Physical Inventory |  |

Audit Scope and Methodology

The audit was conducted during the period from May 29, 2018 to July 27, 2018, and the scope and methodology are as follows:

Scope Area 1: Cycle Counts – evaluation of the cycle count process to determine compliance with policy and if sufficient controls are in place for the management and reporting of inventory.

Methodology included:
- Reviewed cycle count job aids.
- Analyzed ERP generated cycle count data for January 2017 – June 2018 to determine a judgmental sample of district INBUs and SSD RDCs for further testing.
- Performed on-site visits of cycle counts for 5 INBUs within 5 districts to observe procedures used to perform cycle counts on a judgmentally selected sample of district INBUs.
- Reviewed FY 2018 Q1 – Q3 cycle count documentation including count sheets, reconciliation reports, adjustment summary, DARs, and justification and approvals for count differences noted for the judgmentally selected district INBUs and SSD RDCs.
Scope Area 2: Physical Inventory – evaluation of the physical inventory process to determine compliance with policy and sufficient controls are in place for the management and reporting of inventory.

Methodology included:
- Reviewed physical inventory job aids.
- Analyzed ERP generated physical inventory data for FY 2017 and 2018 to determine a judgmental sample of district INBUs and SSD RDCs for further testing.
- Performed on-site visits of physical inventory for 10 INBUs within 9 districts and one RDC to observe procedures used to perform physical inventory on a judgmentally selected sample of district INBUs and one SSD RDC.
- Reviewed FY 2017 - 2018 physical inventory documentation such as count sheets, reconciliation reports, adjustment summary, DARs, and justification and approvals for count differences noted for the judgmentally selected district INBUs and SSD RDCs.

Methodology included within both Scope 1 and Scope 2:
- Interviewed SSD and district personnel that included:
  - District: Business Services Supervisors, Business Services Coordinators, Warehouse Coordinators, and Special Projects Coordinators.

Background
This report is prepared for the Texas Transportation Commission and for the Administration and Management of TxDOT. The report presents the results of the Physical and Cycle Count Inventory Procedures audit which was conducted as part of the Fiscal Year (FY) 2018 Audit Plan.

SSD is responsible for the oversight of statewide stock inventory management. Districts are accountable for materials purchased, stocked, and used within the district, as well as, completion and certification of annual physical inventory. INBUs are responsible for the management of inventory stored and consumed to include verification for the accuracy and completion of inventory counts. As part of the inventory process, items used in roadway maintenance are received into stock (i.e. inventory) within ERP and issued from stock within the MMS through daily activity reports (DARs). Non roadway maintenance items are issued from stock within ERP.

In addition to district INBUs, TxDOT operates regionalized warehouse and distribution system centers which store items common to most or all end user locations. District and division INBUs create material stock requests to order inventory materials from an RDC. The RDCs maintain the same responsibilities of their respective stock as noted above with the districts inventory responsibilities.

ERP is the system of record for all TxDOT assets. It contains statewide inventory records of materials quantities and values, when inventory is ordered, received, stored, adjusted, and
issued. Inventory quantities are also found within MMS, the web-based application utilized by the district maintenance offices to create and complete DARs for the day’s activities. Information entered from the DAR into MMS provides the details for cost and usage quantities associated with roadway maintenance (such as equipment, labor, or material).

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards and in conformance with the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. Recommendations to mitigate risks identified were provided to management during the engagement to assist in the formulation of the management action plans included in this report. The Internal Audit Division uses the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework version 2013.

A defined set of control objectives was utilized to focus on reporting, operational, and compliance goals for the identified scope areas. Our audit opinion is an assessment of the health of the overall control environment based on (1) the effectiveness of the enterprise risk management activities throughout the audit period and (2) the degree to which the defined control objectives were being met. Our audit opinion is not a guarantee against reporting misstatement and reliability, operational sub-optimization, or non-compliance, particularly in areas not included in the scope of this audit.
Detailed Findings and Management Action Plans (MAP)

Finding No. 1: Waiver of Annual Wall-to-Wall Inventory

Condition
Beginning in FY 2019, inventory business units (INBUs) will be given the opportunity to forego the annual wall-to-wall physical inventory based upon cycle count reporting which does not provide a complete and transparent representation of cycle count performance.

