

Closed and curtain-sided vehicles, and dangerous goods

Desmond Waight, dangerous goods consultant for Croner, looks at the carriage of dangerous goods and the implications of a recent case of breach of ADR.

Introduction

Earlier this year, a British haulier was stopped and inspected on the Continent.

As a result of this inspection, the haulier was, much to his surprise, fined for breach of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). The authorities imposed a fine because, in their view, the curtain-sided vehicle being used did not meet the ADR definition of a closed vehicle.



The goods he was carrying were classified as UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., which were packed in UN-approved 5M1 bags. The continental authority noted that the carriage of such dangerous goods was subject to special provision for carriage (in packages) number "V13" (see column 16 of the ADR Chapter 3.2, Table A: Dangerous Goods List (DGL)) and that a "closed vehicle" was therefore required.

Note:

The same would apply if the bags were type 5H1 (woven plastic without inner liner or coating) or 5L1 (textile bags without inner liner or coating).

If they had been of type 5H3 (water resistant woven plastic bags), 5H4 (plastic film bags), 5L3 (water resistant textile bags) or 5M2 (water resistant paper multiwall bags) then there would have been no requirement to carry them in a closed vehicle.

Bags of types 5H2 (sift proof woven plastic bags) and 5L2 (sift proof textile bags) are not permitted under packing instruction P002 and special packaging provision PP12, which is applicable to the substance.

What happened next

Advice was then sought from the Chemical Hazards Communication Society Questions and Answers Forum as to whether others believed that a curtain-sided vehicle met the definition of a closed vehicle.

Discussion also took place on the LinkedIn Forum of the British Association of Dangerous Goods Professionals. Many of those who responded were of the opinion that a curtain-sided vehicle did qualify as a closed vehicle under their reading of the ADR definition for a closed vehicle (ADR Chapter 1.2): "Closed vehicle" means a vehicle having a body capable of being closed."

However, the matter was then referred to the UK Department for Transport (DfT) for consideration.

The DfT's interpretation

After reviewing ADR, speaking with the ADR secretariat, and corresponding with other ADR contracting states' Competent Authorities, the DfT issued an interpretation note in order to clarify the matter.

This note concluded that a "curtain-sided" vehicle was not to be considered a "closed vehicle" for the purposes of the carriage of dangerous goods under ADR.

In a follow-up correspondence with the author, the DfT then advised that, for ADR purposes, the UK enforcement view would be that curtain-sided vehicles would be considered "sheeted" vehicles.

Prior to this interpretation from the DfT, various respondents argued that the use of curtain-sided vehicles was not allowable at all for any packaged dangerous goods as, arguably, ADR at 7.2.1 requires for large loads (ie above the threshold listed in ADR chapter 1.1.3.6) of packaged dangerous goods the use of one of the following:

- an "open vehicle"
- a "sheeted vehicle"
- a "closed vehicle".

In ADR, an "open vehicle" is defined as having no superstructure and a "sheeted vehicle" is defined as being an open vehicle with a sheet.

Since curtain-sided vehicles have a superstructure, various respondents argued that their use for large loads of dangerous goods was not allowed. Small loads (ie below the threshold in 1.1.3.6) in curtain-sided vehicles would still be allowed, as 1.1.3.6 exempts from the need to comply with 7.2.1 (amongst other exemptions).

Note:

Copies of the DfT interpretation and advice are available on request to the author (desmond@dangoods.co.uk).

Consequences for operators

The consequence of the DfT interpretation, and follow-up enforcement view, is that operators will need to ensure that, whenever ADR prescribes the use of a closed vehicle, a curtain-sided vehicle is not used for that transport operation. A "closed" vehicle must be used, which has a rigid roof, rigid sidewalls and rigid end walls (as well as, of course, a floor!).

Affected products

In ADR, special provision for carriage "V13" is only specified for a handful of products, and then only in the specific types of bags mentioned above. The affected products are:

- UN1361 CARBON, animal or vegetable origin (both Packing Group levels)
- UN2213 PARAFORMALDEYDE
- UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (which the British haulier had been carrying when he was stopped and fined).

