

OTIF



**ORGANISATION INTERGOUVERNEMENTALE POUR
LES TRANSPORTS INTERNATIONAUX FERROVIAIRES**

**ZWISCHENSTAATLICHE ORGANISATION FÜR DEN
INTERNATIONALEN EISENBAHNVERKEHR**

**INTERGOVERNMENTAL ORGANISATION FOR INTER-
NATIONAL CARRIAGE BY RAIL**

OTIF/RID/CE/2008/22

5 October 2008

Original: English

RID: 46th Session of the Committee of Experts on the Transport of Dangerous Goods
(Hamburg, 21 - 23 October 2008)

Subject: RID 5.4.3 – Introducing a concept for instructions in writing for train operations

Comments by the UIC on document OTIF/RID/CE/2008/20 from Germany

Introduction

In its proposal OTIF/RID/CE/2008/20, Germany proposes applying the rules on instructions in writing adopted for ADR and ADN to rail operations, in a suitably modified form.

The UIC aired the German proposal at the meeting of its Group of Experts on the Carriage of Dangerous Goods held in Bruges on 9 October 2008. The railways attending the meeting were of the opinion that introducing a concept for instructions in writing in train operations as proposed by Germany can only be supported in part. In particular, the proposed equipment that is required to be in place on the motive power unit is considered as being neither necessary nor practicable for the following reasons:

1. The railways in Europe convey considerable amounts of dangerous goods. Accidents with dangerous goods occur relatively infrequently both as a function of traffic performance and in absolute terms.

Experience gained in the transport of dangerous goods to date indicates that there are no weak points in measures adopted for emergencies that would necessitate new provisions in RID as fundamental as those now being proposed by Germany.

Specifically, the UIC is not aware of there ever having been a need to resort to the concept proposed by Germany when adopting emergency measures, most notably as regards the equipment for personal and general safety it is proposing.

For reasons of cost, only a limited number of copies of this document have been made. Delegates are asked to bring their own copies of documents to meetings. OTIF only has a small number of copies available.

As a result, it is necessary to pose the a priori question as to the practical experience and solid facts Germany can draw on to prove the case for new provisions of this kind in rail operations.

There are currently no provisions for instructions in writing in rail operations in RID – except in the case of piggyback traffic. The railways and COTIF member states have got by without such provisions hitherto. Furthermore, the provisions for piggyback traffic were introduced to provide the consignee with instructions in writing as prescribed under ADR for the concluding leg by road and not as a means of covering emergency measures during the main leg by rail.

Even in Germany, where carriers have for decades been obliged to produce instructions in writing for frequent consignments of dangerous goods and to carry these on the train, it has not so far been deemed necessary to equip the motive power unit with, for instance, a shovel or bottle of eyewash.

2. The UIC feels, therefore, that the German move is solely designed to assist its drive to bring about cross-modal harmonisation of dangerous goods legislation in the sphere of instructions in writing and equipment. As the UIC sees it, however, harmonisation must not be allowed to be an end in itself but must primarily serve the overarching aim of further improving safety. Improving emergency measures after an accident forms part of this. It is impossible to see how the German proposal can achieve this goal. In particular, no indication is given of what exactly requires improving and why the equipment proposed is deemed necessary.
3. The German proposal does not address the actual sequence of events following an accident involving dangerous goods on the railway. German legislators themselves argued many years ago, during talks on rethinking the issue of instructions in writing for German rail operations, that it is not possible to apply factors pertinent to road traffic to the rail mode wholesale.

The German legislators would, for instance, appear to share the view that train drivers are not generally in a position to initiate measures extending beyond ensuring their own safety, sending messages, warning those affected and cordoning off the scene of an accident (i.e. emergency and assistance measures).

The UIC concurs with this view and accordingly regards the equipment proposed by Germany as being unnecessary. Given that train drivers have a particular requirement to attend to their own safety, escaping from the danger zone is all they can do to start with in most cases. Dealing with accidents or major leaks are matters to be left to relevant bodies such as the fire brigade. Train drivers do not, after all, intervene in the event of cargo fires or lesser leaks either. In addition, they are not trained for this.

