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Working Party on Inland Water Navigation

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

Informal Ad hoc Group of Experts on the
Amendment of Resolution No. 17, revised
(Twelfth session, 19 March 2003)

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

Transmitted by the Group of Volunteers

Note: Reproduced below is the text of amended chapter 17 "Crew accommodation" of the annex to resolution No. 17, revised, prepared by the Group of Volunteers. The text which is new or differs from the existing text of the annex is shown in bold characters. The text brought from the Regulations for the Inspection of Rhine Vessels (RVBR) is shown in italics.

CHAPTER 17

CREW ACCOMMODATION ~~AND WORKING SPACES~~^{1/}

17-1 DEFINITIONS

17-1.1 The term "accommodation" means: *a space intended for the use of persons normally living on board, including galleys, storage space for provisions, toilets and washing facilities, laundry facilities, landing and gangways, but not the wheelhouse.* ~~the following spaces intended for the accommodation of crew members and their families: living quarters, including dayrooms with cooking facilities, sleeping rooms, messrooms and recreational accommodation; galleys, including provisions store rooms; sanitary installations, including water closets, washrooms and laundries; and the halls and corridors therein.~~^{2/}

~~17-1.2 Working spaces means: an area where members of the crew carry out their duties, including gangway, derrick and ships boat. comprise both inside working spaces in a closed compartment, whether individual or grouped according to service requirements (such as an engine room, a wheelhouse, a store room or a hold), and outside working spaces on deck (e.g. for the operation of deck installations and equipment).~~

17-2 GENERAL

17-2.1 Vessels ~~on which off duty crew members have to be housed shall be fitted with~~ *shall have accommodation for the persons lodging habitually on board, and at least for the minimum crew.*^{3/}

17-2.2 ~~The location, furnishing, size and layout of the accommodation shall be such as to meet the requirements of the crew members' safety and health.~~ *Accommodation shall be so designed, arranged and fitted out as to meet the health, safety and comfort needs of those on board. It shall be of safe and easy access and insulated against heat and cold. Where there is no deck-level access to the accommodation and the difference in level is 0.30 m or more the accommodation shall be accessible by means of companionways. In the fore section of the vessel no floor shall be more than 1.20 m below the plane of maximum draught.*^{4/}

17-2.3 ~~In special circumstances the Administration may prescribe stricter requirements when they seem necessary in order to safeguard the life or health of the crew members. The Administration may permit exceptions in special circumstances when the safety and health of the crew are ensured in an equivalent manner by other measures.~~

^{1/} It has been decided by the Working Party to introduce a separate chapter: "Safety on working spaces".

^{2/} Article 1.01 (37) of the Annex II to the draft revised Directive 82/714/EC (TRANS/SC.3/WP.3/R.84/Rev.1).

^{3/} Article 12.01 (1) of the Annex II to the draft revised Directive 82/714/EC (TRANS/SC.3/WP.3/1998/5/Add.1).

^{4/} Articles 12.01(2), 12.02(2) and 12.02(3) of the Annex II to the draft revised Directive 82/714/EC.

*The [inspection body] **competent authority** may authorise derogations to the prescriptions of this Chapter if the health and safety of those on board are ensured by other means. The [inspection body] **competent authority** shall indicate on the certificate any restrictions to the vessel's operating mode/entry into service resulting from the derogations. Referred to in Section 3.*^{5/}

17-3 SPECIAL DESIGN REQUIREMENTS

17-3.1 ~~17-2.1~~ Location and condition

17-3.1.1 ~~17-2.1.4~~ No accommodation shall be located ~~forward~~ *ahead of the plane* of the collision bulkhead.^{6/}

~~17-2.1.5 The accommodation shall be so designed and situated as to ensure maximum protection of the crew in the event of a collision.~~^{7/}

17-3.1.2 ~~17-2.1.6 The bulkheads separating the accommodation and machinery spaces from the holds shall be watertight. The bulkheads separating the accommodation from the machinery spaces shall be gas tight. The accommodation shall have direct access to the deck through either a normal or an emergency exit. The accommodation shall not have common walls with bunkers for liquid fuel or lubricating oil.~~

