



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No.312-16-1463c

dated 17.11.2020

Re:

amendments to the Rules for the Classification and Construction of Inland Navigation Ships (for the European Inland Waterways), 2017, ND No. 2-020101-102-E

Item(s) of supervision:

inland navigation ships (for European Inland Waterways) under construction

Entry-into-force date:

Valid till:-

Validity period extended till: -

From the date of publication

Cancels/amends/adds Circular Letter No.

-

dated -

Number of pages:

1 + 31

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Parts I "Classification", II "Hull", III "Equipment, Arrangements and Outfit", IV "Stability, Subdivision and Freeboard", V "Fire Protection", VIII "Machinery", IX "Electrical Equipment", X "Automation", XII "Navigational Equipment", XIII "Means for Prevention of Pollution from Ships" and XIV "Requirements for Ships Carrying Dangerous Goods"

Director General

Konstantin G. Palnikov

Text of CL:

We hereby inform that the Rules for the Classification and Construction of Inland Navigation Ships (for European Inland Waterways) shall be amended as specified in the Appendices hereto.

It is necessary to do the following:

1. Bring the content of the Circular Letter to the notice of the RS surveyors, interested organizations and persons in the area of the RS Branch Offices' activity.
2. Apply the provisions of the Circular Letter during review and approval of the technical documentation on ships contracted for construction or conversion on or after 17.11.2020, in the absence of a contract, the keels of which are laid or which are at a similar stage of construction on or after 17.11.2020, as well as during review and approval of the technical documentation on ships, the delivery of which is on or after 17.11.2020.

List of the amended and/or introduced paras/chapters/sections:

Part I: paras 1.1.2, 1.1.4, 1.2.3.4 – 1.2.3.14, 1.2.4, 1.3.5, 2.1.4, 2.1.6, 2.1.6.3 – 2.1.6.5, 2.1.7 – 2.1.9, 2.2.5.1, 2.5.2, 2.5.3, 4.1.13.1 – 4.1.13.4, 4.1.14 and Appendix

Part II: paras 2.7.1.2, 2.7.1.3, 2.7.1.6, 2.7.1.7, 2.7.1.9 and 2.7.1.10

Part III: paras 1.1.1, 2.1.1 and 2.1.3

Part IV: Chapter 1.3 Heading, Para 1.3.2, Chapter 1.4, paras 1.5.6 and 1.5.7, Chapter 2.2 Heading, Formula (2.1.1), Chapter 2.3 heading, paras 2.4.1, 3.1.1 – 3.1.5, Formula (3.1.8), para 3.1.9, Formula (3.1.10), paras 3.1.12 – 3.1.15, 3.3.1 – 3.3.10, 3.4.1 – 3.4.6, 3.10.1, 3.10.3 and 3.10.4

Part VIII: paras 1.2.3.1

Parts IX – XII: completely

Part XIII: paras 1.3.2, 1.3.3, 2.1.1, 2.2.1.2, 2.2.1.3, 2.2.1.6, 2.2.1.7, 2.2.3, 2.7.2.1, 2.7.2.4, 3.3.3, 3.3.7, 3.4.1, 3.4.5, 3.4.6, 3.5.2, 3.5.4, 4.3.2.6, 4.3.2.7, 4.3.4.1, 6.2.1, 6.3.1 – 6.3.10, 6.4.3.1, 6.5.1 and 6.5.4

Part XIV: 1.2.1 and 1.3.4 – 1.3.6

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**Information on amendments introduced by the Circular Letter
(for inclusion in the Revision History to the RS Publication)**

