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**Economic Commission for Europe**

English

**Inland Transport Committee****12 January 2015****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)****Twenty-sixth session**

Geneva, 27-30 January 2015

Agenda item 6

**Reports of informal working groups**

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## **Report of the second meeting of the informal working group on degassing of cargo tanks**

**Transmitted by the Government of the Netherlands**

### **I. Introduction**

1. On 10 and 11 September the Informal Working Group on degassing of cargo tanks held its second meeting at the Bundesministerium für Verkehr und Digitale Infrastruktur in Bonn, Germany. The meeting was attended by delegates from Germany and the Netherlands, EBU and the CCNR.
2. On the agenda of the Informal Working Group there were three major topics:
  - Document ECE/TRANS/WP.15/AC.2/2014/41 (EBU) - 8.3.5 Danger caused by work on board;
  - A proposal from the French delegation received by the Informal Working Group to amend AND; and
  - further review of the current provisions of degassing and entering enclosed spaces.

### **II. Results**

[ECE/TRANS/WP.15/AC.2/2014/41](#)

3. Document ECE/TRANS/WP.15/AC.2/2014/41 by EBU was briefly discussed during the 25<sup>th</sup> session of the ADN Safety Committee. The Committee decided this document should be considered further by the informal working group on degassing of cargo tanks (ECE/TRANS/WP.15/AC.2/52, B.11)
4. During the second meeting of the Informal Working Group EBU explained more in depth the reasoning behind proposal 2014/41. The main issue addressed is to execute maintenance during voyage on a discharged but not gas-free ship. This maintenance may include - for example - knocking off rust with a hammer and painting on deck.
5. This work is currently banned on vessels which are not declared “gas free” due to the possibility of sparks arising during this type of maintenance (ADN 8.3.5), but may be

permitted by the competent authority or if an approved person issues a gas-free certificate (ADN 7.2.3.7.6).

6. In the view of the applicants there is no necessity to obtain an official gas-free certificate or an authorisation from the competent authority for such minor maintenance. The EBU argued the provisions in ADN 8.3.5 were adopted with intensive maintenance work at the yard in mind, using different types of machinery, and not minor maintenance on board during a voyage.

7. EBU proposes to allow minor maintenance work on board during a voyage, which could create sparks, when the cargo tanks are degassed i.e. the gas concentration is below 10% of the Lower Explosion Limit (LEL). EBU would like to allow the master to execute this measurement himself, as is also the case when entering the cargo tanks (ADN 7.2.3.1.6) and the removal of the blue cones/lights (ADN 7.2.3.7.4).

8. The instruments used by masters to measure gas concentrations on board should be sufficiently accurate (ADN 8.1.6.4). However, the current definition of a flammable gas detector does not include quality requirements or detection limits.

9. EBU was invited to submit a revised proposal to the ADN Safety Committee, including possible amendments to ADN 7.2.3.7.6, and also address the following questions:

- Could EBU specify what kind of (hot) work they would like to exclude from the current ADN 7.2.3.7.6 and 8.3.5? How to define “small maintenance on board”? This can only include small maintenance whose execution may cause a spark, and not maintenance involving open fire and electricity on deck;

- ADN 8.3.5 requires a status of being “gas free” for small maintenance such as knocking off rust. Gas-free is defined in the sense of the current ADN 1.2.1 Definition cargo tank (Condition) - Gas free: “not containing any measurable concentration of dangerous gases”. For small maintenance, is the requirement for the cargo tanks being gas free necessary from the point of view of safety? Or is the requirement of the cargo tanks being <10% LEL sufficient? Should this measurement be made only in the cargo tank, or also on the deck?

- Does the current obligation in ADN 8.3.5 to have a third party to execute the measurement give any added value? For example, on independence, reliability, use of premium quality equipment or expertise.

#### Proposal made by the French delegation to amend ADN 7.2.4.22.2

10. The French delegation proposed to amend ADN 7.2.4.22.2 as a difficulty was seen in the current wording of ADN 7.2.4.22.2.

