

Management of Rolling Stock Maintenance (Excluding Public Safety Vehicles)

Background

The delivery of a multitude of services to citizens by the business units (clients of the Service du matériel roulant et des ateliers (SMRA)) depends on the availability of a vehicle fleet in good working condition. Managing the maintenance of the Ville de Montréal's (the City's) 8,200 vehicles and equipment is spread out among 27 mechanical workshops whose operating budget is more than \$60M annually out of a total budget of approximately \$110M. In 2017, these activities were grouped under the SMRA. The operations are supported by the Gestion de la maintenance assistée par ordinateur (GMAO) system, which includes data on vehicles, planning and implementation of interventions. The City operates heavy vehicles (HVs) (17% of the fleet), which are subject to regulatory provisions governing HVs owners, operators and drivers. The regulation involves the business units for the circle check (CC) prior to the use of the HVs, and the SMRA for the application of the Preventative Maintenance Program inspections (PMP inspections) recognized by the Société de l'assurance automobile du Québec (SAAQ) and the repair of defects. The Service de l'approvisionnement (SA) is responsible for ensuring the availability of the parts and materials required for the maintenance activities of the SMRA's workshops.

Purpose of the Audit

To ensure that the management of vehicle and equipment maintenance is adequately planned, performed and followed up to enable the business units to deliver their services as planned, and that there is appropriate cost control.

Results

The management of the SMRA's rolling stock maintenance has several shortcomings, especially at the level of the comprehensiveness of the information on the vehicles, the consistency of preventative maintenance planning, which is behind schedule, and the documentation of interventions and associated costs. Planned interventions do not reflect all the operational requirements of the business units and are not adjusted according to the capacity of the workshops. The SMRA's operations are not aligned with those of the SA to ensure the timely availability of the products required for the interventions. The control mechanisms and management reports required to track implementation of the interventions and monitor compliance with the regulation are not available. The implementation of PMP inspections and corrective maintenance on the HVs, as well as the CCs performed by the drivers in the boroughs, contain failures to comply with the applicable regulation. The tracking of costs and the performance evaluation of the management of rolling stock maintenance are flawed due to a lack of reliable data, objectives and indicators. Annual accountability fails to mention the operational management of the workshops or the regulatory compliance of the HVs. Almost four years after the centralization of these activities, no follow-up has been done of the objectives to be achieved.

Main Findings

Roles and Responsibilities

- The City is not compliant with the regulatory provisions governing HV owners, operators and drivers regarding CCs, which are not systematically performed and properly documented by the drivers.

Data Sheets and Intervention History

- The data contained in the vehicles' data sheets is not exhaustive, nor is the intervention history, which is not properly documented in the GMAO system.

Inventory and Availability of Parts and Supplies

- There is no assurance of the timely availability of parts for repair and maintenance work by the workshops because of a lack of alignment between the SMRA and the SA, leading to reactive procurement.

Planning of Maintenance Activities

- Procedures and work methods are not in place to promote consistent and effective maintenance management across all workshops.
- Interventions for the same type of vehicle are not programmed consistently or according to the manufacturers' recommendations, and the corresponding maintenance records are not systematically kept.
- Planning of the interventions does not take into consideration the workshops' capacity and is not aligned with the operational needs of the business units.

Implementation of Maintenance Activities

- No coordination mechanisms exist between the SMRA and the business units for the requisition of vehicles and for monitoring their out-of-service periods in the workshops.
- Follow-up of preventative maintenance and compliance of PMP inspections is inadequate. Preventative maintenance is delayed, while not all PMP inspections comply with the regulatory provisions.

Data, Management Analyses and Accountability

- The data on interventions and related costs lack completeness and reliability, while objectives and indicators are not established, thus preventing the performance evaluation of and accountability for the maintenance management.
- The intended objectives of the centralization of the SMRA's activities have not been subject to any accountability.

In addition to these results, we have made various recommendations to the business units, which are presented in the following pages. These business units were given the opportunity to agree to the recommendations.