Effect/Potential Impact
Utilization of reporting that did not consider complete results and frequency of required cycle counts of inventory items could provide false assurance and lead to the exemption of an annual physical inventory for INBUs beginning in FY 19. Additionally, without following proper cycle count policy and procedures, early detection of inventory management risks and trends may not occur and limit root-cause analysis and prevention of additional risks impacting future inventory results.

Criteria
Texas Government Code, Title 10, Chapter 2101 requires annual reporting of all assets (including inventory), liabilities and fund balances.

TxDOT’s Materials Management Policy Manual states:
- Support Services Division (SSD) Materials Management Section is responsible for the establishment of inventory management policies to ensure consistency state-wide.
- The Inventory Manager in the district or division is responsible to ensure all physical inventories (annual and cycle) are performed per policy and are to review the results of physical and spot inventories to identify trends or problem areas to recommend early corrective actions.

TxDOT’s Cycle Count Job Aid states inventory items are to be counted per the following frequency:
- A items counted in 6 intervals (every 60 days/2 months)
- B items counted in 4 intervals (every 90 days/3 months)
- C items counted in 2 intervals (every 180 days/6 months)

Cause
Current cycle count reporting does not include 1) modifications made to daily activity reports (DARs) within the maintenance management system (MMS) for inventory adjustments or 2) consideration for whether the required frequency for inventory item categories (i.e., A, B, C) was met.

Evidence
Communication was distributed by SSD in June 2018 to district and division personnel announcing that beginning in FY 2019 INBUs with an overall average cycle count score of 97% or above would not be required to conduct their annual wall-to-wall physical inventory. Review of inventory management policy, inventory management practices, and reporting used to communicate cycle count results indicated:
• Modifications (i.e., adjustments) made to inventory quantities outside of ERP using DARs entered into MMS are not included within the scoring utilized to measure cycle count results.

• Performance of cycle counts by INBUs per required frequency in which inventory items are to be counted (i.e., A - every 60 days, B - every 90 days, C - every 180 days) is not incorporated into cycle count reporting.

Management Action Plan (MAP):

MAP Owner:
Daryl Starkes, Material Management Section Director, Support Services Division

MAP 1.1: Support Services Division will monitor all inventory business unit cycle count performance to ensure required counts are completed within the scheduled time frame prior to granting a waiver for the annual wall-to-wall physical inventory.

Completion Date: November 15, 2018

MAP 1.2: Support Services Division (SSD) will update the materials management policy manual to include the requirement that quantity differences identified during all inventories (cycle, physical and spot) be resolved through the enterprise resource planning system inventory adjustment process and not through modifications to daily activity reports.

Completion Date: December 15, 2018
Finding No. 2: Implementation of Inventory Management Procedures

Condition
Inventory management policy and standard operating procedures (SOPs) established by Support Services Division (SSD) for physical inventory and cycle counts have not been consistently implemented within the districts and regional distribution centers (RDC).

Effect/Potential Impact
Ineffective cycle counts (i.e., incomplete, performed late, using pre-populated quantities, or segregation of duties concerns) could contribute to inaccurate inventory quantities on hand not being identified and corrected. Without accurate inventory quantities, unnecessary purchasing decisions may be made or impacts to scheduled roadway maintenance work could occur.

If root-cause analysis is not performed for identified discrepancies, future problems may continue and potential loss may not be averted.

Without proper retention of inventory documentation, transparency and the support needed to validate count performed, results obtained, and adjustments made could be called into question.

Criteria
TxDOT’s Materials Management Policy Manual states:
- The Inventory Manager in the district or division (DD) is responsible to ensure all physical inventories (annual and cycle) are performed per policy, review results of inventories to identify trends or problem areas to recommend early corrective actions.
- Support Services Division (SSD) Materials Management Section is responsible for the establishment of inventory management policies to ensure consistency state-wide.
- Inventory adjustments must be reported to the responsible party designated by district engineer or division director and approved prior to the adjustment being made in the enterprise resource planning system (ERP).

