



REASSESSMENT OF THE RESPONSE TO TSB RECOMMENDATION R14-03

Emergency response assistance plans for transporting liquid hydrocarbons

Background

On 06 July 2013, shortly before 0100 Eastern Daylight Time, eastward Montreal, Maine & Atlantic Railway freight train MMA-002, which had been parked unattended for the night at Nantes, Quebec, started to roll. The train travelled about 7.2 miles, reaching a speed of 65 mph. At about 0115, while approaching the centre of the town of Lac-Mégantic, Quebec, 63 tank cars carrying petroleum crude oil, UN 1267, and 2 box cars derailed. As a result of the derailment, about 6 million litres of petroleum crude oil spilled. There were fires and explosions, which destroyed 40 buildings, 53 vehicles and the railway tracks at the west end of Megantic Yard, and 47 people were fatally injured. There was environmental contamination of the downtown, the adjacent river and lake.

The Board concluded its investigation and released report R13D0054 on 19 August 2014.

TSB Recommendation R14-03 (January 2014)

An emergency response assistance plan (ERAP) is required by the Transportation of Dangerous Goods Regulations for certain goods that pose a higher-than-average risk when transported in certain quantities. When there is an accident, the handling of these dangerous goods requires special expertise, resources, supplies and equipment. The transportation of large volumes of flammable liquids, such as petroleum crude oil, does not require an ERAP. However, approved ERAPs would consistently ensure that first responders have access, in a timely manner, to the required resources and assistance in an accident involving significant quantities of flammable hydrocarbons.

In November 2013, an Emergency Response Assistance Plan Working Group (Working Group) was established by the Transportation of Dangerous Goods General Policy Advisory Council. The Working Group was chaired by the Canadian Association of Fire Chiefs and tasked to examine the possibility of extending the ERAP program to include flammable liquids such as crude oil or to recommend other emergency response solutions to accomplish a similar goal of ensuring access to appropriate response capability and specialized supplies.

The Board acknowledged this Transport Canada (TC) initiative. Given the significant increase in the quantities of crude oil being transported by rail in Canada, and the potential for a large spill with the risks it would pose to the public and the environment, the Board recommended that, at a minimum:

The Department of Transport require emergency response assistance plans for the transportation of large volumes of liquid hydrocarbons.

TSB Recommendation R14-03

Transport Canada's response to Recommendation R14-03 (April 2014)

To address requirements for ERAPs, TC issued Protective Direction No. 33 under the Transportation of Dangerous Goods Act, 1992 on 23 April 2014. This Protective Direction, in effect 150 days from that date, requires an ERAP for the offering for transport or import of certain higher-risk hydrocarbons and flammable liquids, such as petroleum distillates, crude oil, gasoline, diesel, aviation fuel and ethanol, when offered for transport or imported by rail in one or more tank cars that are each filled to 10% of capacity or more.

TC will also establish an Emergency Response Planning Task Force with members from key partners and stakeholders. This group will provide a dedicated forum with support from a team of experts to respond to recommendations of the Transportation of Dangerous Goods General Policy Advisory Council Emergency Response Assistance Plan Working Group on ERAP requirements. The Task Force will focus on ERAP activation processes, support the development of cooperative industry approaches to ERAP development and the development of information sharing protocols, and promote the development of unified incident command structures. The Task Force will also review and provide advice on the possible expansion of ERAP requirements to other Class 3 flammable liquids.

TSB assessment of the response to Recommendation R14-03 (June 2014)

TC has accepted the recommendation and has issued a Protective Direction that requires an approved ERAP for the transportation of higher-risk hydrocarbons and flammable liquids, including ethanol, for any train with one or more loaded tank cars of these products. ERAPs will be required for the offering for transport or import by rail of commonly transported hydrocarbons and flammable liquids that present a higher risk, even for smaller volumes of one loaded tank car. TC will also establish a task force to focus on ERAP activation processes, cooperative industry approaches and the promotion of unified incident command structures. The task force will provide advice on the expansion of ERAP requirements beyond the products identified in the Protective Direction to other Class 3 flammable liquids.

The Protective Direction ensures that there will be approved ERAPs in place for the shipment of higher-risk liquid hydrocarbons. In addition, TC has included other flammable liquids, including ethanol in the ERAP requirements.

Therefore, the Board assesses the response to Recommendation R14-03 as **Fully Satisfactory**.

Transport Canada's response to Recommendation R14-03 (February 2015)

The first meeting of the Emergency Response Planning Task Force took place on 10 July 2014, and this task force continues to meet monthly. The task force brings municipalities, first responders, railways and shippers together to strengthen emergency response capacity across the country.

On 31 December 2014, Protective Direction 33 was incorporated into the Transportation of Dangerous Goods Regulations. With publication in the *Canada Gazette*, Part II, in December,

ERAP requirements have also been established for ethanol (UN 1987) and sour crude (UN 3494).

TSB reassessment of the response to Recommendation R14-03 (March 2015)

Since June 2014, TSB monitored the additional safety action on this recommendation, including the Emergency Response Planning Task Force's work on ERAPs for the transportation of large volumes of liquid hydrocarbons. TC has also enacted TDG legislation which includes the more stringent criteria established in Protective Direction 33 and includes ERAP requirements for ethanol (UN 1987) and crude oil (UN 3494).

The Board acknowledges Transport Canada's initiative to also apply the new ERAP requirements to ethanol and considers the response to the recommendation to be **Fully Satisfactory**.

Next TSB action

This deficiency file is **Closed**.