

# TORONTO TRANSIT COMMISSION REPORT NO.

**MEETING DATE:** September 30, 2010

**SUBJECT:** VEHICLE CLEANING

## **INFORMATION ITEM**

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### **RECOMMENDATION**

It is recommended that the Commission receive this report for information.

### **FUNDING**

The cost of implementing an independent vehicle cleanliness audit program is expected to be in the range of 75k to 100k. Sufficient funds will be allocated in the 2011 Operating Budget to conduct this work.

### **BACKGROUND**

On April 29, 2010, Toronto Transit Commission (TTC) Chair Adam Giambrone corresponded with the TTC Commissioners indicating that he was in receipt of many emails and letters from riders complaining of the unclean state of TTC's subway trains, streetcars, and buses. The Chair recommended that an audit be performed on the overall cleanliness of revenue vehicles. At its meeting of May 6, 2010, the Commission referred the matter to staff for report back to the Commission.

### **DISCUSSION**

The cleanliness of TTC revenue vehicles (buses, subway, streetcar and Scarborough Rapid Transit) is an important aspect of service delivery. TTC has comprehensive fleet cleaning programs in place to ensure that all revenue vehicles are maintained in a clean and attractive condition. Detailed operating procedures and schedules are in place to identify when and what type of cleaning each vehicle must undergo.

Cleaning operations are categorized based on intervals (daily, weekly, monthly, and yearly) and are carried out on the interior, exterior, and underside of the vehicles. All cleaning operations are performed off-line in operating garages, yards and carhouses.

### Current Programs - Rail

Interior cleaning is divided into four categories:

1. Daily cleaning includes a sweep and dust, spot mop and graffiti removal, as required. All vehicles entering revenue service are subject to the daily clean process.
2. Floor washing. All vehicles are spot mopped daily to address coffee or other liquid spills. Streetcars are completely floor washed every 14 days as resources permit.
3. Minor cleaning involves interior cleaning of the windows, walls, doors, modesty panels, car ends, bulkheads, stanchions and hand rails. Floors are also scrubbed and gum deposits removed with a scraper. Minor cleaning is performed at approximately 22 day intervals for subway cars. Streetcars are not subject to the 22 day minor clean cycle. It was found that the appearance of the surface vehicles could be better sustained with more frequent floor washing and carrying out the minor cleaning every 70 days.
4. Major cleaning involves a complete interior clean encompassing all minor clean activities as well as cleaning of the ceilings, operator cabs, advertising frames and the removal of stickers from the exterior. Major cleaning is carried out at approximately 73 day intervals for subway cars and yearly for streetcars.

Exterior cleaning or washing is performed every seven days for both subway and streetcar vehicles. This activity involves a complete automated body wash of the vehicle's exterior at the carhouses using equipment very similar to that used to wash automobiles. During the winter when the temperature is very cold, operational problems arise from freezing water and the frequency of exterior washing is curtailed. At the present time, the washrack at Wilson subway carhouse is out of service due to the carhouse expansion project. The washrack at the Greenwood subway carhouse is also out service as it is being replaced due to age and to take advantage of Infrastructure Stimulus Funds provided through the Federal government. Both washracks are expected to be back in service by early 2011. In the interim, subway cars are being sent through the washrack at Davisville Carhouse, although at a reduced frequency because of operational constraints.

All subway cars receive an undercar wash twice a year. Streetcars receive an undercar wash once a year. The purpose of the undercar wash is to remove dirt and grease accumulations in order to facilitate the inspection and maintenance of the vehicle and reduce the potential for undercar fires.

In addition to the routine cleaning outlined above, seasonal programs are also carried out to specially clean various components. For example, in the fall, floor heaters are cleaned. In

the summer, air conditioning vents as well as light fixtures and diffusers are cleaned.

### Current Programs - Bus

Interior cleaning is divided into five categories:

1. Daily cleaning includes an interior sweep and removal of all debris and garbage for all buses entering revenue service. Unsanitary conditions are also cleaned on an as needed basis.
2. City Bus Interior Clean process targets the entire bus (floors, panels, windows, ceilings, stanchions, doors, lighting fixtures, fare box) and operators area on an interval of approximately 8 weeks. All surfaces receive an application of cleaning solution followed by a wipe and dry or mop and dry depending on the surface.
3. Interior Exterior Condensed Clean "A" targets the operators (windows, panels, floor, controls, barrier and equipment) and passenger floor area (floor wash) on an interval of approximately 4 weeks. All surfaces receive an application of cleaning solution followed by a wipe and dry or rinse and mop depending on the surface. Glass surfaces in addition receive a wipe with a micro cloth to remove residual streaks and residue.
4. Additional floor washes in winter months are organized as necessary.
5. Operator and passenger seat cleaning is currently done with students each spring.