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
1	Part I, para 1.1.2	Definitions "Traditional craft" and "Replica of a traditional craft" have been introduced	312-16-1463c of 17.11.2020	17.11.2020
2	Part I, para 1.1.4	Definitions "Directive (EU) 2016/1629" and "ES-TRIN standard" have been introduced. Definitions "Recognized classification society" and "Crafts certificate" have been amended	312-16-1463c of 17.11.2020	17.11.2020
3	Part I, paras 1.2.3.4 and 1.2.3.5	Paras 1.2.3.4 and 1.2.3.5 have been amended in compliance with the provisions of ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
4	Part I, paras 1.2.3.6 – 1.2.3.11	New paras 1.2.3.6 □ 1.2.3.11 have been introduced in compliance with the provisions of ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
5	Part I, para 1.2.4	References to normative documents have been amended in compliance with Directive (EU) 2016/1629	312-16-1463c of 17.11.2020	17.11.2020
6	Part I, para 1.3.5	New para with the requirement of considering scope of Directive (EU) 2016/1629 application, where applicable, has been introduced	312-16-1463c of 17.11.2020	17.11.2020
7	Part I, para 2.1.4	The amendments relating to assignment or renewal of ships class depending on their type have been introduced	312-16-1463c of 17.11.2020	17.11.2020
8	Part I, para 2.1.6	The wording of the text has been specified	312-16-1463c of 17.11.2020	17.11.2020
9	Part I, paras 2.1.6.3 – 2.1.6.5	The wording of the text has been specified in accordance with the Rules for the Classification and Construction of Sea-Going Ships	312-16-1463c of 17.11.2020	17.11.2020
10	Part I, para 2.1.7	New para has been introduced on the additional possibility of the class suspension and classification certificate by analogy with the Rules for the Classification and Construction of Sea - Going Ships. Subsequent paras have been renumbered accordingly	312-16-1463c of 17.11.2020	17.11.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
11	Part I, existing para 2.1.7 (new 2.1.8)	Para has been replaced in compliance with the similar para of Part I "Classification" of the Rules for the Classification and Construction of Sea-Going Ships	312-16-1463c of 17.11.2020	17.11.2020
12	Part I, existing paras 2.1.8 and 2.1.9 (new para 2.1.9)	The amendments have been introduced in accordance with the Rules for the Classification and Construction of Sea-Going Ships	312-16-1463c of 17.11.2020	17.11.2020
13	Part I, para 2.2.5.1	References to normative documents have been amended in compliance with Directive (EU) 2016/1629	312-16-1463c of 17.11.2020	17.11.2020
14	Part I, paras 2.5.2 and 2.5.3	References to normative documents have been amended in compliance with Directive (EU) 2016/1629	312-16-1463c of 17.11.2020	17.11.2020
15	Part I, para 4.1.13.1	Reference to ES-TRIN standard has been introduced	312-16-1463c of 17.11.2020	17.11.2020
16	Part I, para 4.1.13.2	Para 4.1.13.2 has been deleted. Paras 4.1.13.3 and 4.1.13.4 have been renumbered 4.1.13.2 and 4.1.13.3 accordingly	312-16-1463c of 17.11.2020	17.11.2020
17	Part I, para 4.1.13.4	New para has been introduced considering arrangement diagram of all cargo and slop tanks	312-16-1463c of 17.11.2020	17.11.2020
18	Part I, para 4.1.14.1	Para has been deleted. Para 4.1.14.2 has been renumbered 4.1.14.1	312-16-1463c of 17.11.2020	17.11.2020
19	Part I, Appendix	List of community inland waterways divided geographically into zones has been replaced by a reference to Directive (EU) 2016/1629 and UN ESC resolution No. 61, as amended	312-16-1463c of 17.11.2020	17.11.2020
20	Part II, para 2.7.1.2	Para has been supplemented by a new requirement in accordance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
21	Part II, para 2.7.1.3	Para has been supplemented by a new requirement in accordance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
22	Part II, para 2.7.1.6	Para has been supplemented by a new requirement in accordance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
23	Part II, para 2.7.1.7	Para has been supplemented by a new requirement in accordance in accordance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
24	Part II, para 2.7.1.9	Para has been supplemented by a new requirement in accordance in accordance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
25	Part II, para 2.7.1.10	Para has been supplemented by a new requirement in accordance in accordance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
26	Part III: para 1.1.1	Para has been supplemented by a reference to ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
27	Part III, para 2.1.1	Reference to the Guidelines on Evaluation of Maneuvering Characteristics of Inland Navigation Ships (for European Inland Waterways) has been replaced by the reference to ES-TRIN standard. The requirements for steering system have been replaced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
28	Part III, para 2.1.3	Amendments have been introduced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
29	Part IV, Chapter 1.3	The Chapter has been renamed	312-16-1463c of 17.11.2020	17.11.2020
30	Part IV, para 1.3.2	List of documents to be submitted for the RS review has been replaced	312-16-1463c of 17.11.2020	17.11.2020
31	Part IV, paras 1.4.1 – 1.4.6	Amendments have been introduced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
32	Part IV, para 1.5.6	Reference to the RS normative document regulating inclining test conducting has been introduced	312-16-1463c of 17.11.2020	17.11.2020
33	Part IV, para 1.5.7	Reference to the RS normative document regulating lightweight check conducting has been introduced	312-16-1463c of 17.11.2020	17.11.2020
34	Part IV, Chapter 2.2	The Chapter has been renamed	312-16-1463c of 17.11.2020	17.11.2020
35	Part IV, Formula (2.2.1)	The Formula explication has been specified	312-16-1463c of 17.11.2020	17.11.2020
36	Part IV, Chapter 2.3	The Chapter has been renamed	312-16-1463c of 17.11.2020	17.11.2020
37	Part IV, para 2.4.1	Permissible value of the corrected initial metacentric height has been specified	312-16-1463c of 17.11.2020	17.11.2020
38	Part IV, para 3.1.1	Load conditions required for check of stability of passenger ships for compliance with weather criterion have been specified	312-16-1463c of 17.11.2020	17.11.2020
39	Part IV, para 3.1.2	Heeling angle at the maximum righting lever of the static stability curve has been specified	312-16-1463c of 17.11.2020	17.11.2020
40	Part IV, para 3.1.3	Value of the area A under righting lever curve has been specified	312-16-1463c of 17.11.2020	17.11.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
41	Part IV, para 3.1.4	Permissible value of the corrected initial metacentric height has been specified	312-16-1463c of 17.11.2020	17.11.2020
42	Part IV, para 3.1.5	Value of heeling angle due to passengers and wind has been specified	312-16-1463c of 17.11.2020	17.11.2020
43	Part IV, Formula (3.1.8)	The definition of " n_i " parameter in the Formula explication has been amended	312-16-1463c of 17.11.2020	17.11.2020
44	Part IV, para 3.1.9	The requirements to the area of outside passages formed by the bulwark or handrails, as well as to the area of passages between settees (benches, seats) where passengers can crowd have been deleted	312-16-1463c of 17.11.2020	17.11.2020
45	Part IV, Formula (3.1.10)	Definition of " ρ_w " parameter in the formula explication has been specified	312-16-1463c of 17.11.2020	17.11.2020
46	Part IV, paras 3.1.12 and 3.1.13	Paras have been deleted. Subsequent paras and references thereto have been renumbered accordingly	312-16-1463c of 17.11.2020	17.11.2020
47	Part IV, existing para 3.1.14.1 (new para 3.1.12.1)	Calculation procedures for different stages of flooding have been amended	312-16-1463c of 17.11.2020	17.11.2020
48	Part IV, existing Table 3.1.14.5 (new Table 3.1.12.5)	Requirements for the extent of damage at two-compartment status in the event of flooding and its penetration at one and two-compartment status have been amended	312-16-1463c of 17.11.2020	17.11.2020
49	Part IV, existing para 3.1.14.9 (new para 3.1.12.9)	The permeability coefficient for double bottom spaces, fuel, ballast and other tanks has been updated	312-16-1463c of 17.11.2020	17.11.2020
50	Part IV, existing para 3.1.14.10	Para has been deleted. Subsequent paras and references thereto have been renumbered accordingly	312-16-1463c of 17.11.2020	17.11.2020
51	Part IV, existing para 3.1.14.12 (new 3.1.12.11)	Evaluation criteria of intermediate stages of flooding have been specified	312-16-1463c of 17.11.2020	17.11.2020
52	Part IV, existing para 3.1.14.13.2 (new 3.1.12.13.2)	Static stability curve area value in equilibrium position has been specified	312-16-1463c of 17.11.2020	17.11.2020
53	Part IV, existing Fig. 3.1.14.13.2 (new Fig. 3.1.12.13.2)	Figure has been replaced by a new one in compliance with the provisions of ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
54	Part IV, existing para 3.1.15.1 (new 3.1.13.1)	The criteria to be met by a ship after symmetrical flooding have been specified	312-16-1463c of 17.11.2020	17.11.2020
55	Part IV, paras 3.3.1 and 3.3.4	Paras have been deleted.	312-16-1463c of 17.11.2020	17.11.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
		Subsequent paras and references thereto have been renumbered accordingly		
56	Part IV, existing Formula (3.3.5.7-2)	References to paras of the Rules in the formula explication have been clarified	312-16-1463c of 17.11.2020	17.11.2020
57	Part IV, existing Formula (3.3.5.8-1)	Formula has been amended in compliance with the provisions of ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
58	Part IV, existing Formula (3.3.5.8-2)	Formula has been amended in compliance with the provisions of ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
59	Part IV, existing para 3.3.9.4 (new para 3.3.7.4)	The procedure of damaged stability calculation has been amended	312-16-1463c of 17.11.2020	17.11.2020
60	Part IV, existing para 3.3.9.8 (new para 3.3.7.8)	Permeability coefficient for double bottom, fuel bunkers, ballast and other tanks has been specified	312-16-1463c of 17.11.2020	17.11.2020
61	Part IV, existing para 3.3.9.11.3 (new para 3.3.7.8)	Maximum righting lever and static stability curve area values have been specified. New Fig. 3.3.7.11.3 has been introduced in compliance with the provisions of ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
62	Part IV, existing para 3.3.9.12 (new para 3.3.7.12)	The requirements for cross- or down-flooding openings for reduction of asymmetric flooding and calculation of equalization in compliance with IMO resolution A.266(VIII) have been specified	312-16-1463c of 17.11.2020	17.11.2020
63	Part IV, para 3.4.1	Para has been deleted. Subsequent paras and references thereto have been renumbered accordingly	312-16-1463c of 17.11.2020	17.11.2020
64	Part IV, para 3.10.1	Limitations of the ship's length have been deleted	312-16-1463c of 17.11.2020	17.11.2020
65	Part V, para 2.6.1	Amendments have been introduced in compliance with EN ISO/IEC 17025:2005 standard	312-16-1463c of 17.11.2020	17.11.2020
66	Part V, para 2.6.13	Amendments have been made related to spacing between close-fitting draught stops in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
67	Part V, paras 2.6.17 and 2.6.18	The requirements to ventilation systems and air supply systems, as well as galley ventilation systems have been introduced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
68	Part V, para 4.5.28	Permissible pressure in the container has been specified	312-16-1463c of 17.11.2020	17.11.2020
69	Part VIII, paras 1.2.3.1.1 – 1.2.3.1.11	Paras have been deleted	312-16-1463c of 17.11.2020	17.11.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
70	Part VIII, para 1.2.3.1	The requirement for the submission of documents for internal combustion engines has been specified	312-16-1463c of 17.11.2020	17.11.2020
71	Part IX	Part has been completely replaced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
72	Part X	Part has been completely replaced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
73	Part XI	Part has been completely replaced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
74	Part XII	Part has been completely replaced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
75	Part XIII, para 1.3.2	The reference to the requirements for the scope of technical supervision during ship construction has been updated	312-16-1463c of 17.11.2020	17.11.2020
76	Part XIII, para 1.3.3	New para has been introduced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
77	Part XIII, para 2.1.1	Definition "Forward and after perpendiculars" has been deleted	312-16-1463c of 17.11.2020	17.11.2020
78	Part XIII, para 2.2.1.2	Amendments have been made in compliance with ES-EN 1305:1996 standard;	312-16-1463c of 17.11.2020	17.11.2020
79	Part XIII, para 2.2.1.3	Amendments have been made in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
80	Part XIII, para 2.2.1.6	Amendments have been made in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
81	Part XIII, para 2.2.1.7	Amendments have been made in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
82	Part XIII, para 2.2.3	Amendments have been made in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
83	Part XIII, para 2.7.2.1	Indication of the need to agree with the Register the possibility of provision of pipeline outlet in one place convenient for connection enabling discharge to both sides has been deleted	312-16-1463c of 17.11.2020	17.11.2020
84	Part XIII, para 2.7.2.4	Para has been deleted	312-16-1463c of 17.11.2020	17.11.2020
85	Part XIII, para 3.3.3	The requirement for the inner surfaces of tanks has been specified considering the practical possibility of carrying it out	312-16-1463c of 17.11.2020	17.11.2020
86	Part XIII, para 3.3.7	New para on the arrangements for storage, preservation (if necessary), and discharge of the sewage sludge from sewage treatment plant in compliance with	312-16-1463c of 17.11.2020	17.11.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
		ES-TRIN standard has been introduced		
87	Part XIII, para 3.4.1	Necessary possibility of pipeline outlet in one place convenient for connection enabling discharge to both sides subject to the agreement with the Register has been specified. Existing Fig. 3.4.1 has been deleted. The requirement for flanges with standard dimensions in compliance with Fig. 3.4.1 has been deleted	312-16-1463c of 17.11.2020	17.11.2020
88	Part XIII, para 3.4.5	The instruction "on agreement with the Register" has been replaced by the text "in justified cases"	312-16-1463c of 17.11.2020	17.11.2020
89	Part XIII, para 3.4.6	The instruction "On agreement with the Register" has been deleted	312-16-1463c of 17.11.2020	17.11.2020
90	Part XIII, para 3.5.2	The instruction "For ships under the RF flag" has been deleted. The text of reference "1" to the para has been specified in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
91	Part XIII, para 3.5.4	Amendments have been made in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
92	Part XIII, para 4.3.2.6	Amendments related to garbage categories have been introduced	312-16-1463c of 17.11.2020	17.11.2020
93	Part XIII, para 4.3.2.7	Para has been deleted. Existing para 4.3.2.8 and references thereto have been renumbered 4.3.2.7	312-16-1463c of 17.11.2020	17.11.2020
94	Part XIII, para 4.3.4.1	Reference to IMO resolutions has been specified	312-16-1463c of 17.11.2020	17.11.2020
95	Part XIII, para 6.2.1	Definition "Marine diesel engine" has been specified	312-16-1463c of 17.11.2020	17.11.2020
96	Part XIII, para 6.3.1	The rated power value of main and auxiliary diesel engines has been specified	312-16-1463c of 17.11.2020	17.11.2020
97	Part XIII, para 6.3.2	Reference for the applicable requirement has of Regulation (EU) 2016/1628 has been updated	312-16-1463c of 17.11.2020	17.11.2020
98	Part XIII, para 6.3.3	The reference for the applicable requirements has been updated considering Directive (EU) 2016/1629	312-16-1463c of 17.11.2020	17.11.2020
99	Part XIII, para 6.3.4	The reference for the applicable requirements has been updated considering Regulation (EU) 2016/1628	312-16-1463c of 17.11.2020	17.11.2020
100	Part XIII, para 6.3.5	The reference for the applicable requirements has been updated considering Regulation (EU) 2016/1628	312-16-1463c of 17.11.2020	17.11.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
101	Part XIII, para 6.3.6	The reference for the applicable requirements has been updated considering Regulation (EU) 2016/1628	312-16-1463c of 17.11.2020	17.11.2020
102	Part XIII, para 6.3.7	Amendments have been introduced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
103	Part XIII, para 6.3.8	The reference for the applicable requirements has been updated considering ES-TRIN standard and Regulation (EU) 2016/1628	312-16-1463c of 17.11.2020	17.11.2020
104	Part XIII, para 6.3.9	Amendments have been introduced in compliance with ES-TRIN standard	312-16-1463c of 17.11.2020	17.11.2020
105	Part XIII, para 6.3.10	The reference for the applicable requirements has been updated considering ES-TRIN standard and Regulation (EU) 2016/1628	312-16-1463c of 17.11.2020	17.11.2020
106	Part XIII, para 6.4.3.1	Amendments have been introduced relating the prohibition of operating installations containing hydro-chlorofluorocarbons after 01.01.2020	312-16-1463c of 17.11.2020	17.11.2020
107	Part XIII, para 6.5.1	The reference for the applicable requirements has been updated considering Directive (EU) 2016/802	312-16-1463c of 17.11.2020	17.11.2020
108	Part XIII, para 6.5.4	The reference for the applicable requirements has been updated considering Directive (EU) 2016/802	312-16-1463c of 17.11.2020	17.11.2020
109	Part XIV, para 1.2.1	Definition of ADN has been replaced in compliance with the ADN Regulations - 2019 (ECE/TRANS/276, as amended; ECE/ADN/45; ECE/ADN/45/Corr.1; ECE/ADN/45/Add.1; ECE/AND/45/Add.1/Corr.1; ECE/TRANS/WP.15/AC.2/64, annexes II and III; and ECE/TRANS/WP.15/AC.2/68, annexes IV and V)	312-16-1463c of 17.11.2020	17.11.2020
110	Part XIV, para 1.2.1	The definition "Classification of hazardous zones" has been replaced in compliance with Directive 99/92/EC of the European Parliament and the Council of 16 December 1999	312-16-1463c of 17.11.2020	17.11.2020
111	Part XIV, para 1.2.1	The definition "Flammable gas detector" has been amended in compliance with ADN Regulations - 2019	312-16-1463c of 17.11.2020	17.11.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
112	Part XIV, para 1.2.1	The definition "ADN Regulations" has been deleted due the availability of the "ADN" definition	312-16-1463c of 17.11.2020	17.11.2020
113	Part XIV, paras 1.3.4 – 1.3.6	New paras have been introduced containing a list of operation documentation to be available on board the ship in compliance with the ADN Regulations; and taking into account Section 7, Part III "Survey of Navigation Safety and Environmental Protection Means" of the Rules for the Surveys of Inland Navigation Ships in Service (for European inland waterways)	312-16-1463c of 17.11.2020	17.11.2020