A provision for dealing with "very small leakages of specified dangerous goods" adopted with the consent of the applicable body for rail operations in Germany was recently discontinued owing to its not having proven its worth in practice.

4. The proposal envisages provisions governing roads being adopted – in slightly modified form – despite conditions in rail operations not being comparable with those in road haulage.

On the railway, every motive power unit rostered for freight operations would have to be fitted with all the equipment, since these vehicles are constantly being used for different purposes as a means of optimising their level of availability and there may be very diverse kinds of dangerous goods on the train, generally distributed over several kinds of hauled stock (covered wagons, open wagons with tarpaulins, tank wagons etc.).

By contrast, it is not generally necessary in road haulage to fit individual vehicles with all the equipment, since an oil tanker, for instance, only carries petrol or diesel fuel, or both.

The very fact that the carriage of goods by rail is generally "unaccompanied" and that trains often consist of more than 20 wagons entails completely different distances between the driver and a given hazardous cargo, moreover. In the most favourable scenario in road haulage, there is a distance of just a few metres between the driver and their cargo; the least favourable scenario in rail freight would involve the length of the motive power unit, the most favourable a distance of almost 700 metres if the last wagon in the train were affected.

Hence, while there may certainly be a case for fitting lorry cabs with the equipment owing to their drivers' proximity to hazardous cargoes and the direct danger to which crews are exposed, the same does not apply for carriage by rail given the larger distances between the leading cab and the hazardous load and the scope for action open to a train driver.

A complete fit-out of railway traction would additionally lead to far higher outlay than at present without this yielding any actual operational benefit. In so doing, it must be remembered that on many traction units, it would be necessary to equip the rear driver's cab completely as well as the front cab.

It should also be mentioned that as a rule, irregularities (e.g. smaller leaks) are not noticed during the train journey from A to B, but during marshalling operations or the technical inspection of the wagons, when a locomotive is not always nearby. This is another reason why it is no use equipping locomotives.

5. The UIC accordingly concludes that the equipping of motive power units envisaged by Germany in the context of introducing a concept for instructions in writing in train operations is neither necessary nor practicable. The only reason Germany cites for introducing the concept are the amended rules for road haulage and barge operations. The UIC is of the opinion, however, that amended rules for other modes of transport are insufficient justification on their own for introducing similar rules for the railway. An essential precondition for introducing the concept proposed by Germany would be evidence that concrete emergency situations in rail operations had shown the concept's introduction to be vital. Germany furnishes no such evidence in its proposal.

If the proposal were put into effect, moreover, the European railways would have to pay an eight-figure sum for the initial fit-out of motive power stock without this contributing in any measurable way towards improving emergency measures. This would further weaken the competitiveness of rail.









The UIC feels, therefore, that ADR rules should only be adopted to the extent that this is necessary and practicable for rail operations. The UIC accordingly proposes that, whilst the ADR provisions should be adopted overall, only such equipment should be prescribed as is already part of proven equipment on motive power units today, given that the necessity of any widening of requirements cannot be demonstrated. As a means of achieving this aim, the UIC has revised the amendments agreed for ADR and adapted them to suit the realities of rail operations (cf. Annex).






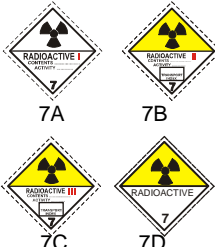



As well as reflecting past experience gained in the carriage of dangerous goods by rail, the UIC's proposal also takes account of the harmonisation sought by Germany, though without ignoring the ways in which the various modes of transport inevitably differ.