TxDOT’s Materials Management Procedure Manual states:
- The employee recording inventory item counts and the employee making adjustments in ERP, for a physical inventory, cannot be the same person.
- Adjustments may be necessary when variances between actual inventory on hand and quantities found in ERP occur. Every effort should be made to resolve why variances exist by researching past transactions, purchase orders, stock requests, and failed put-aways before performing an adjustment transactions in ERP.

TxDOT’s Cycle Count and Physical Inventory Job Aids state the following:
- Resources (one person to count items, one person to write counts on printed report) should be assigned for counting and recording counts with counting performed by third party.
Cause
Districts and RDCs were allowed to determine how often they would perform cycle counts (daily, weekly, monthly) in order to meet SSD count requirements. The determined frequency was not consistently followed and monitored in order to determine if all required counts were being performed.

Alternate resources within the district have not been identified or assigned to assist when the primary employee responsible for generating cycle count sheets is unavailable. In addition, limited resources within the inventory business units prevent the use of recommended two employees to perform cycle counts. Finally, the job aid instruction for printing count sheets directs the users of these sheets to unselect the blind count option which allows all system of record quantities to be known to those counting the inventory.

Count sheets (physical and cycle count) do not include a field to document employees performing the count or role performed (i.e., counter, recorder), and no district review is performed to ensure date and inventory counts are recorded within the count sheets.

Guidance outlining specific statewide documentation to be retained in support of cycle count and physical inventory performance, root-cause analysis for differences noted, and inventory adjustments made has not been established.

Evidence
An assessment of 25 districts and 2 RDCs for compliance with inventory item count frequency as established by SSD was performed for two cycle counts (i.e., 152,869 inventory items) performed between January 2017 and July 2018 revealed:

- 100,962 of 152,869 (66%) inventory items were not counted within the SSD required count frequency (i.e., “A” items counted every 60 days, “B” items counted every 90 days, “C” items counted every 180 days).
  - 31,538 (31%) A inventory category items were counted anywhere from 1 – 485 days past the required time frame, with counts performed 31 days or more past due 43% of the time.
  - 36,340 (36%) B inventory category items were counted anywhere from 1 – 455 days past the required time frame, with counts performed 31 days or more past due 44% of the time.
  - 33,084 (33%) C inventory category items were counted anywhere from 1 – 367 days past the required time frame, with counts performed 31 days or more past due 65% of the time.

- All 25 districts and two RDCs reviewed had past due items within each inventory category; however, nine districts accounted for 51% of the total past due items noted.

Interviews and review of documentation for FY 2018 cycle counts and FY 2017 – 2018 physical inventories was performed for 34 INBUs within 25 districts and 2 RDCs. The following was noted:

- Variation in retention of documentation exists to support inventory counts, root causing, and adjustments.
- All 25 districts and 2 RDCs reviewed were noted to have one or more of the following:
Count sheets utilized for cycle count and physical inventory included pre-populated quantities of what is in ERP (i.e., not a blind count).

Inventory counts for cycle count and physical inventory were not consistently performed by two employees.

Cycle counts were performed in the INBUs by the employee who also has custodial responsibility for the daily use of the inventory items being counted (i.e., sign tech counting sign items, herbicide operator counting herbicide items).

Quantities for physical inventory are recorded on the count sheet by the same employee responsible for completing the inventory adjustments within ERP (conflict of duties).

Count sheets utilized for cycle and physical inventory did not include documentation of:
- the employee(s) who performed the inventory count.
- the date in which the inventory count was performed.
- the actual quantities counted to be recorded on the count sheets, instead symbols such as check marks were used or no documentation at all.

Inconsistency in how root-cause analysis is performed for cycle count and physical inventory count differences and correction of issues for cycle and physical inventory.

Inventory adjustments for cycle count and physical inventory were performed without documented evidence of approval from the district engineer or responsible party designated by district engineer prior to the adjustment being made.

Management Action Plan (MAP):

MAP Owner:
Daryl Starkes, Material Management Section Director, Support Services Division

MAP 2.1: Support Services Division will publish an updated materials management procedures manual to include details of documentation to be retained in support of cycle count and physical inventories and root-cause analysis performed.

MAP 2.2: Support Services Division has already created a report to capture inventory item count intervals and will being monitoring the report monthly to ensure that inventory item counts are performed per the required count interval (A=60, B=90, C=180). Cycle count performance reporting will also be communicated by SSD to the districts monthly for further review and action by the Business Service Coordinator/Inventory Manager as indicated in MAP 2.5.