**RULES FOR THE CLASSIFICATION AND CONSTRUCTION
OF INLAND NAVIGATION SHIPS
(FOR THE EUROPEAN INLAND WATERWAYS), 2017,**

ND № 2-020101-102-E

PART I. CLASSIFICATION

1 GENERAL

1.1 DEFINITIONS

1 **Para 1.1.2.** After the definition "Cargo push-ship" the following new definition is introduced:

"Traditional craft is a craft which, based on its age, its technical nature or construction, its rarity, its meaning for the preservation of traditional principles of seamanship or techniques of inland navigation or its significance for a period from a historic viewpoint, is worthy of being preserved, and is operated for demonstration purposes in particular, or a replica thereof."

2 **Para 1.1.2.** After the definition "Pushed Convoy" the following new definition is introduced:

"Replica of a traditional craft is a craft which was largely built from original materials, using an appropriate construction method according to plans or templates as a traditional craft."

3 **Para 1.1.4.** After the definition "Basin Administration" the following new definition is introduced:

"Directive (EU) 2016/1629 is Directive of the European Parliament and of the Council of 14 September 2016 laying down technical requirements for inland waterway vessels¹."

¹ As amended by European Commission regulations (EU) 2018/970 of 18 April 2018 and (EU) 2019/1668 of 26 June 2019, which have entered into force by 1 January 2020. Directive (EU) 2016/1629 replaces the technical requirements for inland waterway ships set out previously by Directive 2006/87/EC of 12 December 2006, which is repealed with effect from 7 October 2018."

4 **Para 1.1.4.** Before the definition "Shipboard personnel" the following new definition is introduced:

"ES-TRIN standard is a European standard developed and periodically revised by the European Committee for drawing up standards in the field of inland navigation (CESNI), and laying down technical requirements for inland navigation vessels applied in accordance with Annex II to Directive (EU) 2016/1629 to the vessels covered by the provisions of that Directive²."

² In accordance with amendments made to Annex II to Directive (EU) 2016/1629 by Commission Delegated Regulation (EU) 2019/1668 of 26 June 2019, for the purpose of that Directive, the ES-TRIN 2019/1 shall be applied

from 1 January 2020. Electronic editions of the standards developed by CESNI (including the ES-TRIN standard) can be downloaded from the official website of the Committee (www.cesni.eu).".

5 **Para 1.1.4.** The definitions "Recognized classification society" and "Craft's certificate" are replaced by the following text:

"Recognized classification society is a classification society which has been recognized in compliance with the criteria and procedures stated in article 21, chapter 3 and Annex VI to Directive (EU) 2016/1629 of 14 September 2016;

Craft's certificate is a certificate issued by the competent authority for inland navigation ships complying with the technical requirements of Directive (EU) 2016/1629 of 14 September 2016."

1.2 EXPLANATIONS

6 **Paras 1.2.3.4 and 1.2.3.5** are replaced by the text reading as follows:

.4 the relevant requirements of the Rules for the Classification and Construction of High-Speed Craft apply to inland navigation high-speed craft considering the provisions of Chapter 29 of ES-TRIN standard;

.5 the relevant requirements of the Rules for the Classification and Construction of Pleasure Craft apply to inland navigation recreational craft considering the provisions of Chapter 26 of ES-TRIN standard."

7 **New paras 1.2.3.6 — 1.2.3.14** are introduced reading as follows:

.6 on passenger ships to which the provisions of Directive (EU) 2016/1629 apply, the provisions of Chapter 19, ES-TRIN standard shall be complied with;

.7 on passenger ships not operating in the Rhine (Zone R) to which the provisions of Directive (EU) 2016/1629 apply, the provisions of Chapter 20, ES-TRIN standard shall be complied with;

.8 on craft suitable for forming part of pushed, towed convoys or coupled sections to which the provisions of Directive (EU) 2016/1629, the provisions of Chapter 21, ES-TRIN standard shall be complied with;

.9 on mobile offshore units to which the provisions of Directive (EU) 2016/1629 apply, the provisions of Chapter 22, ES-TRIN standard shall be complied with;

.10 on worksite craft to which the provisions of Directive (EU) 2016/1629 apply, the provisions of chapter 23, ES-TRIN standard shall be complied with;

.11 on traditional craft to which the provisions of Directive (EU) 2016/1629 apply, the provisions of Chapter 24, ES-TRIN standard shall be complied with;

.12 on ships carrying containers to which the provisions of Directive (EU) 2016/1629 apply, the provisions of Chapter 27, ES-TRIN Standard shall be complied with;

.13 on ships longer than 110 m to which the provisions of Directive (EU) 2016/1629 apply, the provisions of Chapter 28, ES-TRIN standard shall be complied with;

.14 to ships equipped with propulsion or auxiliary systems operating on fuels with a flashpoint equal to 55 °C or lower to which the provisions of Directive (EU) 2016/1629 apply, the provisions of chapter 30, ES-TRIN standard shall be complied with."

8 **Existing para 1.2.4** is replaced by the text reading as follows:

1.2.4 For the purpose of classification, these Rules take into consideration the provisions of Directive (EU) 2016/1629, as amended, resolution No. 61 of the UN Economic Commission for Europe "Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels", as amended, as well as recommendations related to technical instructions for inland navigation ships, Danube Commission and ADN."

1.3 APPLICATION

9 The Chapter is supplemented by **new para 1.3.5** reading as follows:

"**1.3.5** Where applicable, the scope of application of Directive (EU) 2016/1629 (article 2, Chapter 1) shall be further considered.".

2 CLASS OF A SHIP

10 **Existing para 2.1.4** is replaced by the text reading as follows:

"**2.1.4** Class of the ship is assigned or renewed by the Register for 5 years in the case of passenger ships and high-speed craft and for ten years in the case of all other ships provided intermediate surveys for class confirmation, the scope and frequency of which are specified in Part II "Survey Schedule, Scope and Procedure" of the Rules for the Surveys of Inland Navigation Ships in Service (for European Inland Waterways) are carried out within the above periods.

In justified cases the Register may assign or renew the class for a shorter period.".

11 **Para 2.1.6** (the first paragraph) is replaced by the text reading as follows:

"**2.1.6** The Classification Certificate ceases to be valid, and the class is automatically suspended in the following cases:".

12 **Existing paras 2.1.6.3 — 2.1.6.5** are replaced by the text reading as follows:

.3 upon introducing structural alterations and/or changes in the ship's equipment reducing the standards required by the Rules not agreed with the Register;

.4 when repair of the ship items has been carried out without the approval and/or survey by the Register;

.5 when a ship navigates with a draught exceeding that required by the Register as well as in case the ship operates under conditions not complying with the assigned class or the restrictions implied by the Register, including improper loading of the ship in the course of cargo handling operations and during the voyage;".

13 **New para 2.1.7** is introduced reading as follows:

"**2.1.7** Validity of the class of the ship and Classification certificate may be suspended upon the Register decision in case of failure to perform or improper performance of the obligations towards the Register (including payment of its services), as well as in other cases specified in the RS rules.".

14 **Existing para 2.1.7** is replaced by the text reading as follows:

"**2.1.8** Suspended class of the ship (as specified in 2.1.6) may be reinstated on the basis of satisfactory results of the appropriate periodical or occasional survey carried out by the Register when the ship is submitted to the survey. Therewith, when the ship has been taken out of operation for a long period of time (more than three months), the scope of survey for class reinstatement shall be specially established by the Register taking into consideration of the age of the ship, its condition and period of its taking out of operation. For the period from class suspension till its reinstatement it is considered that the ship has been lost the RS class. In case of class suspension the Classification certificate becomes invalid. The class may be suspended for a period of no more than 6 months, if not otherwise provided by the RS rules and other normative documents.".

15 **Existing paras 2.1.8 and 2.1.9** are replaced by the text reading as follows:

"2.1.9 The class of the ship is withdrawn by the Register in the following cases:

- .1 upon expiration of the maximum term of class suspension;
- .2 when the Register and/or shipowner consider reinstatement of the class suspended as specified in 2.1.6 impossible;
- .3 upon transfer of the ship to the class of another classification body;
- .4 at the shipowner's request;
- .5 in connection with its loss or scrapping, as well as in case of receipt the shipowner's information on the ship breaking or sale for breaking.

