

MEMO

**TO: Board of Health
Toronto Transit Commission**
FROM: Councillor Joe Mihevc, Chair and Commissioner
RE: Air quality in the TTC subway system
DATE: May 2, 2017

A recently published study has identified air quality issues in Toronto's subway system. The study, which took place between 2010 and 2013, found elevated levels of particulate matter PM 2.5, or "rail dust," derived largely from steel-on-steel grinding between the subway car wheels and the track.

I note that the data is dated, that the TTC has upgraded HVAC systems in existing subway cars, and that the new subway cars have new HVAC filters capable of removing a higher level of fine particulate matter. The TTC has also purchased a tunnel vacuum car equipped with a HEPA filtration system which is due to start operating by the end of 2017.

This study has bearing for two constituencies, namely workers and passengers. Two City bodies, the TTC and Toronto Public Health, have corresponding responsibilities. For Public Health, we need to understand what, if any, respiratory and other health impacts may result from these particulates for passengers on platforms and in trains. For TTC there is a need to conduct a risk assessment on staff exposures, be they cleaners, operators, station collectors, supervisory/security officials, or maintenance staff who work entire shifts underground.

In addition, TTC needs to characterize the impacts of subway cleaning and better ventilation with exposure assessments; we also need to understand health-effective strategies going forward. One issue that I am particularly interested in analyzing is whether platform edge doors would provide better platform and station air quality. I also wonder whether our TTC resources for subway tunnel vacuuming are sufficient to meet the challenge. My request below is that appropriate TTC and Public Health staff share data and work in cooperation to analyze the issues more deeply and to develop appropriate strategies.



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TTC RECOMMENDATION:

That TTC evaluate occupational exposures to fine particles and develop appropriate strategies to mitigate health risks in consultation with responsible occupational health authorities; and further, that TTC provide support and resources to the Medical Officer of Health to oversee an independent study of the health risks for passengers of air quality issues in the subway system, particularly in relation to mitigation measures that could be implemented.

BOH RECOMMENDATION:

That the Medical Officer of Health work with the TTC, if requested and funded, to oversee an independent study of the health risks for passengers of air quality issues in the subway system, particularly in relation to mitigation measures that could be implemented.

Sincerely,

Councillor Joe Mihevc

Ward 21, St. Paul's West