



## STAFF REPORT ACTION REQUIRED

### Dangerous Railway Cargo and Measures to Improve Community Safety

<b>Date:</b>	May 7, 2014
<b>To:</b>	Executive Committee
<b>From:</b>	Deputy City Manager, Cluster B
<b>Wards:</b>	All
<b>Reference Number:</b>	P:\2014\Cluster B\DCM\EX14002

#### SUMMARY

---

This report provides information in response to two motions approved at the City Council meetings of July 16-19 2013, regarding measures to improve transportation of dangerous cargo by rail. The motions requested information regarding the Railway Safety Act Review from Transport Canada and directed City staff to review its authority to improve public safety and mitigate the risk of transporting dangerous goods by rail.

#### RECOMMENDATIONS

---

**The Deputy City Manager, Cluster B, recommends that:**

1. Executive Committee receive this report for information.

#### Financial Impact

There are no financial implications arising from this report.

#### DECISION HISTORY

On July 16, 2013, Council adopted two motions with regards to the transportation of dangerous goods by rail in the City of Toronto (MM37.56):

1. Requesting Transport Canada to advise the City of Toronto of the status of the recommendations of the Railway Safety Act Review and to expedite the implementation of new safety protocols on Canada's railway system including, but not limited to:

- a. phase out the use of DOT-111 tank cars for the transport of hazardous materials
  - b. end the practice of having only one engineer aboard when dangerous goods are being transported;
  - c. limit transport of hazardous materials through routes with less habitants; and
  - d. develop a protocol for communicating with the local municipality so that they can be more adequately prepared in the event of an emergency.
2. City Council direct the City Manager and the Director, Office of Emergency Management, and all other relevant staff to review railway safety in Toronto to determine if there are any steps the City can take on its own, if any, to improve public safety with regards to risk mitigation in the transportation of dangerous goods by rail through Toronto.

Council adopted two further motions on rail safety (MM50.7 and 50.39) at the City Council meeting of April 3, 2014, with a reporting deadline of January 2015. This report addresses only the motions made at the July 16 to 19, 2013 meeting.

## **ISSUE BACKGROUND**

The railway hazardous materials explosion in Lac Megantic raised concerns about rail safety and the transportation of dangerous goods in urban areas. Council approved two motions on July 16, 2013 to find out more about the review of the Railway Safety Act by Transport Canada (the Review) and Council's powers to regulate rail transportation.

## **COMMENTS**

### **Transport Canada Review of the Railway Safety Act**

Transport Canada has completed the Review. The Review's 56 recommendations have been implemented by six joint technical working groups comprised of safety experts from the railway industry, unions and Transport Canada. Transport Canada has used emergency directives, ministerial orders and protective directions to implement changes developed by the working groups.

The following information can be provided with respect to the safety protocols specified in Member Motion 37.56:

1. Phasing out use of DOT-111 tank cars

DOT-111 tank cars are used to transport dangerous liquids including crude oil. However, not all of these cars were built the same way. Transport Canada is changing the design standard for all DOT-111 tanker cars and has announced a schedule for phasing out the current fleet of DOT-111 cars.

Transport Canada proposed an updated design standard for DOT-111 tank cars on January 11, 2014. The changes include thicker steel, an additional top fitting and head shield protection. On April 23, 2014, Transport Canada reported that 55,000 cars which conform to the updated standard have been ordered by the rail industry. Transport Canada also reported that it is consulting with stakeholders to assess whether additional requirements are needed for the North American fleet of DOT-111 tank cars and plans to formalize the updated standard this summer.

Transport Canada also issued Protective Direction 34 on April 23, 2014. It immediately bans the industry from using 5,000 DOT-111 tank cars in the current fleet. The bottoms of these cars do not have continuous reinforcement and there is a much higher risk that they could fail in a derailment. The railways must label each car that is banned from carrying dangerous goods. The cars do not have to be retired: they can be used to transport non-dangerous goods.

In addition to the immediate ban, Transport Canada set a three year deadline for phasing out DOT-111 tank cars that do not conform to the updated standard proposed in January 2014. These cars can be refitted to conform to the new standard.

## 2. Minimum number of engineers present on trains moving dangerous goods

On July 23, 2013, Transport Canada issued an emergency directive to all rail operators which require two engineers at a minimum on trains carrying dangerous goods.

## 3. Routing dangerous goods through less populated areas

On April 23, 2014, Transport Canada issued an emergency directive and a ministerial order intended to identify safety and security risks associated with rail routes and reduce the risk of derailment. The emergency directive and ministerial order require that railway companies:

- Ensure that trains carrying dangerous goods are not allowed on rail sidings, remaining on the main tracks at all times.
- Comply with mandated speed limits for trains carrying dangerous goods in sensitive areas, based on population density, and proximity to supplies of potable water.
- Complete risk assessments on all tracks. Some examples of risks requiring review include (but are not limited to): volume of dangerous goods on a route, population density along a route, venues along a route, emergency response capability along a route, rail traffic density, track maintenance schedule, and number and types of grade crossings.