11. Before the cargo tank covers are allowed to be opened, the current 7.2.4.22.2 requires the cargo tanks to be degassed, and the concentration of flammable gases within the tank to be below 10% LEL. From the point of view of the French delegation it is not necessary to create a new definition for only one occurrence. It would be easier just to insert a certain percentage for the gas concentration when a certain operation is allowed.

12. The French proposal contained two alternative proposals for the second paragraph of 7.2.4.22.2. In both alternatives the reference to the status of being “degassed” is deleted. Only a clear cut threshold for the gas concentration within the cargo tanks to be below 10% LEL - as a condition for the cargo tank covers to be opened - remains. With this proposal any possible misunderstanding in 7.2.4.22.2 between the requirements of being “dégazées” in French, “degassed” in English, “entgast” in German, and the gas concentration being below 10% LEL is avoided.

13. Also, a different wording in the German text compared to the French and the English text was noted. In the German version the second paragraph of 7.2.4.22.2 is divided into two sentences.

14. The Informal Working Group had a positive attitude to the French proposal, and considered to incorporate it into their proposals to amend the ADN for the August 2015 session of the ADN Committee.

15. As a result of the discussion following the French proposal, most of the participants of the Informal Working Group expressed the preference to delete in general the phrase “degassed”. As an alternative, clear thresholds when a cargo tank or other enclosed spaces on board are to be considered “de gassed” and ready to be opened and/or entered should be included. This creates clarity under what conditions certain operations are allowed. For example, in the case of degassing of cargo tanks, to add to ADN 7.2.3.7 that this only applies when the gas concentration is above 10% LEL.

16. Also the following paragraphs, which contain the phrase “de gassed” should be taken into consideration, and possibly extended with a clear threshold: 1.4.2.1.1 (e), 5.3.1.6.1, 5.3.2.1.7, 7.2.3.7.6, 7.2.3.12.2, 7.2.4.7.1, 7.2.4.15.3, 7.2.4.16.3, 7.2.4.16.7, 7.2.4.17.1, 7.2.4.17.2, 7.2.4.25.3, 7.2.4.41, 8.3.4, 7.2.4.51.1, 7.2.4.51.2, 9.3.1.17.3, 9.3.2.50.1, 9.3.2.52.3.

17. The Informal Working Group considered the fact that after opening of the cargo tank covers when the gas concentration is <10% LEL, still small amounts of gas would continue to evaporate from the tanks. This release of vapours could still be seen as “degassing” in the sense of subsection 7.2.3.7.0, but 7.2.3.7 does not apply as the concentration in the cargo tank is <10% LEL. The question was raised as to how to call the process of lowering the gas concentration in the cargo tanks (to reach the status of being “gas free” (1.2.1) for example) when the cargo tank is already “degassed”.

#### Degassing of cargo tanks

18. Work has progressed on restructuring the provisions on the entrance to enclosed spaces on board like the cargo tanks and hold spaces.

19. Questions were raised about the requirements for TOX- and EX-meters. Especially about the calibration, detection limit and the prescribed measuring quality of those meters.

20. The Germany delegate will address a question of interpretation to the ADN Safety Committee.

21. Contradictory provisions were found in subsections 7.2.4.41 “Fire or naked light”, 7.2.4.74 “Prohibition of smoking, fire and naked light” and 8.3.4 “Prohibition on smoking, fire and naked light”, when and where the use of light, open fire and smoking is allowed or not. The German delegate was asked to send a request to the Informal Working Group on Explosion Protection to examine if these three paragraphs could be merged.

### **III. Further process**

22. The third meeting of the Informal Working Group on degassing of cargo tanks is scheduled for the 2nd half of April 2015 in Koblenz, Germany. The aim of the meeting is to draft a proposal for the session in August 2015. The Informal Group would appreciate the participation of more delegations, which did not participate in the group, and would welcome approved experts on the issuance of gas free certificates to share their experience.