

# **Economic and Social Council**

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# **Economic Commission for Europe**

**Inland Transport Committee** 

**Working Party on Inland Water Transport** 

Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation

Sixty-fifth session

Geneva, 19-21 June 2024

Items 4 (a) and 7 of the provisional agenda

Standardization of technical and safety requirements in inland navigation:

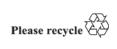
European Code for Inland Waterways (resolution No. 24, revision 6)

Amendments to the Police Regulations for the Navigation of the Rhine and Police Regulations for the Navigation of the Mosel and recommendations concerning pilot projects that derogate from the Police Regulations for the Navigation of the Rhine

## Note by the secretariat

## **Mandate**

- 1. The present document is submitted in accordance with the proposed programme budget for 2024, part V (Regional cooperation for development), section 20 (Economic development in Europe), programme 17 (Economic development in Europe) (A/78/6 (Sect. 20), table 20.5).
- 2. In this document, the secretariat presents the decisions transmitted by the River Commissions:
- (a) Updates to the Police Regulations for the Navigation of the Rhine (RPNR), adopted by the Central Commission for the Navigation of the Rhine (CCNR) at its autumn 2023 session (annex I);
- (b) Updates to the Police Regulations for the Navigation of the Mosel, adopted by the Mosel Commission at its plenary meeting on 30 November 2023 in Mertert, Luxembourg (annex II).
- 3. Annex III contains recommendations adopted by CCNR to support the development of automated shipping and remote operation related to a pilot project that derogates from RPNR, in particular.
- 4. The Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation may wish to consider the decisions of the River Commissions and take them into account in future work.





#### Annex I

# Resolutions adopted by the Central Commission for the Navigation of the Rhine in 2023 at its autumn session\*

A. Final amendment to the Police Regulations for the Navigation of the Rhine amending article 3.10 (1) (b), regarding the position of side lights on pushed convoys under way (resolution 2023-II-11)

Article 3.10 (1) (b) shall read as follows:1

"(b) The side lights

Shall be placed as near the stern as possible on the widest part of the convoy, not more than 1 m from the sides of the convoy and at a height of not less than 2 m above the water level;"

B. Final amendment to the Police Regulations for the Navigation of the Rhine concerning marking of prohibition of smoking or using fires and naked lights (article 3.32 (3)) (resolution 2023-II-12)

Article 3.32 of RPNR notes provisions related to signage of the prohibition on smoking or using fires and naked lights. Paragraph 3 provides that the symbols prescribed in the version of RPNR in force at 30 November 2011 could be used until 30 November 2015. Those provisions are now obsolete. The present resolution therefore modifies the article in that regard.

Article 3.32 (3) is deleted.<sup>2</sup>

C. Final amendment to the Police Regulations for the Navigation of the Rhine amending annex 13, paragraph 6.4 (written acknowledgement of diesel oil refuelling and receipts related to disposal charge transactions) (resolution 2023-II-13)

Annex 13 shall be worded as follows:

"Annex 13

# LIST OF CERTIFICATES AND OTHER PAPERS TO BE CARRIED ON BOARD IN ACCORDANCE WITH ARTICLE 1.10 OF RPNR

The "legal basis" column in the table below refers to the following regulations, conventions and administrative arrangements:

- Regulations for Rhine Navigation Personnel (RPN)
- Rhine Vessels Inspection Regulations (RVIR)
- European standard laying down technical requirements for inland navigation vessels (ES-TRIN)
- European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)

<sup>\*</sup> The full text of the resolutions adopted by CCNR in its autumn 2023 session (2023-II) is available at: www.ccr-zkr.org/files/documents/resolutions/ccr2023-IIfr.pdf.

<sup>&</sup>lt;sup>1</sup> The amendment will enter into force on 1 December 2024.

<sup>&</sup>lt;sup>2</sup> The amendment will enter into force on 1 December 2024.

