

Economic Commission for Europe

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)****Twenty-third session**

Geneva, 26 - 30 August 2013

Item XX of the provisional agenda

Request for interpretation: Reefers**Transmitted by the Governments of The Netherlands and Germany****I. Introduction**

1. A Refrigerated Container (“Reefers”) is a regular container used for the transportation of temperature sensitive cargo. A reefer is regularly equipped with an integral refrigeration unit and rely on external power for operation. They are frequently used in sea, rail, road and inland navigation. When carried by inland vessels, reefers are placed inside the cargo hold of a dry cargo vessel. Sometimes reefers are carried together with dangerous goods in a vessel with certificate of approval according to ADN. For their supply of electricity reefers are connected with the vessel by electric cables.

2. Reefers has already been used on inland navigation for several decades. The expectation is that the amount of reefers to be transported by inland navigation will grow as the amount of sea going reefer ships is steady declining, and regular seagoing containerships with refrigerated containers are used instead.

3. The question is, if these reefers are affected by the provisions for explosion protection in the ADN when they are carried in dry cargo vessels together with dangerous goods.

II. Relevant provisions of ADN

3. Any electrical equipment to be put into the protected area (of which the cargo hold is part, ADN 1.2.1.) has to be a certified safe type (ADN 9.1.0.52.1). ADN 7.1.3.51.4 states, that the electrical installations in the holds shall be kept switched off and protected against unintentional connection, this does not apply to electrical apparatus of a “certified safe type”.

4. The ADN has provisions for the carriage of containers in 7.1.1.18, they shall be in accordance with the provisions applicable to the carriage of packages.

4a. The ADN also has provisions for mixed loading in the same cargo hold (ADN 7.1.4.3). However, when only containers are carried, these don't apply when these containers are stowed in accordance with the IMDG Code (ADN 7.1.4.5). But the mentioned provisions of 7.1.4.3 do not cover reefers carrying non-dangerous goods, they only apply for dangerous goods as load.

5. The IMDG Code has in chapter 7.4. "Stowage and segregation on containerhips" specific provisions for stowing.

5a. In the IMDG Code the carriage of reefers is explicitly mentioned in 7.4.2.3.2 and 7.4.2.3.3. According to IMDG Code 7.1.2 reefers are "Potential sources of ignition" if they are not of a certified safe type.

IMDG Code 7.4.2.3.2 states that containers containing flammable gases of or with liquids having a flashpoint of less than 23 °C **on deck** have to stowed in a minimum distance of 2.4 meters from potential sources of ignition

IMDG Code 7.4.2.3.3 allows the carriage of a reefer container which is not of a certified type **under deck** when no containers containing flammable gases or with liquids having a flashpoint of less than 23°C are carried in the same hold.

III. Request for clarification

6. Questions to be discussed in the ADN Safety Committee:

Is it correct that based on the current ADN provisions:

- a. Reefers and their integral refrigeration units are no "electrical equipment/installations/apparatus" according to 9.1.0.52.1 and 7.1.3.51 ADN? Do these paragraphs talk only about equipment/installations/apparatus permanently fitted to the vessel?
- b. As the ADN itself has no provision for the stowage of containers with special regard to reefers and potential sources of ignition, the provisions of IMDG Code be adapted?
- c. It is allowed to carry reefers (not of a certified safe type) below deck when no containers containing flammable gases or with liquids having a flashpoint of less than 23 °C are stowed below deck?
- d. It is allowed to carry reefers (not of a certified safe type) on deck only with a minimum distance of 2.4 meters to containers containing flammable gases or with liquids having a flashpoint of less than 23°C?
- e. It is allowed to carry reefers (not of a certified safe type) on deck and containers are stored below deck containing flammable gases or with liquids having a flashpoint of less than 23°C or other dangerous goods?