Withdrawal of the RS class means cessation of the RS technical supervision and cessation of the Classification Certificate validity. The withdrawn class can be reassigned by agreement with RHO in compliance with the Rules for the Classification Surveys of Ships in Service and the Rules for the Survey of Inland Navigation Ships in Service (for European Inland Waterways).".

2.2 CLASS NOTATION

16 **Existing para 2.2.5.1** is replaced by the text reading as follows:

"2.2.5.1 As regards classification, these Rules provide for operation of RS-classed ships in European inland waterways within Zones 1, 2, 3 and 4 established by Directive (EU) 2016/1629 (except for inland waterways of the United Kingdom of Great Britain and Northern Ireland), as well as by resolution No. 61 of the UN Economic Commission for Europe "Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels" (except for inland waterways of the United Kingdom of Great Britain and Northern Ireland, Russian Federation and the Ukraine).

For the purpose of the Rules, the above zones are characterized by the wave height with 5 % probability of exceeding, equal to:

- 2, 0 m — for Zone 1;
- 1,2 m — for Zone 2;
- 0, 6 m — for Zone 3;
- 0, 3 m — for Zone 4."

2.5 DOCUMENTS ISSUED BY THE REGISTER TO THE SHIP

17 Existing **Paras 2.5.2 and 2.5.3** are replaced by the text reading as follows:

"2.5.2 Any other ship's documents issued for ships by the Register on behalf of the ship's Flag Administration shall be drawn up on conditions and according to the form specified in the authorization taking into consideration Directive 2016/1629/EC.

2.5.3 Along with the Classification Certificate referred to in 2.5.1, the following documents developed by the designer or shipowner and approved by the Register on board the ship:

- .1 Stability Booklet;
- .2 Damage Control Plan;
- .2 Loading Manual;
- .4 Emergency, Fire and Environmental Safety Plan.

The requirements for contents of the documents listed in this para are specified in the relevant parts of these Rules."

4 TECHNICAL DOCUMENTATION OF A SHIP

4.1 TECHNICAL DESIGN DOCUMENTATION OF A SHIP UNDER CONSTRUCTION

18 **Para 4.1.13.1** is replaced by the following text:

".1 explanatory note of meeting the requirements of Part XIII "Means for the Prevention of Pollution from Ships" confirming the compliance with the requirements of ES-TRIN standard (if the Project Specification does not contain the information required);".

19 **Para 4.1.13.2** is deleted. **Existing paras 4.1.13.3 and 4.1.13.4** are renumbered **4.1.13.2 and 4.1.13.3**, accordingly.

20 **New para 4.1.13.4** is introduced reading as follows:

".4 arrangement plan of all cargo and slop tanks indicating their protective position as related the outer shell for oil tankers, where applicable;".

21 **Para 4.1.14.1** is deleted. **Para 4.1.14.2** is renumbered **4.1.14.1**.

APPENDIX (reference)

EUROPEAN INLAND WATERWAYS List of community inland waterways divided geographically into Zones 1, 2, 3 and 4.

22 The Appendix is replaced by the text reading as follows:

"APPENDIX

EUROPEAN INLAND WATERWAYS List of community inland waterways divided geographically into Zones 1, 2, 3 and 4.

"List of community inland waterways divided geographically into zones 1, 2, 3 and 4 has been specified in Directive (EU) 2016/1629 and UN ESC resolution No.61, as amended.".

PART II. HULL

23 **Para 2.7.1.2** is supplemented by **new paras 2.7.1.2.1 – 2.7.1.2.4** reading as follows:

".1 an aft-peak bulkhead rising up to the deck or, where there is no deck, up to gunwale, shall be installed at a suitable distance from the stern where the ship length L exceeds 25 m in such a way that the buoyancy of the laden vessel is ensured, with a residual safety clearance of 100 mm if water enters the watertight compartment aft of the aft peak bulkhead.

".2 as a rule, the requirement referred to in 2.7.1.2.1 shall be considered to have been met if the aft peak bulkhead has been installed at a distance of between 1,4 m and $0,04 L + 2 m$ measured from the aft point of the intersection of the hull with the maximum draught line.

".3 if this distance is greater than $0,04 L + 2 m$, the requirement referred to in 2.7.1.2.1 shall be proved by calculation.

.4 the distance may be decreased to 1 m. In this case, the requirement referred to in 2.7.1.2.1 shall be substantiated by calculation on the assumption that the compartment aft of the aft peak bulkhead and the immediately adjacent compartments have been filled with water."

24 **Para 2.7.1.3** is supplemented by the **new paragraph** reading as follows:

"No accommodation or installations needed for safety of the vessel and its operation may be located ahead of the plane of the collision bulkhead or aft of the aft-peak bulkhead. This requirement shall not apply to anchor gear or steering apparatus."

25 **Para 2.7.1.6** is supplemented by the **new paragraph** reading as follows:

"However, doors in the aft-peak bulkhead and penetrations, in particular for shafts and pipework, shall be permitted where they are so designed that the effectiveness of those bulkheads and of the separation of areas is not impaired. Doors in the aft-peak bulkhead shall be permitted only if it can be determined by remote monitoring in the wheelhouse whether they are open or closed and shall bear the following readily legible instruction on both sides: "Doors are to be closed immediately after use"."

26 **Para 2.7.1.7** is supplemented by the paragraph reading as follows:

"The water inlets and discharges, and the pipework connected to these, shall be such that no unintentional ingress of water into the vessel is possible."

27 **Existing para 2.7.1.9** is replaced by the following text:

2.7.1.9 On passenger ships the number and position of bulkheads shall be selected such that, in the event of flooding, the ship remains buoyant according to 3.1.1 4, Part IV "Stability, Subdivision and Freeboard". The bulkheads shall be watertight and installed up to the bulkhead deck. Where there is no bulkhead deck, these bulkheads shall extend to a height at least 200 mm above the margin line. For determining the positioning of the collision bulkhead and aft-peak bulkhead, the provisions of 2.7.1 shall apply, but the reference value to be used shall be the length of waterline L_{WL} rather than the length. Bulkheads separating the engine rooms from passenger areas or crew and shipboard personnel accommodation shall have no doors. Collision bulkheads on passenger ships shall have no openings and no doors. Transverse bulkheads may be fitted with bulkhead recesses/breaks, if all parts of the recesses/breaks lie within the safe area. The number of openings in the bulkheads shall be kept as low as is consistent with normal operation of the ship. Openings and penetrations shall not have a detrimental effect on the watertight function of the bulkheads."

28 **New para 2.7.1.10** is introduced reading as follows:

2.7.1.10 The fore-sections of ships shall be built in such a way that the anchors neither wholly nor partly protrude beyond the side plating."

PART III. EQUIPMENT, ARRANGEMENTS AND OUTFIT

1 GENERAL

29 **Existing para 1.1.1** is replaced by the text reading as follows:

1.1.1 The requirements of this Part apply to equipment, arrangements and outfit of inland navigation ships in Zones 1 — 4, except hydrofoils, air cushion vehicles and hydrogliders. Characteristics of Zones are given in 2.2.5.1, Part I "Classification". Equipment, arrangements and outfit of ships covered by the provisions of Directive (EU) 2016/1629 shall comply with the requirements of ES-TRIN standard."

2 STEERING SYSTEM

30 **Existing para 2.1.1** is replaced by the text reading as follows:

"**2.1.1** Every ship, except for pushed shipborne barges, floating structures and berth-connected ships which are permanently in operation near the land or being moored up, shall be provided with a reliable steering system ensuring her steering, manoeuvrability and course-keeping qualities.

Moreover, steering systems of ships intended for pushing shall rapidly and readily produce considerable alterations of the course as well as rapidly and readily turn the convoy proceeding downstream or upstream.

The tests of the steering ability of self-propelled ships and convoys shall be carried out in accordance with ES-TRIN Standard (Chapter 5).

The steering system as a whole shall be designed for permanent lists of up to 15°, trims up to 5° and temperatures from —20 °C to + 50 °C.

Steering system shall be designed so as to exclude spontaneous displacement of the rudder blade.

Structural members of the steering system shall be of adequate strength to constantly withstand the loads they may be subject to under normal operational conditions.

No external effects on the rudder blade shall influence the operability of the rudder system.

The rudder system shall include a powered drive unit when the force is required to activate the rudder blade.

The penetrations for the rudder stocks shall be so designed as to prevent the spread of waterpolluting lubricants."

31 **Existing para 2.1.3** is replaced by the text reading as follows:

"**2.1.3** Every assembly and component being part of the steering system as well as various parts of machinery not specified in this section shall comply with ES-TRIN standards (Chapter 6) and with the requirements of Part VIII "Machinery"."

PART IV. STABILITY, SUBDIVISION AND FREEBOARD

1 GENERAL

32 **Chapter 1.3 "Scope of technical supervision"**. The Chapter is renamed as follows:

"1.3 SCOPE OF TECHNICAL DOCUMENTATION REVIEW".

33 **New para 1.3.2** is introduced reading as follows:

"**1.3.2** For each ship the following documentation shall be submitted to the Register:

.1 prior to construction and conversion of the ship:

technical documentation relating to the ship's stability, subdivision and assignment of freeboard;

.2 during construction, conversion and trials of the ship:

Stability Booklet;

Damage Control Plan."

34 **Existing Chapter 1.4** is replaced by the text reading as follows:

"1.4 GENERAL TECHNICAL REQUIREMENTS

1.4.1 If not otherwise stated, to ships covered by the requirements of this part, general technical requirements specified in 1.4, Part IV "Stability" of the RS Rules shall apply.

1.4.2 Stability curves shall be plotted, having regard to the effect of free surfaces of liquid cargoes.

A correction for the metacentric height for the effect of free surfaces of consumable liquid cargoes shall be calculated for 50 % filled tanks in the upright condition of the ship, irrespective of the filling assumed for weight load calculation.

