

Brussels, 25th July 1979

PROPOSAL FOR A COUNCIL DIRECTIVE
LAYING DOWN TECHNICAL REQUIREMENTS
FOR INLAND WATERWAY VESSELS

(presented by the Commission to the Council)

GENERAL CONSIDERATIONS

1. In 1973 the Member States invited the Commission to prepare, pursuant to Article 75 of the Treaty and with a view to improving the safety of passengers, crew and vessels operating on Community inland waterways, a proposal standardizing the technical supervision of vessels and adopting a compulsory Community navigability licence.

The safety of inland waterways depends basically on the design and equipment of vessels and the special features of waterways.

At that time measures for the safety of inland navigation had been laid down and were applied solely at national level. The only waterway that was an exception to this rule was the Rhine, which had been recognized as an international waterway by the Revised Convention for the Navigation of the Rhine signed at Mannheim on 17 October 1868. Under that Convention the Central Commission for the Navigation of the Rhine (CCNR), with headquarters in Strasbourg, drew up the Regulation on Inspection of Shipping and Rafts on the Rhine, which lays down the technical requirements that must be met by any vessel operating on that waterway. Those requirements were the only ones that were European in character.

2. In view of the volume and complexity of the work involved, the Commission considered it preferably from the point of view of effectiveness to proceed by stages and limited itself in the first instance to proposing to the Member States the reciprocal recognition of navigability licences provided they met certain general requirements defined at national level.

The Commission was of the opinion that such recognition was a prerequisite of the process of establishing Community technical supervision in view of the fact that a lengthy period of reflection was required for preparing common technical requirements.

The Council therefore adopted, on 20 January 1976, on a proposal from the Commission, a directive on reciprocal recognition of navigability licences for inland waterway vessels ⁽¹⁾.

The directive introduced the reciprocal recognition of navigability licences and stipulated that each Member State must establish a procedure for issuing navigability licences and draw up a list of requirements to be met. It also stipulated that any Member State might prevent a vessel from proceeding where the requirements set out in the licence were not satisfied or where its condition was such as to render it dangerous for navigation.

The directive was valid until 31 December 1978 and it provided that before 1 January 1978 the Commission must submit a proposal containing common provisions establishing technical requirements for inland waterway vessels.

3. Meanwhile, in May 1976, the United Nations Economic Commission for Europe (ECE) was finalizing a draft "Recommendation on uniform technical requirements for inland waterway vessels (Annex to Resolution No. 17)" covering all aspects of the building of such vessels, their crew and rigging.

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OJ No. L 21, 29 January, 1976, p. 10.

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In view of the significance of this work and of the implications that the application of Resolution No. 17 could have within the Community, the Commission asked to be associated with the work of the CCNR in Strasbourg on a comparative study of the Annex to Resolution No. 17 and the Regulation on Inspection of Shipping and Rafts on the Rhine.

The results of this study, produced in 1977, revealed major differences between the Annex to Resolution No. 17 and the Regulation on Inspection of Shipping and Rafts on the Rhine.

In order to align these two texts the CCNR and the Community took steps in Geneva, in the context of the work of the ECE, to approximate the rules contained in the Annex to Resolution No 17 and those imposed by the Rhine inspection certificate.

It was obvious from the beginning, however, that such approximation would require a lengthy period of negotiation and, consequently, the Commission considered it preferable not to await the completion of the work in Geneva, but to draw up itself, with the assistance of Government experts, Community technical requirements for inland waterway vessels.

There were two major reasons for this decision:

- a number of Member States had already drawn up draft national rules and although the majority of the waterway organizations concerned had requested their speedy implementation, the Member States agreed to postpone implementation of the rules and to await the adoption by the Council of Community rules;

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- in its Directive No. 76/135/EEC of 20 January 1976, and in particular in Article 5, the Council had fixed 1 January 1978 as the final date for the adoption of common provisions establishing technical requirements for inland waterway vessels.

4. In order to take full account of the work in Geneva (ECE) and in Strasbourg (CCNR) and in view of the significance and complexity of the subject matter, this time limit could not be observed and the Commission asked the Council in December 1977 for permission to extend by two years, until 1 January 1980, the period originally granted to it.

The Council decided in November 1978 to grant this time and to amend its Directive No. 76/135/EEC of 20 January 1976⁽¹⁾.

5. Bearing in mind what had been laid down in the 1976 Directive and the results obtained in Geneva and Strasbourg, the problems that the Commission was required to resolve when drawing up its second directive included in particular the establishment of minimum requirements relating to the technical characteristics of vessels from the point of view of the safety of navigation, the introduction of technical supervision procedures for vessels and the definition of circumstances and conditions under which Member States would be authorized to prevent a vessel from proceeding.

It was essential therefore to introduce common criteria and, in effect, to establish technical requirements that would have to be met by all vessels. Conformity with these requirements and the maintenance of the vessel in that condition would be checked during the "inspection" (a genuine technical supervision) that every vessel would have to undergo. Provision had thus to be made for a Community inland navigation certificate (and for its renewal) for all vessels that are found on inspection to satisfy the common technical requirements.

⁽¹⁾ OJ No. L 349, 13 December 1978.

This certificate is evidence that a vessel is not a danger to navigation nor to the persons on board and, on that basis, also constitutes an authorization to operate freely on Community inland waterways.

To attain these objectives the Commission departments set up in April 1977 a Working Party composed of Government experts, a majority of whom were already taking part in the work of ECE in Geneva and of the CCNR in Strasbourg, thus ensuring that not only would there be no conflict between the work carried out in Geneva, Strasbourg and Brussels, but that it might be complementary.

This directive faithfully reflects the result of that work and contains:

- common provisions establishing technical requirements for inland waterway vessels and introducing a Community inland navigation certificate;
- at Annex I, a list of Community inland waterways divided into three Classes A, B and C (Article 2 of the proposal for a directive);
- at Annex II, minimum technical requirements for vessels operating on Class A, B and C waterways (Article 3 of the proposal for a directive);
- at Annex III, a model Community inland navigation certificate (Article 5 of the proposal for a directive);
- at Annex IV, a model Community inland navigation authorization pursuant to Article 10 of the proposal for a directive.

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Owing to lack of time, the directive does not cover passenger vessels and does not govern the additional technical requirements which will have to be laid down at Community level for vessels used for carrying dangerous goods.

Technical requirements for these two types of vessel will be the subject of subsequent Commission proposals.

COMMENTS ON THE ARTICLES

Article 1

Article 1 defines the scope of the directive. The lower limits of 15 tonnes and 15 m³ are those laid down in the Regulation on Inspection of Vessels and Rafts on the Rhine.

Article 2

Community inland waterways differ from the point of view of navigational safety as regards geography, dimensions and the volume of traffic operating on them.

This Article therefore divides the waterways into three classes so as to bring together in each class those with very similar navigational difficulties.

Class C comprises waterways with minimum characteristics common to the entire Community network. The technical requirements for vessels operating on waterways in this class consequently constitute the minimum requirements for navigation on all Community waterways, including those in classes B and A.

Class B contains waterways with features and navigation conditions comparable to those on the Rhine. Community technical requirements additional to those for Class C have been laid down for these waterways.

Class A comprises waterways which differ in such a way that each one has different safety requirements. For this reason each of the States concerned is responsible for the additional conditions imposed in respect of the individual waterways.

Annex I contains a list of waterways divided into Classes A, B and C. The list of maritime shipping lanes drawn up pursuant to Article 3(6) of Directive 76/135/EEC has therefore been repealed.

Article 3

This article renders it obligatory for vessels to satisfy the technical requirements contained in Annex II to this directive. The provisions contained in Chapters 1 to 11 and 13 and 14 of Annex II apply to vessels operating on the entire Community network of waterways. Chapter 12 lays down additional requirements that apply exclusively to vessels operating on Class B waterways.

The article also provides that new Member States may lay down provisions additional to those contained in Annex II for vessels operating on Class A waterways in their territory.

Article 4

The conformity of a vessel with the common technical requirements must be established by inspection.

This article provides that new vessels must be inspected before being launched and that the first inspection of vessels already in service is to be carried out in accordance with a timetable to be laid down by each Member State for its own fleet but must in any event be completed at the latest by 1 January 1990.

The article then provides that vessels are to be inspected at regular intervals in order to check whether they are being maintained in accordance with the technical requirements set out in Annex II to the directive.

Paragraph 4 of this article lays down the inspection procedures for vessels which are to operate on Class A waterways.

Paragraph 5 specifies that the States alone shall be responsible for carrying out the inspections.

Article 5

This article introduces a Community inland navigation certificate.

This certificate constitutes, first, evidence that the vessel satisfies the technical requirements for operating on a/certain category(ies) of waterways and, secondly, authorization for that vessel to operate on a/the particular waterway(s).

The article also lays down the procedure for the issue of the certificate and its period of validity.

Article 6

This article lays down the conditions for renewal and/or extension of validity of the certificate. The renewal or extension of validity may not under any circumstances exceed ten years.

Article 7

This article provides that a refusal to issue or renew the navigation certificate must state the reasons on which it is based and be communicated in writing to the applicant.

Article 8

This article provides that the authority empowered to withdraw a certificate can only be the one which issued or last renewed it.

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Article 9

This article provides that any major alterations or repairs to a vessel entail an obligation to have a fresh inspection carried out.

Article 10

Since the provisions applicable to the Rhine pursuant to the Regulation on Inspection drawn up by the CCNR include at present and at the highest level the technical requirements laid down in Annex II to this directive, Article 10 provides that any vessel carrying an inspection certificate issued pursuant to that Regulation may operate on the other EEC waterways of Classes B and C with that certificate alone.

In view, furthermore, of the fact that certain less stringent requirements have been imposed in the case of waterways in those classes then apply on the Rhine, persons operating inland waterway vessels and carrying a valid Rhine certificate, who wish to enjoy the benefit of the less stringent requirements must obtain an additional Community certificate, a model of which is set out in Annex IV.

Article 11

This article lays down the procedure for inspection by the authorities responsible for navigational safety.

Inspection may result in a vessel being prevented from proceeding if it is shown that some anomaly exists which constitutes a danger to the surroundings or to the persons on board, or in a request to remedy the situation where it does not constitute such a danger as referred to above.

It is also specified that failure to carry the certificate constitutes sufficient grounds for preventing the vessel from proceeding.

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These articles lay down a procedure for ensuring close cooperation between the Member States and the Commission within a committee so that certain measures contained in the directive and in its annexes may be adapted speedily to technical progress. The composition of the committee is also laid down, as are its operational and decision-making procedures.

Article 15

The special conditions applicable to the inland waterways of a State which are not linked by inland waterway to the waterways of other Member States create **different** problems of navigational safety on those waterways from those arising from freedom of movement on the Community network.

These problems differ from one waterway to another according to the type of cargo carried, the vessel used for the purpose and the journey involved, the latter being generally limited to journeys of local interest. This article provides, therefore, that vessels operating exclusively on such waterways may be exempted from the measures laid down in the directive.

Article 16

This article recognizes that Member States are entitled to impose technical requirements additional to those contained in the directive in respect of all vessels carrying dangerous goods on waterways within their territory. It stipulates further that any certificate issued to this effect under the European Agreement concerning the international carriage of dangerous goods on the Rhine (ADNR) must be recognized as being valid for this purpose throughout the Community.

Article 17

With effect from the date of entry into force of this directive, Council Directive 76/135/EEC of 20 January 1976 is no longer valid, as provided by Article 7 thereof. It is essential however that its terms of validity be extended:

- for vessels used for the carriage of goods already in service pending their inspection pursuant to Article 4;
- for passenger vessels pending the adoption by the Council of common provisions for such vessels.

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Article 18

No comment.

Article 19

No comment.

Proposal for a Council Directive laying down
Technical Requirements for Inland Waterway Vessels

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,
and in particular Article 75 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas the objectives and implementation of a common policy for transport
require, *inter alia*, in the field of inland navigation that the
movement of vessels on the Community network take place under the best
conditions as far as safety and competition are concerned.

Whereas Council Directive 76/135/EEC of 20 January 1976 on reciprocal recog-
nition of navigability licences for inland waterway vessels¹, as amended by
Directive 78/1016/EEC², provides that the Council shall
adopt common provisions establishing technical requirements for inland
waterway vessels; whereas the aim of the present Directive is accordingly to
establish such requirements; whereas, however, by reason of the complexity
of the subject, provisions concerning vessels used for the carriage of
passengers should be adopted at a later date; whereas, moreover, having
regard to their technical characteristics and methods of utilisation, certain
categories of vessel and floating equipment should be excluded from the scope
of this Directive;

¹ OJ No L 21, 29.1.1976, p.10

² OJ No L349, 13.12.1978, p.38

Whereas Community inland waterways differ as regards safety and should therefore be divided into three classes; whereas Class A comprises waterways with special characteristics which differ in such a way that each one has different safety requirements;

Whereas it is necessary to introduce a Community inland navigation certificate attesting the compliance of vessels with the common technical requirements; whereas such compliance must be established by inspection;

Whereas the Directive must lay down procedures for the issue, renewal and withdrawal of such certificate and for inspection by the authorities responsible for navigational safety;

Whereas Member States must be empowered to exempt from the application of one or more provisions of the Directive vessels which operate exclusively on waterways which are not linked by inland waterway to the waterways of other Member States; whereas, in view of the special nature of such operations, it is not appropriate to lay down appropriate provisions in this Directive; whereas safety requirements differ for each such waterway according to the type of cargo vessel and itinerary, which are normally of local interest only;

Whereas, pursuant to Article 7 of the abovementioned Directive 76/135/EEC, the measures provided for therein are to remain in force until the entry into force of this Directive; whereas, however, since technical requirements for vessels used for the carriage of passengers will be adopted only at a later date and since the provisions of this Directive do not apply to vessels already in service during the transitional period, it is necessary to amend for the second time the said Directive 76/135/EEC;

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Whereas technical progress necessitates the speedy adaptation of this Directive and its Annexes; whereas, in order to facilitate the implementation of measures necessary to this end a procedure should be laid down for ensuring close cooperation between the Member States and the Commission within a Committee for the adaptation of this Directive to technical progress;

HAS ADOPTED THIS DIRECTIVE:

Article 1

Scope

1. This Directive shall apply to:

- (a) vessels having a total dead weight of 15 tonnes or more, or vessels not intended for the carriage of goods having a displacement of 15m^3 or more;
- (b) pusher craft and tugs, including those with a displacement of less than 15m^3 , provided they have been built to tow or push or to tow vessels alongside.

2. This Directive shall not apply to:

- passenger vessels,
- ferries,
- floating equipment,
- floating establishments and installations including those being moved from one location to another,
- pleasure craft,
- service craft belonging to supervisory authorities and fire vessels,
- military vessels,
- sea-going vessels, including sea-going tugs and pusher craft operating or stationary on tidal waters or temporarily on inland waterways, carrying a valid navigation document,
- tugs and pusher craft with a displacement of less than 15m^3 which have been built to tow, push or tow alongside only vessels with a displacement of less than 15m^3 .

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Article 2

Classes of Waterways

For the purpose of this Directive Community inland waterways are hereby divided into three classes :

Class A The waterways shown in the list in Chapter 1 of Annex I to this Directive.

Class B The waterways shown in the list in Chapter 2 of Annex I to this Directive.

Class C All other waterways with the exception of those referred to in Article 15.

Article 3

Technical requirements

1. Vessels to which this Directive applies must comply with the common provisions relating to technical requirements laid down by this Directive.
2. Each Member State may adopt, following consultation with the Commission, technical requirements additional to those contained in Annex II for vessels operating on Class A waterways within its territory. Additional technical requirements shall be notified to the other Member States and to the Commission not later than six months prior to their entry into force, unless they were already in force on 21 January 1977.

Article 4

Inspection

1. In order that their compliance with the common technical requirements referred to in Article 3 may be checked, vessels laid down more than two years after the date of notification of this Directive shall be inspected in accordance with the procedure laid down in Annex II prior to being put into service.

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2. In order that their compliance with the common technical requirements referred to in Article 3 and in Annex II to this Directive may be checked, vessels in service or laid down prior to the date referred to in paragraph 1 shall be inspected in accordance with the procedure laid down in Annex II before [1 January 1990]. Inspections shall be carried out during this transitional period.

3. In order that it may be checked that they are being maintained in accordance with the common technical requirements applicable to them all vessels shall undergo at the appropriate time subsequent inspections in accordance with Article 6. These periodic inspections shall be carried out in accordance with the procedure laid down in Chapter 14 of Annex II.

4. Compliance of a vessel with the additional requirements referred to in Article 3(2) shall, where appropriate, be checked either upon inspection as provided for in paragraphs 1, 2 or 3 or during a special inspection.

5. Inspections within the meaning of this Directive shall be carried out by the State or by bodies designated by it and acting under its direct supervision. A list of such bodies or establishments shall be notified to the Member States and to the Commission.

6. The inspecting body may refrain from subjecting the vessel in whole or in part to the checks demanded by these technical requirements where it is evident from a valid attestation issued by a classification society approved by the State in which the certificate is issued or, where appropriate, by the State in which the vessel is registered or has its home port, that the vessel satisfies these technical requirements in whole or in part.

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Article 5

Community Certificate - Issue

1. Where a vessel is found on inspection pursuant to Article 4(1) and (2) to satisfy the common technical requirements set out in Annex II relating to construction, rigging and equipment, the applicant shall be issued with a Community inland navigation certificate validated for waterways in respect of which the vessel is considered to be suitable.
2. Vessels operating on Class A, B or C waterways shall carry a Community inland navigation certificate validated for the waterways concerned.
3. Without prejudice to provisions adopted pursuant to the Revised Convention for the Navigation of the Rhine, a vessel carrying a Community inland navigation certificate shall be authorized to operate on waterways in respect of which the certificate has been validated.
4. The Community inland navigation certificate shall be in conformity with the model certificate set out in Annex III.
5. The Community inland navigation certificate shall be issued by the Member State in which the vessel is registered or has its home port or, failing that, by the Member State in which the owner of the vessel is established.
6. However, at the request of the Member state referred to in paragraph 5, Community inland navigation certificates may be issued by another Member State.
7. Certificates may be issued by bodies designated by the Member States and acting under their direct supervision.

