

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

11 July 2024

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

Geneva, 10–13 September 2024

Item 5 (a) of the provisional agenda:

Proposals for amendments to RID/ADR/ADN:

Pending issues

Last mile delivery

**Submitted by the Council on Safe Transportation of Hazardous Articles
(COSTHA)**

Summary

- Executive summary:** Since the emergence of e-commerce, retail deliveries, including grocery deliveries, have significantly increased; and this trend accelerated during the COVID-19 pandemic. The increase in retail deliveries brings up issues and causes stakeholders to question whether the ADR's requirements for the carriage of dangerous goods should apply when smaller quantities of goods are transported in a manner similar to end consumers carrying them in their own vehicles.
- Action to be taken:** Introduce an exemption in RID/ADR/ADN for the delivery to final user by the retailer of dangerous goods packaged for retail sale under specific conditions.
- Related documents:**
- RID/ADR/ADN Joint Meeting – Spring 2022 session (informal document INF.32 (COSTHA)).
 - Sub-Committee of Experts on the Transport of Dangerous Goods – 60th session (ST/SG/AC.10/C.3/2022/28 (COSTHA)).
 - RID/ADR/ADN Joint Meeting – Autumn 2022 session (ECE/TRANS/WP.15/AC.1/2022/27 (COSTHA), informal documents INF.16 (FEA), INF.28 (France) and INF.29 (RECHARGE)).
 - RID/ADR/ADN Joint Meeting – Spring 2023 session (ECE/TRANS/WP.15/AC.1/2023/22 (COSTHA), informal documents INF.20 (France) and INF.31 (FEA)).
 - RID/ADR/ADN Joint Meeting – Autumn 2023 session (ECE/TRANS/WP.15/AC.1/2023/47 (COSTHA) and informal document INF. 13 (FEA)).

Introduction

1. The challenges posed by direct-to-customer delivery systems which may contain dangerous goods remain even after the COVID-19 pandemic as retail deliveries of goods, including grocery deliveries containing dangerous goods (DG), have significantly increased. Common examples of dangerous goods sold and being delivered from grocery stores, retail stores, or online shops, include flammable gases and liquids, organic peroxides, corrosive substances, and small lithium batteries. These products which are sold in smaller quantities, are first taken out of the carton case packaging (thus losing both their original (i.e., suitable) outer packaging and hazard communication) and put on shelves, then they are taken off the shelf and placed in shopping bags in order to be transported on relatively short distances for delivery. When transported by the end consumer (i.e., a private individual), these products are exempted from ADR per 1.1.3.6(a) since the transport of such small quantities is deemed safer.

2. The delivery of these purchases is frequently carried out by services that use the operator's vehicle. This type of operations brings up issues and causes stakeholders to question whether the full requirements of the dangerous goods regulations should apply when small quantities of dangerous goods are transported by a commercial employee in a manner similar to that of a customer driving the same goods home from a supermarket themselves. As previously discussed, neither RID, ADR, or ADN currently provide any exceptions for this practice. However, several countries provide derogations (see Canada, Ireland and United Kingdom exemptions in the annexes).

3. Since the March 2022 session of the Joint Meeting, delegations have provided numerous comments on the documents submitted by COSTHA. COSTHA is grateful for those comments which were very helpful for the preparation of this document.

4. COSTHA also brought the issue to the attention of the Sub-Committee of Experts on the Transport of Dangerous Goods (TDG Sub-Committee) for discussion during its sixtieth session that took place in Geneva (June 27 – July 6, 2022) (see document ST/SG/AC.10/C.3/2022/28). Comments from that discussion were heard and shared with the Joint Meeting in working document ECE/TRANS/WP.15/AC.1/2023/22.

I. Justification

5. In the traditional retail experience, consumers buy these dangerous goods products and use either shopping bags or the product's own packaging to facilitate their handling/transport to their vehicles and homes. The products in retail packaging are never repackaged per ADR for additional safety or marked in accordance with the dangerous goods regulations. When carrying these products out of retail stores, individuals are not subject to the various regulatory requirements per 1.1.3.1(a) of ADR. However, the regulatory requirements apply to commercial delivery companies and services.

6. The growth of these types of operations was not anticipated when the regulations were originally developed. As such, COSTHA believes that applying the current regulatory requirements to these operations seems impractical and of little benefit to the overall transportation system. Last mile deliveries (meaning the last leg of the transportation from a distribution center, typically in a radius of 150 km from the final destination to the end consumer originating from retail locations do not typically utilize any packaging beyond the retail packaging in place on the store shelf and are generally limited to short distances. The goods being carried are generally not subjected to the forces typically encountered in freight transportation where performance-oriented packaging is needed for safety reasons. Instead, the goods are often placed in bags or other forms of consolidation bins¹ that are necessary to increase the load safety, as well as the organization of the load, or directly into an individual's vehicle (such as onto a seat or in the trunk), and these bags are not currently marked. The bags considerably help to increase the safety and quality of work of associates by: (1) keeping the load organized and secured, (2) helping to contain any leak of liquids that may damage

¹ A consolidation bin, as formally defined in US/CA 49 CFR 172.404, is simply a bag, bin, box and/or other conveyance used to consolidate packages containing DG (and non-DG) into a single "bin" for carriage purposes.

the surrounding cartons, and reducing their strength, and (3) by allowing the delivery operations to be simpler, as typically each bag or bin contains the order of a limited number of consecutive addresses in the “milk run” planned in advance, reducing the hassle to search the entire vehicle for a specific item to be delivered.

