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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)

Thirty-first session

Geneva, 28-31 August 2017

Item 4 (b) of the provisional agenda

**Proposals for amendments to the Regulations annexed to ADN:
other proposals**

Draft amendment to the Regulations annexed to the ADN: 3.2.3.1 Column 20 item 12 (e) used for transport of UN1280 Propylene Oxide and UN 2983 Ethylene Oxide and Propylene Oxide, mixture

Submitted by EBU and ESO*, **

Introduction

1. For the transport of propylene oxide (UN 1280) and the mixture of ethylene oxide and propylene oxide (UN 2983), remark 12 is applicable in Table C, Chapter 3.2. This remark 12 stipulates the obligation of frequent internal cargo tank inspections, at least every 2.5 years, for dedicated transport. EBU and ESO investigated the usefulness of this requirement and drafted a proposal in informal document INF. 17 of the thirtieth session, which was discussed at the January 2017 session of the ADN Safety Committee.

2. This proposal was accompanied by addendum 1 to informal document INF. 17 of the thirtieth session containing supporting inspection data of Bureau Veritas for two barges involved and two quality analysis reports of this cargo.

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3. EBU and ESO were invited to submit an official proposal, they analyzed the results of the 2.5 year tank inspections and concluded that these inspections do not contribute to safety. Reference is made to more supporting data which are referred to in informal document INF. 7 and Add. 1-4.

I. Short summary of informal document INF. 17 submitted on the thirtieth session

Remark 12, Column 20, Table C

Remark 12 states:

(e) The cargo tanks shall be entered and inspected prior to each loading of these substances to ensure freedom from contamination, heavy rust deposits or visible structural defects.

When these cargo tanks are in continuous service for these substances, such inspections shall be performed at intervals of not more than two and a half years.

Transport by barge

4. Propylene oxide (UN 1280) and the mixture of ethylene oxide and propylene oxide (UN 2983) must be transported at least in ADN type C 11 tankers. Over the past decades these products have been carried by ADN type G 11 barges in a dedicated way, since no barges of the ADN type C 11 are available on the market. Customers (consignors) raise high standards regarding the transport and product quality of these products and therefore, frequently sample the cargo.

Superfluous inspection, no safety contribution

5. The required tank inspection every 2.5 years is unnecessary and does not contribute to safety because of following reasons:

- Transport is under inert conditions, no oxygen is present and thus the process of rust cannot take place and no rust will appear;
- It is proven by experience in practice by testing/inspection data which all are “negative” regarding any findings of contamination, heavy rust deposits or visible structural defects This has been frequently observed (reference is made to informal document INF. 17 of the thirtieth session);
- The legislation for shore pressure tanks, containing the same product, prescribes a 6-year interval inspection sequence;
- The inspection requirement seem have been taken over from IMO regulations (before 1983) for liquid chemical tankers (lighter construction) and isolated cargo tanks, not for the independent pressure tanks such as those of the (non-isolated) ADN Type G 11.

II. More supporting data

6. EBU and ESO consider it to be useful to expand the supporting data as convincing evidence of the superfluous 2.5 year inspection interval. Supporting information is given in informal document INF. 7 and Add. 1-4.

- (a) Report inspection interval PO tanks – Tank Assist (INF. 7/Add. 1)*

This report is made by an independent cargo expert, on behalf of Chemgas Shipping.

This informal document explains clearly the following topics:

- (i) Why propylene oxide does not harm the cargo tanks;
 - (ii) That the IMO requirement for INTERNAL tank inspection was established because the cargo tanks of sea-going vessels were often insulated and thus, external inspection was not possible. Non-isolated cargo tanks on board of ADN Type G11 barges can easily be inspected on their outside, in the cargo hold spaces;
 - (iii) The legislation for sea-going vessels is about non-pressurized atmospheric tanks (for liquids) and was adopted in the ADN(R), but implemented for pressure tanks.
- (b) *Inspection report and testing on cargo tanks of ex-Chemgas 17 – Manufacturer Siemerink (INF. 7/Add.2)*

This report indicates by material measuring data that even after 40 years of service, the G 11 cargo tanks have no material diminution and are basically in “new condition”.

- (c) *Class inspection report including cargo tank inspection data of mts Chubasco (INF. 7/Add.3)*

This report, edited by MME-Group, on behalf of Classification Society Bureau Veritas, indicates the state of the cargo tanks of the barge mts Chubasco which was built in 2001, during her Class Renewal in 2017 (Internal tank inspection pictures on pages 13, 15, external tank inspection pictures on pages 4, 5, 6). The barge sailed for 16 years, carrying various gases, including propylene oxide for several years. This report also indicates that the products have no influence on the cargo tanks.

- (d) *Statement Bureau Veritas: Class Rules and material diminution (INF.7/Add.4)*

Class Bureau Veritas was asked to investigate this case and made a statement about Class Rules, regarding internal tank inspections and confirmation of nearly no material diminution in ADN type G 11 barge mts “René 19”. This barge was involved in the carriage of propylene oxide for more than ten years and was therefore taken as reference barge in this case.

Conclusion

7. The following conclusion has been drawn: it does not contribute to any higher safety level to hold on to the obligation for internal tank inspections every 2.5 years and therefore, inspection intervals can be extended to the 5-year regular Class Renewal sequence without any safety impact.

Proposal

8. The EBU and ESO propose to delete the second paragraph of remark 12 (e) and insert the following:

“When these cargo tanks are in continuous service for these substances, no repetitive internal inspections are required after the initial internal inspection for the first loading. Additional internal tank inspection is to be done during special survey periods.”.

Remark 12 (e) in 3.2.3.1 would then read as follows:

(e) *The cargo tanks shall be entered and inspected prior to each loading of these substances to ensure freedom from contamination, heavy rust deposits or visible structural defects.*

~~*When these cargo tanks are in continuous service for these substances, such inspections shall be performed at intervals of not more than two and a half years.*~~

When these cargo tanks are in continuous service for these substances, no repetitive internal inspections are required after the initial internal inspection of the first loading. Additional internal tank inspection is to be done during special survey periods.
