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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)****Forty-fourth session**

Geneva, 26–30 August 2024

Item 5 of the provisional agenda

Reports of informal working groups**Report of the fourth meeting of the informal working group
on certificates and other shipboard documents in electronic
form****Transmitted by the Government of the Netherlands*, *****Summary*

Related documents: ECE/TRANS/WP.15/AC.2/2024/14
ECE/TRANS/WP.15/AC.2/88 (Paragraphs 70 and 71)
ECE/TRANS/WP.15/AC.2/2023/41
ECE/TRANS/WP.15/AC.2/86 (Paragraphs 75 and 76)
Informal document INF.14 of the fortieth session
ECE/TRANS/WP.15/AC.2/82 (Paragraph 69)
Informal document INF.9 of the thirty-eighth session
ECE/TRANS/WP.15/AC.2/78 (Paragraphs 9 and 10)
ECE TRANS/WP15/AC.2/2022/1
ECE/TRANS/WP.15/AC.2/80 (Paragraph 64)

* Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/WP.15/AC.2/2024/53.

** A/78/6 (Sect. 20), table 20.5



Introduction

1. The informal working group on certificates and other shipboard documents in electronic form held its fourth meeting on 10–11 April 2024. Members of the Dutch, German and Luxembourg delegations, and representatives of European Chemical Industry Council (Cefic), the European Barge Union, European Skippers Organisation (EBU/ESO) and the Recommended ADN Classification Societies attended the meeting. The informal working group continued its discussions on the tasks set out for the group in ECE/TRANS/WP.15/AC.2/2022/1.
2. The group had a short discussion on the developments of telematics under discussion at the RID/ADR/ADN Joint Meeting and on the implementation process of the Regulation (EU) 2020/1056 on electronic Freight Transport Information (eFTI). The adoption of the necessary regulation to start the implementing process for eFTI is foreseen for July 2024. From that date a 30-month implementation period will start, after which authorities of Member states will be obliged to accept eFTI data.
3. The Chair recalled that during the forty-third session of the ADN Safety Committee the proposals for the step 1 documents were accepted by the Committee.

I. Discussion on the proposals

4. The informal working group discussed proposals for amendment of the ADN to reflect that the step 2 documents could be carried on board in an electronic format. The members recognized that, just as for the step 1 documents, it should be clear that the carriage of documents in an electronic format should be **an alternative** to the carriage of documents in physical form. To that end, the members decided that the wording of this option should closely resemble the wording of the option for the step 1 documents.
5. Whereas the step 1 documents were identified as informational documents, the step 2 documents were identified as certificates, or containing signatures or stamps, other security features, or are documents with a legal bearing. Therefore the group came to the conclusion that e-signatures would be necessary to ensure a level of confidence that the electronic alternatives to these documents are authentic.
6. The informal working group recalled the discussion during the third meeting on the equivalence of e-signatures. Currently in the European Union three levels of e-signatures are recognized through the eIDAS regulation (EU 910/2014):
 - (a) Simple e-signatures such as for instance a handwritten signature on paper that you scan or write digitally to use in an e-mail or letter;
 - (b) Advanced e-signatures which secures your message or document with a certificate and a code (encrypted);
 - (c) Qualified e-signatures which secures your message or document with a qualified certificate (extra security and verification).
7. The requirements of advanced level e-signatures are:
 - (a) It is uniquely linked to the signatory;
 - (b) It is capable of identifying the signatory;
 - (c) It is created using electronic signature creation data that the signatory can, with a high level of confidence, use under his sole control; and
 - (d) It is linked to the data signed therewith in such a way that any subsequent change in the data is detectable.
8. It was recognized that a simple e-signature could not be viewed as an equivalent security feature to the security features which are used for the current physical documents. However, it was also noted that requiring anything more than the simple e-signature would mean that the issuing body (Classification Societies for a large part of the documents) would need to have appropriate software to be able to issue documents with advanced (or qualified)

e-signatures. The ADN recognized Classification Societies were asked to confirm which level of e-signatures they are able to generate. The ADN recognized Classification Societies reported that they are able to generate advanced level e-signatures.

9. The Recommended ADN Classification Societies also brought to the attention of the group the International Maritime Organisation (IMO) circular FAL.5/Circ.39/Rev.2, which contains Guidelines for the use of electronic certificates for seagoing vessels. The representative of the Recommended ADN Classification Societies mentioned that the certificates that they issue for inland navigation also comply with the Guidelines set out in the IMO circular. One of the most prominent aspects of these Guidelines is the inclusion of a unique tracking number (sometimes accompanied by a QR code) which can be used to verify the validity of a certificate through a publicly available website.