A tank filled with a liquid for more than 95 % of its capacity shall be considered as totally filled.

Normal residues (up to 50 mm deep) of liquid cargoes in empty tanks shall not be taken into account in stability calculations.

Where the ship is intended for the carriage of various types of liquid cargoes, the most unfavourable combination thereof shall be taken into consideration.

1.4.3 For ships of those types that are not covered by special provisions of Section 3, the following load conditions subject to check shall include the following:

.1 ship in fully loaded condition and full stores;

.2 ship without cargo, with 10 % of stores.

The weight of solid ballast on board the ship shall be included in "light-ship" load condition.

Inclusion of ballast water in any load condition shall be agreed upon with the Register.

1.4.4 Stability Booklet for the ship, to which the subdivision requirements are applicable according to this part, shall additionally include the data specified in 1.4.6.1, Part V "Subdivision" of the RS Rules.

1.4.5 Stability Booklet shall be compiled on the basis of the results of stability calculations made in accordance with these Rules following the results of the inclining test of the ship.

For series-built ships Stability Booklet shall be compiled according to the inclining test data of the first ship of each group consisting of five ships. Stability Booklet compiled for the first ship of one group may be used for ships of another group, provided the heeling test results of the compared ships meet the following conditions:

.1 difference in light-ship displacement does not exceed 2 %, that in the height of centre of gravity is not more than 4 cm;

.2 the requirements of this part are met under the worst load conditions as regards stability, recalculated on the basis of the heeling test results.

1.4.6 The ships, to which the subdivision requirements apply according to this part, shall be provided with the Damage Control Plan containing information specified in 1.4.6.2, part V "Subdivision" of the RS Rules."

35 **Existing para 1.5.6** is replaced by the text reading as follows:

"1.5.6 The inclining test shall be carried out in compliance with Instructions on inclining test of ships (refer to Appendix 5 to sect. 2 of the Guidelines on Technical Supervision of Ships under Construction) in the presence of the RS surveyor."

36 **Existing para 1.5.7** is replaced by the text reading as follows:

"1.5.7 The lightweight check shall be carried out in compliance with Instructions on light-weight check (refer to Appendix 6 to sect. 2 of the Guidelines on Technical Supervision of Ships under Construction) in the presence of the RS surveyor."

2 GENERAL REQUIREMENTS FOR STABILITY

37 **Formula (2.1.1).** The explication is replaced by the text reading as follows:

"where M_{perm} = permissible moment produced by the dynamic inclinations of the ship as specified in 2.3;
 M_{wd} = heeling moment resulting from the dynamic pressure of the wind, as specified in 2.2. "

38 **Chapter 2.2.** The Chapter is renamed by the following text:

"2.2 HEELING MOMENT RESULTING FROM THE DYNAMIC PRESSURE OF THE WIND".

39 **Chapter 2.3.** The Chapter is renamed by the following text:

"2.3 PERMISSIBLE MOMENT PRODUCED BY DYNAMIC INCLINATIONS OF THE SHIP".

40 **Existing Para 2.4.1** is replaced by the text reading as follows:

"2.4.1 The corrected initial metacentric height of all ships under all load conditions, including all stages of loading, unloading and the final load condition, except for the "light ship" condition, has a positive value."

3 ADDITIONAL REQUIREMENTS FOR STABILITY

41 **Existing para 3.1.1** is replaced by the text reading as follows:

"3.1.1 Stability of passenger ships shall be checked for compliance with weather criterion referred to in 2.1 for the following load conditions:

- .1 in the fully loaded condition, 100 % passengers, 98 % fuel and fresh water, 10 % waste water;
- .2 in the fully loaded condition, 100 % passengers, 50 % fuel and fresh water, 50 % waste water;
- .3 in the fully loaded condition, 100 % passengers, 10 % fuel and fresh water, 98 % waste water;
- .4 without cargo and passengers, 10 % fuel and fresh water; without waste water.

For all standard load conditions the ballast tanks shall be considered as either empty or full in accordance with normal operational conditions.

Moreover, for the below mentioned load condition, the stability of the ship shall be checked based on the criterion of the corrected initial metacentric height:

100 % of passengers, 50 % fuel and fresh water, 50 % waste water, all other liquid tanks (including ballast tanks) are considered filled to 50 %.

If this condition cannot be met, an entry shall be made in the Classification Certificate to the effect that, whilst under way, the ballast tanks can be empty or full and that, whilst under way, the ballast conditions shall not be changed.

For loading conditions referred to in 3.1.1.1, 3.1.1.2, 3.1.1.3 and 3.1.1.4 the ship's stability shall meet additional requirements of 3.1.2 □ 3.1.6."

42 **Existing para 3.1.2** is replaced by the text reading as follows:

"3.1.2 The maximum righting lever l_{max} of the static stability curve shall be at least 0,20 m at a heeling angle $\theta_{max} \geq (\theta_{mom} + 3^\circ)$. However, at the downflooding angle $\theta_f < \theta_{max}$ the righting lever of the static stability curve at the angle θ_f shall also not be less than 0,20 m.

The downflooding angle θ_f shall be not less than $(\theta_{mom} + 3^\circ)$.

The heeling angle θ_{mom} at the heeling moment due to passengers and wind according to 3.1.8 and 3.1.1 0, whichever angle is greater."

43 **Existing para 3.1.3** is replaced by the text reading as follows:

"3.1.3 Value of the area A under righting lever curve, depending on the position of θ_f and θ_{max} , shall be at least equal to the following values:

		A
$\theta_{max} = 15^\circ$		0,05 m·rad to the lesser angles θ_{max} or θ_f
$15^\circ < \theta_f < 30^\circ$	$\theta_{max} > \theta_f$	$0,035 + 0,001(30^\circ - \theta_{max})$ m·rad to angle θ_{max}
$\theta_{max} \geq 30^\circ$ и $\theta_f \geq 30^\circ$	$\theta_{max} \leq \theta_f$	$0,035 + 0,001(30^\circ - \theta_f)$ m·rad to angle θ_f
$15^\circ < \theta_{max} < 30^\circ$		0,035 m·rad to angle $\theta = 30^\circ$

44 **Existing para 3.1.4** is replaced by the text reading as follows:

"**3.1.4** The corrected initial metacentric height shall be not less than 0,15 m."

45 **Existing para 3.1.5** is replaced by the text reading as follows:

"**3.1.5** In application of the heeling moment due to passengers and wind according to 3.1.8 and 3.1.10 and in application of the heeling moment due to passengers and turning according to 3.1.7 and 3.1.9 the heeling angle shall not exceed 12°."

46 **Formula (3.1.8)**. The explication is replaced by the text reading as follows:

"where P = total mass of persons on board, in t, calculated by adding up the maximum permitted number of passengers and the maximum number of shipboard personnel and crew under normal operating conditions, assuming an average mass per person of 0,075 m;
 y = lateral distance of centre of gravity of total mass of persons P from centreline, in m;
 g = acceleration of gravity ($g = 9,81 \text{ m/s}^2$);
 P_j = mass of persons accumulated on area A_i , in t,

$$P_i = n_i 0,075 A_i$$

where A_i = area occupied by persons, in m^2 ;
 n_i = number of persons per square meter;
 $n_i = 3,75$ for free deck areas and deck areas with movable furniture; for deck areas with fixed seating furniture such as benches, n_i shall be calculated by assuming an area of 0,50 m (in width) and 0,75 m (in seat depth) per person;
 y_i = lateral distance of geometrical centre of area A_i from centre line, in m."

47 **Existing para 3.1.9** is replaced by the text reading as follows:

"**3.1.9** The calculation of moment shall be carried out for an accumulation of persons both to starboard and to port.

The distribution of persons shall correspond to the most unfavourable one from the point of view of stability. Cabins shall be assumed unoccupied for the calculation of the persons' moment.

For the calculation of the loading cases, the centre of gravity of a person shall be taken 1 m above the lowest part of the deck at $1/2 L_{wl}$, ignoring any deck curvature and assuming a mass of 0,075 t per person.

A detailed calculation of deck areas which are occupied by persons may be dispensed with if the following values are used:

$P = 1,1 F_{max} 0,075$ for day-trip ships;

$1,5 F_{max} 0,075$ for cabin ships,

where F_{max} = maximum permitted number of passengers on board;
 $y = B/2$, in m."

48 **Formula (3.1.10)**. The explication is replaced by the text reading as follows:

"where p_w = the specific wind pressure equal to 0,25 kN/m^2 for ships intended for navigation in Zones 1 and 2 and 0,15 kN/m^2 for ships intended for navigation in Zone 3;
 A_w , lateral plane of the ship above the plane of draught according to the considered load conditions, in m^2 ;
 l_w = distance of the centre of gravity of the lateral plane A_w from the plane of draught according to the considered load conditions, in m."

49 **Paras 3.1.12 and 3.1.13** are deleted. **Paras 3.1.14, 3.1.14.1 □ 3.1.14.15 and references thereto** are renumbered **3.1.12, 3.1.12.1 □ 3.1.12.15 and references thereto**, accordingly. **Paras 3.1.15, 3.1.15.1 □ 3.1.15.3 and references thereto** are renumbered **3.1.13, 3.1.13.1 □ 3.1.13.3**, accordingly. **Table 3.1.14.5** is renumbered **3.1.12.5**.

50 **Existing para 3.1.14.1** is replaced by the text reading as follows:

"**3.1.12.1** It shall be proved, by means of a calculation based on the method of constant displacement, that the damaged stability of the ship is appropriate. Calculation of the final stage of flooding shall be based on the method of constant displacement, and those of intermediate stages of flooding – on the added weight method. All calculations shall be made with account of free trim and flooding."

51 **Para. 3.1.14.5.** Reference to **Table 3.1.14.5** is renumbered **3.1.12.5**.

