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# **Economic and Social Council**

Inland Transport Committee

9 August 2023

**Working Party on the Transport of Dangerous Goods**

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

**Forty-second session**

Geneva, 21-25 August 2023

Item 3 (c) of the provisional agenda

**Implementation of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN): interpretation of the Regulations annexed to ADN**

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## **Proposal regarding transitional provisions of gas detectors**

**Transmitted by European Barge Union (EBU) and European Skippers Organisation (ESO)**

### **Introduction**

1. At its fortieth session in August 2022, the Safety Committee discussed informal document INF.5, “Proposal regarding transitional provisions of gas detectors which was transmitted by European Barge Union (EBU) and European Skippers Organisation (ESO)”. With this document we would like to continue the discussion and make a proposal to amend a current transitional provision.
2. In the barging industry flammable gas detectors are already used for many years. These detectors have been tested and approved according to the version of the standard which was valid at the actual introduction to the market.
3. Due to the added requirement in ADN 2019, specifying a specific version of a standard (60079-29-1:2016), which the gas detector must comply with, means that a lot of these detectors will become unacceptable/not allowed.
4. In practice the industry is now confronted with class surveyors which require a gas detector which complies with the EN 60079-29-1:2016 standard to be on board before a Certificate of Approval can be issued. Which means:
  - that good working approved equipment must be disposed of and replaced by newly acquired equipment;
  - a previous investment is nullified (destruction of money);
  - unnecessary (E-)waste is generated.
5. For example the Dräger X-am 7000, is produced till 2019. But is tested against standard EN 60079-29-1:2007. (Which is one version previous to the standard required by ADN 2019).
6. EBU/ESO has carried out a sample in the industry, 214 gas detectors were examined, which are currently operational. Approximately 60 per cent of the gas detectors (n=125) did not comply with the EN 60079-29-1:2016 standard.
7. Extrapolating the mentioned sample and percentage leads to a conservative estimation of more than 600 gas detectors in the industry that do not comply with the EN 60079-29-1:2016 standard.

8. In addition, EBU/ESO has conducted research into the way in which these standard changes are implemented on the shore side. Such equipment remains compliant with the standard applicable at the time of purchase. In addition, devices that no longer comply with the new standard will no longer be sold as soon as the new standard comes into effect. This document applies to the gas detectors that are currently in operation on board inland vessels.

9. Finally, it goes without saying that all gas detectors are subject to periodic inspections by accredited specialized organizations. In the event of rejection, the device will be taken out of service. In these cases gas detectors will be purchased that comply with the actual/applicable standards.

## I. Current ADN text

10. The current ADN 2023 describes the following with respect to the gas detector meter:

### "1.2.1 Definitions

*Gas detector* means a portable device allowing measurement of any significant concentration of flammable gases below the LEL and which clearly indicates the concentration of such gases. Gas detectors may be designed for measuring flammable gases only, but also for measuring both flammable gases and oxygen. This device shall be so designed that measurements are possible without the necessity of entering the spaces to be checked.

The maximum detection level of the sensors is 5% of the LEL of the most critical substance in the vessel substance list for tank vessels or the cargo for dry cargo vessels. The flammable gas detector shall be certified according to IEC/EN<sup>7</sup> 60079-29-1:2016. If it is used in explosion hazardous areas, it shall also comply with the requirements for use in the zone concerned and evidence of such compliance (e.g., conformity assessment procedure according to Directive 2014/34/EU,<sup>3</sup> the IECEx System,<sup>4</sup> ECE/TRADE/391<sup>5</sup> or at least equivalent) shall be supplied;"

11. Subsequently the following transitional provision is described, concerning the gas detector:

### "1.6.7.2.2.2 Table of general transitional provisions: Tank vessels

1.2.1	Gas detector Test according to IEC 60079-29-1:2016	N.R.M. from 1 January 2019 Renewal of the certificate of approval after 31 December 2020
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## II. Request to the Safety Committee

12. This document focuses on the specific case of flammable gas detectors. In principle, however, the problem also applies to other devices whenever they have to comply with a specific standard cited in the ADN.

13. The committee is requested to consider to state that equipment which is approved and accepted according a certain standard when introduced to the market will remain acceptable for the rest of its technical life cycle. Even when new standards are made available, which does not lay down additional (test) requirements.

14. Another possible solution could be to consider an extension of the current transitional provision, in line with other provisions which have been adapted during the 2019 revision of the ADN, concerning explosion safety. Many transitional provisions expire at "Renewal of Certificate of Approval after 31 December 2034".

### III. Proposal

15. The committee is requested to discuss a general approach towards equipment that is subject to standard/norm revisions. A possible approach is mentioned in section II of this document.

16. Subsequently, the committee is requested to discuss an amendment of the requirement for the specific standard of the flammable gas detector.

17. To prevent unnecessary investments and generation of waste EBU/ESO proposes the following, amending the transitional provision of 1.6.7.2.2.2 concerning the definition of the Gas detector as follows:

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#### 1.6.7.2.2.2 Table of general transitional provisions: Tank vessels

1.2.1	Gas detector Test according to IEC 60079-29-1:2016	N.R.M. from 1 January 2019 Renewal of the certificate of approval after 31 December <del>2020</del> <b>2034</b>
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### IV. Sustainable development goals (SDGs)

18. If the mentioned transitional provision is amendment the following Sustainable Development Goal (SDG) is fulfilled:

#### Goal 12 – Responsible consumption and production

- Good working approved equipment must be disposed of and replaced by newly acquired equipment
- A previous investment is nullified (destruction of money)
- Unnecessary (E-)waste is generated