



Economic Commission for Europe**Inland Transport Committee****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)****Forty-third session**

Geneva, 22-26 January 2024

Item 5 (b) of the provisional agenda

**Proposals for amendments to the Regulations annexed to ADN:
other proposals****7.2.4.22 Opening of openings and the dosing of extra additives****Transmitted by FuelsEurope**,*****Summary*

Related documents: Informal document INF.19 of the forty-first session
ECE/TRANS/WP.15/AC.2/84; para. 37 (Report of the forty-first session)
ECE/TRANS/WP.15/AC.2/2023/47
Informal document INF. 32 of the forty-second session
ECE/TRANS/WP.15/AC.2/86; para. 24 (Report of the forty-second session)

Executive summary: This document contains a set of proposals which aim to address the need of the industry to allow the additional dosing of extra additives on board of inland waterway tankers under specific terms and conditions. This may be required in the case the concentration of the additive in the product on board is found too low. In the proposals to completely review 7.2.4.22, this option is only available for stabilizers whereas requirements stemming from other regulations force the industry to sufficiently dose the cargoes with other prescribed additives. Having this option would mean an adequate limitation of risks arising from additional unloading/loading operation as well as additional transport as the cargo would need to travel back to the loading facility to allow for a correction of the amount of additive on shore.

* Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/WP.15/AC.2/2024/20

** A/78/6 (Sect. 20), table 20.5



<p>Action to be taken: To include the option to add additional additive on board of the vessel under strictly described circumstances in alignment with current proposals and to be able to continue the safe use of mobile dosing installations on board of vessels.</p>
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Introduction

1. During the August 2023 session of the ADN Safety Committee, the representative of Germany offered to consider additionally received comments on the topic of opening of openings, for discussion during the January 2024 session. The specific articles for consideration have been reflected in report ECE/TRANS/WP.15/AC.2/86.
2. FuelEurope welcomes the proposals contained in document ECE/TRANS/WP.15/AC.2/2023/47. However, it was recognized by the industry that these did not take fully into account the current needs of the fillers in the operational process of transporting liquid dangerous goods.
3. This need concerns the additional dosing of extra additives on board of inland waterway tankers and FuelsEurope hereby present proposals in the format of document ECE/TRANS/WP.15/AC.2/2023/47, to facilitate a smooth discussion and comparison of provisions.
4. Identical to the additional dosing of extra stabilizers as described in the German proposals, additional dosing of other additives on board can also be done in a safe manner.
5. The proposals fully align with the below Principles of the ADN, as agreed between the contracting parties:

**“EUROPEAN AGREEMENT CONCERNING THE
INTERNATIONAL CARRIAGE OF DANGEROUS GOODS
BY INLAND WATERWAYS (ADN)**

THE CONTRACTING PARTIES,

**DESIRING to establish by joint agreement uniform principles and rules,
for the purposes of:**

- (a) increasing the safety of international carriage of dangerous goods by inland waterways;
- (b) contributing effectively to the protection of the environment, by preventing any pollution resulting from accidents or incidents during such carriage; and
- (c) facilitating transport operations and promoting international trade.”

I. Our proposals to allow additional dosing of extra additives

6. FuelEurope proposes an amendment for 7.2.4.22.1. As this amendment impacts other provisions, we also must take those into consideration. And so, we propose to amend 7.2.4.22 as follows (~~deleted text~~ in strikethrough, **new text** in bold and underlined).
7. 7.2.4.22, Opening of openings of cargo tanks (general):
 - Amend 7.2.4.22.1 by adding a new indent as follows:

For the subsequent addition of other additives, in exceptional cases, after loading but before the journey commences, or after the journey ends but before the discharge.

- 7.2.4.22.6 If the venting piping is equipped with a flame arrester at its connection to the cargo tank in accordance with 9.3.2.22.4 (b)/9.3.3.22.4 (d), this housing may be opened for the purpose of sampling, a visual inspection of the cargo tanks, determining the filling quantity in the cargo tank or the subsequent addition of stabilizer **or other additives**.
 - 7.2.4.22.11 In the case of a visual inspection, determination of the filling quantity, gas measurement or addition of stabilizer **or other additives**, 7.2.4.16.8 shall apply accordingly.
8. 7.2.4.23:
- 7.2.4.23.1.1 Discharged cargo tanks shall only be opened for visual inspection to verify that the cargo tanks are empty and/or clean when the vessel is not connected to the shore facility **or if the shut-off devices of the vessel and the shore facility are closed**.
 - **7.2.4.23.2** Sampling, determination of the filling quantity, addition of stabilizer **or other additives** and gas measurement.
 - 7.2.4.23.2.4 The opening of cargo tanks for open sampling should only be carried out when the vessel is not connected to the shore facility **or if the shut-off devices of the vessel and the shore facility are closed**. First foot samples during loading may also be taken when the vessel is connected to the shore facility provided that the shut-off devices on the vessel and at the shore facility are closed.
 - Insert a new chapter 7.2.4.23.2.6 and a new 7.2.4.23.2.6.2, and rename 7.2.4.23.2.6 into 7.2.4.23.2.6.1:

7.2.4.23.2.6 Addition of stabilizer or other additives in exceptional cases

7.2.4.23.2.6.1 If an unforeseen extension of the navigation time requires the addition of extra stabilizer to one or more cargo tanks during transport, this is only permitted through the sampling opening. Electrostatic charges shall be prevented.