52 **Existing Table 3.1.14.5** is replaced by the following:

"Table 3.1.12.5

	one-compartment status	two-compartment status
Side damage		
longitudinal <i>l</i> , in m	0,1 L_{WL} , but not less than 4 m	0,05 L_{WL} , but not less than 2,25 m
transverse <i>b</i> , in m	B/5	0,59
longitudinal <i>h</i> , in m	from ship bottom without delimitation to top	
Bottom damage		
longitudinal <i>l</i> , in m	0,1 L_{WL} , but not less than 4 m	0,05 L_{WL} , but not less than 2,25 m
transverse <i>b</i> , in m	B/5	
vertical <i>h</i> , in m	0,59; pipework having no open outlet in a compartment shall be deemed intact when they have no open outlet inside the compartment, when they are arranged in safe area and located above 0,50 m from the ship bottom	

53 **Existing para 3.1.14.9** is replaced by the text reading as follows:

"**3.1.12.9** Permeability coefficient is assumed to be 0,95. If a calculation proves that the average permeability of any compartment is lower than 95 %, the calculated value may be used.

The permeability coefficient values shall not be less than:

lounges — 0,95;

engine and boiler rooms — 0,85;

luggage and storerooms — 0,75;

double bottoms, fuel bunkers, ballast and other tanks — depending on whether assumed full or empty due to their purpose for a ship having the maximum draught."

54 **Para 3.1.14.10** is deleted. Subsequent paras and references thereto are renumbered accordingly.

55 **Existing para 3.1.14.12** is replaced by the text reading as follows:

"**3.1.12.11** For all intermediate stages of flooding referred to in 3.1.12.3, the following criteria shall be met:

.1 the heeling angle φ at the equilibrium position of the intermediate stage in question shall not exceed 15°;

.2 in the equilibrium position of the intermediate stage in question, the righting lever curve shall display a righting lever maximum value of $GZ > 0,02$ m in the range from the heeling angle to the immersion angle of the first unprotected opening is immersed or a heeling angle φ of 25° is reached;

.3 non-watertight openings shall not be immersed at the heel values lower and equal to the equilibrium position when the intermediate stage in question has been reached;

.4 the calculation of free surface effect correction in all intermediate stages of flooding shall be based on the gross surface area of the damaged compartments."

56 Existing para 3.1.14.13.2 is replaced by the text reading as follows:

".2 in the equilibrium position the righting lever curve area with the positive righting levers A shall be at least 0,0025 m·rad in the range from the heeling angle to the immersion angle of the first unprotected opening is immersed or a heeling angle ϕ of 25° is reached, therewith the righting lever maximum value GZ_R in the specified range shall be at least 0,02 m;"

57 Existing Fig. 3.1.14.13 is replaced by the following:

"

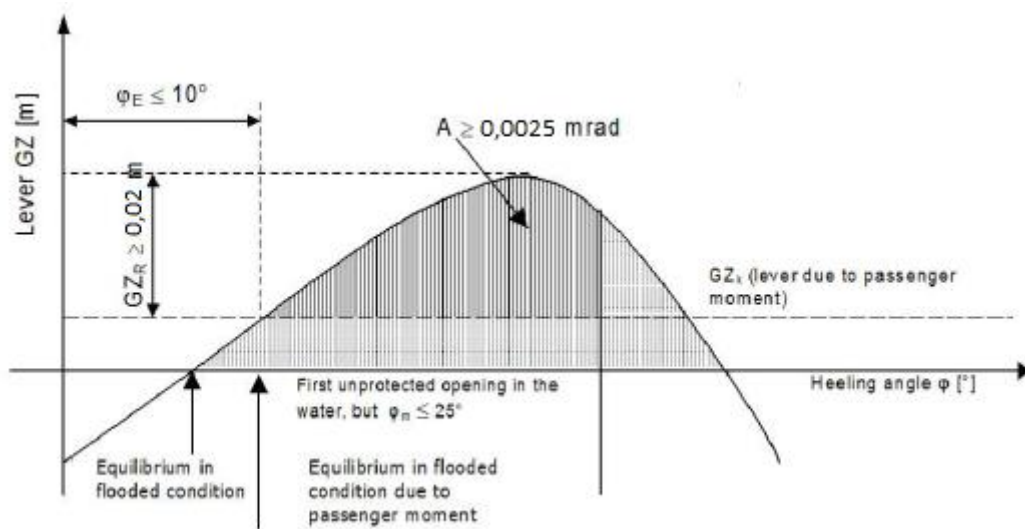


Fig. 3.1.12.13".

58 Existing para 3.1.15.1 is replaced by the text reading as follows:

"3.1.13.1 As an alternative to proving adequate stability after damage according to 3.1.12, passenger ships with a length L of not more than 25 m, authorized to carry up to a maximum of 50 passengers, shall comply with the following criteria the ship shall comply with after symmetrical flooding:

- .1 the immersion of the ship shall not exceed the margin line;
- .2 metacentric height GM_R shall be not less than 0,10 m."

59 Paras 3.3.1 and 3.3.4 are deleted. Paras 3.3.2 and 3.3.3 and references thereto are renumbered 3.3.1 and 3.3.2, accordingly. Paras 3.3.5 □ 3.3.10 and references thereto are renumbered 3.3.3 □ 3.3.8, accordingly.

60 Para 3.3.5.7. The references to Formulae (3.3.5.7-1) and (3.3.3.7-2) are replaced by the references to 3.3.3.7-1 and 3.3.3.7-2, accordingly.

61 Formula (3.3.5.7-2). In the explication the references to 3.3.5.8-1, 3.3.5.8-2, 3.3.5.4 and 3.3.5.5 are replaced by references to 3.3.3.8-1, 3.3.3.8-2, 3.3.3.4 and 3.3.3.5, accordingly.

62 Existing Formula (3.3.5.8-1) is replaced by the following:

$$Z_M = \frac{B_{wl}^2}{(12,5 - d_a/H)d_a} + \frac{d_a}{2} \quad (3.3.3.8-1)"$$

63 Existing Formula (3.3.5.8-2) is replaced by the following:

$$Z_M = \frac{B_{wl}^2}{(12,5 - 1,2d_a/H)d_a} + \frac{d_a}{2} \quad (3.3.3.8-2)"$$

64 **Para 3.3.6.2. References to 3.3.5.3 — 3.3.5.5** are replaced by **3.3.3.3 — 3.3.3.5**, accordingly.

65 **Para 3.3.6.5. References to Formulae (3.3.6.4-1) and (3.3.6.4-2)** are replaced by **references to (3.3.4.4-1) and (3.3.4.4-2)**, accordingly.

66 **Para 3.3.8.2. References to 3.3.8.4, 3.3.8.5 and 3.3.8.8** are replaced by **3.3.6.4, 3.3.6.5 and 3.3.6.8**, accordingly.

67 **Para 3.3.8.7.3. Reference to Fig. 3.3.8.7.3** is replaced by **3.3.6.7.3**.

68 **Para 3.3.8.8.1.2. Reference to (Fig. 3.3.8.8.1.2)** is replaced by **(Fig. 3.3.6.8.1.2)**.

69 **Existing para 3.3.9.4** is replaced by the text reading as follows:

"**3.3.7.4** It shall be proved, that the damaged stability of the ship is appropriate. Calculation of the final stage of flooding shall be based on the method of constant displacement, and those of intermediate stages of flooding – on the added weight method. All calculations shall be made with account of free trim and flooding.

Sufficient buoyancy and stability of the ship in the event of flooding shall be proven with a cargo corresponding to its maximum draught, evenly distributed among all the holds and with maximum supplies and fully fuelled.

For diversified cargo, the stability calculation shall be performed for the most unfavourable loading condition. This stability calculation shall be carried on board.

For this purpose, mathematical proof of sufficient stability shall be determined for the intermediate stages of flooding (25 %, 50 % and 75 % of flood build up, and, where appropriate, for the stage immediately prior to equalization measures) and for the final stage of flooding, in the loading conditions specified above."

70 **Existing para 3.3.9.8** is replaced by the text reading as follows:

"**3.3.7.8** Permeability coefficient is assumed to be 0,95. If a calculation proves that the average permeability of any compartment is lower than 95 %, the calculated value may be used. However, the permeability coefficient values shall not be less than:

engine and boiler rooms — 0,85;

cargo holds — 0,7;

double bottoms, fuel bunkers, ballast and other tanks — 0 or 0,95 (depending on whether assumed full or empty due to their purpose for a ship having the maximum draught).

The calculation of free surface effect in intermediate stages of flooding shall be based on the gross surface area of the damaged compartments."

71 **Existing para 3.3.9.11.3** (renumbered 3.3.7.11.3) is replaced by the text reading as follows:

".**3** in the equilibrium position the righting lever maximum value at the section with the righting levers shall be at least $GZ_R \geq 0,05$ m, and the righting lever curve area with the righting levers A shall be at least 0,0065 m·rad. The given values shall be reached prior to the immersion angle of the first unprotected opening is immersed or a heeling angle φ_m of 27° is reached (10° when carrying non-secured containers)."

72 The following **new Figure 3.3.7.11.3** is introduced:

"

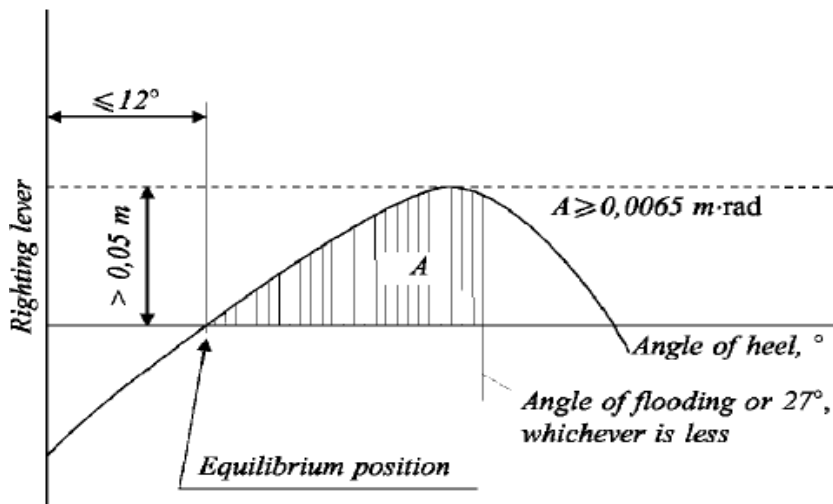


Fig. 3.3.7.11.3

"

73 **Existing para 3.3.9.11.4** is deleted. **Para 3.3.9.11.5** is renumbered **3.3.7.11.4**, accordingly.

