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**AMENDMENT OF THE RECOMMENDATIONS ON TECHNICAL
REQUIREMENTS FOR INLAND NAVIGATION VESSELS
(ANNEX TO RESOLUTION NO. 17, REVISED)**

Note by the secretariat

Reproduced below is the text of draft amended chapters 18 ‘Prevention of water pollution and abatement of noise produced by vessels’, ZZ ‘Special requirements for high-speed vessels’ and X ‘Manoeuvrability’ approved by the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation. The text derived from the draft revised Directive 82/714/EEC is shown in italics, while the new text proposed by the Working Party SC.3/WP.3 is shown in bold. To facilitate the finalization of the text of the whole of the amended annex, all the cross-references are put in square brackets.

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CHAPTER 18

PREVENTION OF WATER POLLUTION AND ABATEMENT OF NOISE PRODUCED BY VESSELS

18-1 GENERAL

18-1.1 Definitions

Oil-containing water: mixture of water and any quantity of oil formed in the course of operation of a vessel, **except for cargo waste**.

Domestic waste water: waste water from galleys, messes, bathrooms (showers and wash basins) or laundries, and human waste water.

Vessel operation refuse: waste formed in the course of operation of the vessel **except for cargo waste**.

Household refuse: organic and inorganic household waste (e.g. remains of food, paper, glass and similar kitchen waste) which does not contain **vessel operation refuse**.

18-2 Requirements for collection facilities for used oil and oil-containing water

18-2.1 All necessary steps should be taken to reduce the **leakage** of oil on board vessels. Drip-trays to collect any leaking fuel or **other oils** shall be placed under fittings of fuel and **other** oil tank connections. **The contents of drip trays shall be conveyed to collecting tanks.**

18-2.2 Vessels having **installations which use liquid fuel** on board shall be equipped with:

- (i) collecting **reservoirs** for oil containing water;
- (ii) **systems for draining** oil-containing water **to the-collecting reservoirs**;
- (iii) standard **connections** for the **discharge** of oil-containing water to **reception facilities outside the vessel**.

The Administration may consider the engine-room bilges as a collecting reservoir for oil-containing water.

18-2.3 Tanks **used as reservoirs** must be fitted with:

- (i) an orifice for access and cleaning;
- (ii) a vent pipe ^{1/} with a flame-arrester leading to the open air;

^{1/} To be checked with the terminology used in Chapter 5 of the annex and in Article 8 of the draft revised EC Directive 82/714/EEC. *Note by the secretariat: In chapter 5-5.10 of the annex the term "vent pipe" is used whereas in article 8-05(6) of the Directive the term "breather pipe" appears.*

- (iii) a device which **activates optical and acoustic** signals **in** the wheelhouse **or** the central control post when the level of the liquid reaches 80 per cent **of the tank capacity**;
- (iv) a **device** for measuring the level of the liquid;
- (v) If heavy fuel is used on the vessel or the tank is installed in a place where negative temperatures are possible during operation, the tank shall be fitted with a heating **facility**.

18-2.4 Standard discharge connections shall conform to the requirements of basin Administrations and shall be of either flange or quick-release type. Flange-type connections are fitted with a flange with an outer diameter of 215 mm and six slotted holes of 22 mm on a pitch circle diameter of 183 mm. The flange is intended for pipes with an internal diameter of up to 125 mm, has a thickness of 22 mm and is to be manufactured from steel or an equivalent material with a flat machined surface. The flange, together with a gasket of oil-resistant material, must be designed for a working pressure of 0.6 MPa. Coupling is effected by means of six 20 mm-diameter bolts of the requisite length. Standard discharge connections are to be fitted with blank flanges.

Quick-release type connections shall conform to a recognized European standard.

A stop button for the transfer pump, **if any**, must be installed in the **vicinity** of the discharge connections.

18-2.5 The installations for draining the machinery space shall be so arranged that any oil or oil-containing water **shall** remain aboard. Where a drainage system incorporates permanently fixed pipes, the bilge drainage pipes shall be fitted with closing devices sealed in the closed position by **the Administration**. The number and position of those closing devices shall be mentioned in the **Ship's certificate**.