The accommodation shall be separated from engine- and boiler rooms by gastight bulkheads and from the holds by watertight ~~transverse~~ bulkheads that extend up to the deck.^{8/}

17-3.1.3 ~~17-2.1.7 The accommodation shall be easily and safely directly accessible from the deck. [If no such access has been provided an emergency exit must also lead directly to the deck.~~

^{9/}
^{10/}]

17-3.1.4 **The accommodation** ~~As a general rule, vessels shall have at least one day-room partitioned off from the sleeping quarters.~~^{11/}

17-3.1.5 ~~17-2.1.8 The accommodation shall be protected against air pollution so designed and arranged as to prevent as far as possible the penetration of foul air from other parts-areas of the vessel such as engine rooms or holds; where forced-air ventilation is used the intake vents shall be so placed as to satisfy the above requirements.~~^{12/} ~~The air intakes of mechanical ventilation systems~~

^{5/} Articles 12.01(3) and 12.01(4) of the Annex II to the draft revised Directive 82/714/EC.

^{6/} Article 3.03(2) of the Annex II to the draft revised Directive 82/714/EC (TRANS/SC.3/WP.3/R.84/Rev.1).

^{7/} Covered by 17-2.2.

^{8/} Articles 3.03(3) and 3.03(4) of the Annex II to the draft revised Directive 82/714/EC.

^{9/} Article 3.03(4) of the Annex II to the draft revised Directive 82/714/EC.

^{10/} Covered by 12-2.2 (TRANS/SC.3/2000/1/Add.1)

^{11/} Article 12.02(7) of the Annex II to the draft revised Directive 82/714/EC.

^{12/} Article 12.06(3) of the Annex II to the draft revised Directive 82/714/EC.

~~shall be so arranged as to prevent the intake of polluted air.~~ The exhaust air from galleys or spaces equipped with sanitary installations shall be expelled directly from the vessel.^{13/}

17-3.1.6 ~~17-2.6.1~~ *It shall be possible to heat accommodation in accordance with its intended use. Heating installations shall be appropriate for the weather conditions which may arise.*^{14/}

17-3.1.7 ~~17-2.6.2~~ *It shall be possible to ventilate the accommodation ~~according to the requirements of the Administration~~ adequately.*^{15/}

17-3.1.8 ~~17-2.1.9~~ *Accommodation shall be protected against noise and vibration. Sound pressure levels shall not exceed:*

- (i) 70 dB(A) in the living quarters;
- (ii) 60 dB(A) in the sleeping quarters. *This provision does not apply to vessels operating exclusively **no more than 14 hours per day**. The operating mode restriction shall be mentioned on the certificate.*^{16/}

17-3.1.9 ~~17-2.1.10~~ *The accommodation shall be provided with emergency exits permitting rapid evacuation. ~~if the vessel sinks or fire breaks out. This requirement shall not apply to:~~*
~~(i) Accommodation with doors, windows or skylights permitting rapid evacuation; (ii) Provisions store rooms.~~ **Exits of living and sleeping quarters shall comply with the requirements of article 12-2.2.**

17-3.1.10 ~~17-2.3.2~~ *Pipes carrying dangerous gases or liquids, or which are subjected to such high internal pressure ~~and particularly those under high pressure~~ in which the slightest leak could pose a danger to human beings, shall not be located in the accommodation or in corridors leading to the accommodation. An exception to this rule is made for ~~steam pipes~~ and hydraulic system pipes, provided they are fitted in metal sleeves, and for the pipes of liquefied gas installations for domestic purposes.*^{17/}

17-3.2 ~~17-2.2~~ Number of occupants and Dimensions of the accommodation

17-3.2.1 ~~17-2.2.1~~ *The clear headroom in the accommodation shall be not less than ~~1.90~~ 2.00 m.*^{18/}

^{13/} Article 12.06(3) of the Annex II to the draft revised Directive 82/714/EC.

^{14/} Article 12.06(1) of the Annex II to the draft revised Directive 82/714/EC.

^{15/} Article 12.02(1) of the Annex II to the draft revised Directive 82/714/EC.

^{16/} Article 12.02(5) of the Annex II to the draft revised Directive 82/714/EC.

^{17/} Article 12.02(13) of the Annex II to the draft revised Directive 82/714/EC.

