

## **Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals**

7 June 2019

### **Sub-Committee of Experts on the Transport of Dangerous Goods**

#### **Fifty-fifth session**

Geneva, 1-5 July 2019

Item 6 (b) of the provisional agenda

#### **Miscellaneous proposals for amendments to the Model Regulations on the Transport of Dangerous Goods: packagings**

## **Information on the flow of dangerous goods**

### **Transmitted by the experts from Canada and the United States of America**

### **Objective**

1. The experts from Canada and the United States of America would like to engage with experts from the Sub-Committee on the topic of digitalized dangerous goods transportation documentation.

### **Introduction**

2. Currently, Canadian and United States of America regulations require a physical transport document to accompany the dangerous goods while in transit. In the event of an incident, the information provided on a transport document (shipping name, UN number, quantity, type of package, emergency telephone number, etc.) is essential in assisting first responders at the scene.

3. Considering advancements in technological capabilities, industry has repeatedly communicated to Canadian and United States of America regulators that the requirement for a physical transport document is administratively burdensome, inefficient, and outdated. Furthermore, modal regulations such as the International Marine Dangerous Goods Code, International Civil Aviation Organization Technical Instructions accept electronic transport documents for international shipments. For the numerous shippers with paperless systems already integrated in their operations, printing a transport document is deemed as inefficient, redundant and costly process.

4. The accessibility of a digitalized transport document may be a concern for emergency response or enforcement personnel. Retrieving the electronic transport document could be challenging in remote areas or for fire departments with limited resources. Since the intrinsic purpose of the transport document is to provide easy access to information on any given dangerous goods shipment, regulators have to consider multiple factors before allowing a digitalized equivalent in their jurisdiction to meet an equivalent or greater level of safety.

5. Both Canada and the United States of America recognize the need to modernize this requirement and consider electronic alternatives. In 2015, the United States of America Department of Transportation conducted a pilot study to evaluate the feasibility and effectiveness of paperless shipping documents for transporting dangerous goods. This study confirmed that if certain performance standards are met, electronic transport documents can provide the same level of safety and in some situations an increased level of safety.

## **North American Strategy**

6. Building off the successes from a United States of America study, over the next 3 years, Canada will be undertaking a pilot project referred to as a “regulatory sandbox”. The regulatory sandbox concept originated from the United Kingdom and provides a testing ground for innovative ideas under a regulator’s oversight and allows regulators to collect important insights before deciding if further regulatory action is needed. Canada’s sandbox will evaluate the use of paperless systems and identify the options for permitting electronic transport documentation as an alternative to paper copies. During this study, the use of electronic transport documents for dangerous goods shipments will be permitted, provided it meets pre-defined criteria that demonstrates an equivalent level of safety. Canada will be monitoring this activity and will be collecting data on its impacts to safety and associated costs and benefits to emergency response organizations, industry and enforcement agencies. Emergency simulations in the form of table top and full scale exercises will also be conducted to evaluate operational capability of paperless shipping documents.

7. Recognizing the importance of harmonizing requirements in North America, Canada’s study will be done in close cooperation with the U.S. Throughout the project, the two countries will be collaborating to develop a North American solution to modernize requirements to promote innovation and technology, while maintaining safety. The U.S., in close collaboration with Canada is also considering implementing a test bed for cross-border shipments between in the state of Alaska, the Yukon territories and the province of British Columbia. The use of electronic shipping documents in these rural areas will assist in assessing the feasibility of digitalized transport document.