18-2.6 *In order to store spent oils there shall be one or several specific **receptacles** in the engine room with **total** capacity corresponding to at least 1.5 times the quantity of the **spent** oils from the **sumps** of all of the internal combustion engines and all of the equipment installed, together with the **hydraulic-fluid installations**.*^{2/}

Should operating conditions so require, the **Administration** may prescribe other standards for the dimensions of **these receptacles**. If the **total** quantity of oil **contained in the sumps of all of the internal combustion engines and all of the equipment installed, together with the hydraulic fluid systems** is 300 litres **or more**, the **receptacles shall** be **fixed and** be fitted with a device which **activates optical and acoustic** signals **in** ~~to~~ the wheelhouse **or** the central control post when the level of the liquid reaches 80 per cent **of the receptacle capacity**.

^{2/} Article 8.09(2) of the draft revised EC Directive 82/714/EC, first paragraph.

18-2.7 For vessels operated over short distances only or for ferries, the **Administration** may no longer require the **receptacles** mentioned in [18-2.6].

18-3 Requirements concerning equipment for processing oil-containing water

18-3.1 **The Administration may allow the use of** separation and filtration equipment. **In this case** such equipment and its components **shall** meet the conditions **required by the Administration**.^{3/}

18-3.2 **In cases** where discharges of any oil/water mixtures are generally prohibited **on waterways**, the **Administration** may put **oil separation and filtration devices** out of action by sealing.

18-4 Requirements concerning facilities for collecting and storing domestic waste water

18-4.1 Vessels having **or intended to have** on board more **than the maximum number of people that the relevant basin Administration will allow before domestic waste water retention or treatment facilities are required on board**, shall be equipped with:

- (i) a collecting tank **for domestic waste-water**;
- (ii) **systems for transferring domestic waste water to the collecting tank and discharging** it from the tank to reception facilities **outside the vessel or overboard in areas and under conditions which are allowed**;
- (iii) standard assemblies for **the discharge** of domestic waste water to reception facilities,

or, alternatively, with a domestic waste water treatment plant according to paragraph [18-5] below.

Administrations may apply requirements different from those in [18-4.1] with regard to equipment of vessels navigating within its inland waterways.

18-4.2 The volume of domestic waste-water collection **tanks**, $V_{ww} = G_{ww} \times N \times T$, **shall be calculated by** the following formula:

where

G_{ww} = domestic waste-water discharge per person per day **according to operating conditions**

N = maximum admissible number of people on board

T = period between emptyings of the on-board **tanks** in days.

^{3/} It is recommended for Administrations to use provisions similar to MARPOL.

18-4.3 Tanks must be fitted with a **device which activates optical and acoustic signals in the wheelhouse or the central control post when the level of the liquid reaches 80 per cent of the tank capacity.**

18-4.4 Tanks **shall** have a smooth inner surface (i.e., framework and fittings on the outside) and a bottom sloping towards the drain.

18-4.5 Tanks **shall** be fitted with **installations for breaking up sediment and cleaning.**

18-4.6 For purposes of **discharge of the tanks vessels shall** be equipped with pumps. Pumps need not be fitted on small vessels.

18-4.7 Standard discharge connections shall conform to **the requirements of basin Administrations and shall be of either flange or quick-release type. Flange-type connections are fitted with a flange with an outer diameter of 210 mm and four slotted holes of 18 mm on a pitch circle diameter of 170 mm.** The flange is **intended** for pipes with an internal diameter of up to 100 mm, has a thickness of 16 mm and is to be manufactured from steel or an equivalent material with a flat machined surface. The flange, together with a gasket, must be designed for a working pressure of 0.6 MPa. Coupling is effected by means of four 16 mm-**diameter** bolts of the requisite length. **Standard discharge connections are to be fitted with blank flanges.**

Quick-release type connections shall conform to a recognized European standard.