74 **Existing para 3.3.9.12** is replaced by the text reading as follows:

"**3.3.7.12** When cross-or down-flooding openings are provided for reduction of asymmetrical flooding, they shall be automatically operated and shall not be fitted with shut-off devices. The time for equalization shall not exceed 15 min, and calculations of equalization shall comply with IMO resolution A.266(VIII)."

75 **Existing para 3.3.9.13** (renumbered 3.3.8.13). **References to 3.3.9.2 and 3.3.9.3** are replaced by **3.3.7.2 and 3.3.7.3**, accordingly.

76 **Existing para 3.3.10.2** (renumbered 3.3.8.2). Both **references to 3.3.9** are replaced by **3.3.7**.

77 **Para 3.4.1** is deleted. **Paras 3.4.2 □ 3.4.6** and **references thereto** are renumbered **3.4.1 □ 3.4.5**, accordingly.

78 **Existing Formula (3.4.2)** (renumbered 3.4.1). In the explication the reference to **3.4.3** is replaced by **3.4.2**.

79 **Existing para 3.4.4** (renumbered 3.4.3). **The reference to 3.4.2** is replaced by **3.4.1**.

80 **Existing para 3.10.1** is replaced by the text reading as follows:

"**3.10.1** For ships, except passenger ships, which are capable of being separated in the event of an accident, it shall be demonstrated by the calculation that the separated parts of the ship remain afloat after separation, with the indication of the trim position and stability of the separate parts of the ship, as well as with indication the degree of loading above which buoyancy of the two parts is no longer ensured."

81 **Para 3.10.3**. **The reference to 3.3.6** is replaced by **3.3.4**.

82 **Para 3.10.4.** The reference to 3.3.5.5 is replaced by 3.3.3.5.

PART V. FIRE PROTECTION

2 STRUCTURAL FIRE PROTECTION

2.6 PASSENGER SHIPS

83 **Para 2.6.1.** The last sentence is supplemented by the following:

" , testing chamber shall comply with: the European Standard EN ISO/IEC 17025:2005."

84 **Existing para 2.6.13** is replaced by the text reading as follows:

"2.6.13 Air spaces enclosed behind ceilings, panellings or linings shall be suitably divided by close-fitting draught stops and spaced not more than 14 m apart."

85 **New paras 2.6.17** and **2.6.18** are introduced reading as follows:

"2.6.17 Ventilation systems and air supply systems shall meet the requirements of Section 11, Part VII "Systems and Piping".

2.6.18 Galleys shall be fitted with ventilation systems. Air ducts shall meet the requirements shall meet the requirements of sect. 11, Part VII "Systems and Piping", and also shall be fitted with manually operated fire flaps at the inlet."

4.5 GAS FIRE EXTINGUISHING SYSTEMS

86 **Para 4.5.28** is supplemented by the paragraph reading as follows:

"Pressure in the container shall not exceed 20 MPa at the temperature of +15 °C."

PART VIII. MACHINERY

87 **Existing para 1.2.3.1** is replaced by the text reading as follows:

".1 relating to internal combustion engines – in compliance with 1.2.3.1, Part IX "Machinery" of the Rules for the Classification and Construction of Sea-Going Ships."

88 **Paras 1.2.3.1.1 — 1.2.3.1.11** are deleted.

PART IX. ELECTRICAL EQUIPMENT

89 Part IX "Electrical Equipment" is replaced by the text reading as follows:

"PART IX. ELECTRICAL EQUIPMENT

Electrical equipment of ships navigating in European inland waterways shall comply with the requirements of Directive (EU) 2016/1629 and ES-TRIN standard."

PART X. AUTOMATION

90 Part X "Automation" is replaced by the text reading as follows:

"PART X. AUTOMATION

Automation equipment of ships navigating in European inland waterways shall comply with the requirements of Directive (EU) 2016/1629 and ES-TRIN standard."

PART XI. RADIO EQUIPMENT

91 Part XI "Radio Equipment" is replaced by the text reading as follows:

"PART XI. RADIO EQUIPMENT

Radio equipment of ships navigating in European inland waterways shall comply with the requirements of Directive (EU) 2016/1629 and ES-TRIN standard."

PART XII NAVIGATIONAL EQUIPMENT

92 Part XII "Navigational Equipment" is replaced by the text reading as follows:

"PART XII. NAVIGATIONAL EQUIPMENT

Navigational equipment of ships navigating in European inland waterways shall comply with the requirements of Directive (EU) 2016/1629 and ES-TRIN standard."

PART XIII. MEANS FOR THE PREVENTION OF POLLUTION FROM SHIPS

1 GENERAL

1.3 SCOPE OF TECHNICAL SUPERVISION

93 **Existing para 1.3.2** is replaced by the following text reading as follows:

"1.3.2 The scope of technical supervision during ship's construction is specified in Section 17 of the of the Guidelines on Technical Supervision during Construction of Ships".

94 **New para 1.3.3** is introduced reading as follows:

"1.3.3 During the technical supervision of construction of a ship and manufacture of equipment for prevention of pollution from ships, the EU technical requirements specified in ES-TRIN Standard shall be taken into consideration."

2 SHIP'S DESIGN, EQUIPMENT AND ARRANGEMENTS FOR THE PREVENTION OF POLLUTION BY OIL

2.1 DEFINITIONS AND EXPLANATIONS

95 **Para 2.1.1** The following definitions are deleted: "Forward and after perpendiculars" and "Volumes and areas in a ship".

2.2 GENERAL

96 **Existing para 2.2.1.2** is replaced by the following text:

".2 standard discharge connections for oil-containing bilge water/oil residues discharge to reception facilities, that shall comply with the European standard ES-EN 1305:2018;"

97 **Existing para 2.2.1.3** is replaced by the following text:

".3 system for collecting oil-containing bilge water into the holding tanks and their discharge to reception facilities. Where the system for collecting oil-containing bilge water is connected with drainage system, their connecting points shall be equipped with closures and seals as stipulated by paras 10 and 11, chapter 8.08 of the ES-TRIN Standard;"

98 **Existing para 2.2.1.6** is replaced by the text reading as follows:

".6 when the system for collecting oil-containing bilge water is fitted with the bilge water separator and the automatic stopping device, their design shall comply with the Administration requirements;"

99 **Existing para 2.2.1.7** is replaced by the text reading as follows:

".7 the design of the ship's bottom and side valves shall provide for the possibility of sealing where discharge is prohibited under the ES-TRIN Standard requirements or as provided by the Administration requirements."

100 **Existing para 2.2.3** is replaced by the text reading as follows:

2.2.3 On self-propelled ships below 400 the engine room bilges may be considered as a collecting reservoir for oil-containing bilge water with their further discharge to the reception facilities."

2.7 PUMPING AND DISCHARGE ARRANGEMENTS FOR OILY MIXTURES

101 **Para 2.7.2.1. The second paragraph** is replaced by the text reading as follows:

"In justified cases, the pipeline outlet may be located in one place convenient for connection enabling discharge to both sides."

102 **Para 2.7.2.4** is deleted.

3 SHIP'S EQUIPMENT AND ARRANGEMENTS FOR THE PREVENTION OF POLLUTION BY SEWAGE

3.3 HOLDING TANKS

103 **Para 3.3.3** is replaced by the following text:

3.3.3 Holding tanks shall be manufactured of steel. Tanks shall have smooth inner surfaces (except for built-in tanks), protected from contact with the medium and a bottom sloping towards the drain piping, where practicable. Holding tanks shall be provided with manholes and with arrangements for flushing with water and for steaming. Arrangements for breaking up sediment are recommended."

104 **New para 3.3.7** is introduced reading as follows:

"**3.3.7** The arrangements for storage, preservation (if necessary), and discharge of the sewage sludge from sewage treatment plant in compliance with para 4, article 18.01 of the ES-TRIN Standard."

3.4 EQUIPMENT FOR SEWAGE AND DOMESTIC WASTE WATER DISCHARGE

105 **Existing para 3.4.1** is replaced by the text reading as follows:

"**3.4.1** In every ship provision shall be made (irrespective availability of sewage and domestic waste water treatment plant or sewage and domestic waste water holding tanks) for pipeline led to both sides of the ship for discharge of sewage and domestic waste water to the reception facilities the discharge connections of which shall be in compliance with the European standard EN 1306:2018.

In justified cases, the pipeline outlet may be located in one place convenient for connection enabling discharge to both sides. It shall be possible to pass sewage and domestic waste water from other ships through. Discharge manifolds shall be provided with blank flanges and nameplates."

106 **Figure 3.4.1** is deleted.

107 **Existing para 3.4.5** is replaced by the text reading as follows:

"**3.4.5** Two pumps shall be provided to discharge sewage and domestic waste water from the holding tanks. One pump may be replaced by an ejector. On agreement with the Register, depending on the purpose of the ship and its service conditions, in justified cases, the installation of one pump may be permitted."

108 **Existing para 3.4.6** is replaced by the following text:

"**3.4.6** Ships of less than 24 m in length may not be provided with discharge observation and remote cut-off position or the effective communication system between the observation position and the discharge control position. In all cases, measures shall be provided to prevent possible discharge of these waters overboard."

3.5 SEWAGE TREATMENT PLANTS

109 **Existing para 3.5.2** is replaced by the text reading as follows:

"**3.5.2** Sewage treatment plants shall be of an approved type and provide the degree of cleaning in accordance with the current standards¹.

Therewith, the effluent shall not contain any visible floating solid particles or cause a colour change of the water around it."

