OTIF

ORGANISATION INTERGOUVERNEMENTALE POUR LES TRANSPORTS INTERNATIONAUX FERROVIAIRES

ZWISCHENSTAATLICHE ORGANISATION FÜR DEN INTERNATIONALEN EISENBAHNVERKEHR

INTERGOVERNMENTAL ORGANISATION FOR INTERNATIONAL CARRIAGE BY RAIL

INF. 3

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(English only)

RID: **2nd Session of the RID Committee of Experts' standing working group**
(Copenhagen, 18 – 22 November 2013)

Subject: **Entry into force of the amendment in 6.8.4 (b) left-hand column only as set out in document OTIF/RID/CE/2012-A section C – "Amendment to enter into force on 1 January 2015"**

Proposal transmitted by Italy

Reference documents: OTIF/RID/CE/2007/17 + INF. 9 RID CE 11/09 + INF.15 RID CE 05/12

1. Italy considers that the adoption of a detection device which provides an immediate and clear signal to the [locomotive driver] that a derailment has occurred and which reveals an abnormal condition relating to the correct location of the wagon bogies on the track as soon as possible is an important step towards improving safety.

2. The need for this was the subject of a specific recommendation made by the Italian National Investigation Body after the accident in Viareggio in which the adoption of such devices would most likely have prevented or limited the consequences of the occurrence. In theory, immediate notification of an "abnormal situation" relating to the proper position of the bogie on the track, and therefore the ability to process this information, offers two possibilities:

   - an automatic reaction through immediate braking of the train (sometimes critical);

   - a system reaction after the information has been analysed, depending on the development of new technologies.

3. The timely reduction of the kinetic energy until complete standstill reduces the distance travelled in **abnormal conditions** and therefore the probability of rollover of one or more wagons (and the associated spilling of dangerous good); or moving outside the clearance gauge, which can cause damage to objects or injury to persons.

4. From surveys conducted by the Italian National Agency for railway safety it is clear that the extent of damage caused by derailments increases substantially depending on the distance the train continues to travel. The presence of a device that would have notified the driver that an abnormal situation was occurring would certainly have limited the likelihood of damage to people and property. Below are some details of accidents involving wagons carrying dangerous goods:

Date of occurrence	Place	Short description	Distance travelled	Causes	Dangerous goods code
20/07/2004	Somma campagna	Svio treno 43165 in corrispondenza della comunicazione 1a/1b. *Translation:* *Train derailment 43165 in correspondence with communication 1a/1b*	256 meters	Lo svio è stato causato principalmente dallo sghembo fuori tolleranza unitamente alla precaria situazione plano-altimetrica della comunicazione. *Translation:* *The derailment was caused mainly by oblique out of tolerance together with the precarious plano-altimetric situation of the communication.*	33/1090; 30/1886
26/05/2004	Genova Brignole	Svio treno 50361 in ingresso al binario XV. Intervento dei VVFF per stillicidio da cisterna. *Translation:* *Train 50361 derailed when entering track XV. Intervention of the fire brigade owing to leakage from the tank.*	470 meters	Lo svio è stato causato dalle non conformità riscontrate sulle caratteristiche geometriche del binario (valori eccessivamente larghi dello scartamento unitamente a brusche variazioni degli stessi), favorite dalle difettosità di squilibrio dei carichi riscontrati sulle ruote dell'asse sviato. *Translation:* *The derailment was caused by the anomalies identified in the geometric characteristics of the track (excessively large gauge values together with abrupt variations), helped by the imbalance of the loads encountered on the wheels of the derailed axle*	30/3256
05/05/2005	Omignano	Il treno merci 99102, in transito nella stazione di Omignano è deragliato con l'ultimo carro di coda. *Translation:* *Freight train 99102, in transit through Omignano station was derailed at the last wagon tail.*	circa 5000 meters	Lo svio è stato causato dal valore elevato di errore di circolarità delle ruote del carro e dall'errato posizionamento della cisterna che ha causato lo scarico della sala. Infatti erano state apportate delle modifiche strutturali al carro, cambiando il posizionamento originale delle caviglie senza richiedere l'ammissione tecnica. *Translation:* *The derailment was caused by problems in the circularity of the wheels of the wagon and from the incorrect positioning of the tank that caused the*	Codice Pericolo 90 Codice ONU3082

				tipping over of the axle. In fact, structural changes had been made *to the wagon, changing the original placement of the pins without obtaining technical admission.*	
22/6/2009	VAIANO-PBA87-133-4	Il treno 55399 è sviato al km 20+480 con il nono carro dalla coda che ha coinvolto anche il primo asse del carro precedente. Il carro sviato ha danneggiato circa 5 km di sede ferroviaria, anormalità che ha comportato l`interruzione del binario dispari per una durata di circa 4 giorni, danni molto ingenti all`infrastruttura, nessun danno alle persone. Le Merci Pericolose non hanno subito danni ne perdite di nessun tipo Il treno incrociante 11674 è stato sfiorato dal carro sviato senza subire grosse conseguenze, nessun danno ai viaggiatori presenti sul treno. *Translation:* *The ninth wagon of train 55399 derailed at km 20 + 480, which also involved the first axle of the wagon in front. The derailed wagon damaged about 5 km of railway track; this resulted in the closure of the track for a period of about 4 days, substantial damage to infrastructure, but luckily without injury to people. No dangerous goods leaked.* *Train 11674 crossing was touched by the derailed wagon without suffering major consequences, no injury to passengers on the train.*	5105 meters	Lo svio è stato causato dalla rottura della foglia madre della molla a balestra del 1° asse. *Translation:* *The derailment was caused by the rupture of the leaf mother of the leaf spring of the 1st axle.*	Codice Pericolo 886 Codice ONU1052
29/6/2009	Viareggio	Il treno 50325 trasportante GPL è deragliato con il primo carro cisterna dalla testa trascinando con se altri 6 carri. A seguito della caduta il carro spandeva il GPL contenuto provocando enormi danni. *Translation:* *The first tank-wagon of train 50325 carrying LPG derailed, dragging with it another 6 wagons. Following this the wagon leaked LPG causing enormous damage.*	334 meters	Lo svio è stato causato dalla rottura a fatica del fusello della prima sala del carrello anteriore del carro sviato. *Translation:* *The derailment was caused by fatigue failure of the first axle of the first bogie of the wagon derailed.*	Codice Pericolo 23 Codice ONU1965

5. During the meeting Italy will present a table showing all the data collected by the Italian NSA on derailments which have occurred since 2004, and will also show – inter alia – a short video consisting of a computer simulation of a dynamic braking of a train equipped with DDD

Conclusion

6. Italy supports the entry into force of the amendment in 6.8.4 (b) left-hand column only as set out in document OTIF/RID/CE/2012-A section C – "Amendment to enter into force on 1 January 2015".