In such a case a list of those bodies shall be forwarded to the Member States and to the Commission.

8. In the event of the loss of a Community inland navigation certificate, a declaration of such loss shall be made to the issuing body, which shall issue a duplicate certificate.

9. Where a certificate becomes illegible or unusable the owner of the vessel or his representative shall return the certificate to the issuing body, which shall issue a duplicate certificate under the same conditions as indicated above.

10. The period of validity of a Community inland navigation certificate shall be determined in each case by the authority competent to issue certificates. This period shall not, however, exceed 10 years.

Article 6

Community Certificate - Renewal and Extension

1. A Community inland navigation certificate shall be renewed following an inspection at which it is established that the vessel complies with the common technical requirements set out in Annex II relating to construction, rigging and equipment.

2. The new period of validity of a certificate shall be determined on the basis of the results of the inspection and shall under no circumstances exceed 10 years.

3. Renewal shall be granted in accordance with the conditions laid down Article 5 (5), (6) and (7).

4. The validity of a certificate may, exceptionally, be extended without inspection for a period of not more than twelve months on submission of a reasoned request to the competent authority. Notice of such extension shall be given in writing and shall be carried by the vessel.

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Article 7

Refusal to issue a first Certificate or of Renewal

Any decision to refuse to issue or renew a Community inland navigation certificate shall set out in detail the grounds on which it is based. The person concerned shall be notified thereof and of the remedies available under the laws in force in the Member States and of the time limits within which such remedies may be sought.

Article 8

Withdrawal of Certificate

1. A Community inland navigation certificate may be withdrawn only by the competent authority which issued it, or, in the case of renewal, by the authority which last renewed it; the grounds for such withdrawal shall be set out in detail.

2. Where a vessel is definitively withdrawn from navigation on Community waterways, the owner shall return the certificate to the competent authority which issued it, or, in the case of renewal, to the authority which last renewed it.

Article 9

Inspection following major alterations or repairs

1. In the event of major alterations or repairs which modify the structural soundness or special characteristics of a vessel, such vessel shall, prior to any further voyage, undergo inspection.

2. If upon inspection such vessel is found to satisfy the technical requirements applicable to it, the Community inland navigation certificate shall be altered accordingly and the competent issuing authority, or, where appropriate, the authority which last renewed it, shall be informed accordingly.

3. The period of validity of a certificate thus altered shall be fixed in accordance with the conditions laid down in Article 6.

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Article 10

Recognition of Certificates issued Pursuant to the Regulation
on Inspection of Shipping and Rafts on the Rhine

1. Any vessel entitled to fly the flag of a Member State and carrying a valid certificate issued pursuant to the Regulation on Inspection of Shipping and Rafts on the Rhine may operate on Community waterways of classes B and C with that certificate alone.
2. However, every vessel as referred to in paragraph 1 carrying a certificate issued pursuant to the abovementioned Regulation but navigating on class B or C waterways and being in compliance only with the requirements set out in Annex II for these classes, shall obtain an additional Community certificate, a model of which is set out in Annex IV.

Article 11

Verification

1. The authorities responsible for navigational safety may at any time check that a vessel is carrying a valid certificate and satisfies the requirements set out in that certificate and, where appropriate, the additional requirements for the waterway on which it is operating laid down by the authorities responsible for that waterway.
2. If the authorities find upon inspection that the certificate is invalid or that the vessel does not satisfy the requirements set out in the certificate but that such invalidity or failure to satisfy the requirements does not constitute a manifest danger to the **environment** or to the persons on board, the owner of the vessel or his representative shall take all necessary measures to remedy the situation. The body which issued the certificate or which last renewed it shall be kept informed.

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3. If, upon making the inspection referred to in paragraph 1, the authorities find that the certificate is not being carried or that the vessel constitutes a manifest danger to the environment or to the persons on board, those authorities may prevent the vessel from proceeding until the necessary steps have been taken to remedy the situation.

The authorities may also prescribe measures which will enable the vessel to proceed to a place where it will be either inspected or repaired without endangering the vessel, the persons on board or the environment. The body which issued or last renewed the certificate shall be informed.

4. A Member State which has prevented a vessel from proceeding or has notified the owner of its intention to do so if the defects found are not corrected shall inform the body in the Member State which issued or last renewed the certificate of the decision which it has taken or envisages.

5. All decisions to interrupt the passage of a vessel taken pursuant to measures adopted in implementation of this Directive shall state in detail the reasons on which they are based. A decision shall be notified to the party concerned, who shall at the same time be informed of the remedies available to him under the laws in force in the Member States and of the time limits allowed for the exercise of such remedies.

Article 12

Any amendments necessary to adapt this Directive and its annexes to technical progress shall be adopted in accordance with the procedure laid down in Article 14.

Article 13

1. There is hereby established a Committee (hereinafter called "The Committee") for the adaptation of this Directive to technical progress, consisting of representatives of the Member States under the Chairmanship of a Commission representative.

2. The Committee shall draw up its rules of procedure.

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Article 14

1. Where a question relating to the procedure laid down in this article arises, the Chairman shall refer the matter to the Committee either on his own initiative or at the request of the representative of a Member State.

2. The Commission representative shall submit to the Committee a draft of the measures to be taken. The Committee shall deliver its opinion on the draft within a period to be determined by the Chairman having regard to the urgency of the matter in question. It shall take decisions by a majority of 41 votes, the votes of the Member States being weighted as laid down in Article 148 (2) of the Treaty. The Chairman shall not vote.

3. (a) The Commission shall adopt the proposed measures provided they are in conformity with the opinion of the Committee.

(b) Where the proposed measures are not in conformity with the opinion of the Committee, or where no opinion has been delivered, the Commission shall without delay submit to the Council a proposal on the measures to be taken. The Council shall take decisions by a qualified majority.

(c) If on expiry of a period of three months from the date of submission to the Council the latter has taken no decision, the proposed measures shall be adopted by the Commission.

Article 15

Derogations from the Directive

1. Member States may exempt from the application of one or more provisions of this Directive vessels which operate exclusively on waterways which are not linked by inland waterway to the waterways of other Member States.

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2. Member States may authorize in respect of navigation on their national waterways exemptions from one or more provisions of this Directive for limited journeys of local interest or in harbour areas. The derogations in question and the journeys or harbour area for which they are valid shall be specified in the vessel's certificate.

3. The Commission shall be notified of derogations adopted pursuant to this article.

Article 16

Vessels carrying dangerous goods

1. Member States may require vessels carrying dangerous goods within their territory to comply with requirements additional to those set out in Annex II and to carry a certificate attesting compliance with these additional requirements. Any vessel entitled to fly the flag of a Member State and carrying a certificate issued pursuant to the ADNR Regulation may carry dangerous goods anywhere on Community territory under the conditions stated thereon.

2. The Council, acting on a proposal from the Commission, shall adopt common provisions establishing additional technical requirements for inland waterway vessels carrying dangerous goods.

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Article 17

Article 7 of Directive 76/135/EEC is amended to read as follows:

"Article 7

1. This Directive is repealed on the expiry of the period referred to in Article 18(1) of Directive, except as regards

- the vessels referred to in Article 4(2) of the said Directive ... pending their inspection pursuant to that Article;
- passenger vessels.

2. The Council, acting on a proposal from the Commission, shall adopt common provisions establishing technical requirements for inland waterway passenger vessels".

Article 18Final Provisions

1. The Member States, shall, within one year following the notification of this Directive, and after consulting the Commission, adopt such laws, regulations or administrative provisions as may be necessary to comply with this Directive.

2. The competent authorities of the Member States shall cooperate closely to examine any difficulties arising in respect of measures for the implementation of this Directive and of the enforcement of such measures.

Article 19

This Directive is addressed to the Member States.

COUNCIL DIRECTIVE
establishing technical requirements
for inland waterway vessels

ANNEX I

List of Community
inland waterways shipping lanes
divided into three Classes A, B and C
(Article 2 of the Draft Directive)

BUNDESREPUBLIK DEUTSCHLAND

- Ems von der Verbindungslinie zwischen den Leuchttürmen Delfzyl und Knock bis zur Breite 53°30' N und östlich einer von dieser Breite in südwestlicher Richtung über die westlichen Begrenzungstonnen des Umschlagplatzes für Trockenfrachter in der Alten Ems zur niederländischen Küste verlaufenden Geraden
- Ems von der Hafeneinfahrt Emden bis zur Verbindungslinie zwischen den Leuchttürmen Delfzyl und Knock
- Jade binnenwärts der Verbindungslinie zwischen dem Oberfeuer Schillighörn und dem Kirchturm Langwarden
- Weser von Brake (Unterweser-km 43) bis zur Verbindungslinie zwischen den Kirchtürmen Langwarden und Kappel mit dem Nebenarm Schweiburg
- Elbe von der unteren Grenze des Hamburger Hafens bis zur Verbindungslinie zwischen der Kugelbake bei Döse und der nordwestlichen Spitze des Hohen Ufers (Dieksand) mit den Nebenflüssen Este, Lühe, Schwinge, Oste, Pinnau, Krückau und Stör (jeweils vom Sperrwerk bis zur Mündung) und einschliesslich der Nebenelben
- Melderfer Bucht binnenwärts der Verbindungslinie von der nordwestlichen Spitze des Hohen Ufers (Dieksand) zum Westmolenkopf Büsum
- Flensburger Förde binnenwärts der Verbindungslinie zwischen dem Kekenis-Leuchtturm und Birknack
- Eckernförder Bucht binnenwärts der Verbindungslinie von Boknis-Eck zur Nordostspitze des Festlandes bei Dänisch Nienhof
- Kieler Förde von dem durch das nördliche Einfahrtsfeuer zum Nord-Ostsee-Kanal gelegten Breitengrad bis zur Verbindungslinie zwischen dem Leuchtturm Bülk und dem Marine-Ehrenmal Laboe
- Ems von der bei der Hafeneinfahrt nach Papenburg über die Ems gehenden Verbindungslinie zwischen dem Diemer Schöpfwerk und dem Deichdurchlass bei Halte bis zur Hafeneinfahrt Emden
- Weser von der Eisenbahnbrücke in Bremen bis Brake (Unterweser-km 43), einschliesslich der Nebenarme Kleine Weser, Rekumer-Loch, Westergate und Rechter Nebenarm

Leda	von der Einfahrt in den Vorhafen der Seeschleuse von Leer bis zur Mündung
Hunte	vom Hafen Oldenburg und von 200 m unterhalb der Amalienbrücke in Oldenburg bis zur Mündung
Lesum	von der Eisenbahnbrücke in Bremen-Burg bis zur Mündung
Este	vom Sperrtor bei Buxtehude bis zum Este-Sperrwerk
Lühe	von der Mühle 250 m oberhalb der Strassenbrücke am Marschdamm in Horneburg bis zum Lühe-Sperrwerk
Schwinge	von der Fussgängerbrücke unterhalb der Gildensternbastion in Stade bis zum Schwinge-Sperrwerk
Freiburger Hafengriehl	von den Schleusen bei Freiburg/Elbe bis zur Mündung
Oste	vom Mühlenwehr Bremervörde bis zum Oste-Sperrwerk
Pinnau	von der Eisenbahnbrücke in Pinneberg bis zum Pinnau-Sperrwerk
Krückkau	von der Wassermühle in Elmshorn bis zum Krückkau-Sperrwerk
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Stör	vom Pegel Rensing bis zum Stör-Sperrwerk
Eider	vom Gieselaukanal bis zum Eider-Sperrwerk
Nord-Ostsee-Kanal	von der Verbindungslinie zwischen den Molenköpfen in Brunsbüttel bis zu der Verbindungslinie zwischen den Einfahrtsfeuerleuchten in Kiel-Holtensau mit Schirnauer See, Borgstedter See, Audorfer See, Obereidersee mit Enge, Achterwehrrer Schifffahrtskanal und Flehuder See
Kieler Förde	binnenwärts des durch das nördliche Einfahrtsfeuer zum Nord-Ostsee-Kanal gelegten Breitengrades
Trave	von der Eisenbahnbrücke und Holstenbrücke (Stadttrave) in Lübeck bis zur Verbindungslinie der beiden äusseren Molenköpfe bei Travemünde mit dem Pötenitzer Wiek und dem Dassower See
Schlei	binnenwärts der Verbindungslinie der Molenköpfe Schleimünde.

REPUBLIQUE FRANCAISE

Seine à l'aval du pont Jeanne d'Arc à Rouen
Garonne et Gironde à l'aval du pont de pierre à Bordeaux
Rhône à l'aval du pont Trinquetaille à Arles et au-delà vers Marseille

KONINKRIJK DER NEDERLANDEN

Dollard
Eems
Waddenzee y compris les liaisons avec la mer du Nord
IJsselmeer, y compris le Markermeer et l'IJmeer, mais à l'exception du Gouwzee
Waterweg de Rotterdam et Le Scheur
Hollands Diep
Haringvliet et Vuile Gat y compris les voies navigables situées entre Goeree-Overflakkee, d'une part, et Voorne-Putten et Hoekse Waard, d'autre part
Hellegat
Volkerak
Kramer
Grevelingen et Brouwershavense Gat y compris toutes les voies navigables situées entre Schouwen-Duiveland, d'une part, et Goeree-Overflakkee, d'autre part
Keten, Mastgat, Zijpe
Escaut oriental et Roompot y compris les voies navigables situées entre Walcheren, Beveland-nord et Beveland-sud, d'une part, et Schouwen-Duiveland et Tholen d'autre part, à l'exception du canal Escaut-Rhin
Escaut et Escaut occidental et son embouchure dans la mer y compris les voies navigables situées entre la Flandre zélandaise, d'une part, et Walcheren et Beveland-sud d'autre part, à l'exception du canal Escaut-Rhin.

CHAPTER II

CLASS

B

ROYAUME DE BELGIQUE

Escaut Maritime (en aval de la rade d'Anvers)

BUNDESREPUBLIK DEUTSCHLAND

Donau von Kelheim (km 414,60 bis zur deutsch-österreichischen Grenze)

Rhein von deutsch-schweizerischer Grenze bis zur deutsch-niederländischen Grenze

Elbe von der Einmündung des Elbe-Seiten-Kanals bis zur unteren Grenze des Hamburger Hafens

REPUBLIQUE FRANCAISE

Rhin

KONINKRIJK DER NEDERLANDEN

Catégorie B

Sneekemeer, koevordermeer, Heegermeer, Fluessen Slotemeer, Tjeukemeer, Beulakkerwijde, Belterwijde, Ramsdiep, Ketelmeer, Zwartemeer, Veluwemeer, Eenmeer, Alkmaardermeer, Gouzee, Buiten IJ, afgesloten IJ, Noordseekanaal, port d'IJmuiden, domaine portuaire de Rotterdam, Nieuwe Maas, Noord, Oude Maas, Beneden Merwede, Nieuwe Merwede, Dordtsche Kil, Boven Merwede, Waal, Bijlandsch Kanaal, Boven Rijn, Pannersdensch Kanaal, Geldersche IJssel, Neder Rijn, Lek, Canal Amsterdam-Rhin, Veerse Meer, canal Escaut-Rhin jusqu'à l'embouchure dans le Volkerak, Amer, Bergsche Maas, La Meuse en aval de Venlo.

CHAPTER III

CLASS

C

ROYAUME DE BELGIQUE

Tout le réseau belge, à l'exception de la voie de la classe B

BUNDESREPUBLIK DEUTSCHLAND

Alle Bundeswasserstrassen, ausser denen der Klasse A und B und dem Künstmeer

REPUBLIQUE FRANCAISE

Tout le réseau français à l'exception des voies des classes A et B

KONINKRIJK DER NEDERLANDEN

Alle overige rivieren, Kanalen en meren, niet genoemd onder vaargebied A en B.

REPUBBLICA ITALIANA

Fiume Po : da Piàcenza alla foce

Canale Milano : -Cremona - fiume Po - tratto terminale, collegato al Po, di km 15 -

Fiume Mincio : da Mantova, Governolo al Po

Idrovia Ferrarese : dal Po (Pontelagoscuro), Ferrara a Porto Garibaldi

Canalidi Brondolo e di Valle : dal Po di Levante alla Laguna di Venezia

Canale Fissero - Tartaro - Canalbionico : da Adria al Po di Levante

Litoranea Veneta : dalla Laguna di Venezia a Grado

GRAND-DUCHE DU LUXEMBOURG

Moselle

COUNCIL DIRECTIVE
establishing technical requirements
for inland waterway vessels

ANNEX II

Minimum Technical Requirements for Vessels
Operating on Class A, B and C Waterways

(Article 3 of the Proposal for a Directive)

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CHAPTER 1

Terminology

For the purposes of this Directive and the Annexes thereto :

- a) "vessel" means an inland waterway vessel;
- b) "ordinary powered vessel" means any vessel intended for the carriage of goods, not being a tanker vessel, built to navigate independently under its own motive power;
- c) "powered tanker" means any vessel intended to carry goods in fixed tanks and built to navigate independently under its own motive power;
- d) "powered vessel" means an ordinary powered vessel or a powered tanker;
- e) "tug" means any vessel specially built to performing towing;
- f) "pusher" means any vessel specially built to propel a pushed train of craft;
- g) "pusher tug" means any vessel specially built to perform towing and propel a pushed train of craft;
- h) "dumb barge" means any vessel, not being a tank barge, intended for the carriage of goods and built to be , and having :
 - either having no motive power of its own,
 - or having only sufficient motive power to perform short manoeuvres;
- i) "tank barge" means any vessel intended for the carriage of goods in fixed tanks and built to be towed, and having :
 - either having no motive power of its own;
 - or having only sufficient motive power to perform short manoeuvres;
- k) "barge" means a dumb barge or tank barge;
- l) "ordinary lighter" means any vessel intended for the carriage of goods, not being a tank lighter, built or specially modified to be pushed, and having :
 - either having no motive power of its own;
 - or having only sufficient motive power to perform short manoeuvres when not part of a pushed train of craft;
- m) "tank lighter" means any vessel intended for the carriage of goods in fixed tanks, built or specially modified to be pushed, and having :
 - either having no motive power of its own;
 - or having only sufficient motive power to perform short manoeuvres when not part of a pushed convoy;

- n) "ship-borne lighter" means a pushed lighter built to be carried aboard sea-going vessels and to navigate on inland waterways;
- o) "lighter" means an ordinary lighter, tank lighter or ship-borne lighter;
- p) "passenger boat" means any vessel built and fitted out to carry more than twelve passengers;
- q) "floating equipment" means any floating structure carrying mechanical installations and intended for work on waterways or in ports, e.g. a dredger, elevator, sheer-legs or crane;
- r) "floating establishment" means any floating installation not normally intended to be moved, e.g. a swimming bath, dock, jetty or boat-house;
- s) "floating installation" means a raft or any other structure, object or assembly capable of navigation not being a vessel or floating equipment or establishment;
- t) "wheelhouse" means the space in which all the gear necessary for controlling the vessel is installed;
- u) "engine room" means the space in which the propulsion machinery and auxiliaries are installed;
- v) "accommodation" means any space intended for the use of persons normally living on board, or of passengers, and includes the galley, storage space for provisions, toilets and washing facilities, laundry facilities, landings and gangways, but not the wheelhouse;
- w) "plane of maximum draught" means the waterplane corresponding to the maximum draught at which the vessel is authorized to navigate;
- x) "freeboard" means the distance between the plane of maximum draught and a parallel plane passing through the lowest point of the side deck or, in the absence of a side deck, the lowest point of the upper edge of the hull planking or plating;
- y) "safety distance" means the distance between the plane of maximum draught and the parallel plane passing through the lowest point above which the vessel is not regarded as watertight.

