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Economic Commission for Europe

English

Inland Transport Committee

26 January 2015

Working Party on the Transport of Dangerous Goods

Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)

Twenty-sixth session

Geneva, 27-30 January 2015 Agenda item 5 (b)

Proposals for amendments to the Regulations annexed to ADN:

Other proposals

Delay after loading

Submitted by the CEFIC (European Chemical Industry Council)

I. Introduction

The various regulations and publications on the handling of dangerous goods contain different information on waiting times prior to opening equipment on the cargo tanks.

1. ADN

7.2.4.22.3 Sampling shall be permitted only if a device prescribed in column (13) of Table C of Chapter 3.2 or a device ensuring a higher level of safety is used.

Opening of sampling outlets and ullage openings **of cargo tanks** loaded with substances for which marking **with one or two blue cones** or one or two blue lights is prescribed in column (19) of Table C of Chapter 3.2 **shall be permitted only** when loading has been interrupted for not less than **10 minutes**.

2. ISGINTT

3.2.1 (Settling of a solid or an immiscible liquid through a liquid (e.g. water, rust or other particles in the product). This process may continue for up to 30 minutes after completion of loading into a tank.

11.8.2.3 It is prudent to assume that the surface of a non-conducting liquid (static accumulator) may be charged and at a high potential immediately after loading. Metal dipping, ullage and sampling equipment should be bonded and earthed to avoid sparks. There remains, however, the possibility of a brush discharge between the equipment and the charged liquid surface of the liquid as the two approach each other. Since such discharges can be incendive, no dipping, ullage or sampling with metallic equipment should take place while a static accumulator is being loaded, due to the possibility of the presence of a flammable gas mixture.

There should be a delay of 30 minutes (settling time) after the completion of the loading of each tank before commencing these operations. This is to allow the settling of gas bubbles, water or particulate matter in the liquid and the dissipation of any electric potential.

II. Explanation

The ADN provides for a delay of 10 minutes before the sampling opening is opened for all materials required to exhibit one or two cones, irrespective of how dangerous the products are. As however a static charge is not always to be anticipated, for example in the case of materials in class 6.1, the reason for this might be aerosol formation and thus a health hazard to employees on board caused by inhalation of these aerosols.

The ISGINNT is based on two premises. On the one hand the settling of the liquid; this might also result in the aerosols being reabsorbed by the liquid. The second premise is the electrostatic charge. The waiting time in this case however is 30 minutes. The electrostatic charge depends on the size of the tank and also on the flow rate. This value is also employed in maritime navigation.

III. Questions

We would like to request the safety committee to clarify the following questions.

- 1. For what purpose was the delay introduced in the ADN? To avoid electrostatic charge or to protect the health of on-board personnel?
- 2. The basis for the ruling to require this for all goods required to display one or two blue cones?
- 3. Are the 10 minutes required in the ADN sufficient? Or should the period be extended to 30 minutes, as with the ISGINTT?