7.2.4.23.2.6.2 If measurement data shows a lower than legally prescribed dosing rate in the cargo and if this requires the addition of extra additive to one or more cargo tanks during transport, this is only permitted through the sampling opening. Electrostatic charges shall be prevented.

9. As a result of proposed amendment of 7.2.4.22.11, we also propose an amendment to 7.2.4.16.8, second paragraph:

7.2.4.16.8 ...

Persons connecting or disconnecting the loading and unloading piping or the venting piping, relieving pressure in cargo tanks, taking samples, **adding additives (see 7.2.4.22)** or carrying out measurements or cleaning or replacing the flame arrester plate stack (see 7.2.4.22) ...

10. Bearing in mind that the additional additivation on board requires packages to be brought into the cargo zone for a short time, we also propose to insert a new 7.2.4.1.5, detailing the conditions to be met:

7.2.4.1.5 On board of vessels and for the sole purpose of additivation (see 7.2.4.22) it is allowed to bring packages with additives in the cargo zone for the duration of the additivation operation only. This operation shall take place after the loading has stopped and before the ship commences its journey, or after the ship ends its journey and before the unloading starts. The particulars of 7.2.4.22 shall be taken into consideration. The total quantity of the packages shall not exceed ... and the total weight of the full packages shall not exceed ...kg. The weight of a single package shall be limited to .. kg.

II. Justification

11. Additives are usually very expensive and must be dosed in quantities in accordance with various other regulations including tax, defense standards, etc. Often, a minimum and maximum dosing rate is applicable, and the applicable dosing rate is depending on the product.

12. At occasions, the amount of additive added to the cargo can be found too low. The proposals aim to address this shortfall, always in a safe manner.

13. Examples of dosing requirement stemming from transport safety or other rules and regulations are:

- Tax:
 - Markers as required by tax laws, exempting the products containing these markers from excise and duties.
- Safe use of products:
 - Additives to improve product conductivity as a requirement by law (turbine fuel for jet engines is a static accumulator which can cause danger in a receiving tank);
 - Fuel performance additives as required by the military, stabilizers (turbine fuel for fighter jets).
- Safe transport of products:
 - Additives to prevent hydrogen sulfide (H₂S) in the liquid phase of products to reach the vapor phase, which can cause health risks to workers.

14. Mobile systems which allow for a safe operation on board of inland waterway tankers are available and in use in the market today. Experienced staff of service providers such as surveyors or additives suppliers work with these in a safe manner.

15. No blending on board: Additivation is not to be confused with blending on board or loading on top, because of the relatively small volumes of additives involved compared to the cargo size. Analog to this, loading a product with UN number X in cargo tank which is empty uncleaned from a cargo with UN number Y is allowed providing these do not react dangerously with each other. Additives are always compatible with the cargo and do not change the classification of the product they are added to.

16. If no inline blending/dosing system is available, additives should be allowed to be added to the cargo in a safe manner, i.e., via a mobile dosing system connected to the ships manifold. The opening of such dosing systems is considered a safer option than the opening of cargo tank openings. The same applies for the adding of stabilizer.

III. Conclusion

17. The proposals would allow for a safe operation to be able to correct the dosing rate of the cargo onboard the ship. FuelsEurope provides clarification on the aspects of blending on board (para. 15), packages in the cargo zone (para. 10) and the safe use of mobile systems (paras. 14 and 16).

18. The described solutions will eliminate the necessity for a full additional shipping operation (sailing back to the installation, discharge full cargo, new dosing, loading full cargo, and sailing for a second time to the unloading installation). We argue that less handling is always safer.

IV. Interlinkage to Sustainable Development Goals

19. New insights in handling of (hazardous) materials and considering its consequences on the ongoing safe handling, storage and transport of those hazardous materials can be

linked to Sustainable Development Goal 3: Good health and well-being – Reducing health risks of hazardous materials.

20. As this links to sustainable transport, also Sustainable Development Goal 11 can be considered.

V. Action to be taken

21. FuelsEurope therefore invites the ADN Safety Committee to consider the proposals tabled under paragraphs 7, 8, 9 and 10, considering the justification and to act as it deems appropriate, for entry into force on 1 January 2025.

22. The Safety Committee is also invited to form an opinion and decide on the statements made in paragraphs 14, 15 and 16.