MAP 2.3: Support Services Division will update the materials management policy manual to include the requirement that all districts perform third party spot cycle counts for all inventory business units (INBUs) quarterly to ensure inventory procedures and practices are performed consistently in all INBUs.

Completion Date: December 15, 2018
MAP Owner:
Randy Hopmann, P.E., Director of District Operations

MAP 2.4: To reinforce the importance of inventory management within the districts, a memo from the Director of District Operations will be sent to all districts communicating the expectation for implementation of and compliance with policies and procedures established by the Support Services Division.

Completion Date: Action Completed

MAP Owners:
Randy Hopmann, P.E., Director of District Operations
District Engineers
Daryl Starkes, Material Management Section Director, Support Services Division

MAP 2.5: To strengthen inventory management procedures the following will be implemented by the District Engineers and Regional Distribution Center (RDC) Supervisors within their respective district/RDC:

- Compliance with all inventory management policies and procedures established by the Support Services Division.
- Alternate resources will be established to assist with physical inventory and/or cycle counts (i.e., pulling count sheets, performing spot checks, reviewing documentation, entering counts within the system) in the absence of the designated primary employee.
- In instances where limited resources are available to perform cycle counts using two employees within an inventory business unit (INBU), blind counts (i.e., using count sheets with no system quantities) will be performed or resources from other INBUs will be utilized to assist in counts.
- Count sheets (physical and cycle count) will include documentation of the item count quantity, date count performed, employee(s) performing count, and role(s) performed by the employee(s) (i.e., counter, recorder).
- Regular monitoring will be performed by the Business Service Coordinator or Inventory Manager to ensure cycle counts are performed per the required count interval by all INBUs (using reporting provided by SSD), all applicable information (i.e., date, counts, employee name, role performed) is recorded within the count sheets, and all required documentation in support of cycle and physical inventory counts is retained.

Completion Date: January 15, 2019
Finding No. 3: Use of Personal Protective Equipment (PPE)

Condition
TxDOT employees were not wearing proper personal protective equipment (PPE) (i.e., gloves) when performing inventory counts of roadway signs.

Effect/Potential Impact
When handling objects with sharp surfaces, not using proper PPE increases the chances of injury to the employee. Between fiscal year (FY) 2015 and 2018, three personal injuries to hands were reported as a result of sign or sign post handling.

Criteria
TxDOT’s Occupational Safety Manual, Chapter 5 states personal protective equipment, including gloves, shall be worn as per established safety guidelines and best practices.

TxDOT’s Handbook of Safe Practices states that gloves should be worn when working with cut and abrasion environments.

Cause
Monitoring by districts for the use of PPE in conjunction with performing inventory counts is not always being performed.

Evidence
Observations of cycle count and/or physical inventory were performed for 15 inventory business units in 10 districts and one regional distribution center. Within 13 of 15 (87%) business units observed, gloves were not worn by one or more employees when handling and counting signs.

Management Action Plan (MAP):

MAP Owner:
Randy Hopmann, P.E., Director of District Operations

MAP 3.1: To reinforce the importance of safety when conducting inventory counts, a memo from the Director of District Operations will be sent to all districts communicating the expectation for use of personal protective equipment when performing inventory counts.

Completion Date: Action Completed

MAP Owners:
Randy Hopmann, P.E., Director of District Operations
District Engineers

MAP 3.2: Expectations for the use of proper personal protective equipment when conducting inventory will be communicated to all inventory business unit employees by the District Engineer during a district safety call. Discussion of the safety call and those inventory business units in attendance will be documented and retained. In addition, monitoring by the Business Service Coordinator or Inventory Manager will be performed when observing inventory counts to ensure proper personal protective equipment is used.

Completion Date: January 15, 2019
### Summary Results Based on Enterprise Risk Management Framework

#### Audit Results Dashboard

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#### Closing Comments

The results of this audit were discussed with the Support Services Division Director and District Engineers on October 8, 2018. The Internal Audit Division appreciates the cooperation and assistance received from the Support Services Division and District personnel contacted during this audit.