^{18/} Article 12.02(6) of the Annex II to the draft revised Directive 82/714/EC.

17-3.2.2 ~~17-2.2.2~~ The free floor area of the ~~accommodation~~ living quarters shall be not less than 2 m² per ~~occupant~~ person, and in any event not less than 8m² in total (not counting furniture, except tables and chairs). ^{19/}

17-3.2.3 ~~17-2.2.3~~ The volume of air per person shall be at least 3.5 m³ in ~~the dayrooms~~ living quarters. In the sleeping quarters it shall be at least 5 m³ for the first occupant and at least 3 m³ for each additional occupant (not counting volume of furniture). Sleeping cabins shall, as far as possible, be intended for no more than two persons. ^{20/}

17-3.2.4 ~~17-2.2.4~~ The cubic capacity of each unit in the living and sleeping quarters shall be not less than 7 m³. ^{21/}

~~17-2.2.5 The floor area of each water closet shall be not less than 1 m², not less than 0.75 m wide and not less than 1.10 m long.~~

~~17-2.2.6 The sleeping rooms shall be occupied by not more than two adults and, in the case of officers, by only one person if possible.~~

~~17-2.2.7 The sleeping rooms for married couples shall be separate from those for the rest of the crew.~~

~~17-2.2.8 The maximum number of persons to be accommodated in any sleeping room shall be indelibly and legibly marked at some place in the room where it can easily be seen.~~

~~17-2.3. Comfort~~

~~17-2.3.1 The accommodation space shall be planned and equipped to ensure comfort.~~

~~17-2.3.2 Pipes which carry gases or liquids dangerous to health, or which are subjected to such high internal pressure that in the event of defective gas or liquid tightness the crew's life or health might be endangered, shall not be laid in the accommodation or in the alleyways leading to it. This provision does not apply to pipes for heating and to the pipes of liquified gas installations for domestic purposes, if they are fitted with protecting metallic tubes. ^{22/}~~

~~17-2.3.3 The accommodation shall be protected against the intrusion of vermin. The accommodation and its furniture and fittings shall be such as entirely or largely to prevent infestation.~~

^{19/} Article 12.02(8) of the Annex II to the draft revised Directive 82/714/EC.

^{20/} Article 12.02(10) of the Annex II to the draft revised Directive 82/714/EC.

^{21/} Article 12.02(9) of the Annex II to the draft revised Directive 82/714/EC.

^{22/} Will become 17-3.1.10.

17-4. Approaches, doors and stairways

~~17-2.4.1 The approaches to the accommodation shall be so arranged and of such dimensions as to be negotiable without danger or difficulty. This requirement shall be deemed to be met when:~~

- ~~(i) There is enough space in front of the access opening to permit unimpeded entrance;~~
- ~~(ii) The openings are far enough away from the installations which might be a source of danger, for instance winches and towing and loading gear;~~
- ~~(iii) Ropes or cables which may be under traction do not pass close to the approach openings;~~
- (iv) Passageways have minimum width of 600 mm and a minimum headroom of 1,900 mm. The prescribed headroom may be obtained by the use of domes or of sliding or hinged covers;
- ~~(v) Any sills fitted in doorways are not more than 400 mm high, without prejudice to the requirements of other safety regulations.~~

~~17-2.4.2 Arrangements shall be made to prevent doors and hinged covers from closing accidentally.~~

~~17-2.4.3 Doors shall be fitted with locks and shall be so constructed that they can be opened and closed from either side.~~

17-4.1 *Doors shall have a total height, coamings included, of at least 1.90 m and a clear width of at least 0.60 m. The prescribed height may be achieved by means of sliding or hinged covers or flaps. It shall be possible to open doors from either side. Coamings shall not be more than 0.40 m high, but shall nonetheless comply with the provisions of other safety regulations.*^{23/}

~~17-4.2 When there is no deck level approach to it, the accommodation shall be accessible by stairways.~~^{24/}

17-4.2 ~~17-2.4.5 Stairways~~ Companionways shall *be permanently fixed and made safe against slipping and falling and They shall be safely negotiable.* ~~Stairways~~ They shall be deemed to be safely negotiable so when:

- (i) they are at least 0.50 m wide;
- (ii) the tread is at least 0.15 m deep;
- (iii) the steps are non-slip;
- (iv) companionways with more than three steps are fitted with ~~hand rails on both sides~~ *at least a handrail or handle.*^{25/}

^{23/} Article 12.02(11) of the Annex II to the draft revised Directive 82/714/EC.