10. It was noted that the IMO circular is addressed to authorities, the group therefore refrained from adding a note to the proposals indicating that documents meeting the requirements of the IMO guideline Fal.5/Circ.39/Rev.2 are deemed to be at least equivalent with the requirements of the advanced level e-signature. Nevertheless, the group deemed that documents meeting the requirements of the Guideline are at least equivalent to the advanced level e-signature.

11. It was noted that some of the step 2 documents are not issued by Classification Societies. These documents are usually issued by (smaller) third parties, which might not be able to invest in complicated software programs to issue electronic documents. The group decided that for the step 2 documents an advanced level e-signature would ensure an adequate level of confidence regarding the authenticity of the documents.

12. The book in which all required measurement results are recorded (8.1.2.1 (g)) was indicated as a step 2 document. The group identified this as a special document since measurement results need to be added, and it is therefore not a static document. The group decided that the book can be kept on board electronically if the following requirements are met:

- (a) The access to the book is protected by means of a log in;
- (b) It is possible to identify who added entries in the book; and
- (c) The entries in the book shall be tamperproof.

13. The group noted that the while the certificates described in 8.1.7.1 and 8.1.7.2 are listed in 8.1.2.1 (e), the certificate described in 8.1.7.3 is not listed. We therefore propose to include the certificate described in 8.1.7.3 in the list of 8.1.2.1 (e).

14. The group also noted that the documents prescribed in 7.1.7.4.1 (b) and (c) were not listed in 8.1.2.2. However, since 7.1.7.4 is harmonized with ADR, the group proposes to inform the RID/ADR/ADN Joint Meeting and request the Joint Meeting to consider whether these documents could be kept electronically on board. Nevertheless, we propose to add a letter "i" to the list in 8.1.2.2 with a reference to these documents, without adding the letter "i" to the sentence that would allow these documents to be kept on board electronically.

II. Proposals

15. Amend 7.2.3.7.1.6 as follows (deleted text is stricken through, new text is bold and underlined):

"Before taking measures which could cause hazards as described in 8.3.5, all cargo tanks and pipes in the cargo area shall be made gas-free. This shall be documented in a gas-free certificate, valid on the day the works commence. The condition of being gas-free may only be declared and certified by a person approved by the competent authority.

The gas-free certificate may be issued electronically in PDF format according to standard ISO 32000-1, accompanied by an advanced electronic signature according to Regulation (EU) 910/2014, or at least equivalent."

16. Amend 7.2.3.7.2.6 as follows (deleted text is stricken through, new text is bold and underlined):

"Before taking measures which could cause hazards as described in 8.3.5, all cargo tanks and pipes in the cargo area shall be made gas-free. This shall be documented in a gas-free certificate, valid on the day the works commence. The condition of being gas-free may only be declared and certified by a person approved by the competent authority.

The gas-free certificate may be issued electronically in PDF format according to standard ISO 32000-1, accompanied by an advanced electronic signature according to Regulation (EU) 910/2014, or at least equivalent."

17. Amend 8.1.2.1 as follows (deleted text is stricken through, new text is bold and underlined):

"In addition to the documents required by other regulations, the following documents shall be kept on board:

- (a) The vessel's certificate of approval referred to in 1.16.1.1 or the vessel's provisional certificate of approval referred to in 1.16.1.3 and the annex referred to in 1.16.1.4;
- (b) Transport documents referred to in 5.4.1 for all dangerous goods carried as cargo on board;
- (c) The instructions in writing prescribed in 5.4.3;
- (d) A copy of the ADN with the latest version of its annexed Regulations;
- (e) The inspection certificate of the insulation resistance of the electrical installations and equipment prescribed in 8.1.7.1, ~~and~~ the certificates prescribed in 8.1.7.2 concerning the inspection of all installations, equipment and autonomous protection systems and the conformity of the documents required in 8.1.2.2 (e) to (h) and 8.1.2.3 (r) to (v) with the circumstances on board **and the certificate attesting the reusability of repaired explosion protected installations and equipment and autonomous protection systems prescribed in 8.1.7.3;**
- (f) A certificate concerning the inspection of the fire-extinguishing hoses prescribed in 8.1.6.1 and a certificate concerning the inspection of the special equipment prescribed in 8.1.6.3;
- (g) A book in which all required measurement results are recorded;
- (h) A copy of the relevant text of the special authorizations referred to in 1.5 if the transport operation is performed under this/these special authorization(s);
- (i) Means of identification, which include a photograph, for each crew member, in accordance with 1.10.1.4; and
- (j) (Deleted)
- (k) For vessels which carry hose assemblies used for loading, unloading or delivering liquefied natural gas for the operation of the vessel, the inspection certificate and the documentation of the calculated maximum load stress prescribed in 8.1.6.2.