CHAPTER 2

Requirements relating to shipbuilding

Article 2.01
Basic rule

Vessels must be constructed in accordance with good shipbuilding practice; their stability must accord with the use for which they are intended.

Article 2.02
Hull

2.02.1 The hull must be sufficiently strong for all stresses to which it is subjected under normal conditions.

2.02.2 Water intakes and outlets and pipes connected to them are considered watertight if they are made in such a way that any unintentional ingress of water into the vessel is impossible.

2.02.3 Watertight bulkheads extending to the deck or, in the absence of a deck, to the upper edge of the hull planking or plating must be installed as follows :

- a) a collision bulkhead at an appropriate distance from the stem;
- b) in vessels whose length overall is over 25 m, a stern bulkhead at an appropriate distance from the stern.

2.02.4 The accommodation, engine and boiler rooms and any working spaces forming part of them must be separated from the holds in a watertight manner.

2.02.5 Any compartment not normally hermetically sealed during a voyage shall be capable of being pumped dry. It must be possible to pump out each compartment separately.

2.02.6 There must be no accommodation forward of the collision bulkhead. Accommodation must be separated from the engine and boiler rooms by gas tight bulkheads and directly accessible from the deck. Where there is no such access, there shall be an emergency exit leading directly onto the deck.

2.02.7 There must be no watertight bolted openings in the bulkheads required under subsections 3 and 4 above. Manholes are permitted, however, in bulkheads other than the collision bulkhead, on condition that they are bolted in a watertight manner. Hatchways in the stem bulkhead and openings for propeller shafts, piping, etc., are permitted when they are constructed in such a manner as not to affect the effectiveness of the bulkheads and other partitions between spaces.

2.02.8 By way of derogation from subsections 5 and 7 above, the stem compartment may communicate with an engine room by means of a readily accessible self-closing drain installation.

Article 2.03
Heating, cooking and refrigeration appliances

2.03.1 The heating, cooking and refrigeration equipment together with their accessories, must be so designed and installed that it is not dangerous even in the event of overheating. It shall be so installed that it cannot overturn or be moved accidentally.

2.03.2 When the equipment referred to in subsection 1 which uses liquid fuel may be operated only with fuels whose flashpoint is above 55°C.

2.03.3 By way of derogation from subsection 2 above, cooking appliances and heating and refrigeration appliances fitted with burners with wicks and working on commercial paraffin may be permitted in the accommodation and wheelhouse, subject to the capacity of the fuel tank not exceeding twelve litres.

2.03.4 The installations referred to in subsection 1 above may not be installed in spaces or engine rooms in which category K1s or K1n or K2 substances, or substances of Class IIIa of the ADN are stored or used.

No flues from these installations may pass through the said spaces or engine rooms.

2.03.5 The intake of air necessary for combustion must be ensured. No closing devices should be fitted on ventilation fans.

2.03.6 Heating and cooking appliances must be securely connected to the flues. The flue pipes must be in good condition and fitted with suitable caps or devices affording protection from the wind. The flues of heating installations must be arranged in such a manner as to limit the possibility of obstruction by combustion products and to permit cleaning.

2.03.7 Vents must be fitted above the outlets of refrigeration appliances working on liquid fuel.

Article 2.04
Heating with liquid fuels having a flash
point above 55°C

2.04.1 All appliances must be so built that they can be lighted without the aid of another combustible liquid. They must be fixed over a metal drip pan with sufficient capacity to prevent an accidental overflow of fuel and equipped with a device to prevent leaks in the event of the flame accidentally going out. Where the fuel tank and the appliance are separate, the drop between the tank and the burner feed may not exceed that laid down in the manufacturer's operating instructions. The tank must not be close to a flame. It must be possible to interrupt the flow of fuel from the deck.

Fuel tanks with a capacity of over twelve litres must not be installed inside accommodation.

2.04.2 When an appliance is installed in an engine room, the conditions governing its installation must be posted.

Where appliances with a naked flame are installed in an engine room, they must be placed above a leak-proof pan with side walls extending not less than 0.20 m above the floor.

2.04.3 Natural-draught appliances are not be permitted in an engine room unless their capacity is less than 3000 joules/h. Induction equipment must be so designed that the machinery can function without loss of output. All natural draught equipment must be fitted with a device to prevent draught inversion.

2.04.4 Forced-draught equipment must be fitted with a device that automatically stops the flow of fuel when the supply of air necessary for combustion is interrupted.

2.04.5 Forced-draught central heating appliances mounted in an engine room or a compartment accessible from the engine room must also meet the following requirements :

- a) during start-up, the fan must initially function alone to ensure that the boiler is well ventilated;
- b) there must be a thermostatic device to regulate the fuel flow;
- c) the fuel must be ignited automatically by pilot flame or any other means;
- d) it must be possible to stop the fan and the burner fuel pump from the deck;
- e) if the central heating appliance is in the engine room, it must be so installed that no flame from the burner can reach other items in the space and that the operation of the machinery cannot affect the flow of combustion air;
- f) where warm-air heating appliances are installed in the engine room, the air intakes must be connected to ducts leading to the open air.

Article 2.05 Solid fuel heating

2.05.1 Except where the heating equipment is installed in a compartment constructed of fire-resistant materials and specifically designed to house a boiler, solid fuel heating appliances must be placed on a metal plate (with raised edges), or similar protective device, to ensure that no burning fuel or hot cinders fall on materials liable to catch fire.

2.05.2 Solid fuel heating appliances must be fitted with thermostatic controls to regulate the flow of combustion air.

2.05.3 A means by which cinders can be quickly doused must be placed in the vicinity of each heating appliance.

Article 2.06 Engine and boiler rooms and bunkers

2.06.1 Engine and boiler rooms must be so arranged that it is easy and safe to control and maintain the installations in them.

2.06.2 Liquid fuel or lubricating oil bunkers may not have common walls with the accommodation.

2.06.3 The walls, ceilings and doors of engine and boiler rooms and bunkers must be of steel or equally fire resistant material.

2.06.4 Engine and boiler rooms and other areas in which inflammable or toxic gases may be evolved must be adequately ventilated.

2.06.4 Engine and boiler rooms and other areas in which inflammable or toxic gases may be evolved must be adequately ventilated.

2.06.5 Companionways and ladders providing access to engine and boiler rooms and bunkers must be permanently affixed and made of steel or an other equally strong and fire-resistant material.

2.06.6 Engine and boiler rooms must have two exits, one of which may be an emergency exit.

2.06.7 The maximum permissible sound pressure level in the engine room is 110 dB(A). Measuring points must be chosen having regard to the maintenance necessary when the installation is operating normally.

CHAPTER 3

Steering gear and wheelhouse

Article 3.01 General

3.01.1 Every vessel must be equipped with reliable steering-gear- including where necessary, a bow rudder - which ensures good manoeuvrability, having regard to the use and principal dimensions of the vessel.

3.01.2 The steering gear must be so designed that the rudder cannot change position when not intended to do so.

Article 3.02

Effectiveness of the steering gear

3.02 The steering gear must comply with the following requirements as to performance :

- a) where the steering gear is manually operated, one complete turn of the hand wheel must correspond to at least 3° of rudder angle.
- b) where the steering gear is fully powered, it must be possible to obtain an average rate of 4° of rudder deflection per second through the entire rudder arc when the rudder is fully immersed and with the vessel at full speed.
- c) where the steering gear is provided with power assistance gear (power assistance gear supplementing a manual main steering gear) it must be possible to achieve an average rate of 3° per second of rudder deflection (though the arc 30° on either side of the neutral position of the rudder when it is fully immersed and with the vessel at full speed.
- d) where fully powered steering gear is provided with a second, manually operated control, the latter must at least permit the vessel to proceed to a mooring at reduced speed.

Article 3.03

General design requirements

3.03.1 The entire steering gear must be designed constructed and installed so as to allow for permanent transverse lists of up to 15° and ambient temperatures of up to 40°C.

3.03.2 The parts comprising the steering gear must be so dimensioned :

- as to withstand all the maximum stresses to which they will be subject in normal operating conditions; and
- that when outside forces act on the system in an exceptional manner (e.g. in the event of the vessel touching ground) their effects are no worse than deformation or, should the rudder stock fracture, these forces can be withstood by the steering gear itself.

../..

Article 3.04

Powered steering gear

3.04.1 Where a vessel is equipped with powered steering gear, an independent secondary steering system must be provided in order to ensure manoeuvrability without delay if the main gear breaks down.

3.04.2 Powered steering gear must be fitted with an overload protection device to limit the torque exerted by the drive.

3.04.3 Accidental cutting-out or failure of the powered steering gear must be indicated by visual and audible signals at the steering station.

Article 3.05

Engagement of the secondary drive

3.05.1 If the secondary drive does not engage automatically following the failure of the main drive, it must be possible to engage it by hand immediately and simply with the rudder in any position. The number of manipulations to be carried out must not exceed two, and they must be capable of being performed, by one person.

3.05.2 It must be possible to complete engagement in less than five seconds. It must be possible to establish from the steering station which drive installation is in use.

Article 3.06

Manual drive

3.06.1 If the independent secondary drive is manual it must be engaged automatically or be capable of being engaged immediately from the steering station in the event of the powered drive cutting out or failing. Claw clutches are permitted only where they are not subject to torque during engagement.

3.06.2 The power drive must not actuate the hand wheel; there shall be a device to prevent the return of the hand wheel for any rudder when the manual drive is engaged automatically.

Article 3.07

Manually operated hydraulic drive

3.07.1 Manually operated hydraulic steering gear is an installation in which the rudder is driven by a pump which in its turn is driven solely by a manually operated steering wheel (steering wheel pump).

3.07.2. Where the sole steering installation is a manually operated hydraulic system (see point 3.1 below) it is not to be regarded as powered steering gear in the sense of Article 3.04, requiring an independent secondary steering system, provided that :

- the dimensioning, construction and layout of the piping precludes deterioration through mechanical action of fire; and
- the construction of the steering wheel pump guarantees faultless operating.

Article 3.08
Hydraulic drive

3.08.1 Where the main steering gear is hydraulically operated whilst the secondary steering is a manually operated hydraulic system, the piping of the manually operated system must be separate from that of the main installation.

It must be possible to operate the main installation without using the steering wheel pump of the secondary installation.

3.08.2 Where both the main and secondary drive are hydraulic, the respective pumps must be driven independently, e.g.:

- where the main pump is powered by the main engine, the secondary pump must be electrically driven;
- where the main pump operates on the main electric circuit, the secondary must operate on the emergency circuit;
- where the main pump is driven by n°1 generator, the secondary pump must be driven by n° Generator.

3.08.3 Where the secondary pump is driven by an emergency engine which does not operate continuously whilst the vessel is in motion, a buffer device must be installed to drive the pump whilst the emergency engine is

3.08.4 The two installations must have separate pipes, valves controls, etc. Nevertheless, where the independent functioning of the two installations is ensured, they may have common components.

Article 3.09
Electric drive

3.09.1 Where both the main and secondary installations are electrically powered, the respective feed and control systems must be independent of each other. Each installation must have its own motor.

3.09.2 Where the secondary motor is fed by an auxiliary engine which does not run continuously whilst the vessel is in motion, a buffer device must be installed to drive the secondary motor whilst the auxiliary engine is run up.

Article 3.10

Rudder propellers and Voith-Schneider equipment

3.10 Where remote control of rudder and Voith-Schneider propellers is electrical, hydraulic or pneumatic there must be two independent control systems between the steering station and the propulsion installation.

Where there are two or more independent propulsion installations, no secondary independent control system is required as long as the vessel remains sufficiently manoeuvrable in the event of one of the installations failing.

Article 3.11
Remote-control installations

3.11 Remote-control installations, including those outside the wheel-house, must be permanently affixed. Where such installations can be switched off, indicators must be provided to show whether the equipment is "on" or "off".

The arrangement and actuation of the controls must be consonant with their function.

Article 3.12
Rudder position indicator

3.12 The position of the rudder must be clearly perceivable from the steering station; if necessary a reliable indicator must be provided.

Article 3.13
Steering assistance

3.13.1 Steering assistance installations are power - assistance installations fitted in addition to manually operated main steering gear.

3.13.2 Where auxiliary steering gear is used, the connections between the principal and auxiliary steering gear should be such that a considerable increase in the manual force applied to the steering wheel is not necessary.

3.13.3 In addition to the foregoing, steering assistance gear must meet the following requirements :

- (a) Steering assistance gear must be capable of being engaged or disengaged at the steering station with the rudder in any position. The "on" and "off" positions must be clearly indicated.
- (b) Electrical, hydraulic and pneumatic connections between the assistance gear and the manually operated mechanical main steering gear must not compromise the capacity of the main gear to be put into operation immediately. Other failures of steering assistance gear must not cause the main system to fail or jam.
- (c) all elements of existing steering assistance gear and any new elements incorporated later must meet the requirements for steering gear set out in section 3 above.

3.13.4 The rudder position indicator must function both for the main and the secondary steering gear.

3.13.5 The requirements set out in this Article also apply when steering assistance gear is installed after the building of the vessel.

Article 3.14
Unobstructed view

3.14 The view in all directions from the steering station must be sufficiently unobstructed.

Article 3.15
Acoustic pressure

3.15 Under normal operating conditions, the sound pressure level of the noise made by the vessel must not exceed 70 dB (A) at the helmsman's head position.

Article 3.16
Electrical components of steering gear

3.16.1 The nominal rating of the motors must correspond to the maximum torque of the steering gear. In the case of hydraulic installations, the nominal rating of the drive motor must be such as to ensure maximum output from the pump at maximum pressure in the installation (safety valve setting) having regard to the efficiency of the pump.

3.16.2 Motors must meet at least following requirements :

(a) Powered steering gear for intermittent operation :

- Motors of electro-hydraulic drives and associated converters must be designed for continuous duty with intermittent loading and a 15% duty factor. A ten-minute duty cycle is to be assumed.
- Motors for electrically powered steering gear must be designed for intermittent operation without being affected by the start-up process and a 15% duty factor. A ten-minute duty cycle is to be assumed.

(b) Steering gear with continuous power demand

Such gear must be designed for continuous operation.

3.16.3 The drive circuits and control circuits may be protected only against short circuits. The control circuits must be protected against twice the maximum rated current of the electric circuit; the rating of the protective devices must be not less than 6 A.

3.16.4 The motor supply cables must be protected as follows :

Where fuses are used, their rated current must be two steps higher than the rated current of the motors, but not more than 160% of the rated current in the case of motors for intermittent or short-period operation. The short-circuit instantaneous trip of circuit-breakers must not be set for a rated current exceeding ten times the rated current of the drive motor.

3.16.5 Where there are thermal trip switches in the circuit-breakers they must either be rendered inoperative or set to twice the rated current of the motor.

3.16.6 For the electric equipment the following monitoring and indicating devices must be provided :

- (a) a green pilot light indicating that the installation is functioning;
- (b) a red pilot light which comes on when the installation breaks down, is accidentally disconnected, when the electric motor is overloaded or when one phase of a three-phase supply fails. An acoustic signal must sound at the same time as the red light comes on. Where supply is exclusively via circuit-breakers, phase failure monitoring is not required.

3.16.7 Where the rudder position indicator is electrical it must have an independent current supply.

CHAPTER 4
FREEBOARD, SAFETY DISTANCE AND DRAUGHT MARKS

Article 4.01
Definitions

In this chapter :

- (a) "Length L" means the maximum length of the hull excluding rudder and bowsprit;
- (b) "amidships" means half way along the Length L
- (c) a device or structural unit is deemed "sprayproof and weathertight" if in normal conditions it allows only a very small quantity of water to penetrate.

Article 4.02
Safety distance

The minimum safety distance shall be :

- (a) for doors and openings other than hatches, which can be closed in a sprayproof and weathertight manner : 0.15 m;
- (b) for doors and openings, other than hatches, which cannot be closed in a sprayproof and weathertight manner : 0.20 m;
- (c) for hatches which can be closed in a sprayproof and weathertight manner : 0.30 m;
- (d) for hatches which cannot be closed by special devices, or are not closed (open holds) : 0.50 m

Article 4.03
Freeboard

There must be sufficient freeboard to ensure compliance with the safety distances; it may not be negative.

