



Internal Review Summary

Why QICO Performed This Review:

- This internal review is intended to provide Metro's senior management with an assessment of the state of Metrorail's track inspection program and promote the actions needed to address any concerns.
- QICO is independent from the functions it oversees and is authorized by the Metro General Manager to conduct objective reviews with unrestricted access to all functions, records, assets and employees under its purview.

QICO's Methodology:

- Develop relevant review activities by identifying and assessing risks to quality of work, compliance with standards, records management and safety.
- Review maintenance documentation, observe maintenance inspection work while in-progress, and interview key personnel.
- Review findings and required actions are rated based on severity of risk, which ranges on a scale from "Insignificant" to "High."

Note: An itemized Corrective Action Plan (CAP) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of CAP implementation, go to www.wmata.com/initiatives/transparency.

June 2017

Metrorail Track Inspections

QICO's Internal Review Results:

Ensuring Data Validity for the Track Inspection Defect Database is Key to Formulating Clear Strategies for Track Maintenance.

Metrorail's track inspection program consists of 47 track walking inspectors and an in-house, primarily night-operating Track Geometry Vehicle (TGV). QICO's internal review identified and noted several **Wins (What Worked Well)** and several **Areas for Improvement**:

- ✓ The TGV meets the testing frequency established in procedure.
- ✓ Cross-training for TGV personnel improves flexibility of operation.
- ✓ The six-week (in-class) track inspection course has improved.
- ✓ Additional time windows are available for track inspection activities.
- Identification of defects that result in speed restrictions prevent track inspectors from completing walks.
- Walking track inspection frequency needs re-evaluation.
- The track inspection group needs better special trackwork training.
- The defect database contains duplicate and unclosed records.
- Photographic evidence of rail defects is inconsistently captured.
- The linear asset visualization tool (Optram) is underutilized.
- In-office safety briefings add limited value to track inspections.
- Gauge rods noted during track inspection shadowing were not removed within the established 14-day window.
- Roadway access for track inspections depends on other operations throughout the system, without prioritization.
- TGV policies need to be updated.
- There is no requirement for engineering to comprehensively assess track inspection data.
- The TGV requires manual synchronization during TGV runs.
- The TGV gauge defects are reviewed manually.
- The Standard Operating Procedure (SOP) for implementing speed restrictions needs revision for clarity.

Required Actions:

- **QICO-TIP-17-01:** Implement updated training programs and improvements to inspection schedules and territories to enhance the effectiveness of inspection activities, emphasizing quality over quantity. *(Risk Rating: High)*
- **QICO-TIP-17-02:** Document and implement a strategy to improve and maintain the quality of the defect database so that it can be relied upon by maintenance decision-makers. *(Risk Rating: Elevated)*
- **QICO-TIP-17-03:** Establish a process to determine the precedence and priority of track access for essential inspection activities, reinforcing safety standards for field activities. *(Risk Rating: Elevated)*
- **QICO-TIP-17-04:** Establish and update processes to better utilize the potential of the TGV, outlining requirements for engineering review of data it produces. *(Risk Rating: Elevated)*