The emergency directive and ministerial order are posted on line at <http://www.tc.gc.ca/eng/mediaroom/ministerial-order-railway-7491.html>  
<http://www.tc.gc.ca/eng/mediaroom/emergency-directive-railway-7492.html>

#### 4. Communications with Municipalities

Communications protocols between the City's emergency services and the rail industry currently exist around emergency planning and emergency response.

On November 20, 2013 Transport Canada issued protective direction 32 requiring that any railway company which transports dangerous goods provide a report to the designated Municipal Emergency Planning Official (Director of the Office of Emergency Management), on the volume and nature of the dangerous goods being transported. The reports will be after the fact and the Director of the Office of Emergency Management has discretion to disseminate the aggregate reports to other City staff. The City is required to maintain confidentiality in order to continue receiving the reports.

The Federation of Canadian Municipalities is working with railway representatives to determine what specific information should be included in the confidential aggregate reports and continues to work with the Canadian Association of Fire Chiefs on information required during an emergency response. On April 23, 2014 Transport Canada issued Protective Direction 33 which amends the requirements for trains to have Emergency Response Assistance Plans which provides information to assist emergency responders at the scene of a derailment.

### **City Actions to Improve Rail Safety**

#### 1. Regulating Railways

Rail tracks and routes are well entrenched within the City. The City has little to no influence over where/when rail traffic is directed or what cargo may be transported through the city. Staff conducted a legal review of relevant railway legislation to identify any specific authority provided to municipalities and have determined that there are no provisions in Federal or Provincial statutes dealing with railways that let the City independently regulate railways.

Municipalities can:

- Complain to the Canadian Transportation Agency about unreasonable noise and vibration from railways, but the ultimate decision lies with the Agency.
- Object to the construction or alteration of certain railway works, but the decision lies with the Federal Minister of Transport.

#### 2. Regulating Land Use

Historically, the City developed with many sensitive uses, including residential dwellings, adjacent to rail corridors. Since the Mississauga derailment and evacuation in 1979, many

municipalities have adopted a policy of setting residential uses a minimum of 30 metres from a rail corridor for safety purposes.

Recent guidelines issued by the Federation of Canadian Municipalities and Railways Association of Canada suggest a standard setback of 30 metres for residential development with a 2.5 metre high earthen berm within that setback to absorb energy from a derailed train.

The Provincial Policy Statement 2014, which all municipal planning decisions need to be consistent with, requires that new development adjacent to rail corridors should be designed to avoid, mitigate or minimize negative impacts on and from the Corridor. The City of Toronto Official Plan has a policy that states that facilities such as transportation corridors and sensitive uses such as residences and educational and health facilities will be appropriately designed, buffered and/or separated from each other to prevent adverse effects from noise, vibration and other contaminants and to promote safety. There is currently no required setback for sensitive uses from a rail corridor in the City's Zoning By-law. Any development application near a rail corridor is reviewed for rail safety by both the City and the circulated Rail company, but any decision of the City is subject to appeal to the Ontario Municipal Board.

As part of the current Dupont Street Regeneration Area study a rail safety consultant has been retained to study and recommend required rail safety mitigation measures for different potential uses on the north side of Dupont Street between Kendal and Ossington Avenues. A public meeting to discuss the results of the study is scheduled for May 14, 2014.

### 3. Emergency Preparedness

The city has an all-hazards emergency response plan in place and protocols are well established to deal with a hazardous material incident. Toronto Fire Services has trained technicians and dedicated hazardous material fire apparatus. Trained support staff are also assigned in all four command areas across the City.

CN and CP have provided information to Toronto Fire Service and the Office of Emergency Management regarding how dangerous goods are transported, emergency preparedness practices, staff training and emergency plans. The rail companies will continue providing emergency responders with information to train for rail incidents in the City. CN and CP have also confirmed emergency communication protocols with the City and have agreed to supply appropriate personnel to the City's Emergency Operations Centre if required.

In 2014, the Office of Emergency Management will be conducting its annual review of the City's Hazard Identification and Risk Assessment document as it relates to the increased transport of dangerous goods via rail through Toronto. The review will be conducted in consultation with emergency service partners and railway representatives. The Office of

Emergency Management, City Divisions and partners will also be conducting a railway exercise as part of the Division's exercise program.

## **CONTACT**

Loretta Chandler  
Director, Office of Emergency Management  
T: 416-338-8746  
Email: [lchandl@toronto.ca](mailto:lchandl@toronto.ca)

## **SIGNATURE**

---

John Livey  
Deputy City Manager, Cluster B