II. Discussion

7. COSTHA requests consideration to exclude only lower risk dangerous goods, such as dangerous goods packed in limited (LQ) and excepted quantities (EQ), as well as lithium batteries meeting the requirements of special provision (SP) 188, from the regulations during last mile delivery operations to end customers. In this case, last mile means the last leg of logistics operations, from a distribution center to the address of the final customer, with a maximum radius of 150 km from the distribution center. The quantity carried during the last mile on the transport unit does not exceed 30 kilograms or litres per type, color, strength or inner package size of a substance or an article, and a total of 333 kilograms or litres per transport unit. The intent of the proposals below is to limit the amount of additional packaging and marking that does not add to safety of shipper, carrier, or emergency responder. The equivalent level of safety is achieved through the use of the handheld devices carried by the driver (providing product information) and via digital manifest (available through central communications in event driver/carrier is unavailable).

8. This reduction of marking and packaging would also contribute to meeting Sustainable Development Goal no. 12 of the United Nations. A similar exception to the regulations is provided within 1.1.3.1(a) of the RID/ADR/ADN where transportation by a private individual with certain limitations is exempted from regulations. As previously mentioned, similar exceptions already exists in Canada, Ireland and the United Kingdom, and through the many years of last mile deliveries being exempted from the marking requirements there has been no known observable increase in incidents or safety risks. A standardized form of e-CMR (or EDI transmission) of the type of dangerous goods being loaded onto each vehicle could be introduced, so that all parties involved could be knowledgeable of what has been loaded onto the vehicle at any time.

III. Proposal

9. Excluding the operations described above could be accomplished with an additional exception within that subsection such as provided below (new text is underlined):

"1.1.3.1 Exemption related to the nature of the transport operation

The provisions laid down in RID/ADR/ADN do not apply to:

...

(g) the carriage of dangerous goods by or on behalf of a consignor which consigns the goods directly to the final consumer (business to end consumer), where the consignment is packaged for retail sale (online, in a brick-and-mortar storefront, through direct sales, or direct mail) and intended for the personal or domestic use of the consignee (i.e. end consumer or recipient), if:

(i) The dangerous goods are not assigned to transport categories 0 or 1 in 1.1.3.6.3;

(ii) Measures have been taken and closures have been inspected before packing to prevent leakage of contents in normal conditions of carriage;

(iii) The maximum quantity of dangerous goods contained in each inner packaging does not exceed 5 kilograms or litres (or the quantity allowed in Column 7(a) of Table A in Chapter 3.2 for limited quantities);

(iv) The total quantity of gases of Class 2 carried in the wagon or container/transport unit, except for aerosols (UN 1950) and gas cartridges (UN 2037), does not exceed 50 kilograms or litres;

(v) The total quantity of all dangerous goods, including gases of Class 2 carried in the wagon or container/transport unit does not exceed the small load threshold of 333 kilograms or litres;

(vi) The dangerous goods are packed:

- in inner packagings derived from packages conforming with the provisions on excepted quantities in accordance with Chapter 3.5; or
- in inner packagings derived from packages conforming with the provisions on limited quantities in accordance with Chapter 3.4; or
- in accordance with the requirements of special provision 188 (in the case of carriage of lithium batteries);

(vii) The dangerous goods are secured in the wagon or container/vehicle in a manner that will prevent movement, such as a consolidation bin of some sort.

Shipments (returns) from the original consignee back to the distribution center are also included under these provisions."

IV. Additional questions

10. COSTHA received comments from its members asking whether the proposed exception should take segregation of dangerous goods into consideration and would like the Joint Meeting's opinion on the matter. For additional context, as per ADR/RID, mixed packing is not applicable to LQ or EQ. Segregation chapter 7.5.2.1 of ADR/RID is not applicable to LQ or EQ. Therefore, this seems not to be relevant for the proposal.