- Convention on the Collection, Storage and Disposal of Waste Generated during Navigation on the Rhine and Inland Waterways (CDNI)
- Convention on the Measurement of Inland Navigation Vessels, concluded in Geneva on 15 February 1966 (Convention of 15 February 1966)
- Regional Arrangement on the Radiocommunication Service for Inland Waterways

The penultimate column in the table below indicates whether certificates and other on-board documents may be submitted in electronic format.

The last column in the table below, "Electronic format", specifies the electronic format in which certificates and other documents may be submitted. The PDF format shown in the table below corresponds to that defined in international standard ISO 32000-1:2008. The PDF/A electronic format shown in the table below corresponds to that defined in international standard ISO 19005-1:2005.

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Category	Lists of certificates and other papers to be carried on board in accordance with article 1.10 of RPNR	Legal basis	Copy of certificates and other on-board documents available for consultation in electronic format	Suitable electronic format		
1. Vo	essels					
1.1	Inspection certificate or the document used in its stead, or a certificate recognized as its equivalent	RVIR, article 1.04	Not accepted			
1.2	Rhine navigation membership certificate	CCNR resolution 2015-II-10	Accepted	PDF		
1.3	Vessel measurement certificate	Convention of 15 February 1966	Not accepted			
2. Cı	2. Crew					
2.1.1a	Certificate of qualification as a boatmaster showing any specific authorizations required, valid under the Regulations for Rhine Navigation Personnel, with the exception of the recreational boatmaster's certificate, the administration boatmaster's certificate or the provisional Rhine certificate of qualification as a boatmaster.	RPN, article 3.02	Accepted	PDF/A		
2.1.1b	Recreational boatmaster's certificate, administration boatmaster's certificate or provisional Rhine certificate of qualification as a boatmaster	RPN, article 3.02 (article 12.08 for the provisional Rhine certificate of qualification as a boatmaster)	Not accepted			
2.1.2	For other crew members, a duly completed and valid service record book, including any relevant certificates of qualification.	RPN, article 3.02	Not accepted			

Category	Lists of certificates and other papers to be carried on board in accordance with article 1.10 of RPNR	Legal basis	Copy of certificates and other on-board documents available for consultation in electronic format	Suitable electronic format
2.2	Duly completed logbook, including the certificate referred to in annex 8 of the RPN, or a copy of the page in the logbook containing information on the navigation time and rest periods observed on the vessel on which the crew member's last journey took place; for vessels with a community certificate or a Union certificate recognized on the Rhine in accordance with Annex O of RVIR, a logbook issued by a competent authority of a third State and recognized by CCNR may be carried on board in lieu of one issued by the competent authority of a Rhine riparian State or Belgium	RPN, article 18.04	Not accepted	
2.3	Attestation of the issuance of logbooks	RPN, article 18.04	Accepted	PDF
2.4	Specific authorization for radar navigation considered valid under RPN	RPN, article 13.02	Accepted	PDF/A
2.5	Radio operator's certificate for operating ship stations	Regional Arrangement Concerning the Radiotelephone Service on Inland Waterways, annex 5	Not accepted	
2.6	Certificates of qualification for safety personnel on board passenger vessels	RPN, article 16.01 et seq.	Accepted only for passenger navigation expert	PDF/A
2.7	For vessels displaying the identification mark referred to in article 2.06, the certificates of the boatmaster and those crew members involved in bunkering operations.	RPN, article 15.02	Accepted	PDF/A
3. N	avigation areas			
3.1	Certificate issued by the competent authority indicating the duration of works and the geographical boundaries of the worksite in which the craft may be operated.	ES-TRIN, article 23.01	Accepted	PDF

<sup>&</sup>lt;sup>3</sup> Note by the secretariat: Automatic Identification System.

