
Economic and Social Council

Inland Transport Committee

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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-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**

Update on incident statistics related to not empty loading arms/hoses and proposed amendment to 1.4.3.3 and 1.4.3.7.1 of ADN - Safety obligations of the main participants

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

Introduction

1. EBU/ESO would like to raise awareness and re-open discussions for a problem that was already addressed at the thirty-first session of the ADN Safety Committee in August 2017 (see informal document INF.23 of the thirty-first session), January 2023 (see informal document INF.20 of the forty-first session) and August 2023 (see informal document INF.20 of the forty-second session).
2. The crewmembers are still confronted with the fact that loading arms/hoses are not (fully/ efficiently) emptied and/or released from pressure before and/or after loading/discharging, which always leads to loss of containment; in several cases to environmental spills and/or exposure to the crewmembers. This is of great concern for the barging industry and aim to improve safety regarding this part the transport.
3. During both the forty-first and forty-second session of the ADN Safety Committee EBU/ESO presented incident statistics, derived from the Platform Zero Incidents database, concerning the issue as described under 2. A description of the Platform Zero Incidents and an explanation of the number of registered incidents and near misses can be found in INF.20 of the forty-second session of the Safety Committee.
4. EBU/ESO would like to provide the ADN Safety Committee with an update on the incident statistics, see update incident statistics 2023 (paragraph 6). In total more than 150 incidents are reported in the Platform Zero Incidents since 2015.
5. EBU/ESO is positive about how the industry is dealing with this issue in the Dutch context, where also the competent authority is involved. The problem has been recognized and a joint effort is underway to identify best practices to reduce the risk of exposure to crewmembers and the environment. Nevertheless, EBU/ESO still believes that an amendment in the ADN legislation is necessary to further protect crew members and the environment from exposure to dangerous goods.

Update incident statistics 2023

6. In 2023 a total number of 35 incidents with not empty loading arms/hoses were reported in the Platform Zero Incidents database. As a consequence, two crewmembers received medical treatment in a hospital and one crewmember received first aid treatment on board. Also, during one incident a short fire broke out.

7. The geographical spread of the incidents is presented in the table below:

	<i>Belgium</i>	<i>Germany</i>	<i>The Netherlands</i>	<i>France</i>
Loading/unloading arm	1	11	7	1
Hose	3	2	8	-
Loading/unloading arm/hose (unknown)	-	1	1	-
Total	4	14	16	1

8. More detailed examples of the 2023 incidents are given in the Appendix to this document.

Requests for amendments

9. Complying with the main General safety measures as set out in 1.4.1.1 of ADN:

“The participants in the carriage of dangerous goods shall take appropriate measures according to the nature and the extent of foreseeable dangers, to avoid damage or injury and, if necessary, to minimize their effects. They shall, in all events, comply with the requirements of ADN in their respective fields.”

10. EBU/ESO requests the Safety Committee to an obligation to ADN 1.4.3.3:

"1.4.3.3 **Filler**

In the context of 1.4.1, the filler has the following obligations in particular:

...

Obligations concerning the filling of cargo tanks:"

Proposal:

add

(1) He shall ascertain that the ship/shore connections provided by him are sufficiently drained of liquid and, if applicable, any overpressure is released to ensure a safe connection, before they are provided;

Hence: letter (1) was already reserved for something in ADN 2023.

11. EBU/ESO also requests the Safety Committee adding an obligation to ADN 1.4.3.7.1:

"1.4.3.7 **Unloader**

1.4.3.7.1 In the context of 1.4.1, the unloader shall in particular:

...

*Additional obligations concerning the **unloading of cargo tanks;**"*

Proposal:**add**

- (n) Ascertain that ship/shore connections provided by him are sufficiently drained of liquid and, if applicable, any overpressure is released to ensure a safe connection, before they are provided;

12. Finally, EBU/ESO requests the Safety Committee to address these obligations in the ADN Safety Checklist 8.6.3, as where the corresponding box shall be ticked off by the filler/unloader only.

13. Under part 6 “Vessel/shore connections” a new question 6.6 could be added (referring to the version of INF.3) with the following text:

Is ensured that the loading/unloading arm or hose is free of product and released from pressure?

Sustainable development goals (SDG)

14. The SDG’s applicable to workers health and wellbeing (SDG 3) and decent work (SDG 8) are linked to this proposal. Spills to the environment need to be avoided, linked to clean water (SDG 6) and life below water (SDG 14).

Appendix

Incident details: examples in Belgium, Germany and The Netherlands

<i>Country</i>	<i>Activity</i>	<i>Quantity (appr.)</i>	<i>Product</i>	<i>Remarks</i>
Belgium	Removing blind flange loading arm before coupling	< 5 liters	Unknown product	Exposure to crewmember, First aid
Belgium	Removing blind flange from hose before coupling	> 5 liters	Unknown	
Belgium	Before coupling	N/A, near miss	Caustic soda	Before removing flange it was noted both by the terminal operator as crewmembers that the hose was full.
Germany	Removing blind flange loading arm before coupling	60 liters	Benzene	
Germany	During decoupling	100 – 150 liters	Gasoil	Exposure to crewmember, emergency shower was used
Germany	Removing blind flange loading arm before coupling	<5 liters, spray	Unknown product	Exposure to crewmember, emergency shower was used, medical treatment case
Germany	During decoupling	>5 liters	Benzene	Immediately after the spill a short fire broke out
Germany	During decoupling	300 liters	Phenol	
The Netherlands	During decoupling	300 liters	Methanol	
The Netherlands	Removing blind flange loading arm before coupling	60 liters	Heavy fuel oil	
The Netherlands	During coupling of a hose	10 Liters	Ortho-Xylene	Hoses on a hoses-tower, 3 hoses bend after each other, not free of pressure and spray when crew released blind flanges of hose. After that 10 L free product run out of hose and on leg of crew member. Burning wounds were the result (which you would not expect from a contamination with Ortho-Xylene)
The Netherlands	Removing blind flange from hose before coupling	250-300 liters	Kerosene	Exposure to crewmember, emergency shower was used