
Economic Commission for Europe**Inland Transport Committee**

26 July 2022

Working Party on the Transport of Dangerous Goods

English

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)**Fortieth session**

Geneva, 22-26 August 2022

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

Proposal regarding transitional provisions of gas detectors**Transmitted by European Barge Union (EBU) and European Skippers Organisation (ESO)****Introduction**

1. In the ADN 2019 version an amendment regarding the flammable gas detector was introduced. This amendment covered a requirement regarding the standard against which the flammable gas detector should be approved.
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. Because this type of equipment has a long technical lifespan it is possible that during their technical life new versions of the standard are introduced. The fact that there is a new version of the standard does not mean that all equipment in the field must also be reapproved according to it. On the contrary, the equipment retains the approval that was valid at the time it was placed on the market.
4. Due to the added requirement in ADN 2019 specifying a specific version of a standard against which the gas detector should be tested means that a lot of these detectors will become unacceptable/ not allowed.
5. In practice the industry is now confronted with class surveyors which require a gas detector which complies to 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;

6. 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).

7. The requests of the surveyors is in line with the transitional provisions (1.6.7.2.2.2), however upon further investigation it appears that there are no changes (besides a small amendment) in requirements for testing and certifying of gas detectors between the 60079-29-1:2007 and the 60079-29-1:2016 version of the standard. As can be seen in the attached document:

- The main reason for the 2016 version was a harmonisation of the standard. All references to IEC 60079-xx-x were amended in EN 60079-xx-x, as can be found in the document "EN 60079-29-1 Unterschiede zum IEC-e.pdf".;
- The amendment in respect to EN 50270-EN 50271 is a requirement to which all gas detectors within the European Union has already to comply to.

I. Current ADN text after amendments in 2019 edition

8. ADN 2017 with respect to the explosion meter:

"

1.2.1 Definitions

Flammable gas detector means a device allowing measuring of any significant concentration of flammable gases given off by the cargo below the lower explosive limit and which clearly indicates the presence of higher concentrations of such gases. Flammable 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; "

9. From ADN 2019 with respect to the explosion 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' 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,3 the IECEx System,' ECE/TRADE/391° or at least equivalent) shall be supplied;"

10. In 2019 the following transitional provision was introduced, 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

11. This specific informal document is regarding the flammable gas detector, however it could be applicable to other equipment in combination with other standards.

12. 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 it's technical life cycle. Even when new standards are made available, which does not lay down additional (test) requirements.

13. 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

14. The committee is requested to discuss an amendment of the requirement for the specific standard of the flammable gas detector.

15. 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:

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 <u>When replaced at ending of technical life span.</u>
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or:

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 2034
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Referring document:

EN 60079-29-1 Unterschiede zum IEC-e.pdf, provided by Cenelec, the European Committee for Electrotechnical Standardization, as attached.
