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Inspector General

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July 18, 2016

Mr. Patrick Nowakowski  
President  
MTA Long Island Rail Road  
Jamaica Station  
Jamaica, NY 11435

**Re: Inventory Controls at the Long  
Island Rail Road MoW Repair Shop  
MTA/OIG #2016-10**

Dear Mr. Nowakowski:

As you know, the Engineering Department's Maintenance of Way (MoW) Repair Shop (Repair Shop) services and repairs power tools and specialized track maintenance equipment and vehicles. The shop keeps its own inventory of materials and spare parts for this purpose separate from the Long Island Rail Road (LIRR) official inventory system.

These non-stock inventory items<sup>1</sup> for the Repair Shop are kept in multiple locations at the LIRR's Holban Yard, including an enclosed building; several outdoor storage sheds and shipping containers; and open areas surrounding the Repair Shop. As of September 2015, MoW estimated that the Repair Shop inventory contained 7,426 unique items worth at least \$6.7 million. The Repair Shop inventory is managed by a single MoW Assistant Manager (manager) and operated on the "honor system": The users of the materials or parts are allowed to retrieve and return items themselves and are supposed to record such usage in a log book.

Given the sizable inventory value and the casual recordkeeping practices, The MTA Office of the Inspector General (OIG) conducted a review to determine whether appropriate controls are in place to safeguard the items and to accurately account for them both physically and in written inventory records.

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<sup>1</sup> Non-stock inventory items are materials and parts not accounted for in the LIRR official inventory system. These are items that were purchased externally or obtained from one of the official inventory system's storerooms, but not yet used.

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### **Inventory Records Are Not Accurate**

The LIRR's Repair Shop inventory records are maintained in a simple Microsoft Access database, which provides descriptions of the inventory items and shows the quantity of each item that should be currently on hand. However, the database does not maintain the historical transactional data for individual stock usage and replenishment. Although the month and year of the last *replenishment* of an inventory item is recorded in the database, the date of the last inventory *usage* is not. Instead, details of inventory usage are kept in a separate hand-written log book. The manager uses that data to update the on-hand quantities of items in the database. To adjust inventory levels after replenishments, the manager uses purchase orders and delivery records to update the database.

In order to assess the accuracy of the Repair Shop inventory, in November 2015 OIG conducted a physical count of 174 unique inventory items valued at almost \$1.28 million or approximately 19 percent of the inventory value reported by the Repair Shop. While we were able to locate each item, the actual quantities for 47 (27%) of the sampled items did not match the inventory records. For 34 items we found a lower quantity than noted in the database, and for the 13 other items we counted more on hand than noted in the inventory records. Some of the underreported items carried a relatively high unit cost. For example, the inventory records listed two units of the Plasser Brake Cylinder (Part No. 407683) with a total value of \$40,000. However, we actually found four of them, which doubled their value to \$80,000. For such a low-quantity item, one would expect an accurate accounting in the database.

We believe these inventory discrepancies were caused by the following factors:

- While Repair Shop practice calls for the mechanics to sign items out and note items' return in the log book, this practice is not enforced and therefore cannot provide assurance that inventory usage is accurately captured. As an example, during a site visit OIG auditors observed an individual, presumably a Repair Shop employee, return an item to the shelf without documenting the return in the log book. The manager standing with us did not remind the employee to sign the item back into inventory. Additionally, the manager admitted that sometimes employees forget to sign the log book for inventory items taken from the storage areas, especially when using items that are stored in the open yard.
- The Repair Shop practice also allows for all shop mechanics to have unrestricted access to obtain or return inventory items. Repair Shop management claimed that if access to inventory items was limited to a smaller number of selected employees or just to the four supervisors and foremen, it would adversely impact the operation. Specifically, the supervisors and foremen, in addition to overseeing the shop activities, supervise the repairs of equipment in the field and therefore would not always be available to draw materials on demand. Operational difficulties notwithstanding, enforcing procedures is difficult under this type of "honor system."