Category	Lists of certificates and other papers to be carried on board in accordance with article 1.10 of RPNR	Legal basis	Copy of certificates and other on-board documents available for consultation in electronic format	Suitable electronic format	
5.3	Inspection certificates for boilers and other pressure vessels	ES-TRIN, article 8.01 (2)	Accepted	PDF	
5.4	A copy of the type approval certificate, the engine manufacturer's instructions and a copy of the engine parameter protocol.	ES-TRIN, article 9.01 (3)	Accepted	PDF	
5.5	Documents concerning electrical installations	ES-TRIN, article 10.01 (2)	Accepted	PDF	
5.6	Certificate for cables	ES-TRIN, article 13.02 (3) (a)	Accepted	PDF	
5.7	Inspection markings for portable fire extinguishers	ES-TRIN, article 13.03 (5)	Accepted	PDF	
5.8	Inspection certificates for permanently installed firefighting systems	ES-TRIN, articles 13.04 (8) and 13.05 (9)	Accepted	PDF	
5.9	Inspection certificates and operating instructions for cranes	ES-TRIN, article 14.12 (6), (7) and (9)	Accepted	PDF	
5.10	Inspection certificate for liquefied gas installations	ES-TRIN, article 17.13	Accepted	PDF	
5.11	Type approval certificate and maintenance log for on-board sewage treatment plants	ES-TRIN, article 18.01 (5) and (9)	Accepted	PDF	
5.12	For vessels displaying the identification marking referred to in article 2.06, the operation manual and safety documentation	ES-TRIN, article 30.03 (1) and annex 8 (1.4.9)	Accepted	PDF	
5.13	For vessels authorized to transport more than 12 passengers and equipped to accommodate them on board overnight, the safety documentation.	RPNR, article 8.10	Accepted	PDF	
6. C	6. Cargo and waste				
6.1	Documents required under ADN 8.1.2.1, 8.1.2.2 and 8.1.2.3	ADN, 8.1.2.1, 8.1.2.2 and 8.1.2.3			

Category	Lists of certificates and other papers to be carried on board in accordance with article 1.10 of RPNR	Legal basis	Copy of certificates and other on-board documents available for consultation in electronic format	Suitable electronic format
6.1.1	Transport documents	ADN 8.1.2.1 (b)	Accepted	Exclusively in a format complying with the requirements of ADN 5.4.0.2, in conjunction with the guidelines for the application of ADN 5.4.0.2.
6.1.2	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)	ADN 8.1.2.1 (d)	Accepted	Text version in electronic format, readable at any time
6.1.3	Other documents required under ADN 8.1.2.1, 8.1.2.2 and 8.1.2.3	ADN, 8.1.2.1 (a), (c), (e)-(h) and (k); 8.1.2.2 (a) and (c)-(h); 8.1.2.3 (a) and (c)-(x)	Not accepted	
6.2	For the transport of containers, the documents relating to the vessel's stability, confirmed by an inspection body, including the stowage plan or manifest for each loading condition and the results of the stability calculation for the loading condition, a comparable condition for a previous load or a typical loading condition for the vessel	ES-TRIN, article 27.01 (2) (description of documents and stamp of the inspection commission)	Accepted	PDF
		ES-TRIN, article 28.03 (3) (result of the calculation for container vessels)		
		RPNR, article 1.07 (5) (result of the stability control and stowage plan)		
6.3	Used oil log, duly completed	RPNR, article 15.05 and annex 10	Not accepted	
		CDNI, annex 2 (implementing regulation), part A, articles 1.01 and 2.03 and appendix I		

Category	Lists of certificates and other papers to be carried on board in accordance with article 1.10 of RPNR	Legal basis	Copy of certificates and other on-board documents available for consultation in electronic format	Suitable electronic format
6.4	Receipt for refuelling with gas oil, including receipts for the payment of SPE-CDNI disposal charges over a period of at least 12 months. If the last gas oil refuelling occurred more than 12 months previously, at least the last receipt for refuelling must be on board.	CDNI, annex 2 (implementing regulation), part A, article 3.04 (1) and (2)	Accepted	PDF
6.5	Certificate of unloading	RPNR, article 15.08 (2)	Accepted	A readable electronic
		CDNI, annex 2 and part B, appendix IV model		format with a signature protected against forgery in accordance with Regulation (EU) No. 910/2014 or comparable national requirements of the Swiss Confederation