Annex I

Transport Canada

Transportation of Dangerous Goods Regulations (SOR/2001-286)

Section 1.15 - 150 kg Gross Mass Exemption

(1) Part 3 (Documentation), Part 4 (Dangerous Goods Safety Marks), Part 5 (Means of Containment), Part 6 (Training) and Part 8 (Reporting Requirements) do not apply to the handling, offering for transport or transporting of dangerous goods on a road vehicle, a railway vehicle or a vessel on a domestic voyage if

(a) in the case of

(i) dangerous goods included in Class 2, Gases, they are in one or more small means of containment in compliance with the requirements for transporting gases in Part 5 (Means of Containment), except that, in the case of dangerous goods that are UN1950, AEROSOLS, or UN2037, GAS CARTRIDGES, the requirement in section 8.1.7 of CGSB-43.123 that aerosol containers and gas cartridges be tightly packed in a strong outer packaging does not apply, or

(ii) dangerous goods not included in Class 2, they are in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no release of the dangerous goods that could endanger public safety;

(b) except for dangerous goods included in Class 2, Gases, the dangerous goods are contained in one or more means of containment each of which has a gross mass less than or equal to 30 kg;

(c) the gross mass of all dangerous goods

(i) transported on the road vehicle or the railway vehicle is less than or equal to 150 kg, and

(ii) transported on the vessel on a domestic voyage is less than or equal to 150 kg, excluding dangerous goods in a road vehicle or railway vehicle being transported on the vessel; and

(d) the dangerous goods are in a quantity or concentration available to the general public and are transported

(i) by a user or purchaser of the dangerous goods, or

(ii) by a retailer to or from a user or purchaser of the dangerous goods.

(2) Subsection (1) does not apply to dangerous goods that

(a) are in a quantity or concentration that requires an ERAP;

(b) require a control or emergency temperature;

(c) are included in Class 1, Explosives, except for UN numbers UN0012, UN0014, UN0044, UN0055, UN0105, UN0131, UN0161, UN0173, UN0186, UN0191, UN0197, UN0276, UN0312, UN0323, UN0335 if classified as a consumer firework, UN0336, UN0337, UN0351, UN0373, UN0378, UN0404, UN0405, UN0431, UN0432, UN0454, UN0499, UN0501, UN0503, UN0505 to UN0507, UN0509 and UN0510;

(d) are included in Class 2.1, Flammable Gases, and are in a cylinder with a capacity greater than 46 L;

(e) are included in Class 2.3, Toxic Gases;

(f) are included in Class 4, Flammable Solids; Substances Liable to Spontaneous Combustion; Substances that on Contact with Water Emit Flammable Gases (Water-reactive Substances); and in Packing Group I;

(g) are included in Class 5.2, Organic Peroxides, unless they are allowed to be transported as limited quantities in accordance with section 1.17 and column 6(a) of Schedule 1;

(h) are liquids included in Class 6.1, Toxic Substances, and Packing Group I;

(i) are included in Class 6.2, Infectious Substances; or

(j) are included in Class 7, Radioactive Materials, and are required to be licensed by the Canadian Nuclear Safety Commission.

Annex II

United Kingdom Department for Transport

Statutory Guidance – Carriage of dangerous goods: approved derogations, transitional provisions and exceptions (Updated 30/6/2023)

Introduction

This document is issued in accordance with regulation 11(3) of the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 as amended (CDG 2009); regulation 8(3) of the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (Northern Ireland) 2010 as amended (CDG 2010) and regulation 12(3) of the Carriage of Explosives Regulations (Northern Ireland) 2010 as amended (CE 2010).

It sets out the circumstances under which particular types of carriage or carriage in particular circumstances are exempt from requirements and prohibitions arising under CDG 2009, CDG 2010 and CE 2010. It also provides for alternative requirements and prohibitions to apply.

This document should be read in conjunction with [CDG 2009 for Great Britain](#) and with [CDG 2010](#) and [CE 2010](#) for Northern Ireland.

It is legally binding and enforceable in the same way as if its provisions were included in the text of CDG 2009, CDG 2010 or CE 2010. Where a reference is made in this document to a provision of RID or ADR, it is to that provision as applied by CDG 2009, CDG 2010 and CE 2010.

Road derogation 4: retail distribution by road

(RO-a-UK-4)

- 1) This derogation does not apply to the carriage of Class 1, 4.2, 6.2 or 7 goods.
- 2) Subject to paragraph 1, the requirement for packaging to be a combination package as specified in ADR 3.4.2 or 4.1 and for markings to be affixed for the final stages of the carriage operation in ADR 5.2 and 6.1.3 do not need to be complied with if:
 - a) the goods for carriage by road were originally packed in limited quantities in accordance with ADR 3.4 or combination packagings in accordance with ADR 4.1; and
 - b) the quantity carried on the transport unit does not exceed 30 kilograms or litres per type, colour, strength or inner package size of a substance or an article, and a total of 333 kilograms or litres per transport unit; and
 - c) the goods have been removed from their outer packaging for the final stages of the carriage operation between a distribution centre and a retailer or end-user, or a retailer and end-user, or between an end-user and retailer or distribution centre.

Source: <https://www.gov.uk/government/publications/the-carriage-of-dangerous-goods-approved-derogations-and-transitional-provisions/carriage-of-dangerous-goods-approved-derogations-and-transitional-provisions>