- Prior to 2016, the Repair Shop had never conducted a full year-end or periodic inventory count. Such a count can help uncover any discrepancy between the amount of actual inventory available and the amount of inventory recorded. Instead, according to the manager, he conducted sporadic counts of items recently signed out in the log book or when shop personnel reported the lack of certain items. Subsequent to OIG visits, in March 2016 the Repair Shop initiated an inventory cycle count process and as of May has completed counts of two of the 18 indoor storage sections. Management informed us that their goal is to complete a count of the entire inventory by the end of 2016 and they will repeat the cycle count process on an ongoing basis.
- Whenever a discrepancy is found between actual inventory in the Repair Shop and the count in the database, the manager reconciles the difference by changing the inventory records to match the physical count without any attempts to identify and explain the discrepancy. However, inventory reconciliation is not just a matter of adjusting the records to match the physical count. It is a process that should include identifying and explaining the reason for the discrepancies found. While it may not be feasible to determine the cause of each discrepancy, trying to identify the causes is an effective way to find weaknesses in the controls and processes that are necessary to deter and detect theft and reduce the potential for future errors in the inventory records.

### **Improper Inventory Storage and Protection**

For the most part, the Repair Shop inventory items are stored and reasonably protected inside the enclosed building or in several storage sheds and shipping containers. However, the outdoor storage yard appeared disorganized, poorly maintained, and not protected from the elements. Specifically, we observed the following:

- New materials appeared to be commingled with used items, scrap metal, failed parts waiting to be refurbished, and broken-down equipment kept on the property for salvage. Many steel or other metal items are exposed to the elements and have become dirty or rusted, making it difficult to distinguish whether they are new, old, or obsolete inventory.



- Materials were not clearly marked and their storage locations within the yard were not identified in the inventory records, thus requiring extensive resources to search for them. For example, our physical count included eight units of part number 9050603, labeled “Tie Crane Head” in the inventory records. These parts were found in three separate locations in the yard, but locating them required significant time from several employees because they were mixed in with other materials or obscured by overgrown vegetation.
- Materials appeared to have been haphazardly tossed on top of each other in a way that could potentially render them unusable or create an unsafe condition.



- Materials were also found improperly stored out in the open, exposing them to the elements when they should have been stored indoors or under some type of cover. For example, we noted that at least six large air filters appeared to be severely damaged by the weather. Some of the filters appeared to have not been used, and while they were still wrapped in the original packaging materials, given their current condition we question their usability.

MoW management claimed that the materials used by the Repair Shop are unique and do not have secondary uses outside the railroad; therefore, the risk of loss through theft is low.

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Notwithstanding this claim, the risk of losing these materials as a result of poor storage in the yard remains likely if they are not properly secured and protected from the elements. Management also claimed that a lack of space makes it difficult to properly store the materials. Existing LIRR policy calls for the user departments to identify and report obsolete, scrap, or surplus equipment and materials to the Procurement and Logistics Department for disposal; however, the Repair Shop has not made any attempts to do so since 2011. We believe following this policy would help mitigate the storage space issue.

### **Inventory Undervalued**

In addition to ensuring that the physical inventory quantities agree with the database, management should determine the appropriate value of the inventory. Each month, the Repair Shop manager reports his estimate of the ending inventory value to the LIRR Controller's Office. This estimate is based on the quantity of each inventory item showed in the inventory database on the last day of the month multiplied by the available unit cost of the item. The Controller's Office uses the reported information to calculate the Repair Shop material expenditure for the month. Having an accurate valuation of inventory affects the agency's report on its operations and also allows for a more effective management of inventory and material requirements.

As of September 30, 2015, OIG found that 1,823 or nearly 25% of all unique inventory items did not have a dollar value in the Repair Shop inventory database. The manager claimed the inventory database program was configured to round off to the nearest dollar, and many items with unit cost of less than \$0.50 were rounded down to zero. He further claimed that other items were legacy items that have been carried in the database without a value for a long time and that there is no cost information available for the items. To test his explanation, OIG auditors priced 193 of these zero-value items using available 2015 requisition records, as well as current market pricing, and found their unit costs ranging from \$1.32 to \$10,627.55. Based on their current recorded quantities on-hand, we estimated that these 193 items have a potential value of more than \$191,200, instead of zero as reported.