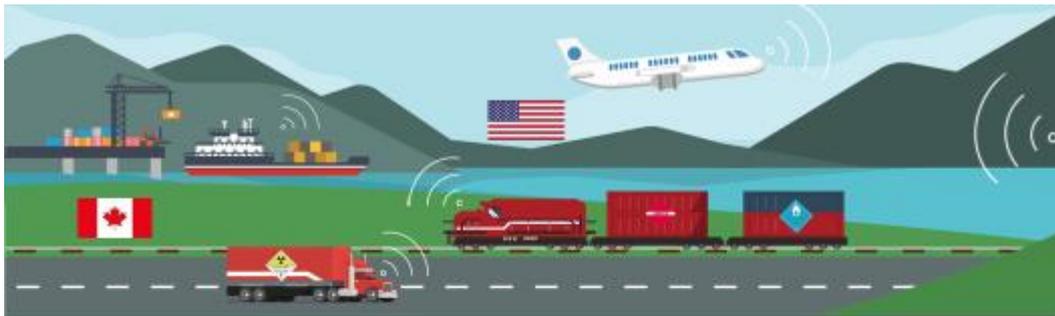
## **Proposal**

8. The experts from Canada and the United States of America would like to collaborate with other interested experts of the Sub-Committee to share information as well as ideas on different aspects related the use of electronic shipping documents and how new technologies can be used to improve communications in managing the flow of dangerous goods.

- (a) Have you adopted electronic transport documents or are you considering it? Are you aware of any jurisdictions that have adopted this?
- (b) Would you be interested in collaborating with Canada and the U.S.?

## References

Paperless Hazard Communications Pilot Program: Moving Ahead for Progress in the 21st Century Act (MAP-21): Congressional Report. January 2016. *U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration*. <<https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Report%20to%20Congress%20on%20Paperless%20Hazard%20Communications%20Pilot%20Program%20-%20August%202016.pdf>>



# TDG Regulatory Sandbox

## on electronic dangerous goods transport documents

**TEST THE FEASIBILITY OF ADOPTING ELECTRONIC TRANSPORT DOCUMENT IN CANADA AND ACROSS THE UNITED STATES BORDER**

Provide industry an opportunity to demonstrate how they are able to efficiently communicate dangerous goods information for real shipments in a controlled environment

**2019–2020**

Project planning

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**2020–2022**

Pilot testing & Simulations





1. Collect TDG data on Information Technologies
2. Seek to improve supply-chain in a multimodal context
3. Accessibility during emergency response and law enforcement

### Why are we doing this?

-  First responders can put themselves at unnecessary risk to obtain the shipping document
-  Regulations need to reflect new technologies and be adaptable to the future
-  Paper shipping documents are administratively burdensome for industry
-  A detailed analysis of the impacts, costs and benefits to Canadians must be done before Transport Canada can develop a regulatory proposal

Goal of the sandbox

Inform future regulatory decisions to improve efficiency and support new technologies





# Réglementation évolutive du TMD

(Sandbox)

sur les documents électroniques de transport de marchandises dangereuses

TESTER LA FAISABILITÉ D'ADOPTER UN DOCUMENT DE TRANSPORT ÉLECTRONIQUE AU CANADA ET À LA FRONTIÈRE CANADO-AMÉRICAINNE

Fournir à l'industrie l'occasion de démontrer sa capacité de communiquer efficacement des renseignements sur les marchandises dangereuses pour des envois réels dans un environnement contrôlé

2019–2020



2020–2022

Planification

Essai pilote et simulations



1. Recueillir des données TMD sur les technologies de l'information
2. Chercher à améliorer la chaîne d'approvisionnement dans un contexte multimodal
3. Accessibilité pendant les interventions d'urgence et l'application de la loi

## Pourquoi faisons-nous cela?



Transport Canada / Transports Canada

- Les premiers intervenants peuvent courir des risques inutilement afin d'obtenir le document d'expédition
- Les règlements doivent refléter les nouvelles technologies et être adaptables aux besoins futurs
- Les documents d'expédition en format papier sont une lourde charge administrative pour l'industrie
- Une analyse détaillée des repercussions, des coûts et des avantages doit être effectuée avant que Transports Canada puisse élaborer une proposition de réglementation

Objectif du projet

Informar les futures décisions réglementaires pour améliorer l'efficacité et soutenir les nouvelles technologies