# Annex II

Decisions of the plenary session of the Mosel Commission, held on 30 November 2023 in Mertert, Luxembourg (CM-II-23)

A. Final amendment to the Police Regulations for the Navigation of the Rhine modifying article 3.10 (1) (b) concerning the position of side lights of pushed convoys under way (resolution 2023-II-11)

Agenda item 5

Waterway Police and Waterway Marking Committee and its Working Group on Modern Information Exchange Services and Systems

Item 5.4. Decision: Amendments to the Police Regulations for the Navigation of the Mosel (RPNM)

Relates to RPNM article 1.01 (aj)

#### Decision of the Mosel Commission CM-II-23-5.4.

The Mosel Commission decides to amend the Police Regulations for the Navigation of the Mosel.

The amendment will enter into force on 1 July 2024.

Article 1.01 (aj) shall read as follows:

"(aj) "ES-TRIN" means the European standard laying down technical requirements for inland navigation vessels, in its 2023/1 edition. In order for ES-TRIN to be applicable, a member State must be one of the Mosel riparian States;".

## **Annex III**

# Recommendations concerning a pilot project that derogates from the Police Regulations for the Navigation of the Rhine\*

Protocol 15
Recommendation for the pushed convoy PRIVILEGE (resolution 2023-II-15)

RECOMMENDATIONS TO THE COMPETENT AUTHORITY CONCERNING THE POLICE REGULATIONS FOR THE NAVIGATION OF THE RHINE (RPNR)

and

# RECOMMENDATIONS TO INSPECTION BODIES CONCERNING THE RHINE VESSEL INSPECTION REGULATION (RVIR)

#### **RECOMMENDATION NO. 9/2023**

#### of 6 December 2023

RPNR, articles 1.07 (2) and (3) and 1.09 (1)

ES-TRIN, articles 3.03 (2), 6.02 (1) and (2), 6.09 (1) and (5), 7.01 (1) and (3), 7.02 (1)-(3), 7.03 (4)-(7), 7.04 (2), (5), (6), (8) and (9), 7.05 (3) and (4), 7.06 (1), 7.07 (1), 7.08, 7.09 (2) and (7.11), 31.02 (11) and 31.03 (1)-(3)<sup>4</sup>

### For phase 2 of the pushed convoy PRIVILEGE remote operation project

#### 1. Context

In the context of a pilot project on the Rhine, the above-mentioned pushed convoy will temporarily be operated remotely. Although there will be a full crew on board and on duty during phase 2 of the project, there are a number of derogations from the provisions of RPNR and RVIR.

The derogations from RPNR mainly concern unobstructed view and helm control when the above-mentioned pushed convoy is temporarily operated remotely. During phase 2 of the project, there will still be a full crew on duty on board the pushed convoy but, at certain points, the pushed convoy will be operated remotely by an operator in the remote operation centre. At these points, the operator in the remote operation centre will decide on the route and speed of the pushed convoy. Operation from the remote operation centre also requires additional means to compensate for the absence of a clear view for the operator in the remote operation centre. The articles of RPNR from which the project derogates are mentioned in the title of the present recommendations and are detailed in **appendix 2**.

The derogations from RVIR concern article 1.03, which refers to ES-TRIN. The derogations from ES-TRIN concern the position of sensors in relation to the collision bulkhead and the aft-peak bulkhead, the steering system, the wheelhouse, the unobstructed view, the special requirements for main engines and steering systems, navigation lights, light and sound signals, navigation and information equipment, radiotelephone systems for vessels with single-person radar steering, internal communication facilities on board, alarm systems, stern-anchor operating equipment and S1 and S2 standards. The articles of ES-TRIN from which the project derogates are mentioned in the title of the present recommendations and are detailed in appendix 2.

<sup>\*</sup> Recommendations for the motor vessel PERSEVERANCE (resolution 2023-II-16) and the pushed convoy REINHOLD DEYMANN (resolution 2023-II-17) are available at: www.ccr-zkr.org/files/documents/resolutions/ccr2023-IIfr.pdf.