The documents listed in paragraphs (c), (d) and (h) may be kept on board electronically in a human-readable format.

The documents listed in subparagraphs (e), (f) and (k) may be kept on board electronically in PDF format according to standard ISO 32000-1, accompanied by an advanced electronic signature according to Regulation (EU) 910/2014, or at least equivalent.

The book according to paragraph (g) may be kept on board electronically if:

- The access to the book is protected by means of a log in;

- **It is possible to identify who added entries in the book; and**
- **The entries in the book shall be tamperproof.**

18. Amend 8.1.2.2 as follows (new text is bold and underlined):

"...

(i) The instructions and the list and procedure for carriage under temperature control prescribed in 7.1.7.4.1 (b) and (c).

The document listed in paragraph (a) may be kept on board electronically in a human-readable format.

The documents listed in subparagraphs (c), (d), (e), (f), (g) and (h) may be kept on board electronically in PDF format according to standard ISO 32000-1, accompanied by an advanced electronic signature according to Regulation (EU) 910/2014, or at least equivalent.

19. Add the following sentences at the end of 8.1.2.3 (new text is bold and underlined):

"...

The documents listed in subparagraphs (e), (f), (h), (j), (o), (p), (r), (s), (t), (u), (v), (w) and (x) may be kept on board electronically in PDF format according to standard ISO 32000-1, accompanied by an advanced electronic signature according to Regulation (EU) 910/2014, or at least equivalent.

III. Discussion on the step 3 documents

20. During the third meeting of the informal working group, the Certificate of Approval, the provisional Certificate of Approval and the ADN specialized knowledge certificate were moved to a newly created step 3. These documents are of paramount importance in the framework of ADN. A higher level of confidence in the authenticity of these documents could therefore be necessary.

21. The group foresees three possible ways to deal with these last documents:

(a) The group could investigate whether it is needed/feasible to require that these documents are issued electronically only with a qualified level e-signature, or equivalent;

(b) The group could investigate whether it is needed/feasible to require that these documents are issued electronically according to the guidelines of IMO circular FAL.5/Circ.39/Rev.2;

(c) The group could conclude that, for the time being, these documents could not be issued electronically with a high level of confidence in the authenticity.

22. Since the competent authorities of the Contracting Parties are responsible for the issuing of the step 3 documents, the informal working group requests the ADN Safety Committee to discuss these three options, and to give guidance on any potential future work of the group.

23. The list of documents, and the division into the three steps are attached to this report in the annex.

IV. Agenda

24. If the ADN Safety Committee decides that the informal working group should continue its discussion, in the light of the comments and advice received from the ADN Safety Committee, on the step 3 documents, the group reserved 18 and 19 September 2024 as dates for a potential next meeting.

V. Action to be taken

25. The ADN Safety Committee is requested to consider the report of the informal working group and to take action as it deems appropriate.

Annex

Certificates and other documents to be reviewed for dematerialization

<i>Reference</i>	<i>Description</i>	<i>Certificates</i>	<i>Other documents</i>	<i>Dematerialization possible?</i>	<i>Remarks</i>
ALL ADN - VESSELS					
8.1.2.1 a)	Certificate of approval	x		Step 3	
8.1.2.1 a)	Provisional certificate of approval	x		Step 3	
8.1.2.1 b)	Transport documents				Electronic transport document under the competency of the Joint Meeting
8.1.2.1 c)	Instructions		x	Step 1	
8.1.2.1 d)	ADN (latest version)				already possible
8.1.2.1 e)	Inspection certificate of the isolation resistance of the electrical installations and equipment	x		Step 2	
8.1.2.1 f)	Certificate concerning the inspection of the fire-extinguishing hoses	x		Step 2	
8.1.2.1 f)	Certificate concerning the inspection of the special equipment	x		Step 2	
8.1.2.1 g)	Book with required measurement results		x	Step 2	This document needs to be filled in
8.1.2.1 h)	Copy of the relevant text of the special authorisations		x	Step 1	
8.1.2.1 i)	Means of identification	x		no	Digital ID might be accepted if it is a Nationally accepted means of identification
8.1.2.1 k)	Inspection certificate	x		Step 2	
8.1.2.1 k)	Documentation of the calculated maximum load stress	x		Step 2	
DRY CARGO VESSELS					
8.1.2.2 a)	Stowage plan		x	Step 1	
8.1.2.2 b)	ADN specialized knowledge certificate	x		Step 3	
8.1.2.2 c)	Damage-control plan	x		Step 2	
8.1.2.2 c)	Documents on intact stability	x		Step 1	