INSTRUCTIONS IN WRITINGActions in the event of an accident or emergency

In the event of an accident or emergency that may occur or arise during carriage, members of the locomotive crew shall take the following actions where safe and practicable to do so:

- If necessary, switch off the engine;
- Avoid or remove sources of ignition, in particular, do not smoke or switch on any electrical equipment;
- Observe the additional guidance assigned to the hazards of all concerned goods in the following table. The hazards correspond to the number of the danger label model assigned to the goods during transport;
- Inform the appropriate control centre or the emergency services, giving as much information about the accident or incident and substances involved as possible;
- If necessary, keep the transport documents readily available for responders on arrival;
- Wear prescribed warning vest when on or near the tracks;
- Move away from the vicinity of the accident or emergency, advise other persons to move away and follow the advice of the emergency services;
- Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapours by staying up wind;
- Remove any contaminated clothing and dispose of it safely.

Additional guidance to locomotive drivers on the hazard characteristics of dangerous goods by class and on actions subject to prevailing circumstances		
Danger labels and placards, description of the hazards (1)	Hazard characteristics (2)	Additional guidance (3)
Explosive substances and articles  1 1.5 1.6	May have a range of properties and effects such as mass detonation; projection of fragments; intense fire/heat flux; formation of bright light, loud noise or smoke. Sensitive to shocks and/or impacts and/or heat.	Take cover but stay away from windows.
Explosive substances and articles  1.4	Slight risk of explosion and fire.	Take cover.
Flammable gases  2.1	Risk of fire. Risk of explosion. May be under pressure. Risk of asphyxiation. May cause burns and/or frostbite. Containments may explode when heated.	Take cover. Keep out of low areas.
Non-flammable, non-toxic gases  2.2	Risk of asphyxiation. May be under pressure. May cause frostbite. Containments may explode when heated.	Take cover. Keep out of low areas.
Toxic gases  2.3	Risk of intoxication. May be under pressure. May cause burns and/or frostbite. Containments may explode when heated.	Take cover. Keep out of low areas.
Flammable liquids  3	Risk of fire. Risk of explosion. Containments may explode when heated.	Take cover. Keep out of low areas.
Flammable solids, self-reactive substances and desensitized explosives  4.1	Risk of fire. Flammable or combustible, may be ignited by heat, sparks or flames. May contain self-reactive substances that are liable to exothermic decomposition in the case of heat supply, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock. This may result in the evolution of harmful and flammable gases or vapours. Containments may explode when heated.	
Substances liable to spontaneous combustion  4.2	Risk of spontaneous combustion if packages are damaged or contents spilled. May react vigorously with water.	

Danger labels and placards, description of the hazards	Hazard characteristics	Additional guidance
(1)	(2)	(3)
Substances which, in contact with water, emit flammable gases  4.3	Risk of fire and explosion in contact with water.	
Oxidizing substances  5.1	Risk of ignition and explosion. Risk of vigorous reaction in contact with flammable substances.	
Organic peroxides  5.2	Risk of exothermic decomposition at elevated temperatures, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock. This may result in the evolution of harmful and flammable gases or vapours.	
Toxic substances  6.1	Risk of intoxication. Risk to the aquatic environment and the sewerage system.	
Infectious substances  6.2	Risk of infection. Risk to the aquatic environment and the sewerage system	
Radioactive material  7A 7B 7C 7D	Risk of intake and external radiation.	Limit time of exposure.
Fissile material  7E	Risk of nuclear chain reaction.	
Corrosive substances  8	Risk of burns. May react vigorously with each other, with water and with other substances. Risk to the aquatic environment and the sewerage system.	
Miscellaneous dangerous substances and articles  9	Risk of burns. Risk of fire. Risk of explosion. Risk to the aquatic environment and the sewerage system.	

Note:

1. For dangerous goods with multiple risks and for mixed loads, each applicable entry shall be observed.
2. Additional guidance shown above may be adapted to reflect the classes of dangerous goods to be carried and their means of transport.

Equipment¹⁾ for personal and general protection to carry out general actions and hazard specific emergency actions to be carried in the driver's cab

The following equipment shall be carried in the driver's cab for all danger label numbers.

- portable lighting apparatus;

for the locomotive driver

- appropriate warning vest in accordance with EN 471.

¹⁾ The equipment to be carried shall, if necessary, be adapted to existing national requirements.
