



Metropolitan Transportation Authority

State of New York

January 26, 2024

Ms. Carmen Maldonado
Audit Director
The Office of the State Comptroller
Division of State Government Accountability
59 Maiden Lane, 21st Floor
New York, NY 10038

Re: Final Report #2023-F-10 (Selected Aspects of the M9 Rail Car Project Management)

Dear Ms. Maldonado:

This is in reply to your letter requesting a response to the above-referenced final report.

I have attached for your information the comments of Robert Free, Acting President, LIRR, which address this report.

Sincerely,

A handwritten signature in blue ink that reads "Janno Lieber".

Janno Lieber

c: Laura Wiles, MTA Chief of Staff
Michele Woods, Auditor General, MTA Audit Services



January 22, 2024

Mr. Janno Lieber
Chair and Chief Executive Officer
Metropolitan Transportation Authority
2 Broadway
New York, NY 10004

**RE: MTA-Long Island Rail Road – Rolling Stock Programs Department –
Selected Aspects of the M9 Rail Car Project Management
Follow-up Audit 2023-F-10**

Dear Chair Lieber,

This letter is in response to the Office of the New York State Comptroller (OSC) report issued on December 8th which was a follow-up to an audit completed in 2022 on Selected Aspects of the M9 Rail Car Project Management.

LIRR's top priority and key responsibility continues to be ensuring Contractor's compliance with the Technical Specifications and Terms and Conditions of the Contract, and that the LIRR receives safe and reliable cars for our customers and workforce.

In our response to the initial report, it should be noted that LIRR did not agree with 4 (four) of the recommendations and 4 (four) were previously implemented. Of the 4 (four) recommendations remaining, 2 (two) have now been implemented and 2 (two) are ongoing.

Recommendation No. 1

- Account for the MTA Capital Program funds as originally budgeted.

OSC Implementation Status – Not Implemented

Agency Action – LIRR officials continue to disagree with this recommendation because they claim there is no benefit in tracking the funds – MA (base) and ME (operational) – separately as the combined procurements will not exceed the overall budget. However, the original audit found that the original base order was over budget. While both projects have a total budget of \$733.6 million, the budget for procurement of the M9 cars has increased by over \$2.1 million to \$735.7 million since the initial audit.

LIRR Updated Response:

The LIRR disagrees with this recommendation. The MTA Capital Program funds for the M-9 project are fully accounted for. As stated in previous responses, the Project's two funding sources, which come from two separate Capital Programs, support the entire project for 202 cars and there is no benefit in changing how they are tracked; to maintain/track the projects separately would be inefficient. While one budget may have been exceeded by \$8.9M, the other budget is underrunning by \$11.5M, leaving an overall project contingency of \$2.6M.

Recommendation No. 2

- Require the contractor fix the issues detected in testing at the Pueblo or contractor's facility before cars are delivered to the LIRR.

OSC Implementation Status – Not Implemented

Agency Action – LIRR officials continue to disagree with this recommendation because they state that defects found at Pueblo for the test cars were corrected and additional defects were found based on further testing done at the LIRR. However, the original audit found that tests that were supposed to be conducted at Pueblo were not done and issues disclosed by other tests were not addressed. Instead, the contractor determined that they would be addressed at LIRR facilities. LIRR did not provide additional documentation to support that the contractor conducted all of the tests and the defects were fixed.

LIRR Updated Response:

The LIRR disagrees with this recommendation. Any issues discovered on the cars during the limited testing at Pueblo on the propulsion, braking and current collection systems were required to be, and were, corrected prior to the delivery and commencement of testing at LIRR. As previously communicated, OSC's recommendation is based on the assumption that *"issues found in the Pueblo testing were not remedied before additional cars are delivered with the same conditions."* This implies that LIRR allowed the cars in question to be shipped to LIRR without fixing these defects. This is incorrect. Any other issues that arose after the cars were delivered to LIRR were unrelated to the limited testing at Pueblo. The testing at Pueblo was both appropriate and conducted properly in accordance with contract specifications. We note that all testing at Pueblo has been completed.

Requiring the contractor to fix all issues before delivery, including minor defects that do not impact the safety or operation of the cars, would result in significant delays. Rolling Stock contracts always contain provisions allowing for Conditional Acceptance of cars with minor non-safety related deficiencies akin to punch list items which allow for beneficial use of a facility in construction contracts. In the case of the M-9's, it allows the new cars to enter passenger service, while design of modifications for non-safety related issues can be developed and implemented.

As a testament to our robust testing, it should be noted that car reliability has exceeded contractual requirements of 220K miles mean distance between failure.