^{24/} Covered by 17-2.2.

17-2.5 Floors, walls and ceilings

~~17-2.5.1 The floors, walls and ceilings shall be so executed that they can easily be kept clean. Floorings shall be non slip and impervious to damp. The wall and ceiling surfaces shall be impermeable and not easily inflammable, so as to prevent or substantially reduce the spread of a fire. The covering material used shall not be dangerous to health.~~

~~17-2.5.2 The crew's quarters, including the corridors in the accommodation, shall be insulated against cold and heat from outside or from nearby or adjacent compartments. The insulation against cold shall not cause condensation. Machinery casings, steam or hot water service pipes and other similar installations likely to have an adverse effect on the temperature in the accommodation shall, whenever technically possible, be so installed as not to pass through the accommodation. If they do pass through it, they shall be insulated.~~

~~17-2.5.3 Steel walls and ceilings in the accommodation and galleys shall be covered with an insulating material.~~

~~17-2.5.4 All practicable measures shall be taken to keep flies and other insects out of the accommodation.~~

17-2.6 Room heating and ventilation ^{26/}~~17-2.5~~ 17-2.7 Daylight and lighting

17-5.1 ~~17-2.7.1~~ The accommodation shall be adequately lighted. The living quarters, galleys and, if possible, the other compartments shall be accessible to daylight.

17-5.2 ~~17-2.7.2~~ ~~Electric lighting shall be installed in the accommodation of self propelled vessels in such a way as to give the occupants the maximum benefit. Tables and desks shall be lighted sufficiently for reading and writing.~~ Standards of natural and artificial illumination shall be fixed by the Administration.

~~17-2.7.3 The electric lighting installations shall be fixed and shall comply with electrotechnical standards.~~

~~17-2.7.4 Lamps burning liquid fuel shall be made of metal and shall be designed for use only with fuels whose flashpoint is over 55° C or with paraffin oil. They shall be so supported that they can be moved. Care shall be taken to ensure that there is no danger of inflammable substances being ignited near them.~~

^{25/} Article 12.02(12) of the Annex II to the draft revised Directive 82/714/EC.

^{26/} Has been incorporated in 17-3.1.6 and 17-3-1-7.

~~17-2.7.5 The accommodation, including corridors situated therein, shall be provided with emergency lighting. On self propelled vessels, electric emergency lighting shall be provided.~~ ^{27/}

17-6 ~~17-2.8~~ Fittings

17-6.1 ~~17-2.8.1~~ ~~Every~~ Each crew member living on board shall be provided with an individual berth and an individual clothes locker fitted with a lock. ~~The minimum inside length~~ internal measurements of the berth shall be ~~2 m and the minimum width 0.8 m~~ not less than 2.00 x 0.90 m. ^{28/} The height of the locker shall not be less than 1.7 m and the available horizontal area not be less than 0.25 m². ^{29/}

~~17-2.8.2 Berths shall not be placed side by side in such a way that it is necessary to climb over one berth in order to reach another. Berths shall not be arranged in tiers of more than two. Berths shall not be directly underneath air vents.~~

17-6.2 ~~17-2.8.3~~ Berths shall be not less than 0.30 m above the floor. Where one berth is placed over another, the clear headroom above each berth shall be not less than 0.60 m. ^{30/} Berths shall not be arranged in tiers of more than two. ^{31/}

~~17-2.8.4 Berths, including their frames, shall be made of a hard, smooth material protected against corrosion. Where one berth is placed above another, a dust proof covering shall be fitted underneath the upper berth.~~

~~17-2.8.5 A suitable clothes locker fitted with a lock shall be provided for each member of the crew. The clothes lockers shall have an available height of not less than 1.7 m and an available horizontal area of 0.25 m².~~

17-6.3 ~~17-2.8.6~~ Suitable places for storing and drying work clothes shall be provided, but not in the sleeping quarters. ^{32/}

17-7 ~~17-2.9~~ Galleys, messrooms and storerooms

~~17-2.9.1 In vessels of not more than 500 tonnes loading capacity, at least one space separate from the sleeping room shall be provided for use as a dayroom and galley (dayroom with cooking facilities). In vessels of more than 500 tonnes loading capacity, galleys shall be provided.~~

^{27/} Covered by 6-2.16.1 (TRANS/SC.3/2000/1).