Article 4.04
Draught marks

4.04.01 The maximum draught level must be so determined as to ensure compliance with the requirements as to the minimum safety distance at the same time, whilst ensuring that this level cannot at any point be higher than the side decks, or, in the absence of side decks, the upper edge of the hull planking or plating.

4.04.2 The maximum draught level must be indicated by clearly visible indelible draught marks.

4.04.3 The draught marks must consist of a rectangle 0.30 m long by 0.04 m high with its base horizontal and coinciding with the maximum draught level authorized in this annex. These marks may be combined with others required under other regulations.

4.04.4 Every vessels must have at least three pairs of draught marks, one pair amidships and the others approximatively one-sixth of the vessel's length from bow and stern respectively.

However,

- in the case of vessels under 40 m, in length two pairs of marks about on-quarter of the vessel's length from bow and stern respectively suffice;
- in the case of vessels not intended for the carriage of goods, one pair of marks roughly amidships suffice.

4.04.5 Marks or information which ceases to be valid as a result of fresh survey must be removed or marked as no longer valid under the supervision of the certificating authority. Where for any reason a draught mark disappears, it may be replaced only under the supervision of the certificating authority.

4.04.6 Where a vessel has been measured in accordance with the Convention on the measurement of inland waterway vessels and the plane of the measurement plates meets the requirements of this Regulation, the measurement plates may be accepted as an alternative to draught marks, this must be mentioned in the survey certificate.

Article 4.05 Draught scales

4.05.1 Any vessel whose draught may attain 1 m must bear draught scales on each side towards the stern; it may bears additional draught scales.

4.05.2 The zero point of each draught scale must lie vertically below the draught scale in a place, parallel to the plane of maximum draught, passing through the lowest point of the hull or of the keel, if any. The vertical distance above zero must be graduated in decimetres. From the light draught plane up to 10 cm above the plane of maximum draught level these graduations must be marked by lines punched in or engraved and painted in two alternating colours in such a way as to be clearly visible. The graduation shall be marked by figures down the sides of the scale at least every 5 decimetres and at the top of the scale.

4.05.3 The two rear measurement scales, applied pursuant to paragraph... of the abovementioned Convention may take the place of draught scales, provided that they are graduated in accordance with the above requirements and, where necessary, figures indicating the draught are added.

CHAPTER 5

MACHINERY

Article 5.01

General

5.01. 1 All machinery and associated installations must be designed, constructed and installed in accordance with the rules of good engineering practice.

5.01. 2 Boilers and other pressure vessels and their accessories must comply with the rules in force in the Member State issuing the certificate, pending the introduction of Community rules.

5.01. 3 Main and secondary machinery running on fuel with a flashpoint below 55°C is prohibited.

Nevertheless, engines providing power for anchor winches, ships boats and portable motor pumps may run on fuel with a flashpoint below 55°C.

5.01. 4 Starting aids using fuel with a flashpoint below 55°C are permitted.

Article 5.02

Safety equipment

5.02. 1 All machinery must be installed and mounted so as to be sufficiently accessible for operating and maintaining and as not to endanger the personnel concerned.

5.02. 2 The main and auxiliary machinery, the boilers and all accessories must be fitted with safety devices conforming to the rules in force in the Member State issuing the certificates.

5.02. 3 It must also be possible to stop the motors driving pressure and draught ventilators from outside the space in which they are installed.

Article 5.03

Propelling mechanism

5.03. 1 It must be possible to start, stop and reverse the vessels propelling mechanism quickly and safety.

5.03. 2 Where the propelling mechanism is not controlled from the wheelhouse whilst the vessel is under way, a reliable two-way communication system must be provided between the wheelhouse whilst the vessel is under way, a reliable two-way communication system must be provided between the wheelhouse and engine room.

Article 5.04
Engine exhaust pipes

5.04.01 Exhaust pipes passing through accommodation or wheelhouse must be enclosed in a sufficiently gastight jacket. The space between the jacket and the exhaust pipe must communicate with the outside air.

5.04.02 All exhaust gas must be evacuated from the vessel. All suitable precautions must be taken to prevent noxious gases from entering the various compartments. Exhaust is from main engines which eject their gases through or over the side are prohibited.

5.04.03 Exhaust pipes must be suitably lagged, insulated or cooled.

5.04.04 Where exhaust pipes are pass beside or through inflammable materials the latter must be protected by a sheet of insulating material or any other appropriate device providing effective insulation.

Article 5.05
Tanks, bunkers and piping

5.05.01 Liquid fuel must be stored in tanks securely attached to the hull, or in bunkers.

5.05.02 Tanks and bunkers, their piping and other accessories must be so arranged and fitted that neither fuel nor gas can escape into the vessel.

5.05.03 Except in the case of tanks filled for daily consumption, the mouth of the filling pipe of tanks and bunkers for liquid fuels, must be on the deck. The filling pipe must be provided with means of closure. Every tank and bunker must be fitted with a venting pipe terminating in the outside air above the deck and so arranged that no water can enter it.

5.05.04 The liquid fuel distribution pipes must be fitted with a closing device at the tank or bunker outlet.

In addition, it must be possible from the deck to stop the flow in pipes which directly supply motors, boilers and heating appliances.

Fuel pipes must not be exposed to the harmful effects of heat and must be possible to inspect them along their entire length.

5.05.05 Sight tube gauges on liquid fuel tanks and bunkers must be adequately protected against impact damage, fitted with self-closing cocks, and be connected to the tanks or bunkers, at the upper end.

5.05.06 Liquid fuel tanks and bunkers must be fitted with ports, having leaktight closures, to permit cleaning and inspection.

5.05.07 Tanks directly supplying the propelling machinery must be fitted to a device which gives a visible and audible signal in the wheelhouse when the fuel level is no longer sufficient for safe operation.

5.05.8 With the exception of the installations referred to in Chapter 8, no pipes for dangerous gases or liquids, particularly pipes under such pressure that any leak would endanger the crew, may be installed in the accommodation or passages giving access to the accommodation. This requirement does not apply to pipes carrying liquid gas, to pipes for domestic purposes and to steam heating pipes.

Article 5.06
Bilge pumps

5.06.1 The requirements of Article 2.02.5 shall apply.

5.06.2 Crewed vessels shall be equipped with at least one manually operated bilge pump. However, vessels where the power of the mechanical propulsion installation exceeds 225 kW and vessels of over 350 dwt must be equipped with two separate bilge pumps, at least one of which must be powered.

Manually operated bilge pumps are sufficient for watertight compartments under 4m in length.

5.06.3 The inside diameter (d) of the bilge pipe must be at least :

$$d_a = 1.5 \sqrt{L(B + C) + 25} \quad (\text{in mm})$$

The inside diameter (d_a) of the branch pipes connecting at the various suction strainers must be at least :

$$d = 2.0 \sqrt{L(B + C) + 25} \quad (\text{in mm})$$

where :

L is the length of the vessel between perpendiculars in m;

B is the moulded breadth of the vessel in m;

C is the moulded depth up to the main deck in m, and

L is the length in m of the corresponding watertight compartment.

5.06.04 The capacity of the powered bilge pump must be at least

$$0.1 d^2 \text{ L/Min.}$$

The capacity of the auxiliary bilge pump must be at least

$0.1 d_a^2 \text{ L/min}$, where d_a refers to the longest watertight compartment.

The capacity of any manually operated bilge pump for use in only one compartment must be at least :

$$0.1 d_a^2 \text{ L/min.}, \text{ where } d_a \text{ refers to that compartment.}$$

5.06.5 Only self-priming bilge pump are permitted.

5.06.6 For every flat-bottomed compartment over 5 m wide, there must be at least one suction strainer on either side. Where the engine room is over 5 m long there must be at least two suction strainers.

5.06.7 It must be possible to drain the stern compartment from the engine room by means of automatically closing pipes (2.02.8).

5.06.8 The branch drain pipes from the various compartments must be connected to a main by means of non-return valves which can be closed.

Compartments or other spaces fitted out for ballast need only be connected to the draining system by means of a simple shut-off device.

Article 5.07

Waste oil gathering system

Installations for draining engine room bilges must be so devised that the oil or oily water pumped out from the bilges remains on board.

A dynamic oil separator shall be installed in the piping down stream of the bilge pump or, failing this, a static separator must be fitted around each suction strainer.

These devices must be of a type approved by the authority in the Member State which issued the certificate.

Article 5.08

Winches

5.08.1 Anchor winches must be provided for anchors over 50kg.

5.08.2 Winches designed to be driven by power as well as manually must be designed to ensure that the power drive can not set the manual drive in motion.

Article 5.09

Vessel's intrinsic noise

The vessel's intrinsic noise when under way, particularly noise caused by the engine intake and exhaust, must be muffled by appropriate means.

Under normal operating conditions the vessel's intrinsic noise, measured laterally at a point 25m from the vessel's side must not exceed 75dB (A).

CHAPTER 6

ELECTRICAL INSTALLATIONS

Article 6.01
General

6.01.1 All electrical installations must comply with the requirements of this Chapter.

6.01.2 The following must be on board :

a) a circuit and installation diagram checked and signed by the /competent authority/ and specifying :

- the types and makes of machinery and appliances used;
- the types and cross-sections of cables;
- all other particulars essential for an assessment of compliance with safety requirements.

b) operating instructions for the electrical installations;

6.01.3 All electrical installations must be designed, constructed and installed to withstand a permanent transverse list of up to 15° and ambient temperatures of up to 40° C.

Article 6.02
Maximum permissible voltages

6.02.1 The following voltages must not be exceeded :

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Nature of installation	Permissible maximum voltage		
	Direct current	Single-phase alternating current	Three-phase alternating current
A. Power and heating installation, including general-purpose outlets	250 V	250 V	500 V
B. Lighting installations, including general-purpose outlets	250 V	250 V	-
C. Outlets for current supply to hand-held appliances used on open decks or in confined or damp metal-enclosed spaces other than boilers and tanks:			
1. in general	50 V	50 V	-
2. using an isolating transformer serving a single appliance both wires of these systems must be insulated from earth.	-	250 V	-
3. where appliances with reinforced or double insulation are used	250 V	250 V	-
D. Outlets for current supply to hand-held equipment used in boilers and tanks.	50 V	50 V	-

6.02.2 Subject to compliance with the prescribed safety measures, higher voltages are permissible :

- (a) in installations for battery re-charging equipment, as the charging process requires;
- (b) for machinery whose capacity so requires;
- (c) for special shipboard installations (e.g. radio installations and ignition equipment).

Article 6.03
Shore connections

6.03.1 Where an electrical installation is fed by an on-shore source of current, the cables must have a fixed connection on board or be equipped with permanent connection or with current take-off devices.

Care must be taken to ensure that cables and their connections are not subject to tensile load.

6.03.2 Only flexible cable insulated by oil-resistant and flame-retardant sheathing shall be used.

6.03.3 If the lead-in voltage exceeds 50 V, the hull must be effectively earthed. The plug-in socket on the hull must bear special markings.

6.03.4 The main switchboard must include an indicator showing whether the connection to the shore network is carrying current.

Article 6.04
Generators and motors

6.04.1 Generators and motors must be so placed as to be readily accessible for inspection, measurements and repairs and as to prevent water and/or oil from reaching the windings. Terminal boxes must be readily accessible.

6.04.2 Generators driven by the main engine, propeller shaft or auxiliary set intended for another function must be designed for variations in the number of revolutions which may occur in service.

Article 6.05
Accumulators

6.05.1 Accumulator must be of a design specially adapted for use on board a vessel. Cell boxes must be made of a check resistant material that does not easily catch fire and be so made as to prevent any spillage of electrolyte when inclined 40° from the vertical.

6.05.2 Accumulators must be secured so as not to shift with movements of the vessel. They must not be so placed as to be exposed to excessive heat, extreme cold, spray, steam or vapour.

They must be arranged so as to be readily accessible and so as to ensure that any vapours they give off cannot harm neighbouring appliances.

Accumulator batteries may not be installed in the wheelhouse or in accommodation or holds.

Accumulators for portable appliances, however, may be placed in wheelhouses and living quarters.

6.05.3 Batteries requiring a power of more than 2 kW for charging (calculated from the maximum charging current and the nominal voltage of the battery) must be installed in a room specifically set aside for them. If placed on deck, they may also be enclosed in a cabinet.

Batteries requiring a power not exceeding 2kW for charging may be installed below deck in a cupboard or chest. They may also be installed in the engine room or some other well-ventilated place provided they are protected against falling objects and dripping water.

6.05.4 The interiors of all spaces cabinets, chests, shelving and other structural sub-assemblies specifically set aside for batteries must be protected against aggressive action of the electrolyte by a coat of paint or a lining made of a material resistant to the electrolyte.

6.05.5 Effective ventilation must be provided when batteries are installed in a closed compartment, cupboard or chest. The air must enter at the bottom and be discharged at the top so that total evacuation of the gas is ensured. Ventilation ducts must not include devices capable of obstructing the air flow (e.g. shut-off valve).

6.05.6 The required air flow in litres per hour shall be calculated by the following formula :

$$Q = 110.J.n$$

J represents, in ampères, one-quarter of the maximum current admissible by the charging device

and

n represents the number of cells.

6.05.7 With natural ventilation, the cross-sectional area of the ducts must be appropriate to the air flow required at velocity of 0.5m/sec. It must be not less than 80cm² for lead-plate batteries and not less than 120 cm² for alkaline batteries.

6.05.8 Where the required ventilation cannot be obtained by natural air flow, a fan must be provided, preferably having an exhaustor with its motor clear of the stream of gas or air.

Special devices must be provided to prevent gases from entering the motor.

Fans must be of a design and material precluding the production of sparks through contact between a blade and the fan casing and preventing electrostatic charges.

6.05.9 "No Smoking" signs based on the sketch opposite and having a diameter of at least 0.10 m shall be posted on doors or covers of compartments, cabinets or chests containing batteries.

Article 6.06
Electrical switchboards

6.06.1 Switchboards must be situated in accessible and well-ventilated places free from gaseous or acid emissions. They must be so arranged as to be protected against jolting and against any untoward incident caused by inclement weather, water, oil, liquid fuels, steam or vapour.

Switchboards must not be placed near sounding pipes or near the vents of liquid-fuel tanks.

6.06.2 In general, materials used in the construction of switchboards must have suitable mechanical strength and be durable and non-inflammable. They must not be hygroscopic.

6.06.3 When the voltage exceeds 50 V :

- a) switchboards whose current-carrying components are so arranged or protected as to prevent accidental contact must be used;
- b) an insulating mat or an impregnated wooden grating must be provided; this shall not apply, however, to disconnecting-switch panels;
- c) metal parts of control-panel frames or substructures and metal casings of appliances must be carefully earthed.

6.06.4 All parts of switchboards, including the connections, must be readily accessible for inspection, maintenance or replacement and capable of being disconnected.

6.06.5 Indicator plates for all main or connected circuits, indicating the circuit concerned, must be affixed to switchboards.

Article 6.07
Switches, plugs, fuses and cable protection

6.07.1 The whole installation, branch cables from the main switchboard and branch cables from the distribution panel, must be capable of being disconnected by means of switches or automatic circuit-breaker which simultaneously switch off all conductors carrying current.

Where the current is at 50 V or less, exceptions are permitted for branch cables from distribution panels, particularly in the case of circuits with individual switches for each appliance.

6.07.2 All generators and circuits must be protected against excess current in any unearthed pole or conductor. Automatic circuit-breakers with short-circuit and surge trips, or safety fuses of the sealed type, may be used for this purpose. Such electrical protection devices must be so installed as to be adequately protected against jolting.

6.07.3 The requirements of Article 3.16.3 must be met as regards the protection of components of the steering gear.

6.07.4 The "on" and "off" positions must be indicated on the cut-off devices. This does not apply to light switches handling less than 10 A.

6.07.5 All switches and plugs must be designed to disconnect all conductors simultaneously. Lighting switches handling less than 10 A may be exempted except in the case of the lighting of damp areas.

6.07.6 Appliances requiring a current of more than 10 A must be connected to a special circuit.

6.07.7 Cables must have a watertight sheath which is flame-retardant and of a type normally used on ships.

Other types of cable may be used in the living quarters on condition that they are effectively protected and flame-retardant. Cables must be protected against all risks of damage in normal service conditions, particularly on deck and in the holds.

6.07.8 Moveable appliances may under no circumstances be fed by metal-sheathed cables.

6.07.9 Cables and equipments must be connected by means of sturdy and durable devices which prevent the connections from coming under tensile load.

Article 6.08 Earth detector equipment

Appropriate earth detector equipment must be provided for all unearthed circuits of over 50 V.

Article 6.09 Lighting

6.09.1 All lighting appliances shall be so installed that the heat they emit cannot set fire to nearby inflammable objects or units.

6.09.2 In enclosed spaces in which accumulators are installed or paints and other highly inflammable substances are stored, only lighting appliances presenting a limited risk of explosion shall be used.

6.09.3 Lighting appliances in engine and boiler rooms must be distributed between at least two circuits.

Article 6.10
Signal lights

6.10.1 The light-control switchboard must be installed in the wheelhouse; it must be capable of being fed by a separate cable from the main switchboard.

6.10.2 Each light must be supplied separately from the light-control switchboard and separately protected and controlled. Lights forming a group may be supplied by a single circuit on condition that the failure of any light activates the alarm in the monitoring equipment.

6.10.3 Unless direct monitoring from the wheelhouse is possible, the lights must be monitored by means of tell-tale lights, or similar devices, fitted on the control panel in the wheelhouse. A fault in the tell-tale light must not affect the operation of the light which it monitors.

Article 6.11
Earthing

6.11.1 Metal parts not current-carrying when in use, such as machine frames and casings, appliances, fitting and accessories, must be earthed if they are not already so mounted as to be in effective metallic contact with the hull.

6.11.2 Metal fittings and accessories and metal sheaths of direct current ducts must be earthed at both ends at least. Where cables are mounted on wood or a plastics substance, one earth connection will suffice. In alternating current operation, single-conductor cables and ducts may not be earthed at more than one point.