Recommendation No. 3

- Notify the contractor that LIRR will not pay for increased costs related to directives for work not completed to contract specifications as well as increased consultant costs and LIRR's administrative and oversight costs.

OSC Implementation Status – Not Implemented

Agency Action – LIRR officials stated that they did not notify the contractor because the contractor is well aware that work done as part of directives is part of the contract. Further, LIRR plans to address this at the end of the contract.

LIRR Updated Response:

This recommendation was previously implemented. LIRR previously responded that the M-9 Contract is a Firm Fixed Price contract and the Contractor is responsible for designing and manufacturing the M-9 Car in accordance with the Contract. The contractor is notified in the applicable directive letters (formally and legally issued during the project) which clearly notify the Contractor that LIRR is not responsible for any costs associated with the Contractor's demonstrated inability to timely progress the work in a manner that gives LIRR confidence that the Contractor and its supplier can complete the design of the car as required by the Contract. The directives direct the Contractor and its supplier to perform the portion of the work identified in the letter and states that nothing contained in the directive shall be construed as relieving the Contractor of its obligations under the Contract including, but not limited to, the Contractor's ultimate responsibility as the Contractor to provide for the design, arrangement, and manufacture of the Cars in accordance with the Contract Documents.

In terms of following up on this recommendation, LIRR does notify the Contractor that LIRR will not pay for increased costs, etc., through the directive letters described above. Additionally, any such costs incurred by the LIRR are included in the Liquidated Damages which are accumulating and will be addressed at the end of the contract.

Recommendation No. 4

- Cap remuneration for rail car procurement contracts with contractual disagreements by only allowing a limited time to correct deficiencies in conditionally accepted cars.

OSC Implementation Status – Not Implemented

Agency Action – LIRR officials maintain their position that the cost of a rail car is set per contract. LIRR is focused on conditionally accepting the cars first and then on correcting the deficiencies in the conditionally accepted cars.

LIRR Updated Response:

The LIRR disagrees with this recommendation. LIRR only accepts cars that meet its standards, although some may have minor, non-safety related open items to be remediated after delivery. All contracts have negotiated terms and conditions, the acceptance of which carries risks for both parties. The amount paid for a railcar is capped by the contract but limiting the time to correct defects is not recommended. Defects require different actions and timelines as they arise, depending on their nature. It is more important to fix an issue correctly than to arbitrarily establish a timeline without knowing the appropriate corrective action. This would impose a risk to potential proposers and would likely result in higher upfront costs built into bids or potentially eliminate interested manufacturers from bidding. In the case of the M-9 Contract, if the Contractor fails to remedy the minor defects and open items within the time-period set forth, the Contractor may be required to commit additional resources to remedy, to the degree possible, delays encountered in performing the work, or do or cause to be done, at the Contractor's expense, any necessary work to remedy the defect.

The overall Project is better served if all Modifications are finalized toward the end of car deliveries and then cars are cycled through a modification program a limited number of times, keeping in mind that when cars are taken out of service for modifications, car availability is negatively impacted. Pursuant to the Contract's Conditional Acceptance provisions, LIRR receives cars with minor non-safety related open items that do not impact the customer experience/comfort and operates them in passenger service. At the same time, the Contractor and LIRR work together on design solutions to remedy the deficiencies utilizing the necessary time and manpower to bring to successful closure.

Additionally, as noted in our response to recommendation No. 2, as a testament to our robust testing, it should be noted that car reliability has exceeded contractual requirements of 220K miles mean distance between failure.

Recommendation No. 5

- Create a formal procedure to periodically assess and collect the liquidated damages.

OSC Implementation Status – Partially Implemented

Agency Action – LIRR did not create a formal procedure to assess and collect liquidated damages. However, it has assessed \$4.9 million of liquidated damages by withholding payment of this amount. LIRR will not assess additional liquidated damages until the end of the contract, if appropriate.

LIRR Updated Response:

The LIRR disagrees with this recommendation. The accrual and assessment of Liquidated Damages is based on the negotiated terms and conditions of the Contract. The utilization of Liquidated Damages, either as part of a negotiated settlement, or to purchase spare parts or defray the cost of cars, should be a decision for LIRR to make at an appropriate time for the project instead of according to a set procedure which may not reflect the specifics of the contract.

Recommendation No. 6

- Prioritize the correction of all outstanding items on CA cars so that they can be fully accepted.

OSC Implementation Status – Not Implemented

Agency Action – LIRR officials stated they are focused on conditionally accepting the remaining M9 rail cars. Correction of all outstanding items will then be done as part of the Field Modification Instruction (FMI) program.