18-5 Requirements concerning equipment for the treatment of domestic waste water

18-5.1 **The Administration may allow the use of the equipment for the treatment of domestic waste water. In this case such equipment and its components shall meet the conditions required by the Administration.** ^{4/}

18-6 Facilities for the collection and storage of vessel operation refuse

18-6.1 A separate container must be provided for **vessel operation refuse.**

18-7 Facilities for the collection, storage and treatment of household refuse

18-7.1 **Manned vessels** and passenger vessels must be equipped with facilities for the collection of household refuse.

18-7.2 The volume of household refuse collection facilities, V_{hr} **shall be calculated by** the formula:

$$V_{hr} = G_{hr} \times N \times T$$

^{4/} It is recommended for Administrations to use provisions similar to MARPOL.

where

G_{hr} = household refuse discharge per person per day **according to operating conditions**

N = maximum admissible number of people on board

T = period between emptyings of the on-board collection facilities.

18-7.3 Household refuse-collection devices must have easy-to-clean internal surfaces.

18-7.4 Household refuse-collection equipment must have tightly-closing lids and be installed in well-ventilated areas, preferably on the open deck, and must have fittings allowing them to be securely attached to the deck.

18-7.5 Removable equipment must be designed in such a way that it can be moved by one or two people. Otherwise, appropriate additional equipment must be provided **for transport**.

18-7.6 **For small vessels household refuse may be collected in disposable dense polyethylene bags.**

18-8 Requirements concerning facilities for the elimination of household and vessel operation refuse

18-8.1 **The Administration may allow the use of a household and vessel operation refuse incinerator. In this case such equipment and its components shall meet the conditions required by the Administration^{5/}**

18-8.2 **In cases** where the operation of household **and vessel operation** refuse incinerators is prohibited on certain waterways, **the Administration** may put such devices out of action by sealing.

18-9 Noise emitted by vessels

18-9.1 **Noise emitted by vessels under way, in particular engine intake and exhaust noise, shall be damped by appropriate means.**

18-9.2 **Noise emitted by vessels shall not exceed 75 dB (A) at a lateral distance of 25 m from the shipside.**

18-9.3 **With the exception of trans-shipment operations, the noise emitted by stationary vessels shall not exceed 65 dB (A) at a lateral distance of 25 m from the shipside.**

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^{5/} It is recommended for Administrations to use provisions similar to MARPOL.

CHAPTER ZZ

SPECIAL REQUIREMENTS FOR HIGH-SPEED VESSELS

ZZ-1 General

ZZ-1.1 *The term 'high-speed vessel' means a motorized vessel, with the exception of small craft, capable of sailing at a speed greater than 40 km/h in relation to the surface of still water, when this is stated in its ship's certificate.*

[**ZZ-1.2** *High-speed vessel shall not be built with overnight passenger cabins.*] ^{6/7}

ZZ-1.3 The class of the vessel shall be maintained by the classification society during the whole operation period of the vessel. ^{8/}

ZZ-1.4 Sections [1-8, 10-13, 15-17] of the present Annex apply to high-speed vessels, unless otherwise specified in the present Chapter. ^{9/}

ZZ-2 SEATS AND SEAT BELTS

ZZ-2.1 *Seats shall be available for the permitted maximum number of persons on board.* ^{10/}
The construction of the seats and their attachment to the vessel structure shall be sufficiently strong.

ZZ-2.2 *Seats shall be fitted with seat belts.* ^{11/} The seat belts and their attachment points shall be sufficiently strong. Seat belts are optional if Basin Administrations consider that they are not required.

ZZ-3 FREEBOARD

ZZ-3.1 The minimum freeboard shall be 500 mm ^{12/} for open vessels (type C) and 200 mm for decked vessels (type A).

^{6/} RVBR, Article 22 ter.01(1)(TRANS/SC.3/WP.3/2003/4).

^{7/} Working Party SC.3/WP.3 invited Governments to study if this provision should not be deleted from this chapter as unjustified;

^{8/} RVBR, Article 22 ter.02(1).

^{9/} RVBR, Article 22 ter.03(1).

^{10/} RVBR, Article 22 ter.04, first sentence.

^{11/} RVBR, Article 22 ter.04, second sentence.

