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PROPOSALS FOR AMENDMENTS TO ANNEXES A AND B OF ADR

Permanently energized electrical equipment

Transmitted by the Government of France

SUMMARY

Executive summary: The purpose of this proposal is to adapt the classification of permanently energized electrical equipment.

Action to be taken: Amendment of 9.2.2.5.1 (b)

Introduction

ADR prescribes in 9.2.2.5.1 (b) that permanently energized electrical equipment shall meet the requirements for explosion group IIC, temperature class T6. This requirement is applicable to FL vehicles.

In practice, this requirement mainly concerned chronotachographs, but it now applies to many other pieces of equipment that must remain energized in hazardous areas.

In the transport of petroleum products, for example, the “anti-mix” systems must remain energized during loading and unloading, like the “electronic sealing” equipment which monitors the cargo during loading and transport and at the delivery point. Equipment of this nature will become progressively generalized throughout Europe.

Insofar as the explosion group depends on the nature of the gases or vapours that create the explosive atmosphere, adapting it to the nature of the substances for which a tank vehicle is intended would make it possible to reduce the cost of on-board equipment and to use intrinsically safe equipment (EX i) more readily without affecting the safety of operations.

This proposal therefore consists in maintaining the existing provisions of ADR for vehicles whose use is not defined a priori, such as drawing vehicles, and prescribing the application of adapted explosion groups, as defined in part 14 of standard IEC 60079, to vehicles the use of which is restricted to a given class of substances, for example, IIB T4 for substances of UN Nos. 1202 or 1203.

Note: For reference, the name of an explosion group comprises:

- An initial figure designating the subgroup of equipment (I or II): I for equipment for mines, II for surface equipment;
- A letter designating the subdivision of gases/vapours (A, B or C): C includes hydrogen, acetylene and B certain hydrocarbons;
- A reference to a temperature class (T1 to T6): T4 corresponds to a maximum surface temperature of the energized equipment of 135° C, T6 to 85° C.

We propose that the text of 9.2.2.5 should be amended as follows.

Proposal

In 9.2.2.5 *Permanently energized circuits*

Add the following text to the end of 9.2.2.5.1 (b):

“When the vehicle is used for the carriage of specific dangerous substances, the permanently energized electrical equipment shall meet the requirements applicable to those substances.”

Safety: No problem.

Feasibility: No problem.

Enforceability: This proposal facilitates the application of the ADR requirements.