LIRR Updated Response:

Ongoing. LIRR is currently working with the Contractor to finalize the modification design changes and develop a schedule for implementation. Specifically, LIRR is working closely with the Contractor to review and approve their Engineering design of modifications

required to close out open items identified at Car Conditional Acceptance. The open items requiring an Engineering design to close are taking top priority since they generally take longer to implement and require materials to be fabricated and delivered. When enough of these modifications are finalized by the Contractor, approved by LIRR, and materials are available to allow the Contractor to implement the modifications, cars will be cycled through the Arch Street Facility. While the cars are at Arch Street for the modification program, minor workmanship issues previously identified as open items will also be corrected. Once all open items are closed, the cars will achieve Final Acceptance by LIRR. Without the ability to Conditionally Accept the cars as permitted by the contract, the beneficial use of the cars would be significantly delayed.

Recommendation No. 7

- Work with the contractor to establish a schedule for developing proposed resolution of the open items, obtaining any necessary approvals, and making the repairs that allows the issues to be resolved by an agreed-upon future date.

OSC Implementation Status – Not Implemented

Agency Action – According to the M9 FMI Status Report received from LIRR on August 22, 2023, the FMI program is still under development and has not been finalized. No repairs were done, and no date is set to start the repairs. LIRR officials restated that repairs will not start until all 202 M9 cars are conditionally accepted.

LIRR Updated Response:

Ongoing. LIRR is focused on conditionally accepting the remaining cars in the order to safely place them into revenue service. Many FMIs were already completed on the fleet. Subsequent non-safety work will continue to occur on revenue service cars as applicable and the remaining FMIs will be completed during the FMI Program.

Recommendation No. 8

- Ensure that the contractor tests the PTC equipment after installation.

OSC Implementation Status – Implemented

Agency Action_– We sampled 10 pairs (20 cars) of M9 rail cars. LIRR provided documentation that showed the Positive Train Control (PTC) equipment was installed and tested on the 10 pairs of M9 rail cars.

LIRR Updated Response:

Implemented

Recommendation No. 9

- Ensure that the contractor conducts all required software system FMECAs, including the ATC software FMECA, and make the document available to Rolling Stock officials.

OSC Implementation Status – Partially Implemented

Agency Action – LIRR provided documentation that the Failure Mode Effects and Criticality Analysis (FMECA), including the Automatic Train Control (ATC) system analysis, and hazard analysis for the software systems were conducted. However, LIRR provided no assurance that it covered all the potential hazards or risks.

LIRR Updated Response:

Previously Implemented. FMECAs are typically used to assess hardware failures. Many suppliers have noted that their software is not included in the FEMCA and address it separately because software does not have defined failure mechanisms. Software has been addressed through the software design process required by Section 506 A.5 of the Contract. In the case of the ATC software (and the process is typical of the other systems with software), the ATC Contractor has issued its ATC System Safety Certification Report 'Release 7' Software (the latest software installed) confirming that verification and validation has been completed and that there are no known non-conformities, and the software is fit for revenue service.

Recommendation No. 10

- Prepare a hazard database to identify all software and hardware systems.

OSC Implementation Status – Partially Implemented

Agency Action – LIRR officials stated they do not need a hazard database to manage the contract and that it is not a requirement in the contract. They added they have a database for all the documents in their construction management consultant's SharePoint that they can access. While we were able to find the documents in SharePoint, it did take guidance from LIRR to locate them.

LIRR Updated Response:

Previously Implemented. All hazards identified for software and hardware systems are tracked. While it did take guidance for the auditors to find the documents, they exist. All contractual requirements were met.

Recommendation No. 11

- Notify the contractor using the Performance Improvement Letters, as required by the Guidelines.

OSC Implementation Status – Implemented

Agency Action –LIRR has notified the contractor of unsatisfactory ratings in the All-Agency Contractor Evaluations (ACE) using Performance Improvement Letters.

LIRR Updated Response:

Implemented

Recommendation No. 12

- Ensure that the ACE evaluator role is assigned to a Project Manager or above.

OSC Implementation Status – Implemented

Agency Action – Since April 2021, the ACE evaluator for the M9 projects has been assigned to the Senior Project Manager.

LIRR Updated Response:

Implemented.

Sincerely,



Robert Free
Acting President

cc: Tom Kost – LIRR
Craig Daly – LIRR
Anthony Kamanes – LIRR
Haley Stein – MTA HQ
Johanna Rosado - MTA
Darren Jurgens - MTA