^{12/} RVBR, Article 22 ter.05

ZZ-4 BUOYANCY, STABILITY AND SUBDIVISION

ZZ-4.1 A vessel shall be provided with stability characteristics and stabilization systems adequate for safety when the vessel is operated in the non-displacement mode and during the transitional mode.

ZZ-4.2 A vessel shall be provided with buoyancy and stability characteristics adequate for safety when the vessel is operated in the displacement mode, both in the intact condition and the damaged condition.

ZZ-4.3 A vessel shall be provided with stability characteristics in the non-displacement and transitional modes adequate to transfer the vessel safely to displacement mode in case of any system malfunction.

ZZ-5 WHEELHOUSE

ZZ-5.1 *The wheelhouse shall be so equipped that the **helmsman** and a second crew member can at all times perform their tasks while the vessel is under way.* ^{13/}

ZZ-5.2 *The wheelhouse shall be equipped in such a way as to provide the **helmsman and a second crew member** with a work station. The equipment for navigation, manoeuvring, supervision and data transmission and other appliances with an important role in the operation of the vessel shall be placed sufficiently close together to enable a second crew member while seated to have access to the necessary data and to make use as the need arises of control equipment and installations.* ^{14/}

ZZ-5.3 *The **helmsman and a second crew member** shall be able to control the equipment referred to in [ZZ - 5.2] without hindrance, including when seated wearing correctly fastened seat belts.* ^{15/}

ZZ-5.4 *The **steering station** shall be so designed as to conform to Chapter [11].* ^{16/}

ZZ-5.5 *Whatever the laden state, the blind area of vision forward of the bow from a seated position shall not be greater than the length of the vessel.* ^{17/} **When the blind area** ^{18/} **of vision exceeds the length of the vessel, a table indicating the length of the blind area and the time**

^{13/} RVBR, Article 22 ter.07(1)(a).

^{14/} RVBR, Article 22 ter.07(1)(b), first and second sentences.

^{15/} RVBR, Article 22 ter.07(1)(c).

^{16/} RVBR, Article 22 ter.07(1)(aa).

^{17/} RVBR, Article 22 ter.07(2)(a).

^{18/} To be checked in accordance with HSC and Chapter 10B. Note by the secretariat: Paragraph 15.3.5 of HSC provides that the dead area should not be greater than the length of the craft. Section 10B-2.3 of the annex provides that the "dead area of vision forward of the bow of the unloaded vessel shall not extend beyond 250 m".

of crossing it depending on the speed of the vessel shall be located in the wheelhouse at a clearly visible place.

ZZ-5.6 The total arc of blind sectors from right ahead to 22.5° abaft the beam on either side shall not exceed 20°. Each individual blind sector shall not exceed 5°. The clear sector between two blind sectors shall not be less than 10°.

ZZ-5.7 **Windows shall be designed to minimize unwanted reflections.** *Installations to prevent dazzling by the sun shall be provided.* ^{19/}

ZZ-5.8 **Surface materials used in the wheelhouse shall avoid reflections.** ^{20/}

ZZ-6 SAFETY INFORMATION

ZZ-6.1 *All passenger vessels shall be equipped with means of providing acoustic and visual information on safety measures that are audible and visible to all passengers.* ^{21/}

ZZ-6.2 *The means referred to in [ZZ – 6.1] shall enable the boatmaster to give instructions to the passengers.* ^{22/}

ZZ-6.3 **In the vicinity of each passenger seat there shall be instructions concerning emergency situations, including in particular an overall sketch of the vessel on which are marked all the exits, evacuation routes, emergency and rescue equipment and containing instructions on the use of life-jackets.** ^{23/}

ZZ-7 EXITS AND EVACUATION ROUTES

ZZ-7.1 *An easy, safe and rapid access shall be ensured from the wheelhouse to the spaces and accommodation accessible to the public.* ^{24/}

ZZ-7.2 *The evacuation routes leading to the safety exits shall be indicated clearly and permanently.* ^{25/}

ZZ-7.3 *All concealed exits shall be adequately indicated. The means of operating the opening mechanisms of exit doors shall be clearly visible from the outside and from the inside.* ^{26/}

^{19/} RVBR, Article 22 ter.07(5).