^{28/} Article 12.07(1) of the Annex II to the draft revised Directive 82/714/EC.

^{29/} Former 17-2.8.5.

^{30/} Article 12.02(10) of the Annex II to the draft revised Directive 82/714/EC.

^{31/} Former 17-2.8.2.

^{32/} Article 12.07(2) of the Annex II to the draft revised Directive 82/714/EC.

~~Galleys and dayrooms with cooking facilities shall be equipped with: Cooking appliances; A sink with drainage; An installation supplying hot and cold potable water; If necessary, a refrigerator of sufficient capacity for the number of crew members; The necessary cupboards or shelves.~~

~~17-2.9.3 In vessels with messrooms, the floor area of the messrooms shall not be less than 1 m² per seat provided. The messrooms shall: (i) Be able to accommodate the number of crew members likely to use them at the same time; (ii) Be close to the galley.~~

~~17-2.9.4 Messrooms shall be equipped with an adequate number of tables and seats with back rests, made of damp resistant material without cracks and easy to clean.~~

17-7.1 *Galleys shall comprise:*^{33/}

- (i) *a cooker;*
- (ii) *a sink with waste connection;*
- (iii) *a supply of potable water;*
- (v) *sufficient storage and working space.*

17-7.2 *Galleys may be combined with day-rooms*^{34/}.

17-7.3 ~~17-2.9.5~~ **Where necessary Manned** vessels shall have a refrigerator and where necessary **cold** storerooms. ~~and refrigerators to hold various foodstuffs. It shall be possible to keep the storerooms and refrigerators in a hygienic condition. It shall be possible to maintain the temperature in the storerooms and refrigerators at the appropriate level for the goods stored. It shall be possible to open cold storerooms from the inside even when they have been closed from the outside.~~

17-7-4 *The eating area of combined galleys/day-rooms shall be large enough to accommodate the number of crew normally using it at the same time. Seats shall be not less than 0.60 m wide.*^{35/}

17-8 SANITARY INSTALLATIONS

17-8.1 ~~17-3.1~~ **At least** The following sanitary installations *at least* shall be provided ~~on-board~~ *in vessels with accommodation:*

- (i) One wash basin with hot and cold potable water per accommodation unit or per four crew members; The wash basins shall be of suitable size and made of a smooth material which does not crack or corrode;
- ~~(ii) One bath or shower with hot and cold potable water per accommodation unit or per six crew members;~~
- ~~(iii) One water closet per accommodation unit or per six crew members.~~

^{33/} Article 12.04(2) of the Annex II to the draft revised Directive 82/714/EC.

^{34/} Article 12.04(1) of the Annex II to the draft revised Directive 82/714/EC.

^{35/} Article 12.04(2) of the Annex II to the draft revised Directive 82/714/EC.

- (i) one toilet per accommodation unit or per six crew members, which it shall be possible to ventilate with fresh air,
- (ii) *one wash basin with waste pipe and connected up to hot and cold potable water per accommodation unit or per four crew members,*
- (iii) *one shower or bath connected up to hot and cold potable water per accommodation unit or per six crew members.* ^{36/}

17-8.2 The sanitary installations shall be in close proximity **to the accommodation. Toilets shall not have direct access to galleys, mess rooms or combined day-rooms/galleys** ^{37/}.

~~17 3.3 The spaces containing sanitary installations shall comply with the following requirements:~~

~~(i) Floors shall be made of durable materials, easy to clean, impervious to damp and fitted with a suitable drain; (ii) The walls shall be made of steel or equivalent material and shall be watertight up to at least 0.2 m above floor level. Drain and waste pipes shall not be easily stopped, shall be easy to clean, and shall drain off waste water freely even at low outside temperatures.~~

17-8.3 Toilet compartments shall have a floor space of at least 1 m², not less than 0.75 m wide and not less than 1.10 m long. Toilet compartments in cabins for no more than two persons may be smaller. Where a toilet contains a wash basin and/or shower, the surface area shall be increased at least by the surface area occupied by the wash basin and/or shower (or bath) ^{38/}.

