

**Working Party on the Transport**

**of Dangerous Goods**

**(Sixty-seventh session,**

**8-12 November 1999)**

**Report on the meeting of the informal Group of Electrical Equipment in Hazardous Atmospheres, held in Bonn on 13 and 14 July 1999**

Transmitted by the Government of Germany

Mandated by WP.15 at its sixty-sixth session, the Ministry of Transport of the Federal Republic of Germany hosted an informal Working Group in order to solve the last remaining questions concerning the requirements in ADR with regard to electrical equipment intended for use in hazardous atmospheres.

Representatives from Germany, the Netherlands, Sweden and the United Kingdom attended the meeting. Mr. Fokker (the Netherlands) was elected Chairman.

The main discussion paper was a document, submitted by OICA and CLEPA in the reformatted structure in accordance with TRANS/WP.15/1999/14 containing the results of the previous Working Group, held in Södertälje /Sweden) (TRANS/WP.15/1998/13) and additional proposals. For verification of conformity and completeness these WP.15-papers as well as the present ADR and TRANS/WP.15/155 were consulted.

Papers from the Governments of the Netherlands, Norway and the UK with proposals for amendments to the OICA/CLEPA-proposal and additional questions were also taken into consideration.

Mr. Fokker introduced a paper in which he had tried to combine the main documents mentioned above. With the consent of the Working Group this paper was chosen as the working document for the session. The results of the discussions are to be found in the Annex to this report. The most important decisions taken are summarized below.

Battery master switch: „A control device...“ instead of „The control device...“. An additional sentence is introduced specifying the requirements for (optional) additional control devices.

Vehicle typing: the conclusion from the OICA/CLEPA-paper was endorsed, that a distinction

must be made between FL vehicles and EX/III vehicles as to the requirements for equipment in hazardous Zones. However, the explicit reference to vehicle types in Chapter 13.2 is

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already to be found in the table to paragraph 13.2.1, so an additional specification in the various paragraphs was considered superfluous.

EX/III vehicles: the Working Group took the view that for EX/III vehicles the hazard of explosive atmospheres is non-existent. A specification of Zones or of classification of electrical equipment is therefore left out. The current requirements in ADR (marginal 11 251(1) and (2)) are deemed to be satisfactory. As these requirements were not found in the restructured texts of Chapter 13, they were added under paragraph 13.3.5.

Taking into account that the battery master switch is still mandatory for EX/III vehicles, it is however felt necessary to specify basic requirements for permanently energized electrical equipment. Awaiting discussion about the question of retaining the battery master switch for EX/III vehicles or not, the applicable text (paragraph 13.2.2.5.2) is therefore put in square brackets.

Electrical installation on the completed vehicle for use in a hazardous atmosphere: with some slight changes the text as proposed by OICA/CLEPA was adopted.

Other electrical equipment on completed vehicles: the equivalent of marginal 10 251 could not be found in the restructured texts. It was however felt essential to retain the content of the marginal for electrical equipment installed after delivery of the base vehicle (i.e. lighting, signalling, communication, etc., capable of being switched off the battery master switch). Equipment installed at this stage is not considered to be covered by Chapter 13.2 (base vehicles) nor by the requirements for equipment for use in a hazardous atmosphere. It was therefore taken over as 13.3.5.1 for EX/III vehicles and as 13.7.7.1 for FL vehicles.

Explosion group and temperature class: with regard to the determination of the appropriate explosion group and temperature class the following is decided after consulting a manufacturer of vehicle equipment: for base vehicles the most stringent classification is found acceptable (explosion group IIC, temperature class T6); for equipment installed at a later stage, the classification for the relevant gas group shall apply.

Reference to EN-standards: the reference to the applicable EN-standards is removed from

the texts and placed in a footnote.

Chapter headings: discussing the requirements for electrical equipment in the chapters 13.3 and 13.7 it was observed by the Working Group that the headings of these chapters in TRANS/WP.15/1999/14 do not properly reflect the contents. It is therefore proposed to delete „Additional“ and, for chapter 13.3, refer to „vehicles“ instead of „the construction of vehicle bodies“. It is suggested to consider a similar amendment for chapters 13.4 to 13.6.

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Table: in order to be consistent with the proposals of the working group the table to 13.2.1 has to be amended. A proposal to that effect is also taken up in this report. The markings between square brackets are related to the question of the battery master switch on EX/III vehicles.