^{20/} RVBR, Article 22 ter.07(6).

^{21/} RVBR, Article 22 ter.09(2)(a).

^{22/} RVBR, Article 22 ter.09(2)(b).

^{23/} RVBR, Article 22 ter.09(2)(c).

^{24/} RVBR, Article 22 ter.10(a).

^{25/} RVBR, Article 22 ter.10(b).

^{26/} RVBR, Article 22 ter.10(c).

ZZ-7.4 *An adequate space shall be provided beside the exits for a crew member.*^{27/}

ZZ-8 FIRE PROTECTION

ZZ-8.1 *[Corridors, spaces and accommodation accessible to the public and] galleys and engine rooms shall be connected to an efficient fire alarm system. Any outbreak of fire and its location shall be automatically communicated to a point permanently occupied by members of the crew.*^{28/}

ZZ-8.2 *The following installations are prohibited on board high-speed vessel:*

- (i) appliances with wick burners;*
- (ii) vaporizing oil-burner stoves;*
- (iii) solid fuel heating appliances;*
- (iv) liquefied gas installations.*^{29/}

[ZZ-9.1 Additional requirements

Spaces and accommodation accessible to the public and their equipment shall be so designed as to ensure that persons making normal use of them cannot be injured during a normal start or stop, an emergency start or stop or during maneuvers and under normal sailing conditions, particularly in the event of a breakdown or the erroneous activation of a control.]^{30/}

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^{27/} RVBR, Article 22 ter.10(e).

^{28/} RVBR, Article 22 ter.11(1).

^{29/} RVBR, Article 22 ter.01(2).

^{30/} RVBR, Article 22 ter.09(1).

CHAPTER X

MANOEUVRABILITY

X-1 GENERAL

X-1.1 *Vessels and convoys shall display adequate navigability and manoeuvrability.*

X-1.2 *Powered vessels and convoys shall meet the requirements set out in **Appendix ...^{31/}**.*

X-2 NAVIGATION TESTS

X-2.1 *Navigability and manoeuvrability shall be checked by means of navigation tests. The following, in particular, shall be examined in accordance with the requirements of one of the alternatives as set out in **Appendix ...**:*

*Speed (forward);
stopping capacity;
Capacity for going astern;
capacity for **changing course**;
turning capacity.*

X-2.2 **The competent authority on the inspection of vessels shall enter into the Ship's Certificate under number 52 which of the alternatives as set out in Appendix ...has been applied for the navigation tests.**

X-2.3 **The Basin administration** *may dispense with all or part of the tests where compliance with the navigability and manoeuvrability requirements is proven in another manner.*

X-3 TEST AREA

X-3.1 *The navigation tests referred to in paragraph [X-2] shall be carried out on areas of inland waterways that have been designated by a competent authority.*

X-3.2 *Those test areas shall be situated on a stretch of running or still water that is if possible straight, at least 2km long and sufficiently wide and is equipped with highly-distinctive marks for determining the position of the vessel.*

X-3.3 *It shall be possible for the **competent authority on the inspection of vessels** to plot the hydrological data such as depth of water, width of navigable channel and average speed of the current in the test area as a function of the water level.*

X-4 LOADING OF VESSELS AND CONVOYS DURING NAVIGATION TESTS

X-4.1 *During navigation tests vessels and convoys intended to carry goods shall be loaded in accordance with the requirements of the **Basin administration**.*

^{31/} The symbol of the appendix is to be assigned when finalizing the consolidated text of the Recommendations.