6.11.3 In installations where the voltage does not exceed 50 V, earthing may be dispensed with.

6.11.4 Where the voltage exceeds 50 V, the casings of mobile current-consuming appliances, if not made of an insulating material or not protected, must be earthed through the connecting cable by means of an additional conductor not normally carrying current.

Article 6.12
Emergency power installation

6.12.1 The following are permitted as emergency power installations :

- a) an auxiliary set with a fuel supply system independent of the main engine and a separate cooling system, which in the event of failure of the main circuit, starts automatically or can be hand-started if it is installed in the immediate vicinity of the wheelhouse or any other station continuously manned by qualified personnel, and is capable on its own of covering current supply requirements within 30 seconds, or
- b) an accumulator battery which automatically takes over the supply of current in the event of failure of the main circuit, or can be switched on manually from the wheelhouse or any other station continuously manned by qualified personnel, and is capable of supplying the listed current-consuming devices for the duration of the prescribed period without being recharged and without an inadmissible drop in voltage.

6.12.2 Auxiliary sets, emergency batteries and the associated switch gear may be installed in the engine room but in this case as high as possible.

6.12.3 As a minimum requirement, emergency power sources shall be capable of ensuring that, where mandatory and insofar as the installations do not have independent emergency supplies, the following electrical installations can function simultaneously;

- a) signal lights
- b) sound signals
- c) emergency lighting
- d) radio telephone
- e) general alarm, appropriate loudspeaker or other emergency systems
- f) emergency floodlight

The period for which the emergency installation must be capable of functioning must be determined according to the intended use of the vessel but may not be less than 30 minutes.

CHAPTER 7

EQUIPMENT

Article 7.01

Anchors, chains and anchor cables

The number and weight of anchors and their cables must accord with the characteristics of the waterways used and will consequently be laid down by the locally competent authority.

Article 7.02

Other equipment

7.02.1 Vessels must be provided with at least the following equipment :

- a) the appliances and devices needed for the emission of visual and sound signals and for the marking of vessels, as required by current shipping regulations;
- b) emergency lights, independent of the vessel's main power circuit, to substitute for the lights required by the above regulations;
- c) ropes and metal cables;
- d) collision mat, unless the Community inspection certificate indicates that this is not required;
- e) loud hailer;
- f) a gangway at least 0.40 m wide by 4 m long, its sides marked by a light coloured stripe; it must have handrails;
- g) a buoyant fenders or floating wood fenders;
- h) sounding pole;
- i) boat-hook;
- j) first aid kit;
- k) binoculars;
- l) a mounted notice displaying instructions for saving and resuscitation the drowning;
- m) a container with a lid for storing oily rags;
- n) heaving line;
- o) axe.

7.02.2 Vessels whose deck is over 1.50 m above the light water line must have a companion way or accommodation ladder.

Article 7.03
Fire-fighting appliances

7.03.1 A least the following must be on board;

- a) in wheelhouse 1 portable fire extinguisher
- b) near each point of access from deck to accommodation 1 portable fire extinguisher
- c) at the point of access to any service area not accessible from the accommodation and in which are installed heating, cooking or refrigerating equipment running on solid or liquid fuel 1 portable fire extinguisher
- d) at the entrance to each engine and boiler room 1 portable fire extinguisher
- e) for vessels whose total capacity exceeds 150 kw at a suitable point below deck in the engine room 1 portable fire extinguisher

7.03.2 The portable fire extinguisher must meet the following requirements :

- a) the capacity of fluid-type portable fire extinguishers may not be more than 13.5 litres or less than 9 litres. The contents of dry-powder extinguishers must be at least 6 kg.
- b) as a minimum requirement, the extinguishing agent must be suitable for putting out the type of fire most likely to occur in the space or spaces for which the extinguisher is chiefly provided. On vessels whose electrical installations have an operating voltage exceeding 50 V, the extinguishing agent must also be suitable for fighting fires in electrical installations. Instructions for use must be clearly shown on each portable extinguisher.
- c) the extinguishing agent in the portable fire extinguishers prescribed in sub-sections 1(a) to (e) above may not consist of CO₂ or contain products likely to give off toxic gases in use (e.g. carbon tetrachloride).
- d) extinguishers that are sensitive to extreme cold or heat must be so installed or protected as to ensure their continued effectiveness.

7.03.3 All fire-fighting appliances must be inspected at least once every two years. A certificate signed by the person carrying out the inspection must be carried on board.

7.03.4 Where fire-fighting appliances are so installed so as to be concealed from view, the partition covering them shall be marked with a red letter F at least 10 cm high.

7.03.5 A fire-fighting system using water under pressure and comprising nozzles fed through hydrants and hoses may be installed subject to the following conditions :

- a) the fire pumps must be powered. They must not be installed forward of the collision bulkhead
- b) the water pressure in the hydrant must be maintained at a not less than two bars;
- c) piping and hydrants must be so designed that the hoses can be easily connected;
- d) all nozzles must be fitted with a device for regulating the water jet at high-pressure or spray and for stopping the flow.
- e) the entire system must conform to current standards.

7.03.6 CO₂ is authorized as an extinguishing agent in permanently installed appliances subject to the following conditions ;

- (a) CO₂ appliances may be used only in engine rooms, boiler rooms and pump rooms.
- (b) all permanently installed CO₂ appliances must be fitted with an alarm whose signal is clearly audible in all areas designed to be flooded with CO₂ even above the highest possible level of intrinsic noise produced in operation and clearly distinguishable from all other audible warning signals on board.

CO₂ alarm signals must also be clearly audible in neighbouring spaces - through closed communications hatchways and above the highest possible level of intrinsic noise produced in operation - if these spaces can be evacuated through the space due to be flooded with CO₂.

The following notice in red letters on a white background, in the appropriate language or languages, must be displayed at the entrance to and exit from any area likely to be flooded by CO₂.

"Leave this space immediately the CO₂ warning signal is sounded - danger of suffocation" (followed by a description of the signal).

- (c) clearly and durably legible instructions for use, in German, French and Dutch, must be displayed near all devices for activating CO₂ fire-fighting systems. Pipes terminating in spaces likely to be affected by CO₂ must be fitted with closing devices.

The warning signal required under (b) above must be set off automatically before a CO₂ fire-fighting appliance is put into operation.

- (d) CO₂ tanks must be installed in a space separated from other spaces in a gas-tight manner.

This space must be directly accessible from the outside only, and must have an adequate and independent ventilation system completely separate from all other ventilation system on board.

The temperature in this space must not exceed 60°C.

All tanks under pressure must bear the inscription "CO₂" in white on a red background. The characters must be at least 6 cm high.

- (e) all CO₂ tanks, fittings and piping under pressure must conform to the current specifications of the Member State which issued the certificate. They must bear the official stamp indicating acceptance following the regulation tests.
- (f) the warning device referred to in (b) above must be checked at least once every twelve months.

Fire-fighting systems must be checked at least once every two years. This must include :

- the external inspection of the entire system;
- functional testing of the pipe system and outlet nozzles;
- functional testing of the initiating mechanism;
- a check on the CO₂ supply in each service tank.

- (g) where there are one or more fixed CO₂ systems, the inspection certificate must be endorsed as follows : Fixed CO₂ extinguishing systems. Proof of the checks referred to in Article 7.03.6 (f) must be carried on board.

Article 7.04 Ship's boats

7.04.1 Powered vessels and barges of over 150 dwt as well as tugs, pushers and pusher tugs with a displacement of over 150 m³ must have at least one ship's boat.

7.04.2 The ship's boat shall be so placed on the vessel that it can be lowered into the water in complete safety and with the least possible delay, with the aid of appropriate lowering gear if necessary.

7.04.3 The ship's boats required in sub-sections 1 and 2 above must meet the following requirements :

- (a) they must be equipped with seats for at least three persons, the width of the seat per person being at least 0.45 m;
- (b) they must be sufficiently strong;
- (c) the volume must be at least 1.5 m³ or the product of length x beam x depth (L.B.C.) must be not less than 2.7m³;
- (d) when carrying three persons weighing about 75kg each, ship's boats must have a freeboard of least 25cm;
- e) they must be sufficiently stable. They shall be deemed sufficiently stable, if, with two people weighing about 75kg each sitting on the same side and as close as possible to the gunwa , there remains a freeboard of 10 cm;
- (f) with nobody aboard but entirely full of water, the boat's reserve buoyancy in kg must be at least 30 x length x beam x depth;

(g) the following equipment must be aboard;

- a set of oars;
- one mooring line;
- a baler

7.04.4 In sub-section 3 above :

L is the maximum length of the ship'sboat in m;

B is the maximum beam in m; and

C is the maximum moulded depth in m.

Article 7.05

Lifebuoys, ball-floats and life-jackets

7.05.1 All vessels must carry at least three lifebuoys or two lifebuoys and two ball-floats. These shall be ready for use and secured on deck at suitable places but not fastened to their holders. At least one lifebuoy must be placed in the immediate vicinity of the wheelhouse.

On powered vessels of up to 40 m in length two lifebuoys will suffice.

7.05.2 Lifebuoys must be of a type approved by the competent national authority and must satisfy at least the following minimum requirements:

- to possess buoyancy of not less than 7,5 kg in fresh water,
- to be manufactured of suitable material and be resistant to oil and its derivatives and to temperatures of up to 50°C,
- to be so coloured as to be readily visible in the water,
- to have a mass not less than 2.5 kg,
- to have an inside diameter of 0.45 m \pm 10%,
- to be surrounded by a rope providing a grip.

7.05.3 Ball floats must be of a type approved by the competent national authority and satisfy at least the following minimum requirements:

- to possess buoyancy of not less than 7.5 kg in fresh water,
- to be manufactured of suitable material and be resistant to oil and its derivatives and to temperatures up to 50°C,
- to be so coloured as to be readily visible in the water,
- to have a mass of not less than 1 kg,
- to be surrounded by a net providing a grip.

7.05.4 A life-jacket must be provided within easy reach of each person regularly on board.

7.05.5 The buoyancy, material and colour of life-jackets must satisfy conditions set out in Article 7.05.1.

Inflatable life-jackets must inflate automatically or manually; they must also have provision for inflation by mouth.

CHAPTER 8

LIQUEFIED GAS INSTALLATIONS FOR DOMESTIC USES

N.B. - The requirements set out in this Chapter will be applied within five years to vessels already in service.

Article 8.01

General

8.01.1 Every liquefied gas installation consists essentially of a supply unit comprising one or more gas receptacles, and of one or more reducing valves, a distribution system and a number of gas-consuming appliances.

8.01.2 Installations may be operated only with commercial propane.

Article 8.02

Installation

8.02.1 Liquefied gas installations must be suitable throughout for use with propane, must be installed in accordance with good practice and conform to the current regulations of the Member state which issued the certificate.

8.02.2 A liquefied gas installation may be used only for domestic purposes in the accommodation and the wheelhouse.

8.02.3 There may be a number of separate installations on board. A single installation may not be used to serve accommodation areas separated by a hold or a fixed tank.

Article 8.03

Receptacles

8.03.1 Only receptacles with approved capacities between 5 and 35 kg are permitted.

8.03.2 The receptacles must satisfy the requirements in force in the Member state which issued the certificate.

They must bear the official stamp certifying that they have passed the statutory tests.

Article 8.04

Siting and arrangement of supply unit

8.04.1 Where receptacles with a load of up to 35 kg are used, the supply unit must be installed on deck in a special cupboard or wall cupboard located outside the accommodation area in a position such that it does not interfere with movement on board. It must not, however, be installed against the fore or aft bulwark plating. The cupboard may be a wall cupboard set into the superstructure provided that it can only be opened outwards. It must be so located that the pipes leading to the gas consumption points are as short as possible.

For each installation, up to four receptacles may be in operation simultaneously, with or without the use of an automatic reversing coupler. The number of receptacles on board, including spare receptacles, must not exceed six per installation.

The pressure reducer, or, in the case of two-stage reduction, the first pressure reducer, must be fitted to a bulkhead in the same cupboard as the receptacles.

8.04.2 The supply unit must be so installed that any leaking gas may be evacuated from the cupboard containing the unit without any risk that it may penetrate inside the vessel or come into contact with anything that might set it on fire.

8.04.3 The cupboard must be constructed of fire-resistant materials and must be adequately ventilated by apertures in the top and bottom. The receptacles must be placed upright in the cupboard in such a way that they cannot be overturned.

8.04.4 The cupboard must be so designed and placed that the temperature of the receptacles cannot exceed 50°C.

8.04.5 The inscription "liquefied gas installation" and a "No smoking" sign as described in Article 6.05.9 must be affixed to the outer wall of the cupboard.

8.04.6 If interior lighting is needed in the cupboard, it must be electrical and the installation must be flame-proof.

Article 8.05

Spare and empty receptacles

Spare and empty receptacles which are not kept in the supply unit must be stored outside the accommodation area and the wheelhouse in a cupboard designed according to the requirements of Article 8.04 of this Chapter.

Article 8.06

Reducing valves

8.06.1 The gas-consuming appliances may be connected to the receptacles only through a distribution system fitted with one or more reducing valves to bring the gas pressure down to the utilization pressure. The pressure may be reduced in one or two stages. All reducing valves must be set permanently at a pressure determined in accordance with Article 8.07 below.

8.06.2 The final pressure reducers must either be fitted with or immediately followed by a device to protect the pipe automatically against excess pressure in the event of a malfunctioning of the reducing valve. Any gas which this protection device allows to escape must be evacuated into the open air without any risk that it may penetrate inside the vessel or come into contact with anything that might set it on fire; if necessary, a special pipe must be fitted for this purpose.

8.06.3 Both the protection devices and the vents must be protected against the entry of water.

Article 8.07

Pressures

8.07.1 The pressure at the outlet from the last pressure reducer must not be more than 0.05 bar above atmospheric pressure, with a tolerance of 10 per cent.

8.07.2 Where two-stage reducing systems are used, the mean pressure must not be more than 2.5 bars above atmospheric pressure.

Article 8.08

Pipes and flexible tubes

8.08.1 Pipes must consist of fixed steel or copper tubing.

Pipes connecting with the receptacles, however, must be high-pressure flexible tubes or spiral tubes suitable for propane. The gas-consuming appliances may, if not installed in a fixed manner, be connected by means of suitable flexible tubes not more than 1 m in length.

8.08.2 Pipes must be able to withstand any stresses or corrosive action which may occur under normal operating conditions on board, and its characteristics and layout must be such that it ensures a satisfactory flow of gas at the appropriate pressure to the gas-consuming appliances.

8.08.3 Pipes must have as few joints as possible. Both pipes and joints must be gas-tight and must remain gas-tight despite any vibration or expansion to which they may be subjected.

8.08.4 The pipes must be readily accessible, properly fixed and protected at every point where they might be subject to impact or friction, particularly where they pass through steel bulkheads or metal partitions.

The entire outer surface of steel pipes must be treated against corrosion.

8.08.5 Flexible pipes and their joints must be able to withstand any stresses which may occur under normal operating conditions on board. They must be unencumbered and fitted in such a way that they can be inspected over their entire length.

Article 8.09

Distribution system

8.09.1 No part of the liquefied gas installation may be located in the engine room.

On tanker vessels subject to the rules on the carriage of dangerous goods, no part of the liquefied gas installation may be located in the cargo area.

8.09.2 A valve fitted outside the cupboard containing the receptacles, and rapidly and easily accessible from the deck, must provide a means whereby the entire distribution system can be shut off.

8.09.3 Each gas-consuming appliance must be supplied by a separate branch of the distribution system, and each such branch must be controlled by a separate closing device.

8.09.4 The valves must as far as possible be fitted at points where they are protected from the weather and from impact and are out of reach of children/

Article 8.10

Gas-consuming appliances and their installations

8.10.1 The only appliances that may be installed are propane consuming appliances approved in the Member State which issued the certificate, which are equipped with devices that effectively prevent the escape of gas, both in case of extinction of the flames and in case of extinction of the pilot light.

8.10.2 Each appliance must be so placed and connected as to avoid any risk of accidental wrenching of the connecting pipes.

8.10.3 Heating and water-heating appliances must be connected to a duct for evacuating the combustion gases.

8.10.4 The installation of gas-consuming appliances in the wheelhouse is permitted only if the wheelhouse is so constructed that no gas which leaks accidentally can escape into the lower parts of the vessel, in particular through the control runs leading to the engine room.

On tanker vessels subject to the rules on the carriage of dangerous goods, no gas consuming-consuming appliance may be located in the wheelhouse.

8.10.5 Gas-consuming appliances may be installed in sleeping quarters only if combustion takes place independently of the air in the quarters.

8.10.6 Gas consuming appliances in which combustion depends on the air in the rooms in which they are located must be installed in rooms which are sufficiently large.

8.10.7 On tanker vessels subject to the rules on the carriage of dangerous goods, gas-consuming appliances must bear a prominent red mark.

Article 8.11

Ventilation and evacuation of combustion gases

8.11.1 In rooms containing gas-consuming appliances in which combustion depends on the ambient air, the supply of fresh air and the evacuation of the combustion gases must be ensured by means of ventilation apertures of adequate dimensions determined according to the capacity of the appliances.

8.11.2 The ventilation apertures must not have any closing device and must not give onto sleeping quarters.

8.11.3 The evacuation devices must be so designed as to ensure the safe evacuation of the combustion gases. They must be reliable in operation and fire-resistant. Their operation must not be affected by the ventilators.

Article 8.12
Instructions for use and safety

8.12.1 A notice containing instructions on the use of the installation shall be affixed on board in a suitable place. The notice must bear, inter alia, the following instructions in the appropriate language or languages :

- "the taps of cylinders which are not connected to the distribution system must be closed, even if the cylinders are presumed to be empty"
- "flexible pipes must be changed as soon as their condition so requires"
- "all receptacles must remain connected unless the corresponding connecting pipes are closed by taps or sealed".