Hauliers should always use closed vehicles when transporting these three products, packaged in type 5H1 (woven plastic bags without inner liner or coating), 5L1 (textile bags without inner liner or coating) or 5M1 (multiwall paper bags), as outlined above.

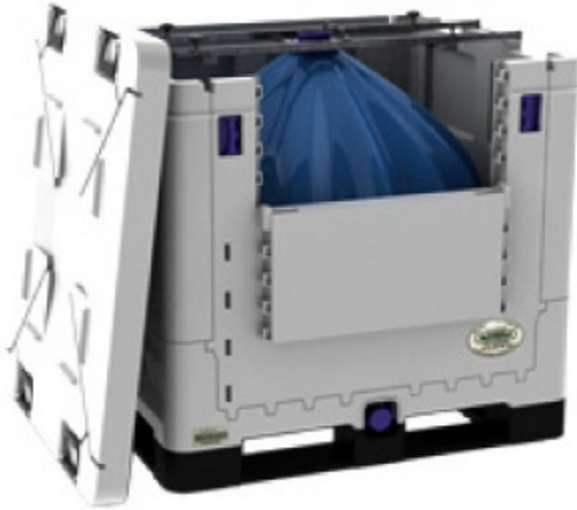
There are other occasions when use of only a closed vehicle (or container) is specified under ADR. These are identified by special provision for carriage (packages) "V12" in ADR column 16.

V12 affects a very wide range of products, from UN0082 BLASTING EXPLOSIVES, TYPE B, through UN1112 AMYL NITRATE, UN1133 ADHESIVES, UN1263 PAINT to UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.. However, it is important to note that the requirement for a closed vehicle only applies to products when they have been packaged in Intermediate Bulk Containers (IBCs) of type 31HZ2. (A 31HZ2 IBC is a composite IBC for liquids with a flexible (not rigid) plastic inner receptacle.)

Note:

The letter "Z" is a "wild card" and, in practice, would be replaced with the letter for the material type of the outer of the composite IBC; for instance "A" for steel, "B" for aluminium, or "H" for plastics.

These type 31HZ2 IBCs are sometimes described as "bag in box" IBCs, such as that shown below (a 31HH2 IBC).

**Does ADR need changing?**

Many may consider that the ADR provisions do not appear to be logical, especially the application of special provision for carriage (packages) "V13". One may question why ADR allows these three UN entries (UN1361, 2213 and 3077) to be packed in bags type 5H1, 5L1 or 5M1, only if carried in "closed" vehicles, but permits the other bag types (5H3, 5H4, 5L3 or 5M2) to be carried in any sort of permitted vehicle (open, sheeted or closed).

Also, what special feature does a closed-sided vehicle have that would make it inherently more suitable than a curtain-sided vehicle for the carriage of dangerous goods in 31HZ2, presuming that the load has been properly stowed and secured on the curtain-sided vehicle in compliance with ADR 7.5.7.1.? Here, the answer would seem to be "nothing".

However, the DfT has made it clear that it is not its intention to seek any changes to ADR at this time. It considers that if industry believes that the current provisions are unnecessarily onerous then it is up to industry, by the appropriate trade body having observer status at the ADR WP.15 Committee, to make proposals to amend ADR. Any such proposals of course would need to have a justification, showing that the alternatives are equally safe and that the change would address a specific problem for industry.

Conclusion

The use of a curtain-sided vehicle is effectively prohibited for a certain number of dangerous goods (as outlined above) when carried in certain of the particular package/IBC styles permitted for the dangerous goods. In such occasions, a "closed vehicle" (rigid walls and roof) must be used.

For the vast majority of dangerous goods package types that are carried, curtain-sided vehicles should be considered as sheeted vehicles, and are therefore considered suitable.

There had been fears that the interpretation would mean that curtain-sided vehicles were not acceptable as a means of carrying fully regulated dangerous goods in large loads. However, this has proved to be without foundation, as a result of the DfT's view that curtain-sided vehicles are considered to be sheeted vehicles.

Of course, proper securing of the load within the curtain-sided vehicle must be provided. (See s.16 of the DfT Code of Practice Safety of Loads on Vehicles, which deals with issues concerning curtain-sided vehicles.) These conclusions apply in the UK as they do throughout the whole of Europe.

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