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Economic Commission for Europe**Inland Transport Committee****Working Party on the Transport of Dangerous Goods****102nd session**

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Item 5 (b) of the provisional agenda

Proposals for amendments to annexes A and B of ADR:**Construction and approval of vehicles****Electrical equipment — Application of 9.2.2.9.1****Transmitted by the Government of France****Summary*

- Executive summary:** 9.2.2.9.1 of ADR on permanently energized circuits refers to some parts of IEC 60079 that the equipment must comply with. The question is whether equipment referred to in part 14 of IEC 60079, under parts 26 or 28, can be used on vehicles of type FL.
- Action to be taken:** Amend 9.2.2.9.1 and 9.7.8.2 of ADR.
- Reference documents:** ECE/TRANS/257

* In accordance with the programme of work of the Inland Transport Committee for 2016-2017 (ECE/TRANS/2016/28/Add.1 (9.2)).



Introduction

1. 9.2.2.9.1 of ADR on permanently energized circuits refers to some parts of IEC 60079 that the equipment must comply with.

2. IEC 60079, part 14, defines in 5.3 the relationship between equipment protection levels (EPLs) and zones:

<i>Zone</i>	<i>Equipment protection levels (EPLs)</i>
0	“Ga”
1	“Ga” or “Gb”
2	“Ga”, “Gb” or “Gc”

and in 5.4.1 the relationship between EPLs and types of protection, as shown in the following excerpt from Table 2:

<i>EPL</i>	<i>Type of protection</i>	<i>Code</i>	<i>According to</i>
“Ga”	Intrinsically safe	“ia”	IEC 60079-11
	Encapsulation	“ma”	IEC 60079-18
	Two independent types of protection, each meeting EPL “Gb”		IEC 60079-26
	Protection of equipment and transmission systems using optical radiation	“op is”	IEC 60079-28
“Gb”	Flameproof enclosures	“d”	IEC 60079-1
	Increased safe	“e”	IEC 60079-7
	Intrinsically safe	“ib”	IEC 60079-11
	Encapsulation	“m” “mb”	IEC 60079-18
	Oil immersion	“o”	IEC 60079-6
	Pressurized enclosures	“p”, “px”, “py”, “pxb” or “pyb”	IEC 60079-2
	Powder filling	“q”	IEC 60079-5
“Gc”	Intrinsically safe	“ic”	IEC 60079-11
	Encapsulation	“mc”	IEC 60079-18
	Non-sparking	“n” or “nA”	IEC 60079-15
	Restricted breathing	“nR”	IEC 60079-15
	Energy limitation	“nL”	IEC 60079-15
	Sparking equipment	“nC”	IEC 60079-15
	Pressurized enclosures	“pz” or “pzc”	IEC 60079-2

<i>EPL</i>	<i>Type of protection</i>	<i>Code</i>	<i>According to</i>
	Protection of equipment and transmission systems using optical radiation	“op is” “op sh” “op pr”	IEC 60079-28

3. The above table includes a reference to parts of IEC 60079 that are not currently mentioned in 9.2.2.9.1. They are parts 26 and 28.
4. The question is whether it would be sensible to add those parts to 9.2.2.9.1 and 9.7.8.2 to cover equipment such as overflow prevention probes.
5. If the Working Party is of the opinion that parts 26 and 28 of IEC 60079 are relevant, the following changes may be made.

Proposal

6. In 9.2.2.9.1 (a), replace “parts 1, 2, 5, 6, 7, 11, 15 or 18” by “parts 1, 2, 5, 6, 7, 11, 15, 18, 26 or 28”.
7. In 9.7.8.2, replace “parts 1, 2, 5, 6, 7, 11 or 18” by “parts 1, 2, 5, 6, 7, 11, 18, 26 or 28”.