<i>Reference</i>	<i>Description</i>	<i>Certificates</i>	<i>Other documents</i>	<i>Dematerialization possible?</i>	<i>Remarks</i>
8.1.2.2 c)	Certificate of the recognized Classification Society	x		Step 2	
8.1.2.2 d)	Inspection certificate for fixed fire extinguishing systems	x		Step 2	
8.1.2.2 e)	General plan indicating the fixed installations and equipment suitable for use at least in zone 1		x	Step 2	
8.1.2.2 f)	List of or a general plan indicating the fixed installations and equipment which are not authorized for use during loading and unloading, during a stay near to or within an onshore assigned zone		x	Step 2	
8.1.2.2 g)	Plan indicating the boundaries of the zones and the location of the electrical and non-electrical equipment installed in the relevant zones intended for use in explosion hazardous areas		x	Step 2	
8.1.2.2 h)	List of installations and equipment in case of electrical equipment for use in zone 1 in case of electrical equipment for use in zone 2 and in the case of non-electrical equipment for use in zone 1 and zone 2		x	Step 2	
TANKVESSELS					
8.1.2.3 a)	Stowage plan		x	Step 1	
8.1.2.3 b)	ADN specialized knowledge certificate	x		Step 3	
8.1.2.3 c)	Damage-control plan		x	Step 1	
8.1.2.3 c)	Documents concerning intact stability		x	Step 1	
8.1.2.3 c)	Proof of the loading instrument		x	Step 1	
8.1.2.3 e)	Certificate of class	x		Step 2	
8.1.2.3 f)	Certificates concerning the inspection of the gas detection systems and the oxygen measuring system	x		Step 2	
8.1.2.3 g)	Vessel substance list		x	Step 1	
8.1.2.3 h)	Inspection certificate for the hose assemblies for loading and unloading	x		Step 2	

<i>Reference</i>	<i>Description</i>	<i>Certificates</i>	<i>Other documents</i>	<i>Dematerialization possible?</i>	<i>Remarks</i>
8.1.2.3 i)	Instructions relating to the loading and unloading flows		x	Step 1	
8.1.2.3 j)	Inspection certificate of the cargo pump-rooms	x		Step 2	
8.1.2.3 k)	Heating instructions		x	Step 1	
8.1.2.3 m)	Registration document referred to in 8.1.11		x	Step 1	
8.1.2.3 n)	For the carriage of refrigerated substances, the instruction required		x	Step 1	
8.1.2.3 o)	Certificate concerning the refrigeration system	x		Step 2	
8.1.2.3 p)	Inspection certificates concerning the fixed fire extinguishing systems	x		Step 2	
8.1.2.3 q)	Determination of the holding time and documentation on the heat transmission coefficient		x	Step 1	
8.1.2.3 r)	A list of or a general plan indicating the fixed installations and equipment suitable to be used at least in zone 1		x	Step 2	
8.1.2.3 s)	List of or a general plan indicating the fixed installations and equipment which are not authorized for use during loading and unloading, degassing or during a stay near to or within an onshore assigned zone		x	Step 2	
8.1.2.3 t)	Plan approved by a recognized classification society indicating the boundaries of the zones		x	Step 2	
8.1.2.3 u)	List of installations and equipment in the case of electrical equipment for use in zone 0 or zone 1 and, in the case of non-electrical equipment for use in zone 0 in the case of electrical equipment for use in zone 2 and in the case of non-electrical equipment for use in zone 1 and zone 2 Self-protection system		x	Step 2	
8.1.2.3 v)	List of or general plan indicating the fixed installations and equipment installed outside the explosion hazardous areas		x	Step 2	
8.1.2.3 w)	Certificates required under 3.2.3.1, Explanations concerning Table C,	x		Step 2	

<i>Reference</i>	<i>Description</i>	<i>Certificates</i>	<i>Other documents</i>	<i>Dematerialization possible?</i>	<i>Remarks</i>
	explanatory note for column (20), remark 12				
8.1.2.3 x)	Certificates required under 3.2.3.1, Explanations concerning Table C, explanatory note for column (20), remark 33	x		Step 2	
	ALL ADN - VESSELS				
8.1.5.1	Instructions for the use of toximeters		x	Step 1	
8.1.7.3	Certificate on repair of explosion- protected installations and equipment			Step 2	Proposed new 8.1.2.1 (l)
8.6.3	ADN Checklist		x	Step 2	
8.6.4	Checklist degassing to reception facilities		x	Step 2	
	Other documents				
7.1.7.4.1 b) and c)	Instructions to the carrier on refrigeration system and procedures to be followed in the event of loss of control		x		Under the competency of the Joint Meeting
7.2.3.7.1.6 7.2.3.7.2.6 and 8.3.5	Gas free certificate	x		Step 2	