110 **Existing footnote "1"** is replaced by the following text:

¹ Refer to technical requirements for sewage treatment plants adopted by in compliance with Chapter 18 of ES-TRIN Standard."

111 **Existing para 3.5.4** is replaced by the text reading as follows:

"**3.5.4** Sewage treatment plants shall be tested at the manufacturer's and on board the ship according to the program approved by the Register in compliance with chapter 18 of ES-TRIN Standard."

4 SHIP'S EQUIPMENT AND ARRANGEMENTS FOR THE PREVENTION OF POLLUTION BY GARBAGE

4.3 EQUIPMENT AND ARRANGEMENTS FOR GARBAGE COLLECTION, STORAGE AND PROCESSING

112 **Existing para 4.3.2.6** is replaced by the following text:

"**4.3.2.6** Garbage receptacles shall be grouped into categories provided for the following categories of garbage:

plastics and plastics mixed with non-plastic garbage;

food wastes;

domestic wastes: glass, metal, aluminum cans, bottles, wood, paper, cardboard, corrugated board, rag, utensils, etc.;

cooking oil;

incinerator ashes;

operational wastes, including garbage creating danger for a ship or a crew (e.g. oily rag, electric bulbs, acids, chemicals, storage batteries, etc.);

cargo residuals (where applicable);

animal carcasses (where applicable);

fishing gear (where applicable);

E-waste generated on board (e.g. electronic cards, gadgets, instruments, equipment, computers, printer cartridges and toners, etc.).

Separate containers shall be provided for each type of garbage categorized as domestic wastes.

The garbage receptacles of each of categories mentioned above shall be clearly marked."

113 **Para 4.3.2.7** is deleted. **Existing para 4.3.2.8 and references thereto** have been renumbered **4.3.2.7**.

114 **Existing para 4.3.4.1** is replaced by the text reading as follows:

"**4.3.4.1** The incinerator installed on board the ship shall comply with the requirements of Administration considering the standard requirements to ship's incinerators according to the provisions of resolutions IMO MEPC.76(40) or MEPC.244(66), as applicable."

6 SHIP'S EQUIPMENT AND ARRANGEMENTS FOR THE PREVENTION OF AIR POLLUTION

6.2 DEFINITIONS AND EXPLANATIONS

115 **Para 6.2.1.** The definition "Marine diesel engine" is replaced by the text reading as follows:

"Marine diesel engine means any reciprocating internal combustion diesel engine operating on liquid or dual fuel, including booster/ compound system if applied."

6.3 EXHAUST GASES EMISSION STANDARDS FOR MARINE DIESEL ENGINES

116 **Existing para 6.3.1** is replaced by the text reading as follows:

"**6.3.1** The provisions of this chapter shall apply to all main and auxiliary marine diesel engines of a rated power equal or greater than 19 kW installed on board ships or in machinery on board such ships."

117 **Existing para 6.3.2** is replaced by the text reading as follows:

"**6.3.2** The above engines shall comply with the requirements of Regulation (EU) 2016/1628.

118 **Existing para 6.3.3** is replaced by the following text:

"**6.3.3** When applying the requirements to ships in service, the provisions of Directive (EU) 2016/1629 shall be considered."

119 **Existing para 6.3.4** is replaced by the following text:

"**6.3.4** Engines specified in 6.3.1 shall be manufactured and certified in compliance with the requirements of Regulation (EU) 2016/1628 of 14 September 2016."

120 **Existing para 6.3.5** is replaced by the text reading as follows:

"**6.3.5** Engines listed in 6.3.1 shall hold Type Approval Certificates issued upon the results of certification pursuant to Regulation (EU) 2016/1628 of 14 September 2016."

121 **Existing para 6.3.6** is replaced by the text reading as follows:

"**6.3.6** Type-approved engines shall be applied on ships according to article 4 of Regulation (EU) 2016/1628 of 14 September 2016."

122 **Existing para 6.3.7** is replaced by the text reading as follows:

"**6.3.7** After the installation of the engine on board, but before it is brought into service, an installation check shall be made in compliance with article 9.06 of ES-TRIN Standard drawn up or registration of the engine in the Certificate for inland navigation ship or to an amendment to the existing Certificate of inland navigation ship, based on satisfactory survey results."

123 **Existing para 6.3.8** is replaced by the following text:

"**6.3.8** If engines are fitted with exhaust gas cleaning systems, these systems shall be checked according to the Technical File of Marine Diesel Engine which is confirmed during surveys specified in article 9.09 of ES-TRIN Standard and recommendations of Regulation (EU) 2016/1628 of 14 September 2016, to be verified during the surveys specified in 6.3.7."

124 **Existing para 6.3.9** is replaced by the following text:

"**6.3.9** A copy of the Type Approval Certificate, technical Instruction of the manufacturer and the Engine Parameter Protocol in compliance with article 9.01 of ES-TRIN Standard shall be available on board. Technical instruction of the manufacturer and Engine Parameter Protocol may be included in the Technical File of marine diesel engine emissions."

125 **Existing para 6.3.10** is replaced by the following text:

"**6.3.10** After each major change in the engine, having the potential to affect the emission, except allowable adjustments and change of components specified by the manufacturer in Technical File of Marine Diesel Engine, shall be carried out in compliance with article 9.08 of ES-TRIN Standard, confirming that notwithstanding changes the emission level complies with the requirements of article 18, Regulation (EU) 2016/1628 of 14 September 2016."

6.4 PREVENTION OF USE OF OZONE DEPLETING SUBSTANCES

126 **Para 6.4.3.1.** The first sentence is replaced by the following text:

"6.4.3.1 New installations which contain ozone depleting substances shall be prohibited on all ships. Operation of installations containing hydro-chlorofluorocarbons (HCFCs) has been prohibited on all ships since 1 January 2020."

6.5 SULPHUR CONTENT IN SHIP'S FUEL

127 **Existing para 6.5.1** is replaced by the text reading as follows:

"6.5.1 The sulfur content of any fuel oil used on board ships navigating in the EC territorial waters including inland waterways and ports shall be in compliance with the requirements of the corresponding Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2012 as amended."

128 **Existing para 6.5.4** is replaced by the following text:

"6.5.4 Alternatively, an exhaust gas cleaning system in compliance with article 9 of Directive (EU) 2016/802 European Parliament and of the Council of 11 May 2016, approved by the Administration, taking into account the provisions of Regulation EC No. 2099/2002 of the European Parliament and of the Council of 5 November 2002, may be used on ships for reducing the total emission of sulfur oxides from both auxiliary and main propulsion engines to the limits equivalent to the sulfur content in the ship's oil fuel as specified in 6.5.1."

PART XIV. REQUIREMENTS FOR SHIPS CARRING DANGEROUS GOODS

1.2 DEFINITIONS AND EXPLANATIONS

129 **Para 1.2.1.** The definition "ADN" is replaced by the following text reading as follows and supplemented by footnote "1" reading as follows:

"ADN means the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways adopted by the ADN Administrative Committee, including the ADN Regulations the applicability of which is directly specified in the valid version of the ADN Regulations¹.

Note. Since 1 January 2019 the AND Regulations-2019 ECE/TRANS/276 as amended ECE/ADN/45, ECE/ADN/45/Corr.1, ECE/ADN/45/Add.1, ECE/AND/45/Add.1/Corr.1, ECE/TRANS/WP.15/AC.2/64, annexes II and III, and ECE/TRANS/WP.15/AC.2/68, annexes IV and V shall apply. Amendments to the AND Regulations, containing in the document ECE/ADN/54, will come into force beginning from the 1 January 2021.

¹ ADN regulations are available at <http://www.unece.org/trans/danger/danger.html>."

130 **Para 1.2.1.** The definition "Classification of hazardous zones". is replaced by the following text reading as follows:

"Classification of hazardous zones (refer to Directive 99/92/EC of the European Parliament and Council of 16 December 1999):

Zone 0 - places in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist are present continuously or for long periods;

Zone 1 - places in which an explosive atmosphere consisting of a mixture with air or flammable substances in the form of gas, vapour or mist are likely to occur in normal operation;

Zone 2 — places in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is not likely to occur in normal operation but, if it does occur, will persist for a short period only."

131 **Para 1.2.1.** The definition "Flammable gas detector" is replaced by the text reading as follows:

"Flammable gas detector means a portable device allowing measuring of any significant concentration of flammable gases given off below their lowest explosive limit and which clearly indicates the presence of higher concentrations of such gases. Gas detectors may be designed for measuring flammable gases only but also for measuring both flammable gases and oxygen. This device shall be so designed that measurements are possible without the necessity of entering the spaces to be checked."

132 The definition "ADN Regulations" is deleted.

1.3 SCOPE OF TECHNICAL SUPERVISION

133 **New paras 1.3.4 – 1.3.6** are introduced reading as follows:

1.3.4 List of documents to be available on board the ships is specified in 8.1.2 of the ADN Regulations. Where applicable, other documents required by the ADN Regulations shall be also available on board (e.g 8.1.6 □ 8.1.11).

1.3.5 Design and equipment of ships shall comply with the requirements of the ADN Regulations. For oil tankers intended for the carriage of dangerous goods in bulk on the Danube, the hull design shall meet the requirements of the ADN Regulations. For oil tankers intended for the carriage of dangerous goods in bulk, apart from the Danube, on other European rivers, the hull design shall meet the requirements of the Regulation for the Carriage of Dangerous Substances on the Rhine (ADNR).

The design, equipment and arrangements of ships carrying noxious liquid substances in bulk depending on the denomination of the carried cargo, and of ships carrying vegetable oils in bulk, specified in Part XI "Summary of Technical Requirements". of the Rules for the Classification and Construction of Chemical Tankers shall comply with the provisions of the ADN Regulations and the Rules for the Classification and Construction of Chemical Tankers, whichever is applicable."

1.3.6 Based on the satisfactory results of the initial survey, an Approval Certificate may be issued for a ship in compliance with the provisions of 1.16 of the ADN Regulations and taking into account Section 7, Part III "Survey of Navigation Safety and Environmental Protection Means". of these Rules."