

**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-seventh session****Geneva, 24–28 August 2015****Item 5 of the provisional agenda****Reports of informal working groups**

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**Report of the meeting of the informal working group on Means of Evacuation****Transmitted by the Government of the Netherlands****I. Introduction**

1. During its 26<sup>th</sup> session in January 2015, the ADN Committee discussed document INF.14 issued by the Recommended ADN Classification Societies.

In INF.14 the Recommended ADN Classification Societies argued (as also earlier in ECE/TRANS/WP.15/AC.2/2014/32) the need for additional criteria before they could define criteria for a safe haven on board. INF.14 includes questions about these additional criteria.

The ADN Safety Committee decided that the questions raised should be considered by an informal working group. This informal working group should be organised by the Netherlands (ECE/TRANS/WP.15/AC.2/54, para. 14).

2. The meeting of this informal working group was held on the 19<sup>th</sup> of May at the Bundesanstalt für Materialforschung und -prüfung (BAM) in Berlin, Germany. The meeting was attended by representatives of Germany, Netherlands, CIPA and the Recommended ADN Classification Societies (Bureau Veritas, DNV-GL, Lloyds Register, RINA and the Russian Maritime Register).

**II. Results**

3. In the informal working group there was intense discussion on which party should take responsibility for the development of regulations for both the safe area and the safe haven. The class societies currently do not have rules and regulations for safe areas and safe havens. They were of the opinion that it is not their responsibility to define criteria for a safe haven. However, the class societies would be able to certify a safe haven in case the ADN would provide regulations for them.
4. The informal working group agreed on the necessity to develop new provisions for a safe haven and to adopt these in the ADN.

In addition, the informal working group agreed that such provisions, which will be of a technical nature, had to be developed in close cooperation with the class societies. The ADN member States do not have the technical knowledge to develop such technical provisions. The class societies offered to draft concrete proposals with a view to certify the safe haven. These proposals could be discussed during the second meeting of the informal working group on Means of Evacuation.

However, before they could prepare such a draft, the class societies announced they also had several non-technical questions to be answered. These were not available during the meeting of the informal working group but were received afterwards. These questions can be found in the Annex.

5. The informal working group decided to proceed accordingly.

### III. Questions on the preconditions of the Safe Area and Safe Haven

6. The class societies had several questions on the preconditions involving a safe area. These were:
  - a. Does a water spray system provide enough protection against toxic gases from the cargo? The current water spray system has a minimum capacity of 10 l/m<sup>2</sup> per minute.

Answer

This question will be addressed by the Netherlands in cooperation with the Deutscher Feuerwehrverband (DFV).

- b. In the definitions of “safe area” and “safe haven” (ADN 1.2.1) it is mentioned that these are not accepted as a suitable means of evacuation when the identified danger is explosion. This would imply that a safe area/ safe haven is not acceptable when a vessel is carrying class 2 or class 3 substances.

Answer

The matrices adopted in 7.1.4.77 and 7.2.4.77 deliver suitable means of evacuation in correspondence with the class of the substance carried and their main identified danger. In the definitions of “safe area” and “safe haven” the phrase “the identified danger is explosion” can only be interpreted as class 1. Ergo, for class 2 and class 3 substances a safe area and a safe haven are an acceptable means of evacuation.

The class societies do not agree with the conclusion that for class 2 and class 3 substances a safe area or safe haven are acceptable means of evacuation (as also indicated in INF.14 (26<sup>th</sup> session)).

7. The class societies also had several questions on the preconditions for a safe haven. These were:
  - a. The minimum number of people for which the safe haven should be designed;

Answer

All members of the crew.

- b. Can a particular space on board (for example the wheelhouse) serve as a safe haven?

Answer

Yes, if it complies with the relevant regulations.

- c. A safe haven can be evacuated during an incident. Does this mean the people located in the safe haven can be evacuated or that the safe haven itself (a module) should be evacuated?

Answer

The safe haven (and also the safe area) are meant as locations which provide protection for the crew for a temporary timeframe. During this timeframe the crew can be evacuated by an evacuation boat for example.

The safe haven itself does not have to be evacuated.

- d. A safe haven on land is constructed according to local law. Are there any local laws? If so, what requirements do they contain? Can these be used for guidance for defining a safe haven on board?

Answer

Yes, these can be used – at least as a starting point – for developing requirements for a safe haven on board. Any relevant information on local laws will be send to the class societies.

#### **IV. Further process**

8. The class societies offered to prepare for the meeting of Recommended ADN Classification Societies in October 2015 in Antwerp a draft with new provisions for the ADN containing the technical requirements for a safe haven.
9. During the second meeting of the informal working group on Means of Evacuation this draft can be discussed, and issued for the January 2016 meeting of the Safety Committee.
10. The second meeting of the informal working group on Means of Evacuation is scheduled for October/ November 2015. A specific data will be adopted soon. Again, the meeting will take place at the BAM in Berlin.

## Annex

### Non-technical questions for which the Classification Societies seeks an answer before drafting a proposal

#### About the safe haven

Definition in ADN 1.2.1:

*“Safe haven means a designated, recognisable, readily accessible module (fixed or floating) capable of protecting all persons on board against the identified hazards of the cargo for at least sixty minutes during which communication to the emergency and rescue services is possible. A safe haven can be integrated into the wheelhouse or into the accommodation. A safe haven can be evacuated during an incident. A safe haven on board is not acceptable when the identified danger is explosion. A safe haven on board and a floating safe haven outside the ship are certified by a recognized classification society. A safe haven on land is constructed according to local law;”*

1. “Safe haven means a designated, recognizable, readily accessible module (...)”:  
What does it mean? A plate with the words “SAFE HAVEN”? The size of the letters and the plate? Which colour? Which form? Pictogram? Recognizable by the rescue team coming from ashore (also if in the middle of the accommodation)?
2. “Safe haven means a designated, recognizable, readily accessible module (...)”:  
In term of distance and/or time? With an evacuation plan/procedure?
3. “Safe haven means a designated, recognizable, readily accessible module (...)”:  
How many m<sup>3</sup> (space) per person? Does the designation “module” imply that this is a separate entity from the ship’s hull or that particular spaces on board (for example in the deckhouse or in the engine room) could also serve as a safe haven? (from INF-14 (26<sup>th</sup> session))
4. “(...) during which communication to the emergency (...)”:  
Criteria for communication equipment (from INF-14 (26<sup>th</sup> session)): which system? fixed in the module? redundancy of the system?
5. “A safe haven can be evacuated during an incident”: With external help (rescue services)? Or alone? Evacuation to which zone? What kind of protection (against fire; against toxic gases?) have to be in the module? For which concentration of toxic gases should the safe haven be resistant?
6. Maintenance of survival conditions (oxygen, temperature,...). (from INF-14 (26<sup>th</sup> session))
  - a. Which amount of air (oxygen) is needed per person ?
  - b. For which maximum temperature should the safe haven be resistant?
  - c. What is the maximum allowable temperature inside the module?
7. Criteria for power supplies.
8. Criteria to be applied for partial or full submersion caused by inadvertent submersion or sinking of the vessel. (from INF-14( 26<sup>th</sup> session))
9. Does “can be integrated” mean that the module (a separate entity) can be integrated or that the wheelhouse or the accommodation could serve as a safe haven by itself? (from INF-14(26<sup>th</sup> session))
10. Is a specially designed or standardized evacuation exit for the safe haven necessary?

#### About the water spray system

11. Design criteria for water spray systems: dimensions of drops; spray rate (l/m<sup>2</sup>/min)
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