Note: City Bus Interior Clean, Interior Exterior Condensed Clean "A" and additional floor washes in winter utilize the same workforce. The workforce is assigned accordingly to perform these processes to improve the overall cleanliness of the bus fleet.

Exterior bus cleaning is performed nightly using an exterior automated bus wash at operating garages. On extreme cold winter days, this wash may be temporarily suspended due to operational problems that may result from freezing water.

In addition to the routine cleaning outlined above, interval and seasonal programs are also carried out to specially clean various components. For example, engine compartment, heater boxes and air conditioning vents.

### **Future Programs - Rail**

Although a vehicle is swept and dusted prior to entering service in the morning and notwithstanding all of the existing cleaning programs in place, it does not take very long for the vehicle interiors to become unsightly as the day progresses. Drinks are spilled by customers, or garbage such as unfinished cups of coffee, empty juice and pop containers, newspapers, fruit peelings and other waste materials are left behind by passengers. Not only can this debris result in trip or slip hazards, the debris can also become lodged in the doorways/tracks resulting in service delays due to door malfunctions. During inclement weather, vehicle appearance is further impacted by the accumulation of grime associated with Canadian winters. For example, de-icing products like salt are tracked from outside onto vehicles and result in a deteriorated vehicle appearance. By the end of the morning rush hour period, a vehicle which went into service freshly swept and dusted can be in need of another thorough sweeping if it is to remain in service in an attractive condition. Current resources do not permit additional cleaning throughout the day.

Waste receptacles are placed at various locations in subway stations to encourage customers to pick up their garbage and properly dispose of it. Media campaigns and station announcements are also used to encourage customers to do their part in helping keep our vehicles clean. In addition, between the weekday hours of 9:30 a.m. to 12:30 p.m. crews comprised of two Plant Department janitors board vehicles at Downsview, Finch, Kipling and Kennedy stations (end terminals) to remove newspapers and other dry debris from the cars. This initiative has contributed to an improved vehicle appearance and each day significant amounts of garbage are removed from the in-service vehicles. None-the-less, this initiative, in parallel with the existing cleaning programs in place at the subway carhouses, are not proving sufficient to stay on top of vehicle appearance. For this reason, Rail Cars and Shops Department launched a trial cleaning initiative which placed cleaning crews at Kennedy and Downsview stations during the weekdays between 5:00 p.m. and 3:30 a.m.

Under the trial initiative, as a train entered one of the end terminal stations and passengers disembarked, cleaning crews entered the train with the intent to pick up waste materials and perform floor mopping if needed. The trial took place between August 15 and August 29, 2010. A review of that trail is now being carried out.

### **Future Programs - Bus**

Two additional interior cleaning processes are currently in development to improve the overall cleanliness of the bus fleet. They are as follows:

1. Interior Condensed Clean "B" will target the passenger (windows, side panels, seat backs, stanchions, light fixtures, doors, heater ducts, ceiling panels etc.),

operator's (windshield, side windows, controls, barrier and equipment) areas and floor sweep. This process in conjunction with existing cleaning processes will allow maintenance staff options to allocate the existing workforce where needed to improve the overall cleanliness of the fleet.

2. Operator and Passenger Seat Cleaning will target operator and passenger seat cleaning and replacement on an approximate 3 month cycle. This is a new process that will require allocated resources at each operating garage in sufficient quantities for a 3 month interval.

New exterior bus wash equipment pilot project is to be implemented at Malvern Garage in the first quarter of 2011. The new bus wash equipment differs from the current equipment whereby the bus is stationary and a gantry style wash moves around the bus washing the exterior ensuring a standard wash cycle.

New biodegradable garbage bags are being installed in the operator's area that will allow for regular removal of garbage during revenue service.

### Cleaning Audits

At present, quality assurance for existing vehicle cleaning programs is addressed through daily auditing by supervisory staff; however, in order to provide an independent perspective on vehicle appearance, the services of an external firm are being sought to:

- Develop a method to audit both the cleanliness and appearance of the Toronto Transit Commission's revenue vehicles. The vehicles include bus, streetcars, subway cars, and Scarborough Rapid Transit (SRT) vehicles.
- Develop a performance measurement system for cleanliness and appearance of each vehicle surface. This performance measurement system is to serve as the standard to measure cleanliness and appearance and to establish targets for which improvements or deteriorations in vehicle cleanliness can be gauged.
- Carry out random bus/subway/streetcar/SRT vehicle audits that will provide a statistically accurate measurement of cleanliness and appearance to obtain a full perspective of the revenue fleet.
- Develop a database for entry of audit results to allow routine management reports to be prepared so that front line supervisory staff and senior management can monitor vehicle appearance.

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September 1, 2010  
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