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**Economic Commission for Europe****Inland Transport Committee**

17 January 2012

**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)****Twentieth session**

Geneva, 23–27 January 2012

Item 4 (b) of the provisional agenda

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

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**Means of evacuation<sup>1</sup>****Transmitted by the Government of Switzerland****I. Introduction**

The proposal prepared by an informal working group for revising the provisions for means of evacuation (ECE/TRANS/WP.15/AC.2/2012/16) provides numerous options to choose from. Depending on the chosen option, the means of evacuation must be available both at the shore as well as on board. The high degree of flexibility can cause problems (operation, costs, design) when implementing the provisions.

A preferably practice-oriented adaptation of the proposal is intended to simplify the implementation of the provisions for means of evacuation.

**II. Proposals for amendments****A. Part 1, Chapter 1.2.1**

8. Add the following definitions:

*"Means of evacuation:* any means that can be used by people to move from an area of danger to safety in case of an emergency. The following dangers have to be taken into account in case of transfer of liquid and solid substances and objects:

- Leakage (liquid, gas) at the manifold;
- Fire in the area of the manifold on the deck and burning liquid on the water;
- Dangers emanating from the goods in the cargo holds of dry cargo vessels."

*"Escape route:* Is a safe route from an area of danger towards safety by a means of evacuation."

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<sup>1</sup> Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR/ZKR/ADN/WP.15/AC.2/20/INF20.

"*Escape boat*: Is a specially equipped dinghy with a means for crossing designed to evacuate the people in danger."

"*Evacuation boat*: Is a specially equipped and manned boat with a means for crossing designed to rescue people in danger."

"*Safe area*: Is an area on board outside the area of danger which offers suitable protection against dangers by a suitable water screen."

## **B. Part 1, Chapter 1.4.3**

9. Amend the following paragraphs and subsections to read:

"1.4.3.1 (f)

He shall ascertain that the landside installation is equipped with suitable means for evacuation according to 7.1.4.77. In case of transfer of cargo from one ship to another ship, he shall ascertain that suitable means for evacuation according to 7.1.4.77 are available."

"1.4.3.3 (q)

He shall ascertain that the landside installation is equipped with suitable means for evacuation according to 7.2.4.77. In case of transfer of cargo from one ship to another ship, he shall ascertain that means for evacuation according to 7.2.4.77 are available."

"1.4.3.3 (x)

He shall ascertain that the landside installation is equipped with suitable means for evacuation according to 7.1.4.77. In case of transfer of cargo from one ship to another ship, he shall ascertain that means for evacuation according to 7.1.4.77 are available."

"1.4.3.7.1 (aa)

Ascertain that the landside installation is equipped with suitable means for evacuation according to 7.1.4.77. In case of transfer of cargo from one ship to another ship, he shall ascertain that means for evacuation according to 7.1.4.77 are available."

"1.4.3.7.1 (h)

Ascertain that the landside installation is equipped with suitable means for evacuation according to 7.2.4.77. In case of transfer of cargo from one ship to another ship, he shall ascertain that means for evacuation according to 7.2.4.77 are available."

"1.4.3.7.1 (n)

Ascertain that the landside installation is equipped with suitable means for evacuation according to 7.1.4.77. In case of transfer of cargo from one ship to another ship, he shall ascertain that means for evacuation according to 7.1.4.77 are available."

"1.4.2.2.1 (d)

Ascertain that the ship is equipped with a suitable means for evacuation according to 7.1.4.77 and 7.2.4.77, if this is required by 7.1.4.77 and 7.2.4.77. In case of transfer of cargo from one ship to another ship, he shall ascertain that suitable means for evacuation according to 7.1.4.77 and 7.2.4.77 are available."

**C. Part 7, Chapters 7.1.4 and 7.2.4 as well as 7.2.3.29**

10. Add the following table to 7.1.4:

**7.1.4.77 Possible means of evacuation**

The responsible authority approves suitable means of evacuation, considering the local conditions at the loading/unloading place and the options listed in the following table.

		<i>Dangerous Goods in bulk; Containers and packaged goods (vessel and barge) Ship-shore/ship-ship</i>	<i>Containers (vessel and barge) and packaged goods Ship-shore/ship-ship</i>
		<i>Substances assigned to Packing Groups I and II as well as explosive substances and articles</i>	<i>All substances with the exception of explosive substances and articles</i>
1	Two escape routes via gangways in the fore and aft sections of the vessel outside the cargo area	•	•
2	Two escape routes via gangways. One of them in the aft section of the vessel outside the cargo area and one in a protection zone in the opposite direction	•	•
3	One escape route via a gangway in the aft section of the vessel outside the cargo area and one escape boat in the fore section of the vessel outside the cargo area		•
4	One escape route via a gangway in the aft section of the vessel outside the cargo area and two protection zones on the vessel		•
5	One escape route via a gangway in the aft section of the vessel outside the cargo area, a protection zone in the opposite direction and one evacuation boat	•	•

• = Possible options

11. Add the following table to 7.2.4:

#### 7.2.4.11 Possible means of evacuation

The responsible authority approves suitable means of evacuation, considering the local conditions at the loading/unloading place and the options listed in the following table.