Also, we noted that the values assigned to the Repair Shop inventory items reflect the pricing from the time the items were originally acquired, which in some cases could be many years ago. This method used by the Repair Shop manager for valuation is not consistent with the method used elsewhere by LIRR, as well as by the MTA in its Consolidated Financial Statements<sup>2</sup>. At the LIRR, the average cost method is used to determine the value of the LIRR official inventory. Under this method, each unique inventory item has an associated Average Unit Price, which is the average purchase cost of the inventory item. The Procurement and Logistics Department maintains the Average Unit Price for every item in its inventory system and updates it whenever inventory items are replenished with new purchases. As an example, in November 2015, the

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<sup>2</sup> MTA 2014 Comprehensive Annual Financial Report, page 45: "Materials and Supplies are valued principally at the lower of *average cost* or market value..."

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Repair Shop reported \$4,830 as the value for each Plasser Drive Motor (Part No. 739189). Based on procurement records, we determined that the same motor was last purchased in June 2015 at a unit cost of \$12,923. Therefore, in order to be consistent with LIRR's average cost inventory valuation method, the Repair Shop should have recalculated the value of each drive motor in the inventory to reflect the average cost, which would undoubtedly be higher than the \$4,830 reported.

### RECOMMENDATIONS

There are a number of actions that MoW can take to provide effective control and protection over the MoW Repair Shop inventory. We recommend that MoW management:

- 1) Ensure that employees sign the inventory log book for all checked-out and returned items.
- 2) Ensure that materials are properly identified, secured, and protected from the elements, breakage, or other hazards.
- 3) Identify and document the reasons for significant discrepancies between the inventory records and actual quantities, and/or any discrepancy concerning high-value items, before making adjustments to the records.
- 4) Conform to the LIRR's average cost inventory valuation method in determining the value of the Repair Shop inventory, especially for frequently used items.
- 5) Initiate an effort to identify and dispose of obsolete inventory items at the MoW Repair Shop location.
- 6) Develop a policy that restricts access to the Repair Shop to improve control over the inventory check-in and check-out process.

### Agency Response

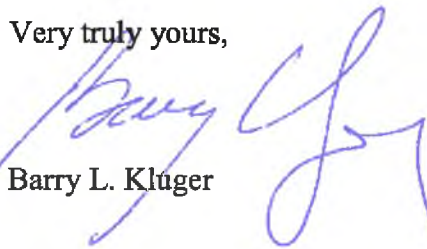
*Following our submission to you of our preliminary report containing the above Findings and Recommendations, you provided the agency response in a memorandum dated June 29, 2016. The memorandum indicated that the LIRR Engineering Department agrees with the OIG audit findings and accepts our recommendations. Specifically, you detailed the following actions that have been taken or will be taken soon to improve control and protection over the MoW Repair Shop inventory:*

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- *Steps to improve inventory control were taken, including but not limited to reminding employees to sign for the parts in the log book and installing a new access door to the stock room. Additionally, LIRR will assess the feasibility of incorporating the MoW Repair Shop inventory into the current LIRR storeroom operations while continue to allow 24 hours access to the materials.*
- *As part of its newly implemented cycle count, Engineering management has directed the Assistant Manager of Materials to document the reasons for discrepancies identified in their inventory counts.*
- *Engineering management will begin to value its new inventory at average costs, as well as modify the costs for existing inventory items as they are used or counted.*
- *Engineering management has begun the process of identifying materials that need better protection from the elements and to provide the proper protection as appropriate. Management will also identify obsolete and scrap inventory for disposal in accordance with LIRR policy.*

We appreciate your attention to the issues we raised, as well as the courtesy and cooperation afforded to us at all times by your staff. Should you have any questions regarding this final report, please contact me or Executive Deputy Inspector General Elizabeth Keating at (212) 878-0022.

Very truly yours,



Barry L. Kluger

Cc: Bruce Pohlott, Senior Vice President, Engineering  
Chris Calvagna, Chief Engineer  
William Norwich, Chief of Staff