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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)

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Item 4 (b) of the provisional agenda

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

Device to shut down the shore facility

Transmitted by the Government of Belgium¹

Introduction

1. In the Regulations annexed to ADN, the text of 9.3.x.21.5 (a) reads as follows:

"(a) The high level sensor referred to in 9.3.x.21.1 (d) above shall give a visual and audible alarm on board and at the same time actuate an electrical contact which in the form of a binary signal interrupts the electric current loop provided and fed by the shore facility, thus initiating measures at the shore facility against overflowing during loading operations".

The signal shall be transmitted to the shore facility via a watertight two-pin plug of a connector device in accordance with standard EN 60309-2:1999 + A1:2007 + A2:2012 for direct current of 40 to 50 volts, identification colour white, position of the nose 10 h.

The plug shall be permanently fitted to the vessel close to the shore connections of the loading and unloading piping.

The high level sensor shall also be capable of switching off the vessel's own discharging pump.

¹ Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/WP.15/AC.2/2015/22.

The high level sensor shall be independent of the level alarm device, but it may be connected to the level gauge."

2. When a tank vessel uses the shore facility to load the cargo, there are two ways to shut down the shore facility when an incident occurs. First is to pull out the two-pin plug of the permanently fitted connector so the electrical signal is interrupted. Second, the shore facility always has an emergency stop button most of the time fitted on the loading arm, to stop the loading process manually, independent of the two-pin plug.

3. These devices can be operated perfectly when an incident occurs without leakage of cargo. When there is a leakage of a corrosive product, and that product is leaking due for example to a malfunction of the loading arm, it is not easy to use the emergency stop button fitted on the loading arm. The two pin plug that is mounted in the connector behind the loading arm cannot be reached either.

4. Belgium thinks it would be useful to provide an extra device at three different places in the cargo zone (e.g. in front, in the middle and at the end) to shut down the shore facility independently of the electrical signal. Most newly built inland navigation tank vessels are fitted with such a system. However, it is not yet required by 9.3.x.21.5 (a).

Proposal

5. It is proposed to modify 9.3.x.21.5 (a) as follows:

"(a) The high level sensor referred to in 9.3.2.21.1 (d) above shall give a visual and audible alarm on board and at the same time actuate an electrical contact which in the form of a binary signal interrupts the electric current loop provided and fed by the shore facility, thus initiating measures at the shore facility against overflowing during loading operations".

The signal shall be transmitted to the shore facility via a watertight two-pin plug of a connector device in accordance with standard EN 60309-2:1999 + A1:2007 + A2:2012 for direct current of 40 to 50 volts, identification colour white, position of the nose 10 h.

The vessel shall be fitted in the cargo area with a permanent device to make it possible to shut down the shore facility independently of the electrical signal. That device shall be installed at three different places on the vessel. Activation of the device shall give an visual and audible alarm on board.

The plug shall be permanently fitted to the vessel close to the shore connections of the loading and unloading piping.

The high level sensor shall also be capable of switching off the vessel's own discharging pump. The high level sensor shall be independent of the level alarm device, but it may be connected to the level gauge."

Advantages

6. 9.3.x.21.5 (a) only gives the possibility to shut down the shore pump by the electrical contact from the level sensor described in 9.3.x.21.1 (d). In certain situations, it is impossible to shut down the shore facility using the emergency device or to pull out the two-pin plug. Adding the requirement for the vessel to have three permanently fitted devices in the cargo zone to shut down the shore facility independently of the electrical signal (e.g. an emergency button) would mean that loading could be interrupted at all times and the safety of the crew and protection of the environment would be improved.