<sup>&</sup>lt;sup>4</sup> European standard laying down technical requirements for inland navigation vessels.

All in all, the additional sensors, the information available to the operator in the remote operation centre and the personnel in the remote operation centre, in addition to the minimum crew, should make it possible to guarantee a level of safety equivalent to that of conventional navigation. On the other hand, safety risks may arise if the operator in the remote operation centre can only partially assess the situation, in the event of failure of elements of the remote operation or in the event of delayed resumption of the operation of the convoy by the on-board, on-duty boatmaster when required to do so by the situation.

#### 2. Derogations from RPNR and RVIR

The PRIVILEGE pushed convoy comprises a motor vessel (PRIVILEGE) and a barge (PRIVILEGE II).

- 2.1 In accordance with RPNR, article 1.26, the motor vessel PRIVILEGE and the barge PRIVILEGE II, unique European Vessel Identification Numbers 02323654 and 02327216 (**appendix 6**), may, until 06/12/2025, be authorized to derogate from the requirements of RPNR articles 1.07 (2) and (3) and 1.09 (1).
- 2.2 In accordance with RVIR, article 2.20 (3), the motor vessel PRIVILEGE and the barge PRIVILEGE II, unique European Vessel Identification Numbers 02323654 and 02327216 (**appendix 6**), may, until 06/12/2025, be authorized to derogate from the requirements of RVIR article 1.03, i.e. ES-TRIN 2021/1 articles 3.03 (2), 6.02 (1) and (2), 6.09 (1) and (5), 7.01 (1) and (3), 7.02, (1)-(3), 7.03 (4)-(7), 7.04(2), (5), (6), (8) and (9), 7.05 (3) and (4), 7.06 (1), 7.07 (1), 7.08, 7.09 (2), 7.11, 31.02 (11) and 31.03 (1)-(3).

#### Conditions

These derogations may be authorized provided that:

- 1. Navigation is restricted to journeys on the Rhine between rkm 660 (Mondorf ferry) and rkm 952.50 (Gorinchem).
- 2. The pushed convoy is insured for civil liability, whether it is operated from the remote operation centre or from the on-board wheelhouse.
- 3. The pushed convoy sails with a minimum crew on board in accordance with the applicable operating regime.
- 4. The boatmaster's responsibility under Rhine navigation regulations remains unaffected, even when the pushed convoy is operated remotely by the operator in the remote operation centre.
- 5. The on-board, on-duty boatmaster must be able to resume control of the pushed convoy at any time and without delay.
- 6. The on-board, on-duty boatmaster is ultimately responsible for operating the pushed convoy.
- 7. The on-board, on-duty boatmaster has authority over the operator in the remote operation centre for matters relating to the operation of the pushed convoy.
- 8. A device is installed on board the pushed convoy to ensure the continuous presence of a crew member in the wheelhouse when the pushed convoy is being operated remotely.
- 9. The operator in the remote operation centre must have the required skills to operate the pushed convoy remotely. The operator must also hold a valid certificate of qualification as a boatmaster under the Regulations for Rhine Navigation Personnel for the operation of the pushed convoy.
- 10. A remote operation centre operator who is operating the pushed convoy on a section of the Rhine mentioned in article 13.03 of the Regulations for Rhine Navigation Personnel must also have the specific authorization required under this regulation.
- 11. The remote operation centre operator and all the crew on board the pushed convoy are trained in accordance with the concept set out in **appendix 4**.
- 12. The faculties of the remote operation centre operator shall not be impaired by excessive fatigue, by the effects of alcohol, medication or drugs, or for any other reason.

When the blood alcohol content reaches 0.5 % or higher or when the level of alcohol absorption corresponds to such a blood alcohol content or an equivalent breath alcohol content, the remote operation centre operator is prohibited from performing his or her duties.

