

## **Economic Commission for Europe**

### **Inland Transport Committee**

5 January 2018

#### **Working Party on the Transport of Dangerous Goods**

English

#### **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-second session**

Geneva, 22 - 26 January 2018

Item 4(e) of the provisional agenda

#### **Implementation of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) Matters related to classification societies**

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## **Actual status of approval of Loading Instruments**

### **Transmitted by the Informal Group of ADN Recommended Classification Societies**

#### **I. Introduction**

1. In 2013 the requirements for the application of a Loading Instrument (LI) on board of tanker vessels came into force. A transitional provision was agreed upon until 31-12-2019. The approval of the stability calculations and the LI is done by the ADN recommended classification societies Bureau Veritas, DNV-GL, and Lloyd's Register.
2. The ADN Safety Committee has asked the classification societies to give an annual overview of the status of the implementation of this requirement. This document gives the status as it was on 15 November 2017.

#### **II. General**

3. The classification societies have discussed the requirements and the interpretation of several aspects of these requirements during their regular meetings, resulting in the publication of these interpretations on the UN-ECE website. During one of these meetings a workshop with the inland waterway industry was organised to create awareness of these new requirements.
4. The number of software applications is limited. Although this makes the choice for ship owners also limited, this did not appear to be a problem. Also the capacity of the companies involved in developing this software and making stability calculations and the LI has shown to be sufficient.

#### **III. Lloyd's Register**

5. The approval process starts with a verification of openings on the ship, as well as the actual status of the ship. On existing ships Lloyd's Register (LR) demands an update of the existing (damage)stability calculations. After approval of these updated calculations, the LI

is made and submitted for approval. The installation of the approved LI on board is verified by a surveyor, who also issues a LI Certificate.

6. LR has approved two software applications for use on board of inland waterway ships. 'LOCOPIAS' and 'TANK STAR'. A total of 5 surveyors from the plan approval department in Rotterdam is involved in the approval of the updated calculations and the LI.

7. In 2015 32 ships were equipped with an approved LI, in 2016 147, and in 2017 (until 15 November) 224. This total of 403 ships in 2.5 years shows that the entire LR-classed fleet of nearly 600 tankers will be equipped with approved LI at the time the transitional provision for this requirement ends.

#### **IV. Bureau Veritas**

8. For existing vessels, the approval process begins with the verification of the existing stability file, in accordance with INF30 and INF18. Depending on the situation, BV may request an updated stability file or a complement of the existing stability file. Generally, a new complete stability file is requested due to lack of longitudinal strength calculation on most files as well as the incomplete list of openings.

9. The design office in charge of the update of the stability file must verify the openings onboard the vessel and prepare the Damage Control Plan (DCP).

10. Bureau Veritas confirms also the maximum allowable still water bending moment curve (SWBM).

11. The final stability file is submitted for approval, in line with DCP and maximum allowable SWBM.

After the approval of the stability file, the booklet related to the LI is submitted for approval. BV surveyor is invited to verify the installation of the LI and DCP onboard the vessel, the results or the confirmation of the verification are sent to inland navigation management (DNI) in charge of the issuance of the LI attestation.

12. BV has approved two software's for use on board of inland waterway vessels: 'TANK STAR' and 'INLI'. The software 'LOCOPIAS' is also accepted for use on board of inland waterway vessels. Three surveyors from DNI are involved in the approval of the updated calculations and the LI. In addition, two surveyors from BV Rotterdam plan office have been recently qualified.

13. From 2015 until 15 November 2017, 115 vessels are equipped with LI certified by BV, out of a total of 265 BV classed tankers ADN Type G, Type C and Type N double hull that potentially need to be equipped with LI.

#### **V. DNV-GL**

14. The approval process is divided into two main steps. First we start with a verification of updated stability documentation including longitudinal strength and openings of the vessel. After approval of these documents, in the second step the loading computer software adaption for each vessel and its documentation will be verified. Finally, the installation of the approved software on board will be verified by a surveyor, who signs the final LI Certificate. In case that openings with automatic closing device (with a floating ball) are defined as watertight for an existing vessel we initiate a periodic survey every 2.5 years by a condition of class.

15. Up to now DNV GL has approved three types of software applications. "LOCOPIAS", "seacos MACS3" and "TANK STAR". Actually 4 plan approval engineers from plan approval Centres in Hamburg and Gdynia are involved in the approval of the stability documentation and the LI.

16. DNV GL approved 53 LI until 7th December 2017 and has orders for 48 LI. From DNV GL's fleet of nearly 330 tankers approximately 210 vessels have to be equipped with an approved LI. Therefore, we are confident that we can execute this task until the end of the transition period.

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