		<i>Tank vessel/tank barge</i>	
		<i>Ship-shore</i>	<i>Ship-ship</i>
		<i>Substances assigned to Packing Groups I and II</i>	<i>All substances with the exception of substances assigned to Packing Groups I and II</i>
1	Two escape routes via gangways in the fore and aft sections of the vessel outside the cargo area	•	•
2	Two escape routes via gangways. One of them in the aft section of the vessel outside the cargo area and one in a protection zone in the opposite direction	•	•
3	One escape route via a gangway in the aft section of the vessel outside the cargo area and one escape boat in the fore section of the vessel outside the cargo area		•
4	One escape route via a gangway in the aft section of the vessel outside the cargo area and two protection zones on the vessel		•
5	One escape route via a gangway in the aft section of the vessel outside the cargo area, a protection zone in the opposite direction and one evacuation boat	•	•

• = Possible option

11. A) Amend 7.2.3.29 as follows:

**7.2.3.29 Lifeboats**

**7.2.3.29.1** The lifeboat required in accordance with the Regulation referred to in 1.1.4.6 shall be stowed outside the cargo area.

Unless it is also used as an escape boat, the lifeboat may, however, be stowed in the cargo area provided an easy accessible collective live-saving appliance conforming to the Regulations referred to in 1.1.4.6 is available within the accommodation area.

**D. Part 8, Chapter 8.6.3**

**Page 1, ADN Checklist**

12. Replace "(shore loading or unloading installation)" by "(shore loading or unloading installation, or name of loading or unloading vessel)".

**Page 3, ADN Checklist**

13. Replace "Loading/unloading place" by "Loading/unloading place or vessel".

**Question 1**

14. Replace "Is the vessel permitted to carry the cargo?" by "Is the loading vessel permitted to carry the cargo?".

**Question 3**

15. Replace "Is the vessel well moored in view of local circumstances?".

By "Is the vessel well moored in view of local circumstances?/Is the vessel well connected in view of local circumstances?".

**Question 4**

16. Replace "at the fore and at the aft of the vessel".

By "Have suitable means in accordance with 7.1.4.77 and 7.2.4.77 been provided for boarding or leaving, including in cases of emergency?"

**Explanation of question 4**

17. Replace "(e.g. a lowered dinghy)" by "none or".

Add "if required in accordance with 7.1.4.77 and 7.2.4.77."

**Question 6**

18. Add an additional category "In case of vessel/vessel connection:

6.1 Are the cargo hoses between the vessels in satisfactory condition?

Are these hoses correctly connected?

6.2 Are all the connecting flanges fitted with suitable gaskets?

6.3 Are all the connecting bolts fitted and tightened?"

**Explanation of question 6**

19. Replace "The cargo transfer hoses between vessel and shore must be placed so that they cannot be damaged by variations of the water-level, passing vessels and/or loading/unloading operations."

By "The cargo transfer hoses between vessel and shore – or vessel and vessel – must be placed so that they cannot be damaged by variations of the water-level, passing vessels and/or loading/unloading operations."

**Explanation of question 10**

20. Replace "Loading/unloading must be supervised on board and ashore so that dangers which may occur in the vicinity of cargo hoses can be recognized immediately. When supervision is effected by additional technical means it must be agreed between the shore installation and the vessel how it is to be ensured."

By "Loading/unloading must be supervised on board (both vessels) and ashore so that dangers which may occur in the vicinity of cargo hoses can be recognized immediately. When supervision is effected by additional technical means it must be agreed between the shore installation and the vessel/the two vessels how it is to be ensured."

**Question 11**

21. Replace "Is communication between vessel and shore ensured?"

By "Is communication between vessel(s) and shore ensured?"

**Explanation of question 11**

22. Replace "For a safe loading/unloading operation good communications between vessel and shore are required. For this purpose telephone and radio equipment may be used only if of an explosion protected type and located within reach of the supervisor."

By "For a safe loading/unloading operation good communications between vessel and shore/both vessels are required. For this purpose telephone and radio equipment may be used only if of an explosion protected type and located within reach of the supervisor."

**Question 12.2**

23. Replace "Is it ensured that the shore installation is such that the pressure at the connecting point cannot exceed the opening pressure of the high-velocity vent valves?"

By "Is it ensured that the shore installation (if present) is such that the pressure at the connecting point cannot exceed the opening pressure of the high-velocity vent valves?"

**Question 12.3**

24. Replace "When anti-explosion protection is required in Chapter 3.2, Table C, column (17) does the shore installation ensure that its venting pipe or pressure compensation pipe is such that the vessel is protected against detonations and flame fronts from the shore?"

By "When anti-explosion protection is required in Chapter 3.2, Table C, column (17) does the shore installation (if present) ensure that its venting pipe or pressure compensation pipe is such that the vessel is protected against detonations and flame fronts from the shore?"

**Explanation of question 13**

25. Replace "Before the start of the loading/unloading operation the representative of the shore installation and the master or the person mandated by him must agree on the applicable procedure."

By "Before the start of the loading/unloading operation the representative of the shore installation and the master or the person mandated by him – or in case of vessel/vessel loading the masters of both vessels – must agree on the applicable procedure."

**Signature box:**

26. Replace "For the installation of loading and unloading".

By "For the installation of loading and unloading/vessel".

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