- 13. The remote operation centre operator shall apply the language regime defined in RPNR article 4.05 for communicating with the authorities and other vessels navigating on the Rhine.
- 14. The requirements for the remote operation centre and the pushed convoy, as set out in the risk analysis in **appendix 5**, are met.
- 15. All the organizational and technical features of the remote operation centre, as set out in the project description in **appendices 1 and 3**, are respected.
- 16. The equipment used in the remote operation centre must offer the remote operation centre operator sufficient visibility conditions in accordance with **appendix 2**.
- 17. The competent authorities of the Rhine riparian States and Belgium, or third parties designated by them, must be given the opportunity to take part in the test journeys.
- 18. The company SEAFAR provides additional information to that required under the reporting obligation (see 4. below) when requested by the competent authorities of the Rhine riparian States and Belgium. The company SEAFAR also provides access to the remote operation centre and to the computer applications used to collect test journey data to these authorities and/or to third parties appointed by them for this purpose.
- 4. Reporting requirements

The objective of phase 2 is to:

- Acquire sufficient experience to verify the operation of the overall system, comprising technologies and persons on land and on the vessels and
- Ensure that a remotely operated pushed convoy has a level of safety equivalent to that of a pushed convoy operated exclusively by a boatmaster on board

To this end, the operator of the pushed convoy or, failing that, the owner of the pushed convoy, must send to the competent authority and the inspection commission an evaluation report at the following stages:

- · After the first test journey
- · After the fifth test journey
- After the twenty-fifth test journey
- · After the fiftieth test journey

A test journey is a journey from the beginning to the end of the authorized test route (upstream or downstream) where the pushed convoy is operated remotely by an operator in the remote operation centre.

After independent verification of the completeness and quality of the reports, as well as compliance with all the relevant CCNR requirements, Belgium will forward these evaluation reports to the CCNR secretariat for transmission to the Rhine riparian States and Belgium.

The evaluation reports shall include information on at least the following aspects:

- (a) Any irregularity observed which affects or is likely to affect the safety of the pushed convoy or safe and orderly navigation.
- (b) Failure of the remote operating system of the pushed convoy and all the accessories that enable it.
  - (c) Leaks.
- (d) Repairs and modifications to the remote operating system of the pushed convoy and all the accessories that enable it.
  - (e) Fuel consumption.

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- (f) Incidents and accidents.
- (g) The journey conditions under which the remote operating centre operator operated the pushed convoy. These may include meteorological conditions (temperature, rain, fog, snow, hail, frost, etc.), water level (low water, i.e. below the equivalent low water level, normal water level, high water, i.e. above flood mark I), visibility, traffic level (low, normal, high), cargo (loaded, half-loaded, light), day or night navigation. The sections (rkm) where the remote operating centre operator was operating the pushed convoy remotely and the sections where the on-board on-duty boatmaster was operating the pushed convoy will be indicated.
- (h) Delays in transmission or in decisions by the remote operating centre due to the distance between the remote operating centre and the pushed convoy.
- (i) During operation of the pushed convoy by the operator in the remote operating centre on certain sections, the number of times, situations and reasons:
  - 1. When the on-board, on-duty boatmaster urgently and unexpectedly resumed control of the pushed convoy while it was being operated from the remote operating centre.
  - 2. When operation of the pushed convoy was taken over by the on-board, on-duty boatmaster at the urgent and unplanned request of the remote operating centre following the protocol provided by SEAFAR.
  - 3. When the remote operating centre was automatically disconnected.
  - (j) Potential improvements identified during test journeys.
- 5. Implementation of the recommendation

In order to ensure safe and orderly navigation, these recommendations are only valid if all the conditions set out in point 3 and the reporting obligation set out in point 4 are met by the pushed convoy, the operator, the owner and SEAFAR. If the conditions for the recommendations are not met, CCNR may suspend or withdraw the recommendations.

The competent authority of Belgium may include additional requirements in its authorization.

The competent authority of Belgium must enter the above-mentioned derogations and conditions in the inspection certificate for the motor vessel and barge concerned.

(The technical data on which these recommendations are based can be found in document RN (23) 49 rev. 3 intern).