Article 8.13
Inspection

Before a liquefied gas installation is used, after any modification or repair and on every renewal of the attestation referred to in Article 8.15 below, the whole of the said installation must be submitted for inspection by an approved expert of the Member State issuing the inspection certificate. At the time of the inspection the expert must verify whether the installation conforms to the requirements of this Chapter. He must submit an inspection report to the competent authority which issues the certificate.

Article 8.14
Tests

The tests of the installation, after mounting, must be carried out as follows :

8.14.1 Medium-pressure pipes between the outlet of the first reducing device and the valves fitted before the final pressure reducer :

- (a) strength test, carried out with air, an inert gas or a liquid at a pressure 20 bars above atmospheric pressure;
- (b) gas-tightness test, carried out with air or an inert gas at a pressure of 3.5 bars above atmospheric pressure.

8.14.2 Pipes at the utilization pressure between the single or final pressure reducer and the valves fitted before the gas-consuming appliances :

- leak test, carried out with air or an inert gas at a pressure of 1 bar above atmospheric pressure.

8.14.3 Piping situated between the single or final pressure reducer and the controls of the gas-consuming appliance :

- leak test at a pressure of 0.2 bar above atmospheric pressure.

8.I4.4 In the tests referred to in subsections 8.14 1(b), 2 and 3, the pipes are deemed gas-tight if, after sufficient time to allow for normal balancing, no fall in the test pressure is observed during the following ten minutes.

8.I4.5 Receptacle connectors, piping and other fittings subjected to the pressure in the receptacles, and joints between the reducing valve and the distribution pipe :

- leak test, carried out with a foaming substance, at the operating pressure.

8.I4.6 All gas-consuming appliances must be brought into service and tested at the nominal pressure to ensure that combustion is satisfactory with the regulating knobs in the different positions.

The safety devices must be checked to ensure that they operate satisfactorily.

8.I4.7 After the test referred to in paragraph 8.I4.6 above, it must be verified, in respect of each gas-consuming appliance connected to a flue, whether, after five minutes' operation at the nominal pressure, with windows and doors closed and the ventilation devices in operation, any combustion gases are escaping through the damper.

If there is a more than momentary escape of such gases, the cause must immediately be detected and remedied. The appliance must not be approved for use until all defects have been eliminated.

Article 8.15 Attestation

8.I5.1 The Community certificate must include an attestation to the effect that, following the inspection referred to in Article 8.I3 above, all liquefied gas installations conform to the requirements of this Chapter.

8.I5.2 The certificate shall be valid for a period not exceeding three years. It may be renewed only after a further inspection carried out in accordance with Article 8.I3

Where the owner of a vessel or his representative submits a reasoned request, the Member State which issued the certificate may extend its validity for not more than six months without carrying out the inspection required under Article 8.I3 above. Such extension must be entered in the certificate. The date on which the next inspection would normally have been due may not be postponed as a result of the extension.

see chapter 12, Article 12.02

CHAPTER 9

SPECIAL WHEELHOUSE ARRANGEMENTS STEERING ON RADAR BY ONE PERSON

Article 9.01 General

A wheelhouse is deemed to be specially arranged for steering on radar by one person if it fulfils the condition of this Chapter.

Article 9.02 General design conditions

9.02.1 The wheelhouse must be designed to accommodate a seated steersman.

9.02.2 All appliances, instruments and controls must be so arranged that the steersman can use them conveniently during the voyage without leaving his seat and without losing sight of the radar screen.

The controls must move easily into the operating position, which must be unmistakably clear.

9.02.3 Monitoring instruments must be easy to read and their illumination must be capable of continuous regulation to the point of extinction, whatever the lighting conditions inside the wheelhouse, so that the illumination is not troublesome and does not impair visibility.

9.02.4 The wheelhouse must be equipped with adjustable heating. The wheelhouse darkening device must not adversely affect ventilation.

Article 9.03 Radar equipment and speed of rotation indicator

9.03.1 The radar screen must not be substantially off the steersman's line of vision when he is in the normal position at the wheel.

9.03.2 The radar image must remain fully visible, without the aid of a mask or screen, irrespective of the lighting conditions prevailing outside the wheelhouse.

9.03.3 A speed-of-rotation indicator must be installed directly above or below the radar screen.

Article 9.04 Signalling and signal-emitting equipment

9.04.1 Lights and light signals must be controlled by switches whose layout reflects the actual position of the lights and light signals. Each light or light signal must be monitored by a tell-tale light of the same colour as the light or light signal which it monitors, built into the switch or mounted beside it. Failure of a light or light signal must cause the corresponding tell-tale light to be extinguished.

9.04.2 Audible warning devices must be controlled by foot.

Article 9.05

Installations for steering the vessel operating the engine

9.05.1 The steering gear of the vessel must be controlled by a horizontal lever. This lever must be easy to operate and the angle between the lever and the centreline of the vessel must accurately reflect the angle of deflection of the rudder plate. It must be possible to release the lever, whatever its position, without the position of the rudder plate changing. An equivalent control system is permitted for Voith-Schneider and steerable propellers.

If the vessel is also fitted with reversing rudders or bow rudders they must be controlled by separate levers complying with the above requirements.

9.05.2 Every engine must be controlled by a single lever moving through the arc of a circle in a vertical plane more or less parallel to the longitudinal axis of the vessel. Forward movement of the lever must cause the vessel to move ahead and its movement toward the stern must cause motion astern.

The drive must be engaged or reversed when the lever is approximately in the neutral position. There must be a distinct sensation as the lever goes into the neutral position. The sweep of the lever from the neutral position to the "full speed ahead" position and from the neutral position to the "full speed astern" position must not exceed 90°.

9.05.3 The direction and rate of rotation of the propellers must be indicated.

Article 9.06

Stern anchor handling gear

The steersman must be able to cast the stern anchor(s) without leaving his seat.

Article 9.07

Telephone equipment

9.07.1 Vessels must be fitted with a radiotelephone installation for vessel-to-vessel service. Reception must be by a loudspeaker and transmission by a fixed microphone. The steersman must be able to effect both operations. The changeover from reception to transmission must be effected by push-button. The steersman must be able to reach this from his seat.

The same requirements shall apply where necessary to the nautical operations service.

9.07.2 If the wheelhouse is fitted with a radiotelephone installation connected to the public service, reception must be by a loudspeaker at the steersman's seat. However, the microphone for vessel-to-vessel communication may not under any circumstances be used for calls via the public service.

9.07.3 All vessels must have a voice communication system. This shall serve at least the following points : the bows of the vessel or the head of the train, the crew's quarters and, in the case of vessels with only one steersman, the latter's cabin. Reception must be by a loudspeaker and transmitted via a fixed microphone which may be the one used for the vessel-to-vessel service on condition that this does not cause confusion between the two networks. The changeover from reception to transmission must be effected by push-buttons or change over switches.

Article 9.08
Alarm signals

9.08.1 An alarm signal controlled by an "off/on" switch must be available to the steersman. Switches which automatically return to the "off" position when released are not permitted.

9.08.2 The strength of this signal must be not less than 75dB (A) in the accommodation. In the engine room it shall be 5 dB (A) in excess of the ambient noise level with the propulsion machinery at full power.

Article 9.09
Other instruments

Instruments other than those listed above must be reduced to a minimum.

Article 9.10
Endorsement of the inspection
certificate

If the vessel conforms to the requirements of this Chapter, the inspection certificate must be endorsed as follows :

"Approved for steering on radar by one person".

CHAPTER 10

SPECIAL PROVISION FOR VESSELS DESIGNED TO BE MADE UP INTO
PUSHED TRAINS, PULLED TRAINS OR TO BE BREASTED UP

N.B. - These provisions are immediately applicable to all vessels, including those already in service.

Article 10.1
Pushers

10.01.1 Pushers must have at the bow a so-called "pusher platform", a device not less than two-thirds as wide as the greatest width of the vessel. The platform must be so designed that, from the start of the coupling manoeuvres, the personnel involved can move easily and without danger from one vessel to the other with the coupling gear.

The platform must also be such as to enable the pusher to take up a fixed position in relation to the barges, and, particularly, to prevent the pusher sheering out sideways to the stern of the barges.

10.01.2 Pushers must be equipped with the requisite coupling gear; where cables are used for coupling, pushers must be equipped with at least two special winches or equivalent devices.

10.01.3 The main engines must be controlled from the wheelhouse.

Their operation must be monitored by means of devices installed in the wheelhouse.

Article 10.02
Lighters

10.02.1 Chapter 3 and Articles 7.02, 7.04 and 7.051 shall not apply to lighters. Article 5.06 shall not apply to lighters with no accommodation and no engine or boiler rooms.

10.02.2 Ship-borne lighters shall also comply with the following construction requirements :

(a) the transverse watertight bulkheads referred to in Article 2.02.3 are not required if the bows are capable of withstanding an impact at least 2.5 times that required in the collision bulkhead of an inland waterway vessel of the same draught built to the specifications of a classification society approved by the Member State which has to issue the Community inspection certificate.

(b) by way of derogation from article 2.02.5, compartments with a double bottom into which access is difficult need not be drainable unless the volume of the space concerned exceeds 5% of the displacement of the ship-borne lighter at maximum authorized draught.

- (c) the surface of decks, side decks and hatch covers must have an anti-slip finish. Where necessary, sloping surfaces must be fitted with raised slats.
- (d) along the line where the deck or side decks form an angle with the ship's side there must be toe rails or stringer bars at least 0.03m high and guard rails at least 0.90 m high; the guard rails must be removable. No guard rails are required at the bows.

Article 10.03

Powered vessels and tugs capable of pushing

In order to be approved for carrying out pushing operations, powered vessels and tugs must :

- (a) have a pusher platform such as required under Article 10.01.1 or
- (b) be fitted with appropriate and effective devices to prevent the vessel providing the propulsion sheering out sideways toe the stern of the vessel to be pushed.

Article 10.04

Pushed train tests

10.04.1 For the purpose of issuing an inspection certificate for a pusher or pusher tug, or of endorsing the inspection certificate of a powered vessel or tug with "authorized for pushing" it is for the competent authority to decide whether, and which, trains are to be submitted for tests, and to carry out tests with those formations which it regards as the most unfavourable. The certificate must show for which waterways, and, where appropriate conditions, the pusher certificate or the endorsement authorized for pushing".

10.04.2 The test must prove that, on the waterways referred to in Article 10.04.1 above :

- (a) the formation has sufficient directional stability;
- (b) a major course alternation followed immediately by a return to the original course can be made swiftly and easily;
- (c) the convoy has sufficient speed through the water;
- (d) where necessary, astern propulsive power is sufficient to enable the train to stop when headed downstream;
- (e) when the train is being coupled or uncoupled the coupling gear is easy and safe to manipulate.

When a convoy is under way, the coupling gear shall meet the following requirements :

- the rigidity of the formation must be maintained;
- coupling gear must ensure uniform tension, preferably by means of special winches.

10.04.3 In the course of the above tests, the competent authority for issuing the Community certificate, will not take into account the effects of special devices (rudders, propulsion mechanisms) installed on lighters unless the latter always form part of the same train. Where they do, the authorized lighters must be named in the Community certificate of the vessel providing the propulsion for the train.

Article 10.05
Towing vessels

In order to be authorized to effect towing operations, vessels must meet the following requirements :

- (a) towing gear must be so installed that, when in use, it does not compromise the safety of the crew or cargo. The vessel must remain sufficiently manoeuvrable and stable when towing.
- (b) the steersman must be able to operate the propulsion machinery himself or be able to control such operations without leaving the steering station.
- (e) where cables are used for towing, the towing gear must comprise winches or a towing hook which can be slipped from the steering station. The towing gear must be installed forward of the plane of the propellers.

Article 10.06
Vessels designed to push breasted-up formations

In order to be authorized to propel breasted-up formations, any vessel must :

- 1- comply with the provisions of Article 10.05, and
- 2- be equipped with appliances which in number and layout ensures that the formation of powered and propelled vessel remains securely breasted up whether laden or unladen.

CHAPTER 11

HEALTH AND SAFETY IN THE CREW'S ACCOMMODATION AND WORK STATIONS

Article 11.01

General

11.01.1 Vessels on which the uninterrupted presence of persons is required out of working hours must have the necessary accommodation.

11.01.2 The accommodation must be designed, dimensioned and fitted out in such a way as to satisfy the needs of those on board as to safety, health and well-being. Vessels must comply with the requirements of Articles 11.02 to 11.13.

11.01.3 The inspecting authorities may permit exceptions to the rules set out below when the safety, health and comfort of those on board are ensured in an equivalent manner by other measures.

- ACCOMMODATION

Article 11.02

Fitting-out of the accommodation

11.02.1 The accommodation must be situated aft of the collision bulkhead and if possible on deck.

In the fore section of the vessel no floors shall be more than 1.20 m below the plane of maximum draught.

11.02.2 The accommodation must be accessible easily and in complete safety.

As a general rule, the accommodation and galleys must be accessible from deck by means of a corridor.

11.02.3 The accommodation must be so sited and fitted out as to avoid as far as possible the penetration of polluted air from other sections of the vessel (e.g. engine rooms, and holds).

Where forced-air ventilation is used the intake vents must be so placed as to satisfy the above requirement. Stale air from the galley or sanitary installations must be expelled from the vessel by the most direct route.

11.02.4 Accommodation must be protected from unacceptable noise and vibration. The maximum permissible sound pressure levels are:

- 70 dB (A) in the living quarters;
- 60 dB (A) in the sleeping quarters, except in the case of vessels working only by day.

11.02.5 To permit rapid evacuation in the event of wreck or fire, the accommodation must be provided with emergency exits, distant from each other if possible, and where possible to port and starboard.

this does not apply to :

- a) accommodation with several exits, ports or skylights which would permit rapid evacuation;
- b) sanitary installations.

10.02.6 The clear opening of ports or skylights serving as emergency exists must be at least 0.60 x 0.60 m.

Article 11.03

Dimensions of the accommodation

11.03.1 The headroom in the crew's quarters must not be less than 2 m.

11.03.2 The free floor area of the accommodation must not be less than 2m² per occupant.

11.03.3 The volume of air per person must be not less than 3.5 m³ in the day rooms and not less than 5m³ for the first occupant and 3m³ for the second in the sleeping quarters. The volume of air is that remaining after the appropriate deductions have been made for lockers, berths, etc.

11.03.4 The cubic capacity of each unit in the day rooms and sleeping quarters must not be less than 7m³.

11.03.5 The water closets must have a minimum floor space of 1m² (not less than 0.75 m wide and not less than 1.1 m long).

11.03.6 Sleeping cabins must not be planned for occupation by more than two adults.

11.03.7 Crew members with different duty hours must have separate sleeping cabins.

11.

Article 11.04

Piping in the accommodation

Pipes carrying gas or dangerous liquids, particularly pipes under such pressure that a leak would put the crew in danger, must not be installed in accommodation or access passages. This does not apply to liquefied gas installations for domestic use.

Article 11.05

Means of access, doors and companionways in the accommodation

11.05.1 Means of access to the accommodation must be so arranged and of such dimensions that they can be used without danger or difficulty. This requirement is deemed to be fulfilled when:

- (a) there is enough space in front of the opening to the access to permit unimpeded entrance;
- (b) means of access are far enough away from installations which might prove dangerous - example, winches and towing and loading gear;

- (c) no taut ropes or cables pass close to the access openings;
- (d) the clear width is at least 0.60 m and the total height of the access plus coaming is at least 1.80m; it being permissible to obtain the latter dimension by using hoods or covers;
- (e) any coamings fitted in door openings are not more than 0.40 m high, without prejudice to the provisions of other safety regulations.

11.05.2 The accidental opening or closing of doors and hinged covers must be prevented.

11.05.3 Doors must be fitted with means of closure which can be operated from either side.

11.05.4 Where there is no deck-level access to the accommodation, and the difference in levels is 0.30 m or more, the accommodation must be accessible by means of companionways.

11.05.5 Companionways must be fixed. They must be safely negotiable and shall be deemed to be so when :

- a) they are not less than 0.50 m wide;
- b) the tread is not less than 0.15 m;
- c) the steps are non-slip;
- d) stairs with more than four steps are fitted with handrails on one on both sides, depending on their width.

Article 11.06

Accommodation floors, walls and ceilings

11.06.1 The floor, walls and ceilings must be made so that they may be cleaned easily. Floorings shall not be slippery. Surface claddings shall not be harmful to health.

11.06.2 The accommodation including the passages in the part of the vessel used for accommodation, must be insulated from cold and heat from outside or from nearby or adjacent compartments. As far as possible steam and hot-water pipes shall be so installed as not to pass through the accommodation. If they do pass through it, they must be insulated.

Article 11.07

Heating and ventilation of the accommodation

11.07.1 The accommodation must be provided with a system of space heating which is capable of maintaining a satisfactory temperature in the conditions of weather and climate to which the vessel is exposed.

11.07.2 The accommodation must be adequately ventilated, even when the access is closed. Care must be taken to ensure that there are no draughts.

The ventilation must be capable of adjustment to ensure adequate air circulation in all climatic conditions.

Article 11.08

Daylight and lighting in the accommodation

- 11.08.1 The accommodation must be adequately lighted. The living quarters and galleys must, if possible, receive daylight.
- 11.08.2 Adequate electric lighting must be installed in the accommodation. Each berth must be provided with a reading light.
- 11.08.3 Any lighting devices using liquid fuel must be made of metal and burn only fuels with a flash-point above 55°C or paraffin. They must be fixed so as not to constitute a fire hazard.

Article 11.09

Fittings

- 11.09.1 Each member of the crew must be provided with an individual berth. The minimum inside length of a berth must be 2.00 m and the minimum inside width 0.8 m.
- 11.09.2 Berths must not be placed side by side in such a way that the occupier has to climb over one berth in order to reach the next berth. Berths must not be arranged in tiers of more than two.
- 11.09.3 Berths must not be less than 0.30 m above the floor. When one berth is placed over another, the upper berth must be placed approximately midway between the bottom of the lower berth and the lower side of the deckhead beams; the head-room above each berth must be not less than 0.60 m.
- 11.09.4 Berths, including their frames, must be of hard, smooth material. When one berth is placed over another, a dust-proof covering must be fitted beneath the upper berth.
- 11.09.5 A suitable clothes locker fitted with a lock shall be provided for each member of the crew. Lockers must have an available height of not less than 1.70 m and an available area of 0.25m².
- 11.09.6 Well-ventilated facilities for hanging up clothes used for work in bad weather and for dirty work must be provided in the accommodation but not in the cabins, day rooms or mess rooms.