X-5 *USE OF ON-BOARD FACILITIES FOR NAVIGATION TEST*

X-5.1 *During the navigation test all of the equipment providing the manoeuvrability of the vessel which may be actuated from the wheelhouse may be used, apart from any anchor.*

X-5.2 *However, during the test involving turning into the current referred to in paragraph X-10, the anchors may be used.*

X-6 *SPEED (FORWARD)*

X-6.1 *Vessels and convoys shall achieve at least the required speed in relation to the water according to the requirements of **one of the alternatives as set out in Appendix ...***

X-6.2 *The **competent authority on the inspection of vessels** may grant exemptions to vessels and convoys operating solely in estuaries and ports.*

X-6.3 *The **competent authority on the inspection of vessels** shall check whether the vessel sailing light has the capacity to exceed a speed of 40 km/h relative to the water. If so, the following particular shall be entered in the ship's certificate: "The vessel has the capacity to exceed a speed of 40 km/h relative to the water."*

X-7 *STOPPING CAPACITY*

X-7.1 *Vessels and convoys shall be able to stop in good time and within the limits of the minimum required distance while remaining adequately manoeuvrable.*

X-7.2 *Where vessels and convoys are not longer than 86 m and not wider than 22.9 m, **the Basin Administration** may replace the stopping capacity mentioned above by **turning capacity against the current**.*

X-8 *CAPACITY FOR GOING ASTERN*

X-8.1 *Vessels and convoys are to have sufficient capacity for going astern, which has to be checked during the tests.*

X-8.2 *Where the stopping manoeuvre required by paragraph X-7 is carried out in still water it shall be followed by a test while going astern.*

X-9 *CAPACITY FOR CHANGING COURSE*

Vessels and convoys shall be able to change course in good time. That capacity shall be proven by means of manoeuvres carried out within a test area as referred to in paragraph [X-3].

X-10 *TURNING CAPACITY*

X-10.1 *The turning capacity shall be **examined** in accordance with the requirements of **one of the alternatives as set out in Appendix ...***

* * *

Appendix...^{32/}

**ALTERNATIVE MANOEUVRABILITY TEST PROCEDURES
AND CRITERIA IN ACCORDANCE WITH [X-2.1]**

I. ALTERNATIVES

Alternative 1: Administrative Instructions 1 and 2 of Annex II of the European Directive replacing Directive 82/714/EEC and Directives 1 and 2 to Inspection Commissions of the Central Commission for the Navigation of the Rhine (CCNR) as shown below in Addendum 1.

***Status:* This alternative is obligatory on waterways subject to the European Directive replacing Directive 82/714/EEC within the European Union and as far as Member States do not apply derogations according to Annex IV of the above-mentioned Directive, as well as waterways covered by the Revised convention for Rhine navigation of 1868, as amended.**

Alternative 2: Requirements set out in section 15, part 1 of the Rules for the Classification and Construction of Inland Navigation Vessels of the Russian River Register, as shown below in Addendum 2.

***Status:* This alternative is obligatory on waterways subject to the Code of Inland Water Transport of the Russian Federation.**

Alternative 3: Recommendations concerning the Technical and Navigational Characteristics of Pushed Convoys of the Danube Commission as shown below in Addendum 3.

***Status:* This alternative is a recommendation.**

II. ENTRIES ON THE SHIP'S CERTIFICATE IN ACCORDANCE WITH [X-2.2]

In accordance with [X-2.2] the Competent authority on the inspection of vessels shall enter into the Ship's Certificate under item 52 which of the above-mentioned alternatives has been applied for the navigation tests.

III. Addenda

^{32/} The symbol of the appendix is to be assigned when finalizing the consolidated text of the Recommendations.

Addendum 1

Note by the secretariat: For reasons of economy the manoeuvrability test procedures and criteria mentioned above as alternative 1 are not reproduced in this document but may be found in TRANS/SC.3/WP.3/R.64 and Corrs.1-2 and TRANS/SC.3/WP.3/R/99/Add.1. They will however be reproduced fully in the whole of the text of amended annex to resolution No.17, revised.

Addendum 2

Note by the secretariat: For reasons of economy the manoeuvrability test procedures and criteria mentioned above as alternative 2 are not reproduced in this document but may be found in TRANS/SC.3/WP.3/2005/2/Add.1. They will however be reproduced fully in the whole of the text of amended annex to resolution No.17, revised.

Addendum 3

Note by the secretariat: For reasons of economy the manoeuvrability test procedures and criteria mentioned above as alternative 2 are not reproduced in this document but may be found in TRANS/SC.3/WP.3/2002/5. They will however be reproduced fully in the whole of the text of amended annex to resolution No.17, revised.
