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**Economic Commission for Europe****Inland Transport Committee**

7 August 2019

English

**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) (ADN Safety Committee)****Thirty-fifth session**

Geneva, 26-30 August 2019

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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**Sampling devices and ventilation****Transmitted by the Government of Austria****I. Sampling devices**

1. According to the definitions in 1.2.1 for “Closed-type sampling device”, “Connection for a sampling device” and “Partly closed-type sampling device” these three elements shall be of a type approved by the competent authority for this purpose. Most other elements that need an approval have to be approved by the recognized classification societies.
2. Vessel owners need to know which devices they can buy, but there is no list of devices that have been approved by competent authorities.
3. If a vessel is sold to another country, the certificate of approval has to be issued by a different competent authority and there is a risk that the new authority does not approve a device that has been approved by the first authority.
4. There are two possible solutions:
  - a) The contracting parties could agree that every competent authority sends a list of approved devices to the secretariat, the secretariat publishes a list of all approved devices on the website, and competent authorities accept devices that have already been approved by other authorities;
  - b) The approval of sampling devices and connections for sampling devices could be transferred to the recognized classification societies.
5. The Safety Committee is invited to discuss the options. Option b) would require an amendment of ADN. The Austrian delegation could prepare a formal proposal for the January session based on the results of the discussion.

**II. Interpretation of 9.3.3.12.2**

6. The text of 9.3.3.12.2 is:

“Double-hull spaces and double bottoms within the cargo area which are not arranged for being filled with ballast water, hold spaces and cofferdams shall be provided with ventilation systems.”
7. The transitional provision for 9.3.3.12.2 in 1.6.7.2.2.2 expires with the renewal of the certificate of approval after 31.12.2018. Tank vessels and tank barges in the Danube area are

mostly not equipped for ballasting. 9.3.3.12.2 will therefore be applied to the biggest part of the existing Danube fleet.

8. The term “ventilation system” is not defined in ADN, but to prevent problems during river state controls in other countries it is necessary to agree on a uniform interpretation of the requirement “shall be provided with ventilation systems”.

- Is it necessary to install fans?

9. A comparison with the texts of 9.3.3.12.3 and 9.3.3.12.4 shows that fans are not required by 9.3.3.12.2.

- Can hatch covers be used as an appropriate “ventilation system”?

10. Ventilation is necessary to remove dangerous gases and vapours. If the hatch covers of a double hull space or a double bottom have been closed for a long time there is a risk of an explosive atmosphere in these rooms. The opening of the hatch covers would create an explosion risk, because the rooms would no longer be protected. Hatch covers are no appropriate ventilation system on tank vessels of type N closed or N open with flame arresters from the point of view of the Austrian delegation. Hatch covers could however be used on tank vessels of type N open to allow ventilation with mobile fans.

- Is a goose neck an appropriate “ventilation system”?

11. A goose neck will ensure that there is no over or under pressure in the room, but it cannot ensure circulation of air and cannot prevent explosive atmospheres in the rooms. Goose necks are therefore no appropriate ventilation systems from the point of view of the Austrian delegation.

- Are two appropriately positioned ventilation openings (e.g. ventilation hoods) per room appropriate “ventilations systems”?

12. According to a study of CCNR (Hauptstudie zur Beurteilung der Übergangsvorschriften in der ADNR – Schlussbericht vom Dezember 2007, S.31) two ventilation openings including ventilation hoods are appropriate ventilation systems. Is this conclusion still valid after the implementation of the explosion protection concept?

- Is it necessary to install flame arresters in the ventilation openings of tank vessels of type N open with flame arresters and type N closed?

13. Flame arresters are explicitly required for cofferdams in 9.3.3.20.4. There is no such requirement for double hull spaces, double bottoms and hold spaces. Formally it could therefore be argued that flame arresters are only required for cofferdams. But a technical reason is not obvious: explosive atmospheres will only be created if a cargo tank wall is damaged. The risk that the wall to the cargo tank is damaged is bigger in case of double hull spaces and double hull bottoms than in case of cofferdams. On the other hand flame arresters would slow down the circulation of air in the protected rooms.

14. The Safety Committee should agree on an interpretation, which minimum requirements are applicable to ventilation systems of double-hull spaces and double bottoms within the cargo area, hold spaces and cofferdams. The interpretation is urgently needed because the transitional provision has already expired and all existing vessels have to be equipped with ventilation systems before the renewal of their certificate of approval.

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