Article 11.10

Galleys, mess rooms and storerooms

- 11.10.1 In general, and depending on the number of crew, vessels must have at least one compartment partitioned off from the sleeping quarters and used as a galley or day-room and galley combined. ("combined day-room and galley").
- 11.10.9 Galleys and combined day-rooms and galleys shall be equipped with :

- (a) cooking appliances;
- (b) a suitable sink with drainage;
- (c) an installation for the supply of potable water;
- (d) a refrigerator of sufficient capacity for the number of crew members;
- (e) the necessary cupboards or shelves.

11.I0.3 The floor area in mess rooms and combined day-rooms and galleys must be less not than 1m² per person for whom a seat is provided, the seats being not less than 0.60 m wide. These areas must be sufficiently large for the number of crew normally using than at the same time.

11.I0.4 Mess rooms and combined day rooms and galleys must be fitted with a sufficient number of tables and seats with backs and made of moisture-resistant materials that are easy to clean.

11.I0.5 Vessels with a permanent crew must have refrigerators and storage space for foodstuffs. This space must be kept dry and well ventilated. It must be possible to keep it in an impeccable state of hygiene. It must be possible to open the refrigerators from inside even if they have been closed from the outside.

Article 11.11 Sanitary installations

11.11.1 The following minimum sanitary installations must be provided in vessels with accommodation:

- a) One was basin connected up to hot and cold potable water per accommodation unit or per four crew members;

Was basins must be of suitable size and made of a smooth material which does not craze or corrode.

- b) one bath or shower connected up to hot and cold potable water per accommodation unit or per six crew members;
- c) one water closet per accommodation unit or per six crew members.

11.11.2 The sanitary installations must be in close proximity to the accommodation. The water closets must not have direct access to the galleys, mess rooms or combined day-rooms and galleys.

11.11.3 The spaces containing sanitary installations must comply with the following requirements :

- (a) floors must be of durable materials, easy to clean and waterproof
- (b) the walls must be made of steel or an equivalent material and shall be watertight up to at least 0.20 m above floor level.

11.11.4 Toilets must be ventilated to the open air.

11.11.5 Toilets must have individual and reliable flushing systems. Toilet seats must be easy to clean.

Article 11.12

11.12.1

a) Vessels with accommodation must be fitted with one or more tanks for potable water.

b) they must have sufficient capacity for the number of persons on board the minimum being 150 l per person.

11.12.2 The tanks for potable water must be so designed and installed that there is no risk of the water being polluted or deteriorating in taste or smell, particularly through the action of liquid fuel or lubricating oil.

11.12.3 Potable water tanks must be fitted with a water level indicator.

11.12.4 Potable water tanks must not have common walls with tanks intended for other uses.

11.12.5 Potable water tanks must be fitted with a device permitting the inside to be cleaned.

11.12.6 Pressurized water cisterns for potable water must 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 or oil separator must be installed directly in front of the pressurized-water cistern, unless the water and the air are separated by diaphragms.

11.12.7 Potable-water pipes must not pass through cisterns or tanks containing other liquids. Pipes carrying other liquids or gas must not pass through potable-water cisterns or tanks.

Connections between the potable-water supply system and other piping systems are prohibited.

Pipes reserved for potable water must be durable, with a smooth casing and fitted with unions for water hydrants on quays.

11.12.8 The filling apertures for potable-water cisterns or tanks must be so marked as to warn the user against the introduction of other liquids.

- WORKING STATIONS

Article 11.13
Safety devices

11.13.1 Vessels must be so fitted out that the crew can move about and work easily. Where necessary, moving parts and openings in the deck must be protected by safety devices, and plating, guard rails and handrails must be installed. Winches and towing hooks must be designed to ensure safety at work.

11.13.2 Decks in the vicinity of winches and bollards, as well as side decks, engine room floors, landings, companion ways and the top of the side deck bollards must be antislip.

11.13.3 The tops of side deck bollards and any obstacles in areas where crew move about, e.g. the treads of companion ways must be marked by paint of a light colour.

11.13.4 Appropriate devices must be provided for anchoring stacked hatch covers.

Article 11.14
Accessibility of working spaces

11.14.1 Working spaces must be readily and safely accessible.

11.14.2 Companion ways, ladders, rungs or similar devices must be provided where there is a difference of over 0.50 m in the levels of accesses, exits and passageways. Companion ways must be provided where the level of permanent working stations differs by more than 1.00 m from the levels from which access is to be gained.

11.14.3 Emergency exits must be clearly marked as such.

11.14.4 The number, design and dimensions of exits, including emergency exits, must be in keeping with the purpose and size of the compartments.

Article 11.15
Dimensions of working stations

11.15.1 The head-room in permanent working stations shall be not less than 2.00 m. This may be reduced to 1.75 for stations where work is carried out entirely in the seated position.

11.15.2 Continuously manned working stations must be of sufficient size to ensure that each crew member working in them has :

- a net volume of air of not less than 7m³;
- a free floor area for each working station which gives adequate freedom of movement for operation and inspection and for ordinary maintenance and repair work

11.15.3 Outside working spaces must be of a size such that each crew member working in them has adequate freedom of movement. The clear width must be not less than 0.60m; the latter may be reduced around mooring bollards .

Article 11.16
Protection against falling

11.16.1 Working spaces close to the water or in positions involving differences in level of more than 1.00 m must be equipped so as to prevent crew slipping or falling.

11.16.2 On crewed vessels protection against slipping or falling overboard must be provided by guardrails comprising a handrail, an intermediate protection at knee level and a toerail. A handrail will suffice on uncrewed vessels.

On existing vessels with side decks less than 0.50 m wide, a handrail in the form of a taut cable along the water side and handrails along hatch coamings may be substituted for the guardrail.

Article 11.17

Access, doors and companionways of working stations

11.17.1 The size and arrangement of passageways, accesses and corridors for the movement of persons and cargo must be such that they are easily negotiable without risk of accident. The minimum requirements are deemed to be fulfilled when :

- (a) there is enough space in front of the access opening to permit unimpeded movement;
- (b) the openings are far enough away from installations which might be a source of danger;
- (c) the clear width of the passageway is in keeping with the purpose of the working station and is not less than 0.60 m, except in the case of vessels less than 8.00 m wide above the width of the passageways may be reduced to 0.50 m;
- (d) the head-room including coaming is not less than 1.90 m.

11.17.2 The design and layout of doors must be such as not to endanger the persons opening or closing them. Doors must be protected against accidental closing and opening, and it must be possible to open or close them from either side.

11.17.3 Structures for passage from one level to another, particularly companionways, ladders and rungs must be such that their use is free of hazard. The minimum requirements are fulfilled when :

- (a) companionways are permanently fixed or secured against slipping and overturning;
- (b) companionways are not less than 0.50 m wide, the clear width of companionways between handrails is not less than 0.60 m and the ladders and rungs are not less than 0.40 m wide;
- (c) the depth of the tread is not less than 0.15m;
- (d) steps and rungs can be safely negotiated, with no risk of side-slipping;
- (e) stairways with more than four steps are fitted with hand rails;
- (f) vertical ladders are fitted with hand-holds above the exits;
- (g) portable ladders (hold ladders) are secured against overturning and slipping and are long enough to extend 1.00 m beyond the rim of the hatchway when inclined at an angle of 60° from the horizontal. The ladders must be at least 0.50 m wide at the base.

(h) the rungs are so fixed in the uprights that they cannot turn or become detached and the minimum distance between rungs is 0.30 m.

11.17.4 Emergency exits and windows or skylights designed to be used as emergency exits must have a clear width of at least 0.60 x 0.60 m.

Article 11.18

Floors, deck surfaces, planking, walls, ceilings
windows and skylights

11.18.1 The floors and hold floorings at inside working stations, deck surfaces at outside working stations and surfaces on which personnel move about must be strongly made and designed to prevent slipping and falling.

11.18.2 Openings in decks or floors must be marked when open or provided with protection against falls by persons.

11.18.3 Floors, hold floorings, deck surfaces, planking, walls and ceilings must be designed for ease of cleaning.

11.18.4 Windows and skylights must be so arranged and fitted up that they can be handled and cleaned without risk.

Article 11.19

Ventilations and heating of working stations

11.19.1 Accessible working stations, except store-rooms and empty spaces, must be ventilable. The ventilation devices must be such that, without causing draughts, they ensure an adequate and regularly renewed supply of air to the working stations for the persons in them.

Where the natural rate of air replacement is inadequate, mechanical ventilation must be provided. The rate of replacement may be considered adequate when it is over 103m/h per person.

11.19.2 Combustion and ventilation equipment must not cause the quality of the air in working stations to deteriorate.

11.19.3 Heating equipment capable of maintaining adequate temperatures must be installed in working stations inside the vessel.

Article 11.20

Natural light and lighting of working stations

11.20.1 Where possible, working spaces must receive adequate natural light even when the doors are closed.

11.20.2 Lighting must be so arranged as to eliminate dazzle.

11.20.3 The light switches for the working spaces must be installed in readily accessible positions near doors.

Article 11.21

Protection against noise and vibration

11.21.1 Permanent working stations and the installations in them must be so designed and sound-proofed that, as far as possible, the safety and health of the users are protected against noise and vibration.

Except where stricter precautions are required, the ambient noise level in continuously manned working stations must not exceed 90dB (A) at head level. Where this noise level is exceeded, a sufficient number of individual noise protection devices must be provided.

11.21.2 Working stations shall be adequately protected against excessive vibration.

Article 11.22

Protection

All installations required for work on board must be so designed, sited and protected as to make on-board manoeuvres, maintenance and repairs safe and easy.

CHAPTER 12

Provisions relating to technical requirements additional to Class C requirements applicable to vessels operating on Class B inland waterways

12.0 REQUIREMENTS RELATING TO SHIPBUILDING

Vessels, pushed trains and breasted-up formations with a maximum length exceeding 86 m.

- 12.01.1. Any vessel fitted with mechanical means of propulsion and having a maximum length exceeding 96 m must be built and fitted out in such a way as to be capable of coming to a halt pointing downstream in time, while remaining sufficiently manoeuvrable during and after stopping. This requirement also applies to pushed trains and breasted-up formations with a length exceeding 86 m.

To this end it is verified on the basis of a stop test, whether propulsive power when going astern is sufficient. A stop test is not necessary if it can be substantiated in some other manner that this requirement is fulfilled.

The maximum permitted displacement of the vessel or train during downstream navigation is determined from the results of the stop test or substantiation; the inspection certificate will be endorsed accordingly.

- 12.01.2 The vessel, pushed train or breasted-up formation must be capable of attaining a speed through the water of not less than 13 km/h.

12.02 FREEBOARD, SAFETY DISTANCE AND DRAUGHT SCALES

12.02.1 Definitions

In this chapter:

- (a) "length" (L) means the maximum length of the hull, not including the rudder and bowsprit;
- (b) "breadth" (B) means the maximum beam measured outside the side planking or plating, not including paddle wheels;
- (c) "A midships" means the mid-point of the length (L);
- (d) "enclosed superstructure" means a continuous structure made up of solid watertight walls above the deck and joined to it in a permanent and watertight manner;
 - "breadth of a superstructure" is its mean breadth, and
 - "height of a superstructure" is its mean vertical height, measured at the side of the vessel between the top deck of the superstructure and the freeboard deck; if the bulkheads have

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openings such as doors or windows the height of super-structures is measured only up to the lowest point of the thresholds of these openings;

- (e) structural elements and devices are deemed "watertight" when they are fitted out in such a manner as to prevent the ingress of water into the vessel, either:
- when subjected to a pressure equivalent to 1 m of water for one minute; or
 - when subjected to a jet of water with a pressure of not less than 1 kg/cm² applied for ten minutes in all directions and to the entire surface;
- (f) structural elements and devices are deemed "spray-proof and weathertight" if in normal conditions they allow only a very small quantity of water to penetrate.

12.02.2. Safety distance

1. The safety distance must be not less than 30 cm.

On vessels whose openings cannot be closed by means of spray-proof and weathertight type devices and vessels which navigate with their holds uncovered the safety distance is increased by 20 cm.

In the case of vessels with uncovered holds, however, the increase applies only to the coamings of uncovered holds and only until the prescribed distance of 50 cm is attained between the plane of greatest draught and the upper edge of the coamings.

12.02.3. Freeboard

1. The freeboard of vessels with a continuous deck, without sheer and without superstructure must be 150 mm.

This value is also the basic freeboard for vessels with sheer and superstructures.

2. The freeboard of vessels with sheer and superstructures is calculated by the following formula:

$$F = F_0 (1 - \alpha) - \frac{B_1 S_{e_1} + B_2 S_{e_2}}{15}$$

The freeboard (F) must in no case be less than zero.

In the formula,

F_0 is the basic freeboard referred to in subparagraph 1 above in mm;

α is a correcting coefficient taking account of all superstructures considered;

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α is calculated by the following formula:

$$\alpha = \frac{\sum l_e}{L}$$

where l_e is the effective length of a superstructure in m, and
 L is the length of the vessel in m as defined in Article 12.02.1.

S_{e1} and S_{e2} are respectively the effective forward sheer and the aft sheer in mm.

β_1 and β_2 are respectively correcting coefficients for the effect of the foreard sheer and aft sheer resulting from the presence of superstructures at the extremities of the vessel.

β_1 is calculated by the following formula:

$$\beta_1 = 1 - \frac{3 l_{e1}}{L}$$

β_2 is calculated by the following formula

$$\beta_2 = 1 - \frac{3 l_{e2}}{L}$$

In these formulae:

l_{e1} is the effective length of the forward superstructures in m, and
 l_{e2} is the effective length of the rear superstructures in m.

The effective length is taken into consideration, however, only if it is located in the forward quarter or rear quarter of the length L of the vessel.

3. The effective sheer is calculated by the following formula:

$$S^e = p S$$

where S is the actual sheer at the extremity in question in mm;

S forward may not be taken to exceed 1 000 mm, and

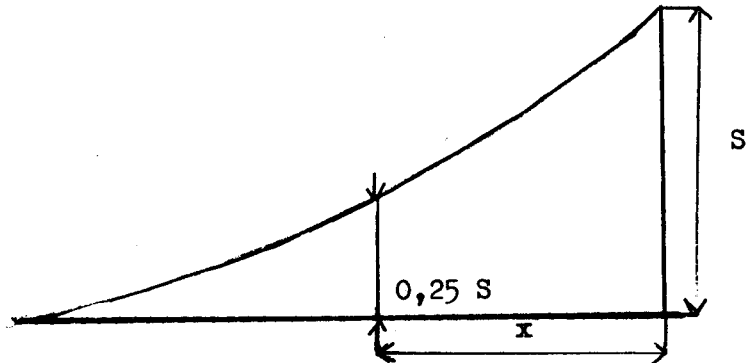
S aft cannot be taken to exceed 500 mm;

p is the coefficient taken from the table below related to the ratio $\frac{X}{L}$

$\frac{X}{L}$	0.25 and over	0.20	0.15	0.10	0.05	0
P	1	0.8	0.6	0.4	0.2	0

For intermediate values of the ratio $\frac{X}{L}$ the coefficient p is obtained by linear interpolation.

X is the abscissa, measured from the extremity, from the point where the sheer equals $0.25 S$ (see sketch below).



Where $\beta_2 S e_2$ exceeds $\beta_1 S e_1$, the value of $\beta_1 S e_1$ is taken as the value of $\beta_2 S e_2$.

4. The effective length of a superstructure is calculated by the formula :-

$$l_e = 1 \left(2,5 \frac{b}{B} - 1,5 \right) \frac{h}{0,6 \cdot 0,6}$$

- where l is the actual length of the superstructure in question in m,
 b is the breadth of the superstructure in question in m,
 B is the breadth of the vessel as defined in Article 4.01 in m,
 - for l_{e1} and l_{e2} , however, the breadth of the vessel at the mid-point of the superstructure in question will be used,
 h is the height of the superstructure in question in m.
 - in the case of hatches, however, h is obtained by reducing the height of coamings by half of the safety distance referred to in Article 12.02.2.
 A value exceeding $0,6 \cdot 0,6$ m (i.e. $0,36$ m) must not in any event be assigned to h .

Where b/B is less than $0,6$ the value of the bracket must be assumed zero (i.e. the effective length of the superstructure will be assumed to be zero).

Article 12.02.4

Minimum freeboard

The minimum freeboard must be not less than 50 mm, having regard also to the reductions referred to in Article 12.02.3.

However, the body empowered to conduct the inspection may stipulate a smaller freeboard if it is ensured that the crew can move without danger over the whole length of the vessel for operational purposes.

Article 12.02.5

Draught marks

1. The plane of greatest draught must be determined in such a manner that the requirements as to minimum freeboard and minimum safety distance are fulfilled at the same time. For safety reasons, however, the bodies empowered to conduct the inspection may fix a greater value for freeboard or safety distance.
2. The plane of maximum draught must be indicated by clearly visible and indelible draught marks.
3. Draught marks must consist of a rectangle 30 cm long by 4 cm high with its base horizontal and coinciding with the plane of the maximum permitted draught. Different draught marks must include such a rectangle.
4. Every vessel must have not less than three pairs of draught marks, one amidships and the other two approximately one-sixth of the vessel's length from bow and stern respectively.

However,

- in the case of vessels under 40 m in length, two pairs of marks about one-third of the vessel's length from bow and stern respectively will suffice;
- in the case of vessels not intended for the carriage of goods one pair of marks roughly amidships will suffice.

5. Any mark or information which ceases to be valid as a result of a fresh inspection must be removed or marked as no longer valid under the supervision of the body empowered to conduct the inspection.

