

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

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Item 3 of the provisional agenda

Standards

Adoption of EN 14129 for LPG pressure drum relief valves

Transmitted by Liquid Gas Europe, European LPG Association

Summary

Executive summary: Pressure drums for UN 1965 Liquefied petroleum gases (LPG) are used in predominantly commercial applications such as agriculture and industry. Filling is subject to Packing instruction P 200 in 4.1.4.1 ADR, where it is left to the choice of the operator/owner whether a pressure relief valve (PRV) is fitted or not.

LPG distributing companies wish to equip pressure drums with pressure relief valves for operational reasons, but the list of standards for closures (6.2.4.1 ADR) does currently only refer to EN 13953:2015 for pressure relief valves, which is a standard that is suitable for PRVs for cylinders only.

There is a technically suitable standard available, which could be used for such pressure relief valves, but it is listed in Chapter 6.8.2.6.1 of ADR only and does not explicitly include pressure drums in its scope. The standard is currently dedicated to pressure relief valves predominantly for tanks (water capacity at least 500 l), but the design of these PRVs is similar (pressure drums can have up to 1000 litres water capacity).

It is therefore proposed to include EN 14129:2014 as suitable standard for pressure relief valves for pressure drums into table 6.2.4.1 in ADR with an explanatory application rule.

The formal explicit inclusion of pressure drums in the scope of standard EN 14129 will be addressed at CEN level during the revision of this standard. However, it will take some time to revise the standard, and the inclusion of the revised standard will at least take until the ADR 2023. Therefore, an intermediate solution is needed.

Action to be taken: Amend 6.2.4.1 ADR in such that the table is amended by EN 14129:2014 with an additional application rule in the form of a “NOTE” entry, which is a common and accepted approach for the out-of-scope application of standards. See e.g. the Note to EN 1251-2:2000 or EN 14427:2004+A1:2005.

Background

1. LPG distribution companies are interested in establishing pressure drums for the distribution of LPG to the agricultural business and other applications. Pressure drums are welded transportable pressure receptacles with a water capacity exceeding 150 l and not more than 1000 l. For their intended operation, these pressure drums need to be equipped with a pressure relief valve (PRV)/safety valve. Regarding transport, the PRV is an optional accessory.
2. The European dangerous goods law requires accessories for transportable pressure receptacles (including pressure drums) to be designed and approved to standards listed in the table of 6.2.4.1 ADR.

Problem

3. In the current version there is no suitable standard listed in 6.2.4.1 of ADR that would allow the design and approval of PRV for pressure drums. Therefore, PRVs for pressure drums cannot be approved to ADR and TPED under standard procedures. The only PRV standard listed in 6.2.4.1 is EN 13953:2015, which is by scope limited to gas cylinders (upper size 150 l water capacity). It is considered that the application of EN 13953 to PRV of larger size by extension of its scope could be one option.
4. However, EN 14129:2014, i.e. the ADR compliant PRV standard for fixed and demountable tanks, is considered more appropriate for pressure accessories of larger size. This standard is currently listed in 6.8.2.6.1 of ADR. Though being suitable from a technical point of view, it also does not include pressure drums in its scope.

Solution

5. Due to the time consuming revision cycle of the standard and the ADR, a two-step approach is proposed to account for the persistent need of a listed standard.
6. Firstly, the table in 6.2.4.1 ADR should be amended by EN 14129:2014 with an additional application rule in the form of a "NOTE" entry, which is a common and accepted approach for the out-of-scope application of standards. See e.g. the Note to EN 1251-2:2000 or EN 14427:2004+A1:2005. The amended line should read as follows:

Reference	Title of document	Applicable subsections and paragraphs	Applicable for new type approvals or for renewals	Latest date for withdrawals of existing type approvals
(1)	(2)	(3)	(4)	(5)
...				
<i>for closures</i>				
...				
EN 14129:2014	LPG Equipment and accessories - Pressure relief valves for LPG pressure vessels <i>NOTE: EN 14129:2014 is also applicable for pressure relief valves for pressure drums</i>	6.2.3.1, 6.2.3.3 and 6.2.3.4	Until further notice	

7. Secondly, the scope of the standard should be amended during the next revision. This will be in the responsibility of CEN/TC 286, where the revision has already been initiated.