
Economic Commission for Europe**Inland Transport Committee**

19 August 2021

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-eighth session**

Geneva, 23–27 August 2021

Item 5 of the provisional agenda

Reports of informal working groups

Minutes of meeting of the twenty-first meeting of the Group of Recommended ADN Classification Societies**ECE/TRANS/WP.15/AC.2/2021/18, section III a), paragraph 9.3.x.53.1 of ADN****Transmitted by the Government of Germany****Introduction**

1. From the point of view of the German delegation, the result of the discussions on this item has to be challenged. Paragraphs 13 to 16 suggest that the Group did not discuss the issue of the use of non-electrical installations and equipment on board tank vessels in terms of content and safety. It is incomprehensible that paragraph 15 states that a transitional provision is needed but then paragraph 16 states that no further action is considered necessary.

2. It is true that the use of non-electrical installations and equipment was not regulated in detail until ADN 2017. However, this changed with ADN 2019. Germany understands that this new rule for construction may present classification societies and vessel operators and owners with major challenges. Both groups were involved in the development of the provisions in the informal working group on explosion protection and should therefore also contribute to implementing them in an optimal way.

Development and interpretation of the provision

3. The first sentence of 9.3.x.53.1 of ADN reads as follows:

“On board vessels covered by the classification of zones as defined in 1.2.1, electrical and non-electrical installations and equipment used in explosion hazardous areas shall meet at least the requirements for use in the area concerned.”

This requirement clearly also applies to “non-electrical“ installations and equipment.

4. The table of general transitional provisions for tank vessels in 1.6.7.2.2.2 contains, among other things, the following transitional provision:

Paragraphs	Subject	Time limit and comments
9.3.1.53.1 9.3.2.53.1 9.3.3.53.1	Type and location of electrical installations and equipment intended to be used in explosion hazardous areas Zone 0, Zone 1	N.R.M. from 1 January 2019 Renewal of certificate of approval after 31 December 2034

This transitional provision is unambiguously limited to the “electrical” installations and equipment.

5. As early as in the 19th session of the ADN Safety Committee in August 2011, the informal working group on explosion protection stated that the non-electrical installations and equipment, too, had to meet at least the requirements for use in the respective zone. The Safety Committee confirmed this view.

INF.16 Explosion protection on tank vessels / Transmitted by the Governments of Germany and Netherlands

“8. The electrical and non-electrical (mechanical) equipment to be used within the zones should fulfil the requirements of the corresponding categories (according to *Directive 94/9/EC of the European Parliament and the Council of 23 March 1994 on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres*)”.

ECE/TRANS/WP.15/AC.2/40

Report of the 19th session of the ADN Safety Committee in August 2011:

“21. Explosion protection on tank vessels

Informal document: INF.16 (Germany and Netherlands)

34. The Safety Committee expressed its satisfaction with this proposal resulting from the work of the CCNR dangerous goods working group aimed at better defining the explosive atmosphere zones on board tank vessels. It will remain on the agenda for the next session so that delegations can study the issue in greater detail.”

6. Since then, this concept has not been dismissed in reorganizing explosion protection on inland tank vessels. It has been systematically incorporated into the detailed provisions, in particular 9.3.x.53.1 of ADN.

ECE/TRANS/WP.15/AC.2/44

Report of the 21st session of the ADN Safety Committee in August 2012:

9. Report on the first session of the informal working group on explosion protection on tank vessels (Strasbourg, 6-7 June 2012)

Informal document: INF.10 (ZKR)

32. The proposed concepts (zoning, associated protective measures and additional protective measures) raised no substantive objections, but many details still had to be worked out. Initially, the group could indicate which parts of the Regulations were affected and then continue the work in a broader context, taking into consideration for example the regulations applicable to shore facilities and vessel-shore connections during loading and unloading.

ECE/TRANS/WP.15/AC.2/46

Report of the 22nd session of the ADN Safety Committee in January 2013:

B. Report of the informal working group on explosion protection on tank vessels

Informal documents: INF.23 (CCNR)

INF. 32 (Recommended ADN classification societies)

64. The Safety Committee invited the working group to continue its work on the basis of the concepts presented in annex 2 of informal document INF.23.

Annex 2 - List of the part and chapters of ADN to be changed (non exhaustive)

9.3.1

Additional chapters dealing with non-electrical equipment probably necessary.

9.3.2

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Additional chapters dealing with non-electrical equipment probably necessary.

9.3.3

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Additional chapters dealing with non-electrical equipment probably necessary.

ECE/TRANS/WP.15/AC.2/54

Report of the 26th session of the ADN Safety Committee in August 2015:

B. Informal working group on protection against explosion on board tank vessels

Informal document: INF.31 (CCNR)

63. The Safety Committee adopted in principle the concepts presented in sections A, B and C of the report. The informal working group will have to study whether the basic safety measures presented in section A should also be applied to dry cargo vessels and pushboats. When a tank vessel is carrying substances requiring measures for protection against explosion, additional measures should be applicable in accordance with informal document INF.23 (twenty-second session) and with other measures proposed in the report.

ECE/TRANS/WP.15.AC.2/26/INF.31, Report of the 7th Meeting of the informal working group "Explosion protection on tank vessels" / Transmitted by the Central Commission for Navigation on the Rhine**B. Addition safety measures to be complied with in case the product list of the ship contains substances which need explosion safety measures**

Tank vessels, whose product list contains substances where explosion protection is compulsory **in addition to A** the following changes are proposed:

The recent zone concept shall be modified as proposed to the safety committee in WP15-AC2-22-inf23g:

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Explosion protection requirements also for non-electrical equipment within the zones on board the ship.

The electrical and the non-electrical equipment used within the respective zone on board the ship has to fulfill the requirements applicable for that zone.

.....

7. In accordance with 1.4.2.2.1 (f), the CARRIER shall
“ensure that, within the explosion hazardous areas on board the vessel, only electrical and non-electrical installations and equipment that meet the requirements for use in the relevant zone are used;”.
- Here, too, the obligation to ensure that the installations and equipment are suitable for the relevant zone also applies to “non-electrical” installations and equipment.
- 8.. In accordance with 1.16.3.1 of ADN, the classification society that inspects the vessel certifies “that the vessel conforms partially or completely to the applicable requirements of these Regulations related to the construction and equipment of the vessel.”

Conclusions

9. The non-electrical installations and equipment are part of the equipment of the vessel mentioned here. The respective classification society has to take this into account when inspecting the vessel for the purpose of issuing the certificate of approval. As the inclusion of the non-electrical installations and equipment in the explosion protection scheme has been supported by the Safety Committee from the beginning in 2011, the German delegation has hitherto assumed that no transitional provision is required and that the non-electrical installations and equipment can fulfil the relevant requirements. The statements in the minutes of the meeting of the recognized classification societies on this issue are unclear.

Proposal

10. Germany is asking the Safety Committee to discuss whether a transitional provision for non-electrical installations and equipment intended to be used in explosion hazardous areas is needed, and if so, for which period such a provision is required. A replacement of the non-electrical installations and equipment might be easier or faster to implement than a replacement of the electrical installations and equipment.
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