Where for any reason a draught mark disappears, it may be replaced only under the supervision of the body empowered to conduct the inspection.

6. Where a vessel has been measured in accordance with the convention on the measurement of inland waterway vessels and the plane of the measurement plates meets the requirements of this Annex, the measurement plates may be accepted as an alternative to draught marks; this must be mentioned in the inspection certificate.

Article 12.02.6

Draught scales

1. Any vessel whose draught may attain 1 metre must bear draught scales on each side towards the stern; it may bear additional draught scales.
2. The zero point of each draught scale must lie vertically below the draught scale in a plane parallel to the plane of maximum draught passing through the lowest point of the hull, or of the keel if any. The vertical distance above zero must be graduated in decimetres. On each scale, from the light draught plane up to 10 cm above the plane of maximum draught these graduations must be marked by lines punched in or engraved and painted in two alternating colours in such a way as to be clearly visible. The graduations must be marked by figures down the sides of the scale at intervals of not less than 5 decimetres and at the top of the scale.
3. The two rear measurement scales applied pursuant to the Convention referred to in Article 12.02.5 paragraph 6 may take the place of draught scales, provided that they are graduated in accordance with the above requirements and, where necessary, figures indicating the draught are added.

12.03. EQUIPMENT

Life buoys, ball-floats and life-jackets

Self-propelled craft up to 40 m in length must have on board not less than three life buoys or two life buoys and two ball-floats.

12.04 SPECIAL PROVISIONS FOR VESSELS DESIGNED TO BE MADE UP INTO PUSHED TRAINS, PULLED TRAINS OR TO BE BREASTED UP

12.04.1. Pushers must be provided with powered anchor windlasses.

12.04.2. Vessels capable of towing

In order that they may perform towing operations, vessels must meet the following requirements:

1. Upstream towing only:

- (a) Towing gear must be so arranged that its use does not compromise the safety of the vessel, the crew or the cargo. The manoeuvring capability and stability of the vessel must not be appreciably reduced by towing.
- (b) The steersman must be able to operate the propulsion machinery himself or be able to control such operation without leaving the steering station.

(c) Where cables are used for towing, the towing gear must comprise winches or a towing hook which can be slipped from the steering station. The towing gear must be installed forward of the plane of the propellers.

2. Upstream and downstream towing

(a) The provisions of paragraph 1 shall apply.

(b) The length of the vessels must not exceed 86 m; by way of exception, the locally competent authority may authorize vessels with a length exceeding 86 m to perform downstream towing when certain conditions to be laid down by it are satisfied. The same applies to pushers intended to push trains of 86 x 12 m and over.

(c) Should it be possible for towing cables to foul the stern of the vessel, towing rails must be provided.

CHAPTER 13
Derogations, for vessels in service

13.1 Vessels already in service at 1 January 1980, laid down by that date but not entirely complying in construction and equipment to the provisions of this directive must be brought into compliance with them, within one year of 1 January 1980, except as concerns the provisions below where the following shall apply :

- (a) the requirements set out in the first column of the table shall be applicable within five years / 12 months after the entry into force of the directive/
- (b) the requirements in the second column shall not apply to vessels already in service where the safety of vessel and crew is ensured in an appropriate manner;
- (c) the derogations under (a) and (b) above shall not apply to parts having undergone conversion or replacement.
- (d) where the application of the requirements set out in 12.1, in 12.1(a) (after expiry of the transition period) and 12.1 (c) is not practicable or would require unreasonable outlay, the competent authority for issuing the certificate may grant derogations;
- (e) details of any derogations granted under 1(a) must be entered in the inspection certificate on the occasion of the first inspection after the entry into force of this directive; derogations granted under 1(d) may be entered immediately.

13.2 Where Chapter 9 is concerned, vessels already approved for steering on radar by one person shall have five years, grace within which to comply with the requirements of that Chapter. Vessels in respect of which the first application for such approval is submitted must be made to comply with Chapter 9 in order to obtain such approval.

Derogation	Requirements applicable to vessels in service within five years of 1.1.1980		Requirements not applicable to vessels in service	
	Article	paragraph	Article	paragraph
2. Shipbuilding	2.03 2.04 2.06	2,3 1,2,3,4,5 3,5,6	2.02 2.06	3,6,7 2,7
3. Steering gear and wheelhouse	3.01 3.03 3.04 3.05 3.06 3.08 3.09 3.10 3.11 3.12 3.13 3.14 3.16	2 2 1 1 1 1,2,3,4 1,2 2 2,7	3.02 3.03 3.15	1
4. Freeboard, safety distance and draught scales	4.05	1,2,3		
5. Construction of machinery	5.02 5.03 5.05 5.06 5.09	2,3 2/ récipr. 2,3,4,5,6 8	5.01 5.04 5.05 5.06 5.08	3 1,2,3,4 7,8 2,3,4,5,6,7 1,2
6. Electrical installations	6.03 6.05 6.06 6.08 6.09 6.11	1,2,3,4 1,2,5,6, 7,8 1,2,3,4,5 1,2,3 1,2,3	6.01 6.02 6.04 6.05 6.07 6.10 6.12	2,3 1,2 1,2 3 1,2,3,4,5, 6,7,8,9 1,2,3 1,2,3

Derogation	Requirements applicables to vessels in service within five years of 1.1.1980		Requirements not applicable to vessels in service	
Chapter	Article	Paragraph	Article	paragraph
7. Equipment	7.03	6	7.03 7.04 7.05	5 5 3,4 2,3,5
8. Liquefied gas installations for domestic use	the entire chapter			
11. Health and safety in the accommodation and in working spaces	11.02	5,6	11.02 11.03 11.04 11.05 11.06 11.07 11.08 11.09 11.10	1,4 1,2,3,4,5,6,7 8 4 1,2 1,2 2 1,2,3,4,6,7 1,2,3,5
	11.11	3,5	11.11 11.12 11.14 11.15	1,2,4 1 b, 4 2 1,2,3,
	11.17	4	11.19 11.21	1,2,3 2
12. Provisions relating to technical requirements additional to class C requirements applicable to vessels operating on Class B inland waterways			12.02 12.03	2,3,4

PROCEDURE

14.01 Application for inspection

It is for the certificating bodies to determine the procedure for applying for inspection and for deciding the place and date of inspection. This procedure must be such that inspection can take place within a reasonable period of application being made.

14.02 Presentation of the vessel for inspection

14.02.1 The owner or his representative must present the vessel for inspection in an unladen, cleaned and equipped condition; he is required to lend such assistance as is necessary for the inspection, for example to supply an appropriate boat, to make personnel available, and to facilitate examination of parts of the hull or installations which are not directly accessible or visible.

14.02.2 Where special grounds exist for doing so the inspecting body may include the following:

- (a) inspection of the vessel out of the water;
- (b) operational trials;
- (c) proof by calculation of the strength of the hull;
- (d) proof by calculation of stability, where necessary on the basis of an inclining experiment.

14.03 Costs

14.03.1 The owner of the vessel or his representative is liable for all costs arising from the inspection and the issue of the certificate in accordance with a detailed tariff to be laid down by each Member State. There may be no discrimination on the grounds of country of registry or of the nationality or domicile of the owner.

14.04 Information

Persons who show grounds for knowing the contents of the Community inland navigation certificate in respect of a vessel may do so from the certificating body and may, at their own cost, obtain extracts or certified copies of the certificate which will be marked as such.

14.05 Register of inspection certificates

14.05.1 Bodies issuing Community inland navigation certificates must assign a serial number to each one and enter it in a register.

14.05.2 Bodies issuing Community inland navigation certificates must keep a copy of all certificates issued by them and enter thereon all endorsements, amendments, cancellations and replacements of certificates.

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COUNCIL DIRECTIVE

Establishing Technical Requirements
for Inland Waterway Vessels

ANNEX III

Specimen Community certificate for inland navigation
(Article 5 of the proposal for a Directive)

Certificate No.

EUROPEAN COMMUNITIES
INLAND NAVIGATION CERTIFICATE

Skibsattest for Indenland Skibsfart, Schiffszeugnis für Binnenschiffe,
Certificato per la Navigazione Interna, Certificaat van Onderzoek voor
Binnenschepen, Certificat pour la navigation intérieure

Reserved for State emblem

UNITED KINGDOM

Name and address of the competent authority issuing the certificate

- 1. Name of vessel:
- 2. Type of vessel: Code:
- 3. Official number:*
- 4. Name and domicile of owner:
- 5. Place of registration and registration number:
- 6. Country of registration and/or home port:*
- 7. Year of construction:
- 8. Name and domicile of shipyard:
- 9. This certificate replaces certificate No.

issued on by

10. This certificate expires on

11. Issued in on

12.

stamp

Signature

**

* Delete where inapplicable.

** Give the name of the authority issuing the certificate.

13. Subsequent to the inspection carried out on *
 and on presentation of the certificate delivered on
 by*
 the vessel mentioned in this certificate is acknowledged as fit to
 operate

- on Community waterways in class(es)*
- on the waterways in class(es) in
 (names of the Member States)*

except for

- on the following waterways in (name of the Member States)*

14. The vessel mentioned in this certificate is fit* to:

- tow up and downstream
- tow upstream only
- tow as an auxiliary towing vessel
- power a breasted-up formation
- push-tow

- be empowered in a breasted-up formation
- to be push-towed
- to be radar navigated by a single person.

15. MAIN CHARACTERISTICS OF THE VESSEL

Length overall m.
 Beam overall m.
 Total power rating of main means of propulsion kW.
 Calibration certificate No. dated
 Calibration office

		Classes and/or waterways*				
		C	B	A		
Freeboard cm						
Maximum draught cm						
Dead weight tonnes						

16. Parts of the vessel where the following numbers are stamped:*

Certificate No.
 Official No. Registration No.
 Surveying Certificate No.

* Delete where inapplicable.

17. Permitted derogations from the technical requirements:

18. ANCHORS AND ANCHORS CHAINS

N.B. the data relating to anchors is for information purposes only. Anchor requirements affecting permission to operate on a waterway are the responsibility of the waterway authorities concerned.

Number of bow anchors	
Total weight of bow anchors kg	
Number of stern anchors	
Total weight of stern anchors kg	
Number of bow anchor chains	
Length of each chain	
Breaking strain kg	
Number of stern anchor chains	
Length of each chain	
Breaking strain kg	

19. LIFE-SAVING EQUIPMENT

	Classes*		
	C	B	A
Number of lifeboats each with a capacity of persons			
Number of liferafts each with a capacity of persons			
Number of life-jackets			
Number of lifebuoys			
Number of ball-floats			

20. FIRE-FIGHTING EQUIPMENT

Number of portable extinguishers
 Number of fixed fire-fighting installations
 Extinguishers
 Other installations

*Delete where inapplicable.

21. PUMPING EQUIPMENT

Number of power-driven pumps:	Total capacity:	*
Number of hand pumps:	Total capacity:	*

22. OTHER EQUIPMENT

Signalling lights
Emergency signalling lights
Cables and ropes
Collision mats
Loud hailers
Sounding poles
First-aid kit
Notice of the rescuing of persons overboard
Receptacle for oily rags
Gangway or Embarkation ladder

23. SPECIAL PROVISIONS OR CONDITIONS

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.....

.....

If the vessel is modified, rebuilt or undergoes major repairs, the owner must inform the competent authority without delay.

* Give the unit of measurement.

24. EXTENSION/RENEWAL OF THE CERTIFICATE

- (***).
inspected the vessel on*)
- A permit dated from the approved classification
body*)
- was submitted to the competent authority.*

In view of the inspection result/permit*, the period of validity
for Certificate No. is extended/renewed* until
(place), date.....

**)

stamp

(Signature)

24. EXTENSION/RENEWAL OF THE CERTIFICATE

- (***).
inspected the vessel on*)
- A permit dated from the approved classification body
was submitted to the competent authority.*

In view of the inspection result *, the period of validity
for Certificate No. is extended/renewed* until
(place), date

**)

stamp

(signature)

*) Delete where inapplicable.

**) Name the authority extending/renewing the certificate.

***) Name the authority which inspected the vessel.

Certificate No.

25. SPECIAL INSPECTION

*).....

inspected the vessel on

The reason for the inspection was:

.....
.....
.....

In view of the inspection result, Certificate No.

shall remain valid until

(place , on

**)

stamp

.....
.....
(signature)

25. SPECIAL INSPECTION

*).....

inspected the vessel , on

The reason for the inspection was :

.....
.....
.....

In view of the inspection result, Certificate No.

shall remain valid until

(place) , on

**)

stamp

.....
.....
(signature)

*) Name the authority which inspected the vessel

**) Name the authority extending the certificate.

26. AMENDMENT TO CERTIFICATE No.
Amendment(s) to paragraph(s)
New text:
.....
.....
.....
.....
(place)....., on

stamp*)
.....
.....(signature).....

26. AMENDMENT TO CERTIFICATE No.
Amendment(s) to paragraph(s):
New text:
.....
.....
.....
.....
(place)....., on

stamp*)
.....
.....(signature).....

26. AMENDMENT TO CERTIFICATE No.
Amendment(s) to paragraph(s):
New text:
.....
.....
.....
.....
(place)....., on

stamp*)
.....
.....(signature).....

* Name the authority amending the certificate

27. PERMIT RELATING TO LIQUEFIED GAS PLANT

The liquefied gas plant on board the vessel

.....
 was inspected by the authorized officer*

.....
 and, having regard to Permit No.of,
 fulfils the conditions laid down.

The plant includes apparatus for the following purposes.

Plant	Serial No.	Variety	Make	Type	Position

This permit is valid until
 (place), on

Authorizing officer

**

.....

stamp

.....

.....

.....

(signature)

(signature)

* Delete where inapplicable.

** Name the authority issuing the certificate.

28. EXTENSION OF THE PERMIT RELATING TO LIQUEFIED GAS PLANT

The period covered by the permit relating to liquefied gas plant on
the vessel,dated

is extended until

- the following inspection by the authorized officer*

.....

- on presentation of Permit No., dated

(place), on.....

Authorized officer

**

..... stamp

..... (signature)

..... (signature)

28. EXTENSION OF THE PERMIT RELATING TO LIQUEFIED GAS PLANT

The period covered by the permit relating to liquefied gas plant on
the vessel,dated

is extended until

- the following inspection by the authorized officer*

.....

- on presentation of Permit No., dated

(place), on.....

Authorized officer

**

..... stamp

..... (signature)

..... (signature)

* Delete where inapplicable

** Name the authority issuing the certificate

Special page(s) for national certificates of approval, declarations
and/or permits.

NOTES FOR THE COMPLETION AND ISSUANCE OF THE CERTIFICATE

1. These certificates should be typed or filled in in block capitals. Please use black or blue ink.
2. The details followed by an asterisk should be deleted where appropriate in black or blue.
3. If an entry is not applicable, strike out the dotted line with a continuous black or blue horizontal line.
4. The entries which need to be amended should be deleted in red. Entries deleted in black or blue should be underlined in red.
5. The new entry should be inserted in black or blue in paragraph 26 of the certificate.

COMMENTS ON VARIOUS POINTS IN THE CERTIFICATE*

2. When indicating the type of vessel, the terms defined in Article 1.01 of the technical requirements (Annex II) should be used as far as possible. The reference given in that article should also be used, e.g. "towing vessel reference 1e".
3. The official number is that according to the Police Regulations for the Rhine or, if allocated, the number given in the national regulations.
4. Current postal address of the owner.
13. When an authority issues Class C Certificates only, boxes A and B should be deleted. The holder of such a certificate may later apply for a complementary certificate which is valid for the other classes .
15. The information given in the certificate of tonnage; to two decimal places.
18. Just give the mass, length and effective breaking load. The information given in the column should refer to the anchors and chains which were on board when the inspection took place.
22. The list may be completed by information relating to the equipment and gear laid down in national rules. The number of items must be given, but stating the type is optional.
23. Special provisions or conditions relating to operation, loading, etc. may be mentioned in this paragraph. Mention may be made here of a certificate for the carriage of dangerous goods.
- 24-
28. If necessary, special pages can be added for further information. These should be numbered 5a, 5b, 6a, 6b, etc. The original pages should be left in the certificate.

Page 10, and if necessary pages 10a and 10b, etc. are reserved for national certificates of approval, declarations and/or permits.

The certificate should be kept in a durable cover. If this is not transparent, the certificate heading should be reproduced on the cover (i.e. at least page 1 of the certificate down as far as "Name of vessel").

* These comments do not need to be included in the certificate. They will be reproduced as an Annex to the technical requirements.

COUNCIL DIRECTIVE

Establishing Technical Requirements
for Inland Waterway Vessels

ANNEX IV

Specimen Community permit for inland navigation
(Article 10 of the proposal for a Directive)

EUROPEAN COMMUNITIES

SUPPLEMENTARY INLAND NAVIGATION CERTIFICATE

Issued pursuant to Article of Directive

Reserved for State **Emblem**

Name and address of the competent authority issuing the supplementary certificate

1. Name of vessel :
2. Official number :*
3. Place of registration and registration number
4. Country of registration and/or home port:*
5. Having regard to Inspection Certificate for the Rhine No. dated valid until
6. Having regard to the result of the inspection
7. The abovementioned vessel is deemed fit to operate on the Community waterways of class(es)
8. This supplementary certificate expires on
9. Issued in, on
- 10.

Competent authority

stamp

.....

.....

(signature)

11. Having regard to the Inspection Certificate for the Rhine No. dated, valid until
- Having regard to the result of the inspection
-, on
- this supplementary certificate is extended/renewed* until
- (place), on

Competent authority

stamp

.....

.....

(signature)

* Delete where inapplicable.

12.

	Class(es)	
	C	B
Freeboard cm		
Maximum draught cm		
Dead weight tonnes		

13. Derogations from the Inspection Certificate for the Rhine No.

Anchor and anchor chains:

Life-saving equipment:

Other gear:

Crew:

14. Special provisions or conditions and/or derogations allowed:.....

.....