~~17 3.4 Water closets shall have: Ventilation to the open air; A wash basin; A hygienic and efficient hand drier.~~

~~17 3.5 Water closets shall be provided with an individual and constantly available flush of water. The lavatory seats shall be made of non absorbent materials which are easy to clean.~~

17-8 POTABLE-WATER INSTALLATIONS

~~17 4.1 On vessels fitted with accommodation, the potable water installations shall be sufficiently large and so arranged as to preserve the water from pollution. The inside of the potable water tanks shall be accessible for cleaning.~~

~~17 4.2 Potable water tanks shall be so placed or protected as to ensure that the potable water is not overheated.~~

~~17 4.3 Potable water tanks shall not have a common wall with tanks intended for other liquids or gas.~~

^{36/} Article 12.03(1) of the Annex II to the draft revised Directive 82/714/EC.

^{37/} Article 12.03(1) of the Annex II to the draft revised Directive 82/714/EC.

^{38/} Article 12.03(3) of the Annex II to the draft revised Directive 82/714/EC.

~~17-4.4 Potable water pipes shall not pass through tanks containing other liquids. Pipes carrying other liquids or gas shall not pass through potable water tanks.~~

~~Connections between the potable water supply systems and other piping systems shall not be permitted.~~

~~Flexible pipes reserved for potable water shall be available on every vessel. The pipes shall be durable, with a smooth lining, and shall be fitted with unions for water hydrants on quays.~~

~~17-4.5 The filling apertures of potable water tanks shall be so marked as to warn the user against introducing other liquids.~~

~~17-4.6 Pressurized water cisterns for potable water shall operate only on compressed air of natural composition. If the compressed air is obtained from pressurized receptacles used to operate the vessel or for other purposes, or produced by means of compressors, an air filter shall be installed directly upstream of the pressurized water cistern unless the water and air are separated by a diaphragm.~~

~~17-4.7 The construction and equipment of the pressurized water cisterns shall conform to the requirements of the Administration.~~

17-9.1 Vessels with accommodation shall have one or more potable water tanks. Potable water tank filling apertures and potable water pipes shall be marked as being intended exclusively for potable water. Potable water filler necks shall be installed above the deck.^{39/}

17-9.2 Potable water tanks shall:

- (i) be protected against excessive heating;*
- (ii) have a capacity as prescribed by the basin Administration;*
- (iii) be made of a material which resists corrosion and poses no physiological danger;*
- (iv) have a suitable, lockable opening to enable the inside to be cleaned;*
- (v) have a water level indicator;*
- (vi) have ventilation caps to the open air or which are fitted with appropriate filters.⁴⁰*

17-9.3 Potable water tanks shall not share walls with other tanks. Potable water pipes shall not pass through tanks containing other liquids. Connections are not permitted between the potable water supply system and other pipes. Pipes carrying gas or liquids other than potable water shall not pass through potable water tanks.^{41/}

^{39/} Article 12.05(1) of the Annex II to the draft revised Directive 82/714/EC.

^{40/} Article 12.05(2) of the Annex II to the draft revised Directive 82/714/EC.

^{41/} Article 12.05(3) of the Annex II to the draft revised Directive 82/714/EC.

17-9.4. *Potable water pressure vessels shall operate only on uncontaminated compressed air. Where it is produced by means of compressors, appropriate air filters and oil separators shall be installed directly in front of the pressure vessel unless the water and the air are separated by a diaphragm.*^{42/}

~~17.5 HEATING, COOKING AND REFRIGERATING EQUIPMENT~~^{43/}

^{42/} Article 12.05(4) of the Annex II to the draft revised Directive 82/714/EC.

^{43/} The Group of Volunteers suggests to finish chapter 17 here. If requested by the Working Party SC.3/WP.3, the Group of Volunteers could develop an additional chapter with requirements for heating, cooking and refrigerating equipment. Requirements for working spaces (17-6) has been put in a new chapter Z as decided earlier by the Working Party (TRANS/SC.3/WP.3/SC.2/2003/1).