

## Economic Commission for Europe

### Inland Transport Committee

Working Party on the Transport of Dangerous Goods

8 February 2024

Joint Meeting of the RID Committee of Experts and the  
Working Party on the Transport of Dangerous Goods

Bern, 25-28 March 2024

Item 5 (b) of the provisional agenda:

**Proposals for amendments to RID/ADR/ADN:**

**New proposals**

#### **5.3.2.2.1 of RID/ADR/ADN: Fire resistance of the orange-coloured plate**

**Transmitted by the Government of Germany**

##### *Summary*

**Executive summary:** According to the current wording of 5.3.2.2.1 of RID/ADR/ADN, the requirement on the fire resistance of the orange-coloured plate explicitly only concerns its attachment to a mount. It should be clarified that this requirement also applies to the material of the plate itself, as this is the only way to achieve the durability of the hazard identification number and the UN number required in accordance with 5.3.2.2.2 of RID/ADR/ADN.

**Action to be taken:** The requirements set out in 5.3.2.2.1 of RID/ADR/ADN should be amended and, consequentially, also 6.8.3.2.9.6.5 of RID/ADR.

## **I. Introduction**

1. 5.3.2.2.1 of RID/ADR/ADN governs the requirements on the characteristics of orange-coloured plates. The material shall to be weather-resistant and ensure durable marking. The plate must not become detached from its mount in the event of 15 minutes' engulfment in fire.

2. The specification of the 15 minutes' engulfment in fire has been the subject of various discussions in the past, most recently at the Joint Meeting in September 2021, see document ECE/TRANS/WP.15/AC.1/2021/26 (United Kingdom)<sup>1</sup> and paragraph 47 of report ECE/TRANS/WP.15/AC.1/162<sup>2</sup>. The Joint Meeting acknowledged the absence of specific provisions or standards to test the detachment of orange-coloured plates in the event of a 15 minutes' engulfment in fire.

<sup>1</sup> <https://unece.org/sites/default/files/2021-06/ECE-TRANS-WP15-AC1-2021-26e.pdf>

<sup>2</sup> <https://unece.org/sites/default/files/2021-11/ECE-TRANS-WP15-AC1-162FINALE.pdf>

3. Irrespective of the question of how resistance to 15 minutes' engulfment in fire can be proven in practice, the additional question of what the fire resistance requirement should relate to has arisen within the scope of checks.

4. According to the wording of 5.3.2.2.1 of RID/ADR/ADN, only the mount of the plate must be appropriately fire resistant but not the plate itself. However, this is not in line with the further specifications: in accordance with 5.3.2.2.2 of RID/ADR/ADN, the hazard identification number and the UN number must be indelible and must remain legible after 15 minutes' engulfment in fire. Moreover, 5.3.2.1.8 of RID/ADR/ADN stipulates that orange-coloured plates which do not relate to dangerous goods carried, or residues thereof, must be removed or covered. If plates are covered, the covering must be total and remain effective after 15 minutes' engulfment in fire.

5. The requirement that the attachment of the orange-coloured plate and the hazard identification number and the UN number be fire resistant only makes sense if the plate itself is fire resistant, too. However, this can only apply to a metal base material of the plate and not the orange-coloured self-adhesive sheet or orange-coloured paint. These can certainly not withstand 15 minutes' engulfment in fire, which, however, is not even necessary, as the shape and dimensions of the plate remain sufficiently recognisable even after engulfment in fire. The fire resistance of the hazard identification number and the UN number required in accordance with 5.3.2.2.2 of RID/ADR/ADN is achieved by embossing the plate. This ensures that the marks are still legible even after the self-adhesive sheet or paint has burned off.

## **II. Proposal**

6. Amend the third sentence of 5.3.2.2.1 of RID/ADR/ADN to read as follows:

“The material and the mount of the plate shall withstand 15 minutes' engulfment in fire.”

7. Consequential amendment to the second sentence of 6.8.3.2.9.6.5 of RID/ADR:

“The material and the mount of the mark shall withstand 15 minutes' engulfment in fire.”

## **III. Justification**

8. The amendment to the third sentence of 5.3.2.2.1 of RID/ADR/ADN brings the fire resistance requirement in line with the requirements set out in 5.3.2.1.8 and 5.3.2.2.2 of RID/ADR/ADN. The use of the same wording in 6.8.3.2.9.6.5 of RID/ADR makes a consequential amendment to this paragraph necessary.

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